

MP1570A
SONET/SDH/PDH/ATM Analyzer
Operation Manual
Vol.3
ATM Measurement

Sixth Edition


Read this manual before using the equipment.
Keep this manual with the equipment.


ANRITSU CORPORATION


Safety Symbols

To prevent the risk of personal injury or loss related to equipment malfunction, Anritsu Corporation uses the following safety symbols to indicate safety-related information. Insure that you clearly understand the meanings of the symbols BEFORE using the equipment. Some or all of the following five symbols may not be used on all Anritsu equipment. In addition, there may be other labels attached to products which are not shown in the diagrams in this manual.

Symbols used in manual

DANGER  This indicates a very dangerous procedure that could result in serious injury or death if not performed properly.

WARNING  This indicates a hazardous procedure that could result in serious injury or death if not performed properly.

CAUTION  This indicates a hazardous procedure or danger that could result in light-to-severe injury, or loss related to equipment malfunction, if proper precautions are not taken.

Safety Symbols Used on Equipment and in Manual

The following safety symbols are used inside or on the equipment near operation locations to provide information about safety items and operation precautions. Insure that you clearly understand the meanings of the symbols and take the necessary precautions BEFORE using the equipment.



This indicates a prohibited operation. The prohibited operation is indicated symbolically in or near the barred circle.



This indicates an obligatory safety precaution. The obligatory operation is indicated symbolically in or near the circle.



This indicates warning or caution. The contents are indicated symbolically in or near the triangle.



This indicates a note. The contents are described in the box.



These indicate that the marked part should be recycled.

MP1570A
SONET/SDH/PDH/ATM Analyzer
Operation Manual Vol.3 ATM Measurement

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Printed in Japan

For Safety

WARNING



1. ALWAYS refer to the operation manual when working near locations at which the alert mark shown on the left is attached. If the operation, etc., is performed without heeding the advice in the operation manual, there is a risk of personal injury. In addition, the equipment performance may be reduced.
Moreover, this alert mark is sometimes used with other marks and descriptions indicating other dangers.

2. Measurement Categories

This instrument is designed for Measurement category I (CAT I). Don't use this instrument at the locations of measurement categories from CAT II to CAT IV.

In order to secure the safety of the user making measurements, IEC 61010 clarifies the range of use of instruments by classifying the location of measurement into measurement categories from I to IV.

The category outline is as follows:

Measurement category I (CAT I):

Secondary circuits of a device connected to an outlet via a power transformer etc.

Measurement category II (CAT II):

Primary circuits of a device with a power cord (portable tools, home appliance etc.) connected to an outlet.

Measurement category III (CAT III):

Primary circuits of a device (fixed equipment) to which power is directly supplied from the power distribution panel, and circuits from the distribution panel to outlets.

Measurement category IV (CAT IV):

All building service-line entrance circuits through the integrating wattmeter and primary circuit breaker (power distribution panel).

For Safety

WARNING



Repair

WARNING 

Falling Over

3. Laser radiation warning
 - NEVER look directly into the cable connector on the equipment nor into the end of a cable connected to the equipment. If laser radiation enters the eye, there is a risk of injury.
 - Laser Radiation Markings on a following page show the Laser Safety label attached to the equipment near the cable connector.
4. When supplying power to this equipment, connect the accessory 3-pin power cord to a grounded outlet. If a grounded outlet is not available, before supplying power to the equipment, use a conversion adapter and ground the green wire, or connect the frame ground on the rear panel of the equipment to ground. If power is supplied without grounding the equipment, there is a risk of receiving a severe or fatal electric shock.
5. This equipment cannot be repaired by the user. DO NOT attempt to open the cabinet or to disassemble internal parts. Only Anritsu-trained service personnel or staff from your sales representative with a knowledge of electrical fire and shock hazards should service this equipment. There are high-voltage parts in this equipment presenting a risk of severe injury or fatal electric shock to untrained personnel. In addition, there is a risk of damage to precision parts.
6. This equipment should be used in the correct position. If the cabinet is turned on its side, etc., it will be unstable and may be damaged if it falls over as a result of receiving a slight mechanical shock. And also DO NOT use this equipment in the position where the power switch operation is difficult.

For Safety

WARNING

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7. DO NOT short the battery terminals and never attempt to disassemble it or dispose of it in a fire. If the battery is damaged by any of these actions, the battery fluid may leak.

This fluid is poisonous.

Battery Fluid

DO NOT touch it, ingest it, or get in your eyes. If it is accidentally ingested, spit it out immediately, rinse your mouth with water and seek medical help. If it enters your eyes accidentally, do not rub your eyes, irrigate them with clean running water and seek medical help. If the liquid gets on your skin or clothes, wash it off carefully and thoroughly.

8. This instrument uses a Liquid Crystal Display (LCD); DO NOT subject the instrument to excessive force or drop it. If the LCD is subjected to strong mechanical shock, it may break and liquid may leak.

This liquid is very caustic and poisonous.

LCD

DO NOT touch it, ingest it, or get in your eyes. If it is ingested accidentally, spit it out immediately, rinse your mouth with water and seek medical help. If it enters your eyes accidentally, do not rub your eyes, irrigate them with clean running water and seek medical help. If the liquid gets on your skin or clothes, wash it off carefully and thoroughly.

For Safety

CAUTION

Replacing Fuse

CAUTION 

1. Before Replacing the fuses, ALWAYS remove the power cord from the poweroutlet and replace the blown fuses. ALWAYS use new fuses of the type and rating specified on the fuse marking on the rear panel of the cabinet.

T__A indicates a time-lag fuse.

__A or F__ A indicate a normal fusing type fuse.

There is risk of receiving a fatal electric shock if the fuses are replaced with the power cord connected.

2. Keep the power supply and cooling fan free of dust.
 - Clean the power inlet regularly. If dust accumulates around the power pins, there is a risk of fire.
 - Keep the cooling fan clean so that the ventilation holes are not obstructed. If the ventilation is obstructed, the cabinet may overheat and catch fire.
3. The maximum input levels of the optical signal are 0 dBm for MU150002A 10G input, -8 dBm for MU150002A Option 01 2.5G input, and +3 dBm for MU150017A/B input. Excessive input level can damage the internal devices and circuit.



Cleaning

Before performing a self loop-back test, always install 15 dB (when MP0127A/MP0128A/MP0129A or MU150008A/MU150009A/MU150010A installed), 10 dB (when MU150002A installed), or 5 dB (when MU150017A/B installed) attenuator between the output connector and the input connector.

For Safety

WARNING

Laser Safety

The laser safety is assured by correct operation of the warning means of the laser output. Before using the optical output, if it is not possible to check the optical emission using the warning means of the laser output at power-on or when the optical output switch is set to on, the laser output may be faulty. Do not use the equipment and call our service department or representative to request repair.

Optical units for the MP1570A SONET/SDH/PDH/ATM Analyzer have Class 1 laser emitting parts as specified in IEC 60825-1, or Class I and IIIb parts as specified in 21CFR 1040.10 (refer to Table 1). Classes are indicated on the label at the top panel of this equipment and the front panel of each unit (refer to Table 2 and Figs 1 to 5).

Do not look directly into the end of any cable connected to the optical output connector of the unit. Laser light can seriously damage the eyes. Operating this unit in a procedure other than that as described above might result in injury or damage from laser emission. Please follow the handling instructions carefully.

Table 1 Class of each unit

Model number	Standard name	
	IEC 60825-1	21CFR 1040.10
MP0111A	Class 1	Class I
MP0112A	Class 1	Class I
MP0113A	Class 1	Class I
MP0122B	Class 1	Class I
MP0127A	Class 1	Class IIIb
MP0128A	Class 1	Class IIIb
MP0129A	Class 1	Class IIIb
MU150001A/B	Class 1	Class IIIb
MU150008A	Class 1	Class IIIb
MU150009A	Class 1	Class IIIb
MU150010A	Class 1	Class IIIb
MU150031A/C	Class 1	Class IIIb
MU150061A/B	Class 1	Class IIIb

For Safety

Class 1 indicates the danger degree of the laser radiation specified below according to IEC 60825-1.

Class 1: Lasers that are safe under reasonably foreseeable conditions of operation, including the use of optical instruments for intra-beam viewing.

And, Class I, IIa, II, IIIa and IIIb indicates the degree of danger of the laser radiation outlined below as defined by 21CFR 1040.10.

Class I: Class I labels of laser radiation are not considered to be hazardous.

Class IIa: Class IIa labels of laser radiation are not considered to be hazardous if viewed for any period of time less than or equal to 1×10^3 seconds but are considered to be a chronic viewing hazard for any period of time greater than 1×10^3 seconds. The wavelength range of laser radiating is in 400 to 710 nm.




Class II: Class II labels of laser radiation are considered to be a chronic viewing hazard. The wavelength range of laser radiating is in 400 to 710 nm.

Class IIIa: Class IIIa labels of laser radiation are considered to be, depending upon the irradiance, either an acute intrabeam viewing hazard or chronic viewing hazard, and an acute viewing hazard if viewed directly with optical instruments. The wavelength range of laser radiating is in 400 to 710 nm.

Class IIIb: Class IIIb labels of laser radiation are considered to be an acute hazard to skin and eyes from direct radiation.

For Safety

Table 2

No.	Label	Description
[1]	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>AVOID EXPOSURE INVISIBLE LASER RADIATION IS EMITTED FROM THIS APERTURE</p> </div>	Aperture label (FDA 21CFR 1040.10)
[2]	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">DANGER</p> <p style="text-align: center;">INVISIBLE LASER RADIATION AVOID DIRECT EXPOSURE TO BEAM</p> <p style="text-align: center;">  MAXIMUM POWER 10 mW WAVELENGTH 1.31/1.55 μm CLASS II LASER PRODUCT</p> </div>	Explanatory label (FDA 21CFR 1040.10)
[3]	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p> CLASS 1 LASER PRODUCT</p> </div>	Explanatory label (IEC 60825-1)
[4]	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p></p> </div>	Warning label (IEC 60825-1)
[5]	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>CERTIFICATION LABEL THIS PRODUCT CONFORMS TO ALL APPLICABLE STANDARDS UNDER 21 CFR 1040.10</p> </div>	Certification label (FDA 21CFR 1040.10)
[6]	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>IDENTIFICATION LABEL ANRITSU CORP. 1800,ONNA,ATSUGI-SHI KANAGAWA 243-8555,JAPAN MANUFACTURED AT:TOHOKU ANRITSU CO., LTD KORIYAMA PLANT, _____,20____</p> </div>	Identification label (FDA 21CFR 1040.10)

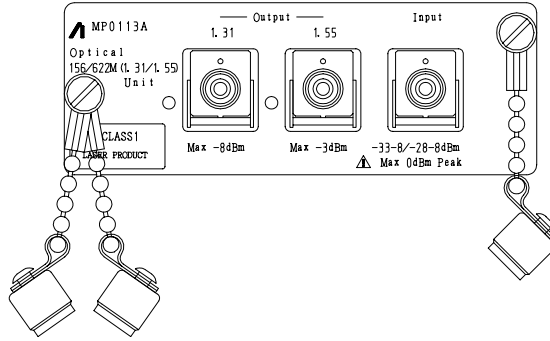


Fig. 1 MP0111A, MP0112A, MP0113A Front Panel of Unit

CAUTION

When only a Unit is purchased, an adhesive label is supplied with the Unit.

Please, attach it to the place, shown above.

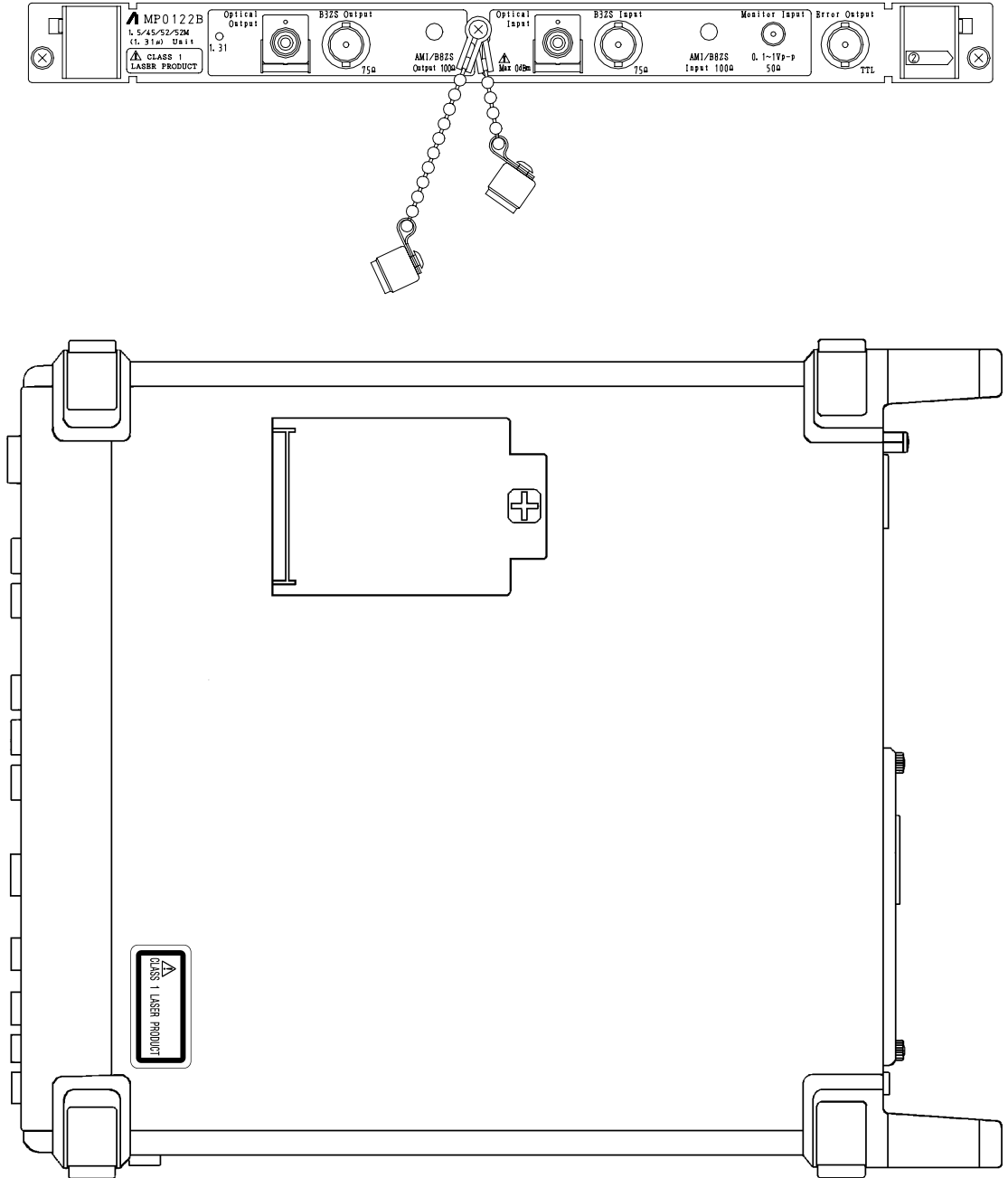


Fig. 2 MP0122B Front Panel of Unit and Top Panel of MP1570A
(Products shipping besides U.S.A.)

CAUTION

When only a Unit is purchased, an adhesive label is supplied with the Unit.

Please, attach it to the place, shown above.

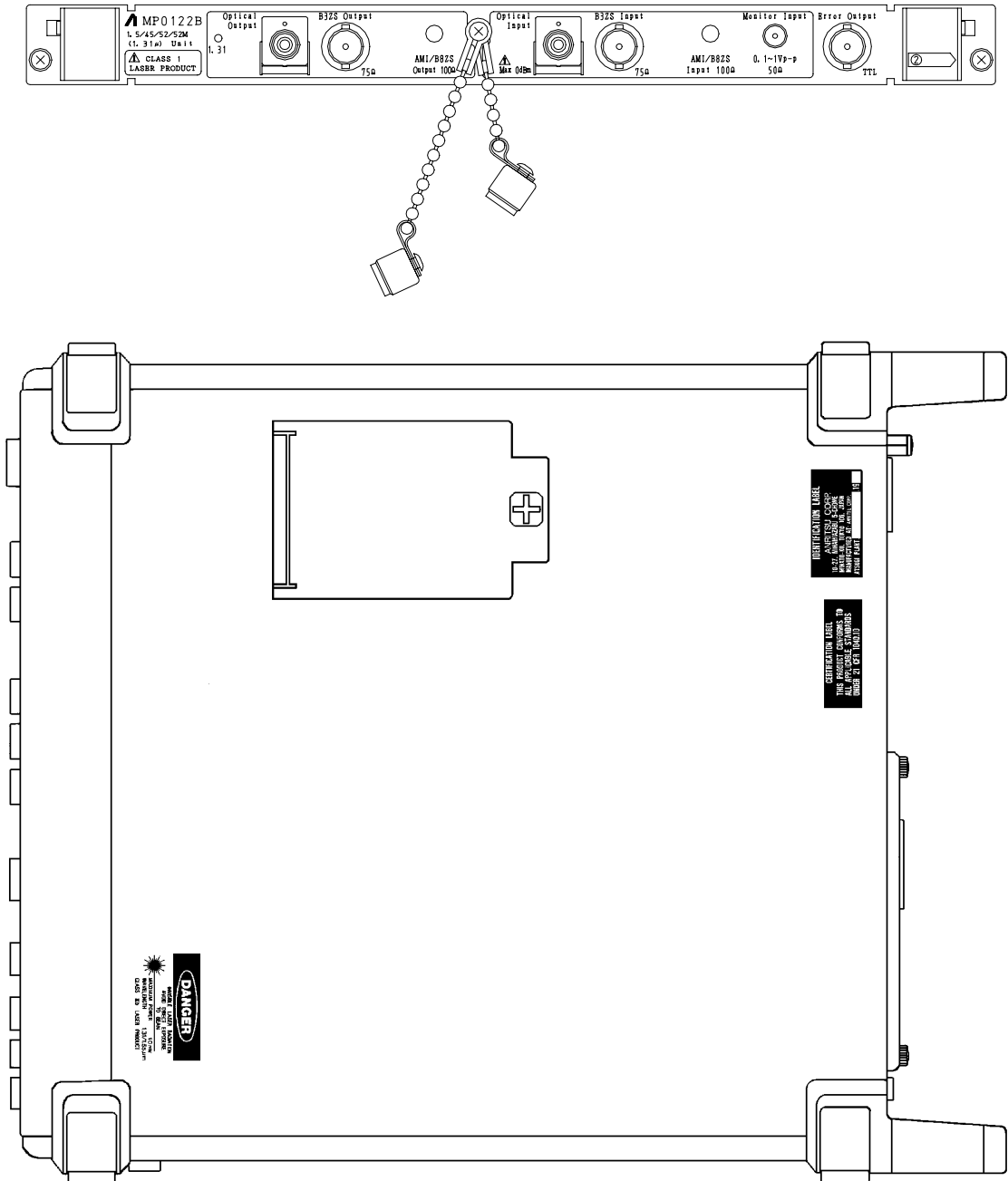


Fig. 3 MP0122B Front Panel of Unit and Top Panel of MP1570A
(Products shipping to U.S.A.)

CAUTION

When only a Unit is purchased, an adhesive label is supplied with the Unit.
Please, attach it to the place, shown above.

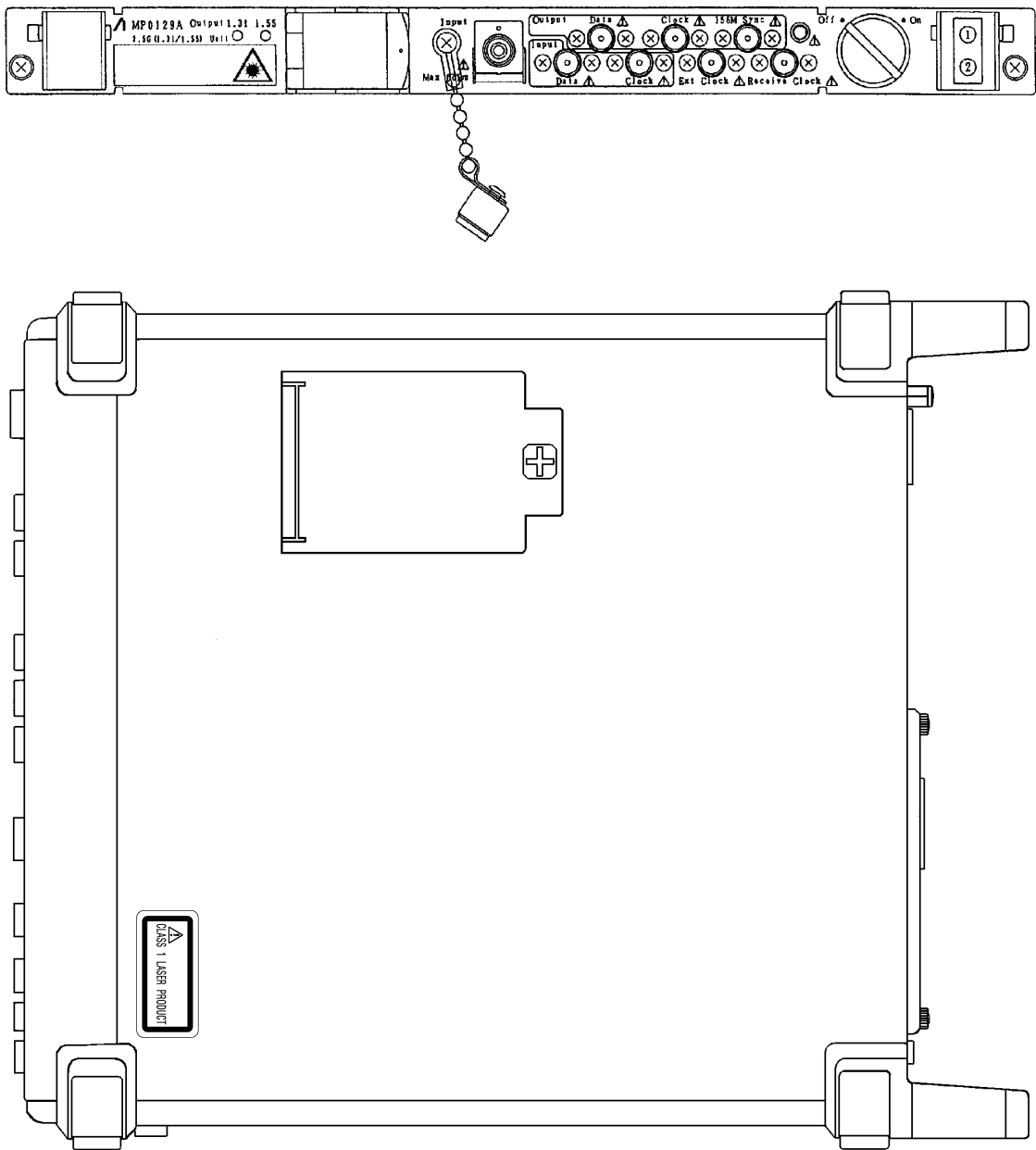


Fig. 4 MP0127A, MP0128A, MP0129A, MU150008A, MU150009A, MU150010A
 Front Panel of Unit and Top Panel of MP1570A
 (Products shipping besides U.S.A.)

CAUTION 

When only a Unit is purchased, an adhesive label is supplied with the Unit.
 Please, attach it to the place, shown above.

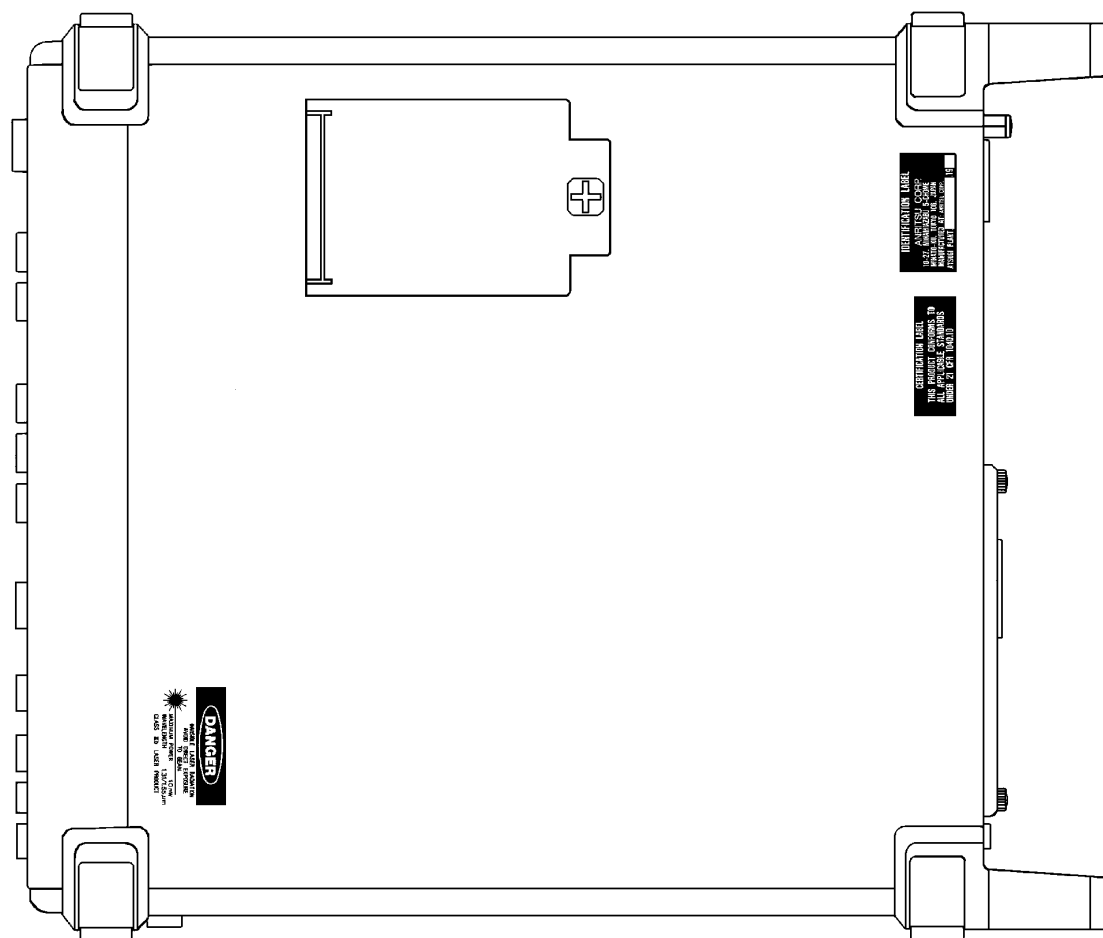
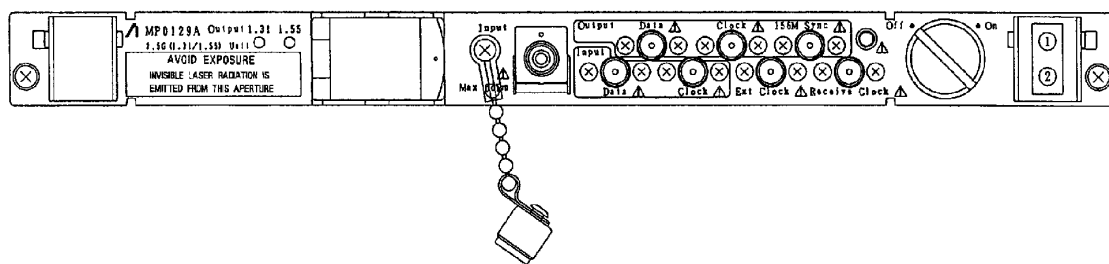


Fig. 5 MP0127A, MP0128A, MP0129A, MU150008A, MU150009A, MU150010A
 Front Panel of Unit and Top Panel of MP1570A
 (Products shipping to U.S.A.)

CAUTION

When only a Unit is purchased, an adhesive label is supplied with the Unit.

Please, attach it to the place, shown above.

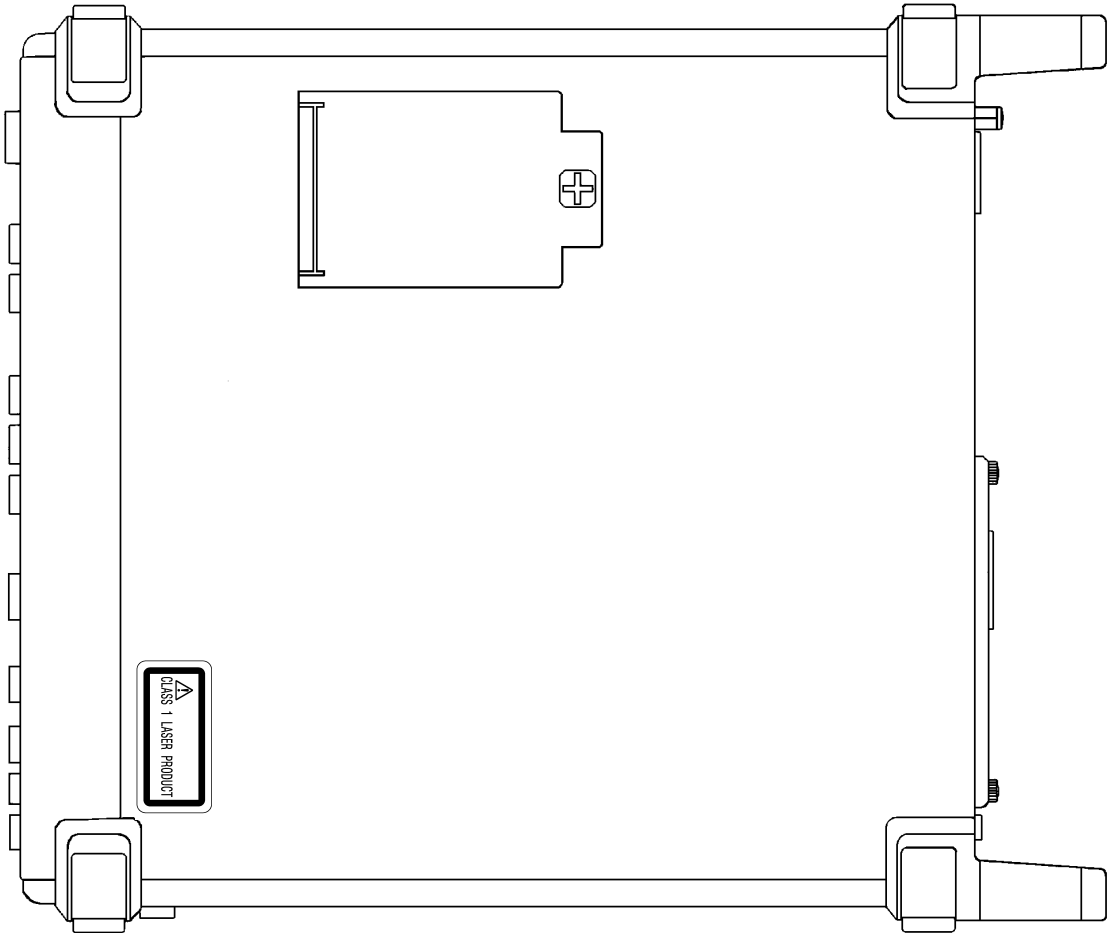
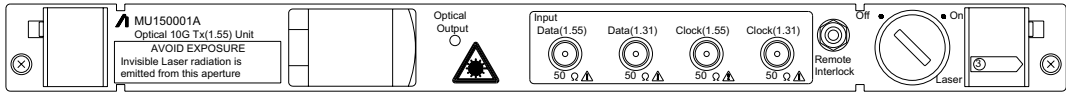


Fig. 6 MU150001A/B, MU150031A/C, MU150061A/B
 Front Panel of Unit and Top Panel of MP1570A
 (Products shipping besides U.S.A.)

CAUTION 

When only a Unit is purchased, an adhesive label is supplied with the Unit.

Please, attach it to the place, shown above.

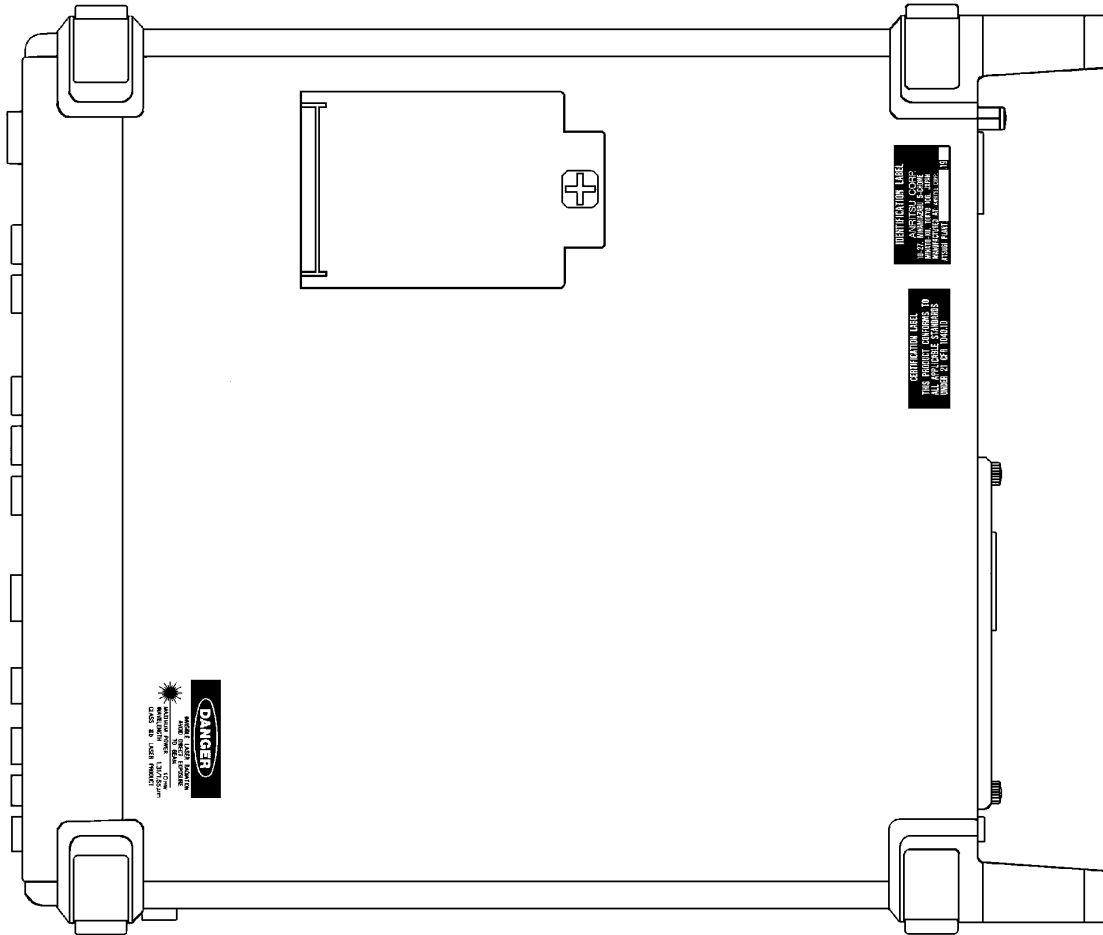
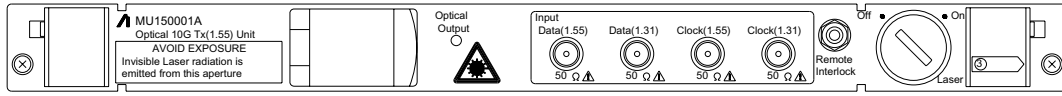


Fig. 7 MU150001A/B, MU150031A/C, MU150061A/B
 Front Panel of Unit and Top Panel of MP1570A
 (Products shipping to U.S.A.)

CAUTION 

When only a Unit is purchased, an adhesive label is supplied with the Unit.

Please, attach it to the place, shown above.

For Safety

Security Measure Functions

The MP0127A, MP0128A, MP0129A, MU150001A/B, MU150008A, MU150009A, MU150010A, MU150031A/C, MU150061A/B are provided with the following security measure functions to prevent the possibility of infliction bodily injury on operators.

- Laser cut-off

When the cable is disconnected from the optical output section, the protective cover closes and the laser emission stops.

- Laser output key lock

The laser output is mainly controlled by the key switch of the laser On/Off. When the switch is set to the OFF position, the key can be removed. In this state, the laser is locked off.

- Remote control using the remote interlock connectors

To ensure safe control of the laser output from a remote location, the laser output can be controlled using the remote interlock connectors of the Laser Output Remote Interlock section.

When both the ends of these two connectors (white and black) are connected electrically, the laser can be emitted. When both the ends are disconnected, it is not possible to emit the laser. For the voltage of the open end, the potential is +5 V at the white connector for the black connector. The laser output can be controlled by any equipment with a 0/+5 V interface.

- Laser emission indicators

These indicators on the optical output light while laser is being emitted.

- Laser output warning

When the laser is set to ON, the laser emission indicator lights as a warning or 3 to 4 seconds before laser is actually emitted. The laser is not emitted during this period.

Handling

The following safety precautions should be observed when handling the MP0127A, MP0128A, MP0129A, MU150001A/B, MU150008A, MU150009A, MU150010A, MU150031A/C, MU150061A/B.

- Before installing/removing this unit in/from the main frame, always make sure the main frame power switch is set to OFF.
- Before connecting/disconnecting a cable to/from the optical output section of this unit, always be sure to set the Laser On/Off key switch to OFF.

For Safety

CAUTION

Replacing Memory Back-up Battery

This equipment uses a Poly-carbomonofluoride lithium battery to back-up the memory. This battery must be replaced by a service engineer when it has reached the end of its useful life; contact the Anritsu sales section or your nearest representative.

Note: The battery used in this equipment has a maximum useful life of 7 years. It should be replaced before this period has elapsed.

Make sure that the output level from the MP0111A, MP0112A, MP0113A, MP0122B, MP0127A, MP0128A, MP0129A, MU150001A, MU150001B, MU150008A, MU150009A, MU150010A, MU150031A/C or MU150061A does not exceed the maximum rated input level when connecting.

The laser output is mainly controlled by the key switch of the laser On/Off. Before turning the equipment on, be sure to set the Laser On/Off key switch to OFF.

Before making the connections, make sure that the input level does not exceed the absolute maximum rating level of the equipment.

The input device may be damaged when the input level exceeds the maximum rating of MP0127A, MP0128A, MP0129A, MU150002A, MU150008A, MU150009A and MU150017A/B in particular. Before performing a self loop-back test, always insert the attached 15-dB optical attenuator between the input and output connectors for the MP0127A, MP0128A, MP0129A, MU150008A, MU150009A and MU150010A. For the MU150002A or MU150017A/B, use the 10-dB or 5-dB attenuator, respectively. The input device will be damaged if the direct output is connected by using the optical cable only.

Floppy Disk

Don't place in a dusty area.

Clean the magnetic head periodically for normal operation.

Use a cleaning kit sold at market for cleaning.

Anritsu does not recommend any specific cleaning kit. Contact with Anritsu or our sales representative if you inquire about the cleaning kit.

If the floppy disk drive malfunctions even after the cleaning, it is considered to be a fault. Ask for repair to Anritsu or our sales representative.

Equipment Certificate

Anritsu Corporation certifies that this equipment was tested before shipment using calibrated measuring instruments with direct traceability to public testing organizations recognized by national research laboratories including the National Institute of Advanced Industrial Science and Technology, and the Communications Research Laboratory, and was found to meet the published specifications.

Anritsu Warranty

Anritsu Corporation will repair this equipment free-of-charge if a malfunction occurs within 1 year after shipment due to a manufacturing fault, provided that this warranty is rendered void under any or all of the following conditions.

- The fault is outside the scope of the warranty conditions described in the operation manual.
- The fault is due to mishandling, misuse, or unauthorized modification or repair of the equipment by the customer.
- The fault is due to severe usage clearly exceeding normal usage.
- The fault is due to improper or insufficient maintenance by the customer.
- The fault is due to natural disaster including fire, flooding, earthquake, etc.
- The fault is due to use of non-specified peripheral equipment, peripheral parts, consumables, etc.
- The fault is due to use of a non-specified power supply or in a non-specified installation location.

In addition, this warranty is valid only for the original equipment purchaser. It is not transferable if the equipment is resold.

Anritsu Corporation will not accept liability for equipment faults due to unforeseen and unusual circumstances, nor for faults due to mishandling by the customer.

Anritsu Corporation Contact

If this equipment develops a fault, contact Anritsu Service and Sales offices at the address at the end of paper-edition manual or the separate file of CD-edition manual.

Notes On Export Management

This product and its manuals may require an Export License/Approval by the Government of the product's country of origin for re-export from your country.

Before re-exporting the product or manuals, please contact us to confirm whether they are export-controlled items or not.

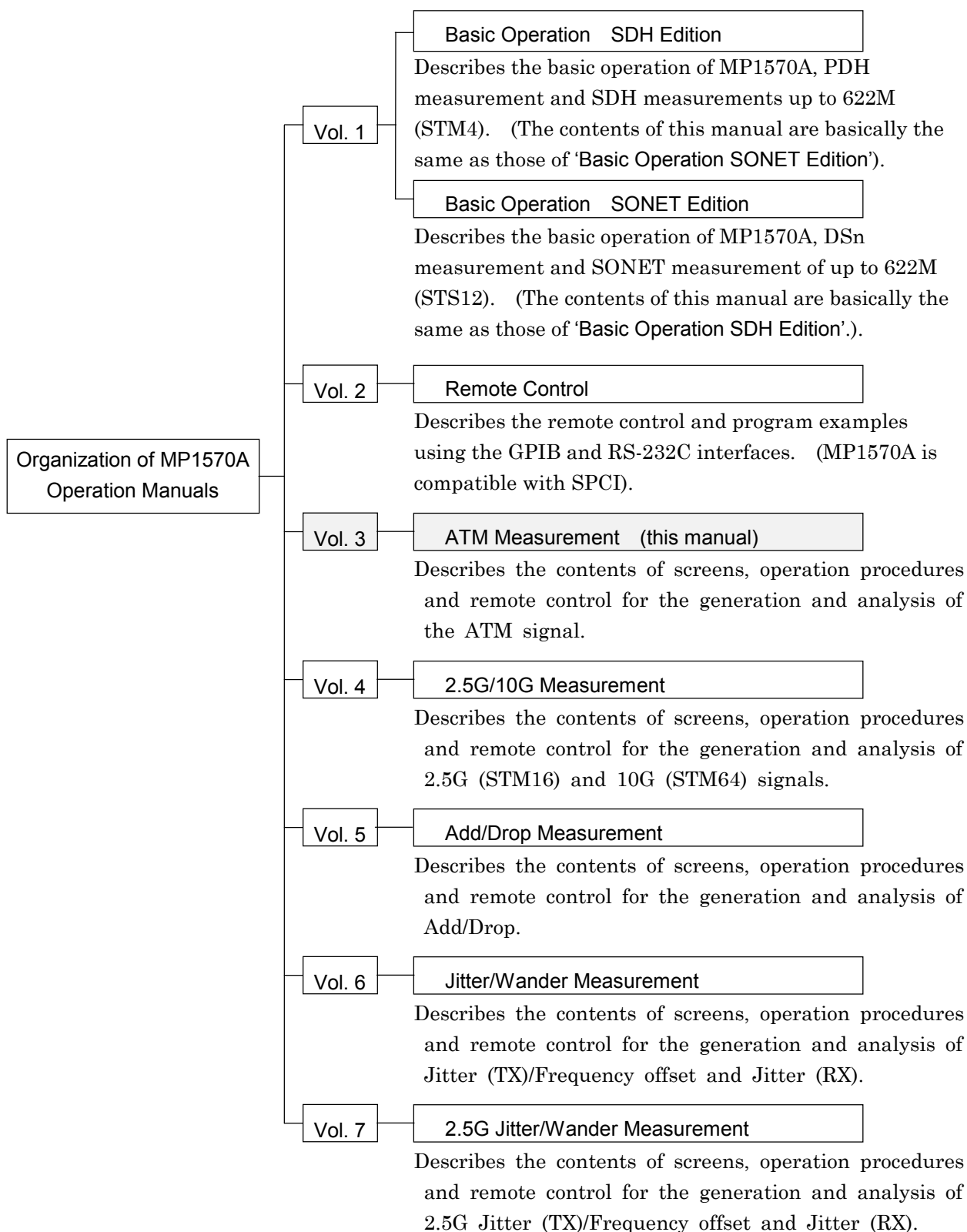
When you dispose of export-controlled items, the products/manuals are needed to be broken/shredded so as not to be unlawfully used for military purpose.

Disposing of Product

The MP1570A employs a Lithium Battery. Also, the MP0111A, MP0112A, MP0113A, MP0122B, MP0127A, MP0128A, MP0129A, MU150001A/B, MU150002A, MU150008A, MU150009A, MU150010A, MU150017A/B, MU150031A/C, MU150061A/B use PD/LD modules including arsenic. The MP0130A use IC including arsenic. At the end of its life, the equipment should be recycled or disposed properly according to the local disposal regulations.

About MP1570A Operation Manuals

MP1570A SDH/PDH/ATM Analyzer Operation Manuals comprise of the following eight documents. Use them properly according to the usage purpose.



Using This Manual

This Operation Manual describes the following.

This manual (MP1570A Operation Manual Vol.3 ATM Measurement) mainly describes the contents of screens, operation procedures and remote control for the generation and analysis of the ATM signal.

Screen Names

MP1570A has 4 major screens, namely, 'Setup', 'Test menu', 'Result', and 'Analyze', and each major screen has its own subscreens. (For details, see MP1570A Operation Manual Vol.1 'Section 4 Screens and Parameter Setting').

If 'Setup' is selected as the main screen and 'Mapping' as the subscreen, see 'Setup: Mapping' screen in the manual for the explanation.



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Section 1 Overview

Overview of MP0123A ATM unit, and specifications related to the ATM measurement with MP0123A ATM unit installed in MP1570A are described in this section.

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1.1 Product Description

The MP1570A SONET/SDH/PDH/ATM analyzer can generate and analyze ATM signals between 1.5 Mbit/s and 622 Mbit/s when the MP0123A ATM unit is installed. The MP0121A 2/8/34/139/156M (CMI) unit, MP0122A/B 1.5/45/52M unit, or interface unit must be installed depending on the signal to be evaluated. Features are shown below.

ATM measurement function

The following four types of AAL protocol and 0.191 are currently supported in measurement:

- 0.191
- AAL1
- AAL2
- AAL3/4
- AAL5

Delay jitter measurement function

The jitter between received cells and cell delay jitter from cell transmission to cell reception can be measured.

- 1 point-CDV
- 2 point-CDV

Live monitoring function

The cell flow rates of up to 1,023 channels can be monitored at one time.

Traffic monitoring function

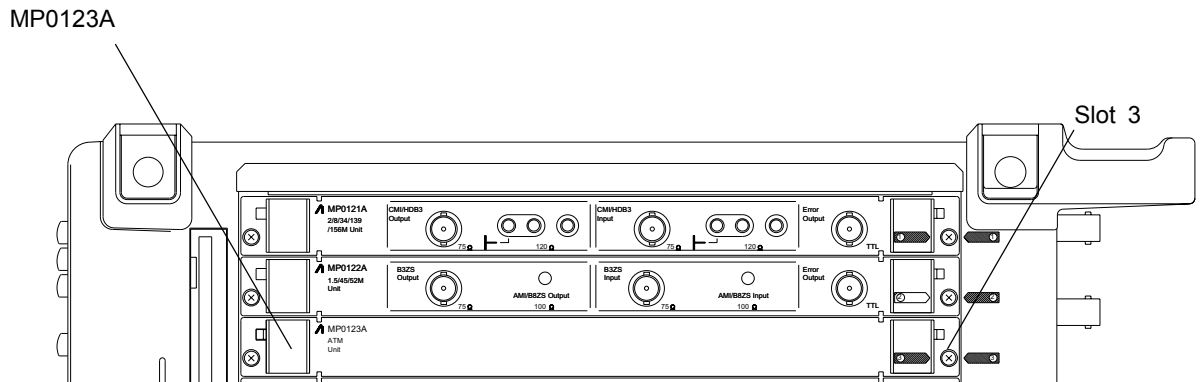
The average, maximum, and minimum values of one cell data are displayed with a bar graph and line graph.

Note:

When the MP0123A ATM unit is used, the MP0121A 2/8/34/139/156M (CMI) unit, MP0122A/B 1.5/45/52M unit or interface unit must also be used. Refer to the MP1570A operation manuals, Vol.1, for more information on the MP0121A, MP0122A/B and interface unit.

1.2 Installation of the MP0123A ATM Unit

Install the MP0123A ATM unit into slot 3 for plug-in units, located on the right-side panel of the MP1570A. The MP0123A has no input/output connectors.



1.3 Combination of Units

When the MP0123A ATM unit is used, a unit less than 622M, that is, MP0121A 2/8/34/139/156M (CMI) unit, MP0122A/B 1.5/45/52M unit or interface unit, is simultaneously used.

Note:

Note that the MP1570A does not operate if units are combined as follows.

- The MP0123A ATM unit is installed with MU15002A Optical 10G Rx(Narrow) at the same time.
- The MP0122A/B 1.5/45/52M unit is installed into the slot 1 while the MP0123A ATM unit is installed into the slot 3.

Section2 Screen Description

The screen configuration and functions when the MP0123A ATM unit is installed in the MP1570A are described in this section.

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2.1 Screen Configuration

The configuration of main screens and sub-screens when the MP0123A ATM unit is installed in the MP1570A as follows:

- In this manual, each screen is shown in "main screen:sub-screen" format.

Main screen name	Sub-screen name	Screen function
Setup	Mapping	Sets interface conditions for measurement target and basic items for measurement.
	Memory	Stores and reads measurement conditions and graph data on Analyze main screen.
	Print	Sets items for automatic printing.
	OH preset	Sets overhead initial value of the send signal.
	ATM Cell edit	Sets cell pattern, and edits and checks payload. - This screen is displayed when the MP0123A is installed.
	Measurement condition	Sets the detection and removal condition of errors and alarms.
	System	Sets the buzzer, clock, screen color, GPIB, RS-232C, etc.
	Floppy disk	Stores/reads measurement conditions and the graph data of the Analyze main screen to/from a floppy disk.
	Selftest	Conducts a self-test
	Custom fuction	Performs settings for items that cannot be set on other Setup screens.
Test menu	Trouble search	Sets trouble search measurement conditions.
	Manual	Sets manual measurement conditions.
	Performance check	
	1-point CDV	Sets items for measuring jitter between received cells. This screen is displayed when the MP0123A is installed.
	2-point CDV	Sets items for measuring cell jitter from cell transmission to cell reception. - This screen is displayed when the MP0123A is installed.

Section 2 Screen Description

Main screen name	Sub-screen name	Screen function
Result	Trouble search	Displays results of trouble search measurement.
	Error/Alarm	Displays results of Error/Alarm measurement.
	Justification	Displays results of justification measurement.
	Zoom	Enlarges display of Error/Alarm measurement results.
	Performance	Displays results of performance measurement.
	1-point CDV	Displays results of measuring the jitter between received cells. - This screen is displayed when "1-point CDV" is selected on the Test menu screen.
	2-point CDV	Displays results of measuring the cell jitter from cell transmission to cell reception. - This screen is displayed when "2-point CDV" is selected on the Test menu screen.
	B2	Displays B2 error measurement results.
Analyze	Trouble search	Analyzes results of trouble search measurement.
	Error/Alarm	Displays a graph of Error/Alarm measurement results.
	OH monitor	Displays results of overhead monitoring. The results of path trace monitoring are also displayed on this screen.
	Cell monitor	Monitors cells received or sent. - This screen is displayed when the MP0123A is installed.
	Freq. monitor	
	Frequency	
	Live monitor	Automatically detects cells on 1,023 channels to measure each cell. And, analyzes results and displays a graph for selected 30 channels. - This screen is displayed when the MP0123A is installed.
	Traffic monitor	Displays a graph of the number of cells that have passed the reception filter, and performs monitoring. - This screen is displayed when the MP0123A is installed.
	Cell capture	Triggers 1 to 2,016 cells to display and analyze cell information. - This screen is displayed when the MP0123A is installed.
	1-ponit CDV	Displays a graph for analyzing the results of measuring jitter between received cells. - This screen is displayed when the MP0123A is installed.
	2-point CDV	Displays graph for analyzing results of measuring cell delay jitter from cell transmission to cell reception. - This screen is displayed when the MP0123A is installed.
	Opt. power meter	Displays the monitoring results for optical received power.
	Recall	Displays a graph from data stored in memory or floppy disk.

2.2 Setup Main Screen

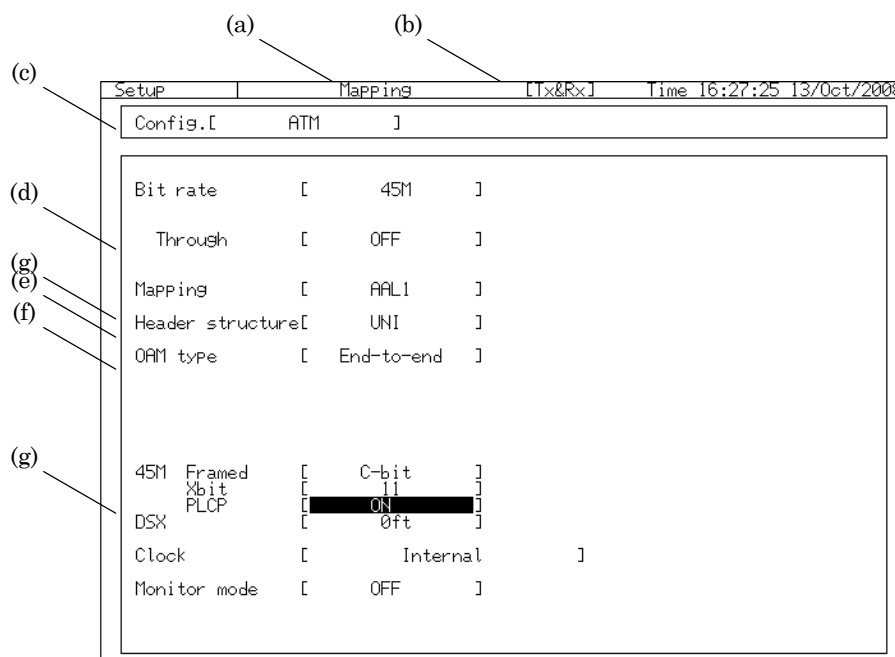
This section explains the display of each sub-screen of the Setup main screen.

2.2.1 Mapping Subscreen

This screen is used to make basic settings for measurement.

- If a setting is changed on this screen during measurement, measuring restarted.
- The setting for transmission and reception can be performed together under Tx&Rx or separately under Tx/Rx.

For Tx&Rx



	Display	Description
(a)	[Select sub-screen]	Selects a sub-screen of the Setup main screen. Select a sub-screen at this position for other screens.
(b)		Selects the setting method. Tx&RxMakes the setting for transmission and reception at the same time. Tx/RxMakes separate settings for transmission and reception.
(c)	Config.	Specifies the format of the signal to be measured. When the ATM measurement is performed, select "ATM".
(d)	Through	Set the through mode On/Off.
(e)	Header Structure	Selects cell header type (UNI or NNI). - This item is displayed when the MP0123A is installed.

Section 2 Screen Description

(f)	OAM type	Selects OAM type (end-to-end or segment). - This item is displayed when the MP0123A is installed.
(g)	PLCP	Sets ON/OFF of PLCP at measurement with bit rate 45 M.

For Tx/Rx

Setup	Mapping	[Tx/Rx]	Time 06:58:09 05/Jan/2000
Config.[ATM]			
Tx Bit rate	[156M]		
Mapping	[AAL5]		
Header structure	[UNI]		
OAM type	[End-to-end]		
Clock	[Internal]		
Rx Bit rate	[156M]		
Mapping	[AAL5]		
Header structure	[UNI]		
OAM type	[End-to-end]		

- Set transmission items on the upper of the screen and reception items on the lower of the screen. The display contents are the same as those of Tx&Rx.

When the mapping selection window is open

Setup	Mapping	[Tx/Rx]	Time 07:00:06 05/Jan/2000
Config.[ATM]			
Tx Bit rate	[156M]		
Mapping	[AAL5]		
Header structure	[UNI]		
OAM type	[End-to-end]		
Clock			
Rx Bit rate	[156M]		
Mapping	[AAL5]		
Header structure	[UNI]		
OAM type	[End-to-end]		

2.2.2 OH Preset Subscreen

This screen sets the transmission overhead value.

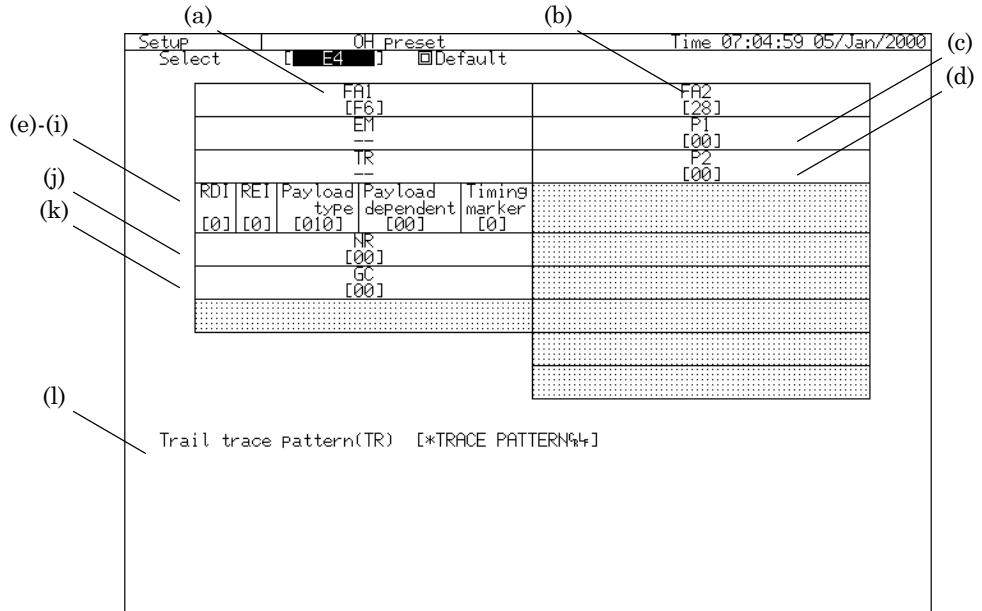
When Select=E3

The screenshot shows the 'OH Preset' screen with the following fields and values:

- Setup Select: E3
- Default:
- Time: 07:03:31 05/Jan/2000
- FA1: [F6]
- FA2: [28]
- EF: --
- TR: --
- RDI: [0]
- REI: [0]
- Payload type: [010]
- Payload dependent: [00]
- Timing marker: [0]
- NR: [00]
- GC: [00]
- Trail trace pattern (TR): [*TRACE PATTERN*]

	Display	Description
(a)	Select	Selects overhead. - E3 and E4 are displayed only when the MP0121A 2/8/34/139/156M unit is installed. - DS3 PLCP is displayed only when the MP0122A/B 1.5/45/52M unit is installed.
(b)	Default	Initializes the send data.
(c)	FA1	Sets FA1.
(d)	FA2	Sets FA2.
(e)	RDI	Sets RDI.
(f)	REI	Sets REI.
(g)	Payload type	Sets payload type in binary or plain-language.
(h)	Payload dependent	Sets the payload.
(i)	Timing marker	Sets Timing marker.
(j)	NR	Sets NR.
(k)	GC	Sets GC.
(l)	Trail trace pattern	Sets Trail trace pattern in an ASCII character string (16 characters).

When Select=E4



	Display	Description
(a)	FA1	Sets FA1.
(b)	FA2	Sets FA2.
(c)	P1	Sets P1.
(d)	P2	Sets P2.
(e)	RDI	Sets RDI.
(f)	REI	Sets REI.
(g)	Payload type	Sets the payload type in binary or plain-language.
(h)	Payload dependent	Sets the payload.
(i)	Timing marker	Sets Timing marker.
(j)	NR	Sets NR.
(k)	GC	Sets GC.
(l)	Trail trace pattern	Sets Trail trace pattern in an ASCII character string (16 characters).

When Select=DS3 PLCP

(a)

Setup		OH Preset		Time 07:06:29 05/Jan/2000	
Select	[DS3 PLCP]	<input type="checkbox"/> Default			
PLCP	Frame	P01	POH	PLCP Payload	
A1	A2	P11	26	First ATM cell	
[F6]	[28]	[2C]	[00]	-- -- -- ...	
A1	A2	P10	25	ATM cell	
[F6]	[28]	[29]	[00]	-- -- -- ...	
A1	A2	P09	24	ATM cell	
[F6]	[28]	[25]	[00]	-- -- -- ...	
A1	A2	P08	23	ATM cell	
[F6]	[28]	[20]	[00]	-- -- -- ...	
A1	A2	P07	22	ATM cell	
[F6]	[28]	[1C]	[00]	-- -- -- ...	
A1	A2	P06	21	ATM cell	
[F6]	[28]	[19]	[00]	-- -- -- ...	
A1	A2	P05	X	ATM cell	
[F6]	[28]	[15]	[00]	-- -- -- ...	
A1	A2	P04	B1	ATM cell	
[F6]	[28]	[10]	--	-- -- -- ...	
A1	A2	P03	G1	ATM cell	
[F6]	[28]	[0C]	[00]	-- -- -- ...	
A1	A2	P02	X	ATM cell	
[F6]	[28]	[09]	[00]	-- -- -- ...	
A1	A2	P01	X	ATM cell	
[F6]	[28]	[05]	[00]	-- -- -- ...	
A1	A2	P00	C1	Twelfth ATM cell	
[F6]	[28]	[00]	--	Trailer	

(b)

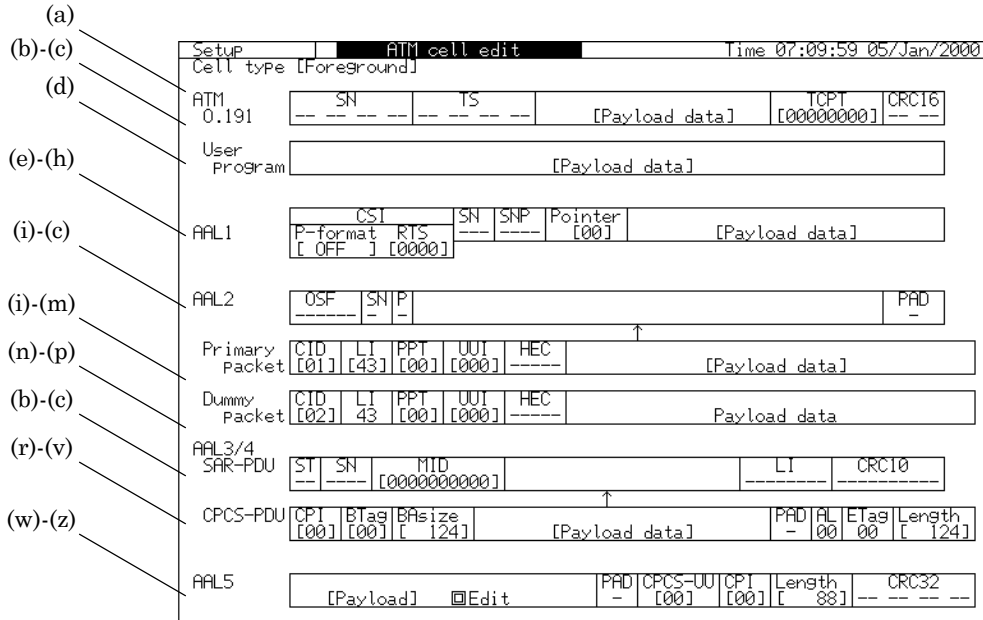
	Display	Description
(a)		Sets overhead. B1 and C1 cannot be set.
(b)	Trailer sequence	Sets Trailer.

Section 2 Screen Description

2.2.3 ATM Cell edit Subscreen

This screen sets the cell pattern and edits the payload.

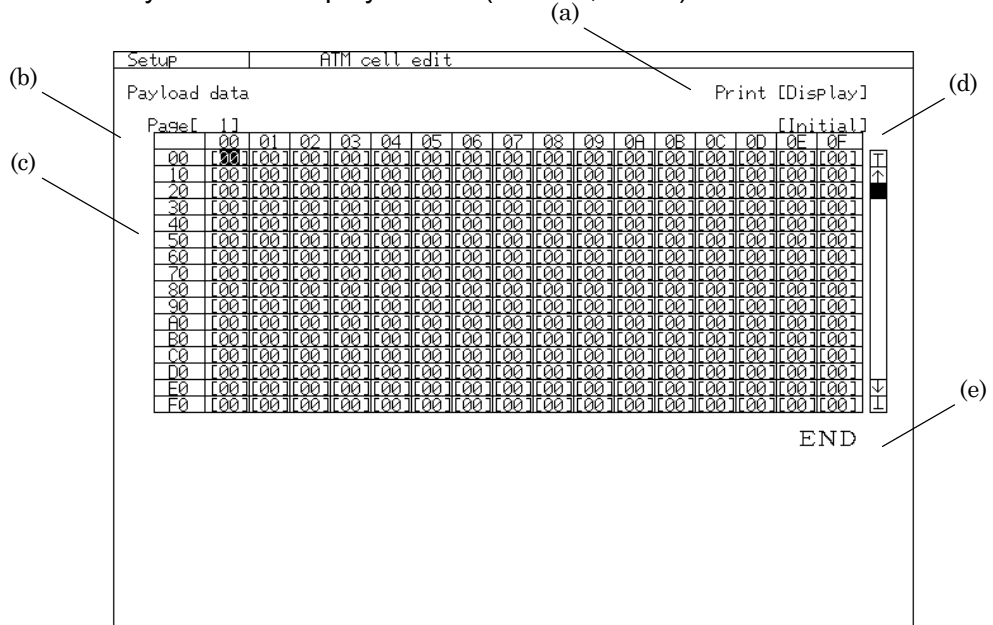
When Cell type=Foreground



	Display	Description
(a)	Cell type	Selects edit cell type.
(b)	Payload	Edits payload (38bytes) for ATM:O.191
(c)	TCPT	Edits TCPT for ATM:O.191.
(d)	Payload	Edits payload (48 bytes) for User program.
(e)	P-format	Edits CSI P-format for AAL1.
(f)	RTS	Edits CSI RTS for AAL1.
(g)	Pointer	Sets Pointer for AAL1.
(h)	Payload	Edits payload (47 bytes) for AAL1. - Move the cursor to Payload and press <input type="button" value="Set"/> to display the editing window. Move the cursor to a desired byte position using the cursor keys, then press <input type="button" value="Set"/> to open the numeric value input window. Input a desired value in binary notation.

	Display	Description
(i)	CID	Sets Primary packet CID for AAL2.
(j)	LI	Sets Primary packet LI for AAL2.
(k)	PPT	Sets Primary packet PPT for AAL2.
(l)	UUI	Sets Primary packet UUI for AAL2.
(m)	Payload	Sets Primary packet Payload (64 bytes) for AAL2.
(n)	CID	Sets Dummy packet CID for AAL2.
(o)	PPT	Sets Dummy packet PPT for AAL2.
(p)	UUI	Sets Dummy packet UUI for AAL2.
(q)	MID	Edits SAR-PDU MID for AAL3/4.
(r)	CPI	Edits CPCS-PDU CPI for AAL3/4.
(s)	BTag	Edits CPCS-PDU BTag and ETag for AAL3/4.
(t)	BASize	Edits CPCS-PDU BASize for AAL3/4.
(u)	Payload	Edits payload for AAL3/4. Perform editing on another screen. Move the cursor to Payload and press <input type="button" value="Set"/> to display the Payload data screen.
(v)	Length	Edits CPCS-PDU Length for AAL3/4.
(w)	Payload	Edits payload for AAL5. Perform editing on another screen. Move the cursor to Payload and press <input type="button" value="Set"/> to display the Payload data screen.
(x)	CPCS-UU	Edits CPCS-UU for AAL5.
(y)	CPI	Edits CPI for AAL5.
(z)	Length	Edits Length for AAL5.

Payload data display screen (AAL3/4, AAL5)



	Display	Description
(a)	Print	Sets printing range.
(b)	Page	Selects page to be displayed.
(c)	(Payload)	Sets 65,535 bytes. This data is commonly used for AAL3/4 and AAL5.
(d)	Initial	Initializes data.
(e)	(Scroll)	Changes the data page displayed. ⊞ : Displays the first page. ⊥ : Displays the last page. ↑ : Scrolls the screen to display the previous page. ↓ : Scrolls the screen to display the next page.
(f)	END	Move the cursor to this item and press <input type="button" value="Set"/> to redisplay the Foreground Cell display screen.

When Cell type=OAM

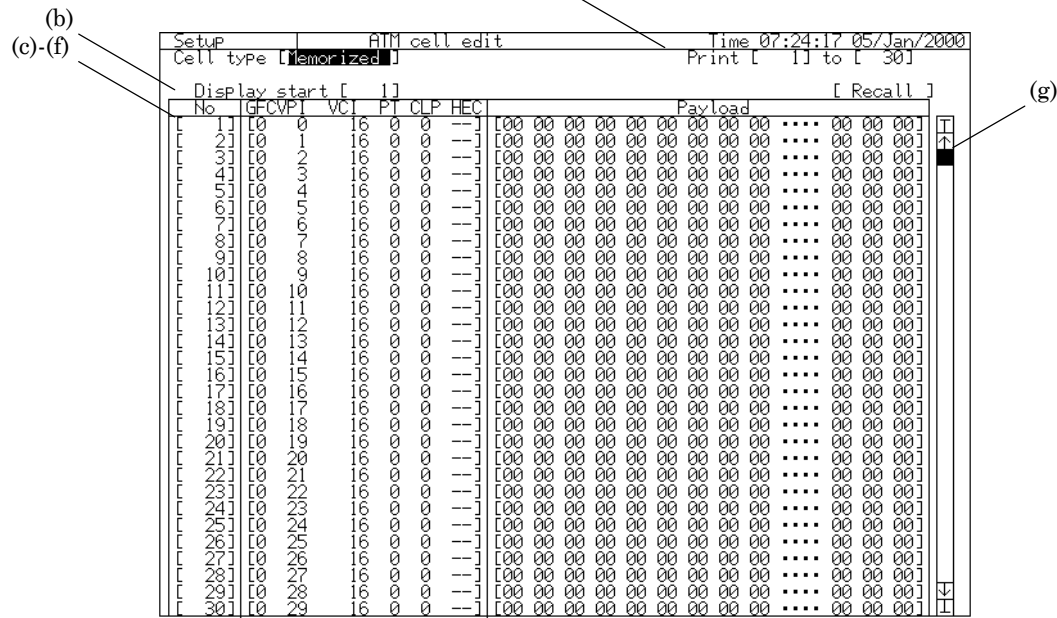
Setup ATM cell edit Time 07:18:09 05/Jan/2000

Cell type [OAM]

AIS	OAM 0001	Function 0000	[Function specific field]	Reserve [000000]	CRC10 0011111000	
RDI	OAM 0001	Function 0001	[Function specific field]	Reserve [000000]	CRC10 1111101110	
User Program	OAM [1111]	Function [0000]	[Function specific field]	Reserve [000000]	CRC10 1100011011	
CC	OAM 0001	Function 0100	[Function specific field]	Reserve [000000]	CRC10 0011000110	
Loopback	OAM 0001	Function 1000	[Function specific field]	Reserve [000000]	CRC10 0001110000	
PM FM	OAM 0010	Function 0000	Function specific field	Reserve [000000]	CRC10 -----	
	MCSN --	TUC0+1 --	BEDC0+1 --	TUC0 --	TSTP [FF FF FF FF]	[Unused]
PM BR	OAM 0010	Function 0001	Function specific field	Reserve [000000]	CRC10 -----	
	MCSN --	TUC0+1 [128]	[Unused]	TUC0 [128]	TSTP [FF FF FF FF]	[Unused]
					TRCC0 --	BLER0+1 --
						TRCC0+1 --

	Display	Description
(a)	Function Specific field	Edits the function specific fields of AIS, RDI, User program, CC, and Loopback. Move the cursor to Function Specific field and press <input type="button" value="Set"/> to display the editing window.
(b)	Reserve	Edits RES of AIS, RDI, User program, CC, Loopback, PM FM, and PM BR.
(c)	OAM	Edits User program.
(d)	Function	Edits User program Function.
(e)	TSTP	Sets TSTP of PM FM and PM BR.
(f)	(Unused)	Edits Unused of PM FM and PM BR. Move the cursor to Unused and press <input type="button" value="Set"/> to display the editing window.
(g)	TUCO+1	Sets TUCO+1 of PM Backward Report. Move the cursor to TUCO+1 of PM BR and press the [Set] key to display the editing window.
(h)	TUCO	Sets TUCO of PM Backward Report. Move the cursor to TUCO of PM BR and press <input type="button" value="Set"/> to display the editing window.

When Cell type=Memorized (a)

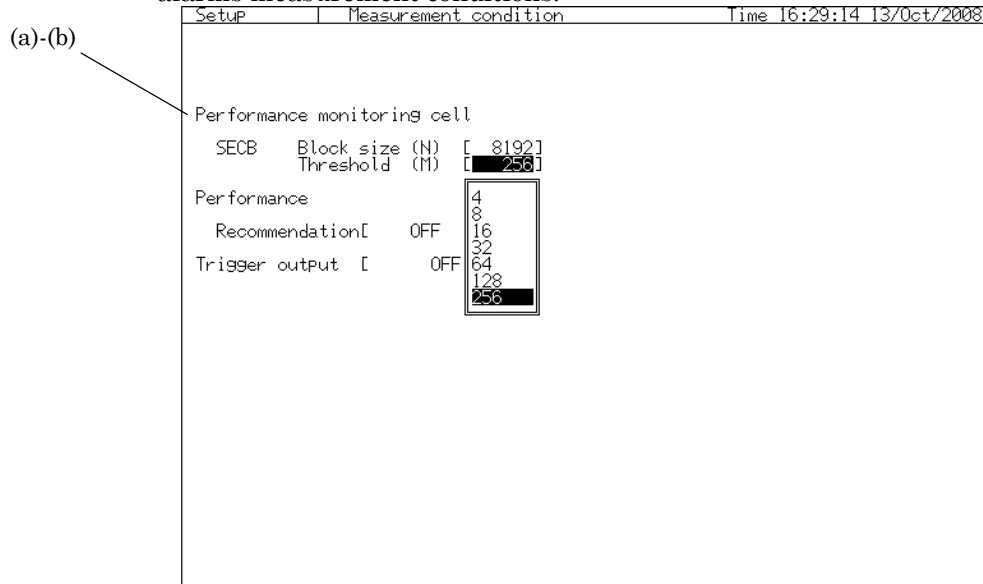


	Display	Description
(a)	Print	Sets printing start position and end position.
(b)	Display start	Sets display start cell number (1 to 1616).
(c)		Selects a data read method. Captured can be selected only when Capture data exists.
(d)	No.	Selects line-based edit operation. Move the cursor of the NO. item and press <input type="button" value="Set"/> to open the edit operation selection window.
(e)	(Header)	Edits the No.1 to No.2016 header patterns. Move the cursor to the header to be edited and press <input type="button" value="Set"/> to open a window.
(f)	Payload	Edits the No.1 to No.2016 payload patterns. Move the cursor to the payload to be edited and press <input type="button" value="Set"/> to open a window.
(g)	(Scroll)	Changes the data page displayed. ⊥Displays the first page. ⊥Displays the last page. ↑Scrolls the screen to display the previous page. ↓Scrolls the screen to display the next page.

Section 2 Screen Description

2.2.4 Measurement condition Subscreen

This screen sets the detection and removal condition of errors and alarms measurement conditions.

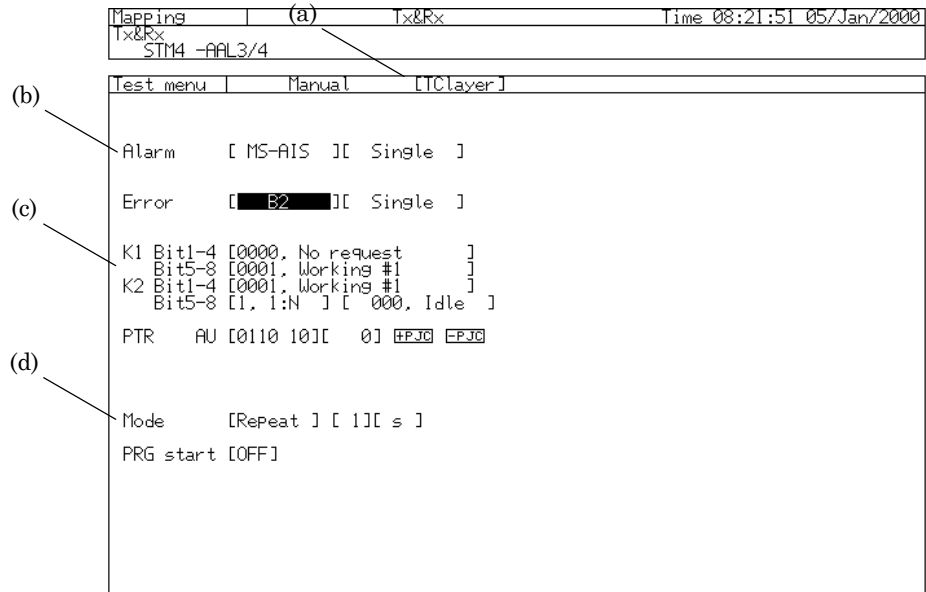


	Display	Description
(a)	Frame size errorAAL5 Threshold	Sets the threshold of the frame size error when AAL5 is selected in mapping.
(b)	SECB	Set a block size (N) and a threshold (M) when SECB is set. When either of which is changed, the other is also changed.

2.3 Test menu Main Screen

This section explains the display of each sub-screen of the Test Menu main screen.

2.3.1 Manual Subscreen (TC layer)



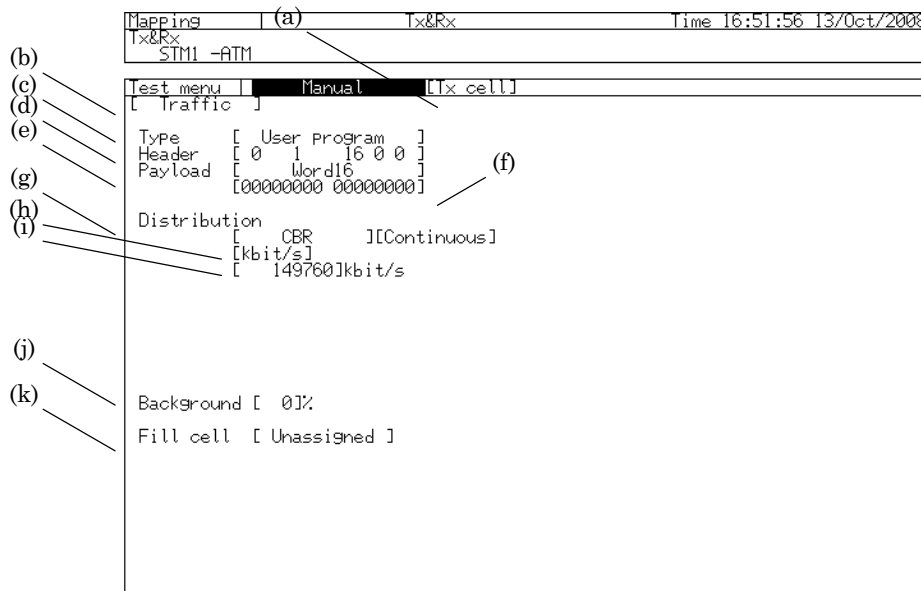
	Display	Description
(a)		Switches the Manual sub-screens. TclayerSONET/SDH/PDH/ATM Tx cellATM transmission Rx cellATM reception
(b)	Alarm/Error	Sets the error and alarm item to be added in the TC layer.
(c)	K1/K2	Presets K1 byte, K2 byte, and the pointer value of the TC layer.
(d)	Mode	Sets the measurement mode of the error and alarm.

Section 2 Screen Description

2.3.2 Manual Subscreen (Tx Cell)

This screen sets the items for cell measurement. (Transmission)

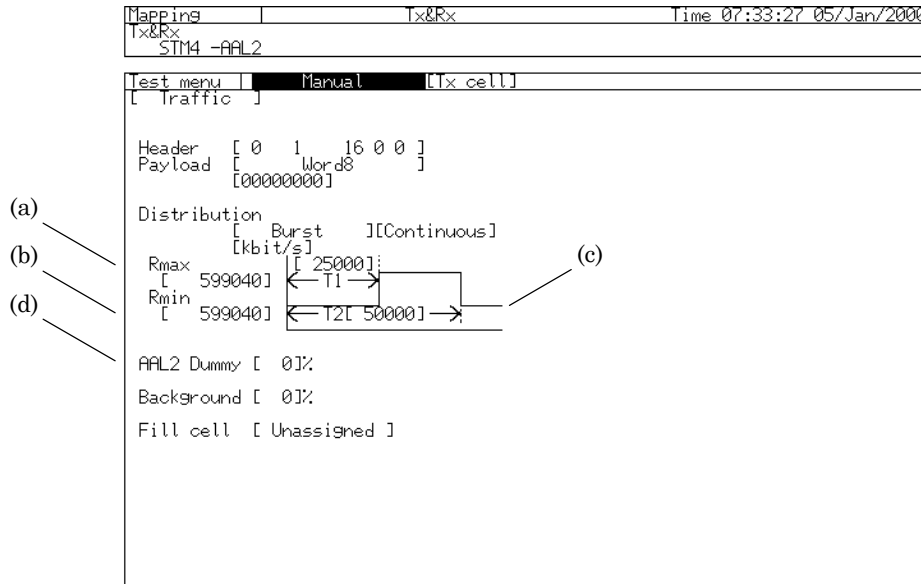
When [Select]=Traffic, Distribution=CBR



	Display	Description
(a)		Switches the Manual sub-screens. Tclayer SDH,PDH Tx cell ATM transmission Rx cell ATM reception
(b)	[Select]	Selects Manual measurement.
(c)	Type	Selects the ATM cell type. When selecting Memorized, set the number of repetitions of Memorized cells on the right. Displayed when ATM selected for Mapping.
(d)	Header	Edits header pattern. Press <input type="button" value="Set"/> to open the editing window.
(e)	Payload	Sets payload type.
(f)	(Word16)	Sets word pattern when Word16 or Word8 is selected for Payload.
(g)	Distribution	Sets cell traffic type.
(h)		Selects transmission type. - When Single is selected, the cell is sent by using the one-shot button. - No parameter selection when Distribution = Poisson. - The cell sent by the one-shot button is one cell for Distribution = CBR, and are cells of one period for Distribution = Burst, CBR with CDV, and Sawtooth. One period for Distribution = CBR with CDV is 2000 cell-times.
(i)		Sets the unit (kbit/s, cell/s, or %) of the Distribution setting parameter. The value is set under the unit.
(j)	Background	Sets background cell traffic. This can be set for each the 10 background cells.
(k)	Fill cell	Selects cell (Unsigned or Idle) for Fill cell.

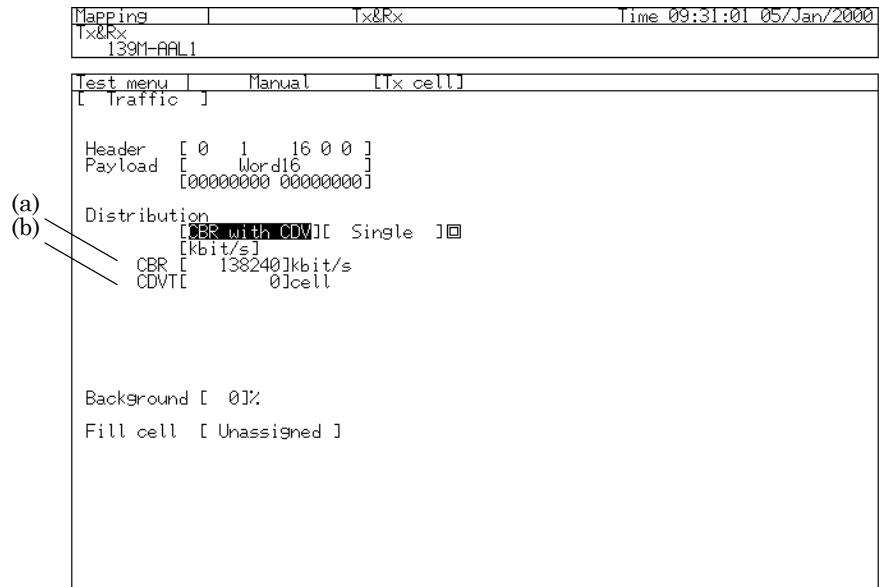
Section 2 Screen Description

When [Select]=Traffic,Distribution=Burst,Mapping=AAL2



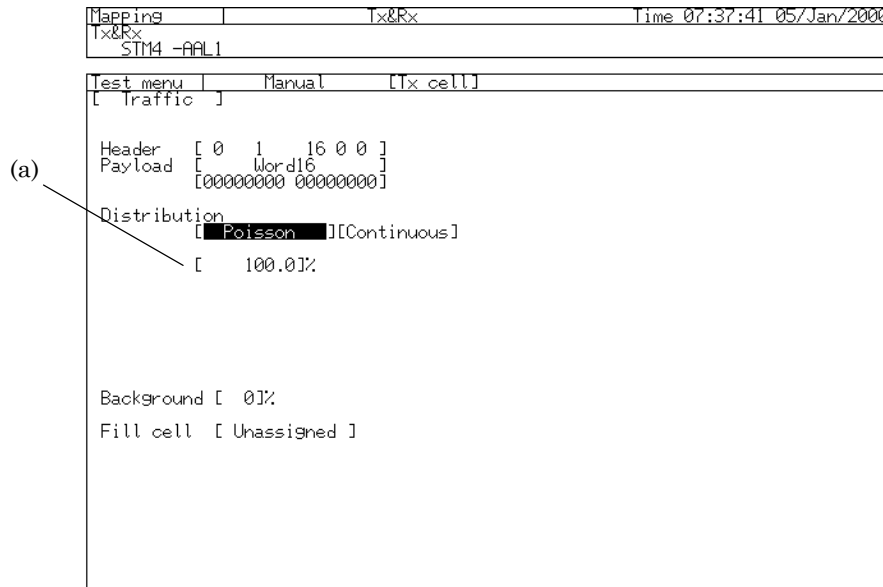
	Display	Description
(a)	Rmax	Sets Rmax. If Rmin is greater than Rmax, the same value as Rmin is set.
(b)	Rmin	Sets Rmin. If Rmax is less than Rmin, the same value as Rmax is set.
(c)	T1,T2	Sets parameter values.
(d)	ALL2 Dummy	Sets the occupied ratio of Dummy packet in the AAL2 CPS packet. Displayed when AAL2 selected for Mapping.

When [Select] = Traffic, Distribution=CBR with CDV,
and Mapping is other than ATM,AAL2



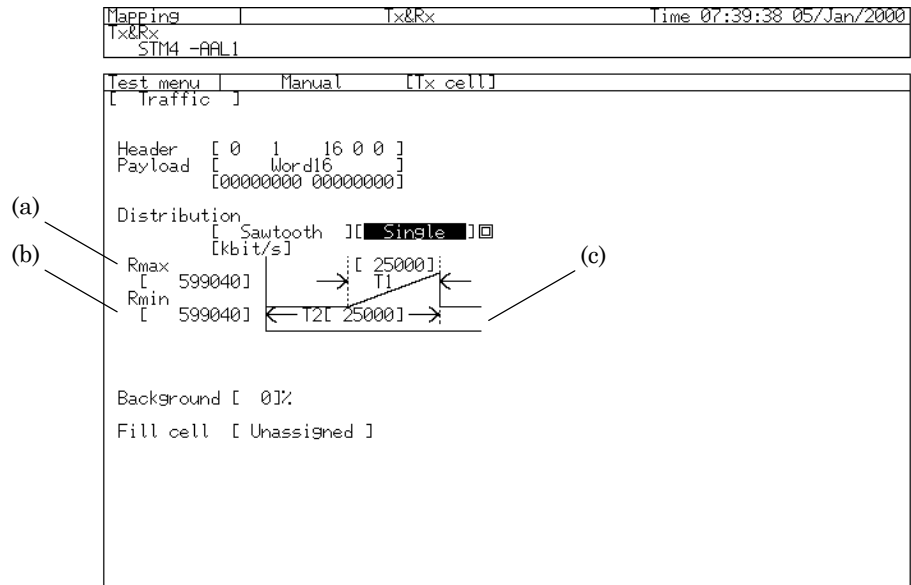
	Display	Description
(a)	CBR	Sets CBR.
(b)	CDVT	Sets CDVT.

When [Select]=Traffic, Distribution=Poisson,
and Mapping is other than ATM and AAL2



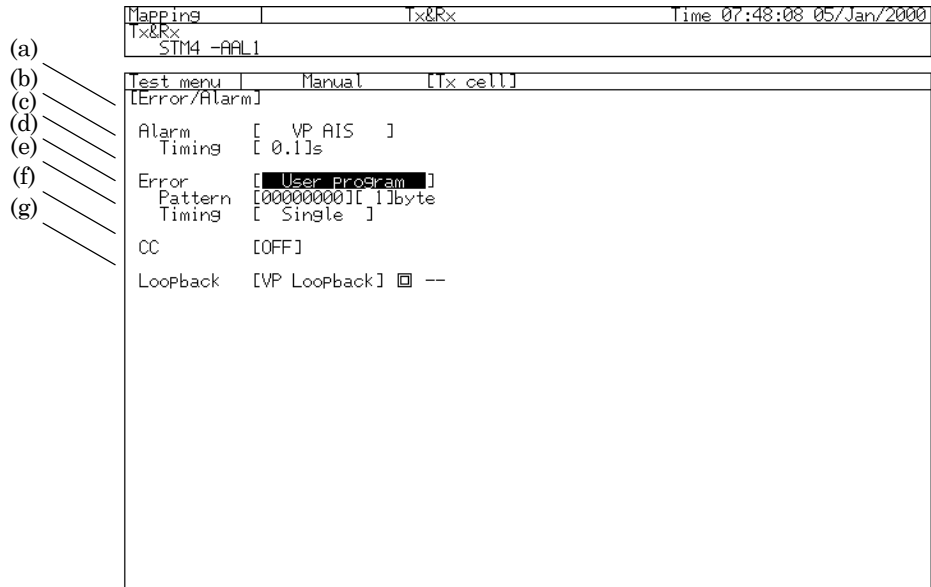
	Display	Description
(a)	(%)	Sets Poisson.

When [Select]=Traffic, Distribution=Sawtooth,
and Mapping is other than ATM and AAL2



	Display	Description
(a)	Rmax	Sets Rmax. If Rmin is greater than Rmax, the same value as Rmin is set.
(b)	Rmin	Sets Rmin. If Rmax is less than Rmin, the same value as Rmax is set.
(c)	T1,T2	Sets parameter values.

When [Select]=Error/Alarm

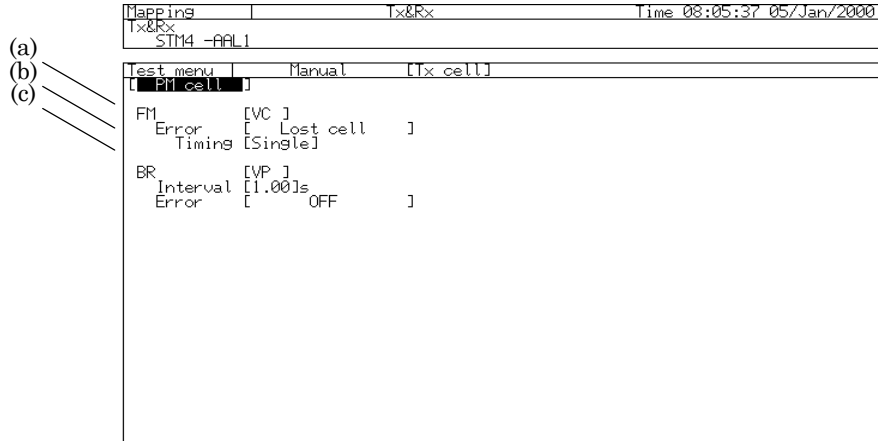


	Display	Description
(a)	Alarm	Sets alarm addition item.
(b)	Timing	Sets alarm addition timing.
(c)	Error	Sets error addition item.
(d)	Pattern	Sets error addition pattern. Sets only when Error = User program selected.
(e)	Timing	Sets error addition timing.
(f)	CC	Sets CC cell addition.
(g)	Loopback	Sets Loopback cell type. Move the cursor here and press <input type="button" value="Set"/> to start the Loopback test.

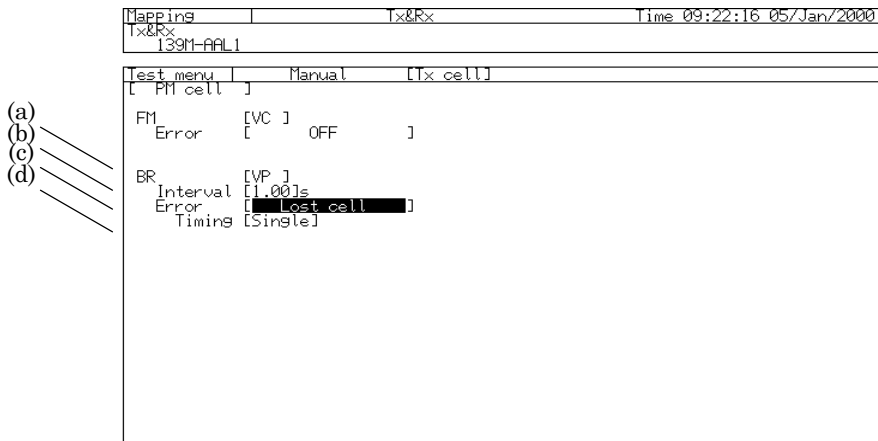
Note:

The results of the Loopback test are displayed as "OK/NG/--" to the right of "".

[Select] = PM cell



	Display	Description
(a)	FM	Sets PM Forward Monitoring cell addition.
(b)	Error	Sets error addition item.
(c)	Timing	Sets error addition timing. Error is added when <input type="radio"/> Error is pressed.



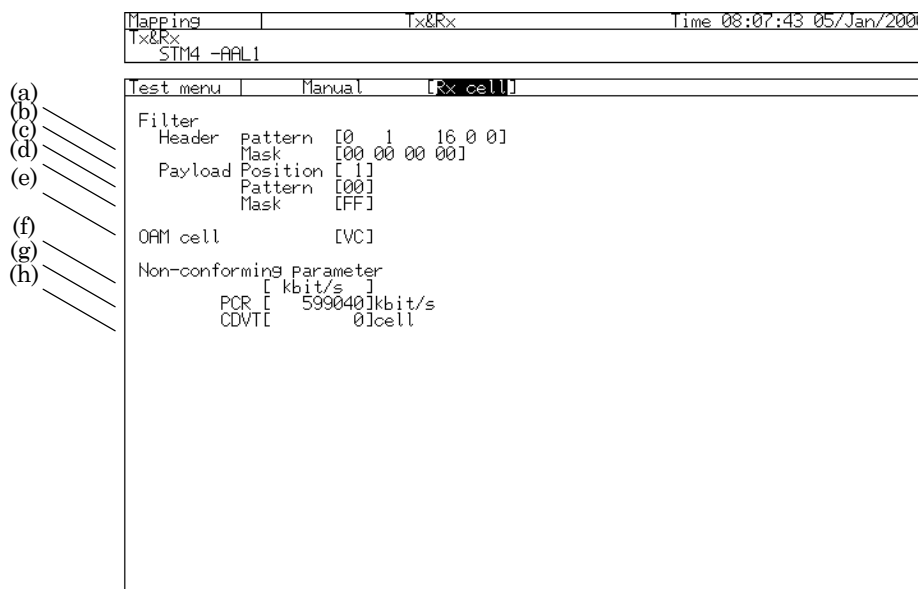
	Display	Description
(a)	BR	Sets PM Backward Report cell addition.
(b)	Interval	Sets interval. The interval value is restricted according to the number of send cells.
(c)	Error	Sets error addition item.
(d)	Timing	Sets error addition timing. Error is added when <input type="radio"/> Error is pressed.

Section 2 Screen Description

2.3.3 Manual Subscreen (Rx Cell)

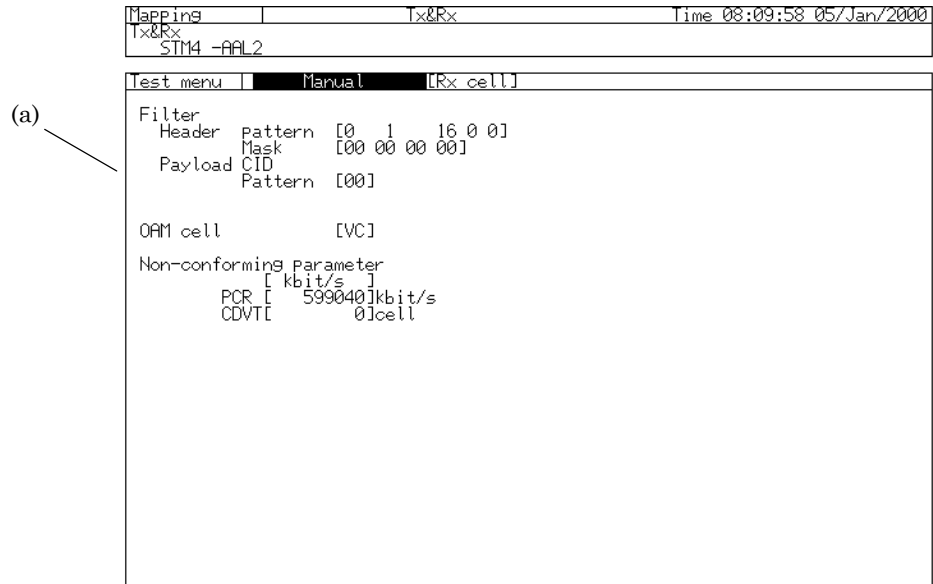
This screen sets the items for cell measurement. (Reception)

When Mapping: AAL1, AAL5, ATM



	Display	Description
(a)	Header Pattern	Edits header pattern to filter. - Move the cursor and press <input type="button" value="Set"/> to open the edit operation window.
(b)	Header Mask	Edits the mask pattern of a header. - Move the cursor and press <input type="button" value="Set"/> to open the edit operation window.
(c)	Payload Position	Sets payload filter position. (AAL1, ATM)
(d)	Payload Pattern	Sets payload filter pattern. (AAL1, ATM)
(e)	Payload Mask	Sets payload filter mask. (AAL1, ATM)
(f)	Non-conforming Parameter	Specifies a Non-conforming parameter.
(g)	PCR	Sets PCR.
(h)	CDVT	Sets CDVT.

Mapping : AAL2

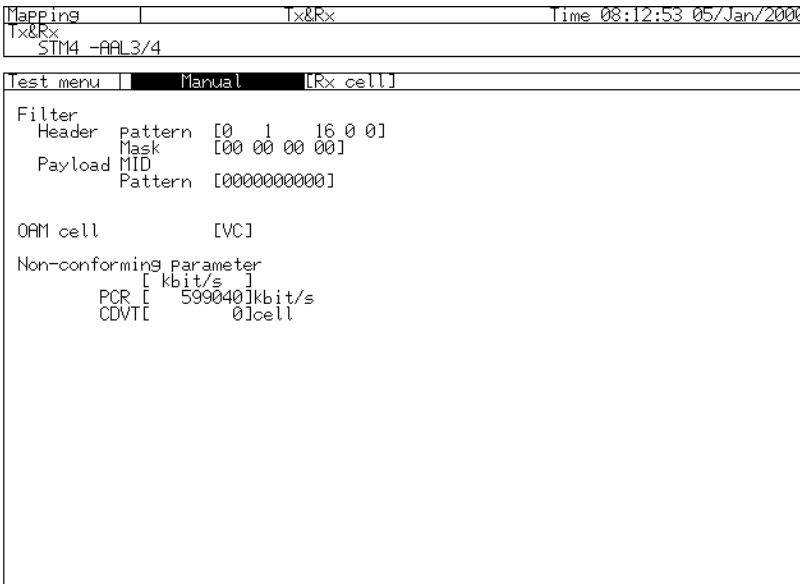


	Display	Description
(a)	Payload CID	Sets CID.

Note:

CID cannot be set when the Payload setting is Time stamp on the Manual screen of the Tx cell.

Mapping : AAL3/4

(a) 

```

Mapping                               Tx&Rx                               Time 08:12:53 05/Jan/2000
Tx&Rx
STM4 -AAL3/4

Test menu | Manual | [Rx cell]
Filter
Header pattern [0 1 16 0 0]
Mask [00 00 00 00]
Payload MID
Pattern [0000000000]

OAM cell [VC]

Non-conforming parameter
PCR [ 599040 ]kbit/s
CDVTI [ 0 ]cell
    
```

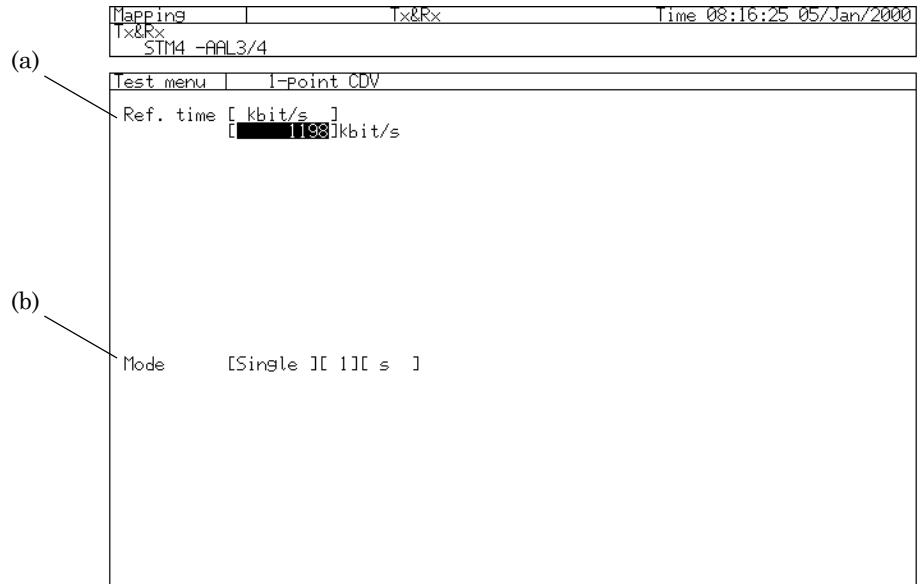
	Display	Description
(a)	Payload MID	Sets MID.

Note:

MID cannot be set when the Payload setting is Time stamp on the Manual screen of the Tx cell.

2.3.4 1-point CDV Subscreen

This screen sets the items for measuring jitter between received cells.



	Display	Description
(a)	Ref.time **	Sets cell interval used as the reference in 1-point CDV measurement.
(b)	Mode **	Sets measurement mode. When setting Single, set the measurement gating period time and unit.

** When any item is changed during measurement, the 1-point CDV measurement is restarted.

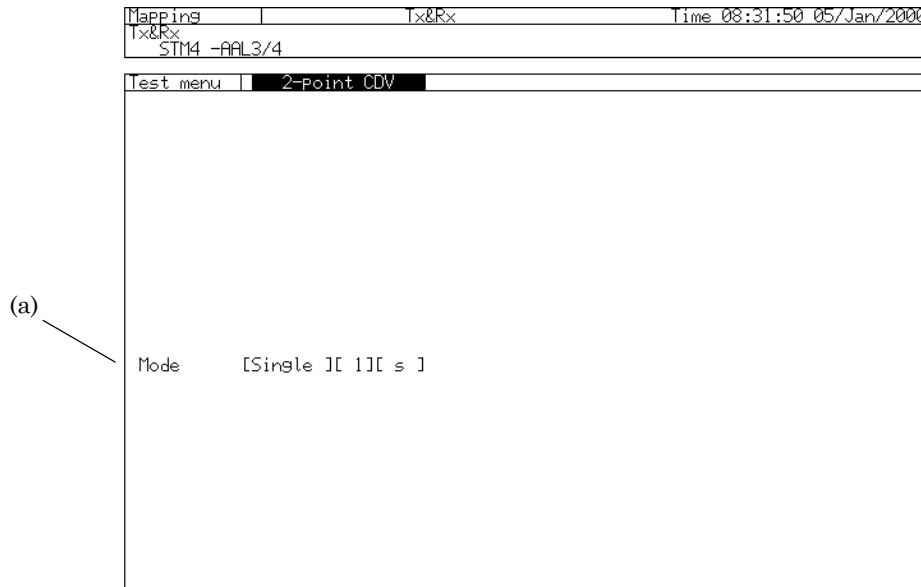
Note:

When the 1-point CDV measurement is performed while setting an error insertion item on the Test menu:Manual sub-screen; the inserted error becomes invalid.

Section 2 Screen Description

2.3.5 2-point CDV Subscreen

This screen sets the items for measuring cell delay jitter from cell transmission to cell reception.



	Display	Description
(a)	Mode **	Sets measurement mode. When setting the mode at Single or Repeat, set the gating period time and unit.

** When any item is changed during measurement, the 2-point CDV measurement is restarted.

Note:

- This measurement can be conducted only when the Time Stamp is inserted in Payload of Manual sub-screen of Tx cell.
- When the 2-point CDV measurement is performed while setting an error insertion item on the Test menu:Manual sub-screen; the inserted error becomes invalid.

2.4 Result Main Screen

This section explains the display of each sub-screen of the Result main screen.

2.4.1 Error/Alarm Subscreen

This screen displays the results of Error/Alarm measurement.

In single screen mode:

(a)

Mapping	Tx&Rx	Time 08:42:20 05/Jan/2000
Tx&Rx	STM4 -AAL3/4	
Result	Error/Alarm	Start 08:38:58 05/Jan/2000
Alarm [Second] Error [Count] Display data [Current]		
Section	HP(AU)	Information
P-fail	0 aAIS	0 a
LOS	0 aLOP	0 a
LOF	0 aRDI	0 a
LOP	0 aSLM	0 a
AIS	0 a	
RDI	0 a	
B1	0 aB3	0 a
B2	0 a	
REI	3.2E06 REI	0 a
Alarm		Error
MP-AIS	0 aVC-AIS	0 a
MP-RDI	0 aVC-RDI	0 aCorrect
MP-LOC	0 aVC-LOC	0 aDiscard
		0 aNonconf
		0 aFM Lost
		0 aFM Misin
		0 aST
		0 aFM BIPV
		0 aFM SECB
		0 aBR Lost
		0 aBR Misin
LCD	1.0E06 Sync.	0 aBR BIPV
		0 aBR SECB
		0 aCRC10
		0 aUDivPDU
		0 aCPI
		0 aB/Etag
		0 aB/Asize
		0 aAL
		0 aLength
		0 aBit

In multiple screen mode

(a)

Mapping	Tx&Rx	Time 08:39:00 05/Jan/2000
Tx&Rx	STM4 -AAL3/4	
Test menu	Manual	[TClayer]
Alarm	[LOS]	[All]
Error	[MS-REI]	[Single]
K1 Bit1-4	[0000, No request]	
Bit5-8	[0001, Working #1]	
K2 Bit1-4	[0001, Working #1]	
Bit5-8	[1, 1:N] [000, Idle]	
PTR AU	[0110 10] [0]	[EFB] [EFB]
Mode	[Repeat]	[1] [s]
PRG_start	[OFF]	
Result	Error/Alarm	Start 08:38:58 05/Jan/2000
Alarm [Second] Error [Count] Display data [Current] [TClayer]		
Section	HP(AU)	Information
P-fail	0 aAIS	0 a
LOS	0 aLOP	0 a
LOF	0 aRDI	0 a
LOP	0 aSLM	0 a
AIS	0 a	
RDI	0 a	
B1	0 aB3	0 a
B2	0 a	
REI	3.2E06 REI	0 a

(b)

	Display	Description
(a)	Alarm	Sets display alarm format.
(b)	TClayer/Cell	Switches between TClayer and Cell. TClayer goes on when STM items are displayed, Cell goes on when ATM items are displayed. Move the cursor here and press <input type="button" value="Set"/> to switch the displays.

Note:

- Alarm and the STM/ATM switch (TClayer/Cell one-shot button) is displayed only in multiple screen mode.
- When the Alarm display format is set to Count, TClayer alarm cannot be displayed in Count format. Then, the label is not displayed.
- When the mask is set on entire VCI of Header Mask at Manual sub-screen (Rx Cell); the measurements of FM cell, BR cell, CC cell, Loop Back cell, AIS cell, and RDI cell are performed at VP.
- When the mask is not set on entire VCI of Header Mask at Manual sub-screen (Rx Cell); the measurements of FM cell and BR cell are performed at VC, and CC cell, Loop Back cell, AIS cell, and RDI cell are performed at VP and VC.

- Describes the insertion/detection of error related to AAL, below:

(1) Insertion /detection of error related to AAL1

Error addition

Item to be selected	Description
LOST Cell	Skips the value at SN field.
SNP	Inverts one bit at SNP field.

Error detection

Display	Description
SAR-PDU	Counts SAR-PDU.
LOST	Counts the lost SAR-PDU calculated from SN field.
SNP	Counts SAR-PDU which involves error at SNP field.
UCorSNP	Counts SAR-PDU which involves invalid SNP field. "SAR-PDU which involves invalid SNP field" means the SAR-PDU which involves the multiple bit errors at SNP field in correction mode of AAL1 state transition, or one or multiple bit errors at SNP field in detection mode.

(2) Insertion/detection of error related to AAL2

Error addition

Item to be selected	Description
P	Inverts the value at P field.
OSF	Sets all bits of OSF field to 1.
SN	Skips the value at SN field.
HEC(Packet)	Inverts all bits of HEC field.

Error detection

Display	Description
SAR-PDU	Counts SAR-PDU.
P	Counts SAR-PDU which involves error at P field.
OSF	Counts SAR-PDU which involves OSF field \geq 48.
SN	Counts SAR-PDU which involves SN field with unexpected SN value.
CPS-PKT	Counts CPS-Packet with CID which is set at Manual sub-screen (Rx Cell).
CPS-HEC	Counts CPS-Packet which involves error at HEC field. Rate display indicates the rate to the number of all CPS-Packets.

Section 2 Screen Description

(3) Insertion/detection of error related to AAL3/4

Error addition

Item to be selected	Description
CRC10	Inverts all the bits at CRC10 field.
Segment Type	Changes EOM to SSM or SSM to EOM at ST field.
Length Indicator	Sets LI = 48.
SN	Skips the value at SN field. Not inserted at SAR-PDU of ST = BOM/SSM.
Abort	Sets all the bits of LI field of SAR-PDU with ST = EOM to 1.
CPI	Sets all the bits of CPI field to 1.
B/ETag	Inverts all the bits at Btag field.
BASize	Sets all the bits of BASize field to 0.
AL	Sets all the bits of AL field to 1.
Length	Adds 1024 to the value of Length field.

Error detection

Display	Description
SAR-PDU	Counts SAR-PDU.
MID	Counts SAR-PDU with MID which is set at Manual sub-screen (Rx Cell). For other than CRC10, SAR-PDU counted here becomes the measurement object, and the rate displays of SN/DiscPDU/ST/LI/Abort become the rates for SAR-PDU counted here.
CRC10	Counts SAR-PDU which involves error at CRC10 field. Rate display indicates the rate to the number of SAR-PDUs.
ST	Counts SAR-PDU which involves ST field with unexpected ST value.
LI	Counts SAR-PDU which involves error at LI field. "SAR-PDU which involves error at LI field" means the SAR-PDU in which LI is not 44 for ST = BOM/COM, other than $4 \leq LI \leq 44$ for ST = EOM, and other than $8 \leq LI \leq 44$ for ST = SSM.
SN	Counts SAR-PDU which involves SN field with unexpected SN value. Measures the continuity of SN value of SAR-PDU which composes CPCS-PDU. Does not measure the continuity of SN value between continuous SAR-PDUs which belong to the different CPCS-PDU.
Abort	Counts Abort SAR-PDU. Abort SAR-PDU is the SAR-PDU with ST = EOM and LI = 63.

DiscPDU	Counts SAR-PDU to be discarded. "SAR-PDU to be discarded" means the SAR-PDU with ST error of BOM/EOM, SN error, LI error, or Abort SAR-PDU.
CPCS	Counts CPCS-PDU.
CPI	Counts CPCS-PDU with none zero CPI.
B/ETag	Counts CPCS-PDU in which BTag field is not the same as ETag field.
BASize	Counts CPCS-PDU in which the payload length of CPCS-PDU is over the value of BASize field.
AL	Counts CPCS-PDU in which the AL field not 0.
Length	Counts CPCS-PDU in which the payload length of CPCS-PDU is different from the value of Length field.
UDevPDU	Counts CPCS-PDU with CPI error, B/ETag error, BASize error, AL error, or Length error.

(4) Insertion/detection of error related to AAL5

Error addition

Item to be selected	Description
Length	Adds 1024 to the value of Length field.
CRC32	Inverts all the bits at CRC32 field.
Abort	Sets all the bits of Length field to 0.

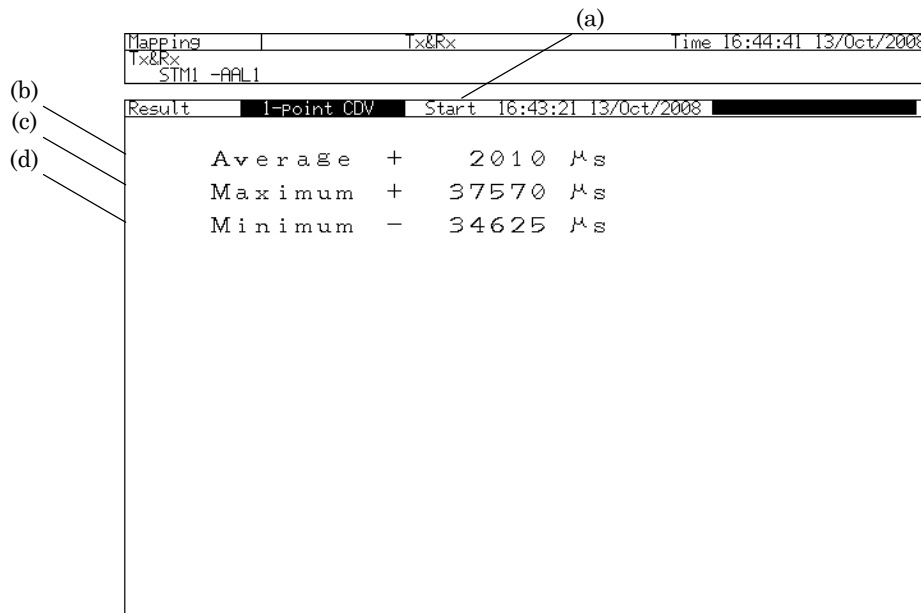
Error detection

Display	Description
CPCS	Counts CPCS-PDU.
DiscPDU	Counts CPCS-PDU with none zero CPI, FRMsize error, Length error, CRC32 error, or Abort CPCS-PDU.
FRMsize	Counts CPCS-PDU in which AAL5 frame size set at Mapping sub-screen is different from the value of Length field.
Length	Counts CPCS-PDU in which the payload length of CPCS-PDU is different from the value of Length field.
CRC32	Counts CPCS-PDU which involves error at CRC32 field.
Abort	Counts Abort CPCS-PDU. Abort CPCS-PDU is the CPCS-PDU with Length = 0.

Section 2 Screen Description

2.4.2 1-point CDV Subscreen

This screen displays the results of measuring jitter between received cells.



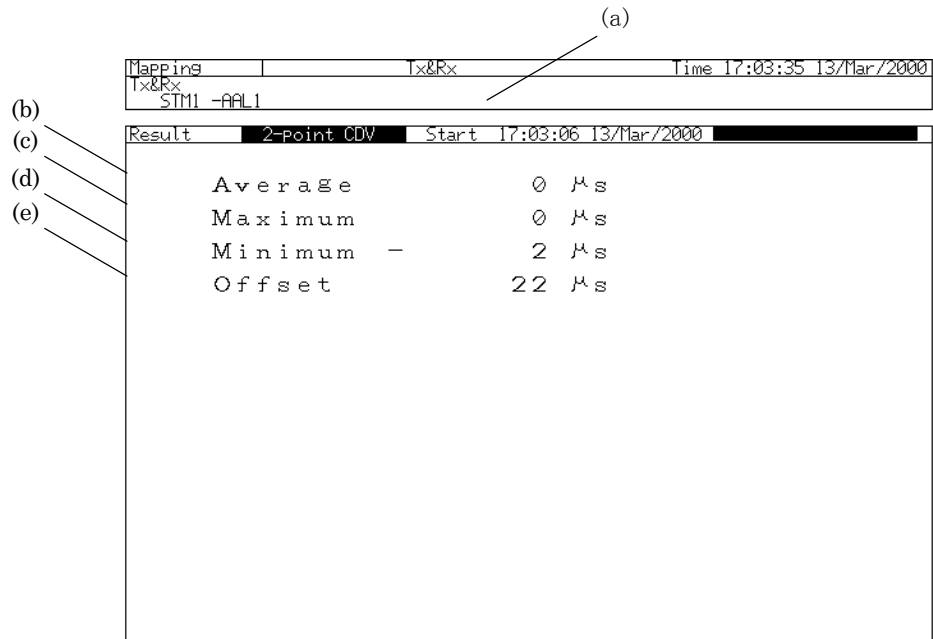
	Display	Description
(a)	Start	Indicates measurement start time.
(b)	Average	Indicates average value.
(c)	Maximum	Indicates maximum value.
(d)	Minimum	Indicates minimum value.

Note:

- The screen display is retained until a data erasure condition (measurement restart etc.) occurs.
- When any data erasure condition is occurred, "-----" is displayed.

2.4.3 2-point CDV Subscreen

This screen displays the results of measuring cell delay jitter from cell transmission to cell reception.



	Display	Description
(a)	Start	Indicates measurement start time.
(b)	Average	Indicates average value.
(c)	Maximum	Indicates maximum value.
(d)	Minimum	Indicates minimum value.
(e)	Offset	Indicates offset value.

Note:

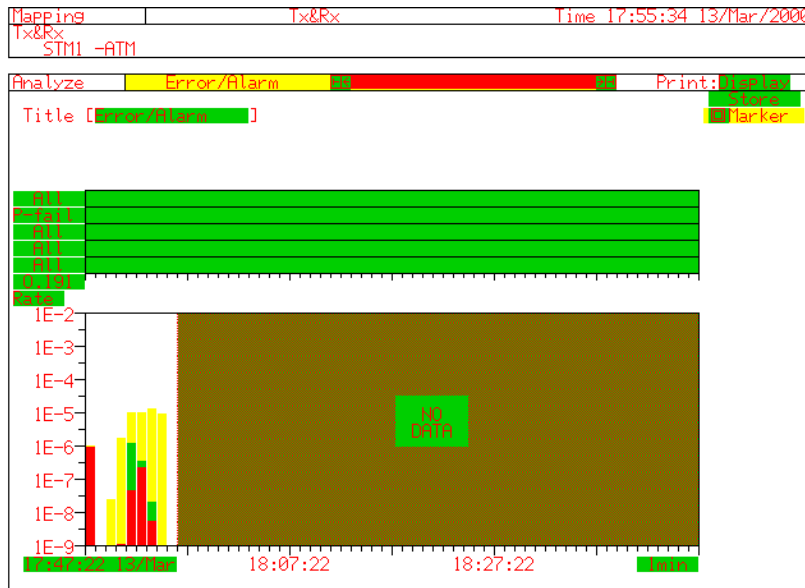
- The screen display is retained until a data erasure condition (measurement restart etc.) occurs.
- When any data erasure condition is occurred, "-----" is displayed.

2.5 Analyze Main Screen

This section explains the display of each sub-screen of the Analyze main screen.

2.5.1 Error/Alarm Subscreen

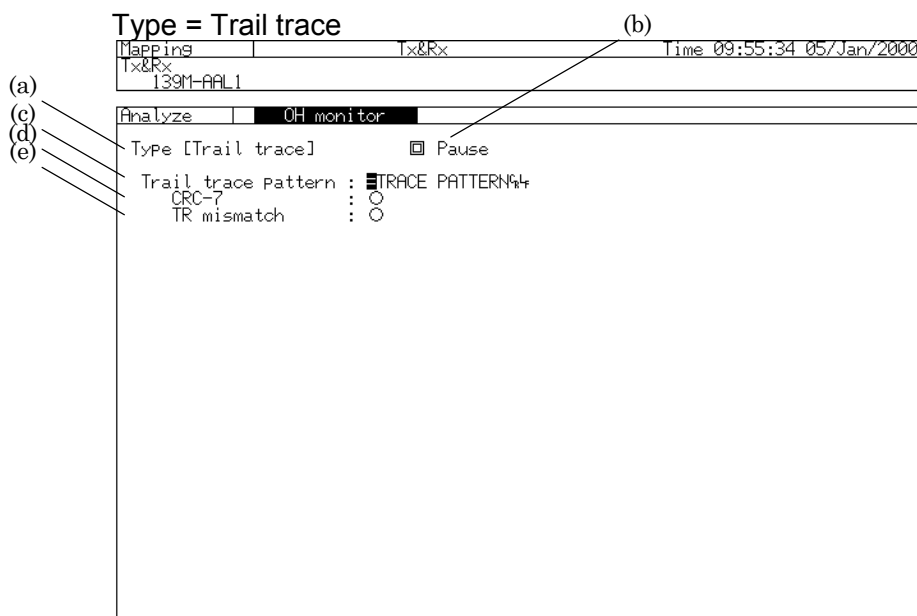
This screen analyzes the results of Error/Alarm measurement.



- When the ATM error item is selected to O.191, graphs are overlapped in order of Discarded (red), Misinserted (green), and Errored (yellow).
- Color coding is based on proportion and not on measured values.
- In remote operation, the total values can be read.

2.5.2 OH monitor Subscreen

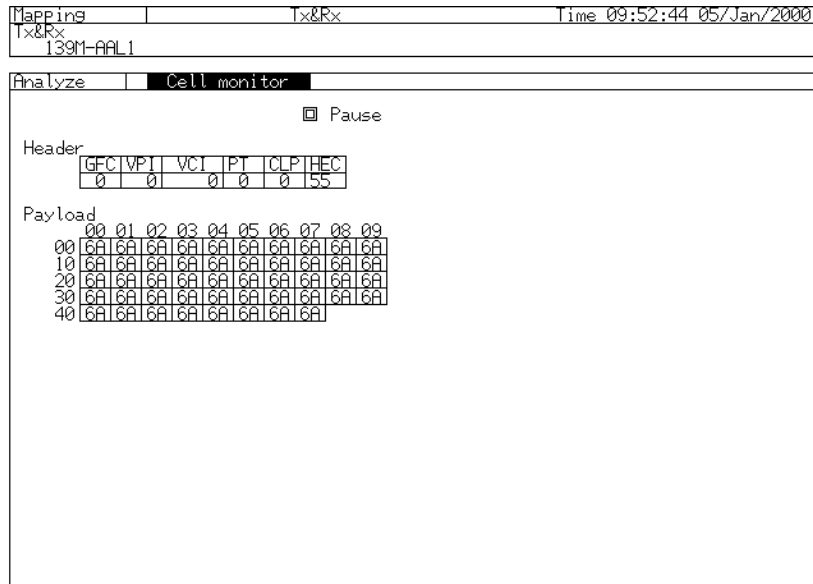
This screen displays the monitored value for overhead.



	Display	Description
(a)	Type	Sets the channel to be monitored.
(b)	Pause	Turns ON/Off the display update. <input checked="" type="checkbox"/> : Indicates that the screen update is disabled. Press <input type="button" value="Set"/> to enable the screen update. <input type="checkbox"/> : Indicates that the screen update is enabled. Press <input type="button" value="Set"/> to disable the screen update.
(c)	Trail trace pattern	Displays Trail trace to be monitored.
(d)	CRC-7	Assuming CRC-7, calculates CRC-7 to indicate the presence of error. <input checked="" type="radio"/> : CRC-7 error exists. <input type="radio"/> : CRC-7 error does not exist.
(e)	TR mismatch	Displays TR error. <input checked="" type="radio"/> : TR mismatch error exists. <input type="radio"/> : TR mismatch error does not exist.

2.5.3 Cell monitor Subscreen

This screen monitors cells received or sent.



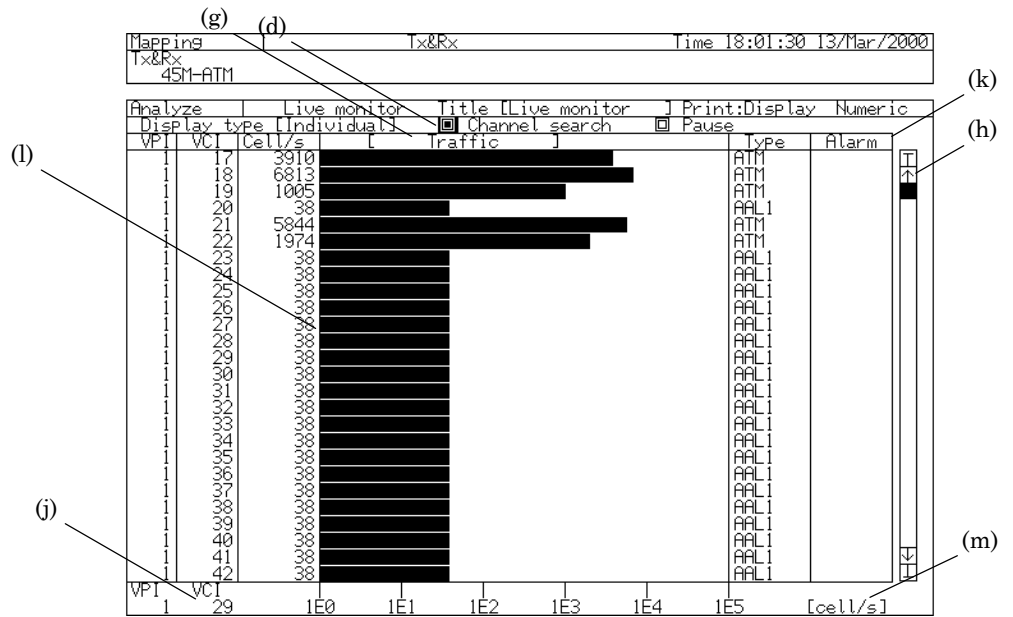
Note:

Monitoring value can be stopped by executing Pause.

2.5.4 Live monitor Subscreen

This screen analyzes Traffic and FM Cell measurement.

When the monitor item is Traffic



	Display	Description
(a)	Title	The graph title can be input. - This button is effective only in single screen mode.
(b)	Print	Sets printing range and print data. Display Prints the current displayed data. All Prints all the data from the top to the end. After Prints the data from the current displayed data to the end. Before Prints the previous data from the top to the current displayed data.
(c)	Display type	Sets display type. Individual Displays the latest data. Accumulate Displays the accumulated data from the measurement start.

Section 2 Screen Description

	Display	Description
(d)	Channel Search	Starts channel search. Move the cursor here and press <input type="button" value="Set"/> to start search.
(e)	Pause	Move the cursor here and press <input type="button" value="Set"/> to execute Pause. - This button is not effective in 3-screen mode.
(f)	Store	Stores graph data in memory. Move the cursor here and press <input type="button" value="Set"/> to open the character string input window. Input a name to store the data in memory. - This button is displayed only in single screen mode. - Effective when Accumulate is selected at the item (c) Display type.
(g)		Selects monitor item.
(h)	(Scroll)	Moves the displayed graph. <ul style="list-style-type: none"> ⌵ Displays top line of the graph. ⌴ Displays bottom line of the graph. ↑ Scrolls half screen up. ↓ Scrolls half screen down.
(i)	VPI	Sets VPI. - This button is effective only in single screen mode.
(j)	VCI	Sets VCI. - This button is effective only in single screen mode.
(k)	Alarm	Displays one alarm item of the highest-rank receive alarm.
(l)		Displays the data of the parameter selected at the item (m).
(m)		Selects parameter. Effective at monitor item: Traffic.
(n)	TYPE	Displays AAL type of cell. (May differ from the actual type.)

Note:

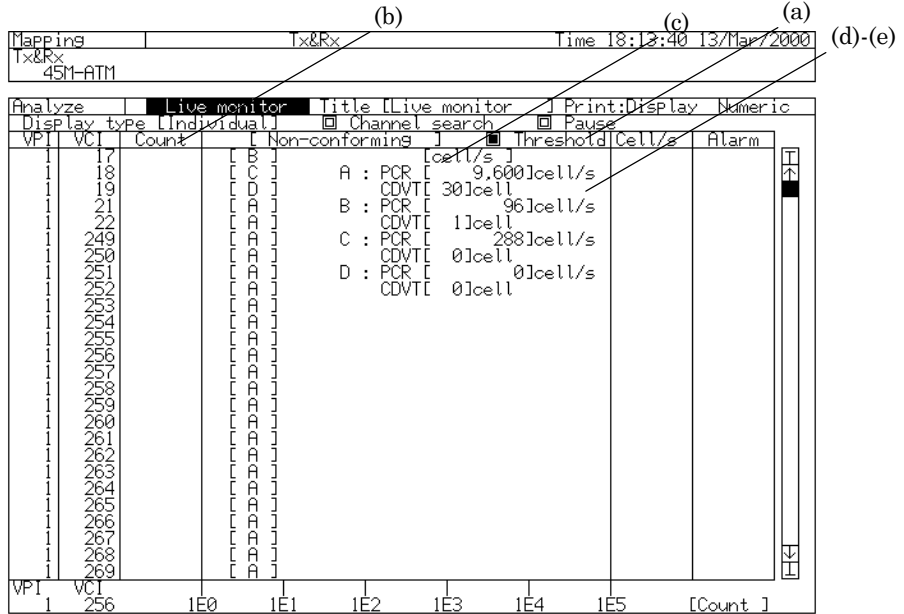
- When Display type is Accumulate at measurement, the successive monitor can be performed in the following monitor items:
- →FM Misinserted cell ↔ FM Lost cell ↔ FM Mis/Lost cell ←

When any monitor item (except the aboves) is changed during measurement, the measurement is restarted. Also, when Display type is changed from Individual to Accumulate; the measurement is restarted, and the acquired data is lost.

When the monitor item is Non-conforming or FM SECB

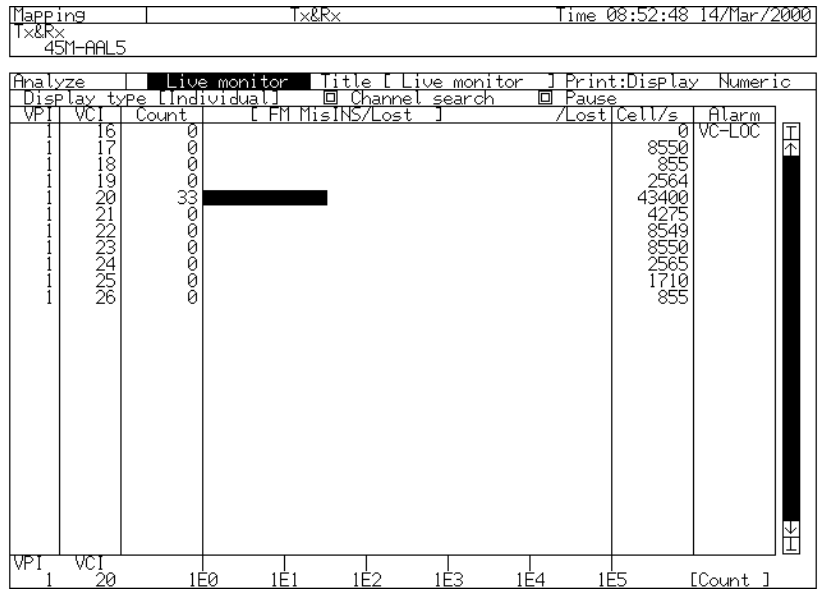
Mappings		Tx&Rx		Time 18:15:46 13/Mar/2000		
Tx&Rx		45M-ATM				
Analyze	Live monitor	Title [Live monitor]		Print:Display	Numeric	
Display type [Individual]	<input type="checkbox"/> Channel search	<input type="checkbox"/> Pause				
VPI	VC1	Count	[Non-conforming]	<input checked="" type="checkbox"/> Threshold	Cell/s	Alarm
1	17	3796			3847	
1	18	6650			6702	
1	19	939			990	
1	21	5700			5750	
1	22	1891			1942	
1	249	0			0	
1	250	0			0	
1	251	0			0	
1	252	0			0	
1	253	0			0	
1	253	0			0	
1	254	0			0	
1	255	0			0	
1	256	0			0	
1	257	0			0	
1	258	0			0	
1	259	0			0	
1	260	0			0	
1	261	0			0	
1	262	0			0	
1	263	0			0	
1	264	0			0	
1	265	0			0	
1	266	0			0	
1	267	0			0	
1	268	0			0	
1	269	0			0	

When monitor item is Non-conforming, and Threshold is pressed



	Display	Description
(a)	Threshold	Move the cursor here and press <input type="button" value="Set"/> to display the setting screen of threshold condition. - Settable at Non-conforming.
(b)	count	Displays the summed value.
(c)		Sets parameters.
(d)		Sets threshold. - Corresponds to SECB Size M of Setup Mapping screen. - Four types of threshold can be set.
(e)		Can specify any one of the four thresholds set at the item (d).

When the monitor item is FM Mis/lost cell

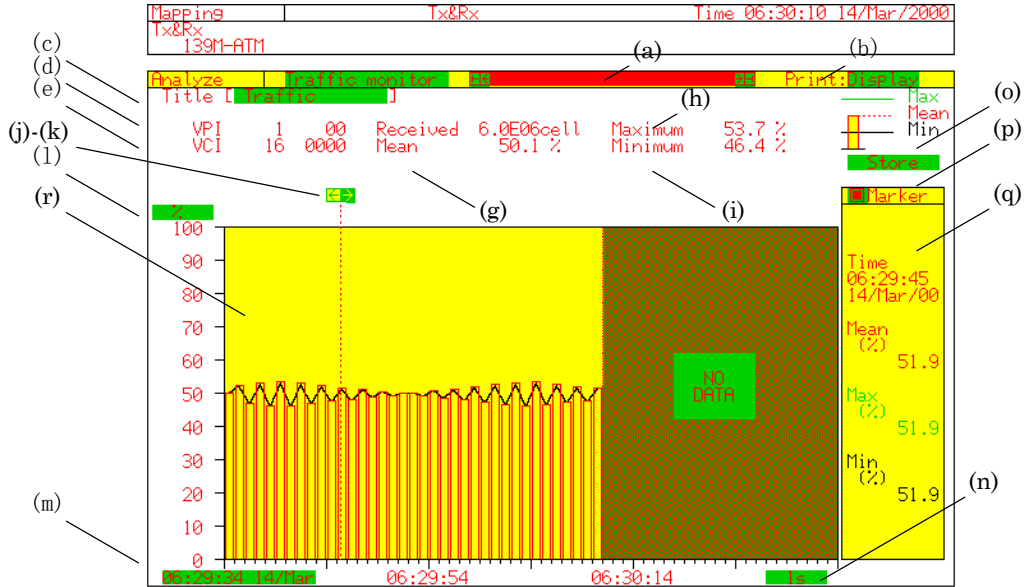


Note:

- Graphs are displayed in order of Misinserted (red) and Discarded (green) from the left.
- Color coding is based on proportion, not on measured values.

2.5.5 Traffic monitor Subscreen

This screen analyzes the measurement results displayed in a graph.

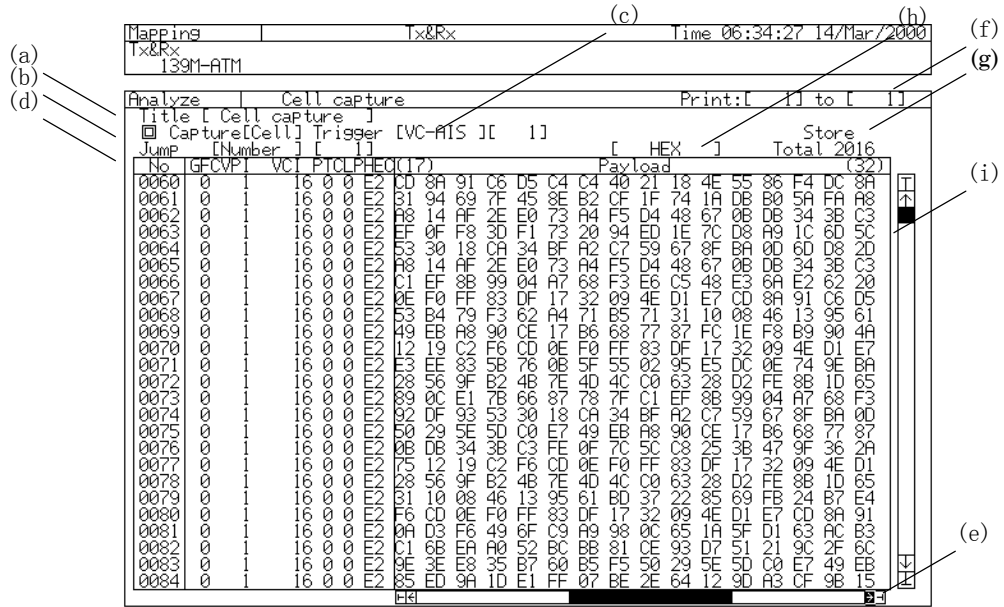


Display	Description
(a) (Scroll)	Scrolls the graph. ┆ Displays measurement start position. ← Scrolls graph to the left. → Scrolls graph to the right. ┆ Displays measurement end position.
(b) Print	Sets printing range and print data. Display Prints the current displayed data. All Prints all the data from the top to the end. After Prints the data from the current displayed data to the end. Before Prints the previous data from the top to the current displayed data.
(c) Title	Move the cursor here and press <input type="button" value="Set"/> to open a window. The graph title can be input. - This button is displayed only in single screen mode.

	Display	Description
(d)	VPI	Indicates VPI filter value and mask value.
(e)	VCI	Indicates VCI filter value and mask value.
(f)	Received	Indicates total number of received cells.
(g)	mean	Indicates average cell reception rate.
(h)	Maximum	Indicates maximum number of received cells.
(i)	Minimum	Indicates minimum number of received cells.
(j)	←	Move the cursor here and press the [Set] key to move the marker to the left. - This button is effective only in single screen mode.
(k)	→	Move the cursor here and press the [Set] key to move the marker to the right. - This button is effective only in single screen mode.
(l)		Sets vertical scale unit.
(m)	(Graph Start)	Sets display start time.
(n)	(interval)	Sets time axis interval of analysis graph.
(o)	Store	Stores graph data. Move the cursor here and press <input type="button" value="Set"/> to open a window. Input a name to store the data in memory. - This button is displayed only in single screen mode.
(p)	Marker	Turns ON/OFF the marker. <input type="checkbox"/> Indicates that the marker is OFF. Move the cursor here and press <input type="button" value="Set"/> to turn on the marker. <input checked="" type="checkbox"/> Indicates that the marker is ON. Move the cursor here and press <input type="button" value="Set"/> to turn off the marker. - This button is displayed only in single screen mode.
(q)		Indicates detailed data of the marked graph.
(r)	(graph)	Displays average value of each bar in a bar chart. Displays maximum and minimum values of each bar in a line graph.

2.5.6 Cell capture Subscreen

This screen analyzes the cell information of captured cells.

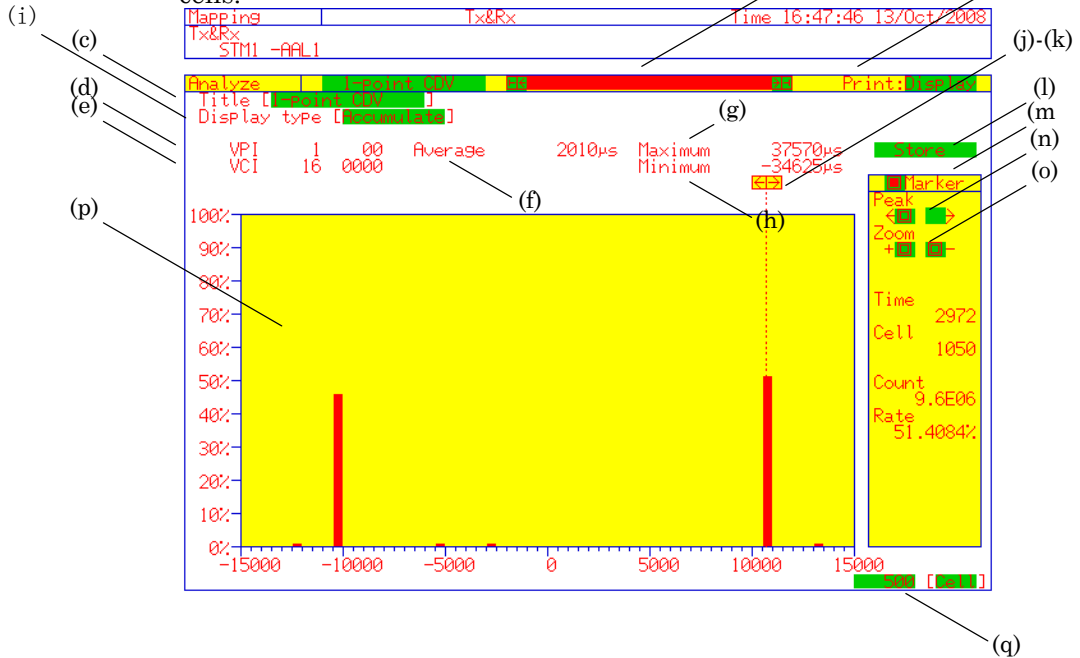


Display	Description
(a) Title	Input the graph title. Move the cursor here and press <input type="button" value="Set"/> to open a window. This button is displayed only in single screen mode.
(b) Capture	Sets capture timing. Move the cursor here and press <input type="button" value="Set"/> to perform Capture.
(c) Trigger	Sets Trigger item. - Set Trigger position on the right. - When captured, the trigger select data is reverse-displayed.
(d) Jump	Selects display start position. When selecting Number, the 1/last No./other Nos. set the display position to top/last/center, respectively.

	Display	Description
(e)	(Scroll)	<p>Moves data in horizontal axis direction.</p> <p>┆ Displays start position of horizontal axis.</p> <p>← Scrolls horizontal axis eight bytes to the left.</p> <p>→ Scrolls horizontal axis eight bytes to the right.</p> <p>┆ Displays end position of horizontal axis.</p>
(f)	Print	<p>Sets print start position and end position (1 to 2016).</p> <p>Display Prints the current displayed data.</p> <p>All Prints all the data from the top to the end.</p> <p>After Prints the data from the current displayed data to the end.</p> <p>Before Prints the previous data from the top to the current displayed data.</p>
(g)	Store	<p>Stores graph data in memory.</p> <p>Move the cursor here and press <input type="button" value="Set"/> to open the character string input window.</p> <p>Input a name to store the data in memory.</p> <p>- This button is displayed only in single screen mode.</p>
(h)	(Select)	Sets the Payload data display format.
(i)	(Scroll)	<p>Moves data in vertical axis direction.</p> <p>┆ Displays start position of vertical axis.</p> <p>↑ Scrolls data half screen up in vertical axis direction.</p> <p>↓ Scrolls data half screen down in vertical axis direction.</p> <p>┆ Displays end position of the vertical axis.</p>

2.5.7 1-point CDV Subscreen

This screen analyzes the results of measuring jitter between received cells.

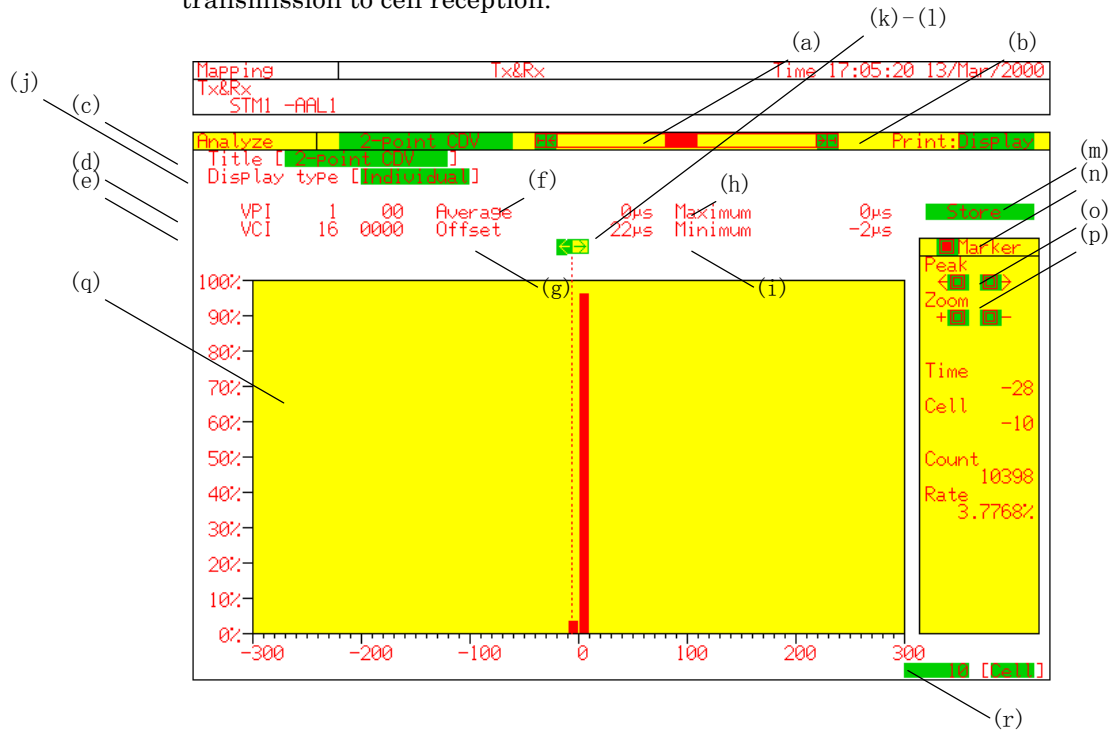


	Display	Description
(a)	(Scroll)	Scrolls the graph. ┆ Displays measurement start position. ← Scrolls graph to the left. → Scrolls graph to the right. ┆ Displays measurement end position.
(b)	Print	Sets printing range and print data. Display Prints the current displayed data. All Prints all the data from the top to the end. After Prints the data from the current displayed data to the end. Before Prints the previous data from the top to the current displayed data.
(c)	Title	Move the cursor here and press <input type="button" value="Set"/> to open a window. Input the graph title. - This button is displayed only in single screen mode.

	Display	Description
(d)	VPI	Indicates VPI filter value and mask value. - This button is displayed only in single screen mode.
(e)	VCI	Indicates VCI filter value and mask value. - This button is displayed only in single screen mode.
(f)	Average	Indicates average cell reception rate.
(g)	Maximum	Indicates maximum number of received cells.
(h)	Minimum	Indicates minimum number of received cells.
(i)	Display type	Sets display data type. IndividualDisplays the latest data. AccumulateDisplays the accumulated data from the measurement start.
(j)	←	Move the cursor here and press <input type="button" value="Set"/> to move the marker to the left. - This button is effective only in single screen mode.
(k)	→	Move the cursor here and press <input type="button" value="Set"/> to move the marker to the right. - This button is effective only in single screen mode.
(l)	Store	Stores graph data. Move the cursor here and press <input type="button" value="Set"/> to open a window. Input a name to store the data in memory. This button is displayed only in single screen mode.
(m)	Marker	Turns ON/OFF the marker. <input type="checkbox"/> . . Indicates that the marker is OFF. Move the cursor here and press the [Set] key to turn on the marker. <input checked="" type="checkbox"/> . . Indicates that the marker is ON. Move the cursor here and press the [Set] key to turn off the marker. - This button is displayed only in single screen mode.
(n)	Peak	Searches for peak point. < <input type="checkbox"/> Moves the marker to peak point in forward direction. <input type="checkbox"/> > Moves the marker to peak point in reverse direction.
(o)	Zoom	Centers data at marker point to redraw the graph. Move the cursor here and press <input type="button" value="Set"/> to change the display interval. in Zooms in on marker point. out Zooms out on marker point.
(p)		Indicates detailed data of the marked graph.
(q)	(interval)	Sets horizontal axis of analysis graph.

2.5.8 2-point CDV Subscreen

This screen analyzes the results of measuring cell delay jitter from cell transmission to cell reception.



	Display	Description
(a)	(Scroll)	Scrolls the graph. ┆ Displays measurement start position. ← Scrolls graph to the left. → Scrolls graph to the right. ┆ Displays measurement end position.
(b)	Print	Sets printing range and print data. Display Prints the current displayed data. All Prints all the data from the top to the end. After Prints the data from the current displayed data to the end. Before Prints the previous data from the top to the current displayed data.
(c)	Title	Move the cursor here and press <input type="button" value="Set"/> to open a window. Input the graph title. - This button is displayed only in single screen mode.

	Display	Description
(d)	VPI	Indicates VPI filter value and mask value. - This button is displayed only in single screen mode.
(e)	VCI	Indicates VCI filter value and mask value. - This button is displayed only in single screen mode.
(f)	Average	Indicates average number of cells.
(g)	Offset	Indicates offset value.
(h)	Maximum	Indicates maximum number of received cells.
(i)	Minimum	Indicates minimum number of received cells.
(j)	Display type	Sets display type. Individual Displays the latest data. Accumulate Displays the accumulated data from the measurement start.
(k)	←	Move the cursor here and press <input type="button" value="Set"/> to move the marker to the left. - This button is effective only in single screen mode.
(l)	→	Move the cursor here and press <input type="button" value="Set"/> to move the marker to the right. - This button is effective only in single screen mode.
(m)	Store	Stores graph data. Move the cursor here and press <input type="button" value="Set"/> to open a window. Input a name to store the data in memory. - This button is displayed only in single screen mode.
(n)	Marker	Turns ON/OFF the marker. <input type="checkbox"/>Indicates that the marker is OFF. Move the cursor here and press <input type="button" value="Set"/> to turn on the marker. <input checked="" type="checkbox"/>Indicates that the marker is ON. Move the cursor here and press <input type="button" value="Set"/> to turn off the marker. - This button is displayed only in single screen mode.
(o)	Peak	Searches for peak point. < <input type="checkbox"/> Moves the marker to peak point in forward direction. <input type="checkbox"/> > Moves the marker to peak point in reverse direction.
(p)	Zoom	Centers data at marker point to redraw the graph. Move the cursor here and press <input type="button" value="Set"/> to change the display interval. in Zooms in on marker point. out Zooms out on marker point.
(q)		Indicates detailed data of the marked graph.
(r)	(interval)	Sets horizontal axis of analysis graph.

2.5.9 Recall Subscreen

This screen displays the analysis graph data read on the Setup:Memory or Setup:Floppy disk screen.



- The operation is the same as on the Live monitor, Traffic monitor, Cell capture, 1-point CDV, and 2-point CDV sub-screens. Title input and storage are disabled, however.

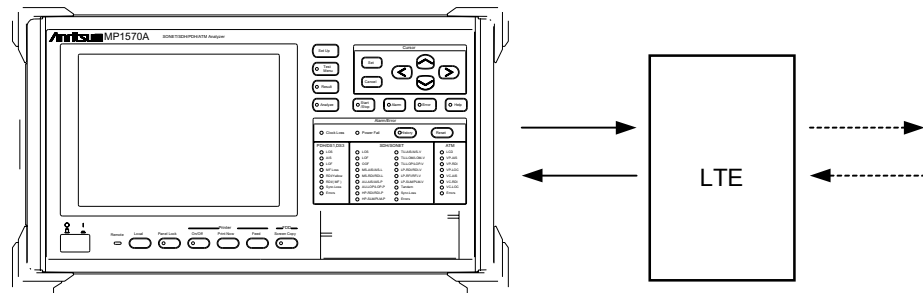
Section 3 Measurement Example

This section explains measurement examples related to the ATM measurement.

3.1 Error and Alarm Test	3-3
3.1.1 Connection	3-3
3.1.2 Initial Setting	3-4
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Setting and Starting Measurement	3-5
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3.2.2 Initial Setting	3-11
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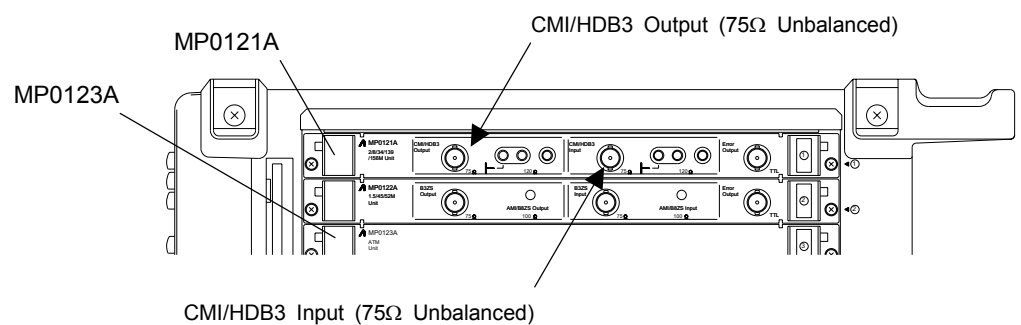
3.1 Error and Alarm Test

The operation is explained using an example of monitoring the output of the 139M LTE(Line Terminal Equipment).



3.1.1 Connection

- (1) Turn off the MP1570A and install the MP0121A 2/8/34/139/156M Unit and MP0123A ATM Unit.
- (2) Connection of the receive side Connect the output connector of the LTE and the CMI/HDB3 input connector of the MP0121A with a BNC (75Ω) coaxial cable.
- (3) Connection of the transmit side Connect the CMI/HDB3 output connector of the MP0121A and the input connector of the LTE with a BNC (75Ω) coaxial cable.



- (4) After the connections shown (2) and (3), turn on the MP1570A.

3.1.2 Initial Setting

- (1) Open the Setup:Mapping screen and set the parameters shown below. In case a signal is received using the monitor point as shown in the example, turn the Monitor mode on.

Setup	Mapping	[Tx&Rx]	Time 10:26:25 05/Jan/2000
Config.[ATM]			
Bit rate	[139M]		
Through	[OFF]		
Mapping	[AAL5]		
Header structure	[UNI]		
QAM type	[End-to-end]		
Clock	[Internal]		
Monitor mode	[OFF]		

- (2) Open the Setup:Measurement condition screen and set the parameters shown below.

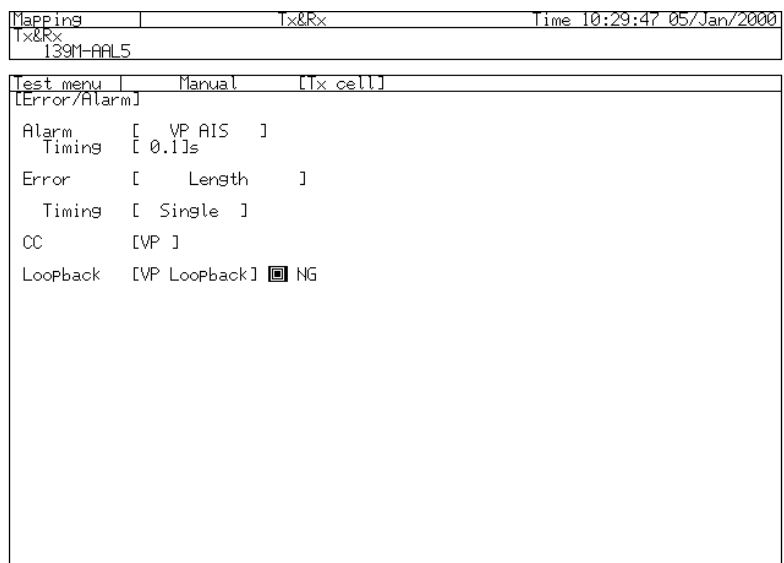
Setup	Measurement condition	Time 10:23:44 05/Jan/2000
Frame size error		
AAL5	Threshold [35535]	
Performance monitoring cell		
SECB	Block size (N) [8192]	
	Threshold (M) [256]	
Performance		
Recommendation	[OFF]	
Trigger output	[OFF]	


3.1.3 Manual Measurement

In the manual measurement, an Error/Alarm test can be carried out for one channel.

Setting and Starting Measurement

- (1) Open the Test menu : Manual screen and set the parameters on the screen.



- (a) Specify the cell header and cell amount using the Tx cell menu. Set the Manual measurement type to Error/Alarm, and specify the addition of Error, Alarm, timing, and CC cell.
- (b) Specify the cell filter conditions to be received in the Rx cell menu.
- (2) After the setting, press  to start measurement.

Section 3 Measurement Example

Displaying Measurement Result (Error and Alarm)

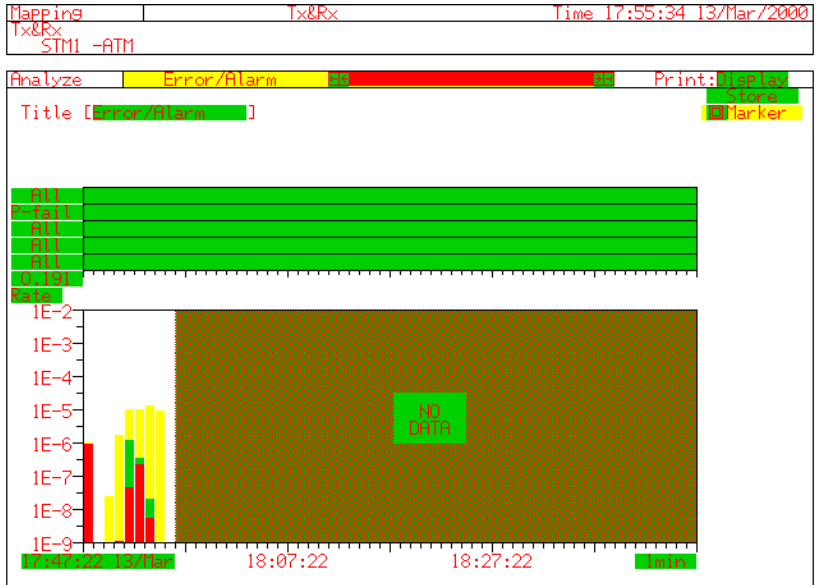
Select the Result : Error/Alarm screen, then the screen shown below is displayed.

Mapping	Tx&Rx		Time 10:31:23 05/Jan/2000	
Tx&Rx	139M-AAL5			
Result	Error/Alarm	Start	10:31:15 05/Jan/2000	
Alarm [Second] Error [Count] Display data [Current]				
Input			PDH	
P-fail	0 a		AIS139M	0a
LOS	0 a		LOF139M	0a
			RDI139M	0a
Code	0 a		FAS139M	0a
			REI139M	0a
Alarm				
VP-AIS	0a	VC-AIS	0a	Cell
VP-RDI	0a	VC-RDI	0a	Correct
VP-LOC	5.0E06	VC-LOC	5.0E06	Discard
				Nonconf
				FM Lost
				FMisin
				FM BIPV
				FM SECB
				BR Lost
				BRisin
LCD	0a	Sync.	0a	BR BIPV
				BR SECB
				DiscPDU
				FRMsize
				CRC32
				Length
				Abort
				Bit

- Select the display with the error numbers or with rate express.
- For error addition/detection, see “2.4.1 Error/Alarm subscreen”.
- Set Display data to “Current” to display the halfway result of the measurement.
- Select Analyze:Cell monitor to monitor the cell during measurement.

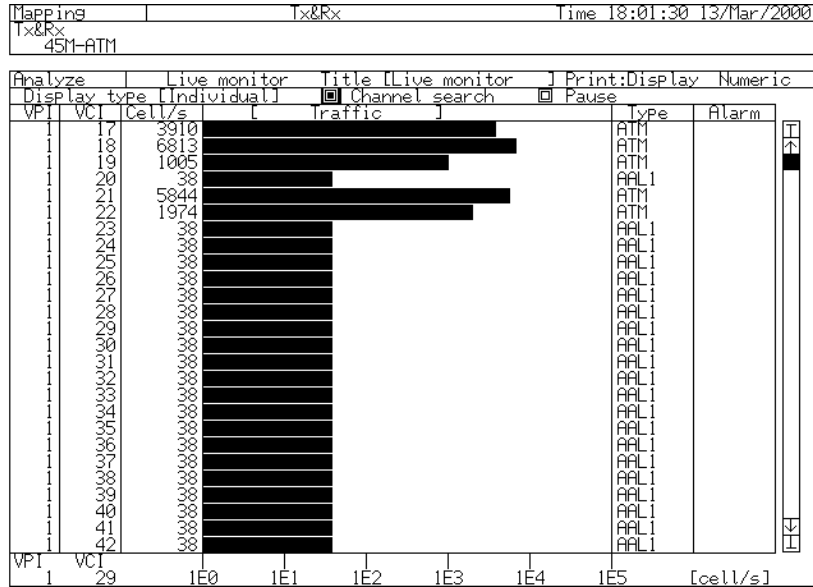
Analysis (1)

Select the Analyze : Error/Alarm screen, then the graph shown below is displayed.



Analysis (2)

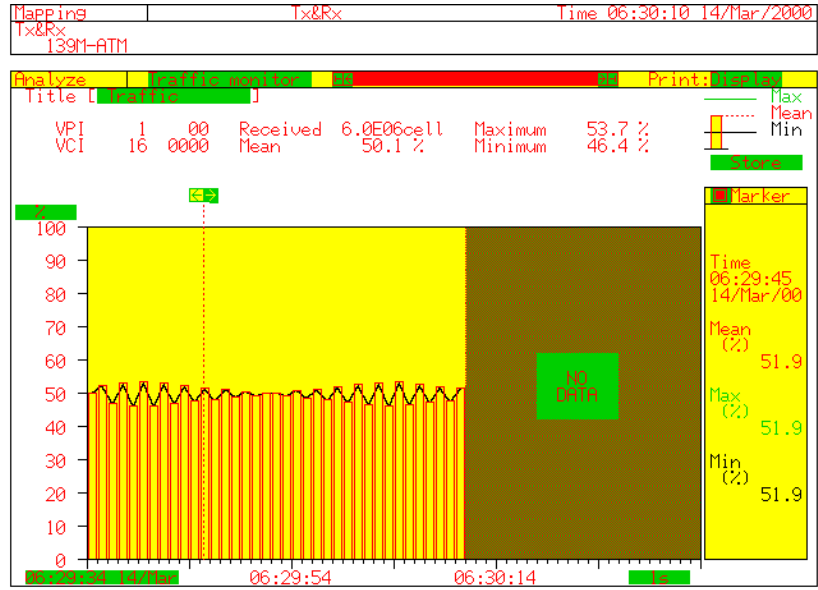
Select the Analyze : Live monitor screen to monitor VPI, VCI, Cell/s graphs.



- When 0.191 is selected as an error item, the graph is displayed in the order of Lost(red), MisINS(green), and Error(yellow). Each colored partition of the measured value is displayed by the ratio.
- When the monitor item is other than Traffic, the summed value is displayed at the Count field.
- By moving the cursor to “Cannel Search” and pressing , the measurement result is searched.
- Only one item of the top rank of the reception alarm is displayed.

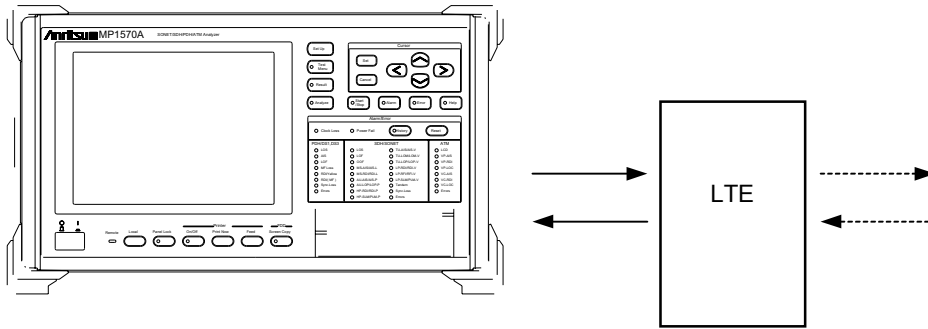
Analysis (3)

Select the Analyze : Traffic monitor to display in graphs the number of cells that have passed the reception filter.



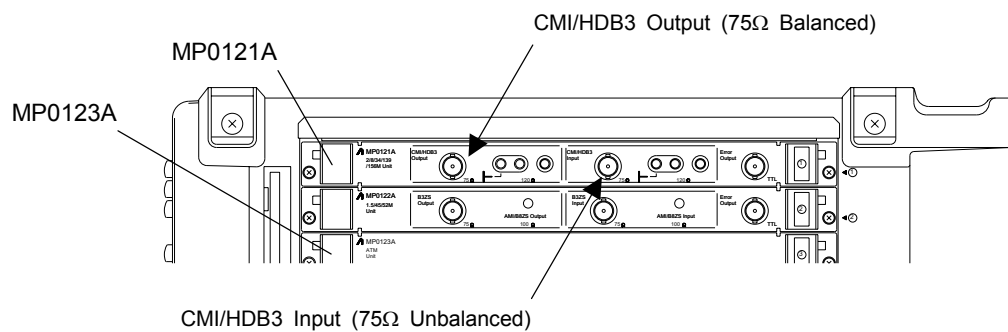
3.2 1-point CDV Measurement

The 1-point CDV measurement measures the totter of the received cells. This section explains a measurement example in which the output of a 156M CMI LTE (Line Terminal Equipment) is monitored.



3.2.1 Connection

- (1) Turn off the MP1570A and install the MP0121A 2/8/34/139/156M Unit and MP0123A ATM Unit.
- (2) Connection of the receive side.... Connect the output connector of the LTE and the CMI/HDB3 input connector of the MP0121A with a BNC (75Ω) coaxial cable.
- (3) Connection of the transmit side.... Connect the CMI/HDB3 output connector of the MP0121A and the input connector of the LTE with a BNC (75Ω) coaxial cable.



- (4) After the connections shown (2) and (3), turn on the MP1570A.

3.2.2 Initial Setting

- (1) Open the Setup:Mapping screen and set the parameters shown below. In case a signal is received using the monitor point as shown in the example, turn the Monitor mode on.

Setup	Mapping	[Tx&Rx]	Time 08:07:22 14/Mar/2000
Config.[ATM]			
Bit rate	[156M CMI]		
Through	[OFF]		
Mapping	[AAL1]		
Header structure	[UNI]		
OAM type	[End-to-end]		
Clock	[Internal]		
Monitor mode	[OFF]		


3.2.3 Measurement

Setting and Starting Measurement

- (1) Open the Test menu : 1-point CDV screen.

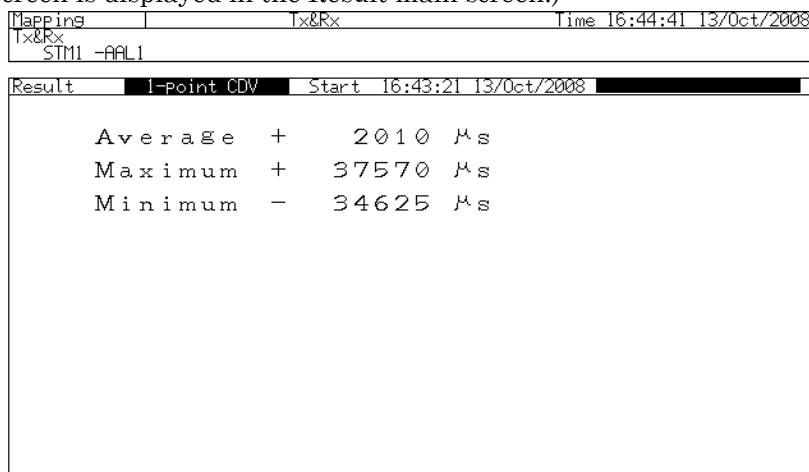


- (a) Mode Sets the measurement mode.

- (2) Press  to start measurement.

Displaying Measurement Result

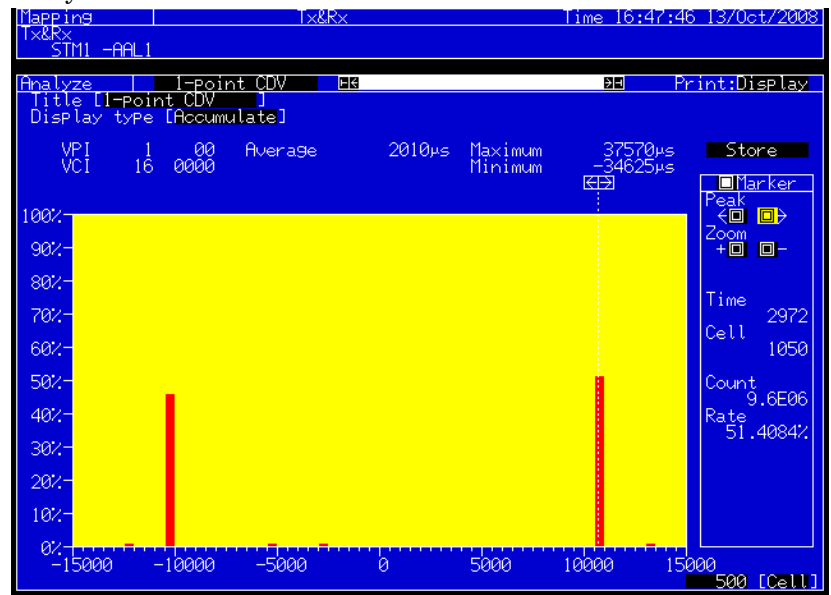
Open the Result : 1-point CDV screen. (When the 1-point CDV subscreen is selected in the Test menu main screen, the 1-point CDV subscreen is displayed in the Result main screen.)



- In this screen, average cell-reception ratio, maximum number of cell receptions, and minimum number of cell receptions are displayed.

Analysis

- (1) Open the Analyze: 1-point CVD screen.
- (2) A graph shown below is displayed, and the measured result can be analyzed.



- Marker displays the numeric data at the measuring point.

Section 4 Remote Control

This section explains the remote control related to the ATM measurement.

4.1 Common Commands	4-3
4.2 MP1570A Unique States Register	4-4
4.3 Device Message Detail	4-12
4.4 Equipment Unique Command	4-13
4.4.1 INSTRument subsystem	4-13
4.4.2 SOURce subsystem	4-15
4.4.3 SENSE subsystem	4-125
4.4.4 DISPay subsystem	4-157
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4.4.7 STATus subsystem	4-273

4.1 Common Commands

This section explains the IEEE488.2 common commands supported by this instrument.

The common commands can be used with either GPIB interface or RS-232C interface.

This instrument only supports sequential commands.

The table below lists the IEEE488.2 common commands supported by this instrument.

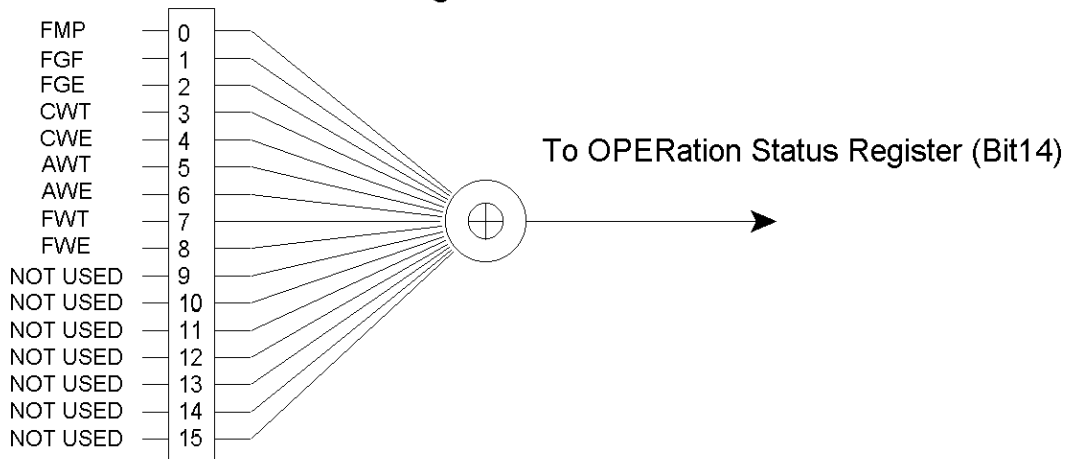
IEEE488.2 Common Commands	
Mnemonic	Command name
*IDN?	Identification Query
*RST	Reset Command
*TST?	Self Test Query
*OPC	Operation Complete Command
*OPC?	Operation Complete Query
*WAI	Wait Continue Command
*CLC	Clear Stauts Command
*ESE	Standard Event Stauts Enable Command
*ESE?	Standard Event Stauts Enable Query
*ESR?	Standard Event Stauts Register Query
*SRE	Service Request Enable Command
*SRE?	Service Request Enable Query
*STB?	Read Stauts Byte Query
*TRG	Trigger Command
*PSC	Power On Stauts Clear Command
*PSC?	Power On Stauts Clear Query
*SAV	Save Command
*RCL	Recall Command
*OPT?	Option Identification Query

Note:

Refer to the MP1570A SONET/SDH/PDH/ATM Analyzer Operaton manual Vol.2, for other commands.

4.2 MP1570A Unique Status Register

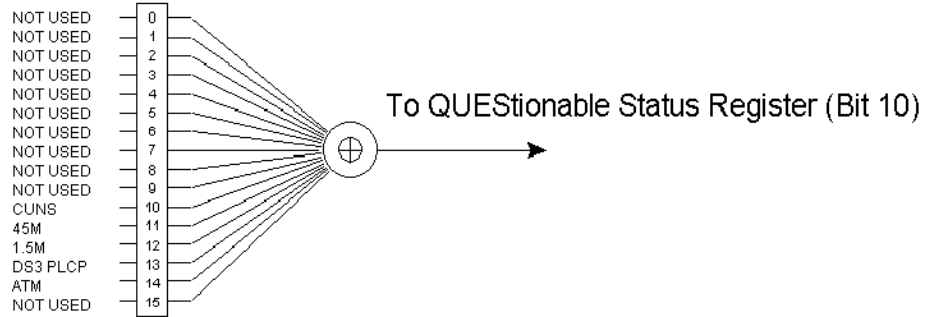
INSTrument2 Status Register



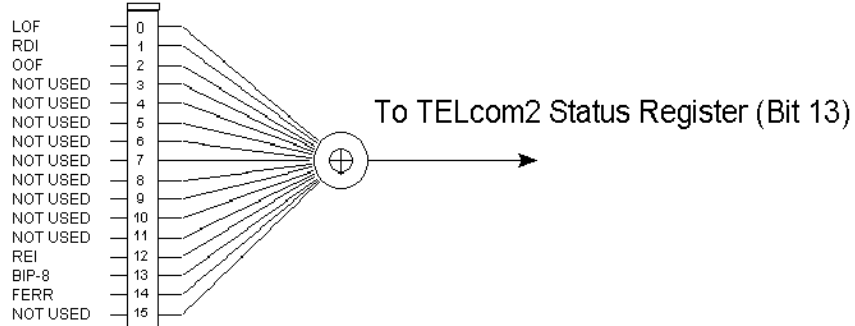
INSTrument Status Register Bit Definition

DB0	FMP (Freq. Monitor Period)	Indicates the update timing of the frequency monitor.
DB1	FGF (Freq. Graph Full)	Indicates that the Freq. Graph data became full.
DB2	FGE (Freq. Graph Empty)	Indicates that the Freq. Graph data is empty.
DB3	CWT (Cell Waiting for capture End)	Indicates that a CELL capture trigger is being waited.
DB4	CWE (Cell Waiting for capture End)	Indicates that the end of CELL capture is being waited.
DB5	AWT (APS Waiting for Trigger)	Indicates that an APS capture trigger is being waited.
DB6	AWE (APS Waiting for capture End)	Indicates that the end of APS is being waited.
DB7	FWT (FRAME Waiting for Trigger)	Indicates that a FRAME capture trigger is being waited.
DB8	FWE (FRAME Waiting for capture End)	Indicates the end of FRAME is being waited.

TELcom2 Status Register



DS3 PLCP Status Register



TELcom2 Status Register Bit Definition

DB10	CONS(Cell ch monitor search UNsucceeded)	Indicates that search failed in Live monitor.
DB11	45M (45M status register summary)	45M status register summary
DB12	1.5M (1.5M status register summary)	1.5M status register summary
DB13	DS3 PLCP(DB3 PLCP status register summary)	DS3 PLCP status register summary
DB14	ATM(ATM status register summary)	ATM status register summary

DS3 PLCP Status Register Bit Definition

DB0	LOF (Loss Of Frame)	Indicates that LOF occurred.
DB1	RDI (Remote Alarm Indication)	Indicates that RAI occurred.
DB2	OOF (Out of Frame)	Indicates that AIS occurred.
DB12	REI (Remote Error Indication)	Indicates that BIP-8 was occurred.
DB13	BIP-8 (BIP-8 error)	Indicates that a frame error was detected.
DB14	FERR(Frame Error)	

ATM Status Register Bit Definition

DB0	LCD(Lost of cell sync)	Indicates that Lost of cell sync occurred.
DB1	Correct(Corrected cell count)	Indicates that Corrected cell error.
DB2	Discard(Discarded cell count)	Indicates that Discarded cell error.
DB3	Nonconf(Non conforming cell error)	Indicates that Non-Conforming cell error occurred.
DB6	VP(VP status register summary)	VP status summary
DB7	VC(VC status register summary)	VC status summary
DB8	0.191(0.191 status register summary)	0.191 status summary
DB9	AAL1(AAL1 status register summary)	AAL1 status summary
DB10	AAL2(AAL2 status register summary)	AAL2 status summary
DB11	AAL34(AAL34 status register summary)	AAL34 status summary
DB12	AAL5(AAL5 status register Summary)	AAL5 status summary
DB13	PM(PM status register summary)	PM status summary

VP Status Register Bit Definition

DB0	VP-AIS(VP-SegmentAIS)	Indicates that VP-segment AIS occurred.
DB1	VP-RDI(VP-segmentRDI)	Indicates that VP-segment RDI occurred.
DB2	VP-LOC(VP-segmentLOC)	Indicates that VP-segment LOC occurred.

VC Status Register Bit Definition

DB0	VC-AIS(VC-segmentAIS)	Indicates that VC-segment AIS occurred.
DB1	VC-RDI(VC-SegmentRDI)	Indicates that VC-segment RDI occurred.
DB2	VC-LOC(VC-segmentLOC)	Indicates that VC-segment LOC occurred.

0.191 Status Register Bit Definition

DB0	Lost(Lost cell)	Indicates that a lost cell occurred.
DB1	MISINS(Misinserted cell)	Indicates that a misinserted cell occurred.
DB2	Errored(Errored cell)	Indicates that an errored cell occurred.
DB3	SECB(SECB)	Indicats that an SECB error occurred.

ALL1 Status Register Bit Definition

DB0	LOST (Lost cell)	Indicates that a lost cell occurred.
DB1	SNP (SNP error)	Indicates that an SNP error occurred.
DB2	UCorSNP (Uncorrectable SNP error)	Indicates tha an Uncorrectable SNP error occurred.

ALL2 Status Register Bit Definition

DB0	P(P error)	Indicates that a P error occurred.
DB1	OSF(OSF error)	Indicates that an OSF error occurred.
DB2	SN(SN error)	Indicates that an SN error occurred.
DB8	CPS HEC(HEC error)	Indicates that a HEC CPS error occurred.
DB9	LI(LI error)	Indicates that an LI error occurred.

AAL3/4 Status Register Bit Definition

DB0	CRC10(CRC10 error)	Indicates that a CRC10 occurred.
DB1	SN(SN error)	Indicates that an SN error occurred.
DB2	DiscPDU(Discarded PDU count)	Indicates that a Discarded PDU occurred.
DB3	ST(Segment type error)	Indicates that a Segment type error occurred.
DB4	LI(Length indicator error)	Indicates that a Length indicator error occurred.
DB5	Abort(Abort cell count)	Indicates that an Abort cell occurred.
DB8	UDlvPDU(Undelivered PDU count)	Indicates that an Undelivered PDU occurred.
DB9	CPI(CPI)	Indicates that a CPI error occurred.
DB10	B/ETag(ETag/ETag)	Indicates that a BTag/ETag mismatch error occurred.
DB11	BAsize(BA size error)	Indicates that a BA size error occurred.
DB12	AL(AL error)	Indicates that an AL error occurred.
DB13	Length(Length error)	Indicates that a Length error occurred.

AAL5 Status Register Bit Definition

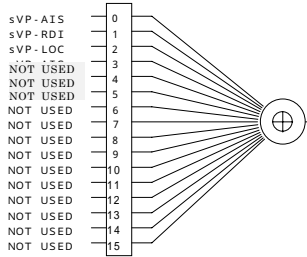
DB8	DiscPDU(Discarded PDU count)	Indicates that a Discarded PDU occurred.
DB9	FRMsize(Frame size error)	Indicates that a Frame size error occurred.
DB10	Length(Length error)	Indicates that a Length error occurred.
DB11	CRC32(CRC32 error)	Indicates that a CRC32 error occurred.
DB12	Abort(Abort cell count)	Indicates that an Abort cell occurred.

PM Status Register Bit Definition

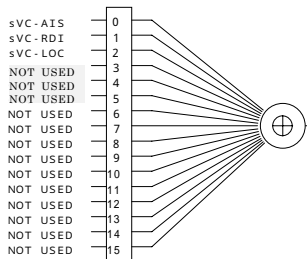
DB0	FM Lost(FM Lost cell)	Indicates that an FM Lost cell occurred.
DB1	FMMisIN(FM Misinserted cell)	Indicates that an FM Misinserted cell occurred.
DB2	FM BIPV(FM BIPV error)	Indicates that an FM BIPV error occurred.
DB3	FM SECB(FM SECB error)	Indicates that an FM SECB error occurred.
DB8	BR Lost(BR Lost cell)	Indicates that a BR Lost cell occurred.
DB9	BRMisIN(BR Misinserted cell)	Indicates that a BR Misinserted cell occurred.
DB10	BR BIPV(BR BIPV error)	Indicates that a BR BIPV error occurred.
DB11	BR SECB(BR SECB error)	Indicates that a BR SECB error occurred.

Section 4 Remote Control

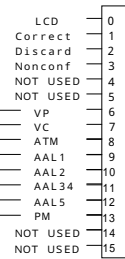
VP Status Register



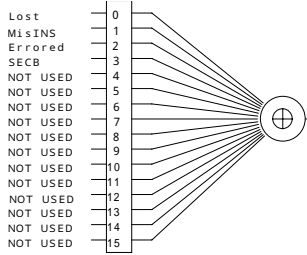
VC Status Register



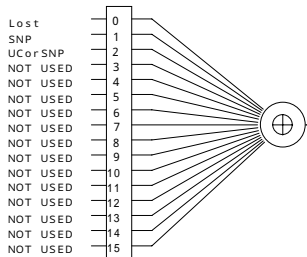
ATM Status Register



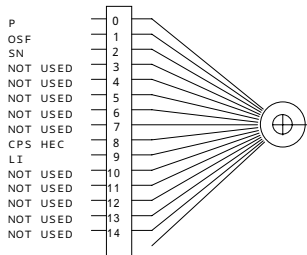
0.191 Status Register



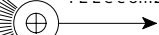
AAL1 Status Register



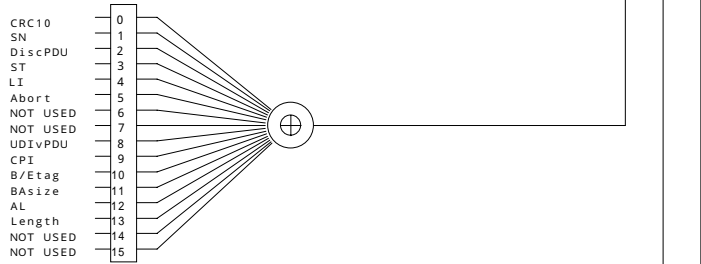
AAL2 Status Register



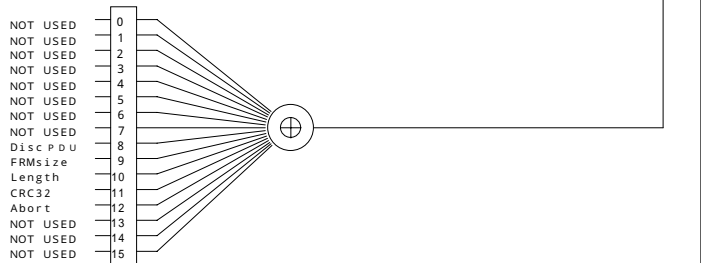
TELEcom 2 Status Register



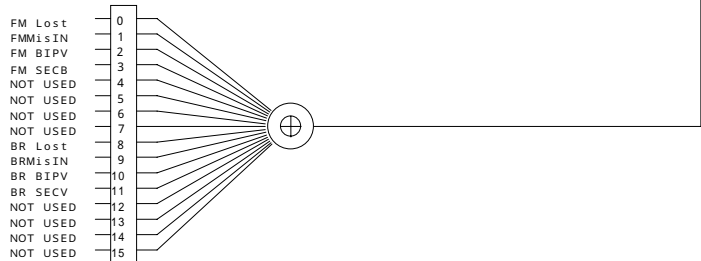
AAL3/4 Status Register



AAL5 Status Register



PM Status Register



Note:

Refer to the MP1570A SONET/SDH/PDH/ATM Analyzer Operaton manual Vol.2, for other registers.

4.3 Device Message Detail

Refer to the MP1552B SDH/PDH/ATM Analyzer Operation Manual Vol.2, for the details of device messages.

4.4 Equipment Unique Command

This section explains details on device specific commands related to the ATM measurement. Refer to the MP1570A SONET/SDH/PDH/ATM Analyzer Operation Manual Vol.2, for other command.

4.4.1 INSTRument subsystem (Transmission and Reception Mode Setting)

In the INSTRument subsystem, select the same setting for transmission and reception or separate settings.

Function	Command	Parameter
<i>Page 4-14</i>		
Sets a test item.	:INSTRument:CONFig	type
Queries the test item.	:INSTRument:CONFig?	

:INSTrument:CONFig <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

Function Sets a test item.

Example use To set the item to ATM.
> :INSTrument:CONFig ATM

:INSTrument:CONFig?

Response <type> = <CHARACTER RESPONSE DATA>

Function Queries the test item.

Example use > :INSTrument: CONFig?
< ATM

4.4.2 SOURCE subsystem (Settings of Transmission Side)

The SOURCE subsystem sets the transmission side.

Function	Command	Parameter
<i>Page 4-26</i>		
Sets the PLCP for 45M signals.	:SOURCE:TELECOM:M45:PLCP	boolean
Queries PLCP of the 45M signal.	:SOURCE:TELECOM:M45:PLCP?	
<i>Page 4-26</i>		
Sets the type of error to be inseted against transmission signals.	:SOURCE:TELECOM:ERROR:TYPE	etype
Queries the type of error inserted against transmission signals.	:SOURCE:TELECOM:ERROR:TYPE?	
Sets the rate of error insertion.	:SOURCE:TELECOM:ERROR:TIMING:TYPE	erate
Queries the error insertion rate.	:SOURCE:TELECOM:ERROR:TIMING:TYPE?	
Sets the bit number of the error insertion when Burst is selected.	:SOURCE:TELECOM:ERROR:TIMING:BURST:BIT	bit
Queries the bit number of the error insertion when Burst is selected.	:SOURCE:TELECOM:ERROR:TIMING:BURST:BIT?	
Set the added value when programmable rate error is added.	:SOURCE:TELECOM:ERROR:TIMING:PROGRATE	error
Queries the added valude of the Prog.rate error.	:SOURCE:TELECOM:ERROR:TIMING:PROGRATE?	
Set the number of the frames with errors when the Alternate is selected.	:SOURCE:TELECOM:ERROR:TIMING:ERROR	error
Queries the number of the frames with the errors when the Alternate is selected.	:SOURCE:TELECOM:ERROR:TIMING:ERROR?	
Sets the number of the normal frames when Alternate is selected.	:SOURCE:TELECOM:ERROR:TIMING:NORMAL	normal
Queries the number of the normal frames when Alternate is selected.	:SOURCE:TELECOM:ERROR:TIMING:NORMAL?	
<i>Page 4-31</i>		
Sets C2 data of POH preset data of transmission signal.	:SOURCE:TELECOM:OHPReset:SLABEL :SOURCE:TELECOM:OHPReset:PLABEL	pohtype string
Queries plain-language data of C2 of POH preset data of transmission signal.	:SOURCE:TELECOM:OHPReset:SLABEL? :SOURCE:TELECOM:OHPReset:PLABEL?	pohtype
<i>Page 4-32</i>		
Sets K1 (bits 1 to 4).	:SOURCE:TELECOM:MSPMessages:REQuest	request
Sets K1 (bits 5 to 8).	:SOURCE:TELECOM:MSPMessages:CHANnel	mspch
Sets K2 (bits 1 to 4).	:SOURCE:TELECOM:MSPMessages:BRIDge	bridge
Sets K2 (bit 5).	:SOURCE:TELECOM:MSPMessages:ARCHitect	arch
Sets K2 (6 to 8bit).	:SOURCE:TELECOM:MSPMessages:REServed	res
<i>Page 4-36</i>		
Sets K1 (1-4bit).	:SOURCE:TELECOM:MSPBits:REQuest	string
Sets K1 (bits 5 to 8).	:SOURCE:TELECOM:MSPBits:CHANnel	string
Sets K2 (bits 1 to 4).	:SOURCE:TELECOM:MSPBits:BRIDge	string
Sets K2 (bit 5).	:SOURCE:TELECOM:MSPBits:ARCHitect	string
Sets K2 (6 to 8bit).	:SOURCE:TELECOM:MSPBits:REServed	string

Section 4 Remote Control

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Sets the pointer value (NDF).	:SOURce:TELEcom:PSETting:NDFSet	ptype, string
To set the pointer value (SS).	:SOURce:TELEcom:PSETting:SSSet	ptype, string
Sets the pointer value (ID).	:SOURce:TELEcom:PSETting:IDSet	ptype numeric
Inserts +PJC one time for send signal.	:SOURce:TELEcom:PSETting:PPJC	ptype
Inserts -PJC one time for send signal.	:SOURce:TELEcom:PSETting:NPJC	ptype

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Sets ATM mapping of the send signal.	:SOURce:ATM:MAPPING	mtype
Queries ATM mapping of send signal.	:SOURce:ATM:MAPPING?	

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Sets the Header structure of a send signal.	:SOURce:ATM:HSTRucture	htype
Queries the header structure of send signal.	:SOURce:ATM:HSTRucture?	

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Sets a OAM type for the transmission signals.	:SOURce:ATM:OAM	type
Queries the OAM type for transmission signals.	:SOURce:ATM:OAM?	

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Sets the E3 preset data of send signal.	:SOURce:ATM:OHPReset:E3:PATtern	ohpoint string
Queries the E3 preset data of send signal.	:SOURce:ATM:OHPReset:E3:PATtern?	ohpoint
Sets the plain-language of the E3 preset data (Payload type) of send signal.	:SOURce:ATM:OHPReset:E3:PTYPe	string
Queries the E3 preset data (Payload type) of send signal.	:SOURce:ATM:OHPReset:E3:PTYPe?	
Sets Trail trace pattern of E3 preset data of the send signal.	:SOURce:ATM:OHPReset:E3:TRACe	string
Queries Trail trace pattern of E3 preset data of the send signal.	:SOURce:ATM:OHPReset:E3:TRACe?	
Initializes E3 preset data of the send signal.	:SOURce:ATM:OHPReset:E3:DEFault	

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Sets E4 preset data of the send signal.	:SOURce:ATM:OHPReset:E4:PATtern	ohpoint string
Queries E4 preset data of the send signal.	:SOURce:ATM:OHPReset:E4:PATtern?	ohpoint
Sets plain-language of E4 preset data (payload type) of the send signal.	:SOURce:ATM:OHPReset:E4:PTYPe	string
Queries E4 preset data (Payload type) of the send signal.	:SOURce:ATM:OHPReset:E4:PTYPe?	
Sets Trail trace pattern of E4 preset data of the send signal.	:SOURce:ATM:OHPReset:E4:TRACe	string
Queries Trail traced pattern of E4 preset data of the send signal.	:SOURce:ATM:OHPReset:E4:TRACe?	
Initializes E4 preset data of the send signal.	:SOURce:ATM:OHPReset:E4:DEFault	

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Sets PLCP of DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:PLCP	numeric string
Queries PLCP of DS3 DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:PLCP?	numeric
Sets frame of DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:FRAME	numeric string
Queries frame of DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:FRAME?	numeric
Sets PIO of DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:POI	type string
Queries PIO of DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:POI?	type
Sets POH of DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:POH	type string
Queries POH of DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:POH?	type
Initializes DS3 PLCP preset data of the send signal.	:SOURCE:ATM:OHPReset:DS3Plcp:DEFault	

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Sets ATM cell type.	:SOURCE:ATM:MANual:TRAFfic:TYPE	type
Queries ATM cell type.	:SOURCE:ATM:MANual:TRAFfic:TYPE?	

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Sets number of Memorized cell repetitions.	:SOURCE:ATM:MANual:TRAFfic:MEMorized:NUMBER	numeric
Queries number of Memorized cell repetitions.	:SOURCE:ATM:MANual:TRAFfic:MEMorized:NUMBER?	

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Sets header pattern.	:SOURCE:ATM:MANual:TRAFfic:HEADer	gfc, vpi vci, pt clp
Queries header pattern.	:SOURCE:ATM:MANual:TRAFfic:HEADer?	

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Sets payload type.	:SOURCE:ATM:MANual:TRAFfic:PAYLoad:TYPE	type
Queries payload type.	:SOURCE:ATM:MANual:TRAFfic:PAYLoad:TYPE?	
Sets word pattern.	:SOURCE:ATM:MANual:TRAFfic:PAYLoad:WORD	string
Queries word pattern.	:SOURCE:ATM:MANual:TRAFfic:PAYLoad:WORD?	

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Sets cell traffic type.	:SOURCE:ATM:MANual:TRAFfic:DISTRibution	type
Queries cell traffic type.	:SOURCE:ATM:MANual:TRAFfic:DISTRibution?	

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Sets CBR type.	:SOURCE:ATM:MANual:TRAFfic:CBR:TYPE	type
Queries CBR type.	:SOURCE:ATM:MANual:TRAFfic:CBR:TYPE?	
Sets cell traffic (kbit/s) at CBR.	:SOURCE:ATM:MANual:TRAFfic:CBR:BPS	numeric
Queries cell traffic (kbit/s) at CBR.	:SOURCE:ATM:MANual:TRAFfic:CBR:BPS?	
Sets cell traffic (Cells/s) at CBR.	:SOURCE:ATM:MANual:TRAFfic:CBR:CPS	numeric
Queries cell traffic (Cells/s) at CBR	:SOURCE:ATM:MANual:TRAFfic:CBR:CPS?	
Sets cell traffic (%) at CBR.	:SOURCE:ATM:MANual:TRAFfic:CBR:PERCent	numeric
Queries cell traffic (%) at CBR.	:SOURCE:ATM:MANual:TRAFfic:CBR:PERCent?	

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Sets BURSt type.	:SOURce:ATM:MANual:TRAFfic:BURSt:TYPE	type
Queries BURSt type.	:SOURce:ATM:MANual:TRAFfic:BURSt:TYPE?	
Sets cell traffic (kbit/s) at BURSt:RMAX.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:BPS	numeric
Queries cell traffic (kbit/s) at BURSt:RMAX.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:BPS?	
Sets cell traffic (%) at BURSt:RMIN.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:BPS	numeric
Queries cell traffic (kbit/s) at BURSt:RMIN.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:BPS?	
Sets cell traffic (Cells/s) at BURSt:RMAX.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:CPS	numeric
Queries cell traffic (Cells/s) at BURSt:RMAX.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:CPS?	
Sets cell traffic (Cells/s) at BURSt:RMIN.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:CPS	numeric
Queries cell traffic (Cells/s) at BURSt:RMIN.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:CPS?	
Sets cell traffic (%) at BURSt:RMAX.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:PERCent	numeric
Queries cell traffic (%) at BURSt:RMAX.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:PERCent?	
Sets cell traffic (%) at BURSt:RMIN.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:PERCent	numeric
Queries cell traffic (%) at BURSt:RMIN.	:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:PERCent?	
Sets cell traffic (cell) at BURSt.	:SOURce:ATM:MANual:TRAFfic:BURSt:T1	numeric
Queries cell traffic (cell) at BURSt.	:SOURce:ATM:MANual:TRAFfic:BURSt:T1?	
Sets cell traffic (cell) at BURSt.	:SOURce:ATM:MANual:TRAFfic:BURSt:T2	numeric
Queries cell traffic (cell) at BURSt.	:SOURce:ATM:MANual:TRAFfic:BURSt:T2?	

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Sets CBR with CDV type.	:SOURce:ATM:MANual:TRAFfic:CWCDv:TYPE	type
Queries CBR with CDV type.	:SOURce:ATM:MANual:TRAFfic:CWCDv:TYPE?	
Sets the CDVT(Cell) for CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:CDVT	numeric
Queries the CDVT (Cell) for CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:CDVT?	
Sets cell traffic (kbit/s) at CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:BPS	numeric
Queries cell traffic (kbit/s) at CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:BPS?	
Sets cell traffic (Cells/s) at CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:CPS	numeric
Queries cell traffic (Cells/s) at CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:CPS?	
Sets cell traffic (%) at CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:PERCent	numeric
Queries cell traffic (%) at CBR with CDV.	:SOURce:ATM:MANual:TRAFfic:CWCDv:PERCent?	

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Sets cell traffic (%) at POISson.	:SOURce:ATM:MANual:TRAFfic:POISson[:PERCent]	numeric
Queries cell traffic (%) at POISson.	:SOURce:ATM:MANual:TRAFfic:POISson[:PERCent]?	

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Sets SAWTooth type.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:TYPE	type
Queries the SAWTooth type.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:TYPE?	
Sets cell traffic (kbit/s) at SAWTooth:RMAX.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:BPS	numeric

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Queries cell traffic (kbit/s) at SAWTooth:RMAX.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:BPS?	
Sets cell traffic (kbit/s) at SAWTooth.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:BPS	numeric
Queries cell traffic (kbit/s) at SAWTooth:RMIN.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:BPS?	
Sets cell traffic:RMAX (Cells/s) at SAWTooth.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:CPS	numeric
Queries cell traffic (Cells/s) at SAWTooth:RMAX.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:CPS?	
Sets cell traffic RMIN (Cells/s) at SAWTooth.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:CPS	numeric
Queries cell traffic (Cells/s) at SAWTooth:RMIN.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:CPS?	
Sets cell traffic (%) at SAWTooth:RMAX.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:PERCent	numeric
Queries cell traffic (%) at SAWTooth:RMAX.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:PERCent?	
Sets cell traffic (%) at SAWTooth:RMIN.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:PERCent	numeric
Queries cell traffic (%) at SAWTooth:RMIN.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:PERCent?	
Sets the cell the traffic (cell) when SAWTooth is set.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:T1	numeric
Queries the cell traffic (cell) when SAWTooth is set.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:T1?	
Sets the cell traffic (cell) when SAWTooth is set.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:T2	numeric
Queries the cell traffic (cell) when SAWTooth is set.	:SOURce:ATM:MANual:TRAFfic:SAWTooth:T2?	

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Sets transmission type.	:SOURce:ATM:MANual:TRAFfic:TIMing:MODE	mode
Queries the transmission type.	:SOURce:ATM:MANual:TRAFfic:TIMing:MODE?	
Starts single cell send.	:SOURce:ATM:MANual:TRAFfic:TIMing:START	
Requests the start of Single cell transmission.	:SOURce:ATM:MANual:TRAFfic:TIMing:STOP	
Queries Single cell transmission condition.	:SOURce:ATM:MANual:TRAFfic:TIMing:STATe?	

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Sets Traffic (%) of Background cell.	:SOURce:ATM:MANual:TRAFfic:BACKground:PERCent	traffic
Queries Background cell Traffic (%) (1 to 10, total).	:SOURce:ATM:MANual:TRAFfic:BACKground:PERCent?	
Sets Traffic(Cell/s) of Background cell.11のTraffic(Cell/s).	:SOURce:ATM:MANual:TRAFfic:BACKground:CPS	traffic
Queries Background cell Traffic (cell/s) (1 to 10, total).	:SOURce:ATM:MANual:TRAFfic:BACKground:CPS?	
Sets traffic (type) of background cell.	:SOURce:ATM:MANual:TRAFfic:BACKground:TYPE	type
Queries traffic (type) of background cell Traffic(type) (1 to 10) .	:SOURce:ATM:MANual:TRAFfic:BACKground:TYPE?	

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Sets the dummy packet traffic (%) at AAL2.	:SOURce:ATM:MANual:TRAFfic:DAAL2[:PERCent]	numeric
Queries the dummy packet traffic at AAL2.	:SOURce:ATM:MANual:TRAFfic:DAAL2[:PERCent]?	

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Sets Fill cell type.	:SOURce:ATM:MANual:TRAFfic:FCELL	type
Queries Fill cell type.	:SOURce:ATM:MANual:TRAFfic:FCELL?	

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Sets alarm type to be inserted for the send signal.	:SOURce:ATM:MANual:EALarm:ALARm:TYPE	type
Queries alarm type to be inserted for the send signal.	:SOURce:ATM:MANual:EALarm:ALARm:TYPE?	
Sets alarm addition timing.	:SOURce:ATM:MANual:EALarm:ALARm:TIMing	numeric
Queries alarm addition timing.	:SOURce:ATM:MANual:EALarm:ALARm:TIMing?	
Sets error type to be inserted for the send signal.	:SOURce:ATM:MANual:EALarm:ERRor:TYPE	type
Queries error type to be inserted for the send signal.	:SOURce:ATM:MANual:EALarm:ERRor:TYPE?	
Sets error addition byte.	:SOURce:ATM:MANual:EALarm:ERRor:BYTE	numeric
Queries error addition byte.	:SOURce:ATM:MANual:EALarm:ERRor:BYTE?	
Sets error addition pattern (bit format).	:SOURce:ATM:MANual:EALarm:ERRor:PATTern	string
Queries error addition pattern (bit format).	:SOURce:ATM:MANual:EALarm:ERRor:PATTern?	
Sets error insertion rate.	:SOURce:ATM:MANual:EALarm:ERRor:TIMing:MODE	mode
Queries error insertion rate.	:SOURce:ATM:MANual:EALarm:ERRor:TIMing:MODE?	
Sets successive error addition count.	:SOURce:ATM:MANual:EALarm:ERRor:TIMing:COUnt	numeric
Queries successive error addition count.	:SOURce:ATM:MANual:EALarm:ERRor:TIMing:COUnt?	
Sets CC cell addition.	:SOURce:ATM:MANual:EALarm:CC:SEND	type
Queries CC cell addition condition.	:SOURce:ATM:MANual:EALarm:CC:SEND?	
Sets Loopback cell type.	:SOURce:ATM:MANual:EALarm:LOOPback:TYPE	type
Queries Loopback cell type.	:SOURce:ATM:MANual:EALarm:LOOPback:TYPE?	
Sends Loopback cell.	:SOURce:ATM:MANual:EALarm:LOOPback:STARt	
Queries Loopback cell transmission condition.	:SOURce:ATM:MANual:EALarm:LOOPback:STATe?	

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Sets PM Forward cell addition.	:SOURce:ATM:MANual:PM:FM:SEND	type
Queries PM Forward cell addition condition.	:SOURce:ATM:MANual:PM:FM:SEND?	
Sets error type to be inserted for the send signal.	:SOURce:ATM:MANual:PM:FM:ERRor:TYPE	character
Queries error type to be inserted for the send signal.	:SOURce:ATM:MANual:PM:FM:ERRor:TYPE?	
Sets error insertion rate.	:SOURce:ATM:MANual:PM:FM:ERRor:TIMing:MODE	character
Queries error insertion rate.	:SOURce:ATM:MANual:PM:FM:ERRor:TIMing:MODE?	
Sets PM Backward cell addition.	:SOURce:ATM:MANual:PM:BR:SEND	type
Queries PM Backward cell addition condition.	:SOURce:ATM:MANual:PM:BR:SEND?	
Sets error type to be inserted for the send signal.	:SOURce:ATM:MANual:PM:BR:ERRor:TYPE	character
Queries error type to be inserted for the receive signal.	:SOURce:ATM:MANual:PM:BR:ERRor:TYPE?	
Sets error insertion rate.	:SOURce:ATM:MANual:PM:BR:ERRor:TIMing:MODE	character
Queries error insertion rate.	:SOURce:ATM:MANual:PM:BR:ERRor:TIMing:MODE?	
Sets the insert interval for the BR cell.	:SOURce:ATM:MANual:PM:BR:INTerval	numeric
Queries the insert interval for the BR cell.	:SOURce:ATM:MANual:PM:BR:INTerval?	

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Sets payload pattern for ATM:0.191.	:SOURce:ATM:PATtern:ATM:0191:PAYLoad	string
Queries payload pattern for ATM:0.191.	:SOURce:ATM:PATtern:ATM:0191:PAYLoad?	
Sets initial pattern as payload pattern for ATM:0.191.	:SOURce:ATM:PATtern:ATM:0191:DEfault	
Sets TCPT for ATM:0.191 (bit format).	:SOURce:ATM:PATtern:ATM:0191:TCPT	string
Queries TCPT for ATM:0.191 (bit format).	:SOURce:ATM:PATtern:ATM:0191:TCPT?	
Sets payload pattern for ATM:User.	:SOURce:ATM:PATtern:ATM:USER:PAYLoad	string
Queries payload pattern for ATM:User.	:SOURce:ATM:PATtern:ATM:USER:PAYLoad?	
Sets initial pattern as payload pattern for ATM:User.	:SOURce:ATM:PATtern:ATM:USER:DEfault	

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Sets Pointer at AAL1.	:SOURce:ATM:PATtern:AAL1:POINter	string
Queries Pointer at AAL1.	:SOURce:ATM:PATtern:AAL1:POINter?	
Sets payload pattern at AAL1.	:SOURce:ATM:PATtern:AAL1:PAYLoad	string
Queries payload pattern at AAL1.	:SOURce:ATM:PATtern:AAL1:PAYLoad?	
Sets initial pattern as payload pattern at AAL1.	:SOURce:ATM:PATtern:AAL1:DEfault	
Sets P-format at AAL1.	:SOURce:ATM:PATtern:AAL1:PFORmat	boolean
Queries P-format at AAL1.	:SOURce:ATM:PATtern:AAL1:PFORmat?	
Sets RTS at AAL1 (bit format).	:SOURce:ATM:PATtern:AAL1:RTS	string
Queries RTS at AAL1 (bit format).	:SOURce:ATM:PATtern:AAL1:RTS?	

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Sets CID (Primary) at AAL2.	:SOURce:ATM:PATtern:AAL2:PCID	string
Queries CID (Primary) at AAL2.	:SOURce:ATM:PATtern:AAL2:PCID?	
Sets LI at AAL2.	:SOURce:ATM:PATtern:AAL2:LI	numeric
Queries LI at AAL2.	:SOURce:ATM:PATtern:AAL2:LI ?	
Sets PPT (Primary) at AAL2.	:SOURce:ATM:PATtern:AAL2:PPPT	string
Queries PPT (Primary) at AAL2.	:SOURce:ATM:PATtern:AAL2:PPPT ?	
Sets UII (Primary) at AAL2.	:SOURce:ATM:PATtern:AAL2:PUUI	STRING
Queries UII (Primary) at AAL2.	:SOURce:ATM:PATtern:AAL2:PUUI?	
Sets payload at AAL2.	:SOURce:ATM:PATtern:AAL2:PAYLoad	string
Queries payload at AAL2.	:SOURce:ATM:PATtern:AAL2:PAYLoad?	
Sets CID (Dummy) at AAL2.	:SOURce:ATM:PATtern:AAL2:DCID	string
Queries CID (Dummy) at AAL2.	:SOURce:ATM:PATtern:AAL2:DCID ?	
Sets PPT (Dummy) at AAL2.	:SOURce:ATM:PATtern:AAL2:DPPT	string
Queries PPT (Dummy) at AAL2.	:SOURce:ATM:PATtern:AAL2:DPPT?	
Sets PPT (Dummy) at AAL2.	:SOURce:ATM:PATtern:AAL2:DUUI	string
Queries UII (Dummy) at AAL2.	:SOURce:ATM:PATtern:AAL2:DUUI ?	
Initializes PAYLoad at AAL2.	:SOURce:ATM:PATtern:AAL2:DEfault	

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Sets MID at AAL3/4 (bit format).	:SOURce:ATM:PATtern:AAL34:MID	string
Queries MID at AAL3/4 (bit format).	:SOURce:ATM:PATtern:AAL34:MID?	
Sets CPI at AAL3/4.	:SOURce:ATM:PATtern:AAL34:CPI	string
Queries CPI at AAL3/4.	:SOURce:ATM:PATtern:AAL34:CPI?	
Sets BTag and ETag at AAL3/4.	:SOURce:ATM:PATtern:AAL34:BTAG	string
Queries BTag and ETag at AAL3/4.	:SOURce:ATM:PATtern:AAL34:BTAG?	
Sets BAsize at AAL3/4.	:SOURce:ATM:PATtern:AAL34:BASize	numeric
Queries BAsize at AAL3/4.	:SOURce:ATM:PATtern:AAL34:BASize?	
Sets Length at AAL3/4.	:SOURce:ATM:PATtern:AAL34:LENGth	numeric
Queries Length at AAL3/4.	:SOURce:ATM:PATtern:AAL34:LENGth?	

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Sets Length at AAL5.	:SOURce:ATM:PATtern:AAL5:LENGth	numeric
Queries Length at AAL5.	:SOURce:ATM:PATtern:AAL5:LENGth?	
Sets CPCS-UU at AAL5.	:SOURce:ATM:PATtern:AAL5:UU	string
Queries CPCS-UU at AAL5.	:SOURce:ATM:PATtern:AAL5:UU?	
Sets CPI at AAL5.	:SOURce:ATM:PATtern:AAL5:CPI	string
Queries CPI at AAL5.	:SOURce:ATM:PATtern:AAL5:CPI ?	

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Sets the 65,535-byte payload pattern.	:SOURce:ATM:PATtern:PAYLoad:PATtern	numeric string
Queries the 65,535-byte payload pattern.	:SOURce:ATM:PATtern:PAYLoad:PATtern?	numeric1 numeric2
Sets initial pattern as the 65,535-byte payload pattern.	:SOURce:ATM:PATtern:PAYLoad:DEFault	string

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Sets AIS cell Function specific field.	:SOURce:ATM:PATtern:AIS:FSField	string
Queries AIS cell Function specific field.	:SOURce:ATM:PATtern:AIS:FSField?	
Sets initial pattern as AIS cell Function specific field.	:SOURce:ATM:PATtern:AIS:DEFault	
Sets AIS cell Reserve (bit format).	:SOURce:ATM:PATtern:AIS:REServe	string
Queries AIS cell Reserve (bit format).	:SOURce:ATM:PATtern:AIS:REServe?	

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Sets RDI cell Function specific field.	:SOURce:ATM:PATtern:RDI:FSField	string
Queries RDI cell Function specific field.	:SOURce:ATM:PATtern:RDI:FSField?	
Sets initial pattern as RDI cell Function specific field.	:SOURce:ATM:PATtern:RDI:DEFault	
Sets RDI cell Reserve (bit format).	:SOURce:ATM:PATtern:RDI:REServe	string
Queries RDI cell Reserve (bit format).	:SOURce:ATM:PATtern:RDI:REServe?	

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Sets OAM type of User program cell. (bit format)	:SOURce:ATM:PATtern:USER:OAM	string
Queries OAM type of User program cell. (bit format)	:SOURce:ATM:PATtern:USER:OAM?	
Sets Function type of User program cell (bit format).	:SOURce:ATM:PATtern:USER:FUNCTion	string
Queries the Function type of User program cell (bit format).	:SOURce:ATM:PATtern:USER:FUNCTion?	
Sets User program cell Function specific field.	:SOURce:ATM:PATtern:USER:FSField	string
Queries User program cell Function specific field.	:SOURce:ATM:PATtern:USER:FSField?	
Sets initial pattern as User program cell Function specific field.	:SOURce:ATM:PATtern:USER:DEFault	
Sets User program cell Reserve (bit format).	:SOURce:ATM:PATtern:USER:REServe	string
Queries User program cell Reserve (bit format).	:SOURce:ATM:PATtern:USER:REServe?	

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Sets CC cell Function specific field.	:SOURce:ATM:PATtern:CC:FSField	string
Queries CC cell Function specific field.	:SOURce:ATM:PATtern:CC:FSField?	
Sets initial pattern as CC cell Function specific field.	:SOURce:ATM:PATtern:CC:DEFault	
Sets CC cell Reserve (bit format).	:SOURce:ATM:PATtern:CC:REServe	string
Queries CC cell Reserve (bit format).	:SOURce:ATM:PATtern:CC:REServe?	

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Sets Indication of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:INDICATION	string
Queries Indication of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:INDICATION?	
Sets correlation Tag of the Loopback.	:SOURCE:ATM:PATTERN:LOOPback:FSField:CTAG	string
Queries correlation Tag of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:CTAG?	
Sets Location ID of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:LOCATION	string
Queries Location ID of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:LOCATION?	
Sets Source ID of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:SOURCE	string
Queries Source ID of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:SOURCE?	
Sets Unused of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:UNUSED	string
Queries Unused of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:UNUSED?	
Sets initial pattern as Indication, Correlation tag, Location ID, Source ID, and Unused of the Loopback cell.	:SOURCE:ATM:PATTERN:LOOPback:FSField:DEFAULT	
Sets Loopback cell Reserve (bit format).	:SOURCE:ATM:PATTERN:LOOPback:RESERVE	string
Queries Loopback cell Reserve (bit format)	:SOURCE:ATM:PATTERN:LOOPback:RESERVE?	

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Sets TSTP of Forward monitoring.	:SOURCE:ATM:PATTERN:FM:FSField:TSTP	string
Queries TSTP of Forward monitoring.	:SOURCE:ATM:PATTERN:FM:FSField:TSTP?	
Sets Unused of Forward monitoring.	:SOURCE:ATM:PATTERN:FM:FSField:UNUSED	string
Queries Unused of Forward monitoring.	:SOURCE:ATM:PATTERN:FM:FSField:UNUSED?	
Sets initial pattern as TSTP and Unused of Forward monitoring.	:SOURCE:ATM:PATTERN:FM:FSField:DEFAULT	
Sets Forward monitoring Reserve (bit format).	:SOURCE:ATM:PATTERN:FM:RESERVE	string
Queries Forward monitoring Reserve (bit format).	:SOURCE:ATM:PATTERN:FM:RESERVE?	

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Sets Unused1 of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:UNUSED1	string
Queries Unused1 of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:UNUSED1?	
Sets TUCO+1 of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:TUCO1	character
Queries TUCO1 of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:TUCO1 ?	
Sets TUCO of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:TUCO	character
Queries TUCO of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:TUCO ?	
Sets TSTP of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:TSTP	string
Queries TSTP of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:TSTP?	
Sets Unused2 of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:UNUSED2	string
Queries Unused2 of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:UNUSED2?	
Sets initial pattern as Unused1, TSTP, and Unused2 of Backward report.	:SOURCE:ATM:PATTERN:BR:FSField:DEFAULT	
Sets Backward report Reserve (bit format).	:SOURCE:ATM:PATTERN:BR:RESERVE	string
Queries Backward report Reserve (bit format).	:SOURCE:ATM:PATTERN:BR:RESERVE?	

Section 4 Remote Control

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Sets header pattern of Background cell.	:SOURce:ATM:PATTErn:BGRound:HEADer	numeric pattern
Queries header pattern.	:SOURce:ATM:PATTErn:BGRound:HEADer?	numeric
Sets payload pattern of Background cell.	:SOURce:ATM:PATTErn:BGRound:PAYLoad	numeric string
Queries payload pattern of Background cell.	:SOURce:ATM:PATTErn:BGRound:PAYLoad?	numeric
Requests CRC10 calculation of Background cell.	:SOURce:ATM:PATTErn:BGRound:CRc10	numeric
Sets initial pattern in Background cell.	:SOURce:ATM:PATTErn:BGRound:DEFault	type

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Sets header pattern of Memorized cell.	:SOURce:ATM:PATTErn:MEMorized:HEADer	numeric pattern
Queries header pattern of Memorized cell.	:SOURce:ATM:PATTErn:MEMorized:HEADer?	numeric
Sets payload pattern of Memorized cell.	:SOURce:ATM:PATTErn:MEMorized:PAYLoad	numeric string
Queries payload pattern of Memorized cell.	:SOURce:ATM:PATTErn:MEMorized:PAYLoad?	numeric
Requests CRC10 calculation of Memorized cell.	:SOURce:ATM:PATTErn:MEMorized:CRc10	numeric
Sets initial pattern in Memorized cell.	:SOURce:ATM:PATTErn:MEMorized:DEFault	type numeric
Edits a Memorized cell. (Paste)	:SOURce:ATM:PATTErn:MEMorized:EDIT:PASTe	numeric
Edits a Memorized cell. (Cut)	:SOURce:ATM:PATTErn:MEMorized:EDIT:CUT	numeric
Edits a Memorized cell. (Copy)	:SOURce:ATM:PATTErn:MEMorized:EDIT:COpy	numeric
Edits a Memorized cell. (Insertion)	:SOURce:ATM:PATTErn:MEMorized:EDIT:INSert	numeric
Copies capture result to Memorized cell.	:SOURce:ATM:PATTErn:MEMorized:CAPTure	

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Selects the IP type when IP is selected in the payload for the AAL5 frame to be transmitted.	:SOURce:ATM:PATTErn:IPPacket:PAYLoad	type
Queries the IP type when IP is selected in the payload for the AAL5 frame to be transmitted.	:SOURce:ATM:PATTErn:IPPacket:PAYLoad?	
Sets the header pattern when the payload for the AAL5 frame to be transmitted is IP (IPv4).	:SOURce:ATM:PATTErn:IPPacket:HEADer:V4:HEADer	
Queries the setting status of the header when the payload for the AAL5 frame to be transmitted is IP (IPv4).	:SOURce:ATM:PATTErn:IPPacket:HEADer:V4:HEADer?	
Sets the Source address and Destination address when the payload for the AAL5 frame is IP (IPv4).	:SOURce:ATM:PATTErn:IPPacket:HEADer:V4:ADDRess	type, adr1 adr2, adr3 adr4
Queries the setting status for the Source address or Destination address when the payload for the AAL5 frame is IP (IPv4).	:SOURce:ATM:PATTErn:IPPacket:HEADer:V4:ADDRess?	type
Sets the header pattern when the payload for the AAL5 frame to be transmitted is IP (IPv6).	:SOURce:ATM:PATTErn:IPPacket:HEADer:V6:HEADer	
Queries the setting of the header when the payload for the AAL5 frame to be transmitted is IP (IPv6).	:SOURce:ATM:PATTErn:IPPacket:HEADer:V6:HEADer?	

4.4 Equipment Unique Command

Sets the Source address or Destination address when the payload for the AAL5 frame is IP (IPv6).	:SOURCE:ATM:PATTERN:IPPacket:HEADER:V6:ADDRESS	type, adr adr2, adr3 adr4, adr5 adr6, adr7 adr8
Queries the setting status of the Source address or Destination address when the payload for the AAL5 frame to be transmitted is IP (IPv6).	:SOURCE:ATM:PATTERN:IPPacket:HEADER:V6:ADDRESS?	type
Initializes the header pattern when the payload for the AAL5 frame to be transmitted is IP.	:SOURCE:ATM:PATTERN:IPPacket:HEADER:DEFAULT	
Sets the value for the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv4).	:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V4:INITIAL	init
Sets the value for the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv6).	:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V6:INITIAL	init
Sets the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv4).	:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V4:PATTERN	start string
Queries the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv4).	:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V4:PATTERN?	start stop
Sets the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv6).	:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V6:PATTERN	start string
Queries the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv6).	:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V6:PATTERN?	start stop

:SOURce:TELEcom:M45:PLCP <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 ON or 1
Function	Sets the PLCP for 45M signals.
Restriction	Invalid when; - When the 1.5/45/52M unit is not installed. - When the ATM unit is not installed. - :INSTrument:CONFIg is set to other than <ATM>. - :SOURce:TELEcom:BRATe is other than <M45>.
Example use	To set 45M PLCP to OFF. >:SOURce:TELEcom:M45:PLCP OFF

:SOURce:TELEcom:M45:PLCP?

Response	<boolean> = <NR1 NUMERIC RESPONSE DATA> 0 1
Function	Queries PLCP of the 45M signal.
Example use	> :SOURce:TELEcom:M45:PLCP? < 0

:SOURce:TELEcom:ERRor:TYPE <etype>

Parameter	<etype> = <CHARACTER PROGRAM DATA>
OFF	No errors are inseted
B1	Enters a B1 error.
B2	Enters a B2 error.
HB3	Enters an HP-B3 error.
LB3	Enters an LP-B3 error.
BIP2	Enters a BIP-2 error.
MREI	Enters an MS-REI error (for SDH).
HREI	Enters an HP-REI error (for SDH).
LREI	Enters an LP-REI error (for SDH).
REIL	Enters an REI-L error
REIP	Enters an REI-P error
REIV	Enters an REI-V error
FAS	Enters an (SDH) FAS error.

BALL	Bit all
BIT139	Enters a bit error to 139Mb/s signal.
BIT45	Enters a bit error to 45Mb/s signal.
BIT34	Enters a bit error to 34Mb/s signal.
BIT8	Enters a bit error to 8Mb/s signal.
BIT2	Enters a bit error to 2Mb/s signal.
BIT1_5	Enters a bit error to 1.5Mb/s signal.
BINF	Bit Info.
CODE	Enters a code error.
EBIT	Enters an E-bit error.
FAS139	Enters an FAS error to 139Mb/s signal.
FAS45	Enters an FAS error to 45Mb/s signal.
FAS34	Enters an FAS error to 34Mb/s signal.
FAS8	Enters an FAS error to 8Mb/s signal.
FAS2	Enters an FAS error to 2Mb/s signal.
FAS1_5	Enters an FAS error to 1.5Mb/s signal.
REI139	Enters an REI error to 139Mb/s signal.
REI45	Enters an REI error to 45Mb/s signal.
REI34	Enters an REI error to 34Mb/s signal.
PLCPREI	Enters a REI PLCP error.
PARITY	Enters a Parity error.
CRC6	Enters a CRC-6 error.
CBIT	Enters a CBIT error.
BIP8	Enters a BIP8 error.
PLCPFAS	Enters a FAS PLCP error.
POI	Enters a POI error.

Function Sets the type of error to be inserted against transmission signals.

Example use To insert a FAS PLCP error.
 > :SOURce:TELEcom:ERRor:TYPE PLCPFAS

:SOURce:TELEcom:ERRor:TYPE?

Response <etype> = <CHARACTER RESPONSE DATA>

Function Queries the type of error inserted against transmission signals.

Example use > :SOURce:TELEcom:ERRor:TYPE?
 < PLCPFAS

:SOURce:TELEcom:ERRor:TIMing:TYPE <erate>

Parameter	<erate> = <CHARACTER PROGRAM DATA>
	ONCE Single error
	R1E_3 1E-3
	R1E_4 1E-4
	R1E_5 1E-5
	R1E_6 1E-6
	R1E_7 1E-7
	R1E_8 1E-8
	R1E_9 1E-9
	R1IN16 1 in 16
	R2IN16 2 in 16
	R3IN16 3 in 16
	R4IN16 4 in 26
	ALL ALL
	R5E_3 5E-3
	R5E_4 5E-4
	R5E_5 5E-5
	R5E_6 5E-6
	R5E_7 5E-7
	R5E_8 5E-8
	R5E_9 5E-9
	BURST Burst
	ALTERNATE Alternate
	PROGRATE Programmable rate
Function	Sets the rate of error insertion. * The rate depends on the error inserted into the signal.
Restriction	Invalid when; - :SOURce:TELEcom:BRATe <brate> is M139, M45, M34, M8, M2, or M1.5; and <BURST>, <ALTERNATE>, or <PROGRATE> is set.
Example use	To insert errors at Burst intervals: > :SOURce:TELEcom:ERRor:ERATe BURST

:SOURce:TELEcom:ERRor:TIMing:TYPE?

Response <erate> = <CHARACTER RESPONSE DATA>
 Function Queries the error insertion rate.
 Example use > :SOURce:TELEcom:ERRor:ERATe?
 < BURST

:SOURce:TELEcom:ERRor:TIMing:BURSt:BIT <bit>

Parameter <bit> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 64000 Step value : 1
 Function Sets the bit number of the error insertion when Burst is selected.
 Restriction Invalid when;
 - :SOURce:TELEcom:BRATe <brate> is M139, M45, M34, M8, M2, or M1.5.
 Example use To set the bit number of the error insertion to 1000.
 > :SOURce:TELEcom:ERRor:TIMing:BURSt:BIT 1000

:SOURce:TELEcom:ERRor:TIMing:BURSt:BIT?

Response <bit> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries the bit number of the error insertion when Burst is selected.
 Example use To query the bit number of the error insertion.
 > :SOURce:TELEcom:ERRor:TIMing:BURSt:BIT?
 < 1000

:SOURce:TELEcom:ERRor:TIMing:PROGrate <error>

Parameter <error> = <STRING PROGRAM DATA>
 "1.0E-2" to "9.9E-10" 1.0 to 9.9 Step value : 0.1
 1 to 10 Step value : 1
 either "1.0E-2" or "1 E-2" can inputted.
 Function Set the added value when Programable rate error is added.
 Restriction Invalid when;
 :SOURce:TELEcom:BRATe <brate> is M139, M45, M34, M8, M2, or M1.5.
 Example use To set the added value to 1.0E-5.
 > :SOURce:TELEcom:ERRor:TIMing:PROGrate "1.0E-5"

:SOURce:TELEcom:ERRor:TIMing:PROGrate?

Response <error> = <STRING RESPONSE DATA>
 Function Queries the added valude of the Prog.rate error.
 Example use To query the added valude of the Prog.rate error.
 > :SOURce:TELEcom:ERRor:TIMing:PROGrate?
 < “1.0E-5”

:SOURce:TELEcom:ERRor:TIMing:ERRor <error>

Parameter <error> = <DECIMAL NUMERIC PROGRAM DATA>
 0 to 8000 Step value : 1
 Function Set the number of the frames with errors when the Alternate is selected.
 Restriction Invalid when;
 :SOURce:TELEcom:BRATe <brate> is M139, M45, M34, M8, M2, or M1.5.
 Example use To set the number of the frames with errors to 3000.
 > :SOURce:TELEcom:ERRor:TIMing:ERRor 3000

:SOURce:TELEcom:ERRor:TIMing:ERRor?

Response <error> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries the number of the frames with the errors when the Alternate is selected.
 Example use To query the number of the frames with the errors when the Alternate is selected.
 > :SOURce:TELEcom:ERRor:TIMing:ERRor?
 < 3000

:SOURce:TELEcom:ERRor:TIMing:NORMal <normal>

Parameter <normal> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 8000 Step value : 1
 Function Sets the number of the normal frames when Alternate is selected.
 Restriction Invalid when;
 - :SOURce:TELEcom:BRATe <brate> is M139, M45, M34, M8, M2, or M1.5.
 Example use To set the number of the normal frames to 1700.
 > :SOURce:TELEcom:ERRor:TIMing:NORMal 1700

:SOURce:TELEcom:ERRor:TIMing:NORMal?

Response <normal> = <NR1 NUMERIC RESPONSE DATA>

Function Queries the number of the normal frames when Alternate is selected.

Example use To query the number of the normal frames when Alternate is selected.

```
> :SOURce:TELEcom:ERRor:TIMing:NORMal?
< 1700
```

:SOURce:TELEcom:OHPReset:SLABel <pohtype>, <string>**:SOURce:TELEcom:OHPReset:PLABel <pohtype>, <string>**

Parameter <pohtype> = <CHARACTER PROGRAM DATA>

(SDH)	VC4	POH VC4 pattern
	VC3	POH VC3 pattern
(SONET)	STS3	POH STS3 pattern
	STS1	POH STS1 pattern

<string> = <STRING PROGRAM DATA>

C2(b1-8) can be set in plain language.

(for SDH)

"Unequipped"	"UNEQ"	(0000 0000)
"Equipped-non-specific"	"non-specific"	(0000 0001)
"TUG structure"	"TUG"	(0000 0010)
"Locked TU"	"Locked TU"	(0000 0011)
"Async. 34M or 45M(C-3)"	"34M" or "45M"	(0000 0100)
"Async. 139M(C-4)"	"139M"	(0001 0010)
"ATM mapping"	"ATM"	(0001 0011)
"MAN(DQDB)mapping"	"MAN" or "DQDB"	(0001 0100)
"FDDI mapping"	"FDDI"	(0001 0101)
"O.181 mapping"	"O.181"	(1111 1110)
"VC-AIS"	"VC-AIS"	(1111 1111)

(for SONET)

"Unequipped"	"UNEQ"	(0000 0000)
"Equipped-non-specific"	"non-specific"	(0000 0001)
"VT structure"	"VT"	(0000 0010)
"Locked VT"	"Locked VT"	(0000 0011)
"Async. Mapping DS3"	"DS3"	(0000 0100)
"Async. Mapping DS4NA"	"DS4NA"	(0001 0010)
"Mapping for ATM"	"ATM"	(0001 0011)

"Mapping for DQDB"	"MAN" or "DQDB"	(0001 0100)
"Async. Mapping FDDI"	"FDDI"	(0001 0101)
"Unused"	"UNUSED"	(1111 1110)
"AIS-P"	"AIS-P"	(1111 1111)

Function Sets C2 data of POH preset data of transmission signal.
(Plain-language format)

Example use To set the preset data of POH VC3 C2, as follows:
> :SOURCE:TELEcom:OHPReset:SLABel VC3, "Unequipped"

:SOURCE:TELEcom:OHPReset:SLABel? <pohtype>

:SOURCE:TELEcom:OHPReset:PLABel? <pohtype>

Parameter <pohtype> = <CHARACTER PROGRAM DATA>

Response <string> = <STRING RESPONSE DATA>

Function Queries plain-language data of C2 of POH preset data of transmission signal.

Example use To Query plain-language preset data of C2 of POH VC3.
> :SOURCE:TELEcom:OHPReset:SLABel? VC3
< "Unequipped"

:SOURCE:TELEcom:MSPMessages:REQuest <request>

Parameter <request> = <CHARACTER PROGRAM DATA>
(G.783)

NREQ	No request(0000)
DNR	Do not revet(0001)
RREQ	Reverse request(0010)
UUS3	Unused(0011)
EXER	Exercise(0100)
UUS5	Unused(0101)
WTR	Wait to restore(0110)
UUS7	Unused(0111)
MSW	Manual switch(1000)
UUS9	Unused(1001)
SDLP	Signal degrade low priority(1010)
SDHP	Signal degrade high priority(1011)
SFLP	Signal fall low priority(1100)
SFHP	Signal fall high priority(1101)

	FSW	Forced switch(1110)
	LOPR (G.841)	Lockout of protection(1111)
	NR	NR(0000)
	RRR	RR-R(0001)
	RRS	RR-S(0010)
	EXERR	EXER-R(0011)
	EXERS	EXER-S(0100)
	WTR	WTR(0101)
	MSR	MS-R(0110)
	MSS	MS-S(0111)
	SDR	SD-R(1000)
	SDS	SD-S(1001)
	SDP	SD-P(1010)
	SFR	SF-R(1011)
	SFS	SF-S(1100)
	FSR	FS-R(1101)
	FSS	FS-S(1110)
	LPS	LP-S(1111)
	SFP	SF-P(1111)
Function	Sets K1 (bits 1 to 4). (Plain-language format)	
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.	
Example use	To set bits 1 to 4 of K1 to "1011": > :SOURce:TELEcom:MSPMessages:REQuest SDHP	

:SOURce:TELEcom:MSPMessages:CHANnel <mspch>

Parameter	<mspch> = <CHARACTER PROGRAM DATA> (G.783)
	NCH Null channel(0000)
	WC1 Working channel1(0001)
	WC2 Working channel2(0010)
	WC3 Working channel3(0011)
	WC4 Working channel4(0100)
	WC5 Working channel5(0101)
	WC6 Working channel6(0110)
	WC7 Working channel7(0111)
	WC8 Working channel8(1000)
	WC9 Working channel9(1001)
	WC10 Working channel10(1010)
	WC11 Working channel11(1011)
	WC12 Working channel12(1100)
	WC13 Working channel13(1101)
	WC14 Working channel14(1110)
	ETCH Extra traffic channel(1111) (G.841) 0 to 15
Function	Sets K1 (bits 5 to 8). (Plain-language format)
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, or <"MANual:RCELL">.
Example use	To set bits 5 to 8 of K1 to "1110": > :SOURce:TELEcom:MSPMessages:CHANnel WC14

:SOURce:TELEcom:MSPMessages:BRIDge <bridge>

Parameter	<bridge> = <CHARACTER PROGRAM DATA> (G.783)
	NCH Null channel(0000)
	WC1 Working channel1(0001)
	WC2 Working channel2(0010)
	WC3 Working channel3(0011)
	WC4 Working channel4(0100)

	WC5	Working channel5(0101)
	WC6	Working channel6(0110)
	WC7	Working channel7(0111)
	WC8	Working channel8(1000)
	WC9	Working channel9(1001)
	WC10	Working channel10(1010)
	WC11	Working channel11(1011)
	WC12	Working channel12(1100)
	WC13	Working channel13(1101)
	WC14	Working channel14(1110)
	ETCH	Extra traffic channel(1111)
	(G.841)	0 to 15
Function	Sets K2 (bits 1 to 4). (Plain-language format)	
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, or <"MANual:RCELL">.	
Example use	To set bits 1 to 4 of K2 to "1110": > :SOURce:TELEcom:MSPMessages:BRIDge WC14	

:SOURce:TELEcom:MSPMessages:ARCHitect <arch>

Parameter	<arch> = <CHARACTER PROGRAM DATA> (G.783)	
	OPOA	1+1 architecture(0)
	OCNA	1:n architecture(1)
	(G.841)	
	SHORT	0
	LONG	1
Function	Sets K2 (bit 5). (Plain-language format)	
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than , <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.	
Example use	To set bit 5 of K2 to "1": > :SOURce:TELEcom:MSPMessages:ARCHitect OCNA	

SOURce:TELEcom:MSPMessages:REServed <res>

Parameter	<res> = <CHARCTER PROGRAM DATA>																
	<table border="0"> <tr><td>Idle</td><td>000</td></tr> <tr><td>Bridged</td><td>001</td></tr> <tr><td>Br&Sw</td><td>010</td></tr> <tr><td>Reserved011</td><td>011</td></tr> <tr><td>Reserved100</td><td>100</td></tr> <tr><td>Reserved101</td><td>101</td></tr> <tr><td>MS-RDI</td><td>110</td></tr> <tr><td>MS-AIS</td><td>111</td></tr> </table>	Idle	000	Bridged	001	Br&Sw	010	Reserved011	011	Reserved100	100	Reserved101	101	MS-RDI	110	MS-AIS	111
Idle	000																
Bridged	001																
Br&Sw	010																
Reserved011	011																
Reserved100	100																
Reserved101	101																
MS-RDI	110																
MS-AIS	111																
Function	Sets K2 (6 to 8bit). (Plain-language format)																
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTRument:CONFig <type> is NON or CID. - :SOURce:TELEcom:BRATe is, <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>. - :ROUTE:THROugh is, <ON>. - :DISPlay:TMENu[:NAME] is other than , <"MANual[:JOFF]">. 																
Example use	To set No.8 K2(6-8bit) to MS-AIS. > :SOURce:TELEcom:MSPMessages:REServed MS-AIS																

:SOURce:TELEcom:MSPBits:REQuest <string>

Parameter	<string> = <STRING PROGRAM DATA> "0000" to "1111"
Function	Sets K1 (1-4bit). (Bit format)
Restriction	Invalid when; <ul style="list-style-type: none"> - :SOURce:TELEcom:BRATe is <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>. - :ROUTE:THROugh is , <ON>. - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELl">, and <"MANual:RCELl">.
Example use	To K1 1-4bit to "1011". > :SOURce:TELEcom:MSPBits:REQuest "1011"

:SOURce:TELEcom:MSPBits:CHANnel <string>

Parameter	<string> = <STRING PROGRAM DATA> "0000" to "1111"
Function	Sets K1 (5-8bit). (Bit format)
Restriction	Invalid when;

- :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.

Example use To set K1 5-8bit to "1110".
> :SOURce:TELEcom:MSPBits:CHANnel "1110"

:SOURce:TELEcom:MSPBits:BRIDge <string>

Parameter <string> = <STRING PROGRAM DATA>
"0000" to "1111"

Function Sets K2 (1-4bit). (Bit format)

Restriction Invalid when;
- :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.

Example use To set K2 1-4bit to "1110".
> :SOURce:TELEcom:MSPBits:BRIDge "1110"

:SOURce:TELEcom:MSPBits:ARCHitect <string>

Parameter <string> = <STRING PROGRAM DATA>
"0" to "1"

Function Sets K2 (5bit). (Bit format)

Restriction Invalid when;
- :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.

Example use To K2 5bit to "1".
> :SOURce:TELEcom:MSPBits:ARCHitect "1"

:SOURce:TELEcom:MSPBits:REServed <string>

Parameter <string> = <STRING PROGRAM DATA>
"000" to "101"

Function Sets K2 (6-8bit). (Bit format)

Restriction Invalid when;
- :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.

Example use To set K2 6-8bit to "101".
 > :SOURce:TELEcom:MSPBits:REServed "101"

:SOURce:TELEcom:PSETting:NDFSet <ptype>, <string>

Parameter <ptype> = <CHARACTER PROGRAM DATA>
 AU AU-PTR, STS-PTR
 TU TU-PTR, VT-PTR
 <string> = <STRING PROGRAM DATA>
 "0000" to "1111"

Function Sets the pointer value (NDF).

Restriction Invalid when;
 - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">,
 <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and
 <"MANual:RCELI">.
 - :INSTrument:ATM is <ON>, and <TU> is set.

Example use To set AU PTR NDF to "1011".
 > :SOURce:TELEcom:PSETting:NDFSet AU, "1011"

:SOURce:TELEcom:PSETting:SSSet <ptype>, <string>

Parameter <ptype> = <CHARACTER PROGRAM DATA>
 AU AU-PTR, STS-PTR
 TU TU-PTR, VT-PTR
 <string> = <STRING PROGRAM DATA>
 "00" to "11"

Function To set the pointer value (SS).

Restriction Invalid when;
 - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">,
 <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and
 <"MANual:RCELI">.
 - :INSTrument:ATM is <ON>, and <TU> is set.

Example use To set AU PTR SS to "10".
 > :SOURce:TELEcom:PSETting:SSSet AU, "10"

:SOURce:TELEcom:PSETting:IDSet <ptype>, <numeric>

Parameter	<ptype> = <CHARACTER PROGRAM DATA> AU AU-PTR, STS-PTR TU TU-PTR, VT-PTR <numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 1023
Function	Set a pointer value (ID).
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. - :INSTrument:ATM is <ON>, and <TU> is set.
Example use	To set AU PTR ID to "10" (decimal notation). > :SOURce:TELEcom:PSETting:IDSet AU, 10

:SOURce:TELEcom:PSETting:PPJC <ptype>

Parameter	<ptype> = <CHARACTER PROGRAM DATA> AU AU-PTR, STS-PTR TU TU-PTR, VT-PTR
Function	Inserts +PJC one time for send signal.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">. - :INSTrument:ATM is <ON>, and <TU> is set.
Example use	To insert +PJC one time to AU pointer. > :SOURce:TELEcom:PSETting:PPJC AU

:SOURce:TELEcom:PSETting:NPJC <ptype>

Parameter	<ptype> = <CHARACTER PROGRAM DATA> AU AU-PTR, STS-PTR TU TU-PTR, VT-PTR
Function	Inserts -PJC one time for send signal.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">.

<"MANual:RCEL">.

- :INSTrument:CONFIg is <ATM>, and <TU> is set.

Example use To insert –PJC one time to AU pointer:
> :SOURce:TELEcom:PSETting:NPJC AU

:SOURce:ATM:MAPPING <mtype>

Parameter <mtype> = <CHARACTER PROGRAM DATA>

AAL1

AAL2

AAL34

AAL5

ATM

Function Sets ATM mapping of the send signal.

Restriction Invalid when;

- :INSTrument:CONFIg is other than <ATM>.

Example use To set the ATM mapping of send signal to AAL1.
> :SOURce:ATM:MAPPING AAL1

:SOURce:ATM:MAPPING?

Response <mtype> = <CHARACTER RESPONSE DATA>

Function Quiries ATM mapping of send signal.

Example use > :SOURce:ATM:MAPPING?
< AAL1

:SOURce:ATM:HSTRucture <htype>

Parameter <htype> = <CHARACTER PROGRAM DATA>

UNI

NNI

Function Sets the Header structure of a send signal.

Restriction Invalid when;

- :INSTrument:CONFIg setting is other than <ATM>.

Example use To set the Header structure of a send signal UNI.
> :SOURce:ATM:OHPRreset:E3:PTYPE "Unequipped", or
> :SOURce:ATM:HSTRucture UNI

:SOURCE:ATM:HSTRucture?

Response <hType> = <CHARACTER RESPONSE DATA>
 Function Queries the header structure of send signal.
 Example use >:SOURCE:ATM:HSTRucture?
 < UNI

:SOURCE:ATM:OAM <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 SEGMENT Segment
 END End-to-end
 Function Sets a OAM type for the transmission signals.
 Restriction Invalid when;
 - When the ATM unit is not installed.
 - :INSTRUMENT:CONFIg setting is other than <ATM>.
 Example use To set the OAM type of a send signal to End-to-end.
 > :SOURCE:ATM:OAM END

:SOURCE:ATM:OAM?

Response <type> = <CHARACTER RESPONSE DATA>
 SEGM Segment
 END End-to-end
 Function Queries the OAM type for transmission signals.
 Example use > :SOURCE:ATM:OAM?
 < END

:SOURCE:ATM:OHPRreset:E3:PATtern <ohpoint>, <string>

Parameter <ohpoint> = <CHARACTER PROGRAM DATA>
 FA1, FA2, RDI, REI, PTYPE, PDEP, TMARK, NR, GC
 <string> = <STRING PROGRAM DATA>
 "00" to "FF" (HEX format) <ohpoint> is FA1, FA2, NR, or GC.
 "0" to "1" (BIN format) <ohpoint> is RDI, REI, or TMARK.
 "00" to "11" (BIN format) <ohpoint> is PDEP.
 "000" to "011" (BIN format) <ohpoint> is PTYPE.
 Function Sets the E3 preset data of send signal.
 Restriction Invalid when;
 - When the 2/8/34/139/156M (CMI) unit is not installed.

- :INSTRument:CONFIg is <ATM>.
 Example use To set E3 FA1 preset data to "FF":
 > :SOURce:ATM:OHPReset:E3:PATtern FA1, "FF"

:SOURce:ATM:OHPReset:E3:PATtern? <ohpoint>

Parameter <ohpoint> = <CHARACTER PROGRAM DATA>
 Response <string> = <STRING RESPONSE DATA>
 Function Queries the E3 preset data of send signal.
 Example use To query the FA1 preset data of E3:
 > :SOURce:ATM:OHPReset:E3:PATtern? FA1
 < "AB"

:SOURce:ATM:OHPReset:E3:PTYPE <string>

Parameter <string> = <STRING PROGRAM DATA>

"Unequipped"	"UNEQ"	(000)
"Equipped-non-specific"	"non-specific"	(001)
"ATM"	"ATM"	(010)
"SDH TU-12s"	"TU12"	(011)

Note : Abbreviated format is at right.

Function Sets the plain-language of the E3 preset data (Payload type) of send signal.
 Restriction Invalid when;
 - When the 2/8/34/139/156M (CMI) unit is not installed..
 - :INSTRument:CONFIg setting is other than <ATM>.
 Example use To set the preset data of the E3 Payload type to "Unequipped".
 > :SOURce:ATM:OHPReset:E3:PTYPE "Unequipped"

:SOURce:ATM:OHPReset:E3:PTYPE ?

Response <string> = <STRING RESPONSE DATA>
 Function Queries Payload type of E3 preset data of the send signal.
 Example use To query E3 Payload type preset data:
 > :SOURce:ATM:OHPReset:E3:PTYPE ?
 <"Unequipped"

:SOURce:ATM:OHPReset:E3:TRACe <string>

Parameter	<string> = <STRING PROGRAM DATA> The characterstring must consist of 0 to 16 characters. "" is allowed.
Function	Sets Trail trace pattern of E3 preset data of the send signal. Data is in ASCII.
Restriction	Invalid when; <ul style="list-style-type: none"> - When the 2/8/34/139/156M (CMI) unit is not installed.. - :INSTrument:CONFIg setting is other than <ATM>.
Example use	To set E3 Trail trace to "*MP1550C SDH/PDH": > :SOURce:ATM:OHPReset:E3:TRACe " MP1550C PDH/SDH"

:SOURce:ATM:OHPReset:E3:TRACe?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries Trail trace pattern of E3 preset data of the send signal.
Example use	To query Trail trace pattern of E3 FA1 preset data: > :SOURce:ATM:OHPReset:E3:TRACe? < "*MP1550C PDH/SDH"

:SOURce:ATM:OHPReset:E3:DEFault

Parameter	None
Function	Initializes E3 preset data of the send signal.
Restriction	Invalid when; <ul style="list-style-type: none"> - When the 2/8/34/139/156M (CMI) unit is not installed. - :INSTrument:CONFIg setting is other than <ATM>.
Example use	> :SOURce:ATM:OHPReset:E3:DEFault

:SOURce:ATM:OHPReset:E4:PATTern <ohpoint>, <string>

Parameter	<ohpoint> = <CHARACTER PROGRAM DATA> FA1, FA2, P1, P2, RDI, REI, PTYPE, PDEP, TMARK, NR, GC <string> = <STRING PROGRAM DATA> "00" to "FF" (HEX format) <ohpoint> is, FA1, FA2, P1, P2, NR, or GC "0" to "1" (BIN format) <ohpoint> is, RDI, REI, or TMARK. "00" to "11" (BIN format) <ohpoint> is PDEP. "000" to "100" (BIN format) <ohpoint> is, PTYPE.
Function	Sets E4 preset data of the send signal.
Restriction	Invalid when; <ul style="list-style-type: none"> - When the 2/8/34/139/156M (CMI) unit is not installed..

- :INSTrument:CONFIg setting is other than <ATM>.
 Example use To set E4 FA1 preset data to “FF”:
 > :SOURce:ATM:OHPReset:E4:PATtern FA1, "FF"

:SOURce:ATM:OHPReset:E4:PATtern? <ohpoint>

Parameter <ohpoint> = <CHARACTER PROGRAM DATA>
 Response <string> = <STRING RESPONSE DATA>
 Function Queries E4 preset data of the send signal.
 Example use To query E4 FA1 preset data:
 > :SOURce:ATM:OHPReset:E4:PATtern? FA1
 < "AB"

:SOURce:ATM:OHPReset:E4:PTYPe <string>

Parameter <string> = <STRING PROGRAM DATA>

"Unequipped"	"UNEQ"	(000)
"Equipped-non-specific"	"non-specific"	(001)
"ATM"	"ATM"	(010)
"TUG-2"	"TUG-2"	(011)
"TUG-3 & TUG-2"	"TUG-3 & TUG-2"	(100)

Note : Abbreviated format is at right.

Function Sets plain-language of E4 preset data (payload type) of the send signal.
 Restriction Invalid when;
 - When the 2/8/34/139/156M (CMI) unit is not installed.
 - :INSTrument:CONFIg setting is other than <ATM>.
 Example use To set preset data of E4 Payload type to “Unequipped”:
 > :SOURce:ATM:OHPReset:E4:PTYPe "Unequipped"

:SOURce:ATM:OHPReset:E4:PTYPe?

Response <string> = <STRING RESPONSE DATA>
 Function Queries E4 preset data (Payload type) of the send signal.
 Example use To query preset data of E3 Payload type:
 > :SOURce:ATM:OHPReset:E4:PTYPe?
 < "Unequipped"

:SOURce:ATM:OHPReset:E4:TRACe <string>

Parameter	<string> = <STRING PROGRAM DATA> "ABCDEFGH01234abcd"
	The character string must consist of 0 to 16 characters.
Function	Sets Trail trace pattern of E4 preset data of the send signal. Data is expressed in ASCII.
Restriction	Invalid when; - When the 2/8/34/139/156M (CMI) unit is not installed. - :INSTrument:CONFIg setting is other than <ATM>.
Example use	To set E4 Trail trace to "*MP1570A SDH/PDH": > :SOURce:ATM:OHPReset:E4:TRACe " MP1570A SDH/PDH"

:SOURce:ATM:OHPReset:E4:TRACe?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries Trail traced pattern of E4 preset data of the send signal.
Example use	To query Trail trace pattern of E4: > :SOURce:ATM:OHPReset:E4:TRACe? < "*MP1550C PDH/SDH"

:SOURce:ATM:OHPReset:E4:DEFault

Parameter	None
Function	Initializes E4 preset data of the send signal.
Restriction	Invalid when; - When the 2/8/34/139/156M (CMI) unit is not installed. - :INSTrument:CONFIg setting is other than <ATM>.
Example use	> :SOURce:ATM:OHPReset:E4:DEFault

:SOURce:ATM:OHPReset:DS3Plcp:PLCP <numeric>, <string>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 12 Step value : 1 <string> = <STRING PROGRAM DATA> "00" to "FF"
Function	Sets PLCP of DS3 PLCP preset data of the send signal. Represent <string> in hexadecimal notation.
Restriction	Invalid when; - When the 1.5/45/52M unit is not installed.

- :INSTrument:CONFIg setting is other than <ATM>.

Example use To query fourth PLCP A1 of DS3 PLCP:
 > :SOURce:ATM:OHPReset:DS3Plcp:PLCP 4, "FF"

:SOURce:ATM:OHPReset:DS3Plcp:PLCP? <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>

Response <string> = <STRING RESPONSE DATA>

Function Queries PLCP of DS3 DS3 PLCP preset data of the send signal.
 Represent <string> in hexadecimal notation.

Example use To query fourth PLCP A1 of DS3 PLCP:
 > :SOURce:ATM:OHPReset:DS3Plcp:PLCP? 4
 < "FF"

:SOURce:ATM:OHPReset:DS3Plcp:FRAME <numeric>, <string>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 12 Step value : 1
 <string> = <STRING PROGRAM DATA>
 "00" to "FF"

Function Sets frame of DS3 PLCP preset data of the send signal.
 Represent <string> in hexadecimal notation.

Restriction Invalid when;
 - When the 1.5/45/52M unit is not installed.
 - :INSTrument:CONFIg setting is other than <ATM>.

Example use To set fourth frame A2 of DS3 PLCP to "FF":
 > :SOURce:ATM:OHPReset:DS3Plcp:FRAME 4, "FF"

:SOURce:ATM:OHPReset:DS3Plcp:FRAME? <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>

Response <string> = <STRING RESPONSE DATA>

Function Queries frame of DS3 PLCP preset data of the send signal.
 Represent <string> in hexadecimal notation.

Example use To query fourth frame A2 of DS3 PLCP:
 > :SOURce:ATM:OHPReset:DS3Plcp:FRAME? 4
 < "FF"

:SOURce:ATM:OHPReset:DS3Plcp:POI <type>, <string>

Parameter	<type> = <CHARACTER PROGRAM DATA> P11, P10, P09, P08, P07, P06, P05, P04, P03, P02, P01, P00 <string> = <STRING PROGRAM DATA> "00" to "FF"
Function	Sets PIO of DS3 PLCP preset data of the send signal. Represent <string> in hexadecimal notation.
Restriction	Invalid when; <ul style="list-style-type: none"> • When the 1.5/45/52M unit is not installed. • :INSTrument:CONFIg setting is other than <ATM>.
Example use	To set PIO P11 of DS3 PLCP to "FF": > :SOURce:ATM:OHPReset:DS3Plcp:POI P11, "FF"

:SOURce:ATM:OHPReset:DS3Plcp:POI? <type>

Parameter	<type> = <CHARACTER PROGRAM DATA>
Response	<string> = <STRING RESPONSE DATA>
Function	Queries PIO of DS3 PLCP preset data of the send signal. Represent <string> in hexadecimal notation.
Example use	To query PIO P11 of DS3 PLCP: > :SOURce:ATM:OHPReset:DS3Plcp:POI? 4 < "FF"

:SOURce:ATM:OHPReset:DS3Plcp:POH <type>, <string>

Parameter	<type> = <CHARACTER PROGRAM DATA> Z6, Z5, Z4, Z3, Z2, Z1, X7, G1, X10, X11 <string> = <STRING PROGRAM DATA> "00" to "FF"
Function	Sets POH of DS3 PLCP preset data of the send signal. Represent <string> in hexadecimal notation.
Restriction	Invalid when; <ul style="list-style-type: none"> - When the 1.5/45/52M unit is not installed. - :INSTrument:CONFIg setting is other than <ATM>.
Example use	To set POH Z6 of DS3 PLCP to "FF": > :SOURce:ATM:OHPReset:DS3Plcp:POH Z6, "FF"

:SOURCE:ATM:OHPReset:DS3Plcp:POH? <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 Response <string> = <STRING RESPONSE DATA>
 Function Queries POH of DS3 PLCP preset data of the send signal.
 Represent <string> in hexadecimal notation.
 Example use To query POH Z6 of DS3 PLCP:
 > :SOURCE:ATM:OHPReset:DS3Plcp:POH? Z6
 < "FF"

:SOURCE:ATM:OHPReset:DS3Plcp:DEFault

Parameter None
 Function Initializes DS3 PLCP preset data of the send signal.
 Restriction Invalid when;
 - When the 1.5/45/52M unit is not installed.
 - :INSTrument:CONFIg setting is other than <ATM>.
 Example use > :SOURCE:ATM:OHPReset:DS3Plcp:DEFault

:SOURCE:ATM:MANual:TRAFfic:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 O191 0.191
 USER User program
 MEMorized Memorized cell
 Function Sets ATM cell type.
 Restriction Invalid when;
 - :INSTrument:CONFIg setting is other than <ATM>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELl">, and
 <"MANual:RCELl">.
 - :SOURCE:ATM:MAPPing is, <AAL1>, <AAL2>, <AAL34>, and
 <AAL5>.
 Example use To set ATM cell type to 0.191:
 > :SOURCE:ATM:MANual:TRAFfic:TYPE O191

:SOURce:ATM:MANual:TRAFfic:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA>	
	O191	O.191
	USER	User program
	MEM	Memorized cell
Function	Queries ATM cell type.	
Example use	> :SOURce:ATM:MANual:TRAFfic:TYPE? < O191	

:SOURce:ATM:MANual:TRAFfic:MEMorized:NUMBer <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 2016 Step value : 1	
Function	Sets number of Memorized cell repetitions.	
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFig setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">. - :SOURce:ATM:MAPPing is <AAL1>, <AAL2>, <AAL34>, or <AAL5>. - :SOURce:ATM:MANual:TRAFfic:TYPE is <O191> or <USER>. 	
Example use	To set number of Memorized cell repetitions to 2016: > :SOURce:ATM:MANual:TRAFfic:MEMorized:NUMBer 2016	

:SOURce:ATM:MANual:TRAFfic:MEMorized:NUMBer?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>	
Function	Queries number of Memorized cell repetitions.	
Example use	> :SOURce:ATM:MANual:TRAFfic:MEMorized:NUMBer? < 2016	

:SOURce:ATM:MANual:TRAFfic:HEADer "<gfc>, <vpi>, <vci>, <pt>, <clp>"

Parameter	<gfc> = <STRING PROGRAM DATA> 0 to F (HEX format)	
	<vpi> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 255 at UNI 0 to 4095 at NNI	

	<vci> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 65535
	<pt> = <STRING PROGRAM DATA> 000 to 111 (BIN format)
	<clp> = <STRING PROGRAM DATA> 0 to 1 (BIN format)
Function	Sets header pattern.
Restriction	Invalid when; <ul style="list-style-type: none"> - When all parameters are omitted. - :INSTRument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">.
Example use	To set header pattern to GFC:F and VPI:255: > :SOURce:ATM:MANual:TRAFfic:HEADer "F, 255, , , "

:SOURce:ATM:MANual:TRAFfic:HEADer?

Response	<gfc> = <STRING RESPONSE DATA> <vpi> = <NR1 NUMERIC RESPONSE DATA> <vci> = <NR1 NUMERIC RESPONSE DATA> <pt> = <STRING RESPONSE DATA> <clp> = <STRING RESPONSE DATA> Note : <gfc> is output as "" at NNI.
Function	Queries header pattern.
Example use	> :SOURce:ATM:MANual:TRAFfic:HEADer? < "F, 255, 4095, 001, 1"

:SOURce:ATM:MANual:TRAFfic:PAYLoad:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA>
	WORD8 Word8
	WORD16 Word16
	SCPRbs7 Single cell PRBS7
	SCPRbs9 Single cell PRBS9
	CCPRbs9 Cross cell PRBS9
	CCPRbs15 Cross cell PRBS15
	CCPRbs23 Cross cell PRBS23
	EDIT Edit pattern

	TSTamp	Time stamp
Function	Sets payload type.	
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. - :SOURce:ATM:MAPPing is <ATM>, and :SOURce:ATM:MANual:TRAFfic:TYPE is <O191> or <MEMorized>. - :SOURce:ATM:MAPPing is <ATM>, <AAL1>, <AAL34>, or <AAL5>, and <WORD8> or <SCPRbs7> is set. - :SOURce:ATM:MAPPing is <AAL2>, and <WORD16>, <SCPRbs9>, <CCPRbs9>, <CCPRbs15>, or <CCPRbs23> is set. - :SOURce:ATM:MAPPing is <AAL5> or <TSTamp>. 	
Example use	To set payload type to Word16: > :SOURce:ATM:MANual:TRAFfic:PAYLoad:TYPE WORD16	

:SOURce:ATM:MANual:TRAFfic:PAYLoad:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA>	
	WORD8	Word8
	WORD16	Word16
	SCPR7	Single cell PRBS7
	SCPR9	Single cell PRBS9
	CCPR9	Cross cell PRBS9
	CCPR15	Cross cell PRBS15
	CCPR23	Cross cell PRBS23
	EDIT	Edit pattern
	TST	Time stamp
Function	Queries payload type.	
Example use	> :SOURce:ATM:MANual:TRAFfic:PAYLoad:TYPE? < WORD16	

:SOURce:ATM:MANual:TRAFfic:PAYLoad:WORD <string>

Parameter <string> = <STRING PROGRAM DATA>
 "0000000000000000" to "1111111111111111"

Function Sets word pattern.
 Represent <string> in binary notation.

Restriction Invalid when;
 - :INSTrument:CONFig setting is other than <ATM>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, and
 <"MANual:RCELL">.

Example use To set word pattern to "01000111 00001111":
 > :SOURce:ATM:MANual:TRAFfic:PAYLoad:WORD
 "0100011100001111"

:SOURce:ATM:MANual:TRAFfic:PAYLoad:WORD?

Response <string> = <STRING RESPONSE DATA>

Function Queries word pattern.

Example use > :SOURce:ATM:MANual:TRAFfic:PAYLoad:WORD?
 < "0100011100001111"

:SOURce:ATM:MANual:TRAFfic:DISTRibution <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

CBR	CBR
BURSt	Burst
CWCDv	CBR with CDV
POISson	Poisson
SAWTooth	Sawtooth

Function

Restriction Invalid when;
 - :INSTrument:CONFig setting is other than <ATM>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, and
 <"MANual:RCELL">.

Example use To set cell traffic type to CBR:
 > :SOURce:ATM:MANual:TRAFfic:DISTRibution CBR

:SOURce:ATM:MANual:TRAFfic:DISTRibution?

Response	<type> = <CHARACTER RESPONSE DATA>	
	CBR	CBR
	BURST	Burst
	CWCDV	CBR with CDV
	POISSON	Poisson
	SAWTOOTH	Sawtooth
Function	Queries cell traffic type.	
Example use	> :SOURce:ATM:MANual:TRAFfic:DISTRibution? < CBR	

:SOURce:ATM:MANual:TRAFfic:CBR:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA>	
	BPS	kbit/s
	CPS	cells/s
	PERCent	%
Function	Sets CBR type.	
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. 	
Example use	To set CBR type to kbit/s: > :SOURce:ATM:MANual:TRAFfic:CBR:TYPE BPS	

:SOURce:ATM:MANual:TRAFfic:CBR:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA>	
	BPS	kbit/s
	CPS	cells/s
	PERC	%
Function	Queries CBR type.	
Example use	> :SOURce:ATM:MANual:TRAFfic:CBR:TYPE? < BPS	

:SOURce:ATM:MANual:TRAFfic:CBR:BPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 99999 Step value : 1
Function	Sets cell traffic (kbit/s) at CBR.
Restriction	Invalid when; - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic (kb/s) at CBR to 100 kbit/s: > :SOURce:ATM:MANual:TRAFfic:CBR:BPS 100, BPS

:SOURce:ATM:MANual:TRAFfic:CBR:BPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> <suffix> = <CHARACTER RESPONSE DATA>
Function	Queries cell traffic (kbit/s) at CBR.
Example use	> :SOURce:ATM:MANual:TRAFfic:CBR:BPS? < 100, BPS

:SOURce:ATM:MANual:TRAFfic:CBR:CPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 1412830 Step value : 1
Function	Sets cell traffic (Cells/s) at CBR.
Restriction	Invalid when; - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is , <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic (Cells/s) at CBR to 100: > :SOURce:ATM:MANual:TRAFfic:CBR:CPS 100

:SOURce:ATM:MANual:TRAFfic:CBR:CPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (Cells/s) at CBR
Example use	> :SOURce:ATM:MANual:TRAFfic:CBR:CPS? < 100

:SOURce:ATM:MANual:TRAFfic:CBR:PERCent <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0.0 to 100.0 Step value : 1
Function	Sets cell traffic (%) at CBR.
Restriction	Invalid when; - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, or <"MANual:RCELI">.
Example use	To set cell traffic (%) at CBR to 50: > :SOURce:ATM:MANual:TRAFfic:CBR:PERCent 50

:SOURce:ATM:MANual:TRAFfic:CBR:PERCent?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (%) at CBR.
Example use	> :SOURce:ATM:MANual:TRAFfic:CBR:PERCent? < 50

:SOURce:ATM:MANual:TRAFfic:BURSt:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> BPS kbit/s CPS cells/s PERCent %
Function	Sets BURSt type.
Restriction	Invalid when; - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and <"MANual:RCELI">.
Example use	To set BURSt type to kbit/s: > :SOURce:ATM:MANual:TRAFfic:BURSt:TYPE BPS

:SOURce:ATM:MANual:TRAFfic:BURSt:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA>
Function	Queries BURSt type.
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:TYPE? < BPS

:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:BPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 99999 Step value : 1
Function	Sets cell traffic (kbit/s) at BURSt:RMAX.
Restriction	Invalid when; - :INSTRument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic (kb/s) at BURSt:RMAX to 100 kbit/s: > :SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:BPS 100, BPS

:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:BPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> <suffix> = <CHARACTER RESPONSE DATA>
Function	Queries cell traffic (kbit/s) at BURSt:RMAX.
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:BPS? < 100, BPS

:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:BPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 99999 Step value : 1
Function	Sets cell traffic (%) at BURSt:RMIN.
Restriction	Invalid when; - :INSTRument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic (kbit/s) at BURSt:RMIN to 100 kbit/s: > :SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:BPS 100, BPS

:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:BPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> <suffix> = <CHARACTER RESPONSE DATA>
Function	Queries cell traffic (kbit/s) at BURSt:RMIN.
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:BPS? < 100, BPS

:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:CPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 1412830 Step value : 1
Function	Sets cell traffic (Cells/s) at BURSt:RMAX.
Restriction	Invalid when; - :INSTrument:CONFIg setting is <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic (Cells/s) at BURSt to 100: > :SOURce:ATM:MANual:TRAFfic:BURSt:CPS 100

:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:CPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (Cells/s) at BURSt:RMAX.
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:CPS? < 100

:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:CPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 1412830 Step value : 1
Function	Sets cell traffic (cell/s) at BURSt:RMIN.
Restriction	Invalid when; - :INSTrument:CONFIg setting is <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic at BURSt to 100. > :SOURce:ATM:MANual:TRAFfic:BURSt:CPS 100

:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:CPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic at BURSt:RMIN (Cells/s).
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:CPS? < 100

:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:PERCent <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0.0 to 100.0 Step value : 1
Function	Sets cell traffic (%) at BURSt:RMAX.
Restriction	Invalid when; - :INSTrument:CONFig setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic (%) at BURSt:RMAX to 50: > :SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:PERCent 50

:SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:PERCent?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (%) at BURSt:RMAX :
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:RMAX:PERCent? < 50

:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:PERCent <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0.0 to 100.0 Step value : 1
Function	Sets cell traffic (%) at BURSt:RMIN.
Restriction	Invalid when; - :INSTrument:CONFig setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set cell traffic (%) at BURSt:RMIN to 50: > :SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:PERCent 50

:SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:PERCent?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (%) at BURSt:RMIN.
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:RMIN:PERCent? < 50

:SOURce:ATM:MANual:TRAFfic:BURSt:T1 <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1000 to 128000 Step value : 1000
Function	Sets cell traffic (cell) at BURSt.
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. - :SOURce:ATM:MANual:TRAFfic:DISTriBution is other than <BURSt>.
Example use	To set cell traffic (cell) at BURSt to 1000: > :SOURce:ATM:MANual:TRAFfic:BURSt:T1 1000

:SOURce:ATM:MANual:TRAFfic:BURSt:T1?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (cell) at BURSt :
Example use	> :SOURce:ATM:MANual:TRAFfic:BURSt:T1? < 1000

:SOURce:ATM:MANual:TRAFfic:BURSt:T2 <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1000 to 128000 Step value : 1000
Function	Sets cell traffic (cell) at BURSt.
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">. - :SOURce:ATM:MANual:TRAFfic:DISTriBution is other than <BURSt>. - T1>=T2.
Example use	To set cell traffic (cell) at BURSt to 10000: > :SOURce:ATM:MANual:TRAFfic:BURSt:T2 10000

:SOURce:ATM:MANual:TRAFfic:BURSt:T2?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries cell traffic (cell) at BURSt.
 Example use > :SOURce:ATM:MANual:TRAFfic:BURSt:T2?
 < 10000

:SOURce:ATM:MANual:TRAFfic:CWCDv:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 BPS kbit/s
 CPS cells/s
 PERCent %
 Function Sets CBR with CDV type.
 Restriction Invalid when;
 - :INSTrument:CONFIg setting is other than <ATM>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELl">, and
 <"MANual:RCELl">.
 - :SOURce:ATM:MANual:TRAFfic:DISTriBution is other than
 <CWCDv>.
 Example use To set CBR with CDV type to bit/s:
 > :SOURce:ATM:MANual:TRAFfic:CWCDv:TYPE BPS

:SOURce:ATM:MANual:TRAFfic:CWCDv:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 Function Queries CBR with CDV type.
 Example use > :SOURce:ATM:MANual:TRAFfic:CWCDv:TYPE?
 < BPS

:SOURce:ATM:MANual:TRAFfic:CWCDv:CDVT <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 10 to 999 Step
 Function Sets the CDVT(Cell) for CBR with CDV.
 Restriction Invalid when;
 - INSTrument:ATM is <OFF>.
 - :DISPlay:TMENu[:NAME:] is other than <"MANual:TCLayer">,
 <"MANual:TCELl">, and <"MANual:RCELl">.

- :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <CWCDv>.
- :SOURce:ATM:MANual:TRAFfic:CWCDv:TYPE is <BPS> or <PERCent>.

Example use To set the CDVT (Cell) for CBR with CDV to 100:
> :SOURce:ATM:MANual:TRAFfic:CWCDv 100

:SOURce:ATM:MANual:TRAFfic:CWCDv:CDVT?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
Function Queries the CDVT (Cell) for CBR with CDV.
Example use > :SOURce:ATM:MANual:TRAFfic:CWCDv:CDVT?
< 100

:SOURce:ATM:MANual:TRAFfic:CWCDv:BPS <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
0 to 99999 Step value : 1
Function Sets cell traffic (kbit/s) at CBR with CDV.
Restriction Invalid when;
- :INSTrument:CONFig setting is other than <ATM>.
- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
- :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <CWCDv>.
Example use To set cell traffic (kbit/s) at CBR with CDV to 100 kbit/s:
> :SOURce:ATM:MANual:TRAFfic:CWCDv:BPS 100, BPS

:SOURce:ATM:MANual:TRAFfic:CWCDv:BPS?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
<suffix> = <CHARACTER RESPONSE DATA>
Function Queries cell traffic (kbit/s) at CBR with CDV.
Example use > :SOURce:ATM:MANual:TRAFfic:CWCDv:BPS?
< 100, BPS

:SOURce:ATM:MANual:TRAFfic:CWCDv:CPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 1412830 Step value : 1
Function	Sets cell traffic (Cells/s) at CBR with CDV.
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFig setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. - :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <CWCDv>.
Example use	To set cell traffic (Cells/s) at CBR with CDV to 100: > :SOURce:ATM:MANual:TRAFfic:CWCDv:CPS 100

:SOURce:ATM:MANual:TRAFfic:CWCDv:CPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (Cells/s) at CBR with CDV.
Example use	> :SOURce:ATM:MANual:TRAFfic:CWCDv:CPS? < 100

:SOURce:ATM:MANual:TRAFfic:CWCDv:PERCent <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0.0 to 100.0 Step value : 1
Function	Sets cell traffic (%) at CBR with CDV.
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFig setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. - :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <CWCDv>.
Example use	To set cell traffic (%) at CBR with CDV to 50: > :SOURce:ATM:MANual:TRAFfic:CWCDv:PERCent 50

:SOURce:ATM:MANual:TRAFfic:CWCDv:PERCent?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries cell traffic (%) at CBR with CDV.
 Example use > :SOURce:ATM:MANual:TRAFfic:CWCDv:PERCent?
 < 50

:SOURce:ATM:MANual:TRAFfic:POISson[:PERCent] <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0.0 to 100.0 Step value : 1
 Function Sets cell traffic (%) at POISson.
 Restriction Invalid when;
 - :INSTrument:CONFIg setting is other than <ATM>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, and
 <"MANual:RCELL">.
 - :SOURce:ATM:MANual:TRAFfic:DISTriBution is other than
 <POISson>.
 Example use To set cell traffic (%) at POISson to 50:
 > :SOURce:ATM:MANual:TRAFfic:POISson:PERCent 50

:SOURce:ATM:MANual:TRAFfic:POISson[:PERCent]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries cell traffic (%) at POISson.
 Example use > :SOURce:ATM:MANual:TRAFfic:POISson:PERCent?
 < 50

:SOURce:ATM:MANual:TRAFfic:SAWTooth:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 BPS kbit/s
 CPS cells/s
 PERCent %
 Function Sets SAWTooth type.
 Restriction Invalid when;
 - :INSTrument:CONFIg setting is other than <ATM>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, and

<"MANual:RCELL">.

Example use To set SAWTooth type to bit/s.
 > :SOURce:ATM:MANual:TRAFfic:SAWTooth:TYPE BPS

:SOURce:ATM:MANual:TRAFfic:SAWTooth:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 Function Queries the SAWTooth type.
 Example use > :SOURce:ATM:MANual:TRAFfic:SAWTooth:TYPE?
 < BPS

:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:BPS <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 to 99999 Step value : 1
 Function Sets cell traffic (kbit/s) at SAWTooth:RMAX.
 Restriction Invalid when;
 - :INSTrument:CONFig setting is other than <ATM>.
 - :DISPlay:TMENU[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, and
 <"MANual:RCELL">.
 - :SOURce:ATM:MANual:TRAFfic:DISTriBution is other than
 <SAWTooth>.
 Example use To set cell traffic (kbit/s) at SAWTooth:RMAX to 100 kbit/s:
 > :SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:BPS 100, BPS

:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:BPS?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 <suffix> = <CHARACTER RESPONSE DATA>
 Function Queries cell traffic (kbit/s) at SAWTooth:RMAX.
 Example use > :SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:BPS?
 < 100, BPS

:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:BPS <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 to 99999 Step value : 1
 Function Sets cell traffic (kbit/s) at SAWTooth.
 Restriction Invalid when;

- :INSTRument:CONFIg setting is other than <ATM>.
- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
- :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <SAWTooth>.

Example use To set cell traffic (kbit/s) at SAWTooth:RMIN to 100 kbit/s:
 > :SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:BPS 100, BPS

:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:BPS?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 <suffix> = <CHARACTER RESPONSE DATA>

Function Queries cell traffic (kbit/s) at SAWTooth:RMIN.

Example use > :SOURce:ATM:MANual:TRAFfic:SAWTooth:RMIN:BPS?
 < 100, BPS

:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:CPS <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 to 1412830 Step value : 1

Function Sets cell traffic:RMAX (Cells/s) at SAWTooth.

Restriction Invalid when;

- :INSTRument:CONFIg setting is other than <ATM>.
- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
- :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <SAWTooth>.

Example use To set cell traffic (Cells/s) at SAWTooth to 100:
 > :SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:CPS 100

:SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:CPS?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries cell traffic (Cells/s) at SAWTooth:RMAX.

Example use > :SOURce:ATM:MANual:TRAFfic:SAWTooth:RMAX:CPS?
 < 100

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:CPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 1412830 Step value : 1
Function	Sets cell traffic Rmain (Cells/s) at SAWTooth.
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and <"MANual:RCELI">. - :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <SAWTooth>.
Example use	To set cell traffic (Cells/s) at SAWTooth:RMAIN to 100: > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:CPS 100

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:CPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell traffic (Cells/s) at SAWTooth:RMAIN.
Example use	> :SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:CPS? < 100

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMAX:PERCent <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0.0 to 100.0 Step value : 1
Function	Sets cell traffic (%) at SAWTooth:RMAX.
Restriction	Invalid when; <ul style="list-style-type: none"> - :INSTrument:CONFIg setting is other than <ATM>. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">. - :SOURce:ATM:MANual:TRAFfic:DISTRibution is other than <SAWTooth>.
Example use	To set cell traffic (%) at SAWTooth:RMAX to 50: > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMAX:PERCent 50

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMAX:PERCent?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries cell traffic (%) at SAWTooth:RMAX.
 Example use > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMAX:PERCent?
 < 50

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:PERCent <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0.0 to 100.0 Step value : 1
 Function Sets cell traffic (%) at SAWTooth:RMIN.
 Restriction Invalid when;
 - :INSTrument:CONFig setting is other than <ATM>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, and
 <"MANual:RCELL">.
 - :SOURCE:ATM:MANual:TRAFfic:DISTriBution is other than
 <SAWTooth>.
 Example use To set cell traffic (%) at SAWTooth:RMIN to 50:
 > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:PERCent 50

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:PERCent?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries cell traffic (%) at SAWTooth:RMIN.
 Example use > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:PERCent?
 < 50

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:T1 <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1000 to 98000 Step value : 1000
 Function Sets the cell the traffic (cell) when SAWTooth is set.
 Restriction Invalid when;
 - :The setting of INSTrument:CONFig is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.
 - :SOURCE:ATM:MANual:TRAFfic:DISTriBution is other than
 <SAWTooth>.
 Example use To set the cell traffic (cell) to 1000 when SAWTooth is set.
 > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:T1 1000

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:T1?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries the cell traffic (cell) when SAWTooth is set.
 Example use > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:T1?
 < 1000

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:T2 <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1000 to 128000 Step value : 1000
 Function Sets the cell traffic (cell) when SAWTooth is set.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELL">.
 - :SOURCE:ATM:MANual:TRAFfic:DISTriBution is other than
 SAWTooth.
 - T1>=T2.
 Example use To the cell traffic to 1000 when SAWTooth is set.
 > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:T2 10000

:SOURCE:ATM:MANual:TRAFfic:SAWTooth:T2?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries the cell traffic (cell) when SAWTooth is set.
 Example use > :SOURCE:ATM:MANual:TRAFfic:SAWTooth:T2?
 < 10000

:SOURCE:ATM:MANual:TRAFfic:TIMing:MODE <mode>

Parameter <mode> = <CHARACTER PROGRAM DATA>
 SINGLE
 CONTInuous
 Function Sets transmission type.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELL">.
 - :SOURCE:ATM:MANual:TRAFfic:DISTriBution is <CBR>,

Function Queries Single cell transmission condition.
 Example use > :SOURce:ATM:MANual:TRAFfic:TIMing:STATe?
 < 0

:SOURce:ATM:MANual:TRAFfic:BACKground:PERCent <traffic>

Parameter <traffic> = <STRING PROGRAM DATA>
 "[<numeric1>], [<numeric2>], [<numeric3>], [<numeric4>],
 [<numeric5>], [<numeric6>], [<numeric7>], [<numeric8>],
 [<numeric9>], [<numeric10>]"
 <numeric1 to 10> is 0 to 99 Step value : 1
 When the part after a value is completely omitted, commas can also be
 omitted.

Function Sets Traffic (%) of Background cell.

Restriction Invalid when;
 - When all parameters are omitted.
 - :The setting of INSTRument:CONFig is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.

Example use To set No.1 and No.3 of Background cell Traffic (%) to 30% and 20%:
 > :SOURce:ATM:MANual:TRAFfic:BACKground:PERCent "30,,20"

:SOURce:ATM:MANual:TRAFfic:BACKground:PERCent?

Response "<numeric1>, <numeric2>, <numeric3>, <numeric4>, <numeric5>,
 <numeric6>, <numeric7>, <numeric8>, <numeric9>, <numeric10>,
 <total>"
 = <STRING RESPONSE DATA>

Function Queries Background cell Traffic (%) (1 to 10, total).

Example use > :SOURce:ATM:MANual:TRAFfic:BACKground:PERCent?
 < "30,0,20,0,0,0,0,0,0,0,50"

:SOURce:ATM:MANual:TRAFfic:BACKground:CPS <traffic>

Parameter <traffic> = <STRING PROGRAM DATA>
 "[<numeric1>], [<numeric2>], [<numeric3>], [<numeric4>],
 [<numeric5>], [<numeric6>], [<numeric7>], [<numeric8>],
 [<numeric9>], [<numeric10>]"
 <numeric1 to 10> is 0 to 1398701 Step value : 1

	When the part after a value is completely omitted, commas can also be omitted.
Function	Sets Traffic(Cell/s) of Background cell.
Restriction	Invalid when; <ul style="list-style-type: none"> - When all parameters are omitted. - :The setting of INSTRUMENT:CONFIG is other than ATM.. - :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">. - When total cps of 1 to 10 exceeds (Max cps (determined by Bit rate) minus Test cell cps).
Example use	To set No.1 and No.3 of Background cell Traffic to 100 and 2000: > :SOURCE:ATM:MANual:TRAFfic:BACKground:CPS "100,,2000"

:SOURCE:ATM:MANual:TRAFfic:BACKground:CPS?

Response	"<numeric1>, <numeric2>, <numeric3>, <numeric4>, <numeric5>, <numeric6>, <numeric7>, <numeric8>, <numeric9>, <numeric10>, <total>" = <STRING RESPONSE DATA>
Function	Queries Background cell Traffic (cell/s) (1 to 10, total).
Example use	> :SOURCE:ATM:MANual:TRAFfic:BACKground:CPS? < "100,0,2000,0,0,0,0,0,0,0,2100"

:SOURCE:ATM:MANual:TRAFfic:BACKground:TYPE <type>

Parameter	<type> = <STRING PROGRAM DATA> " [<type1>], [<type2>], [<type3>], [<type4>], [<type5>], [<type6>], [<type7>], [<type8>], [<type9>], [<type10>]" <type1>, <type2>, <type3>, <type4>, <type5>, <type6>, <type7>, <type8>, <type9>, <type10> = <CHARACTER PROGRAM DATA> CONSTant
	When the part after a value is completely omitted, commas can also be omitted.
Function	Sets Traffic (type) of Background cell.
Restriction	Invalid when; <ul style="list-style-type: none"> - When all parameters are omitted. - :The setting of INSTRUMENT:CONFIG is other than ATM.. - :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">,

<"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELL">.

Example use To set No.2 of Background cell Traffic to Constant:
 > :SOURce:ATM:MANual:TRAFfic:BACKground:TYPE ",CONStant"

:SOURce:ATM:MANual:TRAFfic:BACKground:TYPE?

Response "<type1>, <type2>, <type3>, <type4>, <type5>, <type6>, <type7>, <type8>, <type9>, <type10>" = <STRING RESPONSE DATA>
 CONS

Function Queries Background cell Traffic (type) (1 to 10).

Example use > :SOURce:ATM:MANual:TRAFfic:BACKground:TYPE?
 < "CONS,CONS,CONS,CONS,CONS,CONS,CONS,CONS,CONS, CONS"

:SOURce:ATM:MANual:TRAFfic:DAAL2[:PERCent] <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 to 100 Step value : 1

Function Sets the dummy packet traffic (%) at AAL2.

Restriction Invalid when;
 - The setting of :INSTrument:CONFig is other than <ATM>.
 - :SOURce:ATM:MAPPing is other than <AAL2>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:TCELI">.
 - :ROUte:THROugh is <ON>.

Example use To set the dummy packet traffic (%) at AAL2 to 20%.
 > :SOURce:ATM:MANual:TRAFfic:DAAL2 20

:SOURce:ATM:MANual:TRAFfic:DAAL2[:PERCent]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries the dummy packet traffic at AAL2.

Example use > :SOURce:ATM:MANual:TRAFfic:DAAL2?
 < 20

:SOURce:ATM:MANual:TRAFfic:FCELL <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 UNASsigned
 IDLE

Function Sets Fill cell type.

Restriction Invalid when;

- :The setting of INSTRUMENT:CONFIG is other than ATM..
- :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.

Example use To set Fill cell type to IDLE:
> :SOURCE:ATM:MANual:TRAFFic:FCELL IDLE

:SOURCE:ATM:MANual:TRAFFic:FCELL?

Response <type> = <CHARACTER RESPONSE DATA>
UNAS
IDLE

Function Queries Fill cell type.

Example use > :SOURCE:ATM:MANual:TRAFFic:FCELL?
< IDLE

:SOURCE:ATM:MANual:EALarm:ALARm:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

OFF	Insert no alarm.
LCD	Inserts LCD alarm.
VPAIS	Inserts VP-AIS alarm.
VPRDI	Inserts VP-RDI alarm.
VCAIS	Inserts VC-AIS alarm.
VCRDI	Inserts VC-RDI alarm.
VPUSER	Inserts VP User program.
VCUSER	Inserts VC User program.

Function Sets alarm type to be inserted for the send signal.

Restriction Invalid when;

- The setting of INSTRUMENT:CONFIG is other than ATM..
- :DISPLAY:TMENU[:NAME] is <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.

Example use To insert VP-AIS:
> :SOURCE:ATM:MANual:EALarm:ALARm:TYPE VPAIS

:SOURCE:ATM:MANual:EALarm:ALARm:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>

Function Queries alarm type to be inserted for the send signal.

Example use > :SOURCE:ATM:MANual:EALarm:ALARm:TYPE?
< VPAIS

:SOURce:ATM:MANual:EALarm:ALARm:TIMing <numeric>

Parameter	<numeric> = <NON-DECIMAL NUMERIC PROGRAM DATA> 0.1 to 10.0 Step value : 0.1
Function	Sets alarm addition timing.
Restriction	Invalid when; - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">. - :SOURce:ATM:MANual:EALarm:ALARm:TYPE is <OFF>.
Example use	To set alarm addition timing to 1.0: > :SOURce:ATM:MANual:EALarm:ALARm:TIMing 1.0

:SOURce:ATM:MANual:EALarm:ALARm:TIMing?

Response	<numeric> = <NR2 NUMERIC RESPONSE DATA>
Function	Queries alarm addition timing.
Example use	> :SOURce:ATM:MANual:EALarm:ALARm:TIMing? < 1.0

:SOURce:ATM:MANual:EALarm:ERRor:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA>
	OFF Inserts no error.
	HEC1 HEC error(1bit)
	HEC2 HEC error(2bit)
	USER user program
	(1 to 53 bytes position specification)
	LOST Lost cell
	MISINS Misinserted cell
	ERRORED Errored cell
	SECB SECB
	PRBS PRBS
	WORD Word
	SNP1 SNP(1bit)
	SNP2 SNP(2bit)
	P P
	SN SN
	OSF OSF

HCPS	HEC(CPS-packet)
LI	Length indicator
CRC10	CRC10
ST	Segment type
ABORT	Abort
CPI	CPI
BETAG	B/Etag
BASIZE	BAsize
AL	AL
LENGTH	Length
FSIZE	Frame size
CRC32	CRC32

Function Sets error type to be inserted for the send signal.

Restriction Invalid when;

- :The setting of INSTRUMENT:CONFIG is other than ATM..
- :ROUTE:THROUGH is <ON>.
- :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.

The following error items can be added:

Addition always allowed	HEC error(1bit)	HEC error(2bit)	User program
ATM:0.191	Lost cell SB	Misinseted cell	Errored cell
ATM:Word16	Word		
ATM:PRBIT**	PRBIT		
AAL1	Lost cell	WORD(Word16)	OSF SNP(1bit) SNP(2bit)
AAL2	P HEC(CPS-packet) WORD (when Word8 is set)	SN PRBIT (at Single cell PRBS7)	
AAL3/4	SN (when Length36 is set) Length indicator Abort BAsize Length (cannot be selected for AAL3/4:Time stamp) PRBS (to PRBS**)	CRC10 CPI AL	Segment type B/Etag WORD(when Word16 is set)
AAL5	Abort	Length WORD(at Word16)PRBS(to PRBS**)	CRC32

Example use To insert HEC error (1 bit):
> :SOURCE:ATM:MANual:EALarm:ERROR:TYPE HEC1

:SOURce:ATM:MANual:EALarm:ERROr:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 Function Queries error type to be inserted for the send signal.
 Example use > :SOURce:ATM:MANual:EALarm:ERROr:TYPE?
 < HEC1

:SOURce:ATM:MANual:EALarm:ERROr:BYTE <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 53
 Function Sets error addition byte.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - :ROUte:THROugh is <ON>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">.
 - :SOURce:ATM:MANual:EALarm:ERROr:TYPE is other than
 <HUSER>, <PUSER>.
 - :SOURce:ATM:MANual:EALarm:ERROr:TYPE is <HUSER>, and <6
 to 48> is set.
 Example use To set error addition byte to 5.
 > :SOURce:ATM:MANual:EALarm:ERROr:BYTE 5

:SOURce:ATM:MANual:EALarm:ERROr:BYTE?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries error addition byte.
 Example use > :SOURce:ATM:MANual:EALarm:ERROr:BYTE?
 < 5

:SOURce:ATM:MANual:EALarm:ERROr:PATtern <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00000000" to "11111111"
 Function Sets error addition pattern (bit format).
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - :ROUte:THROugh is <ON>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,

<"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.
 - :SOURce:ATM:MANual:EALarm:ERRor:TYPE is other than
 <USER>, <WORD>.

Example use To set error addition pattern to "00001011":
 > :SOURce:ATM:MANual:EALarm:ERRor:PATtern "00001011"

:SOURce:ATM:MANual:EALarm:ERRor:PATtern?

Response <string> = <STRING RESPONSE DATA>
 Function Queries error addition pattern (bit format).
 Example use > :SOURce:ATM:MANual:EALarm:ERRor:PATtern?
 < "00001011"

:SOURce:ATM:MANual:EALarm:ERRor:TIMing:MODE <mode>

Parameter <mode> = <CHARACTER PROGRAM DATA>

ONCE	Single error
R1E_3	1E-3
R1E_4	1E-4
R1E_5	1E-5
R1E_6	1E-6
R1E_7	1E-7
R1E_8	1E-8
R1E_9	1E-9
SEQUence	Sequence
R5E_3	5E-3
R5E_4	5E-4
R5E_5	5E-5
R5E_6	5E-6
R5E_7	5E-7
R5E_8	5E-8
R5E_9	5E-9

Function Sets error insertion rate.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - :ROUte:THROugh is <ON>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.

- :SOURce:ATM:MANual:EALarm:ERRor:TYPE is <OFF>.
- :SOURce:ATM:MANual:EALarm:ERRor:TYPE is <LOST> or <MISINS>; and <SEQuence> is set.

Example use To insert errors with 1E-3 rate:
 > :SOURce:ATM:MANual:EALarm:ERRor:TIMing:MODE R1E_3

:SOURce:ATM:MANual:EALarm:ERRor:TIMing:MODE?

Response <mode> = <CHARACTER RESPONSE DATA>

ONCE	Single error
R1E_3	1E-3
R1E_4	1E-4
R1E_5	1E-5
R1E_6	1E-6
R1E_7	1E-7
R1E_8	1E-8
R1E_9	1E-9
SEQ	Sequence
R5E_3	5E-3
R5E_4	5E-4
R5E_5	5E-5
R5E_6	5E-6
R5E_7	5E-7
R5E_8	5E-8
R5E_9	5E-9

Function Queries error insertion rate.

Example use > :SOURce:ATM:MANual:EALarm:ERRor:TIMing:MODE?
 < R1E_3

:SOURce:ATM:MANual:EALarm:ERRor:TIMing:COUNT <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>

1 to 64

Function Sets successive error addition count.

Restriction Invalid when;

- :The setting of INSTRument:CONFig is other than ATM..
- :ROUTE:THROUGH is <ON>.
- :DISPlay:TMENU[:NAME] is other than <"MANual:JON">.

- <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELL">.
- :SOURce:ATM:MANual:EALarm:ERRor:TYPE is <OFF>.
 - :SOURce:ATM:MANual:EALarm:ERRor:TIMing:MODE is other than <SEQuence>.

Example use To set successive error addition count to 5:
 > :SOURce:ATM:MANual:EALarm:ERRor:TIMing:COUNT 5

:SOURce:ATM:MANual:EALarm:ERRor:TIMing:COUNT?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries successive error addition count.
 Example use > :SOURce:ATM:MANual:EALarm:ERRor:TIMing:COUNT?
 < 5

:SOURce:ATM:MANual:EALarm:CC:SEND <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

OFF	Adds no CC cell.
VP	VP CC
VC	VC CC

Function Sets CC cell addition.
 Restriction Invalid when;

- :The setting of INSTRument:CONFIg is other than ATM..
- :DISPlay:TMENu[:NAME] is, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, or <"MANual:RCELL">.

Example use To add VP CC cell:
 > :SOURce:ATM:MANual:EALarm:CC:SEND VP

:SOURce:ATM:MANual:EALarm:CC:SEND?

Response <type> = <CHARACTER RESPONSE DATA>
 Function Queries CC cell addition condition.
 Example use > :SOURce:ATM:MANual:EALarm:CC:SEND?
 < VP

:SOURce:ATM:MANual:EALarm:LOOPback:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> VP VP Loopback VC VC Loopback
Function	Sets Loopback cell type.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set Loopback cell to VP: > :SOURce:ATM:MANual:EALarm:LOOPback:TYPE VP

:SOURce:ATM:MANual:EALarm:LOOPback:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA>
Function	Queries Loopback cell type.
Example use	> :SOURce:ATM:MANual:EALarm:LOOPback:TYPE? < VP

:SOURce:ATM:MANual:EALarm:LOOPback:START

Parameter	None
Function	Sends Loopback cell.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	> :SOURce:ATM:MANual:EALarm:LOOPback:START

:SOURce:ATM:MANual:EALarm:LOOPback:STATe?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 Loopback Transmission has stopped. 1 Loopback Transmission is in progress.
Function	Queries Loopback cell transmission condition.
Example use	> :SOURce:ATM:MANual:EALarm:LOOPback:STATe? < 0

:SOURce:ATM:MANual:PM:FM:SEND <type>

Parameter	<type> = <CHARACTER PROGRAM DATA>
	OFF Adds no PM Forward cell.
	VP VP Forward
	VC VC Forward
Function	Sets PM Forward cell addition.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To add PM Forward cell: > :SOURce:ATM:MANual:PM:FM:SEND VP

:SOURce:ATM:MANual:PM:FM:SEND?

Response	<type> = <CHARACTER RESPONSE DATA>
Function	Queries PM Forward cell addition condition.
Example use	> :SOURce:ATM:MANual:PM:FM:SEND? < VP

:SOURce:ATM:MANual:PM:FM:ERRor:TYPE <character>

Parameter	<type> = <CHARACTER PROGRAM DATA>
	OFF Inserts no error.
	LOST Lost
	MISINS Misinserted
	BIPV BIPV
	SBIT/SB
Function	Sets error type to be inserted for the send signal.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">. - :SOURce:ATM:MANual:PM:FM:SEND is <OFF>.
Example use	To insert LOST: > :SOURce:ATM:MANual:PM:FM:ERRor:TYPE LOST

:SOURce:ATM:MANual:PM:FM:ERRor:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 Function Queries error type to be inserted for the send signal.
 Example use > :SOURce:ATM:MANual:PM:FM:ERRor:TYPE?
 < LOST

:SOURce:ATM:MANual:PM:FM:ERRor:TIMing:MODE <character>

Parameter <mode> = <CHARACTER PROGRAM DATA>

ONCE	Single error
R1E_3	1E-3
R1E_4	1E-4
R1E_5	1E-5
R1E_6	1E-6
R1E_7	1E-7
R1E_8	1E-8
R1E_9	1E-9
R5E_3	5E-3
R5E_4	5E-4
R5E_5	5E-5
R5E_6	5E-6
R5E_7	5E-7
R5E_8	5E-8
R5E_9	5E-9

Function Sets error insertion rate.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
 - :SOURce:ATM:MANual:PM:FM:SEND is <OFF>.
 - :SOURce:ATM:MANual:PM:FM:ERRor:TYPE is <OFF>.

Example use To insert Single errors:
 > :SOURce:ATM:MANual:PM:FM:ERRor:TIMing:MODE ONCE

:SOURce:ATM:MANual:PM:FM:ERRor:TIMing:MODE?

Response	<mode> = <CHARACTER RESPONSE DATA>
Function	Queries error insertion rate.
Example use	> :SOURce:ATM:MANual:PM:FM:ERRor:TIMing:MODE? < ONCE

:SOURce:ATM:MANual:PM:BR:SEND <type>

Parameter	<type> = <CHARACTER PROGRAM DATA>
	OFF Adds no PM Backward cell.
	VP VP Backward
	VC VC Backward
Function	Sets PM Backward cell addition.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">.
Example use	To add PM Backward cell: > :SOURce:ATM:MANual:PM:BR:SEND VP

:SOURce:ATM:MANual:PM:BR:SEND?

Response	<type> = <CHARACTER RESPONSE DATA>
Function	Queries PM Backward cell addition condition.
Example use	> :SOURce:ATM:MANual:PM:BR:SEND? < VP

:SOURce:ATM:MANual:PM:BR:ERRor:TYPE <character>

Parameter	<character> = <CHARACTER PROGRAM DATA>
	OFF Inserts no error.
	LOST Lost
	MISINS Misinserted
	BIPV BIPV
	SBIT/SB
Function	Sets error type to be inserted for the send signal.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">.

<"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">.

- :SOURce:ATM:MANual:PM:BR:SEND is <OFF>.

Example use

To add SECB:

>:SOURce:ATM:MANual:PM:BR:ERRor:TYPE SB

:SOURce:ATM:MANual:PM:BR:ERRor:TYPE?

Response

<type> = <CHARACTER RESPONSE DATA>

Function

Queries error type to be inserted for the receive signal.

Example use

>:SOURce:ATM:MANual:PM:BR:ERRor:TYPE?

<SB

:SOURce:ATM:MANual:PM:BR:ERRor:TIMing:MODE <character>

Parameter

<character> = <CHARACTER PROGRAM DATA>

ONCE	Single error
R1E_3	1E-3
R1E_4	1E-4
R1E_5	1E-5
R1E_6	1E-6
R1E_7	1E-7
R1E_8	1E-8
R1E_9	1E-9
R5E_3	5E-3
R5E_4	5E-4
R5E_5	5E-5
R5E_6	5E-6
R5E_7	5E-7
R5E_8	5E-8
R5E_9	5E-9

Function

Sets error insertion rate.

Restriction

Invalid when;

- :The setting of INSTRument:CONFIg is other than ATM..
- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">.
- :SOURce:ATM:MANual:PM:BR:SEND is <OFF>.
- :SOURce:ATM:MANual:PM:BR:ERRor:TYPE is <OFF>.

Example use

To insert Single errors:

>:SOURce:ATM:MANual:PM:BR:ERRor:TIMing:MODE ONCE

:SOURce:ATM:MANual:PM:BR:ERRor:TIMing:MODE?

Response	<type> = <CHARACTER RESPONSE DATA>
Function	Queries error insertion rate.
Example use	>:SOURce:ATM:MANual:PM:BR:ERRor:TIMing:MODE? <ONCE

:SOURce:ATM:MANual:PM:BR:INTerval <numeric>

Parameter	<numeric> = <NON-CHARACTER PROGRAM DATA> 0.00 to 1.00 0.01(s) Step
Function	Sets the insert interval for the BR cell.
Restriction	Invalid when; <ul style="list-style-type: none"> - When ATM unit is not installed. - INSTRument:ATM is <OFF>. - DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">. - SOURce:ATM:MANual:PM:BR:SEND is <OFF>. - While running the self-test.
Example use	To set the insert interval for the BR cell to 0.1. > :SOURce:ATM:MANual:PM:BR:INTerval 0.1

:SOURce:ATM:MANual:PM:BR:INTerval?

Response	<numeric> = <NR2 NUMERIC RESPONSE DATA>
Function	Queries the insert interval for the BR cell.
Example use	> :SOURce:ATM:MANual:PM:BR:INTerval? < 0.10

:SOURce:ATM:PATtern:ATM:O191:PAYLoad <string>

Parameter	<string> = <STRING PROGRAM DATA> "00,01,02,03, ... ,2F" Specify payload in 37 hexadecimal bytes. Note: Specify <...,...> not to change a current value.
Function	Sets payload pattern for ATM:0.191.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFig is other than ATM..
Example use	To set payload pattern for ATM:0.191: > :SOURce:ATM:PATtern:O191:PAYLoad "00,01,01,00, ... ,01"

:SOURCE:ATM:PATTERN:ATM:O191:PAYLOAD?

Response <string> = <STRING RESPONSE DATA>
 Function Queries payload pattern for ATM:0.191.
 Example use > :SOURCE:ATM:PATTERN:ATM:O191:PAYLOAD?
 < "00,01,01,00, ··· ,01"

:SOURCE:ATM:PATTERN:ATM:O191:DEFAULT

Parameter None
 Function Sets initial pattern as payload pattern for ATM:0.191.
 Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..
 Example use To set TCPT for ATM:0.191 to "00001011":
 > :SOURCE:ATM:PATTERN:ATM:O191:DEFAULT

:SOURCE:ATM:PATTERN:ATM:O191:TCPT <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00000000" to "11111111"
 Function Sets TCPT for ATM:0.191 (bit format).
 Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..
 Example use To set TCPT for ATM:0.191 to "00001011":
 > :SOURCE:ATM:PATTERN:ATM:O191:TCPT "00001011"

:SOURCE:ATM:PATTERN:ATM:O191:TCPT?

Response <string> = <STRING RESPONSE DATA>
 Function Queries TCPT for ATM:0.191 (bit format).
 Example use > :SOURCE:ATM:PATTERN:ATM:O191:TCPT?
 < "00001011"

:SOURCE:ATM:PATTERN:ATM:USER:PAYLOAD <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ··· ,2F" Specify payload in 48 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.
 Function Sets payload pattern for ATM:User.
 Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..

Example use To set payload pattern for ATM:Other:
 > :SOURce:ATM:PATtern:ATM:USER:PAYLoad "00,01,01,00,···,01"

:SOURce:ATM:PATtern:ATM:USER:PAYLoad?

Response <string> = <STRING RESPONSE DATA>
 Function Queries payload pattern for ATM:User.
 Example use > :SOURce:ATM:PATtern:ATM:USER:PAYLoad?
 < "00,01,01,00, ··· ,01"

:SOURce:ATM:PATtern:ATM:USER:DEFault

Parameter None
 Function Sets initial pattern as payload pattern for ATM:User.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To initialize payload pattern for ATM:User:
 > :SOURce:ATM:PATtern:ATM:USER:DEFault

:SOURce:ATM:PATtern:AAL1:POINter <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00" to "FF" Specify one hexadecimal byte.
 Function
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set Pointer at AAL1 to "FF":
 > :SOURce:ATM:PATtern:AAL1:POINter "FF"

:SOURce:ATM:PATtern:AAL1:POINter?

Response <string> = <STRING RESPONSE DATA>
 Function Queries Pointer at AAL1.
 Example use > :SOURce:ATM:PATtern:AAL1:POINter?
 < "FF"

:SOURce:ATM:PATtern:AAL1:PAYLoad <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ··· ,2F" Specify payload in 47 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.

Function Sets payload pattern at AAL1.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set payload pattern at AAL1:
 > :SOURce:ATM:PATtern:AAL1:PAYLoad "00,01,01,00, ··· ,01"

:SOURce:ATM:PATtern:AAL1:PAYLoad?

Response <string> = <STRING RESPONSE DATA>
 Function Queries payload pattern at AAL1.
 Example use > :SOURce:ATM:PATtern:AAL1:PAYLoad?
 < "00,01,01,00, ··· ,01"

:SOURce:ATM:PATtern:AAL1:DEFault

Parameter None
 Function Sets initial pattern as payload pattern at AAL1.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To initialize payload pattern at AAL1:
 > :SOURce:ATM:PATtern:AAL1:DEFault

:SOURce:ATM:PATtern:AAL1:PFORmat <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>
 OFF or 0
 ON or 1
 Function Sets P-format at AAL1.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set P-format at AAL1 to ON:
 > :SOURce:ATM:PATtern:AAL1:PFORmat ON

:SOURce:ATM:PATtern:AAL1:PFORmat?

Response <boolean> = <NR1 NUMERIC RESPONSE DATA>
 0
 1
 Function Queries P-format at AAL1.
 Example use > :SOURce:ATM:PATtern:AAL1:PFORmat?
 < 1

:SOURce:ATM:PATtern:AAL1:RTS <string>

Parameter	<string> = <STRING PROGRAM DATA> "0000" to "1111"
Function	Sets RTS at AAL1 (bit format).
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To set RTS at AAL1 to "0011": > :SOURce:ATM:PATtern:AAL1:RTS "0011"

:SOURce:ATM:PATtern:AAL1:RTS?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries RTS at AAL1 (bit format).
Example use	> :SOURce:ATM:PATtern:AAL1:RTS? < "0011"

:SOURce:ATM:PATtern:AAL2:PCID <string>

Parameter	<string> = <STRING PROGRAM DATA> "00" to "FF"
Function	Sets CID (Primary) at AAL2.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To set PCID at AAL2 to "11": >:SOURce:ATM:PATtern:AAL2:PCID "11"

:SOURce:ATM:PATtern:AAL2:PCID?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries CID (Primary) at AAL2.
Example use	>:SOURce:ATM:PATtern:AAL2:PCID? <"11"

:SOURce:ATM:PATtern:AAL2:LI <numeric>

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 to 63
Function	Sets LI at AAL2.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To set LI at AAL2 to "11": >:SOURce:ATM:PATtern:AAL2:LI "11"

:SOURce:ATM:PATtern:AAL2:LI ?

Response <numeric> = <numeric RESPONSE DATA>
 Function Queries LI at AAL2.
 Example use >:SOURce:ATM:PATtern:AAL2:LI ?
 <"11"

:SOURce:ATM:PATtern:AAL2:PPPT <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00","01","10","11"
 Function Sets PPT (Primary) at AAL2.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set PPTD at AAL2 to "11":
 >:SOURce:ATM:PATtern:AAL2:PPPT "11"

:SOURce:ATM:PATtern:AAL2:PPPT ?

Response <string> = <STRING RESPONSE DATA>
 Function Queries PPT (Primary) at AAL2.
 Example use >:SOURce:ATM:PATtern:AAL2:PPPT ?
 <"11"

:SOURce:ATM:PATtern:AAL2:PUUI <STRING>

Parameter <string> = <STRING PROGRAM DATA>
 "000" to "111"
 Function Sets UUI (Primary) at AAL2.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set PUUI at AAL2 to "101":
 >:SOURce:ATM:PATtern:AAL2:PUUI "101"

:SOURce:ATM:PATtern:AAL2:PUUI?

Response <string> = <STRING RESPONSE DATA>
 Function Queries UUI (Primary) at AAL2.
 Example use >:SOURce:ATM:PATtern:AAL2:PUUI?
 <"101"

:SOURce:ATM:PATtern:AAL2:PAYLoad <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,..." (64BYTE)

Function Sets payload at AAL2.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set payload at AAL2 to "11,11,11":
 >:SOURce:ATM:PATtern:AAL2:PAYLoad "11,11,11"

:SOURce:ATM:PATtern:AAL2:PAYLoad?

Response <string> = <STRING RESPONSE DATA>

Function Queries payload at AAL2.

Example use >:SOURce:ATM:PATtern:AAL2:PAYLoad?
 <"11,11,11"

:SOURce:ATM:PATtern:AAL2:DCID <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00" to "FF"

Function Sets CID (Dummy) at AAL2.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set DCID at AAL2 to "11":
 >:SOURce:ATM:PATtern:AAL2:DCID

:SOURce:ATM:PATtern:AAL2:DCID ?

Response <string> = <STRING RESPONSE DATA>

Function Queries CID (Dummy) at AAL2.

Example use >:SOURce:ATM:PATtern:AAL2:DCID ?
 <"11"

:SOURce:ATM:PATtern:AAL2:DPPT <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00","01","10","11"

Function Sets PPT (Dummy) at AAL2.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set PPTD at AAL2 to "11":
 >:SOURce:ATM:PATtern:AAL2:DCID

:SOURCE:ATM:PATTERN:AAL2:DPPT?

Response <string> = <STRING RESPONSE DATA>
 Function Queries PPT (Dummy) at AAL2.
 Example use >:SOURCE:ATM:PATTERN:AAL2:DPPT
 <"11"

:SOURCE:ATM:PATTERN:AAL2:DUUI <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00","01","10","11"
 Function Sets PPT (Primary) at AAL2.
 Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..
 Example use To set DPTD at AAL2 to "11":
 >:SOURCE:ATM:PATTERN:AAL2:DUUI "11"

:SOURCE:ATM:PATTERN:AAL2:DUUI ?

Response <string> = <STRING RESPONSE DATA>
 Function Queries UUI (Dummy) at AAL2.
 Example use >:SOURCE:ATM:PATTERN:AAL2:DUUI ?
 <"11"

:SOURCE:ATM:PATTERN:AAL2:DEFAULT

Parameter None
 Function Initializes PAYLoad at AAL2.
 Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..
 Example use To initialize Payload at AAL2:
 >:SOURCE:ATM:PATTERN:AAL2:DEFAULT

:SOURCE:ATM:PATTERN:AAL34:MID <string>

Parameter <string> = <STRING PROGRAM DATA>
 "0000000000" to "1111111111"
 Function Sets MID at AAL3/4 (bit format).
 Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..
 Example use To set MID at AAL3/4 to "0000000011":
 > :SOURCE:ATM:PATTERN:AAL34:MID "0000000011"

:SOURce:ATM:PATtern:AAL34:MID?

Response <string> = <STRING RESPONSE DATA>
 Function Queries MID at AAL3/4 (bit format).
 Example use > :SOURce:ATM:PATtern:AAL34:MID?
 < "0000000011"

:SOURce:ATM:PATtern:AAL34:CPI <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00" to "FF" Specify one hexadecimal byte.
 Function Sets CPI at AAL3/4.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set CPI at AAL3/4 to "FF":
 > :SOURce:ATM:PATtern:AAL34:CPI "FF"

:SOURce:ATM:PATtern:AAL34:CPI?

Response <string> = <STRING RESPONSE DATA>
 Function Queries CPI at AAL3/4.
 Example use > :SOURce:ATM:PATtern:AAL34:CPI?
 < "FF"

:SOURce:ATM:PATtern:AAL34:BTAG <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00" to "FF" Specify one hexadecimal byte.
 Function Sets BTag and ETag at AAL3/4.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set BTag and ETag at AAL3/4 to "FF":
 > :SOURce:ATM:PATtern:AAL34:BTAG "FF"

:SOURce:ATM:PATtern:AAL34:BTAG?

Response <string> = <STRING RESPONSE DATA>
 Function Queries BTag and ETag at AAL3/4.
 Example use > :SOURce:ATM:PATtern:AAL34:BTAG?
 < "FF"

:SOURce:ATM:PATtern:AAL34:BASize <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
1 to 65535

Function Sets BAsize at AAL3/4.

Restriction Invalid when;
- :The setting of INSTRument:CONFig is other than ATM..

Example use To set BAsize at AAL3/4 to 5:
> :SOURce:ATM:PATtern:AAL34:BASize 5

:SOURce:ATM:PATtern:AAL34:BASize?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries BAsize at AAL3/4.

Example use > :SOURce:ATM:PATtern:AAL34:BASize?
< 5

:SOURce:ATM:PATtern:AAL34:LENGth <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
1 to 65535

Function Sets Length at AAL3/4.

Restriction Invalid when;
- :The setting of INSTRument:CONFig is other than ATM..

Example use To set Length at AAL3/4 to 5:
> :SOURce:ATM:PATtern:AAL34:LENGth 5

:SOURce:ATM:PATtern:AAL34:LENGth?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries Length at AAL3/4.

Example use > :SOURce:ATM:PATtern:AAL34:LENGth?
< 5

:SOURce:ATM:PATtern:AAL5:LENGth <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
1 to 65535

Function Sets Length at AAL5.

Restriction Invalid when;
- :The setting of INSTRument:CONFig is other than ATM..

Example use To set Length at AAL5 to 5:
> :SOURce:ATM:PATtern:AAL5:LENGth 5

:SOURce:ATM:PATtern:AAL5:LENGth?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries Length at AAL5.
 Example use > :SOURce:ATM:PATtern:AAL5:LENGth?
 < 5

:SOURce:ATM:PATtern:AAL5:UU <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00" to "FF"
 Function Sets CPCS-UU at AAL5.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set CPCS-UU at AAL5 to "11":
 >:SOURce:ATM:PATtern:AAL5:UU "11"

:SOURce:ATM:PATtern:AAL5:UU?

Response <string> = <NR1 STRING RESPONSE DATA>
 Function Queries CPCS-UU at AAL5.
 Example use >:SOURce:ATM:PATtern:AAL5:UU?>
 <"11"

:SOURce:ATM:PATtern:AAL5:CPI <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00" to "FF"
 Function Sets CPI at AAL5.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set CPI at AAL5 to "11":
 >:SOURce:ATM:PATtern:AAL5:CPI "11"

:SOURce:ATM:PATtern:AAL5:CPI ?

Response <string> = <NR1 STRING RESPONSE DATA>
 Function Queries CPI at AAL5.
 Example use >:SOURce:ATM:PATtern:AAL5:CPI?
 <"11"

:SOURce:ATM:PATtern:PAYLoad:PATtern <numeric>, <string>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 65535 Specify setting-start position (byte).
 <string> = <STRING PROGRAM DATA>
 "00,00,00, ... ,00" Specify in hexadecimal for the number of bytes to
 be set.
 Note: Specify <.....> not to change a current value.

Function Sets the 65,535-byte payload pattern.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set four bytes (starting from third payload) to "00,01,01,00":
 > :SOURce:ATM:PATtern:PAYLoad:PATtern 3,"00,01,01,00"

:SOURce:ATM:PATtern:PAYLoad:PATtern? <numeric1>, <numeric2>

Parameter <numeric1>, <numeric2> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 65535 Output start position (byte) and output end position (byte)

Response <string> = <STRING RESPONSE DATA>
 "00,00,00,00, ... ,00" The range set by <numeric> is output.

Function Queries the 65,535-byte payload pattern.

Example use > :SOURce:ATM:PATtern:PAYLoad:PATtern? 3,10
 < "00,01,02,03,04,05,06,07"

:SOURce:ATM:PATtern:PAYLoad:DEFault <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00000000" to "11111111"

Function Sets initial pattern as the 65,535-byte payload pattern.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To initialize the 65,535-byte payload pattern to "00000000":
 > :SOURce:ATM:PATtern:PAYLoad:DEFault "00000000"

:SOURce:ATM:PATtern:AIS:FSField <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ... ,2F" Specify 45 hexadecimal bytes.
 Note: Specify <.....> not to change a current value.

Function Sets AIS cell Function specific field.

Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To set AIS cell Function specific field: > :SOURCE:ATM:PATTERN:AIS:FSField "00,01,01,00, ··· ,01"

:SOURCE:ATM:PATTERN:AIS:FSField?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries AIS cell Function specific field.
Example use	> :SOURCE:ATM:PATTERN:AIS:FSField? < "00,01,01,00, ··· ,01"

:SOURCE:ATM:PATTERN:AIS:DEFAULT

Parameter	None
Function	Sets initial pattern as AIS cell Function specific field.
Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To initialize AIS cell Function specific field: > :SOURCE:ATM:PATTERN:AIS:DEFAULT

:SOURCE:ATM:PATTERN:AIS:RESERVE <string>

Parameter	<string> = <STRING PROGRAM DATA> "000000" to "111111"
Function	Sets AIS cell Reserve (bit format).
Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To set AIS cell Reserve to "001011": > :SOURCE:ATM:PATTERN:AIS:RESERVE "001011"

:SOURCE:ATM:PATTERN:AIS:RESERVE?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries AIS cell Reserve (bit format).
Example use	> :SOURCE:ATM:PATTERN:AIS:RESERVE? < "001011"

:SOURce:ATM:PAATtern:RDI:FSField <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ... ,2F" Specify 45 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.

Function Sets RDI cell Function specific field.

Restriction Invalid when;
 - :The setting of INSTRument:CONFIg is other than ATM..

Example use To set RDI cell Function specific field:
 > :SOURce:ATM:PAATtern:RDI:FSField "00,01,01,00, ... ,01"

:SOURce:ATM:PAATtern:RDI:FSField?

Response <string> = <STRING RESPONSE DATA>

Function Queries RDI cell Function specific field.

Example use > :SOURce:ATM:PAATtern:RDI:FSField?
 < "00,01,01,00, ... ,01"

:SOURce:ATM:PAATtern:RDI:DEFault

Parameter None

Function Sets initial pattern as RDI cell Function specific field.

Restriction Invalid when;
 - :The setting of INSTRument:CONFIg is other than ATM..

Example use To initialize RDI cell Function specific field:
 > :SOURce:ATM:PAATtern:RDI:DEFault

:SOURce:ATM:PAATtern:RDI:REServe <string>

Parameter <string> = <STRING PROGRAM DATA>
 "000000" to "111111"

Function Sets RDI cell Reserve (bit format).

Restriction Invalid when;
 - :The setting of INSTRument:CONFIg is other than ATM..

Example use To set RDI cell Reserve to "001011":
 > :SOURce:ATM:PAATtern:RDI:REServe "001011"

:SOURce:ATM:PATtern:RDI:REServe?

Response<string> = <STRING RESPONSE DATA>

Function Queries RDI cell Reserve (bit format).

Example use > :SOURce:ATM:PATtern:RDI:REServe?
< "001011"

:SOURce:ATM:PATtern:USER:OAM <string>

Parameter <string> = <STRING PROGRAM DATA>
"0000" to "1111"

Function Sets OAM type of User program cell. (bit format)

Restriction Invalid when;
- :The setting of INSTRument:CONFig is other than ATM..

Example use To set OAM type of User program cell to "0001":
> :SOURce:ATM:PATtern:USER:OAM "0001"

:SOURce:ATM:PATtern:USER:OAM?

Response <string> = <STRING RESPONSE DATA>

Function Queries OAM type of User program cell. (bit format)

Example use > :SOURce:ATM:PATtern:USER:OAM?
< "0001"

:SOURce:ATM:PATtern:USER:FUNCtion <string>

Parameter <string> = <STRING PROGRAM DATA>
"0000" to "1111"

Function Sets Function type of User program cell (bit format).

Restriction Invalid when;
- :The setting of INSTRument:CONFig is other than ATM..

Example use To set Function type of User program cell to "0010":
> :SOURce:ATM:PATtern:USER:FUNCtion "0010"

:SOURce:ATM:PATtern:USER:FUNCtion?

Response <string> = <STRING RESPONSE DATA>

Function Queries the Function type of User program cell (bit format).

Example use > :SOURce:ATM:PATtern:USER:FUNCtion?
< "0010"

:SOURce:ATM:PATtern:USER:FSField <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ··· ,2F" Specify 45 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.

Function Sets User program cell Function specific field.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set User program cell Function specific field:
 > :SOURce:ATM:PATtern:USER:FSField "00,01,01,00, ··· ,01"

:SOURce:ATM:PATtern:USER:FSField?

Response <string> = <STRING RESPONSE DATA>

Function Queries User program cell Function specific field.

Example use > :SOURce:ATM:PATtern:USER:FSField?
 < "00,01,01,00, ··· ,01"

:SOURce:ATM:PATtern:USER:DEFault

Parameter None

Function Sets initial pattern as User program cell Function specific field.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To initialize User program cell Function specific field:
 > :SOURce:ATM:PATtern:USER:DEFault

:SOURce:ATM:PATtern:USER:REServe <string>

Parameter <string> = <STRING PROGRAM DATA>
 "000000" to "111111"

Function Sets User program cell Reserve (bit format).

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set User program cell Reserve to "001011":
 > :SOURce:ATM:PATtern:USER:REServe "001011"

:SOURce:ATM:PATtern:USER:REServe?

Response <string> = <STRING RESPONSE DATA>
 Function Queries User program cell Reserve (bit format).
 Example use > :SOURce:ATM:PATtern:USER:REServe?
 < "001011"

:SOURce:ATM:PATtern:CC:FSField <string>

Parameter <string> = <STRING PROGRAM DATA>
 00,01,02,03, ··· ,2F" Specify 45 hexadecimal bytes.
 Note: Specify <.....> not to change a current value.
 Function Sets CC cell Function specific field.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set CC cell Function specific field:
 > :SOURce:ATM:PATtern:CC:FSField "00,01,01,00, ··· ,01"

:SOURce:ATM:PATtern:CC:FSField?

Response <string> = <STRING RESPONSE DATA>
 Function Queries the CC cell Function specific field.
 Example use > :SOURce:ATM:PATtern:CC:FSField?
 < "00,01,01,00, ··· ,01"

:SOURce:ATM:PATtern:CC:DEFault

Parameter None
 Function Sets initial pattern as CC cell Function specific field.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To initialize CC cell Function specific field:
 > :SOURce:ATM:PATtern:CC:DEFault

:SOURce:ATM:PATtern:CC:REServe <string>

Parameter <string> = <STRING PROGRAM DATA>
 "000000" to "111111"
 Function Sets CC cell Reserve (bit format).
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set CC cell Reserve to "001011":
 > :SOURce:ATM:PATtern:CC:REServe "001011"

:SOURce:ATM:PATtern:CC:REServe?

Response <string> = <STRING RESPONSE DATA>
 Function Queries CC cell Reserve (bit format).
 Example use > :SOURce:ATM:PATtern:CC:REServe?
 < "001011"

:SOURce:ATM:PATtern:LOOPback:FSField:INDication <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00000000" to "11111111"
 Function Sets Indication of the Loopback cell.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set Indication of the Loopback cell to "00000001":
 > :SOURce:ATM:PATtern:LOOPback:FSField:INDication "00000001"

:SOURce:ATM:PATtern:LOOPback:FSField:INDication?

Response <string> = <STRING RESPONSE DATA>
 Function Queries Indication of the Loopback cell.
 Example use > :SOURce:ATM:PATtern:LOOPback:FSField:INDication?
 < "00000001"

:SOURce:ATM:PATtern:LOOPback:FSField:CTAG <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03" Specify four hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.
 Function Sets correlation Tag of the Loopback.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set correlation of the Loopback cell to "FF,FF,FF,FF".
 > :SOURce:ATM:PATtern:LOOPback:FSField:CTAG "FF,FF,FF,FF"

:SOURce:ATM:PATtern:LOOPback:FSField:CTAG?

Response <string> = <STRING RESPONSE DATA>
 Function Queries correlation Tag of the Loopback cell.
 Example use > :SOURce:ATM:PATtern:LOOPback:FSField:CTAG?
 < "FF,FF,FF,FF"

:SOURce:ATM:PATtern:LOOPback:FSField:LOCation <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ... ,2F" specifies 16 bytes in hexadecimal
 Note: Specify <...,...> not to change a current value.
 Function Sets Location ID of the Loopback cell.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set Location ID of Loopback cell.
 > :SOURce:ATM:PATtern:LOOPback:FSField:LOCation "00,01,01,00,
 ... ,01"

:SOURce:ATM:PATtern:LOOPback:FSField:LOCation?

Response <string> = <STRING RESPONSE DATA>
 Function Queries Location ID of the Loopback cell.
 Example use > :SOURce:ATM:PATtern:LOOPback:FSField:LOCation?
 < "00,01,01,00, ... ,01"

:SOURce:ATM:PATtern:LOOPback:FSField:SOURce <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ... ,2F" Specify 16 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.
 Function Sets Source ID of the Loopback cell.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To set Source ID of the Loopback cell:
 > :SOURce:ATM:PATtern:LOOPback:FSField:SOURce "00,01,01,00,
 ... ,01"

:SOURce:ATM:PATtern:LOOPback:FSField:SOURce?

Response <string> = <STRING RESPONSE DATA>
 Function Queries Source ID of the Loopback cell.
 Example use > :SOURce:ATM:PATtern:LOOPback:FSField:SOURce?
 < "00,01,01,00, ... ,01"

:SOURce:ATM:PATtern:LOOPback:FSField:UNUSed <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ... ,2F" Specify 8 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.
 Function Sets Unused of the Loopback cell.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use Sets Unused of the Loopback cell.
 > :SOURce:ATM:PATtern:LOOPback:FSField:UNUSed "00,01,01,00,
 ... ,01"

:SOURce:ATM:PATtern:LOOPback:FSField:UNUSed?

Response <string> = <STRING RESPONSE DATA>
 Function Queries Unused of the Loopback cell.
 Example use > :SOURce:ATM:PATtern:LOOPback:FSField:UNUSed?
 < "00,01,01,00, ... ,01"

:SOURce:ATM:PATtern:LOOPback:FSField:DEFault

Parameter None
 Function Sets initial pattern as Indication, Correlation tag, Location ID, Source ID, and Unused of the Loopback cell.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 Example use To initialize Loopback cell.
 > :SOURce:ATM:PATtern:LOOPback:FSField:DEFault

:SOURce:ATM:PATtern:LOOPback:REServe <string>

Parameter	<string> = <STRING PROGRAM DATA> "000000" to "111111"
Function	Sets Loopback cell Reserve (bit format).
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To set Loopback cell Reserve to "001011": > :SOURce:ATM:PATtern:LOOPback:REServe "001011"

:SOURce:ATM:PATtern:LOOPback:REServe?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries Loopback cell Reserve (bit format)
Example use	> :SOURce:ATM:PATtern:LOOPback:REServe? < "001011"

:SOURce:ATM:PATtern:FM:FSField:TSTP <string>

Parameter	<string> = <STRING PROGRAM DATA> "00,01,02,03" Specify four hexadecimal bytes. Note: Specify <.....> not to change a current value.
Function	Sets TSTP of Forward monitoring.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To set TSTP of Forward monitoring to "FF,FF,FF,FF". > :SOURce:ATM:PATtern:FM:FSField:TSTP "FF,FF,FF,FF"

:SOURce:ATM:PATtern:FM:FSField:TSTP?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries TSTP of Forward monitoring.
Example use	> :SOURce:ATM:PATtern:FM:FSField:TSTP? < "FF,FF,FF,FF"

:SOURce:ATM:PATtern:FM:FSField:UNUSed <string>

Parameter	<string> = <STRING PROGRAM DATA> "00,01,02,03, ... ,2F" Specify 34 hexadecimal bytes. Note: Specify <.....> not to change a current value.
Function	Sets Unused of Forward monitoring.

Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..

Example use To set Unused of Forward monitoring:
 > :SOURCE:ATM:PATTERN:FM:FSFIELD:UNUSED "00,01,01,00,···,01"

:SOURCE:ATM:PATTERN:FM:FSFIELD:UNUSED?

Response <string> = <STRING RESPONSE DATA>

Function Queries Unused of Forward monitoring.

Example use > :SOURCE:ATM:PATTERN:FM:FSFIELD:UNUSED?
 < "00,01,01,00, ··· ,01"

:SOURCE:ATM:PATTERN:FM:FSFIELD:DEFAULT

Parameter None

Function Sets initial pattern as TSTP and Unused of Forward monitoring.

Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..

Example use To initialize Forward monitoring:
 > :SOURCE:ATM:PATTERN:FM:FSFIELD:DEFAULT

:SOURCE:ATM:PATTERN:FM:RESERVE <string>

Parameter <string> = <STRING PROGRAM DATA>
 "000000" to "111111"

Function Sets Forward monitoring Reserve (bit format).

Restriction Invalid when;
 - :The setting of INSTRUMENT:CONFIG is other than ATM..

Example use To set Forward monitoring Reserve to "001011":
 > :SOURCE:ATM:PATTERN:FM:RESERVE "001011"

:SOURCE:ATM:PATTERN:FM:RESERVE?

Response <string> = <STRING RESPONSE DATA>

Function Queries Forward monitoring Reserve (bit format).

Example use > :SOURCE:ATM:PATTERN:FM:RESERVE?
 < "001011"

:SOURce:ATM:PATtern:BR:FSField:UNUSed1 <string>

Parameter	<string> = <STRING PROGRAM DATA> "00,00" Specify two hexadecimal bytes. Note: Specify <...,...> not to change a current value.
Function	Sets Unused1 of Backward report.
Restriction	Invalid when; - :The setting of INSTRument:CONFIg is other than ATM..
Example use	To set Unused1 of Backward report: > :SOURce:ATM:PATtern:BR:FSField:UNUSed1 "6A,6A"

:SOURce:ATM:PATtern:BR:FSField:UNUSed1?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries Unused1 of Backward report.
Example use	> :SOURce:ATM:PATtern:BR:FSField:UNUSed1? < "6A,6A"

:SOURce:ATM:PATtern:BR:FSField:TUCO1 <character>

Parameter	<character> = <CHARACTER PROGRAM DATA> 128,256,512,1024
Function	Sets TUCO+1 of Backward report.
Restriction	Invalid when; - :The setting of INSTRument:CONFIg is other than ATM.. - When TOCO is 0, TUCO+1 is not changed.
Example use	To set TUCO+1 of Backward report: >:SOURce:ATM:PATtern:BR:FSField:TUCO1 "128"

:SOURce:ATM:PATtern:BR:FSField:TUCO1?

Response	<character> = <CHARACTER RESPONSE DATA>
Function	Queries TUCO1 of Backward report.
Example use	>:SOURce:ATM:PATtern:BR:FSField:TUCO1? <"128"

:SOURce:ATM:PATtern:BR:FSField:TUCO <character>

Parameter <character> = <CHARACTER PROGRAM DATA>
 0,128,256,512,1024

Function Sets TUCO of Backward report.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - When TOCO is not 0, the same value as TUCO+1 is set.

Example use To set TUCO of Backward report:
 >:SOURce:ATM:PATtern:BR:FSField:TUCO "128"

:SOURce:ATM:PATtern:BR:FSField:TUCO ?

Response <character> = <CHARACTER RESPONSE DATA>

Function Queries TUCO of Backward report.

Example use >:SOURce:ATM:PATtern:BR:FSField:TUCO ?
 <"128"

:SOURce:ATM:PATtern:BR:FSField:TSTP <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03" Specify four hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.

Function Sets TSTP of Backward report.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set TSTP of Backward report to "FF,FF,FF,FF":
 > :SOURce:ATM:PATtern:BR:FSField:TSTP "FF,FF,FF,FF"

:SOURce:ATM:PATtern:BR:FSField:TSTP?

Response <string> = <STRING RESPONSE DATA>

Function Queries TSTP of Backward report.

Example use > :SOURce:ATM:PATtern:BR:FSField:TSTP?
 < "FF,FF,FF,FF"

:SOURce:ATM:PATtern:BR:FSField:UNUSed2 <string>

Parameter <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ... ,2F" Specify 29 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.

Function Sets Unused2 of Backward report.

Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To set Unused2 of Backward report: > :SOURCE:ATM:PATTERN:BR:FSFIELD:UNUSED2 "00,01,01,00,···,01"

:SOURCE:ATM:PATTERN:BR:FSFIELD:UNUSED2?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries Unused2 of Backward report.
Example use	> :SOURCE:ATM:PATTERN:BR:FSFIELD:UNUSED2? < "00,01,01,00, ··· ,01"

:SOURCE:ATM:PATTERN:BR:FSFIELD:DEFAULT

Parameter	None
Function	Sets initial pattern as Unused1, TSTP, and Unused2 of Backward report.
Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To initialize Backward report: > :SOURCE:ATM:PATTERN:BR:FSFIELD:DEFAULT

:SOURCE:ATM:PATTERN:BR:RESERVE <string>

Parameter	<string> = <STRING PROGRAM DATA> "000000" to "111111"
Function	Sets Backward report Reserve (bit format).
Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To set Backward report Reserve to "001011": > :SOURCE:ATM:PATTERN:BR:RESERVE "001011"

:SOURCE:ATM:PATTERN:BR:RESERVE?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries Backward report Reserve (bit format).
Example use	> :SOURCE:ATM:PATTERN:BR:RESERVE? < "001011"

:SOURCE:ATM:PATTERN:BGRound:HEADer <numeric>, <pattern>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 10 No.
 <pattern> = <STRING PROGRAM DATA>
 "[<gfc>], [<vpi>], [<vci>], [<pt>], [<clp>] "
 <gfc> = 0 to F (HEX format)
 <vpi> = 0 to 255 at UNI
 0 to 4095 at NNI
 <vci> = 0 to 65535
 <pt> = 000 to 111 (BIN format)
 <clp> = 0 to 1 (BIN format)
 When the part after a value is completely omitted, comma can also be
 omitted.

Function Sets header pattern of Background cell.

Restriction Invalid when;
 - When all parameters are omitted.
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To set third header pattern of Background cell to GFC:F and VCI:255:
 > :SOURCE:ATM:PATTERN:BGRound:HEADer 3,"F,,256"

:SOURCE:ATM:PATTERN:BGRound:HEADer? <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>

Response <pattern> = <STRING PROGRAM DATA>
 "[<gfc>], [<vpi>], [<vci>], [<pt>], [<clp>] "
 Note: <gfc> is output as "" at NNI.

Function Queries header pattern.

Example use > :SOURCE:ATM:PATTERN:BGRound:HEADer? 3
 < "F,32,256,001,0"

:SOURCE:ATM:PATTERN:BGRound:PAYLoad <numeric>, <string>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 10
 <string> = <STRING PROGRAM DATA>
 "00,01,02,03, ... ,2F" Specify payload in 48 hexadecimal bytes.
 Note: Specify <...,...> not to change a current value.

Function Sets payload pattern of Background cell.

Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To set third payload pattern of Background cell: > :SOURCE:ATM:PATTERN:BGRound:PAYLoad 3,"00,01,01,00,···,01"

:SOURCE:ATM:PATTERN:BGRound:PAYLoad? <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA>
Response	<string> = <STRING RESPONSE DATA>
Function	Queries payload pattern of Background cell.
Example use	> :SOURCE:ATM:PATTERN:BGRound:PAYLoad? 3 < "00,01,01,00, ··· ,01"

:SOURCE:ATM:PATTERN:BGRound:CRC10 [<numeric>]

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 10 Note: When <numeric> is omitted, CRC is calculated for all 1 to 10 Background cells.
Function	Requests CRC10 calculation of Background cell.
Restriction	Invalid when; - :The setting of INSTRUMENT:CONFIG is other than ATM..
Example use	To request CRC10 calculation of 10 Background cells. > :SOURCE:ATM:PATTERN:BGRound:CRC10 10

:SOURCE:ATM:PATTERN:BGRound:DEFault <type>[, <numeric>]

Parameter	<type> = <CHARACTER PROGRAM DATA> HEADER Header section PAYLoad Payload section ALL Header and payload sections <numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 10 Note: When <numeric> is not set, header and payload are set to the initial patterns for all 10 cells. When <numeric> is set, header and payload are set to the initial patterns for one cell.
Function	Sets initial pattern in Background cell.
Restriction	Invalid when;

Example use - :The setting of INSTRUMENT:CONFIg is other than ATM..
 To initialize third payload pattern of Background cell:
 > :SOURce:ATM:PATTern:BGRound:DEFault PAYLoad,3

:SOURce:ATM:PATTern:MEMorized:HEADer <numeric>, <pattern>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 2016 No.
 <pattern> = <STRING PROGRAM DATA>
 " [<gfc>], [<vpi>], [<vci>], [<pt>], [<clp>] "
 <gfc> = 0 to F (HEX format)
 <vpi> = 0 to 255 at UNI
 0 to 4095 at NNI
 <vci> = 0 to 65535
 <pt> = 000 to 111 (BIN format)
 <clp> = 0 to 1 (BIN format)
 When the part after a value is completely omitted, commas can also be
 omitted.
 Function Sets header pattern of Memorized cell.
 Restriction Invalid when;
 - When all parameters are omitted.
 - :The setting of INSTRUMENT:CONFIg is other than ATM..
 Example use To set 2016th header pattern of Memorized cell to GFC:F,PT:001:
 > :SOURce:ATM:PATTern:MEMorized:HEADer 2016,"F",,, "001",

:SOURce:ATM:PATTern:MEMorized:HEADer? <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 Response <pattern> = <STRING PROGRAM DATA>
 " [<gfc>], [<vpi>], [<vci>], [<pt>], [<clp>] "
 Note: <gfc> is space at NNI.
 Function Queries header pattern of Memorized cell.
 Example use > :SOURce:ATM:PATTern:MEMorized:HEADer? 2016
 < "F",255,4095,"001","0"

:SOURce:ATM:PATtern:MEMorized:PAYLoad <numeric>, <string>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 2016 <string> = <STRING PROGRAM DATA> "00,01,02,03, ... ,2F" Specify payload in 48 hexadecimal bytes. Note: Specify <...,...> not to change a current value.
Function	Sets payload pattern of Memorized cell.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To set 2016th payload pattern of Memorized cell: > :SOURce:ATM:PATtern:MEMorized:PAYLoad 2016,"00,01,01,00, ... ,01"

:SOURce:ATM:PATtern:MEMorized:PAYLoad? <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA>
Response	<string> = <STRING RESPONSE DATA>
Function	Queries payload pattern of Memorized cell.
Example use	> :SOURce:ATM:PATtern:MEMorized:PAYLoad? 2016 < "00,01,01,00, ... ,01"

:SOURce:ATM:PATtern:MEMorized:CRC10 [<numeric>]

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 2016 Note: When <numeric> is omitted, CRC is calculated for all 1 to 2016 Memorized cells.
Function	Requests CRC10 calculation of Memorized cell.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To request CRC10 calculation of 2016 Memorized cells. > :SOURce:ATM:PATtern:MEMorized:CRC10 2016

:SOURce:ATM:PATtern:MEMorized:DEFault <type>[, <numeric>]

Parameter <type> = <CHARACTER PROGRAM DATA>
 HEADer Header section
 PAYLoad Payload section
 ALL Initializes headers and payloads of 1 to 2016 cells.
 <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 2016
 Note: When <numeric> is not set, header and payload are set to the
 initial patterns for all 2016 cells.
 When <numeric> is set, header and payload are set to the
 initial patterns for one cell.

Function Sets initial pattern in Memorized cell.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To initialize the third payload pattern of Memorized cell:
 > :SOURce:ATM:PATtern:MEMorized:DEFault PAYLoad,3

:SOURce:ATM:PATtern:MEMorized:EDIT:PASTe <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 2016

Function Edits a Memorized cell. (Paste)

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To paste to 20th Memorized cell:
 > :SOURce:ATM:PATtern:MEMorized:EDIT:PASTe 20

:SOURce:ATM:PATtern:MEMorized:EDIT:CUT <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 2016

Function Edits a Memorized cell. (Cut)

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

Example use To cut 20th Memorized cell:
 > :SOURce:ATM:PATtern:MEMorized:EDIT:CUT 20

:SOURce:ATM:PATtern:MEMorized:EDIT:COpy <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 2016
Function	Edits a Memorized cell. (Copy)
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM..
Example use	To copy 20th Memorized cell: > :SOURce:ATM:PATtern:MEMorized:EDIT:COpy 20

:SOURce:ATM:PATtern:MEMorized:EDIT:INSert <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 2016
Function	Edits a Memorized cell. (Insertion)
Restriction	Invalid in the following case: - :The setting of INSTRument:CONFig is other than ATM..
Example use	To insert at 20th Memorized cell: > :SOURce:ATM:PATtern:MEMorized:EDIT:INSert 20

:SOURce:ATM:PATtern:MEMorized:CAPTure

Parameter	None
Function	Copies capture result to Memorized cell.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM.. - When no Capture data exists.
Example use	> :SOURce:ATM:PATtern:MEMorized:CAPTure

:SOURce:ATM:PATtern:IPPacket:PAYLoad <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> IPV4 IPV6
Function	Selects the IP type when IP is selected in the payload for the AAL5 frame to be transmitted.
Restriction	Invalid when; - When INSTRument:CONFig is other than <ATM>. - When Option 15 is not installed.
Example use	Set the IP type to IPv6. > :SOURce:ATM:PATtern:IPPacket:PAYLoad IPV6

:SOURCE:ATM:PATTERN:IPPacket:PAYLoad?

Response <type> = <CHARACTER RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:PAYLoad.

Function Queries the IP type when IP is selected in the payload for the
 AAL5 frame to be transmitted.

Example use Query the setting status of the IP type.
 > :SOURCE:ATM:PATTERN:IPPacket:PAYLoad?
 < IPV6

:SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER “[<VER>],[<IHL>],[<TOS>],[<TL>],[<ID>],[<FLAG>],[<OFFSET>],[<TTL>],[<PROTOCOL>]”

Parameter <VER> = <STRING PROGRAM DATA>
 0 to 15 Step value : 1
 <IHL> = <STRING PROGRAM DATA>
 0 to 15
 <TOS> = <BINARY NUMERIC PROGRAM DATA>
 00000000 to 11111111 (BIN format)
 <TL> = <STRING PROGRAM DATA>
 20 to 65535
 <ID> = <STRING PROGRAM DATA>
 0 to 65535
 <FLAG> = <BINARY NUMERIC PROGRAM DATA>
 000 to 111 (BIN format)
 <OFFSET> = <STRING PROGRAM DATA>
 0 to 8192
 <TTL> = <STRING PROGRAM DATA>
 0 to 255
 <PROTOCOL> = <STRING PROGRAM DATA>
 0 to 255
 * Comma can also be abbreviated when all the values after a
 certain value are abbreviated.

Function Sets the header pattern when the payload for the AAL5 frame
 to be transmitted is IP (IPv4).

Restriction Invalid when;
 - When INSTRUMENT:CONFIG is other than <ATM>.
 - When Option 15 is not installed.

Example use Set Version 1, TOS 00000111 and Flagment offset 100 for header pattern when the payload for the AAL5 frame to be transmitted is IP (IPv4).
 > :SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER "1,,00000111,,,,,100,,,"

:SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER?

Response <VER> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <IHL> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <TOS> = < BINARY NUMERIC PROGRAM DATA >
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <TL> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <ID> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <FLAG> = < BINARY NUMERIC PROGRAM DATA >
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <OFFSET> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <TTL> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.
 <PROTOCOL> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER.

Function Queries the setting status of the header when the payload for the AAL5 frame to be transmitted is IP (IPv4).

Example use Query the header pattern.
 > :SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:HEADER?
 < "1,5,00000111,30,0,000,100,127,6"

:SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS<type>, “<adr1>, <adr2>, <adr3>, <adr4>”

Parameter	<type> = <CHARACTER PROGRAM DATA> SOURCE DESTIN <adr1> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 255 <adr2> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 255 <adr3> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 255 <adr4> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 255
Function	Sets the Source Address or Destination address when the payload for the AAL5 frame to be transmitted is IP (IPv4).
Restriction	Invalid when; <ul style="list-style-type: none"> - When INSTRUMENT:CONFIG is other than <ATM>. - When Option 15 is not installed.
Example use	Set the Source address for AAL5 frame (IPv4) to 123.0.123.0. > :SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS SOURCE, “123,0,123,0”

:SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS? <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS
Response	<adr1> = <NR1 NUMERIC RESPONSE DATA> Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS <adr2> = <NR1 NUMERIC RESPONSE DATA> Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS <adr3> = <NR1 NUMERIC RESPONSE DATA> Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS <adr4> = <NR1 NUMERIC RESPONSE DATA> Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V4:ADDRESS
Function	Queries the setting status for the Source address or Destination address when the payload for the AAL5 frame is IP (IPv4).

Example use Query the set value of the Source address for the AAL5 frame (IPv4).
 > :SOURce:ATM:PATtern:IPPacket:HEADer:V4:ADDRess? SOURCE
 < "123,0,123,0"

:SOURce:ATM:PATtern:IPPacket:HEADer:V6:HEADer "[<VER>],[<PRI>],[<FL>],[<PL>],[<NH>],[<HL>]"

Parameter <VER> = <STRING PROGRAM DATA>
 0 to 15
 <PRI> = <BINARY NUMERIC PROGRAM DATA >
 0000 to 1111 (BIN format)
 <FL> = < BINARY NUMERIC PROGRAM DATA >
 00000000000000000000000000000000 to 11111111111111111111111111111111 (BIN format)
 <PL> = <STRING PROGRAM DATA>
 0 to 65535
 <NH> = <STRING PROGRAM DATA>
 0 to 255
 <HL> = <STRING PROGRAM DATA>
 0 to 255
 * Comma can also be abbreviated when all the values after a certain value are abbreviated.

Function Sets the header pattern when the payload for the AAL5 frame to be transmitted is IP (IPv6).

Restriction Invalid when;
 - When INSTRument:CONFIg is other than <ATM>.
 - When Option 15 is not installed.

Example use Set the header pattern to Priority 0100 and Hop Limit 120 when the payload for the AAL5 frame to be transmitted is IP (IPv6).
 > :SOURce:ATM:PATtern:IPPacket:HEADer:V6:HEADer "0,0100,,120"

:SOURCE:ATM:PATTERN:IPPacket:HEADER:V6:HEADER?

Response <pattern> = <STRING RESPONSE DATA>
 Same as SOURCE:ATM:PATTERN:IPPacket:HEADER:V6:HEADER.

Function Queries the setting of the header when the payload for the AAL5 frame to be transmitted is IP (IPv6).

Example use Query the header pattern.
 > :SOURCE:ATM:PATTERN:IPPacket:HEADER:V6:HEADER?
 < "0,0100,,,,,120"

:SOURCE:ATM:PATTERN:IPPacket:HEADER:V6:ADDRESS <type>, "<adr1> , <adr2>, <adr3>, <adr4>,<adr5>, <adr6>, <adr7>, <adr8>"

Parameter <type> = <CHARACTER PROGRAM DATA>
 SOURCE
 DESTIN
 <adr1> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)
 <adr2> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)
 <adr3> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)
 <adr4> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)
 <adr5> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)
 <adr6> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)
 <adr7> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)
 <adr8> = <STRING PROGRAM DATA>
 0000 to FFFF (HEX format)

Function Sets the Source address or Destination address when the payload for the AAL5 frame to be transmitted is IP (IPv6).

Restriction Invalid when;
 - When INSTRUMENT:CONFIG is other than <ATM>.
 - When Option 15 is not installed.

Example use Set the Source address for AAL5 frame (IPv6) to 0.0.0.0.0.0.0.1.
 >:SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess SOURCE,
 “0000,0000,0000,0000,0000,0000,0000,0001”

:SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess? <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess

Response <adr1> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess
 <adr2> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess
 <adr3> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess
 <adr4> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess
 <adr5> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess
 <adr6> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess
 <adr7> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess
 <adr8> = <STRING RESPONSE DATA>
 Same as SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess

Function Queries the setting status of the Source address or Destination
 address when the payload for the AAL5 frame is IP (IPV6).

Example use Query the set value of the Source address for the AAL5 frame
 (IPv6).
 > :SOURce:ATM:PATtern:IPPacket:HEADer:V6:ADDRess? SOURCE
 < “0000,0000,0000,0000,0000,0000,0000,0001”

:SOURCE:ATM:PATTERN:IPPacket:HEADER:DEFAULT

Parameter	None
Function	Initializes the header pattern when the payload for the AAL5 frame to be transmitted is IP.
Restriction	Invalid when; <ul style="list-style-type: none"> - When INSTRUMENT:CONFIG is other than <ATM>. - When Option 15 is not installed.
Example use	> :SOURCE:ATM:PATTERN:IPPacket:HEADER:DEFAULT

:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V4:INITIAL <init>

Parameter	<init> = <STRING PROGRAM DATA> "00000000" to "11111111"
Function	Sets the value for the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv4).
Restriction	Invalid when; <ul style="list-style-type: none"> - When INSTRUMENT:CONFIG is other than <ATM>. - When Option 15 is not installed.
Example use	Set "0F" for the 65535-byte payload pattern. > :SOURCE:ATM:PATTERN:IPPacket:INFORMATION:INITIAL "00001111"

:SOURCE:ATM:PATTERN:IPPacket:INFORMATION:V6:INITIAL <init>

Parameter	<init> = <STRING PROGRAM DATA> "00000000" to "11111111"
Function	Sets the value for the 65535-byte payload pattern when the payload for the AAL5 frame to be transmitted is IP (IPv6).
Restriction	Invalid when; <ul style="list-style-type: none"> - When INSTRUMENT:CONFIG is other than <ATM>. - When Option 15 is not installed.
Example use	Set "0F" for the 65535-byte payload pattern. > :SOURCE:ATM:PATTERN:IPPacket:INFORMATION:INITIAL "00001111"

:SOURCE:ATM:PATTERN:IPPacket:INformation:V4:PATTERN <start>, <string>

Parameter	<start> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 65507 (Setting start position (byte)) <string> = <STRING PROGRAM DATA> "00, 00, ..., 00 " in the range of "00" to "FF" (specify the values for the number of bytes up to 64 in hexadecimal).
Function	Sets the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv4).
Restriction	Invalid when; - When INSTRUMENT:CONFig is other than <ATM>. - When Option 15 is not installed.
Example use	Set "10, 01, 01, 10" for the 4-byte section from the 3rd payload. > :SOURCE:ATM:PATTERN:IPPacket:INformation:V4:PATTERN 3, "10, 01, 01, 10"

:SOURCE:ATM:PATTERN:IPPacket:INformation:V4:PATTERN? <start>, <stop>

Parameter	<start>, <stop>= <DECIMAL NUMERIC PROGRAM DATA> 1 to 65507 (Output start position (byte), Output end position (byte))
Response	<string> = <STRING RESPONSE DATA> Same as SOURCE:ATM:PATTERN:IPPacket:INformation:V4:PATTERN
Function	Queries the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv4).
Example use	Query the set values for the pattern from the 3rd to 10th bytes of the payload. > :SOURCE:ATM:PATTERN:IPPacket:INformation:V4:PATTERN? 3, 10 < "10,01,01,10,00,00,00,00" Initial value, 0x00 is set for unset bytes.

:SOURCE:ATM:PATTERN:IPPacket:INformation:V6:PATTERN <start>, <string>

Parameter	<start> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 65487 (Setting start position (byte)) <string> = <STRING PROGRAM DATA> "00, 00, ..., 00" in the range of "00" to "FF" (specify the values for the number of bytes up to 64 in hexadecimal).
Function	Sets the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv6).
Restriction	Invalid when; - When INSTRUMENT:CONFig is other than <ATM>. - When Option 15 is not installed.
Example use	Set "10, 01, 01, 10" for the 4-byte section from the 3rd payload. > :SOURCE:ATM:PATTERN:IPPacket:INformation:V6:PATTERN 3, "10, 01, 01, 10"

:SOURCE:ATM:PATTERN:IPPacket:INformation:V6:PATTERN? <start>, <stop>

Parameter	<start>, <stop>= <DECIMAL NUMERIC PROGRAM DATA> 1 to 65487 (Output start position (byte), Output end position (byte))
Response	<string> = <STRING RESPONSE DATA> Same as SOURCE:ATM:PATTERN:IPPacket:INformation:V6:PATTERN
Function	Queries the 65535-byte payload pattern when the payload for the AAL5 frame is IP (IPv6).
Example use	Query the set values for the pattern from the 3rd to 10th bytes of the payload. > :SOURCE:ATM:PATTERN:IPPacket:INformation:V6:PATTERN? 3, 10 < "10,01,01,10,00,00,00,00" Initial value, 0x00 is set for unset bytes.

4.4.3 SENSE subsystem (Setting of the Reception Side and Measurement Conditions)

In the SENSE subsystem, set the reception side and measurement conditions.

Function	Command	Parameter
<i>Page 4-129</i>		
Sets PLCP of the 45M signal.	:SENSE:TELEcom:M45:PLCP	boolean
Queries the PLCP for 45M signals.	:SENSE:TELEcom:M45:PLCP?	
Sets measurement mode.	:SENSE:MEASure:TYPE	mmode
Sets measurement time.	:SENSE:MEASure:PERiod	numeric suffix
Turns on and off measurement start time setting function.	:SENSE:MEASure:BTIME:SET	boolean
Sets measurement start time of measurement start time setting function.	:SENSE:MEASure:BTIME:START	year month day hour minute second
<i>Page 4-131</i>		
Queries measurement state.	:SENSE:MEASure:STATE?	
<i>Page 4-132</i>		
Sets an item to be captured.	:SENSE:OHCapture:TYPE	type
<i>Page 4-132</i>		
Sets a byte position to be captured when Type:SOH 1byte is [TOH 1byte].	:SENSE:OHCapture:POSITION:SOH	posi
	:SENSE:OHCapture:POSITION:TOH	posi
<i>Page 4-133</i>		
Sets a channel position to be captured when Type:SOH 1byte is [TOH 1byte].	:SENSE:OHCapture:CHANel	ch
<i>Page 4-134</i>		
Set a trigger item.	:SENSE:OHCapture:TRIGger:TYPE	trig
Sets the trigger pattern of OH capture.	:SENSE:OHCapture:TRIGger:PATTern	pattern
Sets the mask pattern of OH capture.	:SENSE:OHCapture:TRIGger:MASK	mask
Sets a trigger position.	:SENSE:OHCapture:TRIGger:POSition	numeric
<i>Page 4-136</i>		
Starts OH capture.	:SENSE:OHCapture:START	
<i>Page 4-136</i>		
Stops OH capture.	:SENSE:OHCapture:STOP	

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Queries the OH capture state.	:SENSe:OHCapture:STATe?	
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Sets ATM mapping of the receive signal.	:SENSe:ATM:MAPPing	mtype
Queries ATM mapping of the receive signal.	:SENSe:ATM:MAPPing?	

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Sets Header structure of the receive signal.	:SENSe:ATM:HSTRucture	htype
Queries Header structure of the receive signal.	:SENSe:ATM:HSTRucture?	

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Sets OAM type of the receive signal.	:SENSe:ATM:OAM	type
Queries OAM type of the receive signal.	:SENSe:ATM:OAM?	

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Sets header filter pattern.	:SENSe:ATM:MANual:FILTer:HEADer:PATTern	pattern
Queries header filter pattern.	:SENSe:ATM:MANual:FILTer:HEADer:PATTern?	
Sets header filter mask pattern.	:SENSe:ATM:MANual:FILTer:HEADer:MASK	string
Queries header filter mask pattern.	:SENSe:ATM:MANual:FILTer:HEADer:MASK?	

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Sets payload filter pattern.	:SENSe:ATM:MANual:FILTer:PAYLoad:PATTern	string
Queries payload filter pattern.	:SENSe:ATM:MANual:FILTer:PAYLoad:PATTern?	
Specifies payload filter pattern.	:SENSe:ATM:MANual:FILTer:PAYLoad:MASK	string
Queries pay load filter mask pattern.	:SENSe:ATM:MANual:FILTer:PAYLoad:MASK?	
Sets payload filter position.	:SENSe:ATM:MANual:FILTer:PAYLoad:POSition	numeric
Queries payload filter position.	:SENSe:ATM:MANual:FILTer:PAYLoad:POSition?	

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Specifies CID at AAL2.	:SENSe:ATM:MANual:FILTer:CID:PATTern	string
Queries CID.	:SENSe:ATM:MANual:FILTer:CID:PATTern?	

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Specifies CID at AAL2.	:SENSe:ATM:MANual:FILTer:MID:PATtern	string
Queries MID.	:SENSe:ATM:MANual:FILTer:MID:PATtern?	

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Sets VP/VC of measurement condition.	:SENSe:ATM:MANual:OAMCell	type
Queries VP/VC of measurement condition.	:SENSe:ATM:MANual:OAMCell?	

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Sets the CBR type of Non-conforming.	:SENSe:ATM:MANual:NCONforming:CBR:TYPE	type
Queries CBR type of Non-conforming.	:SENSe:ATM:MANual:NCONforming:CBR:TYPE?	
Sets Non-conforming CBR (kbit/s).	:SENSe:ATM:MANual:NCONforming:CBR:BPS	numeric
Queries Non-conforming CBR (kbit/s).	:SENSe:ATM:MANual:NCONforming:CBR:BPS?	
Sets Non-conforming CBR (Cell/s)	:SENSe:ATM:MANual:NCONforming:CBR:CPS	numeric
Queries Non-conforming CBR (Cell/s).	:SENSe:ATM:MANual:NCONforming:CBR:CPS?	
To set Non-conforming CBR to 10.0:	:SENSe:ATM:MANual:NCONforming:CBR:PERCent	numeric
Queries Non-conforming CBR (%).	:SENSe:ATM:MANual:NCONforming:CBR:PERCent?	
Sets Non-conforming CDVT.	:SENSe:ATM:MANual:NCONforming:CDVT	numeric
Queries Non-conforming CDVT.	:SENSe:ATM:MANual:NCONforming:CDVT?	

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Sets capture trigger item.	:SENSe:ATM:MANual:CAPTure:TRIGger	error
Queries capture trigger item.	:SENSe:ATM:MANual:CAPTure:TRIGger?	
Sets trigger position.	:SENSe:ATM:MANual:CAPTure:POSition	numeric
Queries trigger position.	:SENSe:ATM:MANual:CAPTure:POSition?	
Starts capture.	:SENSe:ATM:MANual:CAPTure:STARt	
Stops capture.	:SENSe:ATM:MANual:CAPTure:STOP	
Queries capture condition.	:SENSe:ATM:MANual:CAPTure:STATe?	

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Sets Live monitor mode.	:SENSe:ATM:MANual:LMOonitor:TYPE	type
Queries Live monitor mode.	:SENSe:ATM:MANual:LMOonitor:TYPE?	
Searches for Live monitor CH.	:SENSe:ATM:MANual:LMOonitor:CHSearch	
Queries search condition of Live monitor.	:SENSe:ATM:MANual:LMOonitor:STATe?	

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Sets PCR of 1-point CDV.	:SENSe:ATM:CDV1:PCR	numeric suffix
Queries PCR of 1-point CDV.	:SENSe:ATM:CDV1:PCR?	
Sets measurement mode of 1-point CDV measurement.	:SENSe:ATM:CDV1:TYPE	type
Queries 1-point CDV measurement mode.	:SENSe:ATM:CDV1:TYPE?	
Sets measurement time of 1-point CDV measurement.	:SENSe:ATM:CDV1:PERiod	numeric suffix
Queries measurement time of 1-point CDV measurement.	:SENSe:ATM:CDV1:PERiod?	
Sets cell interval used as the reference in 1-point CDV measurement.	:SENSe:ATM:CDV1:RTIME:TYPE	character
Queries cell interval used as the reference in 1-point CDV measurement.	:SENSe:ATM:CDV1:RTIME:TYPE?	
Sets cell interval of 1-point CDV measurement.	:SENSe:ATM:CDV1:RTIME:BPS	numeric
Queries cell interval (kb/s) of 1-point CDV measurement.	:SENSe:ATM:CDV1:RTIME:BPS?	
Sets cell interval of 1-point CDV measurement (cell/s).	:SENSe:ATM:CDV1:RTIME:CPS	numeric
Queries cell interval of 1-point CDV measurement (cell/s).	:SENSe:ATM:CDV1:RTIME:CPS?	
Sets cell interval of 1-point CDV measurement (%).	:SENSe:ATM:CDV1:RTIME:PERCent	numeric
Queries cell interval of 1-point CDV measurement (%).	:SENSe:ATM:CDV1:RTIME:PERCent?	

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Sets measurement mode of 2-point CDV measurement.	:SENSe:ATM:CDV2:TYPE	type
Queries measurement mode of 2-point CDV measurement.	:SENSe:ATM:CDV2:TYPE?	
Sets measurement time of 2-point CDV measurement.	:SENSe:ATM:CDV2:PERiod	numeric suffix
Queries measurement time of 2-point CDV measurement.	:SENSe:ATM:CDV2:PERiod?	

:SENSe:TELEcom:M45:PLCP <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 ON or 1
Function	Sets PLCP of the 45M signal.
Restriction	Invalid when; <ul style="list-style-type: none"> - When the 1.5/45/52M unit is not installed. - When the ATM unit is not installed. - :The setting of INSTRument:CONFIg is other than ATM.. - :SOURce:TELEcom:BRATe is other than <M45>.
Example use	To set PLCP of the 45M signal to OFF. >:SENSe:TELEcom:M45:PLCP OFF

:SENSe:TELEcom:M45:PLCP?

Response	<boolean> = <NR1 NUMERIC RESPONSE DATA> 0 1
Function	Queries the PLCP for 45M signals.
Example use	> :SENSe:TELEcom:M45:PLCP? < 0

:SENSe:MEASure:TYPE <mmode>

Parameter	<mmode> = <CHARACTER PROGRAM DATA> MANual Manual measurement SINGLE Single measurement REPeat Repeated measurement
Function	Sets measurement mode.
Restriction	Invalid when; <ul style="list-style-type: none"> - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEquence[:JOFF]">, and <"PSEquence:JON">.
Example use	To set measurement mode to repeated measurement: > :SENSe:MEASure:TYPE REPeat

:SENSe:MEASure:PERiod <numeric>, <suffix>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 99 <suffix> = <CHARACTER PROGRAM DATA> D day H hour M minute S second
Function	Sets measurement time.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">.
Example use	To set measurement time to one hour: > :SENSe:MEASure:PERiod 1,H

:SENSe:MEASure:BTIME:SET <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 Turns off measurement start time setting function. ON or 1 Turns on measurement start time setting function.
Function	Turns on and off measurement start time setting function.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To turn on measurement start time setting function: > :SENSe:MEASure:BTIME:SET ON

:SENSe:MEASure:BTIMe:STARt**<year>,<month>,<day>,<hour>,<minute>,<second>**

Parameter	<year> = <DECIMAL NUMERIC PROGRAM DATA> 1994 to 2093 <month> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 12 <day> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 31 <hour> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 23 <minute>= <DECIMAL NUMERIC PROGRAM DATA> 0 to 59 <second>= <DECIMAL NUMERIC PROGRAM DATA> 0 to 59
Function	Sets measurement start time of measurement start time setting function.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and <"MANual:RCELI">.
Example use	To set measurement start time to 10:12:13 on April 1, 2000: :SENSe:MEASure:BTIMe:STARt 2000,4,1,10,12,13

:SENSe:MEASure:STATe?

Response	<mestype>, <numeric> <mestype> = <CHARACTER RESPONSE DATA> CDV1 1-point CDV measurement CDV2 2-point CDV measurement <numeric> = <NR1 NUMERIC RESPONSE DATA> 0 Measurement end 1 Measureing
Function	Queries measurement state.
Example use	>:SENSe:MEASure:STATe? < CDV1,1

:SENSe:OHCapture:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 (SDH)
 H1H2 H1/H2
 K1K2 K1/K2
 SOH SOH 1byte
 POH POH 1byte
 (SONET)
 H1H2 H1/H2
 K1K2 K1/K2
 TOH TOH 1byte
 POH POH 1byte

Function Sets an item to be captured.

Example use To set an item to be captured to SOH.
 > :SENSe:OHCapture:TYPE SOH

:SENSe:OHCapture:POStion:SOH <posi>

:SENSe:OHCapture:POStion:TOH <posi>

Parameter <posi> = <CHARACTER PROGRAM DATA>

A11	A12	A13	A21	A22	A23	J0	X18	X19
						Z01	Z02	Z03
--	X22	X23	E1	X25	X26	F1	X28	X29
X21			X24			X27		
X29	X32	X33	D2	X35	X36	D3	X38	X39
			X34			X37		
--	--	--	--	--	--	--	--	--
			--	X55	X56	--	X58	X59
			X54			X57		
D4	X62	X63	D5	X65	X66	D6	X68	X69
X61			X64			X67		
D7	X72	X73	D8	X75	X76	D9	X78	X79
X71			X74			X77		
D10	X82	X83	D11	X85	X86	D12	X88	X89
X81			X84			X87		
S1	Z12	Z13	Z21	Z22	M1	E2	X98	X99
Z11			M1		Z23	X97		

Function Sets a byte position to be captured when Type:SOH 1byte is [TOH 1byte].

Restriction Invalid when;
 - :SENSe:OHCapture:TYPE is set to other than <SOH> and <TOH>.
 - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">, <"PSEquence[:JOFF]">, and <"PSEquence:JON">.

Example use To set the byte position to Z12.
 > :SENSe:OHCapture:POStion:SOH Z12

:SENSE:OHCapture:CHANel <ch>

Parameter	<ch> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 64 Step value : 1
Function	Sets a channel position to be captured when Type:SOH 1byte is [TOH 1byte].
Restriction	Invalid when; - :SENSE:OHCapture:TYPE is set to other than <SOH> and <TOH>. - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">.
Example use	To set the channel position to 1. > :SENSE:OHCapture:CHANel 1

:SENSe:OHCapture:TRIGger:TYPE <trig>

Parameter	<trig> = <STRING PROGRAM DATA>			
	(SDH)		(SONET)	
"B1"	B1	"B1"	B1	
"B2"	B2	"B2"	B2	
"HB3"	HP-B3	"HB3"	HP-B3	
"BIP2"	BIP-2	"LB3"	LP-B3	
"MREI"	MS-REI	"BIP2"	BIP-2	
"HREI"	HP-REI	"REIL"	REI-L	
"HIEC"	HP-IEC	"REIP"	REI-P	
"HTREI"	HP-TC-REI	"HIEC"	HP-IEC	
"HOEI"	HP-OEI	"HTREI"	HP-TC-REI	
"LREI"	LP-REI	"HOEI"	HP-OEI	
"LIEC"	LP-IEC	"REIV"	REI-V	
"LTREI"	LP-TC-REI	"LIEC"	LP-IEC	
"LOEI"	LP-OEI	"LTREI"	LP-TC-REI	
"N2BIP2"	N2 BIP-2	"LOEI"	LP-OEI	
"OHBIT"	OH Bit	"N2BIP2"	N2 BIP-2	
"BIT"	Bit	"OHBIT"	OH Bit	
"LOS"	LOS	"LOS"	LOS	
"LOF"	LOF	"LOF"	LOF	
"OOF"	OOF	"OOF"	OOF	
"MAIS"	MS-AIS	"AISL"	AIS-L	
"MRDI"	MS-RDI	"RDIL"	RDI-L	
"AAIS"	AU-AIS	"AISP"	AIS-P	
"ALOP"	AU-LOP	"LOPP"	LOP-P	
"HRDI"	AU	"RDIP"	RDI-P	
"HSLM"	HP-RDI	"SLMP"	SLM-P	
"HTIM"	HP-TIM	"TIMP"	TIM-P	
"HUNEQ"	HP-UNEQ	"UNEQP"	UNEQ-P	
"HVAIS"	HP-VC-AIS	"HVAIS"	HP-VC-AIS	
"HISF"	HP-ISF	"HISF"	HP-ISF	
"HFAS"	HP-FAS	"HFAS"	HP-FAS	
"HIAIS"	HP-Inc-AIS	"HIAIS"	HP-Inc-AIS	
"HTRDI"	HP-TC-RDI	"HTRDI"	HP-TC-RDI	
"HODI"	HP-ODI	"HODI"	HP-ODI	
"TAIS"	TU-AIS	"AISV"	AIS-V	
"TLOP"	TU-LOP	"LOPV"	LOP-V	
"TLOM"	TU-LOM	"LOMV"	LOM-V	
"LRDI"	LP-RDI	"RDIV"	RDI-V	
"LSLM"	LP-SLM	"SLMV"	SLM-V	
"LRFI"	LP-RFI	"RFIV"	RFI-V	
"LTIM"	LP-TIM	"TIMV"	TIM-V	
"LUNEQ"	LP-UNEQ	"UNEQV"	UNEQ-V	
"LVAIS"	LP-VC-AIS	"LVAIS"	LP-VC-AIS	
"LFAS"	LP-FAS	"LFAS"	LP-FAS	
"LIAIS"	LP-Inc-AIS	"LIAIS"	LP-Inc-AIS	
"LTRDI"	LP-TC-RDI	"LTRDI"	LP-TC-RDI	
"LODI"	LP-ODI	"LODI"	LP-ODI	
"SYNC"	Sync	"SYNC"	Sync	
"OSYNC"	OH Sync	"OSYNC"	OH Sync	
"HAIS"	HG AIS	"HAIS"	HG AIS	
"HREC"	HG REC	"HREC"	HG REC	
"BAIS15M"	BAIS 1.5M	"BAIS15M"	BAIS 1.5M	
"SIGAIS"	SigAIS	"SIGAIS"		
"SIGOOF"	SigOOF	"SIGOOF"	SigOOF	
"K12MAtch"	K1/K2 match	"K12MAtch"	K1/K2 match	
"K12MIsmatch"	K1/K2 mismatch	"K12MIsmatch"	K1/K2 mismatch	

"ANDF"	AU-NDF	"ANDF"	AU-NDF
"APPJC"	AU+PJC	"APPJC"	AU+PJC
"AMPJC"	AU-PJC	"AMPJC"	AU-PJC
"A3CONS"	AU 3 cons	"A3CONS"	AU 3 cons
"TNDF"	TU-NDF	"TNDF"	TU-NDF
"TPPJc"	TU+PJC	"TPPJc"	TU+PJC
"TMPJC"	TU-PJC	"TMPJC"	TU-PJC
"T3CONS"	TU 3 cons	"T3CONS"	TU 3 cons
"EXternal"	External	"EXternal"	EXternal
"MANual"	MANual	"MANual"	MANual

Function Set a trigger item.

Example use Sets the trigger item to B2.
> :SENSe:OHCapture:TRIGger:TYPE "B2"

:SENSe:OHCapture:TRIGger:PATtern <pattern>

Parameter <pattern> = <STRING PROGRAM DATA>
"0000000000000000" to "1111111111111111"

Function Sets the trigger pattern of OH capture.

Restriction Invalid when;

- :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEquence[:JOFF]">, and <"PSEquence:JON">.
- :SENSe:OHCapture:TRIGger:TYPE is set to other than <"K12MAch"> and <"K12MIsmatch">.

Example use To set the trigger pattern to "0000110100001101".
> :SENSe:OHCapture:TRIGger:PATtern "0000110100001101"

:SENSe:OHCapture:TRIGger:MASK <mask>

Parameter <mask> = <STRING PROGRAM DATA>
"0000000000000000" to "1111111111111111"

Function Sets the mask pattern of OH capture.

Restriction Invalid when;

- :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEquence[:JOFF]">, and <"PSEquence:JON">.
- :SENSe:OHCapture:TRIGger:TYPE is set to other than <"K12MAch"> and <"K12MIsmatch">.

Example use To set the mask pattern to "0000110100001101".
> :SENSe:OHCapture:TRIGger:MASK "0000110100001101"

:SENSe:OHCapture:TRIGger:POSition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 1023 Step value : 1
Function	Sets a trigger position.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">.
Example use	To set the trigger position to 7. > :SENSe:OHCapture:TRIGger:POSition 7

:SENSe:OHCapture:START

Parameter	None
Function	Starts OH capture.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">.
Example use	To start OH capture. > :SENSe:OHCapture: START

:SENSe:OHCapture:STOP

Parameter	None
Function	Stops OH capture.
Restriction	Invalid when; - :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, <"MANual:RCELL">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">
Example use	To stop OH capture. > :SENSe:OHCapture:STOP

:SENSe:OHCapture:STATe?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

0	OHCapture	On
1	OHCapture	Off

Function Queries the OH capture state.

Example use > :SENSe:OHCapture:STATe?
< 0

:SENSe:ATM:MAPPING <mtype>

Parameter <mtype> = <CHARACTER PROGRAM DATA>

AAL1	AAL1
AAL2	AAL2
AAL34	AAL3/4
AAL5	AAL5
ATM	ATM

Function Sets ATM mapping of the receive signal.

Restriction Invalid when;

- :The setting of INSTRUMENT:CONFIg is other than ATM..

Example use To set ATM mapping of the receive signal to AAL1:
> :SENSe:ATM:MAPPING AAL1

:SENSe:ATM:MAPPING?

Response <mtype> = <CHARACTER RESPONSE DATA>

Function Queries ATM mapping of the receive signal.

Example use > :SENSe:ATM:MAPPING?
< AAL1

:SENSe:ATM:HSTRucture <htype>

Parameter <htype> = <CHARACTER PROGRAM DATA>

UNI
NNI

Function Sets Header structure of the receive signal.

Restriction Invalid when;

- :The setting of INSTRUMENT:CONFIg is other than ATM..

Example use To set ATM mapping of the receive signal to AAL1:
> :SENSe:ATM:HSTRucture UNI

:SENSe:ATM:HSTRucture?

Response <hType> = <CHARACTER RESPONSE DATA>
 Function Queries Header structure of the receive signal.
 Example use > :SENSe:ATM:HSTRucture?
 < UNI

:SENSe:ATM:OAM <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 SEGment Segment
 END End-to-end
 Function Sets OAM type of the receive signal.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFIg is other than ATM..
 Example use To set OAM type of the receive signal to End-to-end:
 > :SENSe:ATM:OAM END

:SENSe:ATM:OAM?

Response <type> = <CHARACTER RESPONSE DATA>
 Function Queries OAM type of the receive signal.
 Example use > :SENSe:ATM:OAM?
 < END

:SENSe:ATM:MANual:FILTer:HEADer:PATtern <pattern>

Parameter <pattern> = <STRING PROGRAM DATA>
 "[<gfc>],[<vpi>],[<vci>],[<pt>],[<clp>]"
 <gfc> = 0 to F (HEX format)
 <vpi> = 0 to 255 at UNI
 0 to 4095 at NNI
 <vci> = 0 to 65535
 <pt> = 000 to 111 (BIN format)
 <clp> = 0 to 1 (BIN format)
 When the part after a value is completely omitted, commas can
 also be omitted.
 Function Sets header filter pattern.
 Restriction Invalid when;
 - When all parameters are omitted.

- :The setting of INSTRUMENT:CONFIG is other than ATM..
- :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.

Example use To set header filter pattern to GFC:F, VPI:255:
> :SENSe:ATM:MANual:FILTer:HEADer:PATtern "F,255"

:SENSe:ATM:MANual:FILTer:HEADer:PATtern?

Response <pattern> = <STRING RESPONSE DATA>
Note: <gfc> is crammed to be output at NNI.

Function Queries header filter pattern.

Example use > :SENSe:ATM:MANual:FILTer:HEADer:PATtern?
< "F,001,255,4095,1"

:SENSe:ATM:MANual:FILTer:HEADer:MASK <string>

Parameter <string> = <STRING PROGRAM DATA>
"00,00,00,00" Specify header mask pattern in four hexadecimal bytes.

Note: Specify <.....> not to change a current value.

Function Sets header filter mask pattern.

Restriction Invalid when;

- :The setting of INSTRUMENT:CONFIG is other than ATM..
- :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.

Example use To set header filter mask pattern of "00,01,10,00":
> :SENSe:ATM:MANual:FILTer:HEADer:MASK "00,01,10,00"

:SENSe:ATM:MANual:FILTer:HEADer:MASK?

Response <string> = <STRING RESPONSE DATA>

Function Queries header filter mask pattern.

Example use > :SENSe:ATM:MANual:FILTer:HEADer:MASK?
< "00,01,01,00"

:SENSe:ATM:MANual:FILTer:PAYLoad:PATtern <string>

Parameter	<string> = <STRING PROGRAM DATA> "00" Specify payload pattern in one hexadecimal byte.
Function	Sets payload filter pattern.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and <"MANual:RCELI">.
Example use	To set payload filter pattern of "00": > :SENSe:ATM:MANual:FILTer:PAYLoad:PATtern "00"

:SENSe:ATM:MANual:FILTer:PAYLoad:PATtern?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries payload filter pattern.
Example use	> :SENSe:ATM:MANual:FILTer:PAYLoad:PATtern? < "00"

:SENSe:ATM:MANual:FILTer:PAYLoad:MASK <string>

Parameter	<string> = <STRING PROGRAM DATA> "00" Specifies payload in one hexadecimal byte.
Function	Specifies payload filter pattern.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and <"MANual:RCELI">.
Example use	To sets the pay load filter pattern to "00". > :SENSe:ATM:MANual:FILTer:PAYLoad:MASK "00"

:SENSe:ATM:MANual:FILTer:PAYLoad:MASK?

Response	<string> = <STRING RESPONSE DATA>
Function	Queries pay load filter mask pattern.
Example use	> :SENSe:ATM:MANual:FILTer:PAYLoad:MASK? < "00"

:SENSe:ATM:MANual:FILTer:PAYLoad:POSition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 48 Step : 1
Function	Sets payload filter position.
Restriction	Invalid when; - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set payload filter position to 10: > :SENSe:ATM:MANual:FILTer:PAYLoad:POSition 10

:SENSe:ATM:MANual:FILTer:PAYLoad:POSition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries payload filter position.
Example use	> :SENSe:ATM:MANual:FILTer:PAYLoad:POSition? < 10

:SENSe:ATM:MANual:FILTer:CID:PATtern <string>

Parameter	<type> = <CHARACTER PROGRAM DATA> "00" to "FF"
Function	Specifies CID at AAL2.
Restriction	Invalid when; - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. - :SENSe:ATM:MANual:TRAFfic:PAYload:TYPE:Time stamp is set.
Example use	To set CID pattern to "00": > :SENSe:ATM:MANual:FILTer:CID:PATtern "00"

:SENSe:ATM:MANual:FILTer:CID:PATtern?

Response <string> = <STRING RESPONSE DATA>
 Function Queries CID.
 Example use >:SENSe:ATM:MANual:FILTer:CID:PATtern?
 <"00"

:SENSe:ATM:MANual:FILTer:MID:PATtern <string>

Parameter <type> = <CHARACTER PROGRAM DATA>
 "0000000000" to "1111111111"
 Function Specifies CID at AAL2.
 Restriction Invalid when;
 - :INSTrument:CONFIg is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELI">, and
 <"MANual:RCELI">.
 - :SENSe:ATM:MANual:TRAFfic:PAYload:TYPE:Time stamp is set.
 Example use To set MID pattern to "00":
 > :SENSe:ATM:MANual:FILTer:MID:PATtern "0101010101"

:SENSe:ATM:MANual:FILTer:MID:PATtern?

Response <string> = <STRING RESPONSE DATA>
 Function Queries MID.
 Example use >:SENSe:ATM:MANual:FILTer:MID:PATtern?
 <"0101010101"

:SENSe:ATM:MANual:OAMCell <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 VP
 VC
 Function Sets VP/VC of measurement condition.
 Restriction Invalid when;
 - INSTrument:ATM is <OFF>.
 Example use To set VP/VC of measurement condition to VP:
 > :SENSe:ATM:MANual:OAMCell VP

:SENSe:ATM:MANual:OAMCell?

Response <type> = <CHARACTER RESUPONSE DATA>

Function Queries VP/VC of measurement condition.

Example use > :SENSe:ATM:MANual:OAMCell?
< VP

:SENSe:ATM:MANual:NCONforming:CBR:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

BPS	bit/s
CPS	Cells/s
PERCent	%

Function Sets a Non-conforming CBR type.

Restriction Invalid when;

- When the ATM unit is not installed.
- :The setting of INSTRument:CONFig is other than ATM..
- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.

Example use To set CBR type to bit/s:
> :SOURce:ATM:MANual:NCONForming:CBR:TYPE BPS

:SENSe:ATM:MANual:NCONforming:CBR:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>

BPS	bit/s
CPS	cells/s
PERC	%

Function Queries CBR type of Non-conforming.

Example use > :SOURce:ATM:MANual:NCONForming:CBR:TYPE?
< BPS

:SENSe:ATM:MANual:NCONforming:CBR:BPS <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 to 999999 Step : 1kbit/s

Function Sets Non-conforming CBR (kbit/s).

- Restriction Invalid when;
- :The setting of INSTRument:CONFig is other than ATM..
- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and <"MANual:RCELI">.
- :SENSe:ATM:MANual:NCONforming:CBR:TYPE <BPS>.

Example use To set Non-conforming CBR to 256:
 >:SENSe:ATM:MANual:NCONforming:CBR:BPS 256

:SENSe:ATM:MANual:NCONforming:CBR:BPS?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries Non-conforming CBR (kbit/s).

Example use >:SENSe:ATM:MANual:NCONforming:CBR:BPS?
 < 256

:SENSe:ATM:MANual:NCONforming:CBR:CPS <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 to 1412830 Step value : Cell/s

Function Sets Non-conforming CBR (Cell/s)

Restriction Invalid when;

- :The setting of INSTRument:CONFig is other than ATM..
- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, and <"MANual:RCELI">.
- :SENSe:ATM:MANual:NCONforming:CBR:TYPE <CPS>.

Example use To set Non-conforming CBR to 256:
 >:SENSe:ATM:MANual:NCONforming:CBR:CPS 256

:SENSe:ATM:MANual:NCONforming:CBR:CPS?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries Non-conforming CBR (Cell/s).

Example use >:SENSe:ATM:MANual:NCONforming:CBR:CPS?
 < 256

:SENSe:ATM:MANual:NCONforming:CBR:PERCent <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0.0 to 100.0 Step : 0.1 (%)
Function	Sets Non-conforming CBR (%).
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">. - :SENSe:ATM:MANual:NCONforming:CBR:TYPE is <PERCent>.
Example use	To set Non-conforming CBR to 10.0: >:SENSe:ATM:MANual:NCONforming:CBR:PERCent 10.0

:SENSe:ATM:MANual:NCONforming:CBR:PERCent?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries Non-conforming CBR (%).
Example use	>:SENSe:ATM:MANual:NCONforming:CBR:PERCent? < 10.0

:SENSe:ATM:MANual:NCONforming:CDVT <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 999 Step : 1 (cell)
Function	Sets Non-conforming CDVT.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set Non-conforming CDVT to 256: > :SENSe:ATM:MANual:NCONforming:CDVT 256

:SENSe:ATM:MANual:NCONforming:CDVT?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries Non-conforming CDVT.
Example use	> :SENSe:ATM:MANual:NCONforming:CDVT? < 256

:SENSe:ATM:MANual:CAPTure:TRIGger <error>

Parameter	<error> = <CHARACTER PROGRAM DATA>
"MANual"	Manual
"AIS:VP"	VP-AIS
"RDI:VP"	VP-RDI
"LOC:VP"	VP-LOC
"AIS:VC"	VC-AIS
"RDI:VC"	VC-RDI
"LOC:VC"	VC-LOC
"LCD"	Lost of cell sync
"CORR"	Corrected
"DISC"	Discarded
"NONCONF"	Nonconf
"ERRORED"	Errored cell
"LOST"	Lost cell
"MISINS"	Misinserted
"SB"	SB
"SARPDU"	SAR-PDU
"SNP"	SNP
"UCSNP"	Uncorect SNP
"P"	P
"OSF"	OSF
"SN"	SN
"CPSHEC"	HEC error
"LI"	Length indicater
"LENGTH"	Length
"CRC10"	CRC10
"DISCPDU"	Discarded PDU
"ST"	Segment type
"ABORT"	Abort
"UDLVPDU"	Undelivered PDU
"CPI"	CPI
"BETAG"	B/ETag
"BASIZE"	BASize
"AL"	AL
"FSIZE"	Frame size

	"CRC32" CRC32
	"FM:LOST" FM Lost
	"FM:MISINS" FM Misinserted
	"FM:BIPV" FM BIPV
	"FM:SB" FM SB
	"BR:LOST" BR Lost
	"BR:MISINS" BR Misinserted
	"BR:BIPV" BR BIPV
	"BR:SB" BR SB
Function	Sets capture trigger item.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRUMENT:CONFIG is other than ATM.. - :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set capture trigger item to MANual: > :SENSe:ATM:MANual:CAPTure:TRIGger MANual

:SENSe:ATM:MANual:CAPTure:TRIGger?

Response	<error> = <CHARACTER RESPONSE DATA>
Function	Queries capture trigger item.
Example use	> :SENSe:ATM:MANual:CAPTure:TRIGger? < MAN

:SENSe:ATM:MANual:CAPTure:POSition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 2016
Function	Sets trigger position.
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRUMENT:CONFIG is other than ATM.. - :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set trigger position to 53: > :SENSe:ATM:MANual:CAPTure:POSition 53

:SENSe:ATM:MANual:CAPTure:POSition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries trigger position.
 Example use > :SENSe:ATM:MANual:CAPTure:POSition?
 < 53

:SENSe:ATM:MANual:CAPTure:STARt

Parameter None
 Function Starts capture.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFIg is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELI">, and
 <"MANual:RCELI">.
 Note: If this command is executed during capture, a restart occurs.
 Example use > :SENSe:ATM:MANual:CAPTure:STARt

:SENSe:ATM:MANual:CAPTure:STOP

Parameter None
 Function Stops capture.
 Restriction Invalid when;
 - :The setting of INSTRument:CONFIg is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCELI">, and
 <"MANual:RCELI">.
 Example use :SENSe:ATM:MANual:CAPTure:STOP

:SENSe:ATM:MANual:CAPTure:STATe?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 Capture ended
 1 Waiting for trigger
 2 Waiting for end
 Function Queries capture condition.
 Example use > :SENSe:ATM:MANual:CAPTure:STATe?
 < 1

:SENSe:ATM:MANual:LMONitor:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> INDividual Value from last intermediate data ACCumulate Accumulated value from measurement start
Function	Sets Live monitor mode.
Restriction	Invalid when; - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set Live monitor mode to ACCumulate: > :SENSe:ATM:MANual:LMONitor:TYPE ACCumulate

:SENSe:ATM:MANual:LMONitor:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA> IND Values from last intermediate data. ACC Accumulated values from measurement start.
Function	Queries Live monitor mode.
Example use	> :SENSe:ATM:MANual:LMONitor:TYPE? < MAN

:SENSe:ATM:MANual:LMONitor:CHSearch

Parameter	None
Function	Searches for Live monitor CH.
Restriction	Invalid when; - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To search CH: > :SENSe:ATM:MANual:LMONitor:CHSearch

:SENSe:ATM:MANual:LMONitor:STATe?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 Search completed
 1 Search in progress

Function Queries search condition of Live monitor.

Example use > :SENSe:ATM:MANual:LMONitor:STATe?
 < 1

:SENSe:ATM:CDV1:PCR <numeric>, <suffix>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 to 999 Step : 1
 <suffix> = <CHARACTER PROGRAM DATA>
 MBPS Mbit/s
 KBPS kbit/s

Function Sets PCR of 1-point CDV.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..
 - :DISPlay:TMENu[:NAME] is other than <"CDV1">.

Example use To set PCR of 1-point CDV to 256 kbit/s:
 > :SENSe:ATM:CDV1:PCR 256,KBPS

:SENSe:ATM:CDV1:PCR?

Response <numeric>, <suffix>
 <numeric> = <NR1 NUMERIC RESPONSE DATA>
 <suffix> = <CHARACTER RESPONSE DATA>

Function Queries PCR of 1-point CDV.

Example use > :SENSe:ATM:CDV1:PCR?
 < 256,KBPS

:SENSe:ATM:CDV1:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 MANual Manual measurement
 SINGle Single measurement

Function Sets measurement mode of 1-point CDV measurement.

Restriction Invalid when;
 - :The setting of INSTRument:CONFig is other than ATM..

- :DISPlay:TMENu[:NAME] is other than <"CDV1">.

Example use To set measurement mode of 1-point CDV measurement to manual:
> :SENSe:ATM:CDV1:TYPE MANual

:SENSe:ATM:CDV1:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>

MAN	Manual measurement
SING	Single measurement

Function Queries 1-point CDV measurement mode.

Example use > :SENSe:ATM:CDV1:TYPE?
< MAN

:SENSe:ATM:CDV1:PERiod <numeric>, <suffix>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
1 to 99

<suffix> = <CHARACTER PROGRAM DATA>

D	day
H	hour
M	minute
S	second

Function Sets measurement time of 1-point CDV measurement.

Restriction Invalid when;

- :The setting of INSTrument:CONFIg is other than ATM..
- :DISPlay:TMENu[:NAME] is other than <"CDV1">.
- :SENSe:ATM:CDV1:TYPE is <MANual>.

Example use Sets measurement time of 1-point CDV measurement to one hour.
> :SENSe:ATM:CDV1:PERiod 1,H

:SENSe:ATM:CDV1:PERiod?

Response <numeric>, <suffix>

<numeric> = <NR1 NUMERIC RESPONSE DATA>

<suffix> = <CHARACTER RESPONSE DATA>

Function Queries measurement time of 1-point CDV measurement.

Example use > :SENSe:ATM:CDV1:PERiod?
< 1,H

:SENSe:ATM:CDV1:RTIME:TYPE <character>

Parameter	<charater> = <CHARACTER PROGRAM DATA>
	BPS kbit/s
	CPS cell/s
	PERCent %
Function	Sets cell interval used as the reference in 1-point CDV
Restriction	Invalid when;
	- :The setting of INSTRument:CONFig is other than ATM..
	- :DISPlay:TMENu[:NAME] is other than <"CDV1">.
Example use	To set cell interval used as the reference in 1-point CDV measurement.
	> :SENSe:ATM:CDV1:RTIME:PTYPe CPS

:SENSe:ATM:CDV1:RTIME:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA>
Function	Queries cell interval used as the reference in 1-point CDV measurement.
Example use	> :SENSe:ATM:CDV1:RTIME:PTYPe? < CPS

:SENSe:ATM:CDV1:RTIME:BPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA>
	0 to 999999
Function	Sets cell interval of 1-point CDV measurement (kbit/s).
Restriction	Invalid when;
	- :The setting of INSTRument:CONFig is other than ATM..
	- :DISPlay:TMENu[:NAME] is other than <"CDV1">.
	- :SENSe:ATM:CDV1:RTIME is other than <BPS>.
Example use	To set cell interval of 1-point CDV measurement to 256 (kbit/s):
	> :SENSe:ATM:CDV1:RTIME:BPS 256

:SENSe:ATM:CDV1:RTIME:BPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell interval (kb/s) of 1-point CDV measurement.
Example use	> :SENSe:ATM:CDV1:RTIME:BPS? < 256

:SENSe:ATM:CDV1:RTIME:CPS <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 to 1412830
Function	Sets cell interval of 1-point CDV measurement (cell/s).
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"CDV1">. - :SENSe:ATM:CDV1:RTIME is other than <CPS>.
Example use	To set cell interval of 1-point CDV measurement to 256 (cell/s): > :SENSe:ATM:CDV1:RTIME:CPS 256

:SENSe:ATM:CDV1:RTIME:CPS?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell interval of 1-point CDV measurement (cell/s).
Example use	> :SENSe:ATM:CDV1:RTIME:CPS? < 256

:SENSe:ATM:CDV1:RTIME:PERCent <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0.0 to 100.0
Function	Sets cell interval of 1-point CDV measurement (%).
Restriction	Invalid when; <ul style="list-style-type: none"> - :The setting of INSTRument:CONFIg is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"CDV1">. - :SENSe:ATM:CDV1:RTIME is other than <PERCent>.
Example use	To set cell interval of 1-point CDV measurement to 10.0 (%): > :SENSe:ATM:CDV1:RTIME:PERCent 10.0

:SENSe:ATM:CDV1:RTIME:PERCent?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries cell interval of 1-point CDV measurement (%).
Example use	> :SENSe:ATM:CDV1:RTIME:PERCent? < 10.0

:SENSe:ATM:CDV2:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> MANual Manual measurement SINGle Single measurement
Function	Sets measurement mode of 2-point CDV measurement.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"CDV2">.
Example use	To set measurement mode of 2-point CDV measurement to manual > :SENSe:ATM:CDV2:TYPE MANual

:SENSe:ATM:CDV2:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA> MAN Manual measurement SING Single measurement
Function	Queries measurement mode of 2-point CDV measurement.
Example use	> :SENSe:ATM:CDV2:TYPE? < MAN

:SENSe:ATM:CDV2:PERiod <numeric>, <suffix>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 to 99 <suffix> = <CHARACTER PROGRAM DATA> D day H hour M minute S second
Function	Sets measurement time of 2-point CDV measurement.
Restriction	Invalid when; - :The setting of INSTRument:CONFig is other than ATM.. - :DISPlay:TMENu[:NAME] is other than <"CDV2">. - :SENSe:ATM:CDV2:TYPE is <MANual>.
Example use	To set measurement time of 2-point CDV measurement to one hour: > :SENSe:ATM:CDV2:PERiod 1,H

:SENSe:ATM:CDV2:PERiod?

Response	<numeric>, <suffix> <numeric> = <NR1 NUMERIC RESPONSE DATA> <suffix> = <CHARACTER RESPONSE DATA>
Function	Queries measurement time of 2-point CDV measurement.
Example use	> :SENSe:ATM:CDV2:PERiod? < 1,H

4.4.4 DISPlay Subsystem (Settings on Result Screen and Analyze Screen)

In the DISPlay subsystem, settings on the Result and Analyze screens are made.

Function	Command	Parameter
<i>Page 4-167</i>		
Selects display item on Test menu screen.	:DISPlay:TMENu[:NAME]	tdisplay
Queries display item on Test menu screen.	:DISPlay:TMENu[:NAME]?	
<i>Page 4-168</i>		
Switches Tx cell screen of Test menu:Manual.	:DISPlay:TMENu:MANual:SElect	type
Queries Tx cell screen condition of Test menu:Manual.	:DISPlay:TMENu:MANual:SElect?	
<i>Page 4-168</i>		
Selects display item on Result screen.	:DISPlay:RESult[:NAME]	rdisplay
Queries display item on Result screen.	:DISPlay:RESult[:NAME]?	
<i>Page 4-169</i>		
Selects measurement result display mode.	:DISPlay:RESult:EALarm:MODE	rdmode
Selects count value or rate value display of measurement results.	:DISPlay:RESult:EALarm:UNIT	unit
Selects count value or second value display of measurement	:DISPlay:RESult:EALarm:AUNit	unit
Queries measurement result (Alarm) display condition (count value or second value).	:DISPlay:RESult:EALarm:AUNit?	
Switches between TClayer and Cell on Result screen (Error/Alarm).	:DISPlay:RESult:EALarm:TCLayer	boolean
Queries TClayer/Cell condition of Result screen (Error/Alarm).	:DISPlay:RESult:EALarm:TCLayer?	
<i>Page 4-171</i>		
Selects measurement result display mode.	:DISPlay:RESult:JUSTificat:MODE	rdmode
Selects count value or rate value display of measurement results.	:DISPlay:RESult:JUSTificat:UNIT	unit
<i>Page 4-172</i>		
Selects measurement result display mode.	:DISPlay:RESult:ZOOM:MODE	rdmode
Selects count value or rate value display of measurement results.	:DISPlay:RESult:ZOOM:UNIT	unit
Selects count value or second value display of measurement results (Alarm).	:DISPlay:RESult:ZOOM:AUNit	unit
Queries measurement result (Alarm) display condition (count value or second value).	:DISPlay:RESult:ZOOM:AUNit?	
Selects alarm display of measurement results (ZOOM).	:DISPlay:RESult:ZOOM:ALARm	alarm
Queries the alarm display of measurement results (ZOOM).	:DISPlay:RESult:ZOOM:ALARm?	
Selects error display of measurement results (ZOOM).	:DISPlay:RESult:ZOOM:ERRor	error
Queries error display of measurement results (ZOOM).	:DISPlay:RESult:ZOOM:ERRor?	

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Selects measurement result display mode.	:DISPlay:RESult:PERFormance:MODE	rdmode
Selects error of measurement results (performance G.826).	:DISPlay:RESult:PERFormance:ERRor[:G826]	error
Queries error of measurement results (performance G.826).	:DISPlay:RESult:PERFormance:ERRor[:G826]?	

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Selects measurement time display of Result screen.	:DISPlay:RESult:TIME	time
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Selects display item on Analyze screen.	:DISPlay:ANALysis[:NAME]	adisplay
Queries display item on Analyze screen.	:DISPlay:ANALysis[:NAME]?	

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Queries data indicated by marker on Analyze:Error:Alarm screen.	:DISPlay:ANALysis:TGRaph:DATA?	
Sets graduation width of time axis on Analyze:Error/Alarm screen.	:DISPlay:ANALysis:TGRaph:INTerval	numeric suffix
Queries the one scale width for the time axis on the Analyze:Error/Alarm screen.	:DISPlay:ANALysis:TGRaph:INTerval?	
Sets display start position of Error/Alarm graph.	:DISPlay:ANALysis:TGRaph:FROM	numeric1 numeric2 numeric3 numeric4 numeric5 numeric6
Queries the starting point of display for the Error/Alarm graph.	:DISPlay:ANALysis:TGRaph:FROM?	
Sets error item for Error/Alarm graph display.	:DISPlay:ANALysis:TGRaph:ERRor	error1 error2
Queries error item for Error/Alarm graph display.	:DISPlay:ANALysis:TGRaph:ERRor?	
Sets alarm item to be displayed as alarm 1.	:DISPlay:ANALysis:TGRaph:ALARm1	alarm
Queries alarm item to be displayed as alarm 1.	:DISPlay:ANALysis:TGRaph:ALARm1?	
Sets alarm item to be displayed as alarm 2.	:DISPlay:ANALysis:TGRaph:ALARm2	alarm
Queries alarm item to be displayed as alarm 2.	:DISPlay:ANALysis:TGRaph:ALARm2?	
Sets alarm item to be displayed as alarm 3.	:DISPlay:ANALysis:TGRaph:ALARm3	alarm
Same as :DISPlay:ANALysis:TGRaph:ALARm1.	:DISPlay:ANALysis:TGRaph:ALARm3?	
Sets alarm item to be displayed as alarm 4.	:DISPlay:ANALysis:TGRaph:ALARm4	alarm
Queries alarm item to be displayed as alarm 4.	:DISPlay:ANALysis:TGRaph:ALARm4?	
Sets alarm item to be displayed as alarm 5.	:DISPlay:ANALysis:TGRaph:ALARm5	alarm
Queries alarm item to be displayed as alarm 5.	:DISPlay:ANALysis:TGRaph:ALARm5?	

4.4 Equipment Unique Command

Specifies printing range of Analyze:Error/Alarm screen.	:DISPlay:ANALysis:TGRaph:PRINt	type
Sets trace graph title.	:DISPlay:ANALysis:TGRaph:TITLe	title

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Selects display item on OH monitor.	:DISPlay:ANALysis:OHMONitor:TYPE	ohmonitor
Queries display item on OH monitor.	:DISPlay:ANALysis:OHMONitor:TYPE?	
Selects SOH channel for OH monitor.	:DISPlay:ANALysis:OHMONitor:SOHCh	numeric
Queries C2 (bits 1 to 8) monitor data of OH monitor.	:DISPlay:ANALysis:OHMONitor:SLABel?	
Sets Pause in OH monitor.	:DISPlay:ANALysis:OHMONitor:PAUSe	boolean

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Queries Cell monitor data.	:DISPlay:ANALysis:CMONitor:CELL?	
Sets Pause in Cell monitor.	:DISPlay:ANALysis:CMONitor:PAUSe	boolean
Queries Pause condition in Cell monitor.	:DISPlay:ANALysis:CMONitor:PAUSe?	

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Requests scroll on Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:SCRoll	scroll
Selects type of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:GRAFH	character
Queries type of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:GRAFH?	
Sets whether to display the condition setting screen.	:DISPlay:ANALysis:LMONitor:THReshold	boolean
Queries the display of condition setting screen.	:DISPlay:ANALysis:LMONitor:THReshold?	
Sets Non-conforming setting display unit of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:NCONforming	character
Queries Non-conforming setting display unit.	:DISPlay:ANALysis:LMONitor:NCONforming?	
Sets Pause on Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:PAUSe	boolean
Queries Pause condition on Analyze screen (Live monitor).	:DISPlay:ANALysis:LMONitor:PAUSe?	
Sets horizontal axis width of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:INTerval	numeric suffix
Queries horizontal axis width of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:INTerval?	
Centers data specified by VPI and VCI on Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:VPI	numeric1 numeric2
Queries VPI and VCI of center of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:VPI?	
Centers the specified number on Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:NUMBer	numeric
Queries screen display center position of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:NUMBer?	
Specifies printing range of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:PRINt	type
Queries printing range of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:PRINt?	
Specifies print data of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:PType	type
Queries print data of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:PType?	
Sets title of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:TITLe	title
Queries title of Analyze:Live monitor screen.	:DISPlay:ANALysis:LMONitor:TITLe?	

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Requests scroll on Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:SCRoll	scroll
Requests marker movement on Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:MARKer	marker
Queries data indicated by marker on Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:DATA?	
Sets graduation width of time axis on Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:INTerval	numeric suffix
Queries graduation width of time axis of Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:INTerval?	
Sets whether to display marker on Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:MDISplay	boolean
Queries marker display setting on Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:MDISplay?	
Sets display start position of Traffic monitor graph.	:DISPlay:ANALysis:TRAFfic:FROM	numeric1 numeric2 numeric3 numeric4 numeric5 numeric6
Queries display start position of Traffic monitor graph.	:DISPlay:ANALysis:TRAFfic:FROM?	
Sets graph vertical axis scale of Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:SCALE	character
Queries graph vertical axis scale of Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:SCALE?	
Specifies printing range of Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:PRINt	type
Queries printing range of Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:PRINt?	
Sets title of Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:TITLe	title
Queries title of Analyze:Traffic monitor screen.	:DISPlay:ANALysis:TRAFfic:TITLe?	

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Selects display position on Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:JUMP:TYPE	type
Queries display position on Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:JUMP:TYPE?	
Sets display position (Number) on Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:JUMP:LINE	numeric
Queries display position (Number) on Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:JUMP:LINE?	
Requests scroll on Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:SCRoll	scroll
Sets Payload display type of Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:PTYPE	type
Queries Payload display type of Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:PTYPE?	
Specifies printing range of Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:PRINt	numeric1 numeric2
Queries printing range of Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:PRINt?	
Sets title of Analyze:Cell capture screen.	:DISPlay:ANALysis:CAPTure:TITLe	title
Queries title of Analyze:Cell capture screen	:DISPlay:ANALysis:CAPTure:TITLe?	

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Requests scroll on Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:SCRoll	scroll
Sets display data type of Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:TYPE	type
Queries display data type of Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:TYPE?	
Requests marker movement on Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:MARKer	marker
Requests peak search on Analyze:1-point CDV screen.	DISPlay:ANALYsis:CDV1:PEAK	peak
Executes zoom function on Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:ZOOM	type
Queries data indicated by marker on Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:DATA?	
Sets graduation width of Interval axis of Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:INTerval	character
Queries graduation width of Interval axis of Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:INTerval?	
Sets horizontal axis display interval of Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:IUNit	unit
Queries horizontal axis display interval of Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:IUNit?	
Sets whether to display marker on Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:MDISplay	boolean
Queries marker display on Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:MDISplay?	
Specifies the printing range of the Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:PRINt	type
Queries the printing range of the Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:PRINt?	
Sets the title of the Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:TITLe	title
Queries the title of the Analyze:1-point CDV screen.	:DISPlay:ANALYsis:CDV1:TITLe?	

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Requests a scroll on the Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:SCRoll	scroll
Sets display data type of Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:TYPE	type
Queries display data type of Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:TYPE?	
Requests marker movement on Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:MARKer	marker
Requests peak search on Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:PEAK	peak
Executes zoom function on Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:ZOOM	type
Queries the data indicated by the marker on the Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:DATA?	
Sets the graduation width of the Interval axis of the Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:INTerval	character
Queries the graduation width of the Interval axis of the Analyze:2-point CDV screen.	:DISPlay:ANALYsis:CDV2:INTerval?	

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Sets the graduation width of the Interval axis of the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:IUNit	unit
Queries the horizontal axis display interval of the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:IUNit?	
Sets whether to display the marker on the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:MDISplay	boolean
Queries the setting on whether to display the marker on the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:MDISplay?	
Specifies the printing range of the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:PRINt	type
Queries the printing range of the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:PRINt?	
Sets the title of the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:TITLe	title
Queries the title of the Analyze:2-point CDV screen.	:DISPlay:ANALysis:CDV2:TITLe?	
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Sets the title of the Analyze:OH capture screen.	:DISPlay:ANALysis:OHCapture:TITLe	title
<i>Page 4-215</i>		
Sets the error item for Error/Alarm graph display on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ERRor	error1 error2
Queries the error item for Error/Alarm graph display on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ERRor?	
Sets the alarm item to be displayed as alarm 1 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm1	alarm
Queries the alarm item to be displayed as alarm 1 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm1?	
Sets the alarm item to be displayed as alarm 2 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm2	alarm
Queries the alarm item to be displayed as alarm 2 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm2?	
Sets the alarm item to be displayed as alarm 3 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm3	alarm
Queries the alarm item to be displayed as alarm 3 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm3?	
Sets the alarm item to be displayed as alarm 4 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm4	alarm
Queries the alarm item to be displayed as alarm 4 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm4?	
Sets the alarm item to be displayed as alarm 5 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm5	alarm
Queries the alarm item to be displayed as alarm 5 on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TGRaph:ALARm5?	

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Specifies a scroll on the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:SCRoll	scroll
Sets the horizontal axis width of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:INTerval	numeric suffix
Queries the horizontal axis width of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:INTerval?	
Centers the data specified by VPI and VCI on the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:VPI	numeric1 numeric2
Queries the VPI and VCI of the center value on the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:VPI?	
Centers the specified number on the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:NUMBer	numeric
Queries the screen display center position of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:NUMBer?	
Specifies the printing range of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:PRINt	type
Queries the printing range of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:PRINt?	
Specifies the print data of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:PTYPE	type
Queries the print data of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:PTYPE?	
Queries the title of the Analyze:Recall screen (Live monitor).	:DISPlay:ANALYsis:RECall:LMOntor:TITLe?	
Set the threshold display on the Analyze:Recall (Live monitor) screen.	:DISPlay:ANALYsis:RECall:LMOntor:THReshold[:SWITCh]	boolean
Queries the threshold display of the Analyze:RECall (Live monitor) screen.	:DISPlay:ANALYsis:RECall:LMOntor:THReshold[:SWITCh]?	
Sets the unit the threshold (Non-conforming) on the Analyze:RECall (Live monitor) screen.	:DISPlay:ANALYsis:RECall:LMOntor:THReshold:NCONforming	character
Queries the unit the threshold (Non-conforming) on the Analyze:RECall (Live monitor) screen.	:DISPlay:ANALYsis:RECall:LMOntor:THReshold:NCONforming?	

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Requests the scroll on the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALYsis:RECall:TRAFfic:SCRoll	scroll
Requests marker movement on the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALYsis:RECall:TRAFfic:MARKer	marker
Queries the data indicated by the marker on the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALYsis:RECall:TRAFfic:DATA?	
Sets the graduation width of the time axis of the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALYsis:RECall:TRAFfic:INTerval	numeric suffix
Queries the graduation width of the time axis of the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALYsis:RECall:TRAFfic:INTerval?	
Sets whether to display the marker on the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALYsis:RECall:TRAFfic:MDISplay	boolean

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Queries the setting on whether to display the marker on the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALysis:RECall:TRAFfic:MDISplay?	
Sets the display start position of the Traffic monitor graph on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TRAFfic:FROM	numeric1 numeric2 numeric3 numeric4 numeric5 numeric6
Queries the display start position of the Traffic monitor graph on the Analyze:Recall screen.	:DISPlay:ANALysis:RECall:TRAFfic:FROM?	
Sets the graph vertical axis scale of the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALysis:RECall:TRAFfic:SCALe	numeric1 numeric2
Queries the graph vertical axis scale of the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALysis:RECall:TRAFfic:SCALe?	
Specifies the printing range of the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALysis:RECall:TRAFfic:PRINt	type
Queries the printing range of the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALysis:RECall:TRAFfic:PRINt?	
Queries the title of the Analyze:Recall screen (Traffic monitor).	:DISPlay:ANALysis:RECall:TRAFfic:TITLe?	

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Sets the display position on the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE	type
Queries the display position on the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE?	
Sets the display position (Number) on the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:JUMP:LINE	numeric
Queries the display position (Number) on the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:JUMP:LINE?	
Requests a scroll on the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:SCRoll	scroll
Sets the Payload display type of the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:PTYPE	type
Queries the Payload display type of the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:PTYPE?	
Specifies the printing range of the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:PRINt	numeric1 numeric2
Queries the printing range of the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:PRINt?	
Queries the title of the Analyze:Recall screen (Cell capture).	:DISPlay:ANALysis:RECall:CAPTure:TITLe?	

4.4 Equipment Unique Command

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Requests a scroll on the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:SCRoll	scroll
Sets the display data type of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:TYPE	type
Queries the display data type of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:TYPE?	
Requests a marker movement on the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:MARKer	marker
Requests a peak search on the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:PEAK	peak
Executes zoom function on the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:ZOOM	type
Queries the data indicated by the marker on the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:DATA?	
Sets the graduation width of the Interval axis of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:INTerval	numeric
Queries the graduation width of the Interval axis of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:INTerval?	
Sets the horizontal axis display interval of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:IUNit	unit
Queries the horizontal axis display interval of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:IUNit?	
Sets whether to display the marker on the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:MDISplay	boolean
Queries the setting on whether to display the marker on the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:MDISplay?	
Specifies the printing range of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:PRINt	type
Queries the printing range of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:PRINt?	
Queries the title of the Analyze:Recall screen (1-point CDV).	:DISPlay:ANALySis:RECall:CDV1:TITLe?	

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Requests a scroll on the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALySis:RECall:CDV2:SCRoll	scroll
Sets the display data type of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALySis:RECall:CDV2:TYPE	type
Queries the display data type of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALySis:RECall:CDV2:TYPE?	
Requests a marker movement on the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALySis:RECall:CDV2:MARKer	marker
Requests a peak search on the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALySis:RECall:CDV2:PEAK	peak
Executes zoom function on the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALySis:RECall:CDV2:ZOOM	type
Queries the data indicated by the marker on the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALySis:RECall:CDV2:DATA?	

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Sets the graduation width of the Interval axis of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:INTerval	numeric
Queries the graduation width of the Interval axis of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:INTerval?	
Sets the horizontal axis display interval of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:IUNit	unit
Queries the horizontal axis display interval of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:IUNit?	
Sets whether to display the marker on the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:MDISplay	boolean
Queries the setting on whether to display the marker on the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:MDISplay?	
Sets the printing range of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:PRINt	type
Queries the printing range of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:PRINt?	
Queries the title of the Analyze:Recall screen (2-point CDV).	:DISPlay:ANALysis:RECall:CDV2:TITLe?	

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Selects the display item on the Setup screen.	:DISPlay:SETup[:NAME]	
Queries the display item on the Setup screen.	:DISPlay:SETup[:NAME]?	

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Sets OH preset data display switching on the Setup screen.	:DISPlay:SETup:OHPReset[:NAME]	type
Queries the OH preset data display switching on the Setup screen.	:DISPlay:SETup:OHPReset[:NAME]?	

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Sets Cell edit display switching on the Setup screen.	:DISPlay:SETup:CELL[:NAME]	type
Queries the Cell edit display switching on the Setup screen.	:DISPlay:SETup:CELL[:NAME]?	
Requests a scroll on Memorized of Setup screen.	:DISPlay:SETup:CELL:MEMorized:SCRoll	scroll
Sets Display start on Memorized cell of Setup screen.	:DISPlay:SETup:CELL:MEMorized:DStart	numeric
Queries Display start on Memorized of Setup screen.	:DISPlay:SETup:CELL:MEMorized:DStart?	
Specifies the printing range of Memorized of Setup screen.	:DISPlay:SETup:CELL:MEMorized:PRINt	numeric1 numeric2
Queries the printing range of Memorized cell of Setup screen.	:DISPlay:SETup:CELL:MEMorized:PRINt?	

:DISPlay:TMENu[:NAME] <tdisplay>

Parameter	<tdisplay> = <STRING PROGRAM DATA>
	"TSEarch" Trouble search subscreen
	"MANual" Manual(SDH/SONET) subscreen
	"MANual:JOFF" Manual(SDH/SONET) subscreen
	"MANual:JON" Manual:jitter subscreen
	"MANual:TCLayer" Manual(ATM)TClayer subscreen
	"MANual:TCEL1" Manual(ATM)Tx cell subscreen
	"MANual:RCEL1" Manual(ATM)Rx cell subscreen
	"PSEquence" Pointer sequence subscreen
	"PSEquence:JOFF" Pointer sequence subscreen
	"PSEquence:JON" Pointer sequence:jitter subscreen
	"DELay" Delay subscreen
	"CDV1" 1-point CDV subscreen
	"CDV2" 2-point CDV subscreen
Function	Selects display item on Test menu screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When <"TSEarch">, <"MANual[:JOFF]">, <"PSEquence[:JOFF]">, <"PSEquence:JON">, or <"DELay"> is set while : INSTRument:CONFig is <ATM>. - When <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"CDV1">, or <"CDV2"> is set while ::INSTRument:CONFig is other than <ATM>.
Example use	To select MANual:jitter subscreen as display item on Test menu screen: <pre>> :DISPlay:TMENu:NAME "MANual:JON", or > :DISPlay:TMENu "MANual:JON"</pre>

:DISPlay:TMENu[:NAME]?

Response	<tdisplay> = <STRING RESPONSE DATA>
	"TSE" Trouble search subscreen
	"MAN" Manual subscreen
	"MAN:JOFF" Manual subscreen
	"MAN:JON" Manual:jitter subscreen
	"MANual:TCL" Manual(ATM)TClayer subscreen
	"MANual:TCEL" Manual(ATM)Tx cell subscreen
	"MANual:RCEL" Manual(ATM)Rx cell subscreen
	"PSEQ" Pointer sequence subscreen
	"PSEQ:JOFF" Pointer sequence subscreen
	"PSEQ:JON" Pointer sequence:jitter subscreen

	"DEL"	Delay subscreen
	"CDV1"	1-point CDV subscreen
	"CDV2"	2-point CDV subscreen
Function	Queries display item on Test menu screen.	
Example use	<pre>> :DISPlay:TMENu:NAME?, or > :DISPlay:TMENu? < "MAN:JOFF"</pre>	

:DISPlay:TMENu:MANual:SElect <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> TRAFfic Traffic EALarm Error/Alarm PM PM cell	
Function	Switches Tx cell screen of Test menu:Manual.	
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> • When the setting of :INSTRument:CONFig is other than <ATM>. • When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">. 	
Example use	To switch Manual:Tx cell screen to Traffic: <pre>> :DISPlay:TMENu:MANual:SElect TRAFfic</pre>	

:DISPlay:TMENu:MANual:SElect?

Response	<type> = <CHARACTER RESPONSE DATA> TRAF Traffic EAL Error/Alarm PM PM cell	
Function	Queries Tx cell screen condition of Test menu:Manual.	
Example use	<pre>> :DISPlay:TMENu:MANual:SElect? < TRAF</pre>	

:DISPlay:RESult[:NAME] <rdisplay>

Parameter	<rdisplay> = <STRING PROGRAM DATA> "TSEarch" Trouble search subscreen "EALarm" Error/Alarm subscreen "JUSTificat" Justification subscreen "ZOOM" Zoom subscreen "PERFormance" Performance subscreen "DELay" Delay subscreen "CDV1" 1-point CDV subscreen "CDV2" 2-point CDV subscreen	
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	"B2"	B2 error subscreen
Function	Selects display item on Result screen.	
Restriction	Invalid in the following cases:	
	<ul style="list-style-type: none"> - When <"CDV1"> or <"CDV2"> is set while the ATM unit is not installed. - When <"CDV1"> is set while :DISPlay:TMENu[:NAME] is other than <"CDV1">. - When <"CDV2"> is set while :DISPlay:TMENu[:NAME] is other than <"CDV2">. - When and <"JUSTificat"> is set while :DISPlay:TMENu[:NAME] is <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQUence[:JOFF]">, or <"PSEQUence:JON">, and :SENSe:TELEcom:BRATe is <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>. 	
Example use	To select "TSEarch" as display item on Result screen: > :DISPlay:RESult:NAME "TSEarch", or > :DISPlay:RESult "TSEarch"	

:DISPlay:RESult[:NAME]?

Response	<rdisplay> = <STRING RESPONSE DATA>	
	"TSE"	Trouble search subscreen
	"EAL"	Error/Alarm subscreen
	"JUST"	Justification subscreen
	"ZOOM"	Zoom subscreen
	"PERF"	Performance subscreen
	"DEL"	Delay subscreen
	"CDV1"	1-point CDV subscreen
	"CDV2"	2-point CDV subscreen
	"B2"	B2 error subscreen
Function	Queries display item on Result screen.	
Example use	> :DISPlay:RESult:NAME?, or > :DISPlay:RESult? < "TSE"	

:DISPlay:RESult:EALarm:MODE <rdmode>

Parameter	<rdmode> = <CHARACTER PROGRAM DATA>	
	CURRent	Current measurement result
	LAST	Last measurement result
Function	Selects measurement result display mode.	
Restriction	Invalid in the following case:	
	<ul style="list-style-type: none"> - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, 	

<"MANual:JON">,<"MANual:TCLayer">, <"MANual:TCEL1">,
 <"MANual:RCEL1">, <"PSEquence[:JOFF]">, and
 <"PSEquence:JON">.

Example use To select current measurement result as measurement result display mode:
 > :DISPlay:RESult:EALarm:MODE CURRent

:DISPlay:RESult:EALarm:UNIT <unit>

Parameter <unit> = <CHARACTER PROGRAM DATA>
 FRAMe Count value display
 RATE Rate value display

Function Selects count value or rate value display of measurement results.

Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">,
 <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">,
 <"MANual:RCEL1">, <"PSEquence[:JOFF]">, and
 <"PSEquence:JON">.

Example use To select count value display of measurement results:
 > :DISPlay:RESult:EALarm:UNIT COUNT

:DISPlay:RESult:EALarm:AUNit <unit>

Parameter <unit> = <CHARACTER PROGRAM DATA>
 FRAMe Frame value display
 SEConD Second value display

Function Selects frame value or second value display of measurement results (Alarm).

Restriction Invalid in the following cases:
 - When the setting of :INSTrument:CONFig is other than <ATM>.
 - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,
 <"MANual:TCLayer">, <"MANual:TCEL1">, and
 <"MANual:RCEL1">

Example use To select second value display of measurement results:
 > :DISPlay:RESult:EALarm:AUNit SEConD

:DISPlay:RESult:EALarm:AUNit?

Response <unit> = <CHARACTER RESPONSE DATA>
 FRAMe Frame value display
 SEC Second value display

Function Queries measurement result (Alarm) display condition (frame value or second value).

Example use > :DISPlay:RESult:EALarm:AUNit?
 < SEC

:DISPlay:RESult:EALarm:TCLayer <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 Cell ON or 1 TCLayer
Function	Switches between TCLayer and Cell on Result screen (Error/Alarm).
Restriction	Invalid in the following cases: - When the setting of :INSTRument:CONFIg is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.
Example use	To switch to TCLayer screen: > :DISPlay:RESult:EALarm:TCLayer ON

:DISPlay:RESult:EALarm:TCLayer?

Response	<boolean> = <NR1 NUMERIC RESPONSE DATA> 0 Cell 1 TCLayer
Function	Queries TCLayer/Cell condition of Result screen (Error/Alarm).
Example use	> :DISPlay:RESult:EALarm:TCLayer? < 1

:DISPlay:RESult:JUSTificat:MODE <rdmode>

Parameter	<rdmode> = <CHARACTER PROGRAM DATA> CURRent Current measurement result LAST Last measurement result
Function	Selects measurement result display mode.
Restriction	Invalid in the following cases: - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">. - When :SENSe:TELEcom:BRATe is <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>.
Example use	To select current measurement result as measurement result display mode: > :DISPlay:RESult:JUSTificat:MODE CURRent

:DISPlay:RESult:JUSTificat:UNIT <unit>

Parameter	<unit> = <CHARACTER PROGRAM DATA> COUNT Count value display RATE Rate value display PPM ppm value display
Function	Selects count value or rate value display of measurement results.
Restriction	Invalid in the following case: - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">. - When :SENSe:TELEcom:BRATe is <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>.
Example use	To select count value display of measurement results: > :DISPlay:RESult:JUSTificat:UNIT COUNT

:DISPlay:RESult:ZOOM:MODE <rdmode>

Parameter	<rdmode> = <CHARACTER PROGRAM DATA> CURRent Current measurement result LAST Last measurement result
Function	Selects measurement result display mode.
Restriction	Invalid in the following case: - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">.
Example use	To select current measurement result as measurement result display mode: > :DISPlay:RESult:ZOOM:MODE CURRent

:DISPlay:RESult:ZOOM:UNIT <unit>

Parameter	<unit> = <CHARACTER PROGRAM DATA> COUNT Count value display RATE Rate value display
Function	Selects count value or rate value display of measurement results.
Restriction	Invalid in the following case: - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">.
Example use	To select count value display of measurement results: > :DISPlay:RESult:ZOOM:UNIT COUNT

:DISPlay:RESult:ZOOM:AUNit <unit>

Parameter	<unit> = <CHARACTER PROGRAM DATA> SECond Second value display FRAMe Frame number value display
Function	Selects count value or second value display of measurement results (Alarm).
Restriction	Invalid in the following cases: - When the setting of :INSTrument:CONFIg is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.
Example use	To select count value display of measurement results: > :DISPlay:RESult:ZOOM:AUNit COUNT

:DISPlay:RESult:ZOOM:AUNit?

Response	<unit> = <CHARACTER RESPONSE DATA> SECond Second value display FRAMe Frame number display
Function	Queries measurement result (Alarm) display condition (count value or second value).
Example use	> :DISPlay:RESult:ZOOM:AUNit? < COUN

:DISPlay:REsult:ZOOM:ALARm <alarm>

Parameter	<alarm> = <STRING PROGRAM DATA>
"POWer"	Power fail
"LOS"	LOS
"LOF"	LOF
"AIS:MS"	MS-AIS
"RDI:MS"	MS-RDI
"AIS:AU"	AU-AIS
"LOP:AU"	AU-LOP
"RDI:HP"	HP-RDI
"SLM:HP"	HP-SLM
"AIS:TU"	TU-AIS
"LOP:TU"	TU-LOP
"RDI:LP"	LP-RDI
"SLM:LP"	LP-SLM
"RFI:LP"	LP-RFI
"LOM:TU"	TU-LOM
"AIS:M139"	139M AIS
"AIS:M45"	45M AIS
"AIS:M34"	34M AIS
"AIS:M2"	2M AIS
"AIS:M1_5"	.5M AIS
"LOF:M139"	139M LOF
"LOF:M45"	45M LOF
"LOF:M34"	34M LOF
"LOF:M2"	2M LOF
"LOF:M1_5"	1.5M LOF
"LOF:PLCP"	PLCP LOF
"RDI:M139"	139M RDI
"RDI:M45"	45M RDI
"RDI:M34"	34M RDI
"RDI:M2"	2M RDI
"RDI:M1_5"	1.5M RDI
"RDI:PLCP"	PLCP RDI
"AIS:VP"	VP-AIS
"RDI:VP"	VP-RDI
"LOC:VP"	VP-LOC
"AIS:VC"	VC-AIS
"RDI:VC"	VC-RDI
"LOC:VC"	VC-LOC
"LCD"	Lost of cell sync

	"PATTern"	Sync. loss
	"OOF:PLCP"	OOF PLCP
Function	Selects alarm display of measurement results (ZOOM).	
Restriction	Invalid in the following case:	
	<ul style="list-style-type: none"> - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">. 	
Example use	To select MS-RDI display of measurement results (ZOOM): > :DISPlay:RESult:ZOOM:ALARm "RDI:MS"	

:DISPlay:RESult:ZOOM:ALARm?

Response	<alarm> = <STRING RESPONSE DATA>
Function	Queries the alarm display of measurement results (ZOOM).
Example use	> :DISPlay:RESult:ZOOM:ALARm? < "RDI:MS"

:DISPlay:REsult:ZOOM:ERRor <error>

Parameter	<error> = <STRING PROGRAM DATA>
"B1"	B1 error
"B2"	B2 error
"B3:HP"	HP-B3 error
"B3:LP"	LP-B3 error
"BIP2"	BIP-2 error
"REI:MS"	MS-REI error
"REI:HP"	HP-REI error
"REI:LP"	LP-REI error
"CODE"	Code error
"FRAME:M139"	139M FAS
"FRAME:M45"	45M FAS
"FRAME:M34"	34M FAS
"FRAME:M8"	8M FAS
"FRAME:M2"	2M FAS
"FRAME:M1_5"	1.5M FAS
"REI:M139"	139M REI error
"REI:M45"	45M REI error
"REI:M34"	34M REI error
"PLCP:REI"	PLCP REI error
"CRC4"	CRC-4 error
"EBIT"	E-Bit
"BIP8"	BIP-8 error
"PARITY"	Parity
"CBIT"	C-Bit
"CRC6"	CRC-6 error
"CELL"	Cell
"CORR"	Corrected
"DISC"	Discarded
"NONCONF"	Nonconf
"ERRORED"	Errored cell
"LOST"	Lost cell
"MISINS"	Misinserted
"SECB"	SECB
"SARPDU"	SAR-PDU
"SNP"	SNP
"UCSNP"	Uncorect SNP
"P"	P
"OSF"	OSF
"SN"	SN

	"CPSPKT"	CPS-Packet
	"CPSHEC"	HEC error
	"LI"	Length indicator
	"LENGTH"	Length
	"CPCS"	CPCS-PDU
	"MID"	MID
	"CRC10"	CRC10
	"DISCPDU"	Discarded PDU
	"ST"	Segment type
	"ABORT"	Abort
	"UDLVPDU"	Undelivered PDU
	"CPI"	CPI
	"BETAG"	B/ETag
	"BASIZE"	BASize
	"AL"	AL
	"FSIZE"	Frame size
	"CRC32"	CRC32
	"FM:LOST"	FM Lost
	"FM:MISINS"	FM Misinserted
	"FM:BIPV"	FM BIPV
	"FM:SECB"	FM SECB
	"BR:LOST"	BR Lost
	"BR:MISINS"	BR Misinserted
	"BR:BIPV"	BR BIPV
	"BR:SECB"	BR SECB
	"BIT"	Bit error
	"CIDPKT"	CID PKT
Function	Selects error display of measurement results (ZOOM).	
Restriction	Invalid in the following case: <ul style="list-style-type: none"> - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">. 	
Example use	To select E-Bit display of measurement results (ZOOM): > :DISPlay:RESult:ZOOM:ERRor "EBIT"	

:DISPlay:RESult:ZOOM:ERRor?

Response <error> = <STRING RESPONSE DATA>
 Function Queries error display of measurement results (ZOOM).
 Example use > :DISPlay:RESult:ZOOM:ERRor?
 < "EBIT"

:DISPlay:RESult:PERFormance:MODE <rdmode>

Parameter <rdmode> = <CHARACTER PROGRAM DATA>
 CURRent Current measurement result
 LAST Last measurement result
 Function Selects measurement result display mode.
 Restriction Invalid in the following cases:
 - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">.
 - When :CALCulate:TELEcom:PERFormance:TYPE is <OFF>.
 Example use To select current measurement result as measurement result display mode:
 > :DISPlay:RESult:PERFormance:MODE CURRent

:DISPlay:RESult:PERFormance:ERRor[:G826] <error>

Parameter <error> = <STRING PROGRAM DATA>
 "BIP" BIP
 "REI" REI
 Function Selects error of measurement results (performance G.826).
 Restriction Invalid in the following cases:
 - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">.
 - When :CALCulate:TELEcom:PERFormance:TYPE is <OFF>, <G821>, <M2100>, <M2110>, or <M2120>.
 - When <"BIP"> or <"REI"> is set while :SENSe:TELEcom:BRATe is <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>.
 Example use To set error of measurement results (performance G.826) to BIP:
 > :DISPlay:RESult:PERFormance:ERRor "BIP", or
 > :DISPlay:RESult:PERFormance:ERRor:G826 "BIP" ("G826" statement is omissible.)

:DISPlay:RESult:PERFormance:ERRor[:G826]?

Response	<error> = <STRING RESPONSE DATA>
Function	Queries error of measurement results (performance G.826).
Example use	> :DISPlay:RESult:PERFormance:ERRor?, or > :DISPlay:RESult:PERFormance:ERRor:G826? ("G826" statement is omittable.) < "BIP"

:DISPlay:RESult:TIME <time>

Parameter	<time> = <CHARACTER PROGRAM DATA> ELAPsed Elapsed time START Start time
Function	Selects measurement time display of Result screen.
Restriction	Invalid in the following case: - When <ELAPsed> is set while :DISPlay:TMENu[:NAME] is <"TSEarch"> or <"DElay">.
Example use	To display elapsed time: > :DISPlay:RESult:TIME ELAPsed

:DISPlay:ANALysis[:NAME] <adisplay>

Parameter	<adisplay> = <STRING PROGRAM DATA> "TSEarch" Trouble search subscreen "EALarm" Error/Alarm subscreen "OHMonitor" OH monitor subscreen "CMONitor" Cell monitor subscreen "LMONitor" Live monitor subscreen "TRAFfic" Traffic monitor subscreen "CAPTure" Cell capture subscreen "CDV1" 1-point CDV subscreen "CDV2" 2-point CDV subscreen "RECall" Recall subscreen
Function	Selects display item on Analyze screen.
Restriction	Invalid in the following cases: - When the ATM unit is not installed and <"CMONitor">, <"LMONitor">, <"TRAFfic">, or <"CAPTure"> is set. - When <"EALarm">, <"OHMonitor">, <"CMONitor">, <"FMONitor">, <"LMONitor">, <"TRAFfic">, <"CAPTure">, or <"SOH64"> is set while :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">.

- When other than <"CDV1"> and <"RECall"> is set while :DISPlay:TMENu[:NAME] is <"CDV1">.
- When other than <"CDV2"> and <"RECall"> is set while :DISPlay:TMENu[:NAME] is <"CDV2">.
- When <"CMONitor">, <"LMONitor">, <"TRAFfic"> or <"CAPTure"> is set while ::INSTrument:CONFIg is other than <ATM>.
- When <"OHMonitor"> is set while ::INSTrument:CONFIg is other than <ATM>, :SENSe:TELEcom:BRATe is <M139>, <M34>, <M8>, or <M2>, :SENSe:TELEcom:DEMUX:MRATe is <OFF>, and :SENSe:TELEcom:FRAMing is <OFF>.
- When <"OHMonitor"> is set while :INSTrument:CONFIg is <ATM>, and :SENSe:TELEcom:BRATe is <M2>.

Example use To select "EALarm" as display item on Analyze screen:
 > :DISPlay:ANALysis:NAME "EALarm", or
 > :DISPlay:ANALysis "EALarm"

:DISPlay:ANALysis[:NAME]?

Response	<adisplay> = <STRING RESPONSE DATA>
	"TSE" Trouble search subscreen
	"EAL" Error/Alarm subscreen
	"OHM" OH monitor subscreen
	"CMON" Cell monitor subscreen
	"CCM" Live monitor subscreen
	"TRAF" Traffic monitor subscreen
	"CAPT" Cell capture subscreen
	"CDV1" 1-point CDV subscreen
	"CDV2" 2-point CDV subscreen
	"REC" Recall subscreen

Function Queries display item on Analyze screen.

Example use > :DISPlay:ANALysis:NAME?, or
 > :DISPlay:ANALysis?
 < "EAL"

:DISPlay:ANALysis:TGRaph:DATA?

Response	<time>,<alarm1s>,<alarm1c>,<alarm2s>,<alarm2c>,<alarm3s>,<alarm3c>,<alarm4s>,<alarm4c>,<alarm5s>,<alarm5c>,<error1>,<error2>
	<time> = <year>,<month>,<day>,<hour>,<minute>,<second>
	Time indicated by marker
	<year> = <NR1 NUMERIC RESPONSE DATA>
	0, 1994 - 2093 Year

<month> = <NR1 NUMERIC RESPONSE DATA>
0, 1 - 12 Month

<day> = <NR1 NUMERIC RESPONSE DATA>
0, 1 - 31 Day

<hour> = <NR1 NUMERIC RESPONSE DATA>
0 - 23 Hour

<minute> = <NR1 NUMERIC RESPONSE DATA>
0 - 5 Minute

<second> = <NR1 NUMERIC RESPONSE DATA>
0 - 5 Second

<alarm1s> = <STRING RESPONSE DATA>
Alarm 1 occurrence time (s) of data indicated by marker
Form1

<alarm1c> = <STRING RESPONSE DATA>
Alarm 1 occurrence count of data indicated by marker
Form1

<alarm2s> = <STRING RESPONSE DATA>
Alarm 2 occurrence time (s) of data indicated by marker
Form1

<alarm2c> = <STRING RESPONSE DATA>
Alarm 2 occurrence count of data indicated by marker
Form1

<alarm3s> = <STRING RESPONSE DATA>
Alarm 3 occurrence time (s) of data indicated by marker
Form1

<alarm3c> = <STRING RESPONSE DATA>
Alarm 3 occurrence count of the data indicated by marker
Form1

<alarm4s> = <STRING RESPONSE DATA>
Alarm 4 occurrence time (s) of data indicated by marker
Form1

<alarm4c> = <STRING RESPONSE DATA>
Alarm 4 occurrence count of data indicated by marker
Form1

<alarm5s> = <STRING RESPONSE DATA>
Alarm 5 occurrence time (s) of data indicated by marker
Form1

<alarm5c> = <STRING RESPONSE DATA>
Alarm 5 occurrence count of data indicated by marker
Form1

<error1> = <STRING RESPONSE DATA>

Error count value of data indicated by marker
 Form1
 <error2> = <STRING RESPONSE DATA>
 Error rate value of data indicated by marker
 Form2
 Function Queries data indicated by marker on Analyze:Error:Alarm screen.
 Example use > :DISPlay:ANALysis:TGRaph:DATA?
 < 2000,12,25,12,54,30," 1"," 1"," 0"," 0",
 " 104"," 10"," 1"," 1"," 1"," 1",
 " 189"," 3.3E-04"

:DISPlay:ANALysis:TGRaph:INTerval <numeric>,<suffix>

Parameter <numeric> = <CHARACTER PROGRAM DATA>
 1, 15, 60
 <suffix> = <CHARACTER PROGRAM DATA>
 M minute
 S s
 Function Sets graduation width of time axis on Analyze:Error/Alarm screen.
 Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">,
 <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">,
 <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and
 <"PSEQuence:JON">.
 Example use To set graduation width to one minute:
 > :DISPlay:ANALysis:TGRaph:INTerval 1,M

:DISPlay:ANALysis:TGRaph:INTerval?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 <suffix> = <CHARACTER RESPONSE DATA>
 Function Queries the one scale width for the time axis on the
 Analyze:Error/Alarm screen.
 Example use > :DISPlay:ANALysis:TGRaph:INTerval?
 < 1,M

:DISPlay:ANALysis:TGRaph:FROM**<numeric1>,<numeric2>,<numeric3>,<numeric4>,<numeric5> [,<numeric6>]**

Parameter <DECIMAL NUMERIC PROGRAM DATA>

<numeric1> = 1994 - 2093 (year)

<numeric2> = 1 - 12 (month)

<numeric3> = 1 - 31 (day)

<numeric4> = 0 - 23 (hour)

<numeric5> = 0 - 59 (minute)

<numeric6> = 0 - 59 (second)

Note: If time specified by the parameter does not exist, the earliest time after the specified time is set.

If time before the measurement start time is specified, the measurement start time is set.

If time after the log end time is specified, the log end time is set.

Function Sets display start position of Error/Alarm graph.

Restriction Invalid in the following case:

- When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEquence[:JOFF]">, and <"PSEquence:JON">.

Example use To display from 11:30:40 on July 28, 2000:

> :DISPlay:ANALysis:TGRaph:FROM 2000,7,28,11,30,40

:DISPlay:ANALysis:TGRaph:FROM?

Response <numeric1>, <numeric2>, <numeric3>, <numeric4>,<numeric5>,<numeric6> = <NR1 NUMERIC RESPONSE DATA>

* When Error/Alarm analyze data do not exist, the following content is outputted.

< -,,-,-,-,-

Function Queries the starting point of display for the Error/Alarm graph.

Example use > :DISPlay:ANALysis:TGRaph:FROM?

< 2000,7,28,11,30,40

:DISPlay:ANALysis:TGRaph:ERRor <error1>,<error2>

Parameter	<error1> = <STRING PROGRAM DATA>
"PLCP:REI"	PLCP REI error
"CRC4"	CRC-4 error
"CRC6"	CRC-6 error
"CELL"	Cell count
"CORR"	Corrected cell
"DISC"	Discarded cell
"NONCONF"	Non-conforming cell
"ERRORED"	Errored cell
"LOST"	Lost cell
"MISINS"	Misinserted cell
"SECB"	SECB
"SARPDU"	SAR-PDU count
"SNP"	SNP error
"UCSNP"	Uncorrectable SNP error
"P"	P error
"OSF"	OSF error
"SN"	SN error
"CPSPKT"	CPS-Packet count
"CPSHEC"	HEC error
"LI"	Length indicator
"LENGTH"	Length error
"CPCS"	CPCS-PDU count
"MID"	MID count
"CRC10"	CRC10 error
"DISCPDU"	Discarded PDU error
"ST"	Segment type
"ABORT"	Abort
"UDLVPDU"	Undelivered PDU
"CPI"	CPI error
"BETAG"	B/ETag mismatch
"BASIZE"	BAsize error
"AL"	AL error
"FSIZE"	Frame size error
"CRC32"	CRC32 error
"FM:LOST"	PM FM Lost cell
"FM:MISINS"	PM FM Misinserted cell
"FM:BIPV"	PM FM BIPV
"FM:SECB"	PM FM SECB
"BR:LOST"	PM BR Lost cell

	"BR:MISINS"	PM BR Misinserted cell
	"BR:BIPV"	PM BR BIPV
	"BR:SECB"	PM BR SECB
	"BIT"	Bit error
	"HIT"	Hit
	"O191"	O.191
	"FM"	FM
	"BR"	BR
	<error2> = <CHARACTER PROGRAM DATA>	
	EC	Count
	ER	Rate
	* For other error items, refer to Vol. 2 of the SDH/PDH/ATM Analyzer Operation Manual.	
Function	Sets error item for Error/Alarm graph display.	
Restriction	Invalid in the following cases:	
	<ul style="list-style-type: none"> - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">. - When <ER> is set while <"HIT">, <"SAR_PDU">, <"SECB">, <"CPCS">, <"PMCount">, <"TUCO1">, <"TUCO">, <"TRCCO">, or <"TRCCO1"> is set. 	
Example use	To display error rate of bit errors: > :DISPlay:ANALysis:TGRaph:ERRor "BIT",ER	
	:DISPlay:ANALysis:TGRaph:ERRor?	
Response	<error1>,<error2> <error1> = <STRING RESPONSE DATA> <error2> = <CHARACTER RESPONSE DATA>	
Function	Queries error item for Error/Alarm graph display.	
Example use	> :DISPlay:ANALysis:TGRaph:ERRor? < "BIT",ER	

:DISPlay:ANALysis:TGRaph:ALARm1 <alarm>

Parameter	<alarm> = <STRING PROGRAM DATA>
"ALL"	ALL
"POWer"	Power fail
"LOS"	LOS
"LOF"	LOF
"OOF"	OOF
"AIS:MS"	MS-AIS
"RDI:MS"	MS-RDI
"AIS:AU"	AU-AIS
"LOP:AU"	AU-LOP
"RDI:HP"	HP-RDI
"SLM:HP"	HP-SLM
"AIS:TU"	TU-AIS
"LOP:TU"	TU-LOP
"RDI:LP"	LP-RDI
"SLM:LP"	LP-SLM
"RFI:LP"	LP-RFI
"LOM:TU"	TU-LOM
"AIS:M139"	139M AIS
"AIS:M45"	45M AIS
"AIS:M34"	34M AIS
"AIS:M8"	8M AIS
"AIS:M2"	2M AIS
"AIS:M1_5"	1.5M AIS
"LOF:M139"	139M LOF
"LOF:M45"	45M LOF
"LOF:M34"	34M LOF
"LOF:M8"	8M LOF
"LOF:M2"	2M LOF
"LOF:M1_5"	1.5M LOF
"LOF:MF"	MF LOF
"LOF:PLCP"	PLCP LOF
"RDI:M139"	139M RDI
"RDI:M45"	45M RDI
"RDI:M34"	34M RDI
"RDI:M8"	8M RDI
"RDI:M2"	2M RDI
"RDI:M1_5"	1.5M RDI
"RDI:MF"	MF RDI
"RDI:PLCP"	PLCP RDI

	"VPAIS"	VP-AIS
	"VPRDI"	VP-RDI
	"VPLOC"	VP-LOC
	"VCAIS"	VC-AIS
	"VCRDI"	VC-RDI
	"VCLOC"	VC-LOC
	"LCD"	Lost of cell sync
	"PATTern"	Sync. loss
	"OOF:PLCP"	OOF PLCP
Function	Sets alarm item to be displayed as alarm 1.	
Restriction	Invalid in the following case:	
	- When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEquence[:JOFF]">, and <"PSEquence:JON">.	
Example use	To display Power fail as alarm 1: > :DISPlay:ANALysis:TGRaph:ALARm1 "POWer"	

:DISPlay:ANALysis:TGRaph:ALARm1?

Response	<alarm> = <STRING RESPONSE DATA>
Function	Queries alarm item to be displayed as alarm 1.
Example use	> :DISPlay:ANALysis:TGRaph:ALARm1? < "POW"

:DISPlay:ANALysis:TGRaph:ALARm2 <alarm>

Parameter	<alarm> = <STRING PROGRAM DATA>
Function	Sets alarm item to be displayed as alarm 2.
Restriction	Same as :DISPlay:ANALysis:TGRaph:ALARm1.

:DISPlay:ANALysis:TGRaph:ALARm2?

Response	<alarm> = <STRING RESPONSE DATA> Same as :DISPlay:ANALysis:TGRaph:ALARm1.
Function	Queries alarm item to be displayed as alarm 2.

:DISPlay:ANALysis:TGRaph:ALARm3 <alarm>

Parameter	<alarm> = <STRING PROGRAM DATA>
Function	Sets alarm item to be displayed as alarm 3.
Restriction	Same as :DISPlay:ANALysis:TGRaph:ALARm1.

:DISPlay:ANALysis:TGRaph:ALARm3?

Response <alarm> = <STRING RESPONSE DATA>
 Same as :DISPlay:ANALysis:TGRaph:ALARm1.
 Function Queries alarm item to be displayed as alarm 3

:DISPlay:ANALysis:TGRaph:ALARm4 <alarm>

Parameter <alarm> = <STRING PROGRAM DATA>
 Same as :DISPlay:ANALysis:TGRaph:ALARm1.
 Function Sets alarm item to be displayed as alarm 4.
 Restriction Same as :DISPlay:ANALysis:TGRaph:ALARm1.

:DISPlay:ANALysis:TGRaph:ALARm4?

Response <alarm> = <STRING RESPONSE DATA>
 Same as :DISPlay:ANALysis:TGRaph:ALARm1.
 Function Queries alarm item to be displayed as alarm 4.

:DISPlay:ANALysis:TGRaph:ALARm5 <alarm>

Parameter <alarm> = <STRING PROGRAM DATA>
 Same as :DISPlay:ANALysis:TGRaph:ALARm1.
 Function Sets alarm item to be displayed as alarm 5.
 Restriction Same as :DISPlay:ANALysis:TGRaph:ALARm1.

:DISPlay:ANALysis:TGRaph:ALARm5?

Response <alarm> = <STRING RESPONSE DATA>
 Same as :DISPlay:ANALysis:TGRaph:ALARm1.
 Function Queries alarm item to be displayed as alarm 5.

:DISPlay:ANALysis:TGRaph:PRINt <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 DISPlay Display
 ALL All
 AFter After
 BEFore Before

Function Specifies printing range of Analyze/Error/Alarm screen.

Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEquence[:JOFF]">, and <"PSEquence:JON">.

Example use To print screen range currently on display:
 > :DISPlay:ANALysis:TGRaph:PRINt DISPlay

:DISPlay:ANALysis:TGRaph:TITLe <title>

Parameter	<title> = <STRING PROGRAM DATA> "Title character string" Title character string (up to 15 characters) "" is also allowed.
Function	Sets trace graph title.
Restriction	Invalid in the following case: - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">.
Example use	To display "TITLE-DISP" as trace graph title: > :DISPlay:ANALysis:TGRaph:TITLe "TITLE-DISP"

:DISPlay:ANALysis:OHMonitor:TYPE <ohmonitor>

Parameter	<ohmonitor> = <CHARACTER PROGRAM DATA> OHead OH PMSP PTR,K1/K2 PTRace Path trace PFRame PDH frame TTRace Trail trace PAYLoad Payload
Function	Selects display item on OH monitor.
Restriction	Invalid in the following cases: - When the ATM unit is not installed and <TTRace> is set. - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQuence[:JOFF]">, and <"PSEQuence:JON">. - When <OHead>, <PMSP>, or <PTRace> is set while :SENSe:TELEcom:BRATe is <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>. - When <PFRame> is set while :SENSe:TELEcom:DEMUX:MRATe is <OFF> and, :SENSe:TELEcom:FRAMing is <OFF>. - When <PFRame> is set while :INSTRument:CONFIg is <ATM>. - When <TTRace> is set while :INSTRument:CONFIg is other than <ATM>. - When <TTRace> is set while :SENSe:TELEcom:BRATe is other than <M139> and <M34>.
Example use	To select Path trace: > :DISPlay:ANALysis:OHMonitor:TYPE PTRace

:DISPlay:ANALysis:OHMonitor:TYPE?

Response <ohmonitor> = <CHRACTER RESPONSE DATA>

OH	OH
PMSP	PTR,K1/K2
PTR	Path trace
PFR	PDH frame
TTR	Trail trace
PAYL	Payload

Function Queries display item on OH monitor.

Example use > :DISPlay:ANALysis:OHMonitor:TYPE?
< PTR

:DISPlay:ANALysis:OHMonitor:SOHCh <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
1 - 4 Step value : 1

Function Selects SOH channel for OH monitor.

Restriction Invalid in the following cases:

- When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">.
- When :DISPlay:ANALysis:OHMonitor:TYPE is other than <OH>.
- When :SENSe:TELEcom:BRATe is <M156>, <M156CMI>, <M52B3ZS>, <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>.

Example use To select channel 4:
> :DISPlay:ANALysis:OHMonitor:SOHCh 4

:DISPlay:ANALysis:OHMonitor:SLABel?

Response <pohvc4>,<bitvc4>,<pohvc3>,<bitvc3>
 <pohvc4> = <STRING RESPONSE DATA> <pohvc3> = <STRING RESPONSE
 C2 of monitor data of POH-VC4 (plain-
 language display) C2 of monitor data of POH-VC3 (plain-
 language display)
 "Unequipped" (0000 0000) "Unequipped" (0000 0000)
 "Equipped-non-specific" (0000 0001) "Equipped-non-specific" (0000 0001)
 "TUG structure" (0000 0010) "TUG structure" (0000 0010)
 "Locked TU" (0000 0011) "Locked TU" (0000 0011)
 "Async. 34M or 45M(C-3)" (0000 0100) "Async. 34M or 45M(C-3)" (0000 0100)
 "Async. 139M(C-4)" (0001 0010) "Async. 139M(C-4)" (0001 0010)
 "ATM mapping" (0001 0011) "ATM mapping" (0001 0011)
 "MAN(DQDB)mapping" (0001 0100) "MAN(DQDB)mapping" (0001 0100)
 "FDDI mapping" (0001 0101) "FDDI mapping" (0001 0101)
 "O.181 mapping" (1111 1110) "O.181 mapping" (1111 1110)
 "VC-AIS" (1111 1111) "VC-AIS" (1111 1111)
 <bitvc4> = <STRING RESPONSE DATA> <bitvc3> = <STRING RESPONSE DATA>
 C2 of monitor data of POH-VC4 (bit display) C2 of monitor data of POH-VC3 (bit
 display)
 "00000000" - "11111111" "00000000" - "11111111"

Function Queries C2 (bits 1 to 8) monitor data of OH monitor.

Example use > :DISPlay:ANALysis:OHMonitor:SLABel?
 < "Unequipped","00000000","VC-AIS","11111111"

:DISPlay:ANALysis:OHMonitor:PAUSe <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>
 OFF or 0 Pause OFF
 ON or 1 Pause ON

Function Sets Pause in OH monitor.

Restriction Invalid in the following cases:

- When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]>,

 <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">,

 <"MANual:RCEL1">, <"PSEQUence[:JOFF]>, and

 <"PSEQUence:JON">.
- When ::INSTrument:CONFig is other than

 <ATM>, :SENSe:TELEcom:BRATe is <M139>, <M34>, <M8>, or

 <M2>, :SENSe:TELEcom:DEMUX:MRATe is <OFF>,

 and :SENSe:TELEcom:FRAMing is <OFF>.
- When :INSTrument:CONFig is <ATM>

 and :SENSe:TELEcom:BRATe is <M2>.

Example use To set Pause in OH monitor to ON:
 > :DISPlay:ANALysis:OHMonitor:PAUSe ON

:DISPlay:ANALysis:CMONitor:CELL?

Response <header>,<payload>
 <header> = <STRING RESPONSE DATA>
 "F,256,65535,7,1,FF" (At UNI)
 "4096,65535,7,1,FF" (At NNI)
 <payload> = <STRING RESPONSE DATA>
 "FF,FF,FF,FF,FF, …… ,FF,FF,FF" (Fixed to 48 bytes)

Function Queries Cell monitor data.

Example use > :DISPlay:ANALysis:CMONitor:CELL?
 < "F,256,65535,7,1,FF","FF,FF,FF,FF,FF, …… ,FF,FF,FF"

:DISPlay:ANALysis:CMONitor:PAUSE <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>
 OFF or 0 Pause OFF
 ON or 1 Pause ON

Function Sets Pause in Cell monitor.

Restriction Invalid in the following cases:
 - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, <"MANual:RCEL1">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">.
 - When the setting of :INSTRument:CONFig is other than <ATM>.

Example use To set Pause in Cell monitor to ON:
 > :DISPlay:ANALysis:CMONitor:PAUSE ON

:DISPlay:ANALysis:CMONitor:PAUSE?

Response <boolean> = <NR1 NUMERIC RESPONSE DATA>
 0 Pause OFF
 1 Pause ON

Function Queries Pause condition in Cell monitor.

Example use > :DISPlay:ANALysis:CMONitor:PAUSE?
 < 1

:DISPlay:ANALysis:LMONitor:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 UP Scrolls up
 DOWN Scrolls down
 TOP Displays the top
 BOTTOm Displayes the bottom

Function Requests scroll on Analyze:Live monitor screen.

Restriction Invalid in the following case:
 - When no Live monitor data exists.

Example use To scroll screen up:
> :DISPlay:ANALysis:LMOonitor:SCRoll UP

:DISPlay:ANALysis:LMOonitor:GRAFH <character>

Parameter <character> = <CHARACTER PROGRAM DATA>

TRAFic	Traffic
NCONforming	Non-conforming
FMMisins	FM Misinserted cell
FMLost	FM Lost cell
FM	FM Mis/Lost cell
FMSeCb	FM SECB

Function Selects type of Analyze:Live monitor screen.

Example use To select Traffic:
> :DISPlay:ANALysis:LMOonitor:GRFH TRAFfic

:DISPlay:ANALysis:LMOonitor:GRAFH?

Parameter <character> = <CHARACTER PROGRAM DATA>

TRAF	Traffic
NCON	Non-conforming
FMM	FM Misinserted cell
FML	FM Lost cell
FM	FM Mis/Lost cell
FMS	FM SECB

Function Queries type of Analyze:Live monitor screen.

Example use > :DISPlay:ANALysis:LMOonitor:GRFH?
<TRAF

:DISPlay:ANALysis:LMOonitor:THReshold <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>

OFF or 0	No display
ON or 1	Display

Function Sets whether to display the condition setting screen.

Example use To set the condition setting screen to display.
>:DISPlay:ANALysis:LMOonitor:THReshold

:DISPlay:ANALysis:LMOonitor:THReshold?

Response <boolean> = <NR1 NUMERIC RESPONSE DATA>

Function Queries the display of condition setting screen.

Example use >:DISPlay:ANALysis:LMOonitor:THReshold?
<1

:DISPlay:ANALysis:LMONitor:NCONforming <character>

Parameter <character> = <CHARACTER PROGRAM DATA>
 BPS kb/s
 CPS Cell/s
 PERCent %

Function Sets Non-conforming setting display unit of Analyze:Live monitor screen.

Example use To set Cell/S:
 >:DISPlay:ANALysis:LMONitor:NCONforming CPS

:DISPlay:ANALysis:LMONitor:NCONforming?

Response <character> = <CHARACTER RESPONSE DATA>

Function Queries Non-conforming setting display unit.

Example use >:DISPlay:ANALysis:LMONitor:NCONforming?
 <:CPS

:DISPlay:ANALysis:LMONitor:PAUSE <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>
 OFF or 0 Pause OFF
 ON or 1 Pause ON

Function Sets Pause on Analyze:Live monitor screen.

Restriction Invalid in the following cases:

- When the setting of :INSTRument:CONFig is other than <ATM>.
- When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">

Example use To set Pause in Live monitor to ON:
 > :DISPlay:ANALysis:LMONitor:PAUSE ON

:DISPlay:ANALysis:LMONitor:PAUSE?

Response <boolean> = <NR1 NUMERIC RESPONSE DATA>
 0 Pause OFF
 1 Pause ON

Function Queries Pause condition on Analyze screen (Live monitor).

Example use > :DISPlay:ANALysis:LMONitor:PAUSE?
 < 1

:DISPlay:ANALysis:LMONitor:INTerval <numeric>,<suffix>

Parameter <numeric> = <CHARACTER PROGRAM DATA>
 1000, 5000, 10000, 50000, 100000, 500000, 1000000
 <suffix> = <CHARACTER PROGRAM DATA>

	CPS Cell/s
Function	Sets horizontal axis width of Analyze:Live monitor screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When the setting of :INSTRument:CONFIg is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">
Example use	To set horizontal axis width to 1000: > :DISPlay:ANALysis:LMOntor:INTerval 1000,CPS

:DISPlay:ANALysis:LMOntor:INTerval?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> <suffix> = <CHARACTER RESPONSE DATA>
Function	Queries horizontal axis width of Analyze:Live monitor screen.
Example use	> :DISPlay:ANALysis:LMOntor:INTerval? < 1000,CPS

:DISPlay:ANALysis:LMOntor:VPI <numeric1>[,<numeric2>]

Parameter	<numeric1> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 4,095 VPI value <numeric2> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 65535 VCI value
Function	Centers data specified by VPI and VCI on Analyze:Live monitor screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When no Live monitor data exists. - When the setting of :INSTRument:CONFIg is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">
Example use	To set VPI value of horizontal axis center to 1000: > :DISPlay:ANALysis:LMOntor:VPI 1000

:DISPlay:ANALysis:LMOntor:VPI?

Response	<numeric1> = <NR1 NUMERIC RESPONSE DATA> <numeric2> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries VPI and VCI of center of Analyze:Live monitor screen.
Example use	> :DISPlay:ANALysis:LMOntor:VPI? < 100,20

:DISPlay:ANALysis:LMONitor:NUMBer <numeric>

Parameter <numeric1> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 1000 No.

Function Centers the specified number on Analyze:Live monitor screen.

Restriction Invalid in the following cases:

- When no LIVE monitor data exists.
- When the setting of :INSTRument:CONFIg is other than <ATM>.
- When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">

Example use To jump to 23rd:
 > :DISPlay:ANALysis:LMONitor:NUMBer 23

:DISPlay:ANALysis:LMONitor:NUMBer?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries screen display center position of Analyze:Live monitor screen.

Example use > :DISPlay:ANALysis:LMONitor:NUMBer?
 < 23

:DISPlay:ANALysis:LMONitor:PRINt <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

DISPlay	Display
ALL	All
AFTer	After
BEFore	Before

Function Sets printing range of Analyze:Live monitor screen.

Restriction Invalid in the following cases:

- When the setting of :INSTRument:CONFIg is other than <ATM>.
- When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">

Example use To set printing range of Live monitor subscreen:
 > :DISPlay:ANALysis:LMONitor:PRINt DISPlay

:DISPlay:ANALysis:LMONitor:PRINt?

Response <type> = <CHARACTER RESPONSE DATA>

DISP	Display
ALL	All
AFT	After
BEF	Before

Function Queries printing range of Analyze:Live monitor screen.

Example use > :DISPlay:ANALysis:LMOonitor:PRINT?
< DISP

:DISPlay:ANALysis:LMOonitor:PTYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 NUMeric Numeric
 GRAPh Graph

Function Specifies print data of Analyze:Live monitor screen.

Restriction Invalid in the following cases:

- When the setting of :INSTrument:CONFIg is other than <ATM>.
- When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">

Example use To set print data of Live monitor subscreen:
> :DISPlay:ANALysis:LMOonitor:PTYPE GRAPh

:DISPlay:ANALysis:LMOonitor:PTYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 NUM Numeric
 GRAP Graph

Function Queries print data of Analyze:Live monitor screen.

Example use > :DISPlay:ANALysis:LMOonitor:PTYPE?
< GRAP

:DISPlay:ANALysis:LMOonitor:TITLe <title>

Parameter <title> = <STRING PROGRAM DATA>
 "Title character string" Title character string (up to 15 characters)
 "" is also allowed.

Function Sets title of Analyze:Live monitor screen.

Restriction Invalid in the following cases:

- When the setting of :INSTrument:CONFIg is other than <ATM>.
- When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">

Example use To display "TITLE-DISP" as title of Live monitor subscreen:
> :DISPlay:ANALysis:LMOonitor:TITLe "TITLE-DISP"

:DISPlay:ANALysis:LMONitor:TITLe?

Response <title> = <STRING RESPONSE DATA>
 Function Queries title of Analyze:Live monitor screen.
 Example use > :DISPlay:ANALysis:LMONitor:TITLe?
 < "TITLE-DISP "

:DISPlay:ANALysis:TRAFfic:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls left
 RIGHt Scrolls right
 TOP Displays the top
 BOTTom Displays the bottom
 Function Requests scroll on Analyze:Traffic monitor screen.
 Restriction Invalid in the following case:
 - When no Traffic monitor data exists.
 Example use To scroll screen left:
 > :DISPlay:ANALysis:TRAFfic:SCRoll LEFT

:DISPlay:ANALysis:TRAFfic:MARKer <marker>

Parameter <marker> = <CHARACTER PROGRAM DATA>
 LEFT Moves marker 1 Div to the left.
 RIGHt Moves marker 1 Div to the left.
 Function Requests marker movement on Analyze:Traffic monitor screen.
 Restriction Invalid in the following cases:
 - When the setting of :INSTRument:CONFig is other than <ATM>.
 - When :DISPlay:ANALysis:TRAFfic:MDISplay is <OFF>.
 Note: In multiple screen mode, the marker moves normally when set on.
 Example use To move marker to the right:
 > :DISPlay:ANALysis:TRAFfic:MARKer RIGHt

:DISPlay:ANALysis:TRAFfic:DATA?

<time>,<mean-bps>, <mean-cps>,<mean-%>,
 <max-bps>, <max-cps>, <max-%>,
 <min-bps>, <min-cps>,<min-%>
 <time> = <year>,<month>,<day>,<hour>,<minute>,<second>
 Time indicated by marker
 <year> = <NR1 NUMERIC RESPONSE DATA>
 0, 1994 - 2093 Year
 <month> = <NR1 NUMERIC RESPONSE DATA>
 0, 1 - 12 Month

	<pre> <day> = <NR1 NUMERIC RESPONSE DATA> 0, 1 - 31 Day <hour> = <NR1 NUMERIC RESPONSE DATA> 0 - 23 Hour <minute> = <NR1 NUMERIC RESPONSE DATA> 0 - 59 Minute <second> = <NR1 NUMERIC RESPONSE DATA> 0 - 59 Second <mean-bps>,<max-bps>,<min-bps>=<STRING RESPONSE DATA> Average, maximum, and minimum values (b/s) of data indicated by marker <mean-cps>,<max-cps>,<min-cps>=<SRING RESPONCE DATA> Average, maximum, and minimum values (cell/s) of data indicated by marker <mean-%>,<max-%>,<min-%>=<STRING RESPONSE DATA> Average, maximum, and minimum values (%) of data indicated by marker </pre>
Function	Queries data indicated by marker on Analyze:Traffic monitor screen.
Example use	<pre> > :DISPlay:ANALysis:TRAFfic:DATA? < 2000,12,25,12,54,30," 10"," 104"," 0" </pre>
	:DISPlay:ANALysis:TRAFfic:INTerval <numeric>,<suffix>
Parameter	<pre> <numeric> = <CHARACTER PROGRAM DATA> 1, 15, 60 <suffix> = <CHARACTER PROGRAM DATA> M minute S second </pre>
Function	Sets graduation width of time axis on Analyze:Traffic monitor screen.
Restriction	<p>Invalid in the following cases:</p> <ul style="list-style-type: none"> - When the setting of :INSTRument:CONFIg is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,<"MANual:TCLayer">,<"MANual:TCEL1">,<"MANual:RCEL1">. - When other than the following is set according to :SENSe:MEASure:GREsolution: <pre> 1s: 1s, 1min,15min,60min 1min: 1min, 15min, 60min 15min:15min,60min 60min:60min </pre>
Example use	<p>To set graduation width to one minute:</p> <pre> > :DISPlay:ANALysis:TRAFfic:INTerval 1,M </pre>

:DISPlay:ANALysis:TRAFfic:INTerval?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 <suffix> = <CHARACTER RESPONSE DATA>

Function Queries graduation width of time axis of Analyze:Traffic monitor screen.

Example use > :DISPlay:ANALysis:TRAFfic:INTerval?
 < 1,M

:DISPlay:ANALysis:TRAFfic:MDISplay <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>
 OFF or 0 Turns off marker.
 ON or 1 Turns on marker.

Function Sets whether to display marker on Analyze:Traffic monitor screen.

Restriction Invalid in the following case:
 - When no Traffic monitor data exists.

Example use To set marker display in Traffic monitor to ON:
 > :DISPlay:ANALysis:TRAFfic:MDISplay 1

:DISPlay:ANALysis:TRAFfic:MDISplay?

Response <boolean> = <NR1 NUMERIC RESPONSE DATA>
 0 Turns off marker
 1 Turns on marker

Function Queries marker display setting on Analyze:Traffic monitor screen.

Example use > :DISPlay:ANALysis:TRAFfic:MDISplay?
 < 1

:DISPlay:ANALysis:TRAFfic:FROM

<numeric1>,<numeric2>,<numeric3>,<numeric4>,<numeric5>,<numeric6>

Parameter <DECIMAL NUMERIC PROGRAM DATA>
 <numeric1> = 1994 - 2093 (year)
 <numeric2> = 1 - 12 (month)
 <numeric3> = 1 - 31 (day)
 <numeric4> = 0 - 23 (hour)
 <numeric5> = 0 - 59 (minute)
 <numeric6> = 0 - 59 (second)

Note: If time specified by the parameter does not exist, the earliest time after the specified time is set.
 If time before the first data time is specified, the first data time is set.
 If time after the last data time is specified, the last data time is set.

Function Sets display start position of Traffic monitor graph.

Restriction Invalid in the following cases:

- When the setting of :INSTRument:CONFIg is other than <ATM>.
- When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.

Example use To display from 11:30:40 on July 28, 2000:
> :DISPlay:ANALysis:TRAFfic:FROM 2000,7,28,11,30,40

:DISPlay:ANALysis:TRAFfic:FROM?

Response <numeric1>,<numeric2>,<numeric3>,<numeric4>,<numeric5>,<numeric6> = <NR1 NUMERIC RESPONSE DATA>

Function Queries display start position of Traffic monitor graph.

Example use > :DISPlay:ANALysis:TRAFfic:FROM?
< 2000,7,28,11,30,40

:DISPlay:ANALysis:TRAFfic:SCALE <character>

Parameter <character> = <CHARACTER PROGRAM DATA>

BPS	b/s
CPS	cell/s
PERCent	%

Function Sets graph vertical axis scale of Analyze:Traffic monitor screen.

Restriction Invalid in the following cases:

- When the setting of :INSTRument:CONFIg is other than <ATM>.
- When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.

Example use To set graph vertical axis scale of Traffic monitor to b/s:
> :DISPlay:ANALysis:TRAFfic:SCALE BPS

:DISPlay:ANALysis:TRAFfic:SCALE?

Response <character> = <CHARACTER RESPONSE DATA>

Function Queries graph vertical axis scale of Analyze:Traffic monitor screen.

Example use > :DISPlay:ANALysis:TRAFfic:SCALE?
< BPS

:DISPlay:ANALysis:TRAFfic:PRINt <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

DISPlay	Display
ALL	All
AFTer	After
BEFore	Before

Function Specifies printing range of Analyze:Traffic monitor screen.

Restriction Invalid in the following cases:

- When the setting of :INSTRUMENT:CONFIG is other than <ATM>.
- When :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.

Example use To set Traffic monitor screen range:

```
> :DISPLAY:ANALYSIS:TRAFfic:PRINT DISPLAY
```

:DISPLAY:ANALYSIS:TRAFfic:PRINT?

Response <type> = <CHARACTER RESPONSE DATA>

DISP	Display
ALL	All
AFT	After
BEF	Before

Function Queries printing range of Analyze:Traffic monitor screen.

Example use > :DISPLAY:ANALYSIS:TRAFfic:PRINT?

```
< DISP
```

:DISPLAY:ANALYSIS:TRAFfic:TITLe <title>

Parameter <title> = <STRING PROGRAM DATA>

"Title character string" Title character string (up to 15 characters)

"" is also allowed.

Function Sets title of Analyze:Traffic monitor screen.

Restriction Invalid in the following cases:

- When the setting of :INSTRUMENT:CONFIG is other than <ATM>.
- When :DISPLAY:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.

Example use To display "TITLE-DISP" as title of Analyze:Traffic monitor screen:

```
> :DISPLAY:ANALYSIS:TRAFfic:TITLe "TITLE-DISP"
```

:DISPLAY:ANALYSIS:TRAFfic:TITLe?

Response <title> = <STRING RESPONSE DATA>

Function Queries title of Analyze:Traffic monitor screen.

Example use > :DISPLAY:ANALYSIS:TRAFfic:TITLe?

```
< "TITLE-DISP "
```

:DISPlay:ANALysis:CAPTure:JUMP:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> TRIGger Displays trigger positions. NUMBer Displays Number positions.
Function	Selects display position on Analyze:Cell capture screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When the setting of :INSTrument:CONFIg is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">. - When no Capture data exists. - When no Trigger exists and <TRIGger> is set.
Example use	To move to trigger display position: > :DISPlay:ANALysis:CAPTure:JUMP:TYPE TRIGger

:DISPlay:ANALysis:CAPTure:JUMP:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA> TRIG Displays trigger positions NUMB Displays Number positions
Function	Queries display position on Analyze:Cell capture screen.
Example use	> :DISPlay:ANALysis:CAPTure:JUMP:TYPE? < TRIG

:DISPlay:ANALysis:CAPTure:JUMP:LINE <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 - 2016
Function	Sets display position (Number) on Analyze:Cell capture screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When the setting of :INSTrument:CONFIg is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">. - When no Capture data exists. - When :DISPlay:ANALysis:CAPTure:JUMP:TYPE is <TRIGger>.
Example use	To set display position to 10: > :DISPlay:ANALysis:CAPTure:JUMP:LINE 10

:DISPlay:ANALysis:CAPTure:JUMP:LINE?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries display position (Number) on Analyze:Cell capture screen.
 Example use > :DISPlay:ANALysis:CAPTure:JUMP:LINE?
 < 10

:DISPlay:ANALysis:CAPTure:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls left
 RIGHT Scrolls right
 UP Scrolls up
 DOWN Scrolls down
 HTOP Displays the left edge
 HBOTtom Displays the right edge
 VTOP Displays the top
 VBOTtom Displays the bottom
 Function Requests scroll on Analyze:Cell capture screen.
 Restriction Invalid in the following cases:
 - When no Capture data exists.
 - When <LEFT>, <RIGHT>, <HTOP>, or <HBOTtom> is set while :DISPlay:ANALysis:CAPTure:PTYPE is <ASCIi> or <TRANslate>.
 Example use To display the top:
 > :DISPlay:ANALysis:CAPTure:SCRoll VTOP

:DISPlay:ANALysis:CAPTure:PTYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 HEX HEX
 ASCii Ascii
 TRANslate Translate
 Function Sets Payload display type of Analyze:Cell capture screen.
 Restriction Invalid in the following cases:
 - When the setting of :INSTrument:CONFig is other than <ATM>.
 - When :DISPlay:TMENU[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.
 Example use To set Payload display type of Cell capture subscreen to HEX:
 > :DISPlay:ANALysis:CAPTure:PTYPE HEX

:DISPlay:ANALysis:CAPTure:PTYPE?

Response	<type> = <CHARACTER RESPONSE DATA> HEX HEX ASC Ascii TRAN Translate
Function	Queries Payload display type of Analyze:Cell capture screen.
Example use	> :DISPlay:ANALysis:CAPTure:PTYPE? < HEX

:DISPlay:ANALysis:CAPTure:PRINt <numeric1>,<numeric2>

Parameter	<numeric1>,<numeric2> = <DECIMAL NUMERIC PROGRAM DATA> 1 - 2016
Function	Specifies printing range of Analyze:Cell capture screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When the setting of :INSTRument:CONFig is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1"> - When <numeric1> > <numeric2>
Example use	To set printing range of Cell capture subscreen: > :DISPlay:ANALysis:CAPTure:PRINt 1,20

:DISPlay:ANALysis:CAPTure:PRINt?

Response	<numeric1>,<numeric2> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries printing range of Analyze:Cell capture screen.
Example use	> :DISPlay:ANALysis:CAPTure:PRINt? < 1,20

:DISPlay:ANALysis:CAPTure:TITLe <title>

Parameter	<title> = <STRING PROGRAM DATA> "Title character string" Title character string (up to 15 characters) "" is also allowed.
Function	Sets title of Analyze:Cell capture screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When the setting of :INSTRument:CONFig is other than <ATM>. - When :DISPlay:TMENu[:NAME] is other than <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCEL1">, and <"MANual:RCEL1">.
Example use	To set "Cell capture": > :DISPlay:ANALysis:CAPTure:TITLe "Cell capture"

:DISPlay:ANALysis:CAPTure:TITLe?

Response <title> = <STRING RESPONSE DATA>
 Function Queries title of Analyze:Cell capture screen.
 Example use > :DISPlay:ANALysis:CAPTure:TITLe?
 < "Cell capture "

:DISPlay:ANALysis:CDV1:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls left
 RIGHt Scrolls right
 TOP Displays the top
 BOTTom Displays the bottom
 Function Requests scroll on Analyze:1-point CDV screen.
 Restriction Invalid in the following case:
 - When no 1-point CDV data exists.
 Example use To display the top:
 > :DISPlay:ANALysis:CDV1:SCRoll TOP

:DISPlay:ANALysis:CDV1:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 INDividual Individual data
 ACCumulative Accumulated data
 Function Sets display data type of Analyze:1-point CDV screen.
 Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"CDV1">.
 Example use To set display data type of 1-point CDV subscreen to Individual:
 > :DISPlay:ANALysis:CDV1:TYPE INDividual

:DISPlay:ANALysis:CDV1:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 IND Individual data
 ACC Accumulated data
 Function Queries display data type of Analyze:1-point CDV screen.
 Example use > :DISPlay:ANALysis:CDV1:TYPE?
 < IND

:DISPlay:ANALysis:CDV1:MARKer <marker>

Parameter	<marker> = <CHARACTER PROGRAM DATA> LEFT Moves marker 1 Div to the left RIGHT Moves marker 1 Div to the right
Function	Requests marker movement on Analyze:1-point CDV screen.
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:CDV1:MDISplay is <OFF>. * Note: In multiple screen mode, the marker moves normally when set on.
Example use	To move marker to the right: > :DISPlay:ANALysis:CDV1:MARKer RIGHT

:DISPlay:ANALysis:CDV1:PEAK <peak>

Parameter	<peak> = <CHARACTER PROGRAM DATA> BEFore Before search NEXT Next search
Function	Requests peak search on Analyze:1-point CDV screen.
Restriction	Invalid in the following cases: - When :DISPlay:ANALysis:CDV1:MDISplay is <OFF>. - When there are no peaks left of the marker and <BEFore> is set. - When there are no peaks right of the marker and <NEXT> is set. * Note: In multiple screen mode, normal operation is performed when the marker is set on.
Example use	To request Before search: > :DISPlay:ANALysis:CDV1:PEAK BEFore

:DISPlay:ANALysis:CDV1:ZOOM <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> IN Zoom-in function: OUT Zoom-out function:
Function	Executes zoom function on Analyze:1-point CDV screen.
Restriction	Invalid in the following cases: - When :DISPlay:ANALysis:CDV1:MDISplay is <OFF>. - When :DISPlay:ANALysis:CDV1:INTerval is <1> and <IN> is set. - When :DISPlay:ANALysis:CDV1:INTerval is <300> and <OUT> is set. * Note: In multiple screen mode, normal operation is performed when the marker is set on.
Example use	To execute zoom-in function: > :DISPlay:ANALysis:CDV1:ZOOM IN

:DISPlay:ANALysis:CDV1:DATA?

Response <time>,<cell>,<count>,<rate>
 <time> = <STRING RESPONSE DATA>
 Interval of cell indicated by marker (µs)
 Form12
 <cell> = <STRING RESPONSE DATA>
 Number of intervals of cell indicated by marker (cell)
 Form12
 <count> = <STRING RESPONSE DATA>
 Number of cells indicated by marker
 Form1
 <rate> = <STRING RESPONSE DATA>
 Cell rate of cell indicated by marker (%)
 Form3

Function Queries data indicated by marker on Analyze:1-point CDV screen.

Example use > :DISPlay:ANALysis:CDV1:DATA?
 < " 7"," 10"," 100"," 50.0000"

:DISPlay:ANALysis:CDV1:INTerval <character>

Parameter <character> = <CHARACTER PROGRAM DATA>
 1, 10, 100, 500 cell

Function Sets graduation width of Interval axis of Analyze:1-point CDV screen.

Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"CDV1">.

Example use To set graduation width to one step:
 > :DISPlay:ANALysis:CDV1:INTerval 1

:DISPlay:ANALysis:CDV1:INTerval?

Response <numeric1> = <NR1 NUMERIC RESPONSE DATA>
 <numeric2> = <NR2 NUMERIC RESPONSE DATA>
 0.7 - 276041.7 (µs)
 Note: The Interval µs range varies depending on Rx Bit rate.

Function Queries graduation width of Interval axis of Analyze:1-point CDV screen.

Example use > :DISPlay:ANALysis:CDV1:INTerval?
 < 1,100

:DISPlay:ANALysis:CDV1:IUNit <unit>

Parameter	<unit> = <CHARACTER PROGRAM DATA> CELL Cell US μs
Function	Sets horizontal axis display interval of Analyze:1-point CDV screen.
Restriction	Invalid in the following case: • When :DISPlay:TMENu[:NAME] is other than <"CDV1">.
Example use	To set horizontal axis display interval of 1-point CDV subscreen to Cell: > :DISPlay:ANALysis:CDV1:IUNit CELL

:DISPlay:ANALysis:CDV1:IUNit?

Response	<unit> = <CHARACTER RESPONSE DATA> CELL Cell US μs
Function	Queries horizontal axis display interval of Analyze:1-point CDV screen.
Example use	> :DISPlay:ANALysis:CDV1:IUNit? < CELL

:DISPlay:ANALysis:CDV1:MDISplay <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 Turns off marker. ON or 1 Turns on marker.
Function	Sets whether to display marker on Analyze:1-point CDV screen.
Restriction	Invalid in the following case: - When no 1-point CDV data exists.
Example use	To set marker display ON: > :DISPlay:ANALysis:CDV1:MDISplay ON

:DISPlay:ANALysis:CDV1:MDISplay?

Response	<boolean> = <NR1 NUMERIC RESPONSE DATA> 0 Turns off marker. 1 Turns on marker.
Function	Queries marker display on Analyze:1-point CDV screen.
Example use	> :DISPlay:ANALysis:CDV1:MDISplay? < 1

:DISPlay:ANALysis:CDV1:PRINt <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 DISPlay Display

Function Specifies the printing range of the Analyze:1-point CDV screen.

Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"CDV1">.

Example use To print the screen range currently on display:
 > :DISPlay:ANALysis:CDV1:PRINt DISPlay

:DISPlay:ANALysis:CDV1:PRINt?

Response <type> = <CHARACTER RESPONSE DATA>
 DISP Display

Function Queries the printing range of the Analyze:1-point CDV screen.

Example use > :DISPlay:ANALysis:CDV1:PRINt?
 < DISP

:DISPlay:ANALysis:CDV1:TITLe <title>

Parameter <title> = <STRING PROGRAM DATA>
 "Title character string" Title character string (up to 15 characters)
 "" is also allowed.

Function Sets the title of the Analyze:1-point CDV screen.

Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"CDV1">

Example use To set "1-point CDV":
 > :DISPlay:ANALysis:CDV1:TITLe "1-point CDV"

:DISPlay:ANALysis:CDV1:TITLe?

Response <title> = <STRING RESPONSE DATA>

Function Queries the title of the Analyze:1-point CDV screen.

Example use > :DISPlay:ANALysis:CDV1:TITLe?
 < "1-point CDV "

:DISPlay:ANALysis:CDV2:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls left.
 RIGHt Scrolls right.
 TOP Displays the top.
 BOTTOm Displays the bottom.

Function Requests a scroll on the Analyze:2-point CDV screen.

Restriction Invalid in the following case:
 - When no 2-point CDV data exists.

Example use To display the top:
> :DISPlay:ANALysis:CDV2:SCRoll TOP

:DISPlay:ANALysis:CDV2:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 INDividual Individual data
 ACCumulative Accumulated data

Function Sets display data type of Analyze:2-point CDV screen.

Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"CDV2">.

Example use To set display data type of 2-point CDV subscreen to Individual:
 > :DISPlay:ANALysis:CDV2:TYPE INDividual

:DISPlay:ANALysis:CDV2:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 IND Individual data
 ACC Accumulated data

Function Queries display data type of Analyze:2-point CDV screen.

Example use > :DISPlay:ANALysis:CDV2:TYPE?
 < IND

:DISPlay:ANALysis:CDV2:MARKer <marker>

Parameter <marker> = <CHARACTER PROGRAM DATA>
 LEFT Moves marker 1 Div to the left.
 RIGHT Moves marker 1 Div to the right.

Function Requests marker movement on Analyze:2-point CDV screen.

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:CDV2:MDISplay is <OFF>.
 * Note: In multiple screen mode, the marker moves normally when set on.

Example use To move marker to the right:
 > :DISPlay:ANALysis:CDV2:MARKer RIGHT

:DISPlay:ANALysis:CDV2:PEAK <peak>

Parameter <peak> = <CHARACTER PROGRAM DATA>
 BEFore Before search
 NEXT Next search

Function Requests peak search on Analyze:2-point CDV screen.

Restriction Invalid in the following cases:
 - When :DISPlay:ANALysis:CDV2:MDISplay is <OFF>.
 - When there are no peaks left of the marker and <BEFore> is set.

- When there are no peaks right of the marker and <NEXT> is set.
- * Note: In multiple screen mode, normal operation is performed when the marker is set on.

Example use To request Before search:
> :DISPlay:ANALysis:CDV2:PEAK BEFore

:DISPlay:ANALysis:CDV2:ZOOM <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
IN Zoom-in function
OUT Zoom-out function

Function Executes zoom function on Analyze:2-point CDV screen.

Restriction Invalid in the following cases:

- When :DISPlay:ANALysis:CDV2:MDISplay is <OFF>.
- When :DISPlay:ANALysis:CDV2:INTerval is <1>, and <IN> is set.
- When :DISPlay:ANALysis:CDV2:INTerval is <300>, and <OUT> is set.

* Note: In multiple screen mode, normal operation is performed when the marker is set on.

Example use To execute zoom-in function:
> :DISPlay:ANALysis:CDV2:ZOOM IN

:DISPlay:ANALysis:CDV2:DATA?

Response <time>,<cell>,<count>,<rate>
<time> = <STRING RESPONSE DATA>
Interval of cell indicated by marker (µs)
Form12
<cell> = <STRING RESPONSE DATA>
Number of intervals of cell indicated by marker (cell)
Form12
<count> = <STRING RESPONSE DATA>
Number of cells indicated by marker
Form1
<rate> = <STRING RESPONSE DATA>
Rate of cell indicated by marker (%)
Form1

Note: The following is output when no analysis data exists:

< "-----","-----","-----","-----"

Function Queries the data indicated by the marker on the Analyze:2-point CDVscreen.

Example use > :DISPlay:ANALysis:CDV2:DATA?
< " 7"," 10"," 100"," 50.0000"

:DISPlay:ANALysis:CDV2:INTerval <character>

Parameter	<character> = <CHARACTER PROGRAM DATA> 1, 10, 100, 500
Function	Sets the graduation width of the Interval axis of the Analyze:2-point CDV screen.
Restriction	Invalid in the following case: - When :DISPlay:TMENu[:NAME] is other than <"CDV2">.
Example use	To set the graduation width to one step: > :DISPlay:ANALysis:CDV2:INTerval 1

:DISPlay:ANALysis:CDV2:INTerval?

Response	<numeric1> = <NR1 NUMERIC RESPONSE DATA> <numeric2> = <NR2 NUMERIC RESPONSE DATA> 0.7 - 276041.7 (µs) Note: The Interval µs range varies depending on the Rx Bit rate.
Function	Queries the graduation width of the Interval axis of the Analyze:2-point CDV screen.
Example use	> :DISPlay:ANALysis:CDV2:INTerval? < 1,100

:DISPlay:ANALysis:CDV2:IUNit <unit>

Parameter	<unit> = <CHARACTER PROGRAM DATA> CELL Cell US µs
Function	Sets the horizontal axis display interval of the Analyze:2-point CDV screen.
Restriction	Invalid in the following case: - When :DISPlay:TMENu[:NAME] is other than <"CDV2">.
Example use	To set the horizontal axis display interval of the 2-point CDV subscreen to Cell: > :DISPlay:ANALysis:CDV2:IUNit CELL

:DISPlay:ANALysis:CDV2:IUNit?

Response	<unit> = <CHARACTER RESPONSE DATA> CELL Cell US µs
Function	Queries the horizontal axis display interval of the Analyze:2-point CDV screen.
Example use	> :DISPlay:ANALysis:CDV2:IUNit? < CELL

:DISPlay:ANALysis:CDV2:MDISplay <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>
 OFF or 0 Turns marker off.
 ON or 1 Turns marker on.

Function Sets whether to display the marker on the Analyze:2-point CDV screen.

Restriction Invalid in the following case:
 - When no 2-point CDV data exists.

Example use To set marker display to ON:
 > :DISPlay:ANALysis:CDV2:MDISplay ON

:DISPlay:ANALysis:CDV2:MDISplay?

Response <boolean> = <NR1 NUMERIC RESPONSE DATA>
 0 Marker OFF
 1 Marker ON

Function Queries the setting on whether to display the marker on the Analyze:2-point CDV screen.

Example use > :DISPlay:ANALysis:CDV2:MDISplay?
 < 1

:DISPlay:ANALysis:CDV2:PRINt <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 DISPlay Display

Function Specifies the printing range of the Analyze:2-point CDV screen.

Restriction Invalid in the following case:
 - When :DISPlay:TMENu[:NAME] is other than <"CDV2">.

Example use To print the screen range currently on display:
 > :DISPlay:ANALysis:CDV2:PRINt DISPlay

:DISPlay:ANALysis:CDV2:PRINt?

Response <type> = <CHARACTER RESPONSE DATA>
 DISP Display

Function Queries the printing range of the Analyze:2-point CDV screen.

Example use > :DISPlay:ANALysis:CDV2:PRINt?
 < DISP

:DISPlay:ANALysis:CDV2:TITLe <title>

Parameter <title> = <STRING PROGRAM DATA>
 "Title character string" Title character string (up to 15 characters)
 "" is also allowed.

Function Sets the title of the Analyze:2-point CDV screen.

Restriction	Invalid in the following case: - When :DISPlay:TMENu[:NAME] is other than <"CDV2">.
Example use	To set "2-point CDV": > :DISPlay:ANALysis:CDV2:TITLe "2-point CDV"

:DISPlay:ANALysis:CDV2:TITLe?

Response	<title> = <STRING RESPONSE DATA>
Function	Queries the title of the Analyze:2-point CDV screen.
Example use	> :DISPlay:ANALysis:CDV2:TITLe? < "2-point CDV "

:DISPlay:ANALysis:OHCapture:TITLe <title>

Parameter	<title> = <STRING PROGRAM DATA> "Title character string" Title character string (up to 15 characters) "" is also allowed.
Function	Sets the title of the Analyze:OH capture screen.
Restriction	Invalid in the following cases: - When :SENSe:TELEcom:BRATe is <M139>, <M45>, <M34>, <M8>, <M2>, or <M1_5>. - When :DISPlay:TMENu[:NAME] is other than <"MANual[:JOFF]">, <"MANual:JON">, <"MANual:TCLayer">, <"MANual:TCELI">, <"MANual:RCELI">, <"PSEQUence[:JOFF]">, and <"PSEQUence:JON">.
Example use	To set the title of OH capture to "TITLE-DISP": > :DISPlay:ANALysis:FRAME64:TITLe "TITLE-DISP"

:DISPlay:ANALysis:RECall:TGRaph:ERRor <error1>, <error2>

Parameter	<error1> = <STRING PROGRAM DATA> Same as :DISPlay:ANALysis:TGRaph:ERRor. <error2> = <CHARACTER PROGRAM DATA> Same as :DISPlay:ANALysis:TGRaph:ERRor.
Function	Sets the error item for Error/Alarm graph display on the Analyze: Recall screen.
Restriction	Invalid in the following cases: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"EAL">. - When the specified measurement result is not found. - When <ER> is set while <"HIT">, <"SAR_PDU">, <"SECB">, <"CPCS">, <"PMCount">, <"TUC01">, <"TUC0">, <"TRCC0">, or <"TRCC01"> is set.
Example use	To display the error rate of bit errors: > :DISPlay:ANALysis:RECall:TGRaph:ERRor "BIT",ER

:DISPlay:ANALysis:RECall:TGRaph:ERRor?

Response <error1>,<error2>
 <error1> = <STRING RESPONSE DATA>
 <error2> = <CHARACTER RESPONSE DATA>

Function Queries the error item for Error/Alarm graph display on the Analyze: Recall screen.

Example use > :DISPlay:ANALysis:RECall:TGRaph:ERRor?
 < "BIT",ER

:DISPlay:ANALysis:RECall:TGRaph:ALARm1 <alarm>

Parameter <alarm> = <STRING PROGRAM DATA>
 Same as :DISPlay:ANALysis:TGRaph:ALARm1.

Function Sets the alarm item to be displayed as alarm 1 on the Analyze: Recall screen.

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"EAL">.

Example use To display Power fail as alarm 1:
 > :DISPlay:ANALysis:RECall:TGRaph:ALARm1 "POWER"

:DISPlay:ANALysis:RECall:TGRaph:ALARm1?

Response <alarm> = <STRING RESPONSE DATA>

Function Queries the alarm item to be displayed as alarm 1 on the Analyze: Recall screen.

Example use > :DISPlay:ANALysis:RECall:TGRaph:ALARm1?
 < "POW"

:DISPlay:ANALysis:RECall:TGRaph:ALARm2 <alarm>

Parameter <alarm> = <STRING PROGRAM DATA>
 Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1.

Function Sets the alarm item to be displayed as alarm 2 on the Analyze: Recall screen.

Restriction Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1.

:DISPlay:ANALysis:RECall:TGRaph:ALARm2?

Response <alarm> = <STRING RESPONSE DATA>
 Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1?.

Function Queries the alarm item to be displayed as alarm 2 on the Analyze: Recall screen.

:DISPlay:ANALysis:RECall:TGRaph:ALARm3 <alarm>

Parameter	<alarm> = <STRING PROGRAM DATA> Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1.
Function	Sets the alarm item to be displayed as alarm 3 on the Analyze:Recall screen.
Restriction	Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1.

:DISPlay:ANALysis:RECall:TGRaph:ALARm3?

Response	<alarm> = <STRING RESPONSE DATA> Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1?.
Function	Queries the alarm item to be displayed as alarm 3 on the Analyze:Recall screen.

:DISPlay:ANALysis:RECall:TGRaph:ALARm4 <alarm>

Parameter	<alarm> = <STRING PROGRAM DATA> Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1.
Function	Sets the alarm item to be displayed as alarm 4 on the Analyze:Recall screen.
Restriction	Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1

:DISPlay:ANALysis:RECall:TGRaph:ALARm4?

Response	<alarm> = <STRING RESPONSE DATA> Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1?.
Function	Queries the alarm item to be displayed as alarm 4 on the Analyze:Recall screen.

:DISPlay:ANALysis:RECall:TGRaph:ALARm5 <alarm>

Parameter	<alarm> = <STRING PROGRAM DATA> Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1.
Function	Sets the alarm item to be displayed as alarm 5 on the Analyze:Recall screen.
Restriction	Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1.

:DISPlay:ANALysis:RECall:TGRaph:ALARm5?

Response	<alarm> = <STRING RESPONSE DATA> Same as :DISPlay:ANALysis:RECall:TGRaph:ALARm1?.
Function	Queries the alarm item to be displayed as alarm 5 on the Analyze:Recall screen.

:DISPlay:ANALysis:RECall:LMONitor:SCRoll <scroll>

Parameter	<scroll> = <CHARACTER PROGRAM DATA> UP Scrolls upward. DOWN Scrolls down. TOP Displays the top. BOTTom Displays the bottom.
Function	Specifies a scroll on the Analyze:Recall screen (Live monitor).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CCM">.
Example use	To scroll up: > :DISPlay:ANALysis:RECall:LMONitor:SCRoll UP

:DISPlay:ANALysis:RECall:LMONitor:INTerval <numeric>,<suffix>

Parameter	<numeric> = <CHARACTER PROGRAM DATA> 1000, 5000, 10000, 50000, 100000, 500000, 1000000 <suffix> = <CHARACTER PROGRAM DATA> CPS Cell/s
Function	Sets the horizontal axis width of the Analyze:Recall screen (Live monitor).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CCM">.
Example use	To set the horizontal axis width to 1000: > :DISPlay:ANALysis:RECall:LMONitor:INTerval 1000,CPS

:DISPlay:ANALysis:RECall:LMONitor:INTerval?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> <suffix> = <CHARACTER RESPONSE DATA>
Function	Queries the horizontal axis width of the Analyze:Recall screen (Live monitor).
Example use	> :DISPlay:ANALysis:RECall:LMONitor:INTerval? < 1000,CPS

:DISPlay:ANALysis:RECall:LMONitor:VPI <numeric1>[,<numeric2>]

Parameter	<numeric1> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 4095 VPI value <numeric2> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 65535 VCI value
Function	Centers the data specified by VPI and VCI on the Analyze:Recall screen (Live monitor).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CCM">.

Example use To set the VPI of the horizontal axis center value to 1000:
> :DISPlay:ANALysis:RECall:LMONitor:VPI 1000

:DISPlay:ANALysis:RECall:LMONitor:VPI?

Response <numeric1> = <NR1 NUMERIC RESPONSE DATA>
<numeric2> = <NR1 NUMERIC RESPONSE DATA>

Function Queries the VPI and VCI of the center value on the Analyze:Recall screen (Live monitor).

Example use > :DISPlay:ANALysis:RECall:LMONitor:VPI?
< 100,20

:DISPlay:ANALysis:RECall:LMONitor:NUMBer <numeric>

Parameter <numeric1> = <DECIMAL NUMERIC PROGRAM DATA>
1 - 1000 No.

Function Centers the specified number on the Analyze:Recall screen (Live monitor).

Restriction Invalid in the following case:
- When :DISPlay:ANALysis:RECall:TYPE? is other than <"CCM">.

Example use To jump to 23:
> :DISPlay:ANALysis:RECall:LMONitor:NUMBer 23

:DISPlay:ANALysis:RECall:LMONitor:NUMBer?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries the screen display center position of the Analyze:Recal screen (Live monitor).

Example use > :DISPlay:ANALysis:RECall:LMONitor:NUMBer?
< 23

:DISPlay:ANALysis:RECall:LMONitor:PRINt <type>

Parameter <type> = <CHARACTER PROGRAM DATA>

DISPlay	Display
ALL	All
AFTer	After
BEFore	Before

Function Specifies the printing range of the Analyze:Recall screen (Live monitor).

Restriction Invalid in the following case:
- When :DISPlay:ANALysis:RECall:TYPE? is other than <"CCM">.

Example use To set the printing range of the Live monitor screen:
> :DISPlay:ANALysis:RECall:LMONitor:PRINt DISPlay

:DISPlay:ANALysis:RECall:LMOonitor:PRINt?

Response <type> = <CHARACTER RESPONSE DATA>
 DISP Display
 ALL All
 AFT After
 BEF Before

Function Queries the printing range of the Analyze:Recall screen (Live monitor).

Example use > :DISPlay:ANALysis:RECall:LMOonitor:PRINt?
 < DISP

:DISPlay:ANALysis:RECall:LMOonitor:PTYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 NUMeric Numeric data printing
 GRAPh Graph data printing

Function Specifies the print data of the Analyze:Recall screen (Live monitor).

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CCM">.

Example use To set the print data of the Live monitor screen:
 > :DISPlay:ANALysis:RECall:LMOonitor:PTYPE GRAPh

:DISPlay:ANALysis:RECall:LMOonitor:PTYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 NUM Numeric data
 GRAP Graph data

Function Queries the print data of the Analyze:Recall screen (Live monitor).

Example use > :DISPlay:ANALysis:RECall:LMOonitor:PTYPE?
 < GRAP

:DISPlay:ANALysis:RECall:LMOonitor:TITLe?

Response <title> = <STRING RESPONSE DATA>

Function Queries the title of the Analyze:Recall screen (Live monitor).

Example use > :DISPlay:ANALysis:RECall:LMOonitor:TITLe?
 < "TITLE-DISP "

:DISPlay:ANALysis:RECall:LMOonitor:THReshold[:SWITCh] <boolean>

Parameter <boolean> = <BOOLEAN PROGRAM DATA>
 OFF or 0 Non—display (monitor)
 ON or 1 Display (Threshold screen)

Function Set the threshold display on the Analyze:Recall (Live monitor) screen.

Example use To display the threshold of the Live monitor.
 > :DISPlay:ANALysis:RECall:LMONitor:THReshold[:SWITCh] ON

:DISPlay:ANALysis:RECall:LMONitor:THReshold[:SWITCh]?

Response <boolean> = <NR1 NUMERIC RESPONSE DATA>
 0 Non-display
 1 Display

Function Queries the threshold display of the Analyze:RECall (Live monitor) screen.

Example use > :DISPlay:ANALysis:RECall:LMONitor:THReshold[:SWITCh]?
 < 1

:DISPlay:ANALysis:RECall:LMONitor:THReshold:NCONforming <character>

Parameter <character> = <CHARACTER PROGRAM DATA>
 BPS kbit/s
 CPS Cell/s
 PERCent %

Function Sets the unit the threshold (Non-conforming) on the Analyze:RECall (Live monitor) screen.

Example use To set the unit of the threshold (Non-conforming) to Cell/s.
 >:DISPlay:ANALysis:RECall:LMONitor:THReshold:NCONforming
 CPS

:DISPlay:ANALysis:RECall:LMONitor:THReshold:NCONforming?

Response <character> = <CHARACTER RESPONSE DATA>
 Same as
 “:DISPlay:ANALysis:RECall:LMONitor:THReshold:NCONforming”

Function Queries the unit the threshold (Non-conforming) on the Analyze:RECall (Live monitor) screen.

Example use > :DISPlay:ANALysis:RECall:LMONitor:THReshold:NCONforming?
 < CPS

:DISPlay:ANALysis:RECall:TRAFfic:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls leftward.
 RIGHt Scrolls right.
 TOP Displays the top.
 BOTTOm Displays the bottom.

Function Requests the scroll on the Analyze:Recall screen (Traffic monitor).

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"TRAF">.

Section 4 Remote Control

Example use To scroll leftward:
> :DISPlay:ANALysis:RECall:TRAFfic:SCRoll LEFT

:DISPlay:ANALysis:RECall:TRAFfic:MARKer <marker>

Parameter <marker> = <CHARACTER PROGRAM DATA>
LEFT Moves the marker 1 Div to the left.
RIGHT Moves the marker 1 Div to the right.

Function Requests marker movement on the Analyze:Recall screen
(Traffic monitor).

Restriction Invalid in the following cases:
- When :DISPlay:ANALysis:RECall:TYPE? is other than <"TRAF">.
- When :DISPlay:ANALysis:RECall:TRAFfic:MDISplay is <OFF>.
* Note: In multiple screen mode, the marker moves normally as if on.

Example use To move the marker to the right:
> :DISPlay:ANALysis:RECall:TRAFfic:MARKer RIGHT

:DISPlay:ANALysis:RECall:TRAFfic:DATA?

Response <time>,<mean>,<max>,<min>

Function Queries the data indicated by the marker on the Analyze:Recall
screen (Traffic monitor).

Example use > :DISPlay:ANALysis:RECall:TRAFfic:DATA?
< 2000,12,25,12,54,30," 1"," 0"," 104"

:DISPlay:ANALysis:RECall:TRAFfic:INTerval <numeric>,<suffix>

Parameter <numeric> = <CHARACTER PROGRAM DATA>
1, 15, 60
<suffix> = <CHARACTER PROGRAM DATA>
M minute
S second

Function Sets the graduation width of the time axis of the Analyze:Recall
screen (Traffic monitor).

Restriction Invalid in the following cases:
- When :DISPlay:ANALysis:RECall:TYPE? is other than <"TRAF">.
- When other than one of the following values is set according to the
graph resolution at saving:
 1s: 1s, 1min,15min,60min
 1min: 1min,15min,60min
 15min:15min,60min
 60min:60min

Example use To set the graduation width to one minute:
> :DISPlay:ANALysis:RECall:TRAFfic:INTerval 1,M

:DISPlay:ANALysis:RECall:TRAFfic:INTerval?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> <suffix> = <CHARACTER RESPONSE DATA>
Function	Queries the graduation width of the time axis of the Analyze:Recall screen (Traffic monitor).
Example use	> :DISPlay:ANALysis:RECall:TRAFfic:INTerval? < 1,M

:DISPlay:ANALysis:RECall:TRAFfic:MDISplay <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 Turns marker off. ON or 1 Turns marker on.
Function	Sets whether to display the marker on the Analyze:Recall screen (Traffic monitor).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"TRAF">.
Example use	To set the marker display on Traffic monitor to ON: > :DISPlay:ANALysis:RECall:TRAFfic:MDISplay 1

:DISPlay:ANALysis:RECall:TRAFfic:MDISplay?

Response	<boolean> = <NR1 NUMERIC RESPONSE DATA> 0 Marker OFF 1 Marker ON
Function	Queries the setting on whether to display the marker on the Analyze:Recall screen (Traffic monitor).
Example use	> :DISPlay:ANALysis:RECall:TRAFfic:MDISplay? < 1

:DISPlay:ANALysis:RECall:TRAFfic:FROM**<numeric1>,<numeric2>,<numeric3>,<numeric4>,<numeric5>,<numeric6>**

Parameter	<DECIMAL NUMERIC PROGRAM DATA> <numeric1> = 1994 - 2093 (year) <numeric2> = 1 - 12 (month) <numeric3> = 1 - 31 (day) <numeric4> = 0 - 23 (hour) <numeric5> = 0 - 59 (minute) <numeric6> = 0 - 59 (second)
	Note: If the time specified by the parameter does not exist, the earliest time after the specified time is set. If time before the first data time is specified, the first data time is set. If time after the last data time is specified, the last data time is set.

Section 4 Remote Control

Function	Sets the display start position of the Traffic monitor graph on the Analyze:Recall screen.
Restriction	Invalid in the following case: <ul style="list-style-type: none">- When :DISPlay:ANALysis:RECall:TYPE? is other than <"TRAF">.
Example use	To display from 11:30:40 on July 28, 2000: > :DISPlay:ANALysis:RECall:TRAFfic:FROM 2000,7,28,11,30,40

:DISPlay:ANALysis:RECall:TRAFfic:FROM?

Response	<numeric1>,<numeric2>,<numeric3>,<numeric4>,<numeric5>,<numeric6> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries the display start position of the Traffic monitor graph on the Analyze:Recall screen.
Example use	> :DISPlay:ANALysis:RECall:TRAFfic:FROM? < 2000,7,28,11,30,40

:DISPlay:ANALysis:RECall:TRAFfic:SCALE <character>

Parameter	<character> = <CHARACTER PROGRAM DATA> BPS bit/s CPS cell/s PERCent %
Function	Sets the graph vertical axis scale of the Analyze:Recall screen (Traffic monitor).
Restriction	Invalid in the following cases. <ul style="list-style-type: none">- :INSTrument:CONFig is other than <ATM>.- :DISPlay:TMENu[:NAME] is other than <"MANual:JON">,<"MANual:TCLayer">,<"MANual:TCELL">, and <"MANual:RCELL">.
Example use	To set the graph vertical axis scale of the Traffic monitor graph to bit/s. > :DISPlay:ANALysis:TRAFfic:SCALE BPS

:DISPlay:ANALysis:RECall:TRAFfic:SCALE?

Response	<character> = <CHARACTER RESPONSE DATA>
Function	Queries the graph vertical scale of the Analyze:Recall screen (Traffic monitor).
Example use	> :DISPlay:ANALysis:TRAFfic:SCALE? < BPS

:DISPlay:ANALysis:RECall:TRAFfic:PRINt <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> DISPlay Display ALL All AFTer After BEFore Before
Function	Specifies the printing range of the Analyze:Recall screen (Traffic monitor).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"TRAF">.
Example use	To set the Traffic monitor screen range: > :DISPlay:ANALysis:RECall:TRAFfic:PRINt DISPlay

:DISPlay:ANALysis:RECall:TRAFfic:PRINt?

Response	<type> = <CHARACTER RESPONSE DATA> DISP Display ALL All AFT After BEF Before
Function	Queries the printing range of the Analyze:Recall screen (Traffic monitor).
Example use	> :DISPlay:ANALysis:RECall:TRAFfic:PRINt? < DISP

:DISPlay:ANALysis:RECall:TRAFfic:TITLe?

Response	<title> = <STRING RESPONSE DATA>
Function	Queries the title of the Analyze:Recall screen (Traffic monitor).
Example use	> :DISPlay:ANALysis:RECall:TRAFfic:TITLe? < "TITLE-DISP "

:DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> TRIGger Displays trigger positions. NUMBER Displays number positions.
Function	Sets the display position on the Analyze:Recall screen (Cell capture).
Restriction	Invalid in the following cases: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CAPT">. - When no Trigger exists and <TRIGger> is set.
Example use	To move the trigger display position: > :DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE TRIGger

:DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 TRIG Displays trigger positions.
 NUMB Displays number positions.

Function Queries the display position on the Analyze:Recall screen (Cell capture).

Example use > :DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE?
 < TRIG

:DISPlay:ANALysis:RECall:CAPTure:JUMP:LINE <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 2016

Function Sets the display position (Number) on the Analyze:Recall screen (Cell capture).

Restriction Invalid in the following cases:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CAPT">.
 - When :DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE is <TRIGger>.
 - When the setting exceeds the total number of Capture data items.

Example use To set the display position to 10:
 > :DISPlay:ANALysis:RECall:CAPTure:JUMP:LINE 10

:DISPlay:ANALysis:RECall:CAPTure:JUMP:LINE?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>

Function Queries the display position (Number) on the Analyze:Recall screen (Cell capture).

Example use > :DISPlay:ANALysis:RECall:CAPTure:JUMP:LINE?
 < 10

:DISPlay:ANALysis:RECall:CAPTure:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls left.
 RIGHT Scrolls right.
 UP Scrolls up.
 DOWN Scrolls down.
 HTOP Displays the left edge.
 HBOTtom Displays the right edge.
 VTOP Displays the top.
 VBOTtom Displays the bottom.

Function Requests a scroll on the Analyze:Recall screen (Cell capture).

Restriction Invalid in the following cases:

- When :DISPlay:ANALysis:RECall:TYPE? is other than <"CAPT">.
- When <LEFT>, <RIGHT>, <HTOP>, or <HBOTtom> is set while :DISPlay:ANALysis:RECall:CAPTure:PTYPE is <ASCii> or <TRANslate>.

Example use To display the top:
> :DISPlay:ANALysis:RECall:CAPTure:SCRoll VTOP

:DISPlay:ANALysis:RECall:CAPTure:PTYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 HEX HEX
 ASCii Ascii
 TRANslate Translate

Function Sets the Payload display type of the Analyze:Recall screen (Cell capture).

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CAPT">.

Example use To set the Payload display type of the Cell capture subscreen to HEX:
 > :DISPlay:ANALysis:RECall:CAPTure:PTYPE HEX

:DISPlay:ANALysis:RECall:CAPTure:PTYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 HEX HEX
 ASC Ascii
 TRAN Translate

Function Queries the Payload display type of the Analyze:Recall screen (Cell capture).

Example use > :DISPlay:ANALysis:RECall:CAPTure:PTYPE?
 < HEX

:DISPlay:ANALysis:RECall:CAPTure:PRINt <numeric1>,<numeric2>

Parameter <numeric1>,<numeric2> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 2016

Function Specifies the printing range of the Analyze:Recall screen (Cell capture).

Restriction Invalid in the following cases:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CAPT">.
 - When <numeric1> > <numeric2>.

Example use To set the Cell capture screen range:
 > :DISPlay:ANALysis:RECall:CAPTure:PRINt 1,20

:DISPlay:ANALysis:RECall:CAPTure:PRINt?

Response <numeric1>,<numeric2> = <NR1 NUMERIC RESPONSE DATA>
 Function Queries the printing range of the Analyze:Recall screen (Cell capture).
 Example use > :DISPlay:ANALysis:RECall:CAPTure:PRINt?
 < 1,20

:DISPlay:ANALysis:RECall:CAPTure:TITLe?

Response <title> = <STRING RESPONSE DATA>
 Function Queries the title of the Analyze:Recall screen (Cell capture).
 Example use > :DISPlay:ANALysis:RECall:CAPTure:TITLe?
 < "Cell capture "

:DISPlay:ANALysis:RECall:CDV1:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls left.
 RIGHt Scrolls right.
 TOP Displays the top.
 BOTTom Displays the bottom.
 Function Requests a scroll on the Analyze:Recall screen (1-point CDV).
 Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">.
 Example use To display the top:
 > :DISPlay:ANALysis:RECall:CDV1:SCRoll TOP

:DISPlay:ANALysis:RECall:CDV1:TYPE <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 INDividual
 ACCumulate
 Function Sets the display data type of the Analyze:Recall screen (1-point CDV).
 Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">.
 Example use To set the display data type of the 1-point CDV subscreen to Individual:
 > :DISPlay:ANALysis:RECall:CDV1:TYPE INDividual

:DISPlay:ANALysis:RECall:CDV1:TYPE?

Response <type> = <CHARACTER RESPONSE DATA>
 IND
 ACC
 Function Queries the display data type of the Analyze:Recall screen (1-point CDV).
 Example use > :DISPlay:ANALysis:RECall:CDV1:TYPE?
 < IND

:DISPlay:ANALysis:RECall:CDV1:MARKer <marker>

Parameter	<marker> = <CHARACTER PROGRAM DATA> LEFT Moves the marker 1 Div to the left. RIGHT Moves the marker 1 Div to the right.
Function	Requests a marker movement on the Analyze:Recall screen (1-point CDV).
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">. - When :DISPlay:ANALysis:RECall:CDV1:MDISplay is <OFF>. <p>* Note: In multiple screen mode, the marker moves normally as if on.</p>
Example use	To move the marker to the right: > :DISPlay:ANALysis:RECall:CDV1:MARKer RIGHT

:DISPlay:ANALysis:RECall:CDV1:PEAK <peak>

Parameter	<peak> = <CHARACTER PROGRAM DATA> BEFore Before search NEXT Next search
Function	Requests a peak search on the Analyze:Recall screen (1-point CDV).
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">. - When :DISPlay:ANALysis:RECall:CDV1:MDISplay is <OFF>. - When there are no peaks on the left of the marker and <BEFore> is set. - When there are no peaks right of the marker and <NEXT> is set. <p>* Note: In multiple screen mode, normal operation is performed as if the marker is on.</p>
Example use	To request a Before search: > :DISPlay:ANALysis:RECall:CDV1:PEAK BEFore

:DISPlay:ANALysis:RECall:CDV1:ZOOM <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> IN Zoom in function OUT Zoom out function
Function	Executes zoom function on the Analyze:Recall screen (1-point CDV).
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">. - When :DISPlay:ANALysis:RECall:CDV1:MDISplay is <OFF>. - When :DISPlay:ANALysis:RECall:CDV1:INTerval is <1>, and <IN> is set. - When :DISPlay:ANALysis:RECall:CDV1:INTerval is <300>, and

<OUT> is set.

- * Note: In multiple screen mode, normal operation is performed as if the marker is on.

Example use To execute zoom-in function:
 > :DISPlay:ANALysis:RECall:CDV1:ZOOM IN

:DISPlay:ANALysis:RECall:CDV1:DATA?

Response <time>,<cell>,<count>,<rate>
 <time> = <STRING RESPONSE DATA>
 Interval of cell indicated by marker (μ s)
 Form12
 <cell> = <STRING RESPONSE DATA>
 Number of intervals (cell) of cell indicated by marker
 Form12
 <count> = <STRING RESPONSE DATA>
 Number of cells indicated by marker
 Form1
 <rate> = <STRING RESPONSE DATA>
 Rate of the cell indicated by marker (%)
 Form3

Function Queries the data indicated by the marker on the Analyze:Recall screen (1-point CDV).

Example use > :DISPlay:ANALysis:RECall:CDV1:DATA?
 < " 10"," 101"," 0"," 100"

:DISPlay:ANALysis:RECall:CDV1:INTerval <numeric>

Parameter <numeric> = <CHARACTER PROGRAM DATA>
 1, 10, 100, 500

Function Sets the graduation width of the Interval axis of the Analyze:Recall screen (1-point CDV).

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">.

Example use To set the graduation width to one step:
 > :DISPlay:ANALysis:RECall:CDV1:INTerval 1

:DISPlay:ANALysis:RECall:CDV1:INTerval?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries the graduation width of the Interval axis of the Analyze:Recall screen (1-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV1:INTerval? < 1

:DISPlay:ANALysis:RECall:CDV1:IUNit <unit>

Parameter	<unit> = <CHARACTER PROGRAM DATA> CELL Cell US μs
Function	Sets the horizontal axis display interval of the Analyze:Recall screen (1-point CDV).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">.
Example use	To set the horizontal axis display interval of the 1-point CDV subscreen to Cell: > :DISPlay:ANALysis:RECall:CDV1:IUNit CELL

:DISPlay:ANALysis:RECall:CDV1:IUNit?

Response	<type> = <CHARACTER RESPONSE DATA> CELL Cell US μs
Function	Queries the horizontal axis display interval of the Analyze:Recall screen (1-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV1:IUNit? < CELL

:DISPlay:ANALysis:RECall:CDV1:MDISplay <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 Turns marker off. ON or 1 Turns marker on.
Function	Sets whether to display the marker on the Analyze:Recall screen (1-point CDV).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">.
Example use	To set marker display to ON: > :DISPlay:ANALysis:RECall:CDV1:MDISplay ON

:DISPlay:ANALysis:RECall:CDV1:MDISplay?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 Marker OFF
 1 Marker ON

Function Queries the setting on whether to display the marker on the Analyze:Recall screen (1-point CDV).

Example use > :DISPlay:ANALysis:RECall:CDV1:MDISplay?
 < 1

:DISPlay:ANALysis:RECall:CDV1:PRINt <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 DISPlay Display

Function Specifies the printing range of the Analyze:Recall screen (1-point CDV).

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV1">.

Example use To print the screen range currently on display:
 > :DISPlay:ANALysis:RECall:CDV1:PRINt DISPlay

:DISPlay:ANALysis:RECall:CDV1:PRINt?

Response <type> = <CHARACTER RESPONSE DATA>
 DISP Display

Function Queries the printing range of the Analyze:Recall screen (1-point CDV).

Example use > :DISPlay:ANALysis:RECall:CDV1:PRINt?
 < DISP

:DISPlay:ANALysis:RECall:CDV1:TITLe?

Response <title> = <STRING RESPONSE DATA>

Function Queries the title of the Analyze:Recall screen (1-point CDV).

Example use > :DISPlay:ANALysis:RECall:CDV1:TITLe?
 < "1-point CDV "

:DISPlay:ANALysis:RECall:CDV2:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 LEFT Scrolls left.
 RIGHT Scrolls right.
 TOP Displays the top.
 BOTTOm Displays the bottom.

Function Requests a scroll on the Analyze:Recall screen (2-point CDV).

Restriction Invalid in the following case:
 - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">.

Example use To display the top:
 > :DISPlay:ANALysis:RECall:CDV2:SCRoll TOP

:DISPlay:ANALysis:RECall:CDV2:TYPE <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> INDividual ACCumulate
Function	Sets the display data type of the Analyze:Recall screen (2-point CDV).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">.
Example use	To set the display data type of the 2-point CDV subscreen to Individual: > :DISPlay:ANALysis:RECall:CDV2:TYPE INDividual

:DISPlay:ANALysis:RECall:CDV2:TYPE?

Response	<type> = <CHARACTER RESPONSE DATA> IND ACC
Function	Queries the display data type of the Analyze:Recall screen (2-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV2:TYPE? < IND

:DISPlay:ANALysis:RECall:CDV2:MARKer <marker>

Parameter	<marker> = <CHARACTER PROGRAM DATA> LEFT Moves the marker 1 Div to the left. RIGHT Moves the marker 1 Div to the right.
Function	Requests a marker movement on the Analyze:Recall screen (2-point CDV).
Restriction	Invalid in the following cases: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">. - When :DISPlay:ANALysis:RECall:CDV2:MDISplay is <OFF>. * Note: In multiple screen mode, the marker moves normally when on.
Example use	To move the marker to the right: > :DISPlay:ANALysis:RECall:CDV2:MARKer RIGHT

:DISPlay:ANALysis:RECall:CDV2:PEAK <peak>

Parameter	<peak> = <CHARACTER PROGRAM DATA> BEFore Before search NEXT Next search
Function	Requests a peak search on the Analyze:Recall screen (2-point CDV).
Restriction	Invalid in the following cases: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">. - When :DISPlay:ANALysis:RECall:CDV2:MDISplay is <OFF>.

- When there are no peaks left of the marker, and <BEFORE> is set.
- When there are no peaks right of the marker, and <NEXT> is set.
- * Note: In multiple screen mode, the marker moves normally when on.

Example use To request a Before search:
 > :DISPlay:ANALysis:RECall:CDV2:PEAK BEFore

:DISPlay:ANALysis:RECall:CDV2:ZOOM <type>

Parameter <type> = <CHARACTER PROGRAM DATA>
 IN Zoom in function
 OUT Zoom out function

Function Executes zoom function on the Analyze:Recall screen (2-point CDV).

Restriction Invalid in the following cases:

- When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">.
- When :DISPlay:ANALysis:RECall:CDV2:MDISplay is <OFF>.
- When :DISPlay:ANALysis:RECall:CDV2:INTerval is <1>, and <IN> is set.
- When :DISPlay:ANALysis:RECall:CDV2:INTerval is <300>, and <OUT> is set.
- * Note: In multiple screen mode, the marker moves normally when on.

Example use To execute zoom-in function:
 > :DISPlay:ANALysis:RECall:CDV2:ZOOM IN

:DISPlay:ANALysis:RECall:CDV2:DATA?

Response <time>,<cell>,<count>,<rate>
 <time> = <STRING RESPONSE DATA>
 Interval of cell indicated by marker (µs)
 Form12
 <cell> = <STRING RESPONSE DATA>
 Number of intervals (cell) of cell indicated by marker
 Form12
 <count> = <STRING RESPONSE DATA>
 Number of cells indicated by the marker
 Form1
 <rate> = <STRING RESPONSE DATA>
 Rate of cell indicated by marker (%)
 Form3

Function Queries the data indicated by the marker on the Analyze:Recall screen (2-point CDV).

Example use > :DISPlay:ANALysis:RECall:CDV2:DATA?
 < " 10"," 101"," 0"," 100"

:DISPlay:ANALysis:RECall:CDV2:INTerval <numeric>

Parameter	<numeric> = <CHARACTER PROGRAM DATA> 1, 10, 100, 500
Function	Sets the graduation width of the Interval axis of the Analyze:Recall screen (2-point CDV).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">.
Example use	To set the graduation width to one step: > :DISPlay:ANALysis:RECall:CDV2:INTerval 1

:DISPlay:ANALysis:RECall:CDV2:INTerval?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA>
Function	Queries the graduation width of the Interval axis of the Analyze:Recall screen (2-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV2:INTerval? < 1

:DISPlay:ANALysis:RECall:CDV2:IUNit <unit>

Parameter	<unit> = <CHARACTER PROGRAM DATA> CELL Cell US μ s
Function	Sets the horizontal axis display interval of the Analyze:Recall screen (2-point CDV).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">.
Example use	To set the horizontal axis display interval of the 2-point CDV sub screen to Cell: > :DISPlay:ANALysis:RECall:CDV2:IUNit CELL

:DISPlay:ANALysis:RECall:CDV2:IUNit?

Response	<type> = <CHARACTER RESPONSE DATA> CELL Cell US μ s
Function	Queries the horizontal axis display interval of the Analyze:Recall screen (2-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV2:IUNit? < CELL

:DISPlay:ANALysis:RECall:CDV2:MDISplay <boolean>

Parameter	<boolean> = <BOOLEAN PROGRAM DATA> OFF or 0 Turns marker off. ON or 1 Turns marker on.
Function	Sets whether to display the marker on the Analyze:Recall screen (2-point CDV).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">.
Example use	To set marker display to ON: > :DISPlay:ANALysis:RECall:CDV2:MDISplay ON

:DISPlay:ANALysis:RECall:CDV2:MDISplay?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 Marker OFF 1 Marker ON
Function	Queries the setting on whether to display the marker on the Analyze:Recall screen (2-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV2:MDISplay? < 1

:DISPlay:ANALysis:RECall:CDV2:PRINt <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> DISPlay Display
Function	Sets the printing range of the Analyze:Recall screen (2-point CDV).
Restriction	Invalid in the following case: - When :DISPlay:ANALysis:RECall:TYPE? is other than <"CDV2">.
Example use	To print the screen range currently on display: > :DISPlay:ANALysis:RECall:CDV2:PRINt DISPlay

:DISPlay:ANALysis:RECall:CDV2:PRINt?

Response	<type> = <CHARACTER RESPONSE DATA> DISP Display
Function	Queries the printing range of the Analyze:Recall screen (2-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV2:PRINt? < DISP

:DISPlay:ANALysis:RECall:CDV2:TITLe?

Response	<title> = <STRING RESPONSE DATA>
Function	Queries the title of the Analyze:Recall screen (2-point CDV).
Example use	> :DISPlay:ANALysis:RECall:CDV2:TITLe? < "2-point CDV "

:DISPlay:SETup[:NAME]

Parameter	<sdisplay> = <STRING PROGRAM DATA>
	"MAPPing" Mapping subscreen
	"MEMory" Memory subscreen
	"PRINt" Print subscreen
	"SPPData" OH preset data subscreen
	"CELL" ATM Cell edit subscreen
	"MEAScond" Measurement condition subscreen
	"SYSTem" System subscreen
	"FDISK" Floppy disk subscreen
	"STESt" Self test subscreen
	"CUSTomer" Custom function subscreen
Function	Selects the display item on the Setup screen.
Restriction	Invalid in the following cases: <ul style="list-style-type: none"> - When the ATM unit is not installed, and <"CELL"> is set. - When ::INSTRument:CONFIg is other than <ATM>, and <"CELL"> is set. - When the measurement (set on the Test menu main screen) is being measured, and <"STESt"> is set.
Example use	To select "PRINt" as the display item on the Setup screen: > :DISPlay:SETup:NAME "PRINt", or > :DISPlay:SETup "PRINt"

:DISPlay:SETup[:NAME]?

Response	<sdisplay> = <STRING RESPONSE DATA>
	"MAPP" Mapping subscreen
	"MEM" Memory subscreen
	"PRIN" Print subscreen
	"SPPD" OH preset data subscreen
	"CELL" ATM Cell edit subscreen
	"MEAScond" Measurement condition subscreen
	"SYST" System subscreen
	"FDIS" Floppy disk subscreen
	"STES" Self test subscreen
	"CUST" Custom function subscreen
Function	Queries the display item on the Setup screen.
Example use	> :DISPlay:SETup:NAME?, or > :DISPlay:SETup? < "PRIN"

:DISPlay:SETup:OHPReset[:NAME] <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> SDH SDH SONET SONET E3 E3 E4 E4 DS3Plcp DS3 PLCP
Function	Sets OH preset data display switching on the Setup screen.
Restriction	Invalid in the following cases: - When the ATM unit is not installed, and <E3>, <E4>, or <DS3Plcp> is set. - When the 2/8/34/139/156M(CMI) unit is not installed, and <E3> or <E4> is set. - When the 1.5/45/52M(B3ZS) unit is not installed, and <DS3Plcp> is set. - When ::INSTrument:CONFig is other than <ATM>, and <E3>, <E4>, or <DS3Plcp> is set.
Example use	To display the SDH/SONET screen: > :DISPlay:SETup:OHPReset:NAME STM, or > :DISPlay:SETup:OHPReset STM

:DISPlay:SETup:OHPReset[:NAME]?

Response	<type> = <CHARACTER RESPONSE DATA> SDH SDH SONET SONET E3 E3 E4 E4 DS3P DS3 PLCP
Function	Queries the OH preset data display switching on the Setup screen.
Example use	> :DISPlay:SETup:OHPReset:NAME?, or > :DISPlay:SETup:OHPReset? < STM

:DISPlay:SETup:CELL[:NAME] <type>

Parameter	<type> = <CHARACTER PROGRAM DATA> FOReground Foreground OAM OAM BACKground Background MEMorized Memorized
Function	Sets Cell edit display switching on the Setup screen.
Restriction	Invalid in the following case:

Example use - When the setting of :INSTRument:CONFIg is other than <ATM>.
 To set Cell edit display to Foreground:
 > :DISPlay:SETup:CELL:NAME FORGrounD, or
 > :DISPlay:SETup:CELL FORGrounD

:DISPlay:SETup:CELL[:NAME]?

Response <type> = <CHARACTER RESPONSE DATA>
 FOR Foreground
 OAM OAM
 BACK Background
 MEM Memorized

Function Queries the Cell edit display switching on the Setup screen.

Example use > :DISPlay:SETup:CELL:NAME?, or
 > :DISPlay:SETup:CELL?
 < FORG

:DISPlay:SETup:CELL:MEMorized:SCRoll <scroll>

Parameter <scroll> = <CHARACTER PROGRAM DATA>
 UP Scrolls up.
 DOWN Scrolls down.
 TOP Displays the top.
 BOTTOm Displays the bottom.

Function Requests a scroll on Memorized of Setup screen.

Restriction Invalid in the following case:
 - When the setting of :INSTRument:CONFIg is other than <ATM>.

Example use To scroll up:
 > :DISPlay:SETup:CELL:MEMorized:SCRoll UP

:DISPlay:SETup:CELL:MEMorized:DStArt <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 1987 Step value:1

Function Sets Display start on Memorized cell of Setup screen.

Restriction Invalid in the following case:
 - When the setting of :INSTRument:CONFIg is other than <ATM>.

Example use To set the display start position of MEMorized cell to 1000:
 > :DISPlay:SETup:CELL:MEMorized:DStArt 1000

:DISPlay:SETup:CELL:MEMorized:DStart?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
Function Queries Display start on Memorized of Setup screen.
Example use > :DISPlay:SETup:CELL:MEMorized:DStart?
< 1000

:DISPlay:SETup:CELL:MEMorized:PRINt <numeric1>,<numeric2>

Parameter <numeric1>,<numeric2> = <DECIMAL NUMERIC PROGRAM DATA>
1 - 2016
Function Specifies the printing range of Memorized of Setup screen.
Restriction Invalid in the following cases:
- When the setting of :INSTrument:CONFIg is other than <ATM>.
- When <numeric1> > <numeric2>.
Example use To set the printing range of Memorized cell to 1 through 20:
> :DISPlay:SETup:CELL:MEMorized:PRINt 1,20

:DISPlay:SETup:CELL:MEMorized:PRINt?

Response <numeric1>,<numeric2> = <NR1 NUMERIC RESPONSE DATA>
Function Queries the printing range of Memorized cell of Setup screen.
Example use > :DISPlay:SETup:CELL:MEMorized:PRINt?
< 1,20

4.4.5 CALCulate subsystem

In the CALCulate subsystem, the performance measurement is set and the measurement results are displayed.

Function	Command	Parameter
<i>Page 4-243</i>		
Sets Cell block size N.	:CALCulate:TELEcom:ATM:THReshold:SECB	numeric
Queries Cell block size N.	:CALCulate:TELEcom:ATM:THReshold:SECB?	
Sets SECB threshold M.	:CALCulate:TELEcom:ATM:THReshold:SECB:M	numeric
Queries SECB threshold M.	:CALCulate:TELEcom:ATM:THReshold:SECB:M?	
Sets AAL5 frame size.	:CALCulate:TELEcom:ATM:THReshold:FSIZE	numeric
Queries AAL5 frame size.	:CALCulate:TELEcom:ATM:THReshold:FSIZE?	
<i>Page 4-244</i>		
Queries the measurement results corresponding to the parameter.	:CALCulate:DATA?	string
<i>Page 4-252</i>		
Queries the Error/Alarm analysis results.	:CALCulate:TGRaph:DATA?	numeric1 numeric2 numeric3 numeric4 numeric5 numeric6
<i>Page 4-253</i>		
Queries the Live monitor traffic data.	:CALCulate:LMONitor:TRAFfic:DATA?	numeric
<i>Page 4-254</i>		
Queries the Live monitor results.	:CALCulate:LMONitor:NCONforing:DATA?	numeric
Sets the threshold value position.	:CALCulate:LMONitor:NCONforing:THReshold	numeric character
Queries the threshold value position.	:CALCulate:LMONitor:NCONforing:THReshold?	
Sets the threshold value of A.	:CALCulate:LMONitor:NCONforing:THReshold:A	numeric character
Queries the threshold value of A.	:CALCulate:LMONitor:NCONforing:THReshold:A?	
Sets the threshold value of B.	:CALCulate:LMONitor:NCONforing:THReshold:B	numeric character
Queries the threshold value of B.	:CALCulate:LMONitor:NCONforing:THReshold:B?	
Sets the threshold value of C.	:CALCulate:LMONitor:NCONforing:THReshold:C	numeric character
Queries the threshold value of C.	:CALCulate:LMONitor:NCONforing:THReshold:C?	
Sets the threshold value of D.	:CALCulate:LMONitor:NCONforing:THReshold:D	numeric character
Queries the threshold value of D.	:CALCulate:LMONitor:NCONforing:THReshold:D?	
Queries the Live monitor(Traffic) result.	:CALCulate:LMONitor:NCONforing:FM:DATA?	numeric1 numeric2
<i>Page 4-258</i>		
Queries the Live monitor results.	:CALCulate:LMONitor:FMSeCb:DATA?	numeric
Sets the threshold of FM SECB of Live monitor.	:CALCulate:LMONitor:FMSeCb:THReshold[:DATA]	numeric character
Queries FM SECB Threshold value of Live monitor.	:CALCulate:LMONitor:FMSeCb:THReshold[:DATA]?	numeric
<i>Page 4-260</i>		
Reads the Live monitor (Traffic) results.	:CALCulate:LMONitor:NCONforing:BR:DATA?	numeric1 numeric2

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Queries the Live monitor (Traffic) results.	:CALCulate:LMONitor:BRSeCb:DATA?	numeric1 numeric2
Sets the threshold of BR SECB of Live monitor.	:CALCulate:LMONitor:BRSeCb:THReshold[:DATA]	numeric character
Queries the Threshold value of BR SECB of Live monitor.	:CALCulate:LMONitor:BRSeCb:THReshold[:DATA]?	numeric

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Queries the measurement results.	:CALCulate:TRAFfic:RESult?	
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Queries the Traffic monitor analysis results.	CALCulate:TRAFfic:DATA?	numeric1 numeric2 numeric3 numeric4 numeric5 numeric6
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Queries the Capture results.	:CALCulate:CAPTure:LINE?	type numeric1 numeric2
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Queries the number of captured lines.	:CALCulate:CAPTure:TOTal?	
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Page 4-266

Queries the number of captured trigger lines.	:CALCulate:CAPTure:TRIGger?	
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Queries the 1-point CDV analysis results.	:CALCulate:CDV1:DATA?	numeric
Queries the 2-point CDV analysis results.	:CALCulate:CDV2:DATA?	numeric

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Queries the Loopback measurement results.	:CALCulate:LOOPback:RESult?	
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:CALCulate:TELEcom:ATM:THReshold:SECB:N <numeric>

Parameter <numeric> = <CHARACTER PROGRAM DATA>
128, 256, 512, 1024, 2048, 4096, 8192

Function Sets Cell block size N.

Restriction Invalid in the following cases.
- :INSTrument:Config setting is other than <ATM>.

Example use To set Cell block size N to 128.
> :CALCulate:TELEcom:ATM:THReshold:SECB:N 128

:CALCulate:TELEcom:ATM:THReshold:SECB:N?

Response <numeric> = <CHARACTER RESPONSE DATA>

Function Queries Cell block size N.

Example use > :CALCulate:TELEcom:ATM:THReshold:SECB:N?
< 128

:CALCulate:TELEcom:ATM:THReshold:SECB:M <numeric>

Parameter <numeric> = <CHARACTER PROGRAM DATA>
8, 16, 32, 64, 128, 256, 512

Function Sets SECB threshold M.

Restriction Invalid in the following cases.
- :INSTrument:Config setting is other than <ATM>.

Example use To set SECB threshold M to 8:
> :CALCulate:TELEcom:ATM:THReshold:SECB:M 8

:CALCulate:TELEcom:ATM:THReshold:SECB:M?

Response <numeric> = <CHARACTER RESPONSE DATA>

Function Queries SECB threshold M.

Example use > :CALCulate:TELEcom:ATM:THReshold:SECB:M?
< 8

:CALCulate:TELEcom:ATM:THReshold:FSIZE <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
1 - 65535

Function Sets AAL5 frame size.

Restriction Invalid in the following cases.
- :INSTrument:Config setting is other than <ATM>.

Example use To set AAL5 frame size to 256.
> :CALCulate:TELEcom:ATM:THReshold:FSIZE 256

:CALCulate:TELEcom:ATM:THReshold:FSIZE?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
Same as :CALCulate:TELEcom:ATM:THReshold:FSIZE.

Function Queries AAL5 frame size.

Example use > :CALCulate:TELEcom:ATM:THReshold:FSIZE?
< 256

:CALCulate:DATA? <string>

Parameter <string> = <STRING PROGRAM DATA>
"[CURRENT:]<result>" Current measurement results
"LAST:<result>" Last measurement results
See the table below for the <result> contents.

Response <string> = <STRING RESPONSE DATA>
See the table.

Function Queries the measurement results corresponding to the parameter.

Example use To query the EC current value of bit errors:
> :CALCulate:DATA? "CURRENT:EC:BIT", or
> :CALCulate:DATA? "EC:BIT"
< " 892"

4.4 Equipment Unique Command

Error/Alarm measurement			
item		<result>	Response format
EC	PLCP REI	"EC:REI:PLCP"	Form1
	CRC-4	"EC:CRC4"	Form1
	Cell Count	"EC:CELL"	Form1
	Corrected cell	"EC:CORR"	Form1
	Discarded cell	"EC:DISC"	Form1
	Nonconf	"EC:NONCONF"	Form1
	Errored cell	"EC:ERRORED"	Form1
	Lost cell	"EC:LOST"	Form1
	Misinserted	"EC:MISINS"	Form1
	2000	"EC:SB"	Form1
	SAR-PDU	"EC:SARPDU"	Form1
	SNP error	"EC:SNP"	Form1
	Uncorrectable SNP error	"EC:UCSNP"	Form1
	P error	"EC:P"	Form1
	OSF error	"EC:OSF"	Form1
	SN error	"EC:SN"	Form1
	CPS-Packt Count	"EC:CPSPKT"	Form1
	HEC error	"EC:CPSHC"	Form1
	Length Indicator error	"EC:LI"	Form1
	Segment type	"EC:ST"	Form1
	Length indicator error	"EC:LI"	Form1
	Length	"EC:LENGTH"	Form1
	CPCS-PDU count	"EC:CPCS"	Form1
	MID count	"EC:MID"	Form1
	CRC10 error	"EC:CRC10"	Form1
	Discardetype PDU	"EC:DISPDU"	Form1
	Segment type error	"EC : ST"	Form1
	Abort	"EC:ABORT"	Form1
	Undeliverd PDU	"EC:UDLVPDU"	Form1
	CPI error	"EC:CPI"	Form1
	Btag/ETag mismatch	"EC:BETAG"	Form1
	BASize error	"EC:BASIZE"	Form1
	AL error	"EC:AL"	Form1
	Frame size error	"EC:FSIZE"	Form1
	CRC32 error	"EC:CRC32"	Form1
	PRBS/word bit error	"EC:BIT"	Form1
	PM FM Lost Cell	"EC:FM:LOST"	Form1
	PM FM Misinserted Cell	"EC:FM:MISINS"	Form1
	PM FM BIPV	"EC:FM:BIPV"	Form1
	PM BR Lost Cell	"EC:BR:LOST"	Form1
PM BR Misinserted Cell	"EC:BR:MISINS"	Form1	
PM BR BIPV	"EC:BR:BIPV"	Form1	
PM BR SB	"EC:BR:SB"	Form1	
CID PKT	"EC:CIDPKT"	Form1	

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	item	<result>	Response format
ER	PLCP REI	"ER:REI:PLCP"	Form2
	CRC-4	"ER:CRC4"	Form2
	Cell	"ER:CELL"	Form2
	Corrected cell	"ER:CORR"	Form2
	Discarded cell	"ER:DISC"	Form2
	Nonconf	"ER:NONCONF"	Form2
	Errored cell	"ER:ERRORED"	Form2
	Lost cell	"ER:LOST"	Form2
	Misinserted	"ER:MISINS"	Form2
	SB	"ER:SB"	Form2
	SAR-PDU	"ER:SAR-PDU"	Form2
	SNP	"ER:SNP"	Form2
	Uncorrectable SNP	"ER:UCSNP"	Form2
	P	"ER:P"	Form2
	OSF	"ER:OSF"	Form2
	SN	"ER:SN"	Form2
	HEC error	"ER:CPSHC"	Form2
	Length Indicator	"ER:LI"	Form2
	Segment type	"ER:ST"	Form2
	Length indicator	"ER:LI"	Form2
	Length	"ER:LENGTH"	Form2
	CRC10 error	"ER:CRC10"	Form2
	Discardetype PDU	"ER:DISPDU"	Form2
	Segment type	"ER : ST"	Form2
	Abort	"ER:ABORT"	Form2
	Undeliverd PDU	"ER:UDLVPDU"	Form2
	CPI error	"ER:CPI"	Form2
	B/E mismatch	"ER:BETAG"	Form2
	BASize error	"ER:BASIZE"	Form2
	AL	"ER:AL"	Form2
	Frame size	"ER:FSIZE"	Form2
	CRC32	"ER:CRC32"	Form2
	PRBS/word bit error	"ER:BIT"	Form2
	FM Lost	"ER:FM:LOST"	Form2
	FM Misinserted	"ER:FM:MISINS"	Form2
	FM BIPV	"ER:FM:BIPV"	Form2
	BR Lost	"ER:BR:LOST"	Form2
	BR Misinserted	"ER:BR:MISINS"	Form2
	BR BIPV	"ER:BR:BIPV"	Form2
	BR SB	"ER:BR:SB"	Form2
	CID PKT	"ER:CIDPKT"	Form1

4.4 Equipment Unique Command

Error/Alarm measurement (Second)			
item		<result>	Response format
OOF	PLCP	"ASeconds:OOF:PLCP"	Form1
	PLCP	"ASeconds:RAI:PLCP"	Form1
RAI	AIS	"ASeconds:VP:AIS"	Form1
	RDI	"ASeconds:VP:RDI"	Form1
VP	LOC	"ASeconds:VP:LOC"	Form1
	AIS	"ASeconds:VC:AIS"	Form1
VC	RDI	"ASeconds:VC:RDI"	Form1
	LOC	"ASeconds:VC:LOC"	Form1
LCD		"ASeconds:LCD"	Form1

Error/Alarm measurement (Count)			
item		<result>	Response format
VP	AIS	"ACounts:VP:AIS"	Form1
	RDI	"ACounts:VP:RDI"	Form1
	LOC	"ACounts:VP:LOC"	Form1
VC	AIS	"ACounts:VC:AIS"	Form1
	RDI	"ACounts:VC:RDI"	Form1
	LOC	"ACounts:VC:LOC"	Form1

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Performance measurement

item		<result>	Response format	
M.2100	Bit or FAS/CRC	RxES TxES RxSES TxSES RxUS RxTEST TxTEST	"M2100:ES" "M2100:ES2" "M2100:SES" "M2100:SES2" "M2100:US" "M2100:TEST" "M2100:TEST2"	Form1 Form1 Form1 Form1 Form1 Form4 Form4
	Parity	RxES RxSES RxUS RxTEST	"M2100:PARITY:ES" "M2100:PARITY:SES" "M2100:PARITY:US" "M2100:PARITY:TEST"	Form1 Form1 Form1 Form4
	Errored cell	RxES RxSES RxUS RxTEST	"M2100:ES:ERRored" "M2100:SES:ERRored" "M2100:US:ERRored" "M2100:TEST:ERRored"	Form1 Form1 Form1 Form4
	Lost cell	RxES RxSES RxUS RxTEST	"M2100:ES:LOST" "M2100:SES:LOST" "M2100:US:LOST" "M2100:TEST:LOST"	Form1 Form1 Form1 Form4
	MisINS cell	RxES RxSES RxUS RxTEST	"M2100:ES:MISINS" "M2100:SES:MISINS" "M2100:US:MISINS" "M2100:TEST:MISINS"	Form1 Form1 Form1 Form4

4.4 Equipment Unique Command

Performance measurement				
	item		<result>	Response format
G.826	MS-REI	ES	"G826:ES:REI:MS"	Form1
		SES	"G826:SES:REI:MS"	Form1
		BBE	"G826:BBE:REI:MS"	Form1
		ESR	"G826:ESR:REI:MS"	Form2
		SESR	"G826:SESR:REI:MS"	Form2
		BBER	"G826:BBER:REI:MS"	Form2
		SDP	"G826:SDP:REI:MS"	Form1
		US	"G826:US:REI:MS"	Form1
	HP-REI	ES	"G826:ES:REI:HP"	Form1
		SES	"G826:SES:REI:HP"	Form1
BBE		"G826:BBE:REI:HP"	Form1	
ESR		"G826:ESR:REI:HP"	Form2	
SESR		"G826:SESR:REI:HP"	Form2	
BBER		"G826:BBER:REI:HP"	Form2	
SDP		"G826:SDP:REI:HP"	Form1	
US		"G826:US:REI:HP"	Form1	
LP-REI	ES	"G826:ES:REI:LP"	Form1	
	SES	"G826:SES:REI:LP"	Form1	
	BBE	"G826:BBE:REI:LP"	Form1	
	ESR	"G826:ESR:REI:LP"	Form2	
	SESR	"G826:SESR:REI:LP"	Form2	
	BBER	"G826:BBER:REI:LP"	Form2	
	SDP	"G826:SDP:REI:LP"	Form1	
	US	"G826:US:REI:LP"	Form1	
Parity	ES	"G826:ES:PARITY"	Form1	
	SES	"G826:SES:PARITY"	Form1	
	BBE	"G826:BBE:PARITY"	Form1	
	ESR	"G826:ESR:PARITY"	Form2	
	SESR	"G826:SESR:PARITY"	Form2	
	BBER	"G826:BBER:PARITY"	Form2	
	SDP	"G826:SDP:PARITY"	Form1	
	US	"G826:US:PARITY"	Form1	
Errored cell	ES	"G826:ES:ERRORED"	Form1	
	SES	"G826:SES:ERRORED"	Form1	
	BBE	"G826:BBE:ERRORED"	Form1	
	ESR	"G826:ESR:ERRORED"	Form2	
	SESR	"G826:SESR:ERRORED"	Form2	
	BBER	"G826:BBER:ERRORED"	Form2	
	SDP	"G826:SDP:ERRORED"	Form1	
	US	"G826:US:ERRORED"	Form1	
Lost cell	ES	"G826:ES:LOST"	Form1	
	SES	"G826:SES:LOST"	Form1	
	BBE	"G826:BBE:LOST"	Form1	
	ESR	"G826:ESR:LOST"	Form2	
	SESR	"G826:SESR:LOST"	Form2	
	BBER	"G826:BBER:LOST"	Form2	
	SDP	"G826:SDP:LOST"	Form1	
	US	"G826:US:LOST"	Form1	
MisINS cell	ES	"G826:ES:MISINS"	Form1	
	SES	"G826:SES:MISINS"	Form1	
	BBE	"G826:BBE:MISINS"	Form1	

Section 4 Remote Control

		ESR SESR BBER SDP US	"G826:ESR:MISINS" "G826:SESR:MISINS" "G826:BBER:MISINS" "G826:SDP:MISINS" "G826:US:MISINS"	Form2 Form2 Form2 Form1 Form1
--	--	----------------------------------	--	---

4.4 Equipment Unique Command

1-point CDV measurement		
item	<result>	Response format
Average	"CDV1:AVERAge"	Form12
Maximum	"CDV1:MAXimum"	Form12
Minimum	"CDV1:MINimum"	Form12

2-point CDV measurement		
item	<result>	Response format
Average	"CDV2:AVERAge"	Form12
Maximum	"CDV2:MAXimum"	Form12
Minimum	"CDV2:MINimum"	Form12
Offset	"CDV2:OFFSet"	Form12

:CALCulate:TGraph:DATA?<numeric1>,<numeric2>,<numeric3>,<numeric4>,<numeric5> [<numeric6>]

Parameter	<DECIMAL NUMERIC PROGRAM DATA> Date and time of the read data <numeric1> = 1994 - 2093 (year) <numeric2> = 1 - 12 (month) <numeric3> = 1 - 31 (day) <numeric4> = 0 - 23 (hour) <numeric5> = 0 - 59 (minute) <numeric6> = 0 - 59 (second)	
Response	<time>,<alarm1s>,<alarm1c>,<alarm2s>,<alarm2c>,<alarm3s>,<alarm3c>,<alarm4s>,<alarm4c>,<alarm5s>,<alarm5c>,<error1>,<error2> <time> = <year>,<month>,<day>,<hour>,<minute> Date and time of the read data <year> = <NR1 NUMERIC RESPONSE DATA> <month> = <NR1 NUMERIC RESPONSE DATA> <day> = <NR1 NUMERIC RESPONSE DATA> <hour> = <NR1 NUMERIC RESPONSE DATA> <minute> = <NR1 NUMERIC RESPONSE DATA> <Second> = <NR1 NUMERIC RESPONSE DATA> <alarm1s> = <STRING RESPONSE DATA> <alarm1c> = <STRING RESPONSE DATA> Alarm 1 occurrence time (s) Alarm 1 occurrence count (Form1) <alarm2s> = <STRING RESPONSE DATA> <alarm2c> = <STRING RESPONSE DATA> Alarm 2 occurrence time (s) Alarm 2 occurrence count (Form1) <alarm3s> = <STRING RESPONSE DATA> <alarm3c> = <STRING RESPONSE DATA> Alarm 3 occurrence time (s) Alarm 3 occurrence count (Form1) <alarm4s> = <STRING RESPONSE DATA> <alarm4c> = <STRING RESPONSE DATA> Alarm 4 occurrence time (s) Alarm 4 occurrence count (Form1) <alarm5s> = <STRING RESPONSE DATA> <alarm5c> = <STRING RESPONSE DATA>	

	Alarm 5 occurrence time (s) (Form1)	Alarm 5 occurrence count (Form1)
	<error1> = <STRING RESPONSE DATA> Error count value (Form1)	
	<error2> = <STRING RESPONSE DATA> Error rate value (Form2)	
Function	Queries the Error/Alarm analysis results.	
Example use	To read analysis data at 01:20:30 on October 23, 1994: > :CALCulate:TGRaph:DATA? 2000,10,23,1,20,30 < 2000,10,23,1,30," 0"," 0"," 14"," 4", " 4"," 4"," 1.2E+06"," 100"," 0"," 0", " 111"," 1.3E-06"	

:CALCulate:LMONitor:TRAFfic:DATA? <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 1 - 1023 No.
Response	<vpi>,<vci>,<cps>,<bps>,<percent>,<type>,<alarm> <vpi> = <STRING RESPONSE DATA> VPI value (Form1) <vci> = <STRING RESPONSE DATA> VCI value (Form1) <cps> = <STRING RESPONSE DATA> Cell/s value (Form1) <bps> = <STRING RESPONSE DATA> kb/s value (Form1) <percent> = <STRING RESPONSE DATA> % value (Form3) <type> = <STRING RESPONSE DATA> Cell type "ATM" "AAL1" "AAL2"

"AAL3/4"
 "AAL5"
 <alarm> = <STRING RESPONSE DATA>
 Alarm
 "VP_AIS"
 "VP_RDI"
 "VP_LOC"
 "VC_AIS"
 "VC_RDI"
 "VC_LOC"

Note : When no data exists or when :DISPlay:ANALysis:CDV1:TYPE is <INDividual>, the following is output for data out of the range currently displayed on a full screen:

< "-----","-----","-----","-----","-----","-----","-----"

Function Queries the Live monitor traffic data.
 Example use To read the No.100 data:
 > :CALCulate:LMONitor:TRAFfic:DATA? 100
 < " 300"," 100"," 10"," 10"," 000.0","AAL1","VC_AIS"

:CALCulate:LMONitor:NCONforing:DATA? <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 1023 No.
 Response <vpi>,<vci>,<count>,<cps>,<alarm>
 <vpi> = <STRING RESPONSE DATA>
 VPI value
 (Form1)
 <vci> = <STRING RESPONSE DATA>
 VCI value
 (Form1)
 <count> = <STRING RESPONSE DATA>
 count value
 (Form1)
 <cps> = <STRING RESPONSE DATA>
 Cell/s value
 (Form1)
 <type> = <STRING RESPONSE DATA>
 Cell type
 "ATM"

"AAL1"
 "AAL2"
 "AAL3/4"
 "AAL5"
 <alarm> = <STRING RESPONSE DATA>
 Alarm
 "VP_AIS"
 "VP_RDI"
 "VP_LOC"
 "VC_AIS"
 "VC_RDI"
 "VC_LOC"

Note : When no data exists or when :DISPlay:ANALysis:CDV1:TYPE is <INDividual>, the following is output for data out of the range currently displayed on a full screen:

< "-----", "-----", "-----", "-----", "-----", "-----"

Function Queries the Live monitor results.
 Example use To read the No.100 data:
 > :CALCulate:LMONitor:NCONforing:DATA? 100
 < " 300", " 100", " 1000", " 3000", "AAL1", "VC_AIS"

:CALCulate:LMONitor:NCONforing:THReshold <numeric>, <character>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 1023
 <character> = <CHARACTER RESPONSE DATA>
 A,B,C,D

Function Sets the threshold value position.
 Example use :CALCulate:LMONitor:NCONforing:THReshold 100,A

:CALCulate:LMONitor:NCONforing:THReshold?

Response <numeric> = <STRING RESPONSE DATA>
 <character> = <STRING RESPONSE DATA>

Function Queries the threshold value position.
 Example use >:CALCulate:LMONitor:NCONforing:THReshold?
 <100,A

:CALCulate:LMONitor:NCONforing:THReshold:A <numeric>,<character>

Parameter <pcr> =<DECIMAL NUMERIC PROGRAM DATA>
 0 - 999999 (kp/s)
 <cdvt>=<DECIMAL NUMERIC PROGRAM DATA>
 0 - 999 (cell)

Function Sets the threshold value of A.

Example use To set the threshold value of A:
 >:CALCulate:LMONitor:NCONforing:THReshold:A 100,200

:CALCulate:LMONitor:NCONforing:THReshold:A?

Response <pcr> = <DECIMAL NUMERIC RESPONSE DATA>
 <cdvp> = <DECIMAL NUMERIC RESPONSE DATA>

Function Queries the threshold value of A.

Example use >:CALCulate:LMONitor:NCONforing:THReshold:A?
 <:100,200

:CALCulate:LMONitor:NCONforing:THReshold:B <numeric>,<character>

Parameter <pcr> =<DECIMAL NUMERIC PROGRAM DATA>
 0 - 999999 (kp/s)
 <cdvt>=<DECIMAL NUMERIC PROGRAM DATA>
 0 - 999 (cell)

Function Sets the threshold value of B.

Example use To set the threshold value of B:
 >:CALCulate:LMONitor:NCONforing:THReshold:B 100,200

:CALCulate:LMONitor:NCONforing:THReshold:B?

Response <pcr> = <DECIMAL NUMERIC RESPONSE DATA>
 <cdvp> = <DECIMAL NUMERIC RESPONSE DATA>

Function Queries the threshold value of B.

Example use >:CALCulate:LMONitor:NCONforing:THReshold:B?
 <:100,200

:CALCulate:LMONitor:NCONforing:THReshold:C <numeric>,<character>

Parameter <pcr> =<DECIMAL NUMERIC PROGRAM DATA>
 0 - 999999 (kp/s)
 <cdvt>=<DECIMAL NUMERIC PROGRAM DATA>
 0 - 999 (cell)

Function Sets the threshold value of C.

Example use To set the threshold value of C:
 >:CALCulate:LMONitor:NCONforing:THReshold:C 100,200

:CALCulate:LMONitor:NCONforing:THReshold:C?

Response <pcr> = <DECIMAL NUMERIC RESPONSE DATA>
 <cdvp> = <DECIMAL NUMERIC RESPONSE DATA>

Function Queries the threshold value of C.

Example use >:CALCulate:LMONitor:NCONforing:THReshold:C?
 <:100,200

:CALCulate:LMONitor:NCONforing:THReshold:D <numeric>,<character>

Parameter <pcr> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 999999 (kp/s)
 <cdvt> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 999 (cell)

Function Sets the threshold value of D.

Example use To set the threshold value of D:
 >:CALCulate:LMONitor:NCONforing:THReshold:D 100,200

:CALCulate:LMONitor:NCONforing:THReshold:D?

Response <pcr> = <DECIMAL NUMERIC RESPONSE DATA>
 <cdvp> = <DECIMAL NUMERIC RESPONSE DATA>

Function Queries the threshold value of D.

Example use >:CALCulate:LMONitor:NCONforing:THReshold:D?
 <:100,200

:CALCulate:LMONitor:NCONforing:FM:DATA? <numeric1>[,<numeric2>]

Parameter <numeric1> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 1023 No.
 <numeric2> = <DECIMAL NUMERIC PROGRAM DATA>
 1 -? (Number of successive output data)

Response <vpi>,<vci>,<count>,<mis>,<los>,<cps>,<alarm>
 <vpi> = <STRING RESPONSE DATA>
 VPI value
 (Form1)
 <vci> = <STRING RESPONSE DATA>
 VCI value
 (Form1)
 <count> = <STRING RESPONSE DATA>
 FM (Misinserted + Lost) cell count value
 (Form1)
 <mis> = <STRING RESPONSE DATA>

FM Misinserted cell count value
 (Form1)
 <los> = <STRING RESPONSE DATA>
 FM Lost cell count value
 (Form1)
 <cps> = <STRING RESPONSE DATA>
 cell/s value
 (Form1)
 <alarm> = <STRING RESPONSE DATA>
 Alarm
 "VP_AIS"
 "VP_RDI"
 "VP_LOC"
 "VC_AIS"
 "VC_RDI"
 "VC_LOC"

Note: When no data exists or when:DISPlay:ANALySis:CDV1:TYPE is <INDividual>, the following is output for data out of the range currently displayed on a full screen:

< "-----","-----","-----","-----","-----","-----","-----"

Function

Queries the Live monitor(Traffic) result.

Example use

To Read the No. 100 data :
 > :CALCulate:LMONitor:TRAFfic:FM:DATA? 100
 < " 300"," 100"," 10000"," 183"," 111"," 35",
 "VC_AIS"

:CALCulate:LMONitor:FMSeCb:DATA? <numeric>

Parameter

<numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 1 - 1023 No.

Response

<vpi>,<vci>,<count>,<mis-count>,<los-count>,<cps>,<alarm>
 <vpi> = <STRING RESPONSE DATA>
 VPI value
 (Form1)
 <vci> = <STRING RESPONSE DATA>
 VCI value
 (Form1)
 <count> = <STRING RESPONSE DATA>
 Count(Mis+Los) value

(Form1)
 <mis-count> = <STRING RESPONSE DATA>
 Count(Misinserted) value

(Form1)
 <los-count> = <STRING RESPONSE DATA>
 Count (Lost) value

(From1)
 <cps> = <STRING RESPONSE DATA>
 Cell/s value

(From1)
 <alarm> = <STRING RESPONSE DATA>
 Alarm
 "VP_AIS"
 "VP_RDI"
 "VP_LOC"
 "VC_AIS"
 "VC_RDI"
 "VC_LOC"

Note: When no data exists or when :DISPlay:ANALysis:CDV1:TYPE is <INDividual>, the following is output for data out of the range currently displayed on a full screen:

```
< "-----","-----","-----","-----","-----","-----"
```

Function Queries the Live monitor (traffic) results.

Example use To read the No.100 data:
 > :CALCulate:LMONitor:FMSeCb:DATA? 100
 < " 300"," 100"," 1000"," 3000","AAL1","VC_AIS"

:CALCulate:LMONitor:FMSeCb:THReshold[:DATA] <numeric>,<character>

Parameter <numeric> = <NUMERIC PROGRAM DATA>
 1 - 1023 No.
 <character> = <CHARACTER PROGRAM DATA>
 4, 8, 16, 32, 64, 128, 256 Threshold value

Function Sets the threshold of FM SECB of Live monitor.

Example use To set the threshold No.1 of FM SECB of Live monitor to 32.
 > :CALCulate:LMONitor:FMSeCb:THReshold[:DATA] 1,32

:CALCulate:LMONitor:FMSeCb:THReshold[:DATA]? <numeric>

Parameter	<numeric> = <NR1 NUMERIC RESPONSE DATA> same as :CALCulate:LMONitor:NCONforming:THReshold
Response	<character> = <CHARACTER RESPONSE DATA> same as :CALCulate:LMONitor:NCONforming:THReshold
Function	Queries FM SECBThreshold value of Live monitor.
Example use	> :CALCulate:LMONitor:FMSeCb:THReshold? 1 < 32

:CALCulate:LMONitor:NCONforming:BR:DATA? <numeric1>[,<numeric2>]

Parameter	<numeric1> = <DECIMAL NUMERIC PROGRAM DATA> 1 - 1023 No. <numeric2> = <DECIMAL NUMERIC PROGRAM DATA> 1 -? (Number of successive output data)
Response	<vpi>,<vci>,<count>,<mis>,<los>,<cps>,<alarm> <vpi> = <STRING RESPONSE DATA> VPI value (Form1) <vci> = <STRING RESPONSE DATA> VCI value (Form1) <count> = <STRING RESPONSE DATA> FM (Misinserted + Lost) cell count value (Form1) <mis> = <STRING RESPONSE DATA> FM Misinserted cell count value (Form1) <los> = <STRING RESPONSE DATA> FM Lost cell count value (Form1) <cps> = <STRING RESPONSE DATA> cell/s value (Form1) <alarm> = <STRING RESPONSE DATA> Alarm "VP_AIS" "VP_RDI" "VP_LOC" "VC_AIS"

"VC_RDI"
"VC_LOC"

Note : When no data exists or when:DISPlay:ANALysis:CDV1:TYPE is <INDividual>, the following is output for data out of the range currently displayed on a full screen:

< "-----", "-----", "-----", "-----", "-----", "-----", "-----">

Function Reads the Live monitor(Traffic) results.

Example use To read the No.100 data:

> :CALCulate:LMONitor:TRAFfic:BR:DATA? 100

< " 300", " 100", " 10000", " 183", "----121", "----555",
"VC_AIS"

:CALCulate:LMONitor:BRSecb:DATA? <numeric1>[,<numeric2>]

Parameter <numeric1> = <DECIMAL NUMERIC PROGRAM DATA>
1 - 1023 No.

<numeric2> = <DECIMAL NUMERIC PROGRAM DATA>
1 -? (Number of successive output data)

Response <vpi>,<vci>,<count>,<cps>,<alarm>

<vpi> = <STRING RESPONSE DATA>

VPI value

(Form1)

<vci> = <STRING RESPONSE DATA>

VCI value

(Form1)

<count> = <STRING RESPONSE DATA>

BR SB count value

(Form1)

<cps> = <STRING RESPONSE DATA>

cell/s value

(Form1)

<alarm> = <STRING RESPONSE DATA>

Alarm

"VP_AIS"

"VP_RDI"

"VP_LOC"

"VC_AIS"

"VC_RDI"

"VC_LOC"

Note: when no data exists or when :DISPlay:ANALysis:CDV1:TYPE is <INDividual>, the following is output for data out of the range currently displayed in full screen:

```
< "-----", "-----", "-----", "-----", "-----"
```

Function Queries the Live monitor(Traffic) results.

Example use To read the No.100 data:

```
> :CALCulate:LMONitor:BRSecb:DATA? 100
```

```
< " 300", " 100", " 10000", " 183", "VC_AIS"
```

:CALCulate:LMONitor:BRSecb:THReshold[:DATA] <numeric>, <character>

Parameter <numeric> = <NUMERIC PROGRAM DATA>

1 - 1023 No.

<character> = <CHARACTER PROGRAM DATA>

4, 8, 16, 32, 64, 128, 256 Threshold value

Function Sets the threshold of BR SECB of Live monitor.

Example use Sets the threshold No.1 to 32.

```
> :CALCulate:LMONitor:BRSecb:THReshold[:DATA] 32
```

:CALCulate:LMONitor:BRSecb:THReshold[:DATA]? <numeric>

Parameter <numeric> = <NR1 NUMERIC RESPONSE DATA>

same as :CALCulate:LMONitor:NCONforming:THReshold

Response <character> = <CHARACTER RESPONSE DATA>

same as :CALCulate:LMONitor:NCONforming:THReshold

Function Queries the Threshold value of BR SECB of Live monitor.

Example use > :CALCulate:LMONitor:BRSecb:THReshold? 1

```
< 32
```

:CALCulate:TRAFfic:RESult?

Response <count>, <mean-bps>, <mean-cps>, <mean-%>, <max-bps>,

<max-cps>, <max-%>, <min-bps>, <min-bps>, <min-bps>

<count> = <STRING RESPONSE DATA>

Number of captured cells (Total)

(Form1)

<mean-bps> = <STRING RESPONSE DATA>

Average number of captured cells (b/s)

(Form1)

<mean-cps> = <STRING RESPONSE DATA>

Average number of captured cells (Total)

(Form1)

<mean-%> = <STRING RESPONSE DATA>

Average number of captured cells (%)

(Form3' "100.0")

<max-bps> = <STRING RESPONSE DATA>

Maximum number of captured cells (bit/s)

(Form1)

<max-cps> = <STRING RESPONSE DATA>

Maximum number of captured cells (cell/s)

(Form1)

<max-%> = <STRING RESPONSE DATA>

Maximum number of captured cells (%)

(Form3' "100.0")

<min-bps> = <STRING RESPONSE DATA>

Minimum number of captured cells (bit/s)

(Form1)

<min-cps> = <STRING RESPONSE DATA>

Minimum number of captured cells (cell/s)

(Form1)

<min-%> = <STRING RESPONSE DATA>

Minimum number of captured cells (%)

(Form3' "100.0")

Note : When no data exists, the following is outputted.

```
< "-----","-----","-----","-----","-----","-----","-----", "-----","-----",
"-----"
```

Function

Queries the measurement results.

Example use

To query the Traffic monitor results:

```
> :CALCulate:TRAFfic:RESult?
```

```
< " 15892"," 1200"," 23"," 20.5"," 10000"," 200","
88.5",
" 1"," 1"," 0.5"
```

:CALCulate:TRAFfic:DATA? <numeric1>,<numeric2>,<numeric3>,<numeric4>,<numeric5>,<numeric6>

Parameter <DECIMAL NUMERIC PROGRAM DATA>

Date and time of the read data

<numeric1> = 1994 - 2093 (year)

<numeric2> = 1 - 12 (month)

<numeric3> = 1 - 31 (day)

<numeric4> = 0 - 23 (hour)

<numeric5> = 0 - 59 (minute)

<numeric6> = 0 - 59 (second)

Response

<time>,<mean-bps>,<mean-cps>,<mean-%>,<max-bps>,<max-cps>,<max-%>,<min-bps>,<min-cps>,<min-bps>

<time> = <year>,<month>,<day>,<hour>,<minute>,<second>

<year> = <NR1 NUMERIC RESPONSE DATA>

0,1994 - 2093 year

<month> = <NR1 NUMERIC RESPONSE DATA>

0,1 - 12 month

<day> = <NR1 NUMERIC RESPONSE DATA>

0,1 - 31 day

<hour> = <NR1 NUMERIC RESPONSE DATA>

0 - 23 hour

<minute> = <NR1 NUMERIC RESPONSE DATA>

0 - 59 minute

<second> = <NR1 NUMERIC RESPONSE DATA>

0 - 59 second

<mean-bps> = <STRING RESPONSE DATA>

The average number of captured cell (bit/s)

(Form1)

<mean-cps> = <STRING RESPONSE DATA>

The average number of captured cell (cell/s)

(Form1)

<mean-%> = <STRING RESPONSE DATA>

The average number of captured cell (%)

(Form3' "100.0")

<max-bps> = <STRING RESPONSE DATA>

Maximum average number of captured cell (bit/s)

(Form1)

<max-cps> = <STRING RESPONSE DATA>

Maximum average number of captured cell (cell/s)

:CALCulate:CAPTure:TOTal?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 2016
 Note: If no capture has occurred, 0 is output.

Function Queries the number of captured lines.

Example use > :CALCulate:CAPTure:TOTal?
 < 2016

:CALCulate:CAPTure:TRIGger?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 2016
 Note: If no capture has occurred or no trigger exists, 0 is output.

Function Queries the number of captured trigger lines.

Example use > :CALCulate:CAPTure:TRIGger?
 < 2016

:CALCulate:CDV1:DATA? <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 -9000 - 9000

Response <time>,<cell>,<count>,<rate>
 <time> = <STRING RESPONSE DATA>
 Cell interval (µs)
 (Form12)
 <cell> = <STRING RESPONSE DATA>
 Number of cell intervals (cell)
 (Form12)
 <count> = <STRING RESPONSE DATA>
 Number of cells
 (Form1)
 <rate> = <STRING RESPONSE DATA>
 Cell rate (%)
 (Form3)

Function Queries the 1-point CDV analysis results.

Example use To read the 10th cell analysis data by 1-point CDV:
 > :CALCulate:CDV1:DATA? 10
 < " 7"," 10"," 100"," 50.0000"

:CALCulate:CDV2:DATA? <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> -9000 - 9000
Response	<time>,<cell>,<count>,<rate> <time> = <STRING RESPONSE DATA> Cell interval (μ s) (Form12) <cell> = <STRING RESPONSE DATA> Number of cell intervals (cell) (Form12) <count> = <STRING RESPONSE DATA> Number of cells (Form1) <rate> = <STRING RESPONSE DATA> Cell rate (%) (Form3)
Function	Reads the 10th cell analysis data by 2-point CDV
Example use	To read the 10th cell analysis data by 2-point CDV: > :CALCulate:CDV2:DATA? 10 < " 7"," 10"," 100"," 50.0000"

:CALCulate:LOOPback:RESult?

Response	<loopback> = <STRING RESPONSE DATA> Form4, Form1, Form1
Function	Queries the Loopback measurement results.
Example use	> :CALCulate:LOOPback:RESult? < " Acceptable"," 1"," 0"

4.4.6 SYSTem subsystem

SYSTem subsystem sets printer, memory, buzzer, and so on.

Function	Command	Parameter
<i>Page 4-270</i>		
Queries the Analyze memory registration condition.	:SYSTem:MEMory:ANALysis:LABel?	numeric
Writes data in the analyze memory.	:SYSTem:MEMory:ANALysis:STORe	type title
<i>Page 4-270</i>		
Reads a file from the current directory of the floppy disk.	:SYSTem:MMEMory:RECall	file_name memorized
<i>Page 4-271</i>		
Writes a file in the current directory of the floppy disk.	:SYSTem:MMEMory:STORe	type file_name

:SYSTem:MEMory:ANALysis:LABel? <numeric>

Parameter <numeric> = <DECIMAL PROGRAM DATA>
 1 - 15 Memory No.1-No.15

Response <title>,<gtype>,<stime>,<use>
 <title> = <STRING RESPONSE DATA>
 Memory name (fixed to eight characters)
 <gtype> = <CHARACTER RESPONSE DATA>
 Graph type
 <stime> = <STRING RESPONSE DATA>
 Measurement start time (fixed to 19 characters)
 <use> = <STRING RESPONSE DATA>
 Memory amount used (percent)
 Form3

Function Queries the Analyze memory registration condition.

Example use To query the registration condition of memory No.1:
 > :SYSTem:MEMory:ANALysis:LABel? 1
 < "JITTER ",JTOL,,,"2000.12.25 18:40:30"," 30.0000"

:SYSTem:MEMory:ANALysis:STORe <type>,<title>

Parameter <type> = <CHARACTER PROGRAM DATA>
 <title> = <STRING PROGRAM DATA>
 Memory name (up to eight characters)

Function Restriction Invalid in the following cases.
 - When no analysis data exists.

Example use To write analysis data (Error/Alarm) under the name of "DEMO1":
 < :SYSTem:MEMory:ANALysis:STORe EAlarm,"DEMO1"

:SYSTem:MMEMory:RECall <file_name>[,<memorized>]

Parameter <file_name> = <STRING PROGRAM DATA>
 "File name" (Case-independence, including the extension)
 The character string must consist of 1 to 12 characters. "" is not allowed.

<memorized> = <CHARACTER PROGRAM DATA>
 CAPTure Recalls the file to the Analyze:Recall screen.
 MEMorized Recalls the file to Cell edit screen
 (Memorized cell).

Note: <memorized> is valid only when the file recalled is Cell capture data.

Function Reads a file from the current directory of the floppy disk.

Restriction	Invalid in the following cases. <ul style="list-style-type: none"> - When the file is not Cell capture data, and the <memorized> parameter is specified. - When the file is Cell capture data, and the <memorized> parameter is not specified.
Example use	To read data into the file setting condition called "DEMO1.CND": > :SYSTem:MMEMory:RECall "DEMO1.CND"

:SYSTem:MMEMory:STORe <type>,<file_name>

Parameter	<type> = <STRING PROGRAM DATA>
	"CONDition" Setting condition data
	"MEMorized:MEMorized" Memorized cell data
	"MEMorized:MTEXT" Memorized cell data (text format)
	"PAYLoad:PAYLoad" Payload(65535byte) data
	"PAYLoad:PTEXT" Payload(65535byte) data (text format)
	"TSEarch:RTEXT" Trouble search measurement results on the Result screen (text format)
	"EALarm:RTEXT" Error/Alarm measurement results on the Result screen (text format)
	"DELay:RTEXT" DELay measurement results on the Result screen (text format)
	"EALarm:EALarm" Analysis data on the Error/Alarm screen
	"EALarm:EAText" Analysis data on the Error/Alarm screen (text format)
	"LMONitor:LMONitor" Analysis data on the Live monitor screen
	"LMONitor:CTEXT" Analysis data on the Live monitor screen (text format)
	"CAPTure:CAPTure" Analysis data on the Cell capture screen
	"CAPTure:CTEXT" Analysis data on the Cell capture screen (text format)
	"CDV1:CDV1" Analysis data on the 1-point CDV screen
	"CDV1:CTEXT" Analysis data on the 1-point CDV screen (text format)
	"CDV2:CDV2" Analysis data on the 2-point CDV screen
	"CDV2:CTEXT" Analysis data on the 2-point CDV screen (text format)
	"OHCapture:OHCapture" Analysis data on the OH capture screen
	"OHCapture:OHText" Analysis data on the OH capture screen (text format)

	"RECall:RECall"	Analysis data on the Recall screen
	"RECall:RTEXT"	Analysis data on the Recall screen (text format)
	<file_name> = <STRING PROGRAM DATA>	
	"File name" (Case-independence, including the extension)	
	The character string must consist of up to 12 characters. "" is not allowed.	
Function	Writes a file in the current directory of the floppy disk.	
Restriction	Invalid in the following cases.	
	<ul style="list-style-type: none"> - When there is no data to be stored, and other than <"CONDition">,<"MEMorized:MEMorized">,<"MEMorized:MTEXT">,<"PAYLoad:PAYLoad">, and <"PAYLoad:PTEXT"> is set. - When :SENSe:ATM:MANual:LMONitor:TYPE is <INDividual>, and <"LMONiter:LMONitor"> or <"LMONitor:CTEXT"> is set. 	
Example use	<p>To write the current setting condition in the file named as "DEMO1.CND":</p> <pre>> :SYSTem:MMEMory:STORe "CONDition","DEMO1.CND"</pre>	

4.4.7 STATus subsystem

In STATus subsystem, status registers are controlled (settings and display).

Function	Command	Parameter
<i>Page 4-278</i>		
Queries the contents of the event register of the DS3 PLCP status register.	:STATus:QUEStionable:TELEcom2:DS3Plcp[:EVENt]?	
Queries the contents of the condition register of the DS3 PLCP status register.	:STATus:QUEStionable:TELEcom2:DS3Plcp:CONDi tion?	
Sets the mask value of the event enable register of the DS3 PLCP status register.	:STATus:QUEStionable:TELEcom2:DS3Plcp:ENABLe	numeric
To query the event enable register of the DS3 PLCP status register:	:STATus:QUEStionable:TELEcom2:DS3Plcp:ENABLe?	
Sets the transition filter (positive-direction transition) of the DS3 PLCP status register.	:STATus:QUEStionable:TELEcom2:DS3Plcp:PTRans ition	numeric
Queries the contents of the transition filter (positive-direction transition) of the DS3 PLCP status register.	:STATus:QUEStionable:TELEcom2:DS3Plcp:PTRans ition?	
Sets the transition filter (negative-direction transition) of the DS3 PLCP status register.	:STATus:QUEStionable:TELEcom2:DS3Plcp:NTRan sition	numeric
Queries the contents of the transition filter (negative-direction transition) of the DS3 PLCP status register.	:STATus:QUEStionable:TELEcom2:DS3Plcp:NTRan sition?	
<i>Page 4-280</i>		
Queries the contents of the event register of the ATM status register.	:STATus:QUEStionable:TELEcom2:ATM[:EVENT]?	
<i>Page 4-280</i>		
Queries the contents of the condition register of the ATM status register	:STATus:QUEStionable:TELEcom2:ATM:CONDiti on?	
<i>Page 4-280</i>		
Sets the mask value of the event enable register of the ATM status register.	:STATus:QUEStionable:TELEcom2:ATM:ENABLe	numeric
Queries the contents of the event enable register of the ATM status register.	:STATus:QUEStionable:TELEcom2:ATM:ENABLe?	
<i>Page 4-281</i>		
Sets the transition filter (positive-direction transition) of the ATM status register.	:STATus:QUEStionable:TELEcom2:ATM:PTRansitio n	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM status register.	:STATus:QUEStionable:TELEcom2:ATM:PTRansitio n?	

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Sets the transition filter (negative-direction transition) of the ATM status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:NTRANSITION	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:NTRANSITION?	

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Queries the contents of the event register of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP[:EVENT]?	
Queries the contents of the condition register of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP:CONDITION?	
Sets the mask value of the event enable register of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP:ENABLE	numeric
Queries the contents of the event enable register of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP:ENABLE?	
Sets the transition filter (positive-direction transition) of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP:PTRANSITION	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP:PTRANSITION?	
Sets the transition filter (negative-direction transition) of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP:NTRANSITION	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM VP status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VP:NTRANSITION?	

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Queries the contents of the event register of the ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC[:EVENT]?	
Queries the contents of the condition register of ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC:CONDITION?	
Sets the mask value of the event enable register of ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC:ENABLE	numeric
Queries the contents of the event enable register of ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC:ENABLE?	
Sets the transition filter (positive-direction transition) of the ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC:PTRANSITION	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC:PTRANSITION?	
Sets the transition filter (negative-direction transition) of the ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC:NTRANSITION	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM VC status register.	:STATUS:QUESTIONABLE:TELECOM2:ATM:VC:NTRANSITION?	

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Queries the contents of the event register of the ATM O191 status register.	:STATus:QUEStionable:TELEcom2:ATM:O191:[;EV ENt]?	
Queries the contents of the condition register of the ATM O191	:STATus:QUEStionable:TELEcom2:ATM:O191:CON Dition?	
Sets the mask value of the event enable register of the ATM O191 status register.	:STATus:QUEStionable:TELEcom2:ATM:O191:ENA Ble	numeric
Queries the contents of the event enable register of the ATM O191 status register.	:STATus:QUEStionable:TELEcom2:ATM:O191:ENA Ble?	
Sets the transition filter (positive-direction transition) of the ATM O191 status register.	:STATus:QUEStionable:TELEcom2:ATM:O191:PTRa nsition	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM O191 status register.	:STATus:QUEStionable:TELEcom2:ATM:O191:PTRa nsition?	
Sets the transition filter (negative-direction transition) of the ATM O191 status register.	:STATus:QUEStionable:TELEcom2:ATM:O191:NTR ansition	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM O191 status register.	:STATus:QUEStionable:TELEcom2:ATM:O191:NTR ansition?	

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Queries the contents of the event register of the ATM AAL1 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL1:[;EV ENt]?	
Queries the contents of the condition register of the ATM AAL1	:STATus:QUEStionable:TELEcom2:ATM:AAL1:CON Dition?	
Sets the mask value of the event enable register of the ATM AAL1 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL1:ENA Ble	numeric
Queries the contents of the event enable register of the ATM AAL1 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL1:ENA Ble?	
Sets the transition filter (positive-direction transition) of the ATM AAL1 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL1:PTR ansition	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM AAL1 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL1:PTR ansition?	
Sets the transition filter (negative-direction transition) of the ATM AAL1 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL1:NTR ansition	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM AAL1 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL1:NTR ansition?	

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Queries the contents of the event register of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:[:EVENT]?	
Queries the contents of the condition register of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:CONdition?	
Sets the mask value of the event enable register of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:ENABle	numeric
Queries the contents of the event enable register of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:ENABle?	
Sets the transition filter (positive-direction transition) of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:PTRansition	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:PTRansition?	
Sets the transition filter (negative-direction transition) of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:NTRansition	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM AAL2 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL2:NTRansition?	

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Queries the contents of the event register of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:[:EVENT]?	
Queries the contents of the condition register of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:CONdition?	
Sets the mask value of the event enable register of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:ENABle	numeric
Queries the contents of the event enable register of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:ENABle?	
Sets the transition filter (positive-direction transition) of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:PTRansition	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:PTRansition?	
Sets the transition filter (negative-direction transition) of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:NTRansition	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM AAL3/4 status register.	:STATus:QUESTionable:TELEcom2:ATM:AAL34:NTRansition?	

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Queries the contents of the event register of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:[:EVEnt]?	
Queries the contents of the condition register of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:CONDi tion?	
Sets the mask value of the event enable register of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:ENABle	numeric
Queries the contents of the event enable register of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:ENABle?	
Sets the transition filter (positive-direction transition) of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:PTRansition	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:PTRansition?	
Sets the transition filter (negative-direction transition) of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:NTRansition	numeric
Queries the contents of the transition filter (negative-direction transition) of the ATM AAL5 status register.	:STATus:QUEStionable:TELEcom2:ATM:AAL5:NTRansition?	

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Queries the contents of the event register of the ATM PM status register.	:STATus:QUEStionable:TELEcom2:ATM:PM:[:EVENt]?	
Queries the contents of the condition register of the ATM PM status register.	:STATus:QUEStionable:TELEcom2:ATM:PM:CONDi tion?	
Sets the mask value of the event enable register of the ATM PM status register.	:STATus:QUEStionable:TELEcom2:ATM:PM:ENABle	numeric
Queries the contents of the event enable register of the ATM PM status register.	:STATus:QUEStionable:TELEcom2:ATM:PM:ENABle?	
Sets the transition filter (positive-direction transition) of the ATM PM status register.	:STATus:QUEStionable:TELEcom2:ATM:PM:PTRansition	numeric
Queries the contents of the transition filter (positive-direction transition) of the ATM PM status register.	:STATus:QUEStionable:TELEcom2:ATM:PM:PTRansition?	
Sets the transition filter (negative-direction transition) of the ATM PM status register.	:STATus:QUEStionable:TELEcom2:ATM:PM:NTRansition	numeric
Queries the contents of the transition filter (negative-direction	:STATus:QUEStionable:TELEcom2:ATM:PM:NTRansition?	

< TELEcom2 Status Register >

:STATus:QUEStionable:TELEcom2:DS3Plcp[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the DS3 PLCP status register.

Example use To query the event register of the DS3 PLCP status register:
 > :STATus:QUEStionable:TELEcom2:DS3Plcp[:EVENT]?
 < 32767

:STATus:QUEStionable:TELEcom2:DS3Plcp:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the DS3 PLCP status register.

Example use To query the condition register of the DS3 PLCP status register:
 > :STATus:QUEStionable:TELEcom2:DS3Plcp:CONDition?
 < 32767

:STATus:QUEStionable:TELEcom2:DS3Plcp:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the DS3 PLCP status register.

Example use To set 32767 in the event enable register of the DS3 PLCP status register:
 > :STATus:QUEStionable:TELEcom2:DS3Plcp:ENABle 32767

:STATus:QUEStionable:TELEcom2:DS3Plcp:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the DS3 PLCP status register.

Example use To query the event enable register of the DS3 PLCP status register:
 > :STATus:QUEStionable:TELEcom2:DS3Plcp:ENABle?
 < 32767

:STATus:QUEStionable:TELEcom2:DS3Plcp:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the DS3 PLCP status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the DS3 PLCP status register: > :STATus:QUEStionable:TELEcom2:DS3Plcp:PTRansition 32767

:STATus:QUEStionable:TELEcom2:DS3Plcp:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the DS3 PLCP status register.
Example use	To query the transition filter (positive-direction transition) of the DS3 PLCP status register: > :STATus:QUEStionable:TELEcom2:DS3Plcp:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:DS3Plcp:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the DS3 PLCP status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the DS3 PLCP status register: > :STATus:QUEStionable:TELEcom2:DS3Plcp:NTRansition 32767

:STATus:QUEStionable:TELEcom2:DS3Plcp:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the DS3 PLCP status register.
Example use	To query the transition filter (negative-direction transition) of the DS3 PLCP status register: > :STATus:QUEStionable:TELEcom2:DS3Plcp:NTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM status register.

Example use To query the event register of the ATM status register:
> :STATus:QUEStionable:TELEcom2:ATM[:EVENT]?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM status register.

Example use To query the condition register of the ATM status register:
> :STATus:QUEStionable:TELEcom2:ATM:CONDition?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM status register.

Example use To set 32767 in the event enable register of the ATM status register:
> :STATus:QUEStionable:TELEcom2:ATM:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM status register.

Example use To query the event enable register of the ATM status register:
> :STATus:QUEStionable:TELEcom2:ATM:ENABle?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:PTRansition <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Sets the transition filter (positive-direction transition) of the ATM status register.

Example use To set 32767 in the transition filter (positive-direction transition) of the ATM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:PTRansition <numeric>

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Queries the contents of the transition filter (positive-direction transition) of the ATM status register.

Example use To query the transition filter (positive-direction transition) of the ATM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:PTRansition?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:NTRansition <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Sets the transition filter (negative-direction transition) of the ATM status register.

Example use To set 32767 in the transition filter (negative-direction transition) of the ATM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:NTRansition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Queries the contents of the transition filter (negative-direction transition) of the ATM status register.

Example use To query the transition filter (negative-direction transition) of the ATM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:NTRansition?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:VP[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM VP status register.

Example use To query the event register of the ATM VP status register:
> :STATus:QUEStionable:TELEcom2:ATM:VP[:EVENT]?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:VP:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM VP status register.

Example use To query the condition register of the ATM VP status register:
> :STATus:QUEStionable:TELEcom2:ATM:VP:CONDition?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:VP:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM VP status register.

Example use To set 32767 in the event enable register of the ATM VP status register:
> :STATus:QUEStionable:TELEcom2:ATM:VP:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:VP:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM VP status register.

Example use To query the event enable register of the ATM VP status register:
> :STATus:QUEStionable:TELEcom2:ATM:VP:ENABle?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:VP:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the ATM VP status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the ATM VP status register: > :STATus:QUEStionable:TELEcom2:ATM:VP:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:VP:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the ATM VP status register.
Example use	To query the transition filter (positive-direction transition) of the ATM VP status register: > :STATus:QUEStionable:TELEcom2:ATM:VP:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:VP:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the ATM VP status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the ATM VP status register: > :STATus:QUEStionable:TELEcom2:ATM:VP:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:VP:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the ATM VP status register.
Example use	To query the transition filter (negative-direction transition) of the ATM VP status register: > :STATus:QUEStionable:TELEcom2:ATM:VP:NTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:VC[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM VC status register.

Example use To query the event register of the ATM VC status register:
 > :STATus:QUEStionable:TELEcom2:ATM:VC[:EVENT]?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:VC:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 -32767 Sum of condition resister bits (decimal)

Function Queries the contents of the condition resister of ATM VC status resister.

Example use To query the contents of the condition resister of ATM VC status resister.
 > :STATus:QUEStionable:TELEcom2:ATM:VC:CONDition?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:VC:ENABle <numeric>

Parameter <numeric>=<DECIMAL NUMERIC PROGRAM DATA>
 0 -32767 Sum of event enable resister bits (decimal)

Function Sets the mask value of the event enable resister of ATM VC status resister.

Example use To set the event enable resister of ATM VC status resister to 32767.
 > :STATus:QUEStionable:TELEcom2:ATM:VC:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:VC:ENABle?

Parameter <numeric>=<DECIMAL NUMERIC PROGRAM DATA>
 0 -32767 Sum of event enable resister bits (decimal)

Function Queries the contents of the event enable resister of ATM VC status resister.

Example use To query the event enable resister of ATM VC status resister.
 > :STATus:QUEStionable:TELEcom2:ATM:VC:ENABle?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:VC:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the ATM VC status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the ATM VC status register: > :STATus:QUEStionable:TELEcom2:ATM:VC:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:VC:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the ATM VC status register.
Example use	To query the transition filter (positive-direction transition) of the ATM VC status register: > :STATus:QUEStionable:TELEcom2:ATM:VC:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:VC:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the ATM VC status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the ATM VC status register: > :STATus:QUEStionable:TELEcom2:ATM:VC:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:VC:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the ATM VC status register.
Example use	To query the transition filter (negative-direction transition) of the ATM VC status register: > :STATus:QUEStionable:TELEcom2:ATM:VC:NTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:O191[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM O191 status register.

Example use To query the event register of the ATM O191 status register:
> :STATus:QUEStionable:TELEcom2:ATM:O191[:EVENT]?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:O191:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM O191 status register.

Example use To query the condition register of the ATM O191 status register:
> :STATus:QUEStionable:TELEcom2:ATM:O191:CONDition?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:O191:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM O191 status register.

Example use To set 32767 in the event enable register of the ATM O191 status register:
> :STATus:QUEStionable:TELEcom2:ATM:O191:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:O191:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM O191 status register.

Example use To query the event enable register of the ATM O191 status register:
> :STATus:QUEStionable:TELEcom2:ATM:O191:ENABle?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:O191:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the ATM O191 status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the ATM O191 status register: > :STATus:QUEStionable:TELEcom2:ATM:O191:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:O191:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the ATM O191 status register.
Example use	To query the transition filter (positive-direction transition) of the ATM O191 status register: > :STATus:QUEStionable:TELEcom2:ATM:O191:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:O191:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the ATM O191 status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the ATM O191 status register: > :STATus:QUEStionable:TELEcom2:ATM:O191:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:O191:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the ATM O191 status register.
Example use	To query the transition filter (negative-direction transition) of the ATM O191 status register: > :STATus:QUEStionable:TELEcom2:ATM:O191:NTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM AAL1 status register.

Example use To query the event register of the ATM AAL1 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL1[:EVENT]?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM AAL1 status register.

Example use To query the condition register of the ATM AAL1 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL1:CONDition?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM AAL1 status register.

Example use To set 32767 in the event enable register of the ATM AAL1 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL1:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM AAL1 status register.

Example use To query the event enable register of the ATM AAL1 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL1:ENABle?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the ATM AAL1 status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the ATM AAL1 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL1:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the ATM AAL1 status register.
Example use	To query the transition filter (positive-direction transition) of the ATM AAL1 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL1:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the ATM AAL1 status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the ATM AAL1 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL1:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL1:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the ATM AAL1 status register.
Example use	To query the transition filter (negative-direction transition) of the ATM AAL1 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL1:NTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM AAL2 status register.

Example use To query the event register of the ATM AAL2 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL2[:EVENT]?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM AAL2 status register.

Example use To query the condition register of the ATM AAL2 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL2:CONDition?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM AAL2 status register.

Example use To set 32767 in the event enable register of the ATM AAL2 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL2:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM AAL2 status register.

Example use To query the event enable register of the ATM AAL2 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL2:ENABle?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the ATM AAL2 status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the ATM AAL2 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL2:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the ATM AAL2 status register.
Example use	To query the transition filter (positive-direction transition) of the ATM AAL2 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL2:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the ATM AAL2 status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the ATM AAL2 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL2:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL2:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the ATM AAL2 status register.
Example use	To query the transition filter (negative-direction transition) of the ATM AAL2 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL2:NTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM AAL3/4 status register.

Example use To query the event register of the ATM AAL3/4 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL34[:EVENT]?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM AAL3/4 status register.

Example use To query the condition register of the ATM AAL3/4 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL34:CONDition?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34:ENABLE <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM AAL3/4 status register.

Example use To set 32767 in the event enable register of the ATM AAL3/4 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL34:ENABLE 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34:ENABLE?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM AAL3/4 status register.

Example use To query the event enable register of the ATM AAL3/4 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL34:ENABLE?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34:PTRansition <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Sets the transition filter (positive-direction transition) of the ATM AAL3/4 status register.

Example use To set 32767 in the transition filter (positive-direction transition) of the ATM AAL3/4 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL34:PTRansition
 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34:PTRansition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Queries the contents of the transition filter (positive-direction transition) of the ATM AAL3/4 status register.

Example use To query the transition filter (positive-direction transition) of the ATM AAL3/4 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL34:PTRansition?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34:NTRansition <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Sets the transition filter (negative-direction transition) of the ATM AAL3/4 status register.

Example use To set 32767 in the transition filter (negative-direction transition) of the ATM AAL3/4 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL34:NTRansition
 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL34:NTRansition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of transition filter bits (decimal)

Function Queries the contents of the transition filter (negative-direction transition) of the ATM AAL3/4 status register.

Example use To query the transition filter (negative-direction transition) of the ATM AAL3/4 status register:
 > :STATus:QUEStionable:TELEcom2:ATM:AAL34:NTRansition?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM AAL5 status register.

Example use To query the event register of the ATM AAL5 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL5[:EVENT]?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM AAL5 status register.

Example use To query the condition register of the ATM AAL5 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL5:CONDition?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM AAL5 status register.

Example use To set 32767 in the event enable register of the ATM AAL5 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL5:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM AAL5 status register.

Example use To query the event enable register of the ATM AAL5 status register:
> :STATus:QUEStionable:TELEcom2:ATM:AAL5:ENABle?
< 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the ATM AAL5 status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the ATM AAL5 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL5:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the ATM AAL5 status register.
Example use	To query the transition filter (positive-direction transition) of the ATM AAL5 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL5:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the ATM AAL5 status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the ATM AAL5 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL5:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:AAL5:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the ATM AAL5 status register.
Example use	To query the transition filter (negative-direction transition) of the ATM AAL5 status register: > :STATus:QUEStionable:TELEcom2:ATM:AAL5:NTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:[:EVENT]?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of event register bits (decimal)

Function Queries the contents of the event register of the ATM PM status register.

Example use To query the event register of the ATM PM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:PM[:EVENT]?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:CONDition?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of condition register bits (decimal)

Function Queries the contents of the condition register of the ATM PM status register.

Example use To query the condition register of the ATM PM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:PM:CONDition?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:ENABle <numeric>

Parameter <numeric> = <DECIMAL NUMERIC PROGRAM DATA>
 0 - 32767 Sum of event enable register bits (decimal)

Function Sets the mask value of the event enable register of the ATM PM status register.
 Masked with 0.

Example use To set 32767 in the event enable register of the ATM PM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:PM:ENABle 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:ENABle?

Response <numeric> = <NR1 NUMERIC RESPONSE DATA>
 0 - 32767 Sum of event enable register bits (decimal)

Function Queries the contents of the event enable register of the ATM PM status register.

Example use To query the event enable register of the ATM PM status register:
 > :STATus:QUEStionable:TELEcom2:ATM:PM:ENABle?
 < 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:PTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (positive-direction transition) of the ATM PM status register.
Example use	To set 32767 in the transition filter (positive-direction transition) of the ATM PM status register: > :STATus:QUEStionable:TELEcom2:ATM:PM:PTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:PTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (positive-direction transition) of the ATM PM status register.
Example use	To query the transition filter (positive-direction transition) of the ATM PM status register: > :STATus:QUEStionable:TELEcom2:ATM:PM:PTRansition? < 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:NTRansition <numeric>

Parameter	<numeric> = <DECIMAL NUMERIC PROGRAM DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Sets the transition filter (negative-direction transition) of the ATM PM status register.
Example use	To set 32767 in the transition filter (negative-direction transition) of the ATM PM status register: > :STATus:QUEStionable:TELEcom2:ATM:PM:NTRansition 32767

:STATus:QUEStionable:TELEcom2:ATM:PM:NTRansition?

Response	<numeric> = <NR1 NUMERIC RESPONSE DATA> 0 - 32767 Sum of transition filter bits (decimal)
Function	Queries the contents of the transition filter (negative-direction transition) of the ATM PM status register.
Example use	To query the transition filter (negative-direction transition) of the ATM PM status register: > :STATus:QUEStionable:TELEcom2:ATM:PM:NTRansition? < 32767

Appendix A Specifications

Specifications related to the ATM measurement are shown below.

	Item	Specifications
1.	Tx cell	
1.1	STM4/1/0	
1.1.1	Frame	SOH preset (Except B1, B2, H1, H2 and H3) POH preset (Except B3)
1.1.2	Pointer	AU Pointer +/-Justification
1.1.3	Path Trace	J0, J1
1.1.4	Error Insertion	FAS, B1, B2, B3, MS-REI, HP-REI
1.1.5	Alarm Addition	LOF, MS-AIS, MS-RDI, AU-AIS, AU-LOP, HP-RDI
1.2	139M	
1.2.1	Clock	According to MP0121A
1.2.2	Frame	G.832 OH preset(Except Error Monitor)
1.2.3	Path Trace	TR
1.2.4	Error Insertion	Bit All, BIP-8, REI, FAS
1.2.5	Alarm Addition	AIS, LOF
1.3	34M	
1.3.1	Clock	According to MP0121A
1.3.2	Frame	G.832 OH preset(Except Error Monitor)
1.3.3	Path Trace	TR
1.3.4	Error Insertion	Bit All, BIP-8, REI, FAS
1.3.5	Alarm Addition	AIS, LOF
1.4	2M	
1.4.1	Clock	According to MP0121A
1.4.2	Frame	G.704
1.5	45M	
1.5.1	Clock	According to MP0121A
1.5.2	Frame	G.704
1.6	PLCP	
1.6.1	Frame	G.832 OH preset
1.6.2.	Error Insertion	B1, FEBE, FAS, POI
1.6.3	Alarm Addition	LOF

Appendix A Specifications

	Item	Specifications
1.7	1.5M	
1.7.1	Clock	According to MP0122A
1.7.2	Frame	G.704
1.8	Foreground Cell	
1.8.1	Traffic Pattern	CBR, Burst, CBR with CDV, Poisson, Sawtooth
1.8.2	Header Pattern	Arbitrary
1.8.3	Test Pattern	O.191 Edit Pattern USER 16bit Word Pattern, Single PRBS9, Cross PRBS9/15/23, Edit Pattern, Time Stamp AAL1 16bit Word Pattern, Single PRBS9, Cross PRBS9/15/23, Edit Pattern, Time Stamp AAL2 CPS-PACKET: 8bit Word Pattern, Single PRBS7, Edit Pattern CPS-PDU : Time Stamp AAL3/4 CPCS-PDU : 16bit Word Pattern, Single PRBS9, Cross PRBS9/15/23, Edit Pattern SAR-PDU : Time Stamp AAL5 16bit Word Pattern, Single PRBS9, Cross PRBS9/15/23, Edit Pattern Cell HEC Error(1bit), HEC Error(2bit), User Program O.191
1.8.4	Error Insertion	Discarded Cell, Misinserted Cell, Errored Cell, SECB USER Bit Error AAL1 Discarded Cell, SNP Error, PRBS/Word Error AAL2 P Error, SN Error, OFS Error, HEC(CRC5) Error, PRBS/Word Error AAL3/4 SN Error, CRC10 Error, Segment Type Error, LI Error, Abort, CPI Error, B/E tag mismatch, BA Size Error, AL Error, Length Error, PRBS/Word Error AAL5 Frame Size, Length Error, CRC32 Error, Abort, PRBS/Word Error LCD, VP-AIS, VP-RDI, VC-AIS, VC-RDI, VP-CC, VC-CC
1.8.5	Alarm Addition	

	Item	Specifications
1.8.6	OAM Cell(I.610)	AIS Cell Timing : 0.1-10s RDI Cell Timing : 0.1-10s CC Cell Timing : 0.1-10s Loopback Cell Timing : Single User Cell Timing : 0.1-10s Forward Monitoring Cell Timing : 1 Cell Block Error: Discarded Cell, Misinserted Cell, BIPV, SECB Backward Reporting Cell Timing : 0.1-10s Error: Discarded Cell, Misinserted Cell, BIPV, SECB
1.8.7	Background Cell (1-10)	Header, Payload Pattern: Arbitrary Distribution : 0-100%
1.8.8	Fill Cell	Idle Cell/Unassigned Cell

Appendix A Specifications

	Item	Specifications
2	Rx cell	
2.1	STM4/1/0	
2.1.1	Error Detection	-
2.1.2	Alarm Detection	-
2.2	139M	
2.2.1	Error Detection	FAS, BIP-8, REI
2.2.2	Alarm Detection	LOF, RDI
2.2.3	Performance Measurement	G.826
2.3	34M	
2.3.1	Error Detection	FAS, BIP-8, REI
2.3.2	Alarm Detection	LOF, RDI
2.3.3	Performance Measurement	G.826
2.4	2M	
2.4.1	Error Detection	-
2.4.2	Alarm Detection	-
2.5	45M	
2.5.1	Error Detection	-
2.5.2	Alarm Detection	-
2.6	PLCP	
2.6.1	Error Detection	FAS, B1, FEBE, EB
2.6.2	Alarm Detection	OOF, LOF, Yellow
2.7	1.5M	
2.7.1	Error Detection	-
2.7.2	Alarm Detection	-
2.8	Foreground Cell	
2.8.1	Filter	Header 4 bytes with 4-byte Mask Payload 1 byte at any Position (when AAL1 or ATM) CID (when AAL2) MID (when AAL3/4)

	Item	Specifications
2.8.2	Measurement	<p>O.191 Cell Count, Correctable HEC Error, Uncorrectable HEC Error, Non-conforming Cell, Errored Cell, Discarded cell, Misinserted Cell, SECB USER Cell Count, Correctable HEC Error, Uncorrectable HEC Error, Non-conforming Cell, Bit Error (PRBS/Word)</p> <p>AAL1 Correctable HEC Error, Uncorrectable HEC Error, Non-conforming Cell, SAR-PDU Count, Discarded cell, SNP Error, Uncorrectable SNP Error, Bit Error (PRBS/Word)</p> <p>AAL2 Correctable HEC Error, Uncorrectable HEC Error, Non-conforming Cell, CPS-PDU Count, P Error, OSF Error, SN Error, CPS-Packet Count, CID-Packet Count, HEC Error, Bit Error (PRBS/Word)</p> <p>AAL3/4 Correctable HEC Error, Uncorrectable HEC Error, Non-Conforming Cell, SAR-PDU Count, CRC10 Error, MID Count, SN Error, Segment type Error, LI Error, Abort, Discarded PDU(SN Error, LI Error, Abort, COM ST Error, or EOM9S7 Error), CPCS-PDU Count, CPI Error, B/E tag mismatch, BA Size Error, AL Error, Length Error Undelivered PDU(CPI Error, B/E tag mismatch, BA Size Error, AL Error, or Length Error), Bit Error (PRBS/Word)</p> <p>AAL5 Correctable HEC Error, Uncorrectable HEC Error, Non-conforming Cell, CPCS-PDU Count, Frame Size Error, Length Error, CRC32 Error, Abort, Discard PDU(Frame Size Error, Length Error, CRC32 Error, or Abort), Bit Error (PRBS/Word)</p> <p>Forward Monitoring Cell Error, Discarded cell, Misinserted Cell, BIPV, SECB</p> <p>Backward Reporting Cell Discarded cell, Misinserted Cell, BIPV, SECB</p>
2.8.3	Alarm Detection	<p>E3-LOF, E3-RDI (Only when 34M) E4-LOF, E4-RDI (Only when 139M) PLCP-LOF, PLCP-RDI (Only when PLCP) LCD, VP-Segment-AIS, VP-Segment-RDI, VP-Segment-LOC VP-ENDtoEND-AIS, VP-ENDtoEND-RDI, VP-ENDtoEND-LOC, VC-Segment-AIS, VC-Segment-RDI, VC-Segment-LOC, VC-ENDtoEND-AIS, VC-ENDtoEND-RDI, VC-ENDtoEND-LOC Pattern Sync. Loss (Only when Cross cell, Cross cell PRBS, or PRBS/Word)</p>
2.8.4	Cell Monitor	<p>Displays Header (5 bytes) Displays Cell Data (53 bytes)</p>

Appendix A Specifications

	Item	Specifications
2.8.5	Live Monitor	Cell Count Data speed (cell/s, bit/s, %) of every VP/VC Non-conforming Cell Count Number of Non-conforming Cells (cell/s) of every VP/VC Forward Monitoring Cell Displays number of Misinserted/Discarded cells (cell/s) or SECB of every VP/VC Displays Alarm (AIS, RDI, LOC)
2.8.6	Cell Capture	Capture of 1 to 2016 cells Trigger: Error/Alarm of ATM Layer Manual Trigger Point: 1 to 2016
2.8.7	1 point CDV	CDV Measurement : +/-15000Cell
2.8.8	2 point CDV	CDV Measurement : +/-15000Cell
3	Through	
3.1	Loopback point	ATM Layer
3.2	Alarm Addition	VP-AIS, VP-RDI, VC-AIS, VC-RDI
4	General	
4.1	Dimensions, mass	MP0123A: 21(H) x 255(W) x 167.6(D) mm (Excluding projections), Approx. 1kg
4.2	Temperature	0 to 50 °C Operating -20 to 60 °C Storage

Appendix B Selftest Error Code List

For the self-test error codes, refer to the MP1570A SONET/SDH/PDH/ATM Analyzer Operation Manuals Vol.1.

Appendix C Text File Format

The MP1570A can store analysis graph data in a floppy disk in text format. Data can be edited using spreadsheet software (e.g., Excel). This appendix explains the text files related to the ATM unit.

Notes:

- For measurements other than ATM measurement, refer to Vol.1 of the MP1570A SONET/SDH/PDH/ATM Analyzer Operation Manual.
- For floppy disk operation, refer to Vol.1 of the MP1570A SONET/SDH/PDH/ATM Analyzer Operation Manual.
- A data file stored in text format cannot be recalled to the Analyze:Recall screen. Store a file in binary format to recall it to the Analyze:Recall screen.

C.1 Live monitor analysis data

The "Live monitor analysis data" is the analysis graph data (including Title and Threshold) displayed on the Analyze:Live monitor sub-screen or Recall sub-screen (when Live monitor data is displayed).

C.1.1 Traffic

```
[1] "ANRITSU;MP1570A;01.00;A;A_LMTRFC",Live monitor ",","",","",","",","",","",","↓
[2] "VPI","VCI","DATA(CELL/S)","DATA(kbit/s)","DATA(%)","TYPE","ALARM"↓
[3] ""AAL3/4","sVP-AIS" ↓
    0,5,120000,45000,50.0,"AAL1","eVP-AIS" ↓
    0,10,4000,64,2.0,"ATM",""↓
    :
    :
    4905,65535,80000,1500,20.0,"AAL5",""↓
```

- All items are delimited by a comma.
- The symbol of "↓" indicates a line feed.

- [1]First item: Management information, Second item: Title characters (fixed to 15 characters)
- [2]Indicates VSI, CPI, average data count (Cell/s), (kbit/s), (%), cell type, and alarm.
- [3]Displays analysis data in the item order shown in [2] for the number of channel searches performed. (Maximum 1,023 units)

Note:

Data cannot be stored when no measurement result exists or when the measurement mode is Individual.

C.1.3 FM SECB

The "FM SECB" is the analysis graph data (including Title) displayed on the Analyze:Live monitor sub-screen or Recall sub-screen (when Live monitor data is displayed).

- [1] "ANRITSU;MP1570A;01.00;A;A_LMONCON","Live monitor ","","",""↓
- [2] "VPI","VCI","DATA(Count)","DATA(Cell/s)","ALARM"↓
- [3] 0,1,80000,1500,"sVP-AIS"↓
 0,5,12000,45000,"eVP_AIS"↓
 0,10,4000,64, ""↓
 :
 :
 4905,65535,80000,1500, ""↓

- All items are delimited by a comma.
- The symbol of "↓" indicates a line feed.

- [1]First item: Management information, Second item: Title characters (fixed to 15 characters)
- [2]Indicates VPI, VCI, data (Count), average number of received cells, alarm, and threshold (M).
- [3][Displays analysis data in the item order shown in [2] for the number of channel searches performed. (Maximum 1,023 units)

Note:

Data cannot be stored when no measurement result exists or when the measurement mode is Individual.

C.1.4 FM Mis/lost

```

[1] "ANRITSU;MP1570A;01.00:A:A_LMOTRFC","Live monitor ","","","",""↓
[2] "VPI","VCI","DATA(Count)","DATA(Mis-count)","DATA(Lost-Count)",
[3] "DATA(Cell/s)","Alarm"↓
[4] 0,1,80000,60000,20000,100000,"sVP-AIS"
    0,5,120000,100000,2000,120000,"eVP-AIS"↓
    0,10,4000,1000,3000,5000,""↓
    :
    :
    4095,65535,8000,30000,50000,150000,"" ↓

```

- All items are delimited by a comma.
- The symbol of “↓” indicates a line feed.

- [1] First item: Management information, Second item: Title characters (fixed to 15 characters)
- [2] Indicates VPI, VCI, average data count, cell type, and alarm.
- [3] Displays analysis data in the item order shown in [2] f or the number of channel searches performed.
(Maximum 1,023 units)

Note:

Data cannot be stored when no measurement result exists or when the measurement mode is Individual.

C.2 Traffic monitor analysis data

The "Traffic monitor analysis data" is the analysis graph data (including Title) displayed on the Traffic monitor sub-screen or Recall sub-screen (when Traffic monitor data is displayed) of the Analyze screen.

- ```
[1] "ANRITSU;MP1570A;01.00;A;A_TRAF","Traffic
monitor","4095;FAB;65535;FFFF",3.6E8,"1/min","","","",""↓
[2] "Date","Time","Mean(Cell/s)","Mean(bit/s)","Mean(%)","Max(Cell/s)","Max(kb/","Max(%)","Mi
n(Cell/s)","Min(bit/s)","Min(%)" ↓
[3] "23/Dec/95","08,23,40",423,567,356,423,567,256,423,567,356↓
"23/Dec/95","08:24:40",323,456,258,323,456,258,323,456,258↓
```

- All items are delimited by a comma.
- The symbol of “↓” indicates a line feed.

- [1] .....First item: Management information  
 Second item: Title characters (fixed to 15 characters)  
 Third item: VPI filter value, VPI filter mask value,  
 VCI filter value, VCI filter mask value  
 Fourth item: Number of received cells  
 Fifth item: Time axis setting of the analysis graph  
 (numeric value, unit)
- [2] .....Indicates capture start date (1), capture start time (1),  
 average cell route (Cell/s, kbit/s, %), minimum cell route  
 (Cell/s, kbit/s, %), and maximum cell route (Cell/s, kbit/s, %).
- [3] .....Displays data in the item order shown in [2].

**Note:**

Data cannot be stored when no measurement result exists.



## C.4 1-point CDV measurement analysis data

The "1-point CDV measurement analysis data" is the analysis graph data (including Title) displayed on the 1-point CDV sub-screen or Recall sub-screen (when 1-point CDV data is displayed) of the Analyze screen.

- ```
[1] "ANRITSU;MP1570A;01.00;A;A_1CDV","1-point CDV ", "4905;FFF;65535F0000",
    "100;Cell;100.0000;570;-345"↓
[2] "Time","Cell","Count","Rate"↓
[3] -400000,-6000,-1.4E06,100.0000↓
    :
    Repetition of [3]
    :
```

- All items are delimited by a comma.
- The symbol of “↓” indicates a line feed.

- ```
[1]First item: Management information
 Second item: Title characters (fixed to 15 characters)
 Third item: VPI filter value, VPI filter mask value, VCI
 filter value, VCI filter, mask value
 Fourth item: H-Interval, H-Interval unit, measurement
 target cell reception rate, maximum delay
 data position, minimum delay data position
[2]Indicates delay time, cell interval count, occurrence
 count, and occurrence count rate.
[3]Displays data in the item order shown in [2].
```

**Note:**

Data cannot be stored when no measurement result exists.

## C.5 2-point CDV measurement analysis data

The "2-point CDV measurement analysis data" is the analysis graph data (including Title) displayed on the 2-point CDV sub-screen or Recall sub-screen (when 2-point CDV data is displayed) of the Analyze screen.

```
[1] "ANRITSU;MP1570A;01.00;A;A_1CDV","2-point CDV ","4095;FFF;65535;0000",
 "100;Cell;100.000,256,570,-345"↓
[2] "Time","Cell","Count","Rate"↓
[3] -400000,-6000,1.4E06,100.0000↓
 :
 Repetition of [3]
 :
```

- All items are delimited by a comma.
- The symbol of "↓" indicates a line feed.

```
[1] First item: Management information
 Second item: Title characters (fixed to 15 characters)
 Third item: VPI filter value, VPI filter mask value, VCI
 filter value, VCI filter mask value
 Fourth item: H-Interval, H-Interval unit, measurement
 target cell reception rate, offset value,
 maximum delay data position, minimum
 delay data position
[2] Indicates delay time, cell interval count, occurrence count,
 and occurrence count rate.
[3] Displays data in the item order shown in [2].
```

**Note:**

Data cannot be stored when no measurement result exists.

C.6 Memorized analysis data

The "Memorized analysis data" is the analysis graph displayed on the Memorized cell sub-screen of the Setup screen.

```

[1] "ANRITSU;MP1570A;01.00;A;MAN_CELL","UNI","", ↓
[2] "No","Header","Payload"↓
[3] "0 000 00000 0 0 00","00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00
00 00 00 00 00" ↓
 :
 Repetition of [3]
 :

```

- All items are delimited by a comma.
- The symbol of “↓” indicates a line feed.

- [1] .....First item: Management information  
                   Second item: Header structure ("UNI" or "NNI")  
                   Third item: Dummy
- [2] .....Indicates number, header, and payload.
- [3] .....Displays data in the item order shown in [2].  
                   (The data count is fixed to 2016.)



## C.7 AAL3/4 and AAL5 payload set data

The "AAL3/4 and AAL5 payload set data" is the AAL3/4 and AAL5 payload set data which can be set on the Cell edit sub-screen of the Setup screen.

- [1] "ANRITSU;MP1570A;01.00;A;PAYLOAD"↓
  - [2] "Data"↓
  - [3] "00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00" ↓
- :
- Repetition of [3]
- :

- All items are delimited by a comma.
- The symbol of " ↓ " indicates a line feed.

- [1] ..... First item: Management information
- [2] ..... Indicates the first item of the cell data.
- [3] ..... Displays data in the item order shown in [2].  
(The data count is fixed to 4096.)



## Appendix D Initial Values of OH Preset Data

---

Selecting "default" in the Setup:OH Preset Data screen sets the OH Preset data to the initial values shown in the following table.

(1) E3

|             |            |                          |                              |                         |             |  |  |  |  |
|-------------|------------|--------------------------|------------------------------|-------------------------|-------------|--|--|--|--|
| FA1<br>[F6] |            |                          |                              |                         | FA2<br>[28] |  |  |  |  |
| EM<br>--    |            |                          |                              |                         |             |  |  |  |  |
| TR<br>--    |            |                          |                              |                         |             |  |  |  |  |
| RDI<br>[0]  | REI<br>[0] | Payload<br>type<br>[010] | Payload<br>dependent<br>[00] | Timing<br>marker<br>[0] |             |  |  |  |  |
| NR<br>[00]  |            |                          |                              |                         |             |  |  |  |  |
| GC<br>[00]  |            |                          |                              |                         |             |  |  |  |  |

(2) E4

|             |            |                          |                              |                         |             |  |  |  |  |
|-------------|------------|--------------------------|------------------------------|-------------------------|-------------|--|--|--|--|
| FA1<br>[F6] |            |                          |                              |                         | FA2<br>[28] |  |  |  |  |
| EM<br>--    |            |                          |                              |                         |             |  |  |  |  |
| TR<br>--    |            |                          |                              |                         |             |  |  |  |  |
| RDI<br>[0]  | REI<br>[0] | Payload<br>type<br>[010] | Payload<br>dependent<br>[00] | Timing<br>marker<br>[0] | P1<br>[00]  |  |  |  |  |
| NR<br>[00]  |            |                          |                              |                         |             |  |  |  |  |
| GC<br>[00]  |            |                          |                              |                         |             |  |  |  |  |
|             |            |                          |                              |                         |             |  |  |  |  |
|             |            |                          |                              |                         |             |  |  |  |  |

(3) DS3 PLCP

| PLCP       | Fram       | POI         | POH        | PLCP Payload                       |                 |
|------------|------------|-------------|------------|------------------------------------|-----------------|
| A1<br>[F6] | A2<br>[28] | P11<br>[2C] | Z6<br>[00] | First ATM cell<br>-- - - - - ...   |                 |
| A1<br>[F6] | A2<br>[28] | P10<br>[29] | Z5<br>[00] | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P09<br>[25] | Z4<br>[00] | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P08<br>[20] | Z3<br>[00] | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P07<br>[1C] | Z2<br>[00] | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P06<br>[19] | Z1<br>[00] | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P05<br>[15] | X<br>[00]  | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P04<br>[10] | B1<br>--   | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P03<br>[0D] | G1<br>[00] | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P02<br>[08] | X<br>[00]  | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P01<br>[04] | X<br>[00]  | ATM cell<br>-- - - - - ...         |                 |
| A1<br>[F6] | A2<br>[28] | P00<br>[01] | C1<br>--   | Twelfth ATM cell<br>-- - - - - ... | Trailer<br>1100 |

## Appendix E Correspondence Between Commands and Screens

The correspondence between program commands and screen displays is shown below. For details of the program commands, see Section 4.4, "Device Specific Commands."

### E.1 Command Correspondence of the Test Menu Main Screen

#### E.1.1 Manual sub-screen

```
Mapping | Tx&Rx | Time 08:21:51 05/Jan/2000
Tx&Rx
STM4 -AAL3/4

Test menu | Manual | [TCLayer]

Alarm [MS-AIS][Single]
Error [B2][Single]

K1 Bit1-4 [0000, No request]
 Bit5-8 [0001, Working #1]
K2 Bit1-4 [0001, Working #1]
 Bit5-8 [1, 1:N] [000, Idle]

PTR AU [0110 10][0] [FPJC FPJC]

Mode [Repeat] [1][s]
PRG start [OFF]
```

- (1):SOURCE:TELEcom:MSPMessages:REQuest
- (2):SOURCE:TELEcom:MSPMessages:CHANnel
- (3):SOURCE:TELEcom:MSPMessages:BRIDge
- (4):SOURCE:TELEcom:MSPMessages:ARCHitect
- (5):SENSce:TELEcom:MSPBits:REQuest
- (6):SENSce:TELEcom:MSPBits:CHANnel
- (7):SENSce:TELEcom:MSPBits:BRIDge
- (8):SENSce:TELEcom:MSPBits:ARCHitect
- (9):SENSce:TELEcom:MSPBits:REServed
- (10):SOURCE:TELEcom:PSETting:NDFSet
- (11):SOURCE:TELEcom:PSETting:SSSet
- (12):SOURCE:TELEcom:PSETting:IDSet
- (13):SOURCE:TELEcom:PSETting:PPJC
- (14):SOURCE:TELEcom:PSETting:NPJC
- (15):SOURCE:ATM:MANual:TRAFfic:TYPE

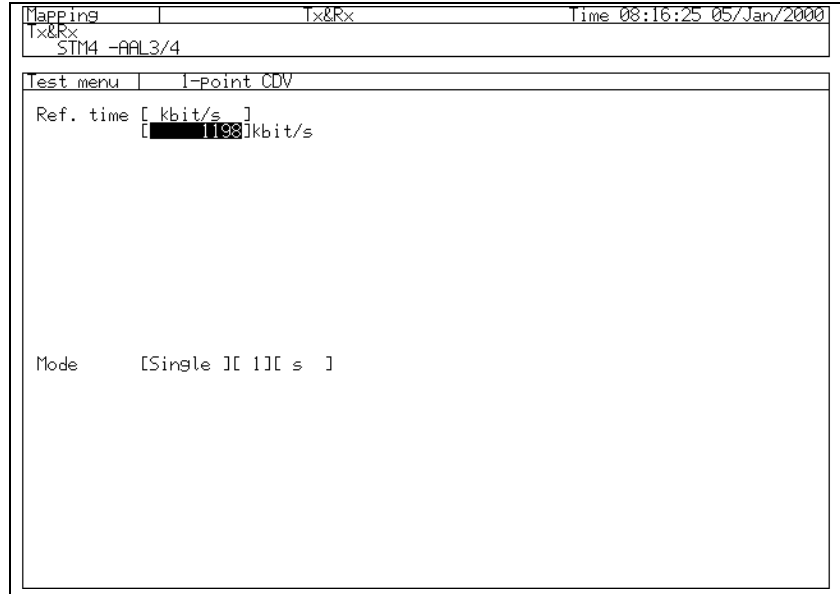
- (16):SOURCE:ATM:MANual:TRAFfic:MENorized:NUMBer
- (17):SOURCE:ATM:MANual:TRAFfic:HEADer
- (18):SOURCE:ATM:MANual:TRAFfic:PAYLoad:TYPE
- (19):SOURCE:ATM:MANual:TRAFfic:WORD
- (20):SOURCE:ATM:MANual:TRAFfic:DISTRibution
- (21):SOURCE:ATM:MANual:TRAFfic:CBR:TYPE
- (22):SOURCE:ATM:MANual:TRAFfic:CBR:BPS
- (23):SOURCE:ATM:MANual:TRAFfic:CBR:CPS
- (24):SOURCE:ATM:MANual:TRAFfic:CBR:PERCent
- (25):SOURCE:ATM:MANual:TRAFfic:BURSt
- (26):SOURCE:ATM:MANual:TRAFfic:BURSt:TYPE
- (27):SOURCE:ATM:MANual:TRAFfic:BURSt:RMAX:TYPE
- (28):SOURCE:ATM:MANual:TRAFfic:BURSt:RMIN:BPS
- (29):SOURCE:ATM:MANual:TRAFfic:BURSt:RMIN:BPD
- (30):SOURCE:ATM:MANual:TRAFfic:BURSt:CPS
- (31):SOURCE:ATM:MANual:TRAFfic:BURSt:RMAX:PERCent
- (32):SOURCE:ATM:MANual:TRAFfic:BURSt:RMIN:PERCent
- (33):SOURCE:ATM:MANual:TRAFfic:BURSt:T1
- (34):SOURCE:ATM:MANual:TRAFfic:BURSt:T2
- (35):SOURCE:ATM:MANual:TRAFfic:CWCDv:TYPE
- (36):SOURCE:ATM:MANual:TRAFfic:CWCDv:BPS
- (37):SOURCE:ATM:MANual:TRAFfic:CWCDv:CPS
- (38):SOURCE:ATM:MANual:TRAFfic:CWCDv:PERCent
- (39):SOURCE:ATM:MANual:TRAFfic:CWCDv:POISson
- (40):SOURCE:ATM:MANual:TRAFfic:SAWTooth:TYPE
- (41):SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMAX:BPS
- (42):SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:BPS
- (43):SOURCE:ATM:MANual:TRAFfic:SAWTooth:CPS
- (44):SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMAX:PERCent
- (45):SOURCE:ATM:MANual:TRAFfic:SAWTooth:RMIN:PRECent

- (46):SOURce:ATM:MANual:TRAFfic:SAWTooth:T1
- (47):SOURce:ATM:MANual:TRAFfic:SAWTooth:T2
- (48):SOURce:ATM:MANual:TRAFfic:TIMing:MODE
- (49):SOURce:ATM:MANual:TRAFfic:TIMing:START
- (50):SOURce:ATM:MANual:TRAFfic:TIMing:STOP
- (51):SOURce:ATM:MANual:TRAFfic:TIMing:STATE
- (52):SOURce:ATM:MANual:TRAFfic:BACKgrount:PERCent
- (53):SOURce:ATM:MANual:TRAFfic:BACKgrount:CPS
- (54):SOURce:ATM:MANual:TRAFfic:BACKgrount:TYPE
- (55):SOURce:ATM:MANual:TRAFfic:FCELL
- (56):SOURce:ATM:MANual:EALarm:TYPE
- (57):SOURce:ATM:MANual:EALarm:TIMing
- (58):SOURce:ATM:MANual:EALarm:ERRor:TYPE
- (59):SOURce:ATM:MANual:EALarm:ERRor:BYTE
- (60):SOURce:ATM:MANual:EALarm:ERRor:PATtern
- (61):SOURce:ATM:MANual:EALarm:ERRor:CRC3
- (62):SOURce:ATM:MANual:EALarm:TIMing:MODE
- (63):SOURce:ATM:MANual:EALarm:TIMing:COUNt
- (64):SOURce:ATM:MANual:EALarm:CC:SEND
- (65):SOURce:ATM:MANual:EALarm:LOOPback:TYPE
- (66):SOURce:ATM:MANual:EALarm:LOOPback:START
- (67):SOURce:ATM:MANual:EALarm:LOOPback:STATE?
- (68):SOURce:ATM:MANual:PM:FM:SEND
- (69):SOURce:ATM:MANual:PM:FM:CBLOCK
- (70):SOURce:ATM:MANual:PM:FM:ERRor:TYPE
- (71):SOURce:ATM:MANual:PM:FM:ERRor:TIMing:MODE
- (72):SOURce:ATM:MANual:PM:FM:ERRor:TIMing:COUNt
- (73):SOURce:ATM:MANual:PM:BR:SEND
- (74):SOURce:ATM:MANual:PM:BR:ERRor:TYPE
- (75):SOURce:ATM:MANual:PM:BR:ERRor:MODE

- (76):SENSe:MEASure:TYPE
- (77):SENSe:MEASure:PERiod
- (78):SENSe:MEASure:BTIME:SET
- (79):SENSe:MEASure:BTIME:START
- (80):SENSe:ATM:MANual:FILTer:HEADer:PATtern
- (81):SENSe:ATM:MANual:FILTer:HEADer:MASK
- (82):SENSe:ATM:MANual:FILTer:PAYLoad:PATtern
- (83):SENSe:ATM:MANual:FILTer:PAYLoad:MASK
- (84):SENSe:ATM:MANual:FILTer:PAYLoad:POSition
- (85):SENSe:ATM:MANual:FILTer:CID:PATtern
- (86):SENSe:ATM:MANual:FILTer:MID:PATtern
- (87):SENSe:ATM:MANual:NCONforming:PCR:TYPE
- (88):SENSe:ATM:MANual:NCONforming:PCR:BPS
- (89):SENSe:ATM:MANual:NCONforming:PCR:CPS
- (90):SENSe:ATM:MANual:NCONforming:PCR:PERCent
- (91):SENSe:ATM:MANual:NCONforming:CDVT
- (92):DISPlay:TMENu[:NAME]
- (93):DISPlay:TMENu:MANual:SElect
- (94):SOURce:TELEcom:ERRor:TYPE
- (95):SOURce:TELEcom:ERRor:ERATe
- (96):SOURce:TELEcom:ERRor:PATtern
- (97):SENSe:ATM:MANual:NCONforming:CBR:TYPE
- (98):SENSe:ATM:MANual:NCONforming:CBR:BPS
- (99):SENSe:ATM:MANual:NCONforming:CBR:CPS
- (100):SENSe:ATM:MANual:NCONforming:CBR:PERCent
- (101)Result display
  - :CALCulate:LOOPback:RESult?

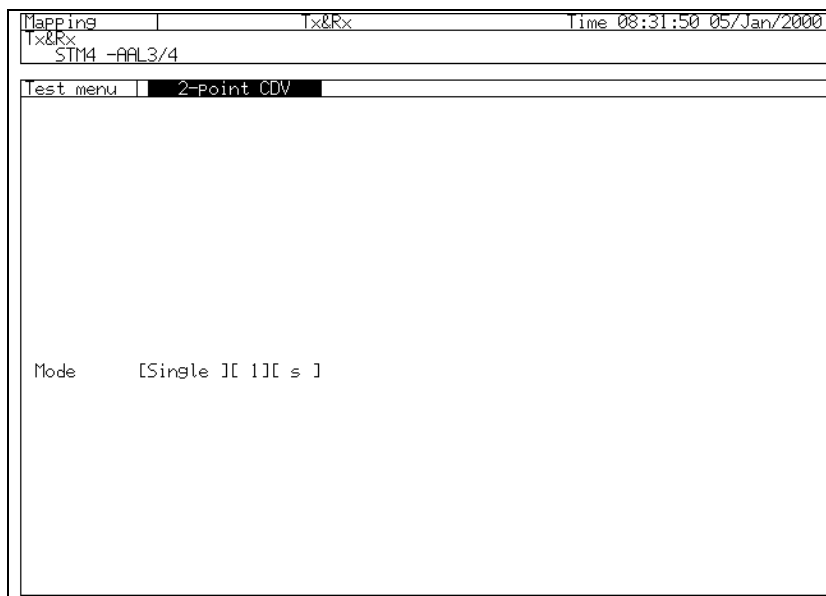


E.1.2 1-point CDV sub-screen



- (1):DISPlay:TMENu[:NAME]
- (2):SENSE:ATM:CDV1:TYPE
- (3):SENSE:ATM:CDV1:PERiod
- (4):SENSE:ATM:CDV1:RTIME:TYPe
- (5):SENSE:ATM:CDV1:RTIME:BPS
- (6):SENSE:ATM:CDV1:RTIME:CPS
- (7):SENSE:ATM:CDV1:RTIME:PERCent

### E.1.3 2-point CDV sub-screen



- (1):DISPlay:TMENu[:NAME]
- (2):SENSe:ATM:CDV2:TYPE
- (3):SENSe:ATM:CDV2:PERiod

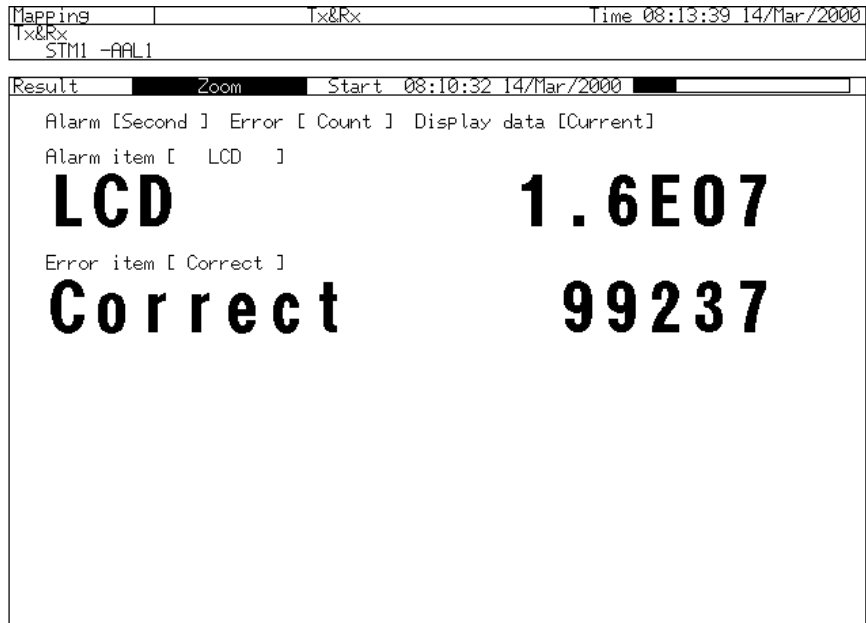
## E.2 Command Correspondence of the Result Main Screen

### E.2.1 Error/alarm sub-screen

|                                                     |        |              |       |                            |   |
|-----------------------------------------------------|--------|--------------|-------|----------------------------|---|
| Mapping                                             |        | Tx&Rx        |       | Time 08:42:20 05/Jan/2000  |   |
| Tx&Rx                                               |        | STM4 -AAL3/4 |       |                            |   |
| Result                                              |        | Error/Alarm  |       | Start 08:38:58 05/Jan/2000 |   |
| Alarm [Second] Error [Count] Display data [Current] |        |              |       |                            |   |
| Section                                             |        | HP(AU)       |       | Information                |   |
| P-fail                                              | 0      | aAIS         | 0     |                            |   |
| LOS                                                 | 0      | aLOP         | 0     |                            |   |
| LOF                                                 | 0      | aRDI         | 0     |                            |   |
| DOF                                                 | 0      | aSLM         | 0     |                            |   |
| AIS                                                 | 0      |              |       |                            |   |
| RDI                                                 | 0      |              |       |                            |   |
| B1                                                  | 0      | aB3          | 0     |                            |   |
| B2                                                  | 0      |              |       |                            |   |
| REI                                                 | 3.2E06 | REI          | 0     |                            |   |
| Alarm                                               |        |              | Error |                            |   |
| MP-AIS                                              | 0      | aMC-AIS      | 0     | Correct                    | 0 |
| MP-RDI                                              | 0      | aMC-RDI      | 0     | Discard                    | 0 |
| MP-LOC                                              | 0      | aMC-LOC      | 0     | Nonconf                    | 0 |
|                                                     |        |              |       | FM_Lost                    | 0 |
|                                                     |        |              |       | FM_Misin                   | 0 |
|                                                     |        |              |       | FM_BIPV                    | 0 |
|                                                     |        |              |       | FM_SECB                    | 0 |
|                                                     |        |              |       | BR_Lost                    | 0 |
|                                                     |        |              |       | BR_Misin                   | 0 |
|                                                     |        |              |       | BR_BIPV                    | 0 |
|                                                     |        |              |       | BR_SECB                    | 0 |
| LCD                                                 | 1.0E06 | Sync.        | 0     | CRC10                      | 0 |
|                                                     |        |              |       | CPI                        | 0 |
|                                                     |        |              |       | UDIvPDU                    | 0 |
|                                                     |        |              |       | B/Etag                     | 0 |
|                                                     |        |              |       | B/Asize                    | 0 |
|                                                     |        |              |       | AL                         | 0 |
|                                                     |        |              |       | LI                         | 0 |
|                                                     |        |              |       | Length                     | 0 |
|                                                     |        |              |       | Abort                      | 0 |
|                                                     |        |              |       | Bit                        | 0 |

- (1):DISPlay:RESult[:NAME]
- (2):DISPlay:RESult:EALarm:MODE
- (3):DISPlay:RESult:EALarm:UNIT
- (4):DISPlay:RESult:EALarm:AUNit
- (5):DISPlay:RESult:EALarm:TCLayer
- (6):Time display
- :DISPlay:RESult:TIME

E.2.2 Zoom sub-screen



- (1):DISPlay:RESult[:NAME]
- (2):DISPlay:RESult:ZOOM:MODE
- (3):DISPlay:RESult:ZOOM:UNIT
- (4):DISPlay:RESult:ZOOM:AUNit
- (5):DISPlay:RESult:ZOOM:ALARm
- (6):DISPlay:RESult:ZOOM:ERRor
- (7):Time display
  - :DISPlay:RESult:TIME

E.2.3 1-point CDV sub-screen

|                                                                                                                           |             |                            |
|---------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------|
| Mapping                                                                                                                   | Tx&Rx       | Time 16:44:41 13/Oct/2008  |
| Tx&Rx                                                                                                                     | STM1 -AAL1  |                            |
| Result                                                                                                                    | 1-Point CDV | Start 16:43:21 13/Oct/2008 |
| <p>Average + 2010 <math>\mu</math>s</p> <p>Maximum + 37570 <math>\mu</math>s</p> <p>Minimum - 34625 <math>\mu</math>s</p> |             |                            |

(1):DISPlay:RESult[:NAME]

(2)Time display  
:DISPlay:RESult:TIME

(3)Result display  
:CALCulate:DATA?

### E.2.4 2-point CDV sub-screen

|         |             |                            |
|---------|-------------|----------------------------|
| Mapping | Tx&Rx       | Time 17:03:35 13/Mar/2000  |
| Tx&Rx   | STM1 -AAL1  |                            |
| Result  | 2-Point CDV | Start 17:03:06 13/Mar/2000 |
| Average |             | 0 $\mu$ s                  |
| Maximum |             | 0 $\mu$ s                  |
| Minimum | -           | 2 $\mu$ s                  |
| Offset  |             | 22 $\mu$ s                 |

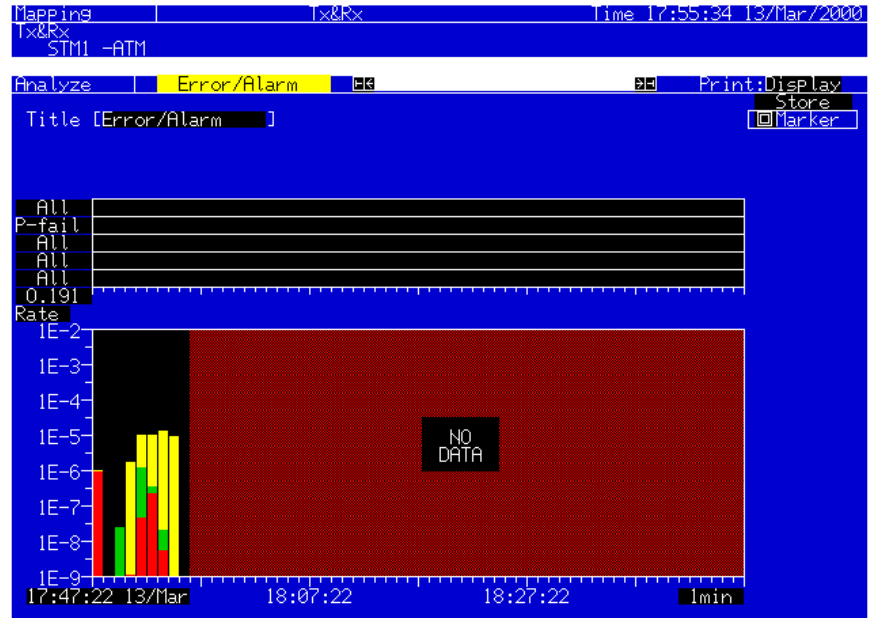
(1):DISPlay:RESult[:NAME]

(2)Time display  
:DISPlay:RESult:TIME

(3)Result display  
:CALCulate:DATA?

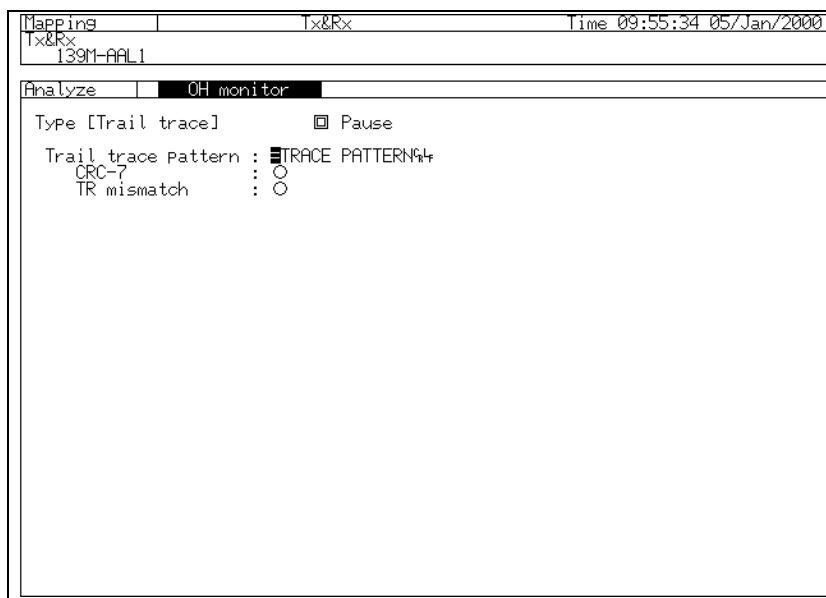
## E.3 Command Correspondence of the Analyze Main Screen

### E.3.1 Error/Alarm sub-screen



- (1):DISPlay:ANALysis[:NAME]
- (2):DISPlay:ANALysis:TGRaph:INTerval
- (3):DISPlay:ANALysis:TGRaph:ERRor
- (4):DISPlay:ANALysis:TGRaph:ALARm1
- (5):DISPlay:ANALysis:TGRaph:ALARm2
- (6):DISPlay:ANALysis:TGRaph:ALARm3
- (7):DISPlay:ANALysis:TGRaph:ALARm4
- (8):DISPlay:ANALysis:TGRaph:ALARm5
- (9):DISPlay:ANALysis:TGRaph:PRINt
- (10):DISPlay:ANALysis:TGRaph:TITLe
- (11):DISPlay:ANALysis:TGRaph:MDISplay
- (12):SYSTem:MEMory:ANALysis:LAVel?
- (13):SYSTem:MEMory:ANALysis:STORe
- (14)Result display
  - :DISPlay:ANALysis:TGRaph:DATA?
  - :CALCulate:DATA?
  - :CALCulate:TGRaph:DATA?

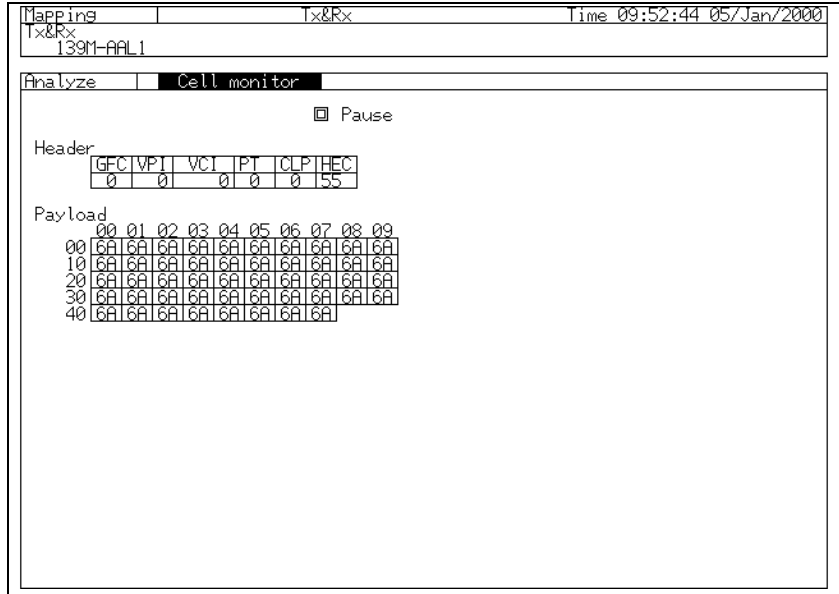
### E.3.2 OH monitor sub-screen



- (1):DISPlay:ANALysis[:NAME]
- (2):DISPlay:ANALysis:OHMonitor:TYPE
- (3):DISPlay:ANALysis:OHMonitor:SOHCh
- (4):DISPlay:ANALysis:OHMonitor:SLABe
- (5):DISPlay:ANALysis:OHMonitor:PAUSE
- (6):DISPlay:ANALysis:OHMonitor:
- (7)Result display
  - :DISPlay:ANALysis:TGRaph:DATA?
  - :CALCulate:DATA?

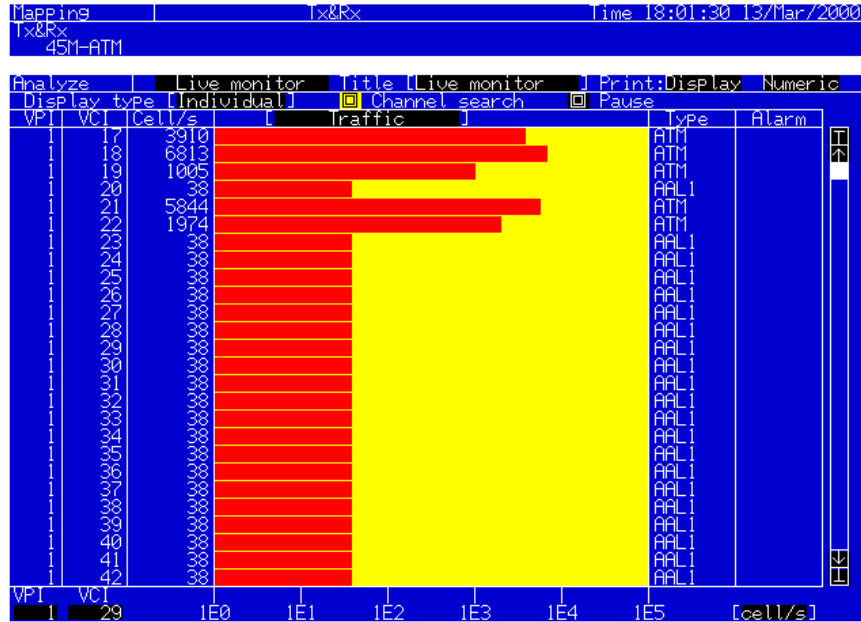


E.3.3 Cell monitor sub-screen



- (1):DISPlay:ANALysis[:NAME]
- (2):DISPlay:ANALysis:CMONitor:CELL?
- (3):DISPlay:ANALysis:CMONitor:PAUSE

E.3.4 Live monitor sub-screen



- (1):SENSE:ATM:MANual:LMONitor:TYPE
- (2):SENSE:ATM:MANual:LMONitor:CHSearch
- (3):SENSe:ATM:MANual:LMONitor:STAtE?
- (4):DISPlay:ANALysis[:NAME]:
- (5):DISPlay:ANALysis:LMONitor:SCRoll
- (6):DISPlay:ANALysis:LMONitor:GRAPh
- (7):DISPlay:ANALysis:LMONitor:THReshold
- (8):DISPlay:ANALysis:LMONitor:NCONforming
- (9):DISPlay:ANALysis:LMONitor:PAUSE
- (10):DISPlay:ANALysis:LMONitor:INTerval
- (11):DISPlay:ANALysis:LMONitor:VPI
- (12):DISPlay:ANALysis:LMONitor:NUMBer
- (13):DISPlay:ANALysis:LMONitor:PRINt
- (14):DISPlay:ANALysis:LMONitor:PTYPE
- (15):DISPlay:ANALysis:LMONitor:TITLe
- (16):CALCulate:LMONitor:NCONforming:THReshold
- (17):CALCulate:LMONitor:NCONforming:THReshold:A
- (18):CALCulate:LMONitor:NCONforming:THReshold:B
- (19):CALCulate:LMONitor:NCONforming:THReshold:C
- (20):CALCulate:LMONitor:NCONforming:THReshold:D

(21):CALCulate:LMONitor:FMSeCb:THReshold

(22):CALCulate:LMONitor:BRSeCb:THReshold

(23)Result display

:CALCulate:LMONitor:TRAFfic:DATA?

:CALCulate:LMONitor:FMSeCb:DATA?

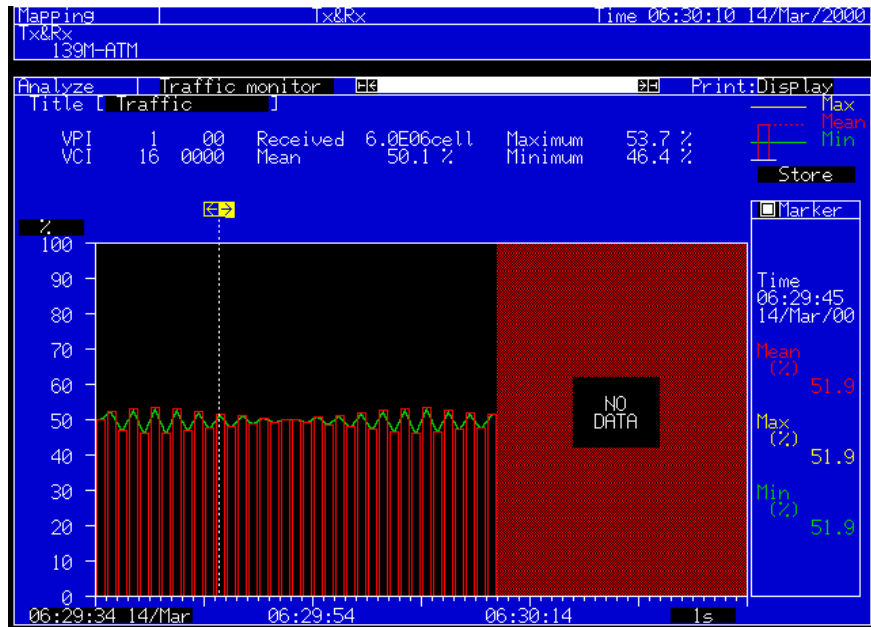
:CALCulate:LMONitor:DATA?

:CALCulate:LMONitor:FM:DATA?

:CALCulate:LMONitor:BR:DATA?

:CALCulate:LMONitor:BRSeCb:DATA?

E.3.5 Traffic monitor sub-screen



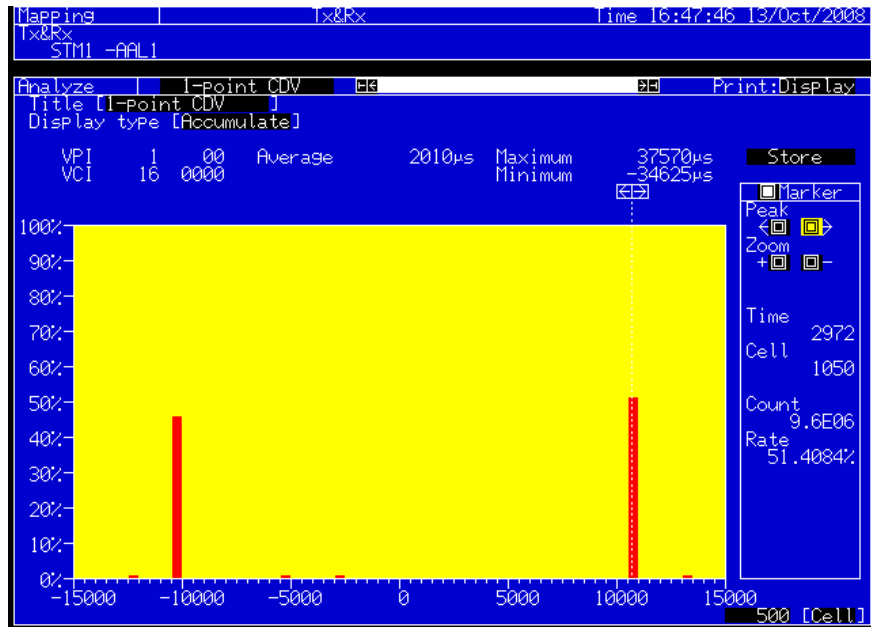
- (1):DISPlay:ANALysis[:NAME]
- (2):DISPlay:ANALysis:TRAFfic:SCRoll
- (3):DISPlay:ANALysis:TRAFfic:MARKer
- (4):DISPlay:ANALysis:TRAFfic:DATA?
- (5):DISPlay:ANALysis:TRAFfic:INTerval
- (6):DISPlay:ANALysis:TRAFfic:MDISplay
- (7):DISPlay:ANALysis:TRAFfic:FROM
- (8):DISPlay:ANALysis:TRAFfic:SCALe
- (9):DISPlay:ANALysis:TRAFfic:PRINT
- (10):DISPlay:ANALysis:TRAFfic:TITLe
- (11)Result display
  - :CALCulate:TRAFfic:RESult?
  - :CALCulate:TRAFfic:DATA?

E.3.6 Cell capture sub-screen



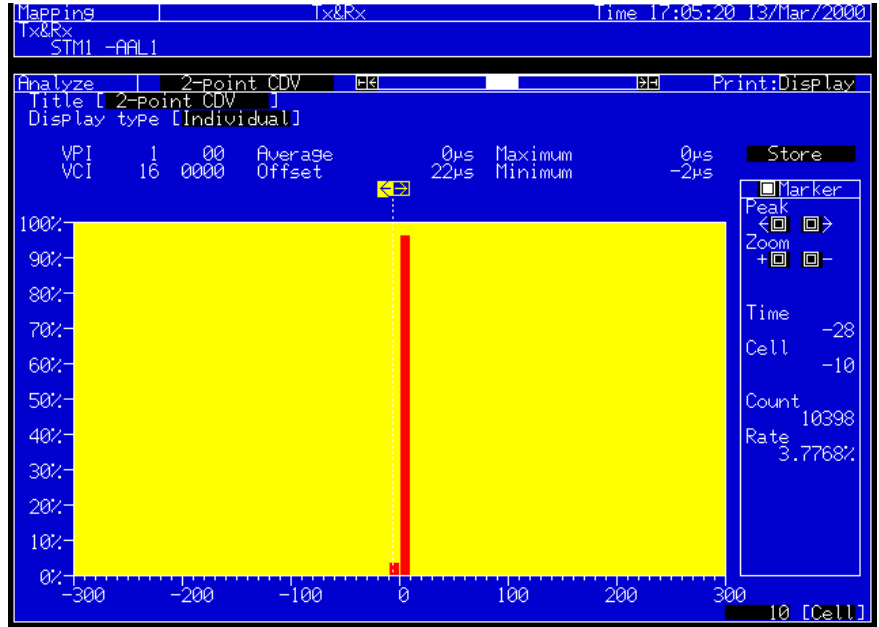
- (1):SENSE:ATM:MANual:CAPTURE:TRIGger
- (2):SENSE:ATM:MANual:CAPTURE:POSition
- (3):SENSE:ATM:MANual:CAPTURE:START
- (4):SENSE:ATM:MANual:CAPTURE:STOP
- (5):SENSE:ATM:MANual:CAPTURE:STATE?
- (6):DISPlay:ANALYsis[:NAME]:
- (7):DISPlay:ANALYsis:CAPTURE:JUMP:TYPE
- (8):DISPlay:ANALYsis:CAPTURE:JUMP:LINE
- (9):DISPlay:ANALYsis:CAPTURE:SCROLL
- (10):DISPlay:ANALYsis:CAPTURE:PTYPE
- (11):DISPlay:ANALYsis:CAPTURE:PRINT
- (12):DISPlay:ANALYsis:CAPTURE:TITLE
- (13)Result display
  - :CALCulate:CAPTURE:LINE?
  - :CALCulate:CAPTURE:TOTAL?
  - :CALCulate:CAPTURE:TRIGger?

E.3.7 1-point CDV sub-screen



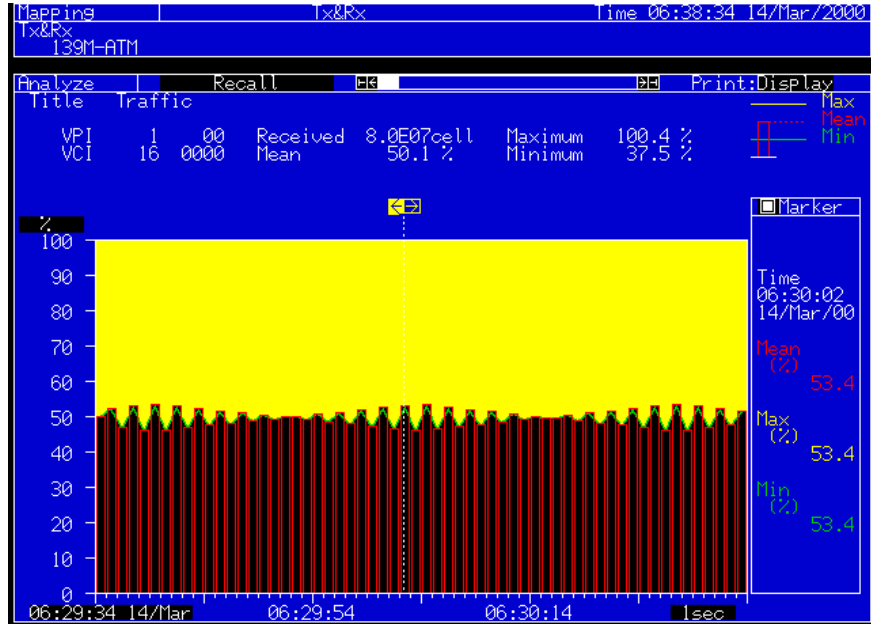
- (1):SENSE:ATM:MANual:1CDV:PCR
- (2):SENSE:ATM:MANual:1CDV:TYPE
- (3):SENSe:ATM:MANual:1CDV:PERiod
- (4):DISPlay:ANALysis[:NAME]
- (5):DISPlay:ANALysis:CDV1:SCRoll
- (6):DISPlay:ANALysis:CDV1:TYPE
- (7):DISPlay:ANALysis:CDV1:MARKer
- (8):DISPlay:ANALysis:CDV1:PEAK
- (9):DISPlay:ANALysis:CDV1:ZOOM
- (10):DISPlay:ANALysis:CDV1:DATA?
- (11):DISPlay:ANALysis:CDV1:INTerval
- (12):DISPlay:ANALysis:CDV1:IUNit
- (13):DISPlay:ANALysis:CDV1:MDISplay
- (14):DISPlay:ANALysis:CDV1:SCALE
- (15):DISPlay:ANALysis:CDV1:CELL
- (16):DISPlay:ANALysis:CDV1:US
- (17):DISPlay:ANALysis:CDV1:PRINT
- (18):DISPlay:ANALysis:CDV1:TITLe
- (19)Result display
  - :CALCulate:CDV1:DATA?

E.3.8 2-point CDV sub-screen



- (1):SENSE:ATM:MANual:2CDV:TYPE
- (2):SENSE:ATM:MANual:2CDV:PERiod
- (3):DISPlay:ANALysis[:NAME]
- (4):DISPlay:ANALysis:CDV2:SCRoll
- (5):DISPlay:ANALysis:CDV2:TYPE
- (6):DISPlay:ANALysis:CDV2:MARKer
- (7):DISPlay:ANALysis:CDV2:PEAK
- (8):DISPlay:ANALysis:CDV2:ZOOM
- (9):DISPlay:ANALysis:CDV2:DATA?
- (10):DISPlay:ANALysis:CDV2:INTerval
- (11):DISPlay:ANALysis:CDV2:IUNit
- (12):DISPlay:ANALysis:CDV2:MDISplay
- (13):DISPlay:ANALysis:CDV2:SCALe
- (14):DISPlay:ANALysis:CDV2:CELL
- (15):DISPlay:ANALysis:CDV2:US
- (16):DISPlay:ANALysis:CDV2:PRINt
- (17):DISPlay:ANALysis:CDV2:TITLe
- (18)Result display
  - :CALCulate:CDV2:DATA?

E.3.9 Recall sub-screen



- (1):DISPlay:ANALysis[:NAME]
- (2):DISPlay:ANALysis:RECall:TGRaph:ERRor
- (3):DISPlay:ANALysis:RECall:TGRaph:ALARm1
- (4):DISPlay:ANALysis:RECall:TGRaph:ALARm2
- (5):DISPlay:ANALysis:RECall:TGRaph:ALARm3
- (6):DISPlay:ANALysis:RECall:TGRaph:ALARm4
- (7):DISPlay:ANALysis:RECall:TGRaph:ALARm5
- (8):DISPlay:ANALysis:RECall:TGRaph:PRINt
- (9):DISPlay:ANALysis:RECall:LMONitor:SCRoll
- (10):DISPlay:ANALysis:RECall:LMONitor:INTerval
- (11):DISPlay:ANALysis:RECall:LMONitor:VPI
- (12):DISPlay:ANALysis:RECall:LMONitor:NUMBer
- (13):DISPlay:ANALysis:RECall:LMONitor:PRINt
- (14):DISPlay:ANALysis:RECall:LMONitor:PTYPe
- (15):DISPlay:ANALysis:RECall:LMONitor:TITLe
- (16):DISPlay:ANALysis:RECall:TRAFfic:SCRoll
- (17):DISPlay:ANALysis:RECall:TRAFfic:MARKer
- (18):DISPlay:ANALysis:RECall:TRAFfic:DATA?
- (19):DISPlay:ANALysis:RECall:TRAFfic:INTerval
- (20):DISPlay:ANALysis:RECall:TRAFfic:MDISplay

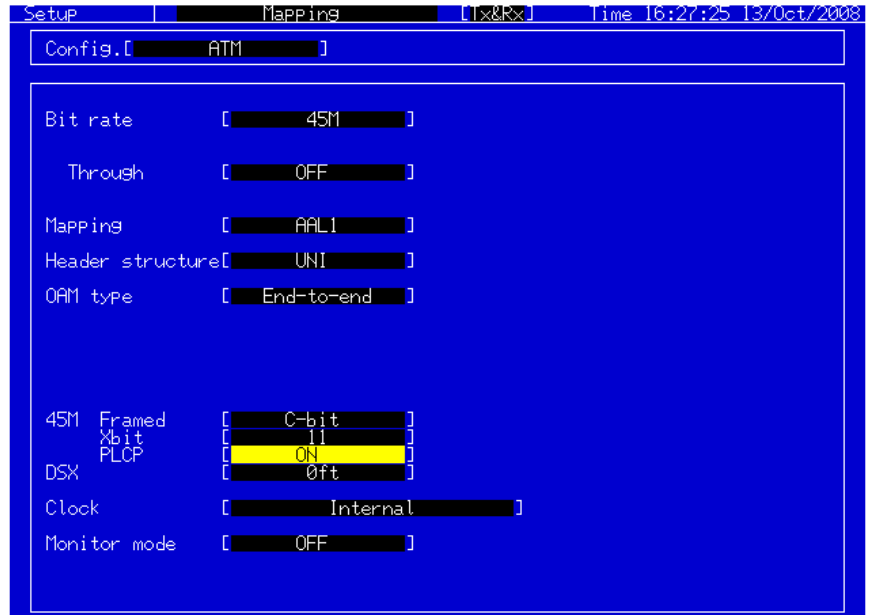


- (21):DISPlay:ANALysis:RECall:TRAFfic:FROM
- (22):DISPlay:ANALysis:RECall:TRAFfic:SCALe
- (23):DISPlay:ANALysis:RECall:TRAFfic:PRINt
- (24):DISPlay:ANALysis:RECall:TRAFfic:TITLe
- (25):DISPlay:ANALysis:RECall:CAPTure:JUMP:TYPE
- (26):DISPlay:ANALysis:RECall:CAPTure:JUMP:LINE
- (27):DISPlay:ANALysis:RECall:CAPTure:SCRoll
- (28):DISPlay:ANALysis:RECall:CAPTure:PTYPE
- (29):DISPlay:ANALysis:RECall:CAPTure:PRINt
- (30):DISPlay:ANALysis:RECall:CAPTure:TITLe
- (31):DISPlay:ANALysis:RECall:CDV1:SCRoll
- (32):DISPlay:ANALysis:RECall:CDV1:TYPE
- (33):DISPlay:ANALysis:RECall:CDV1:MARKer
- (34):DISPlay:ANALysis:RECall:CDV1:PEAK
- (35):DISPlay:ANALysis:RECall:CDV1:ZOOM
- (36):DISPlay:ANALysis:RECall:CDV1:DATA?
- (37):DISPlay:ANALysis:RECall:CDV1:INTerval
- (38):DISPlay:ANALysis:RECall:CDV1:IUNit
- (39):DISPlay:ANALysis:RECall:CDV1:MDISplay
- (40):DISPlay:ANALysis:RECall:CDV1:SCALe
- (41):DISPlay:ANALysis:RECall:CDV1:CELL
- (42):DISPlay:ANALysis:RECall:CDV1:US
- (43):DISPlay:ANALysis:RECall:CDV1:PRINt
- (44):DISPlay:ANALysis:RECall:CDV1:TITLe
- (45):DISPlay:ANALysis:RECall:CDV2:SCRoll
- (46):DISPlay:ANALysis:RECall:CDV2:TYPE
- (47):DISPlay:ANALysis:RECall:CDV2:MARKer
- (48):DISPlay:ANALysis:RECall:CDV2:PEAK
- (49):DISPlay:ANALysis:RECall:CDV2:ZOOM

- (50):DISPlay:ANALysis:RECall:CDV2:DATA?
- (51):DISPlay:ANALysis:RECall:CDV2:INTerval
- (52):DISPlay:ANALysis:RECall:CDV2:IUNit
- (53):DISPlay:ANALysis:RECall:CDV2:MDISplay
- (54):DISPlay:ANALysis:RECall:CDV2:SCALE
- (55):DISPlay:ANALysis:RECall:CDV2:CELL
- (56):DISPlay:ANALysis:RECall:CDV2:US
- (57):DISPlay:ANALysis:RECall:CDV2:PRINt
- (58):DISPlay:ANALysis:RECall:CDV2:TITLe
- (59)Result display
  - :DISPlay:ANALysis:RECall:TGRaph:DATA?

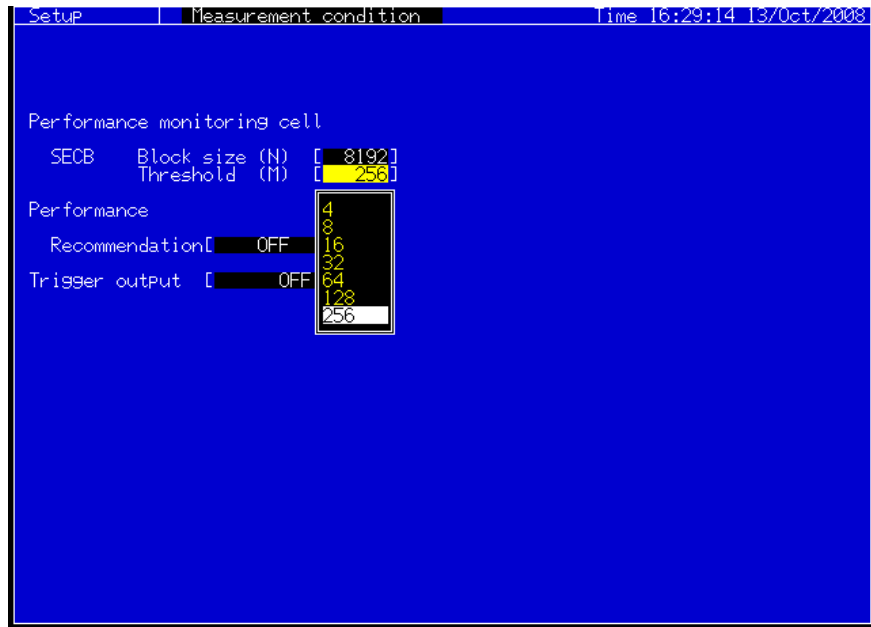
## E.4 Command Correspondence of the Setup Main screen

## E.4.1 Mapping sub-screen



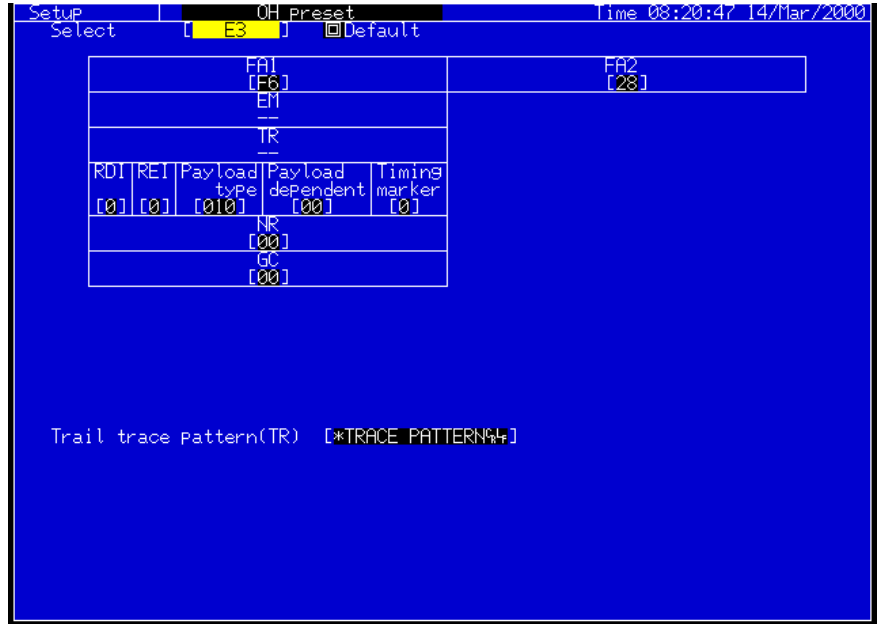
- (1):SOURCE:ATM:MAPPING
- (2):SOURCE:ATM:HSTRUCTURE
- (3):SENSE:ATM:MAPPING
- (4):SENSE:ATM:HSTRUCTURE
- (5):SENSE:ATM:OAM
- (6):DISPLAY:SETUP[:NAME]
- (7):CALCULATE:TELECOM:ATM:THRESHOLD:SECB:N
- (8):CALCULATE:TELECOM:ATM:THRESHOLD:SECB:M
- (9):SOURCE:TELECOM:OAM
- (10):SOURCE:TELECOM:M45:PLCP
- (11):SENSE:TELECOM:M45:PLCP

### E.4.2 Measurement condition sub-screen



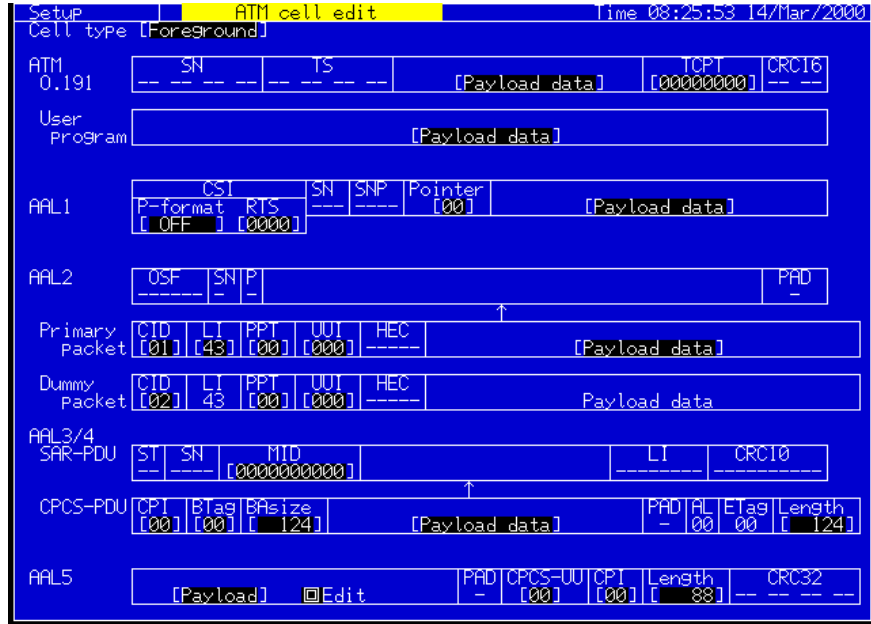
- (1) CALCulate:TELEcom:ATM:THReshold:FSIZE <numeric>
- (2) CALCulate:TELEcom:ATM:THReshold:SB:N <numeric>
- (3) CALCulate:TELEcom:ATM:THReshold:SB:M <numeric>
- (4) CALCulate:TELEcom:PERFormance:TYPE <perform>
- (5) SYSTem:TRIGgerout <trg>

E.4.3 OH Preset sub-screen



- (1):SOURCE:ATM:OHPReset:E3:PTTern
- (2):SOURCE:ATM:OHPReset:E3:PTYPE
- (3):SOURCE:ATM:OHPReset:E3:TRACe
- (4):SOURCE:ATM:OHPReset:E3:DEFault
- (5):SOURCE:ATM:OHPReset:E4:PTTern
- (6):SOURCE:ATM:OHPReset:E4:PTYPE
- (7):SOURCE:ATM:OHPReset:E4:TRACe
- (8):SOURCE:ATM:OHPReset:E4:DEFault
- (9):SOURCE:ATM:OHPReset:DS3Plcp:PLCP
- (10):SOURCE:ATM:OHPReset:DS3Plcp:FRAME
- (11):SOURCE:ATM:OHPReset:DS3Plcp:POI
- (12):SOURCE:ATM:OHPReset:DS3Plcp:POH
- (13):SOURCE:ATM:OHPReset:DS3Plcp:TSEQUence
- (14):SOURCE:ATM:OHPReset:DS3Plcp:DEFault
- (15):SOURCE:ATM:OHPReset:DS3Plcp:
- (16):SOURCE:ATM:OHPReset:DS3Plcp:
- (17):SOURCE:ATM:OHPReset:DS3Plcp:
- (18):DISPlay:SETup[:NAME]
- (19):DISPlay:SETup:OHPReset[:NAME]

E.4.4 ATM Cell edit sub-screen



- (1):SOURCE:ATM:PATTERN:ATM:0191:PAYLOAD
- (2):SOURCE:ATM:PATTERN:ATM:0191:DEFAULT
- (3):SOURCE:ATM:PATTERN:ATM:0191:TCPT
- (4):SOURCE:ATM:PATTERN:ATM:USER:PAYLOAD
- (5):SOURCE:ATM:PATTERN:ATM:USER:DEFAULT
- (6):SOURCE:ATM:PATTERN:AAL1:POINTER
- (7):SOURCE:ATM:PATTERN:AAL1:PAYLOAD
- (8):SOURCE:ATM:PATTERN:AAL1:DEFAULT
- (9):SOURCE:ATM:PATTERN:AAL1:PFORMAT
- (10):SOURCE:ATM:PATTERN:AAL1:RTS
- (11):SOURCE:ATM:PATTERN:AAL2:PCID
- (12):SOURCE:ATM:PATTERN:AAL2:LI
- (13):SOURCE:ATM:PATTERN:AAL2:PPPT
- (14):SOURCE:ATM:PATTERN:AAL2:PUUI
- (15):SOURCE:ATM:PATTERN:AAL2:PAYLOAD
- (16):SOURCE:ATM:PATTERN:AAL2:DCID
- (17):SOURCE:ATM:PATTERN:AAL2:PPT
- (18):SOURCE:ATM:PATTERN:AAL2:DUUI
- (19):SOURCE:ATM:PATTERN:AAL2:DEFAULT
- (20):SOURCE:ATM:PATTERN:AAL34:MID

- (21):SOURce:ATM:PATtern:AAL34:CPI
- (22):SOURce:ATM:PATtern:AAL34:BTAG
- (23):SOURce:ATM:PATtern:AAL34:BASize
- (24):SOURce:ATM:PATtern:AAL34:LENGth
- (25):SOURce:ATM:PATtern:AAL5:LENGth
- (26):SOURce:ATM:PATtern:AAL5:UU
- (27):SOURce:ATM:PATtern:AAL5:CPI
- (28):SOURce:ATM:PATtern:PAYload:PATtern
- (29):SOURce:ATM:PATtern:PAYload:DEFault
- (30):SOURce:ATM:PATtern:AIS:FSField
- (31):SOURce:ATM:PATtern:AIS:DEFault
- (32):SOURce:ATM:PATtern:AIS:REServe
- (33):SOURce:ATM:PATtern:RDI:FSField
- (34):SOURce:ATM:PATtern:RDI:DEFault
- (35):SOURce:ATM:PATtern:RDI:REServe
- (36):SOURce:ATM:PATtern:USER:OAM
- (37):SOURce:ATM:PATtern:USER:FUNcToin
- (38):SOURce:ATM:PATtern:USER:FSField
- (39):SOURce:ATM:PATtern:USER:DEFault
- (40):SOURce:ATM:PATtern:USER:REServe
- (41):SOURce:ATM:PATtern:CC:FSField
- (42):SOURce:ATM:PATtern:CC:REServe
- (43):SOURce:ATM:PATtern:CC:DEFault
- (44):SOURce:ATM:PATtern:LOOPback:FSField:INDication
- (45):SOURce:ATM:PATtern:LOOPback:FSField:CTAG
- (46):SOURce:ATM:PATtern:LOOPback:FSField:LOCation
- (47):SOURce:ATM:PATtern:LOOPback:FSField:SOURce
- (48):SOURce:ATM:PATtern:LOOPback:FSField:UNUSed
- (49):SOURce:ATM:PATtern:LOOPback:FSField:DEFault
- (50):SOURce:ATM:PATtern:LOOPback:REServe

(51):SOURCE:ATM:PATTERN:FM:FSField:TSTP  
(52):SOURCE:ATM:PATTERN:FM:FSField:UNISed1  
(53):SOURCE:ATM:PATTERN:FM:FSField:DEFault  
(54):SOURCE:ATM:PATTERN:FM:REServe  
(55):SOURCE:ATM:PATTERN:BR:FSField:UNUSed1  
(56):SOURCE:ATM:PATTERN:BR:FSField:TUCO1  
(57):SOURCE:ATM:PATTERN:BR:FSField:TUCO  
(58):SOURCE:ATM:PATTERN:BR:FSField:TSTP  
(59):SOURCE:ATM:PATTERN:BR:FSField:UNUSed2  
(60):SOURCE:ATM:PATTERN:BR:FSField:DEFault  
(61):SOURCE:ATM:PATTERN:BR:REServe  
(62):SOURCE:ATM:PATTERN:BGRound:HAERDer  
(63):SOURCE:ATM:PATTERN:BGRound:PAYLoad  
(64):SOURCE:ATM:PATTERN:BGRound:CRC10  
(65):SOURCE:ATM:PATTERN:BGRound:DEFault  
(66):SOURCE:ATM:PATTERN:MEMorized:HEADer  
(67):SOURCE:ATM:PATTERN:MEMorized:PAYLoad  
(68):SOURCE:ATM:PATTERN:MEMorized:CRC10  
(69):SOURCE:ATM:PATTERN:MEMorized:DEFault  
(70):SOURCE:ATM:PATTERN:MEMorized:EDIT:PASTe  
(71):SOURCE:ATM:PATTERN:MEMorized:EDIT:CUT  
(72):SOURCE:ATM:PATTERN:MEMorized:EDIT:COPI  
(73):SOURCE:ATM:PATTERN:MEMorized:EDIT:INSert  
(74):SOURCE:ATM:PATTERN:MEMorized:CAPTur  
(75):DISPlay:SETup[:NAME]  
(76):DISPlay:SETup:CELL[:NAME]  
(77):DISPlay:SETup:CELL:MOMorized:SCRoll  
(78):DISPlay:SETup:CELL:MOMorized:DSTsrt  
(79):DISPlay:SETup:CELL:MOMorized:PRINT



E.5 Command Correspondence of the Front Panel and Other Commands

|                  |                                                                              |                                                                      |
|------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Front panel keys | Start/Stop key                                                               |                                                                      |
|                  | Measurement                                                                  | :SENSE:MEASURE:START<br>:SENSE:MEASURE:STOP<br>:SENSE:MEASURE:STATE? |
|                  | Self-test                                                                    | :TEST:START<br>:TEST:STOP<br>:TEST:STATE?                            |
|                  | Print key                                                                    | :SYSTEM:PRINT:ENABLE                                                 |
|                  | Print Now key                                                                | :SYSTEM:PRINT:COPY                                                   |
|                  | Paper Feed key                                                               | :SYSTEM:PRINT:FEED                                                   |
|                  | History key                                                                  | :SYSTEM:LED:HISTORY                                                  |
|                  | History Reset key                                                            | :SYSTEM:LED:RESET                                                    |
| Others commands  | :SYSTEM:PRINT:TEXT<br>:SYSTEM:ERROR?<br>:SYSTEM:VERSION?<br>STARus Subsystem |                                                                      |

