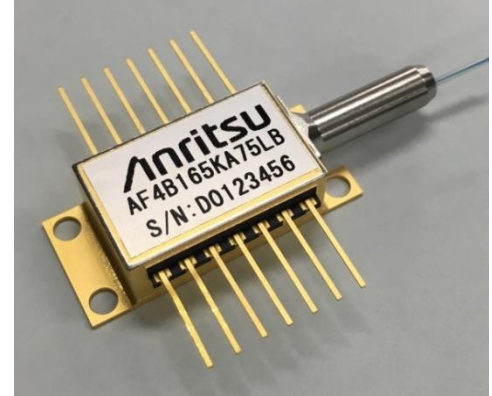


# 1.48 $\mu$ m LD Module AF4B Series type E

AF4B SERIES type E is 1.48 $\mu$ m high power laser diode modules designed for Er doped fiber amplifier. The laser is packaged in a 14 pin butterfly package with optical isolator, monitor photodiode and thermos-electric cooler (TEC).

## FEATURES

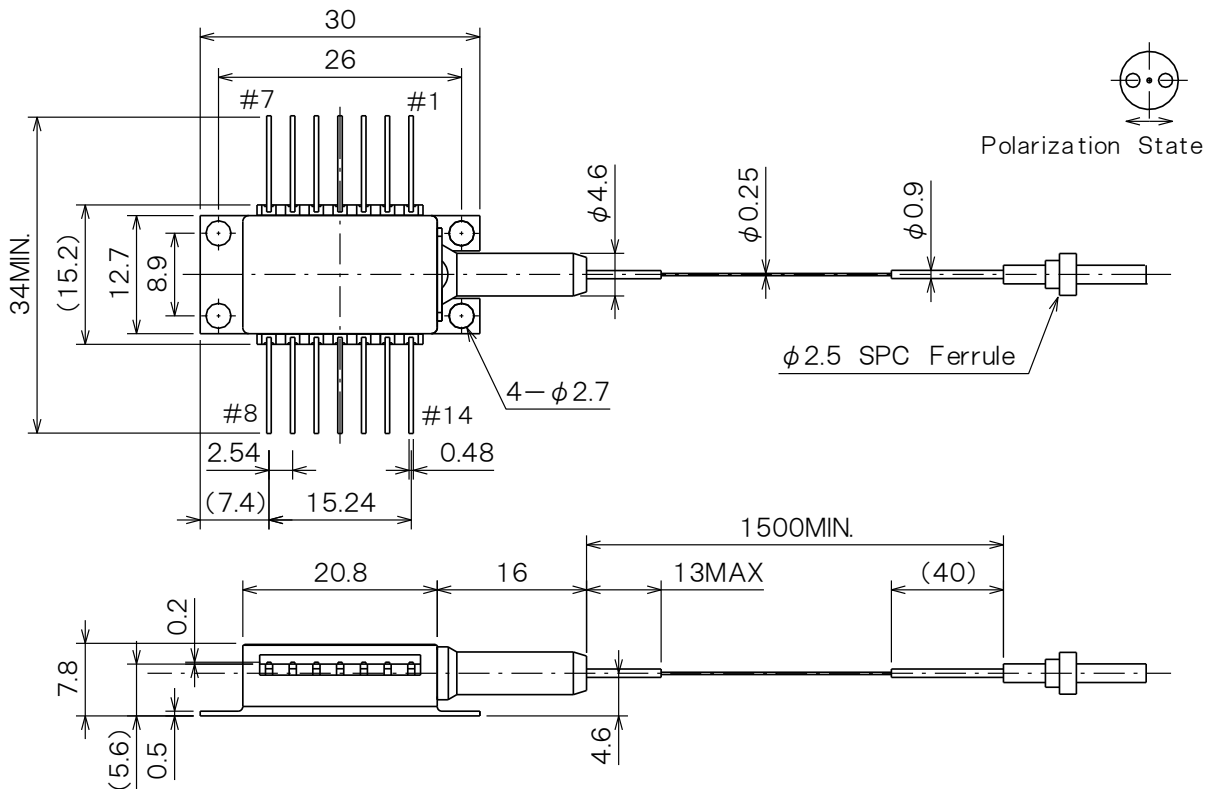
- Optical Output:
  - AF4B155KA / KD75LB: 550mW
  - AF4B160KA / KD75LB: 600mW
  - AF4B165KA / KD75LB: 650mW
- Fiber (UV coating fiber:  $\phi$  0.25mm)
- 14 pin butterfly Package
- Built-in optical Isolator, Monitor photodiode and Thermoelectric cooler
- LD operating temperature: 35°C



## APPLICATION

- Er doped Fiber Amplifier
- Optical power supply

## DIMENSIONS (unit: mm)

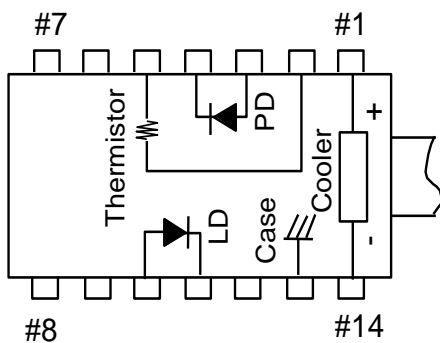


## ■ ABSOLUTE MAXIMUM RATINGS / PIN CONFIGURATION

\*EXCESS OVER THE ABSOLUTE MAXIMUM RATINGS MAY CAUSE DEVICE FAILURE.

Item	Symbol	Ratings	Unit
LD Forward Current	$I_F$	2800	mA
LD Reverse Voltage	$V_R$	2	V
PD Forward Current	$I_{FD}$	10	mA
PD Reverse Voltage	$V_{RD}$	20	V
Operating Case temperature	$T_C$	-5 to +70	°C
Storage Temperature	$T_{stg}$	-40 to +85	°C
Cooler Current	$I_C$	5.8	A

No.	FUNCTION	No.	FUNCTION
1	Cooler anode	8	NC
2	Thermistor	9	NC
3	PD anode	10	LD anode
4	PD cathode	11	LD cathode
5	Thermistor	12	NC
6	NC	13	Case
7	NC	14	Cooler cathode



TOP VIEW

## ■ OPTICAL AND ELECTRICAL CHARACTERISTICS ( $T_{LD}=35^{\circ}\text{C}$ , $T_C=25^{\circ}\text{C}$ )

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Threshold Current	$I_{th}$	-	-	-	250	mA
Center Wavelength	$\lambda_c$	at Rated Power, RMS (-20dB)	1460	1475	1490	nm
Spectral width	$\Delta\lambda$	at Rated Power, -20dB	-	5	10	nm
Monitor Current	$I_m$	at Rated Power	300	-	3000	$\mu\text{A}$
PD Dark Current	$I_d$	$V_{RD}=5\text{V}$	-	-	0.1	$\mu\text{A}$
Tracking Error	$\Delta P_f$	$I_m=\text{const.}, T_C=-5\sim 70^{\circ}\text{C}$	-	-	0.5	dB
Isolation	$R_O$	$T_{LD}=35^{\circ}\text{C}$	-	30	-	dB
Extinction Ratio*	$X_p$	at Rated Power	17	-	-	dB
Thermistor Resistance	$R_{th}$	$T_{LD}=35^{\circ}\text{C}$	-	6.5	-	k $\Omega$
		$T_{LD}=25^{\circ}\text{C}$	-	10.0	-	

Note) \* : This specification is only specified for PMF model.

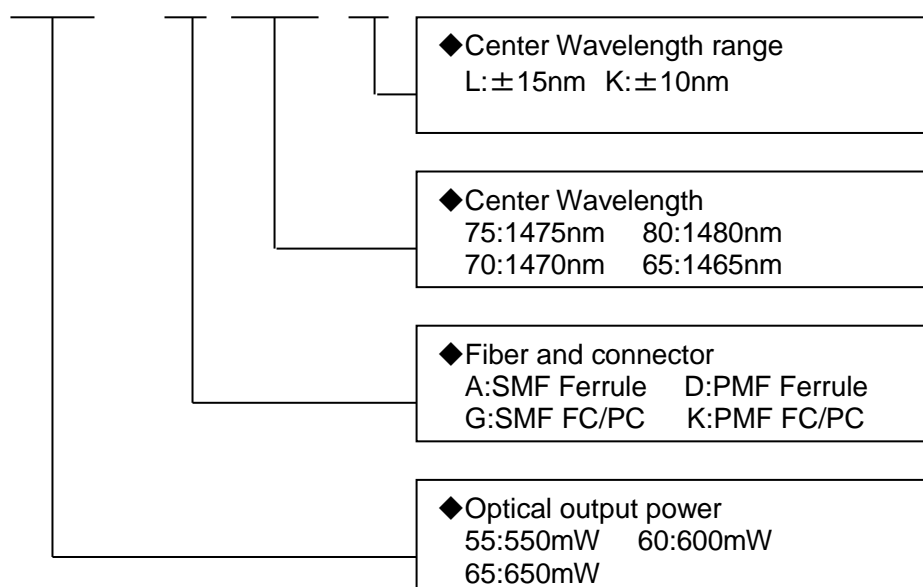
## ■ OPTICAL OUTPUT POWER / COOLER / POWER CONSUPTION

Item	Symbol	Test condition	Output Power			Unit
			550mW	600mW	650mW	
Forward Current	$I_F$	at Rated Power, BOL	1980	2170	2440	mA
Forward Voltage	$V_F$	at Rated Power, BOL	2	2.05	2.15	V
		at Rated Power, EOL*	2.24	2.3	2.41	V
Cooler Current	$I_C$	$T_C=70^{\circ}\text{C}$ , EOL*	2.3	2.6	2.9	A
Cooler Voltage	$V_C$	$T_C=70^{\circ}\text{C}$ , EOL*	2.85	3.15	3.45	V

Note) \* : EOL(End of life)=BOL (Begin of life)  $\times 1.12$

## ■ ORDERING INFORMATION

MODEL : A F 4 B 1 # # K # # # #





**CAUTION** : Handle the fiber of the enclosed device(s) with extreme care ; glass fiber is subject to breakage if mishandled and permanent damage to the device may result. Do not pull the device by the fiber or protective sleeve.  
Do not coil the fiber into a loop of than 30 mm in radius.

SEMICONDUCTOR LASER

**DANGER**

INVISIBLE LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION

**AVOID EXPOSURE**  
Invisible laser radiation is emitted from this aperture

OUTPUT POWER 800mW  
WAVELENGTH 0.80 to 1.80 μm  
CLASS IV LASER PRODUCT

Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.  
This Product Complies with 21 CFR 1040.10 and 1040.11  
Manufactured Anritsu Corp. 5-1-1 Onna, Atsugi-shi, Kanagawa, Japan

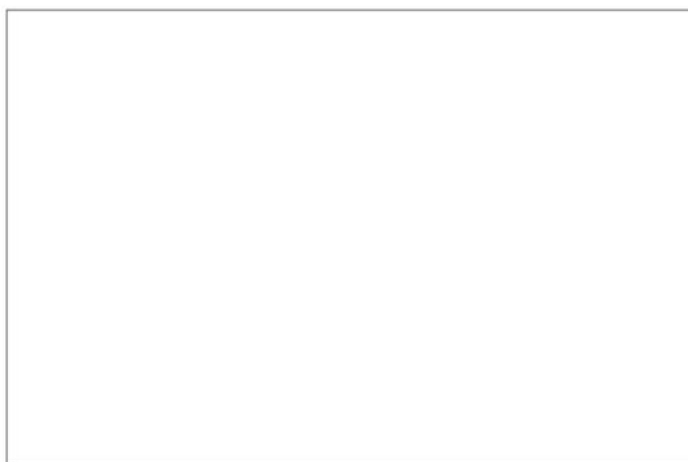
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DEVICES SALES DEPARTMENT**

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