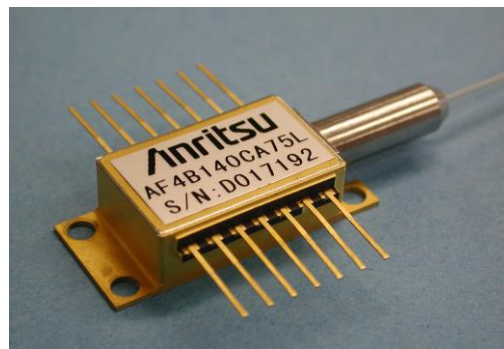


1.48 μ m LD Module **AF4B SERIES type C** output power 300mW ~ 400mW

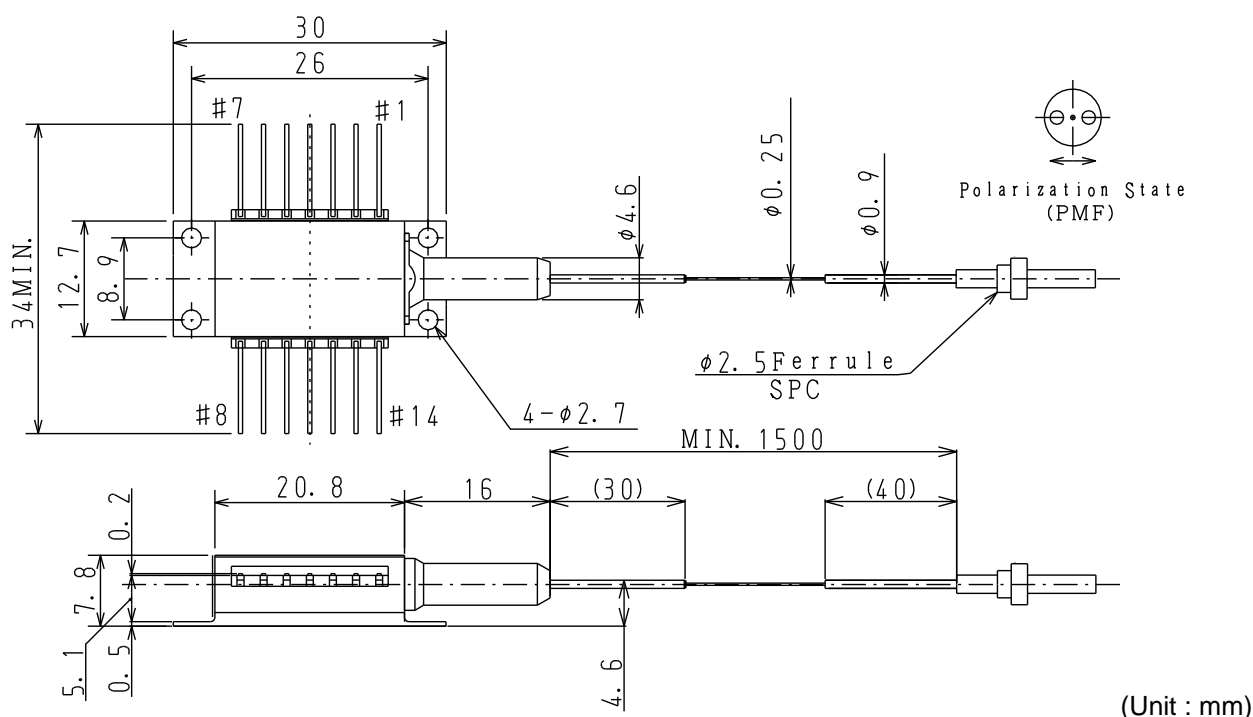
The AF4B SERIES type C is 1.48 μ m high power laser diode modules designed for Er doped fiber amplifier. The laser is packaged in a 14-pin butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

■ FEATURES

- ◆ Optical output :
 - 300mW ($I_F \leq 1100\text{mA}$) AF4B130CA75L / AF4B130CD75L
 - 350mW ($I_F \leq 1400\text{mA}$) AF4B135CA75L / AF4B135CD75L
 - 400mW ($I_F \leq 1400\text{mA}$) AF4B140CA75L / AF4B140CD75L
- ◆ Fiber
 - SMF output (UV coating fiber: $\phi 0.25\text{mm}$)
 - PMF output (UV coating fiber: $\phi 0.25\text{mm}$)
- ◆ 14pin butterfly package
- ◆ Built-in optical isolator
- ◆ Internal monitor PD and TEC
- ◆ Low power consumption



■ DIMENSIONS



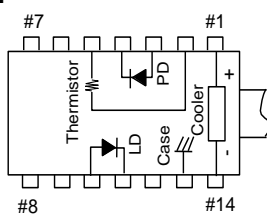
(Note) Polarization state of LD is aligned parallel to the slow axis.

■ ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating			unit
		AF4B130CA75L AF4B130CD75L	AF4B135CA75L AF4B135CD75L	AF4B140CA75L AF4B140CD75L	
LD Forward Current	IF	1500	1700		mA
LD Reverse Voltage	VR	2			V
PD Forward Current	IFD	10			mA
PD Reverse Voltage	VRD	20			V
Operating Case temperature	Tc	-20~+70			°C
Storage temperature	Tstg	-40~+85			°C
Cooler Current	Ic	5.8			A

* Excess over the absolute maximum ratings may lead to damage.

■ Top View



■ Pin Configuration

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

■ OPTICAL AND ELECTRICAL CHARACTERISTICS (T_{LD}=25°C, T_C=25°C)

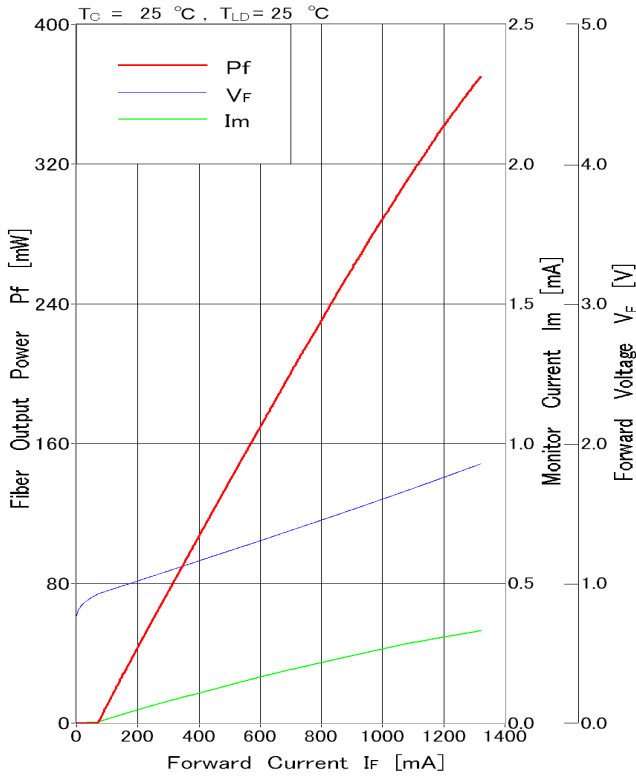
Item	Symbol	Test condition		AF4B130CA75L	AF4B135CA75L	AF4B140CA75L	Unit
				AF4B130CD75L	AF4B135CD75L	AF4B140CD75L	
Output power	Pf			300	350	400	mW
Forward Voltage	VF	At Output Power	Max.	2			V
			Typ.	100			mA
Threshold Current	Ith		Max.	150			
			Max.	150			
Forward Current (BOL)	IF	At Output Power	Max.	1100	1400		mA
Center Wavelength	λ _C	At Output Power	Min.	1460			nm
			Typ.	1475			
			Max.	1490			
Spectral width	Δλ	At Output Power RMS(-20dB)	Typ.	5			nm
			Max.	10			
Monitor Current	Im	At Output Power VRD=5V	Min.	100			μA
			Typ.	-			
			Max.	2000			
PD Dark Current	Id	VRD=5V	Max.	0.1			μA
Tracking Error	ΔPf	Im=const., Tc=-20~70°C	Max.	0.5			dB
Cooler Voltage	Vc	IF=EOL ^{*1} , Tc=70°C	Max.	2.9	3.1		V
Cooler Current	Ic	IF=EOL, Tc=70°C	Max.	2.7	3		A
Thermistor Resistance	Rth	TLD=25°C B=3900±100K	Min.	9.5			kΩ
			Typ.	10			
			Max.	10.5			
Optical Isolation	Ro	TLD=25°C	Typ.	30			dB
Extinction Ratio ^{*2}	Xp	At Output Power	Min.	17			dB

*1 : EOL (End of life) = BOL (Begin of life) × 1.2

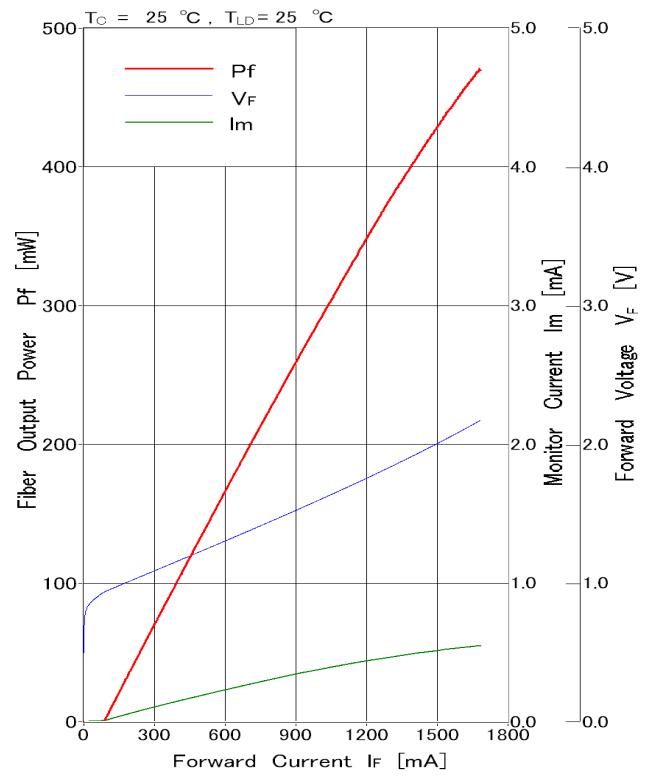
*2 : This specification is applied only with PMF (Polarization Maintain Fiber) models.

■ TYPICAL CHARACTERISTICS

- ◆ Fiber output power / Monitor Current / Voltage-Forward current characteristics / Emission spectrum

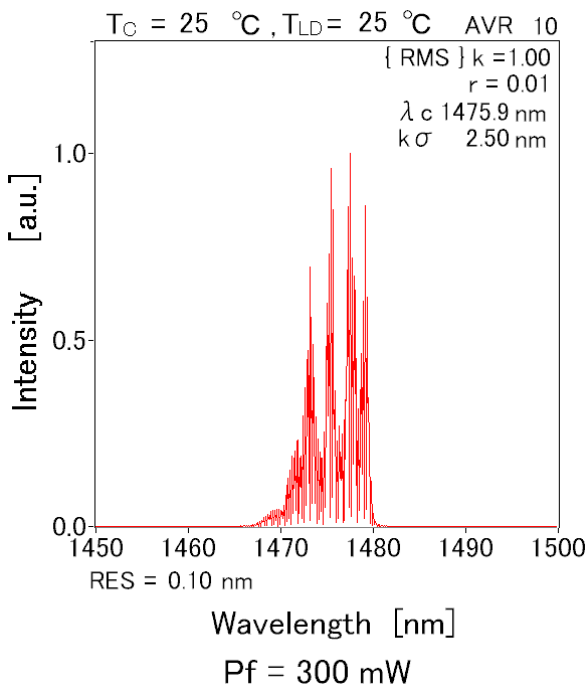


【AF4B140CA75L】

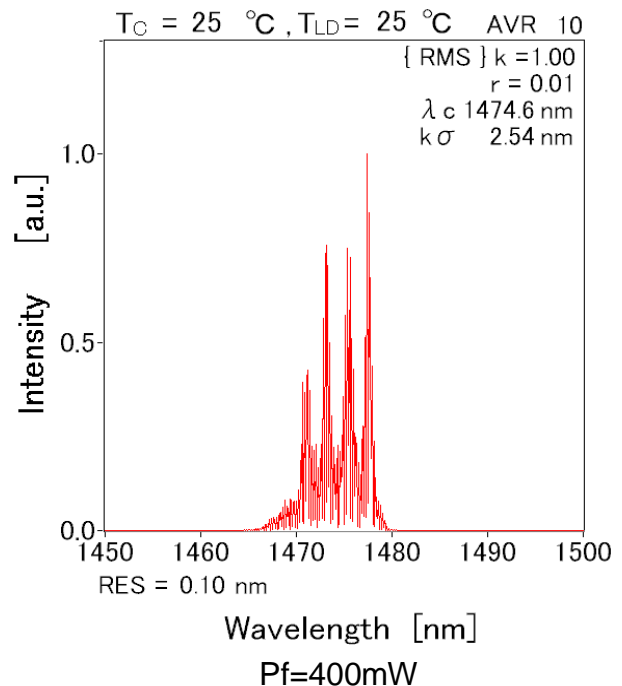


- ◆ EMISSION SPECTRUM

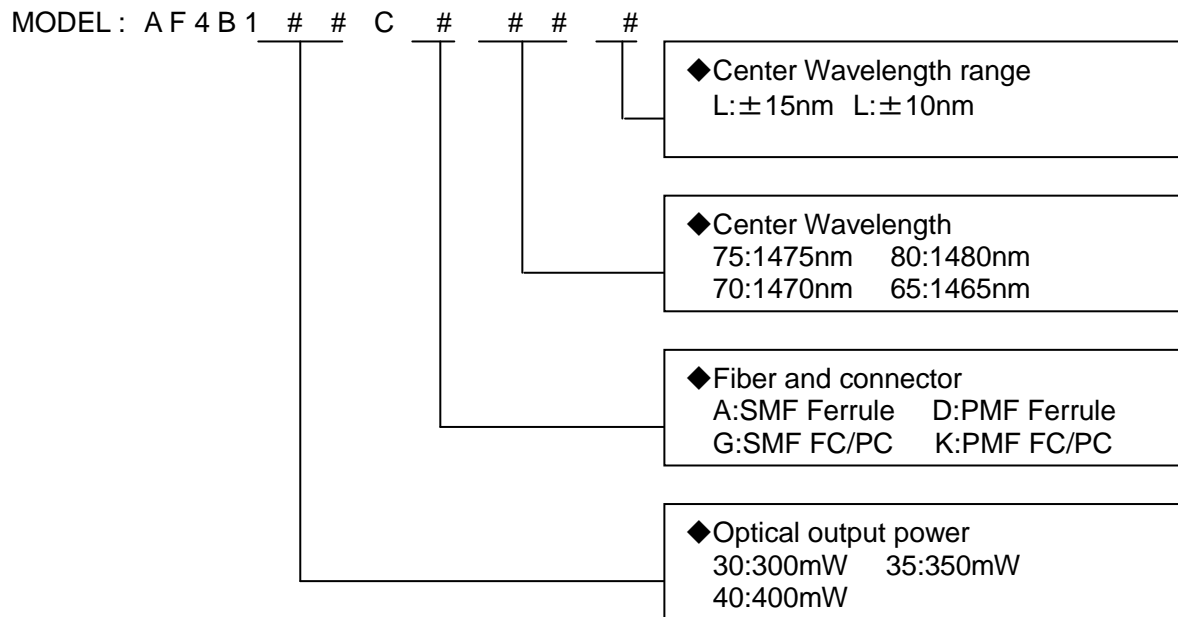
【AF4B130CA75L】



【AF4B140CA75L】



■ ORDERING INFORMATION





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.

<p>SEMICONDUCTOR LASER</p>	<p>INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION</p> <p>OUTPUT POWER 800mW WAVELENGTH 0.80 to 1.80 μm CLASS IV LASER PRODUCT</p>
<p>AVOID EXPOSURE Invisible laser radiation is emitted from this aperture</p>	
<p>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</p>	

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