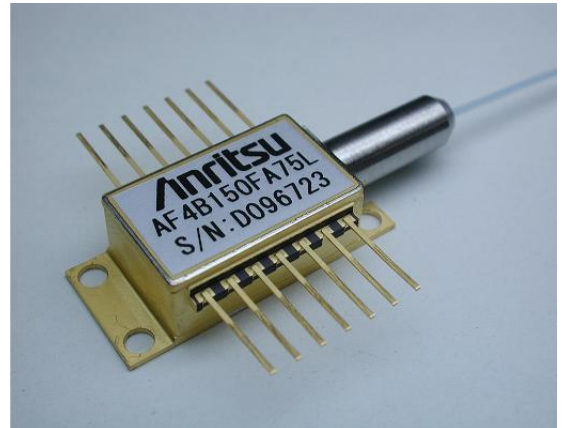


1.48 μ m LD Module AF4B SERIES type D Optical output power 420mW ~ 500mW

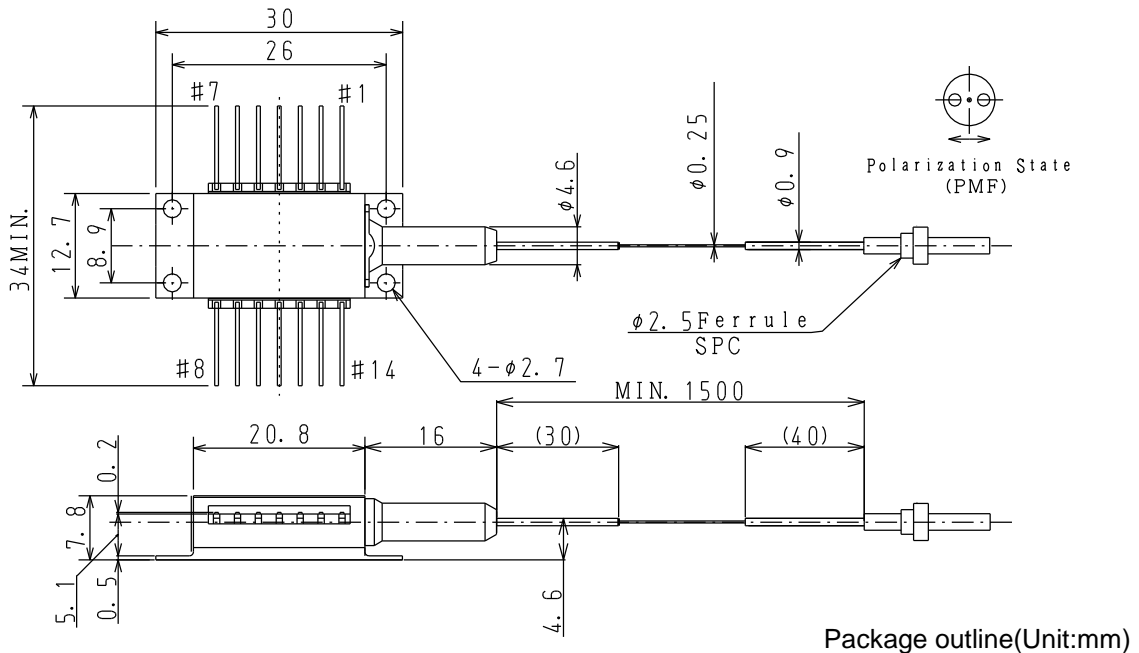
The AF4B SERIES type D is 1.48 μ m high power laser diode modules designed for Er doped fiber amplifier. The laser is packaged in a 14-pin standard butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

FEATURES

- ◆ Optical output :
 - 420mW ($I_F \leq 1600$ mA) AF4B142FA75L / AF4B142FD75L
 - 460mW ($I_F \leq 1700$ mA) AF4B146FA75L / AF4B146FD75L
 - 500mW ($I_F \leq 1800$ mA) AF4B150FA75L / AF4B150FD75L
- ◆ Fiber
 - SMF output (UV coating fiber: $\phi 0.25$ mm)
 - PMF output (UV coating fiber: $\phi 0.25$ mm)
- ◆ 14pin butterfly package
- ◆ Built-in optical isolator
- ◆ Internal monitor PD and TEC
- ◆ Low power consumption



DIMENSIONS



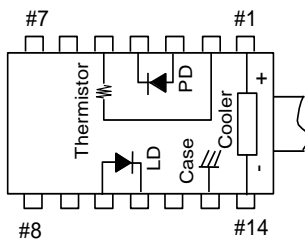
(Note) Polarization state of LD is aligned parallel to the slow axis.

■ ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Rating			unit
		AF4B142FA75L AF4B142FD75L	AF4B146FA75L AF4B146FD75L	AF4B150FA75L AF4B150FD75L	
LD Forward Current	IF	2200			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)

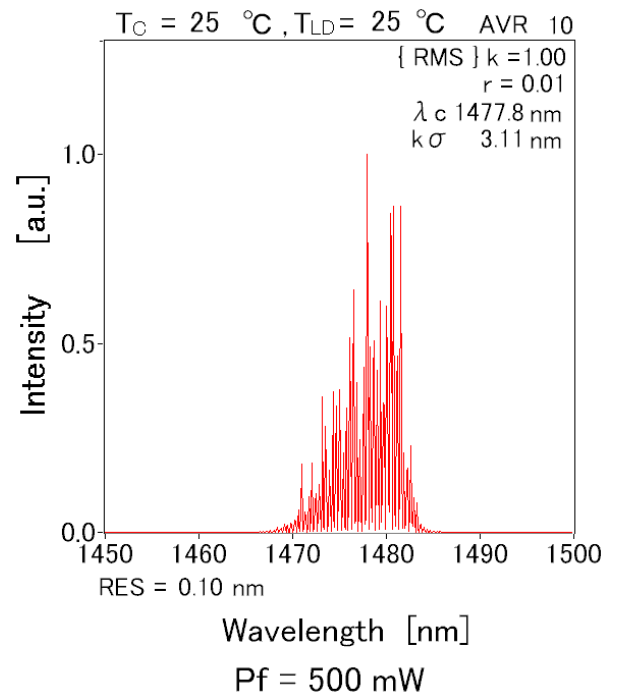
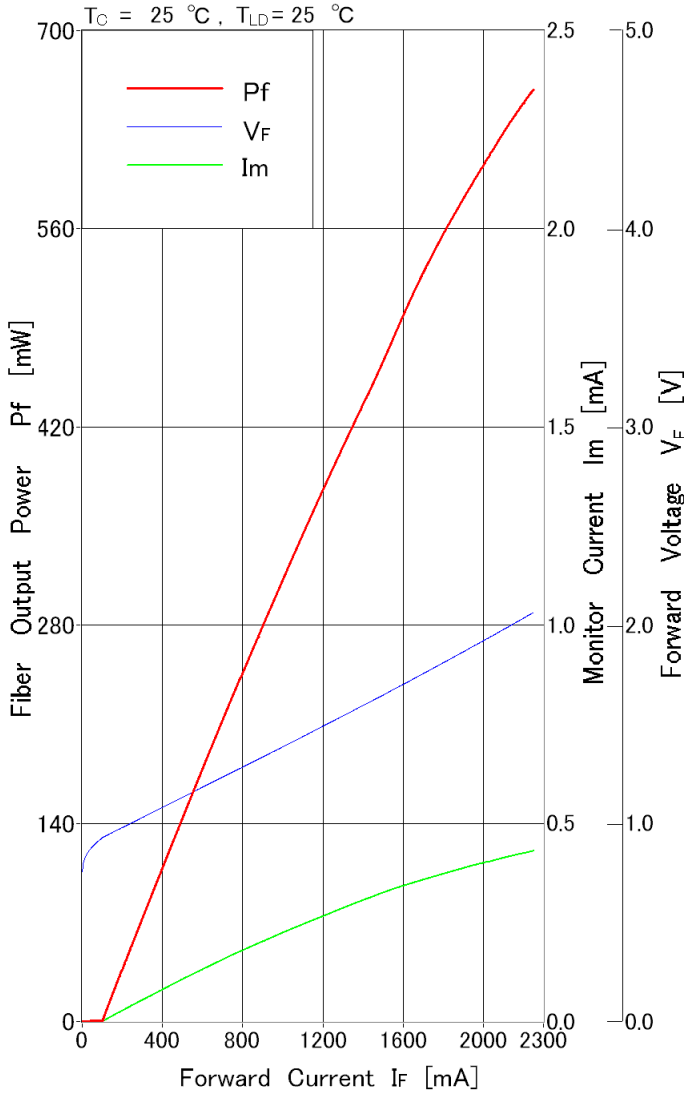
Item	Symbol	Test condition		AF4B142FA75L AF4B142FD75L	AF4B146FA75L AF4B146FD75L	AF4B150FA75L AF4B150FD75L	Unit
				Output power	Pf		
Forward Voltage	VF	At Output Power	Max.	2.2			V
Threshold Current	Ith		Max.	180			mA
Forward Current (BOL)	IF	At Output Power	Max.	1600	1700	1800	mA
Center Wavelength	λC	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, Tc=70°C	Max.	3.5	3.7	4.0	V
Cooler Current	Ic	IF=*EOL, Tc=70°C	Max.	3.1	3.2	3.5	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

*EOL = BOL × 1.2

*2 Only PMF

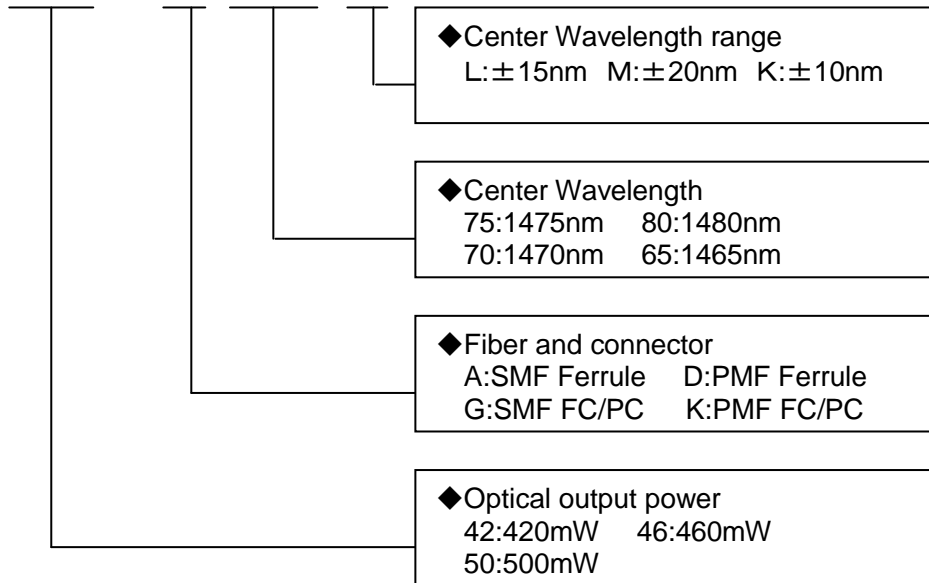
■ AF4B SERIES type D TYPICAL CHARACTERISTICS

- ◆ Fiber output power / Monitor Current / Voltage-Forward current characteristics / Emission spectrum
[AF4B150FA75L]



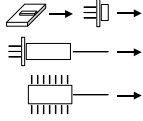
■ ORDERING INFORMATION

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



Anritsu Corporation reserves the right to change the design or specification of the product at any time without notice.

SEMICONDUCTOR LASER



AVOID EXPOSURE
Invisible laser radiation is emitted from this aperture



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

OUTPUT POWER 600mW
WAVELENGTH 1.40 to 1.50µ m
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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