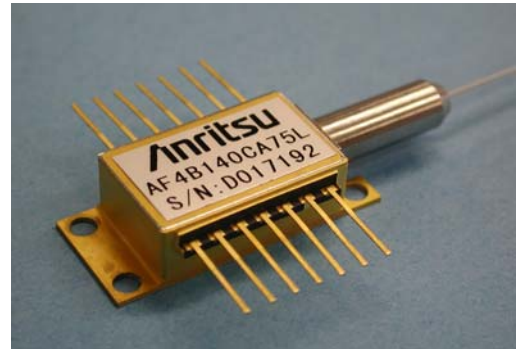


1.48 μ m LD Module AF4B SERIES type C Optical output power 300mW ~ 400mW

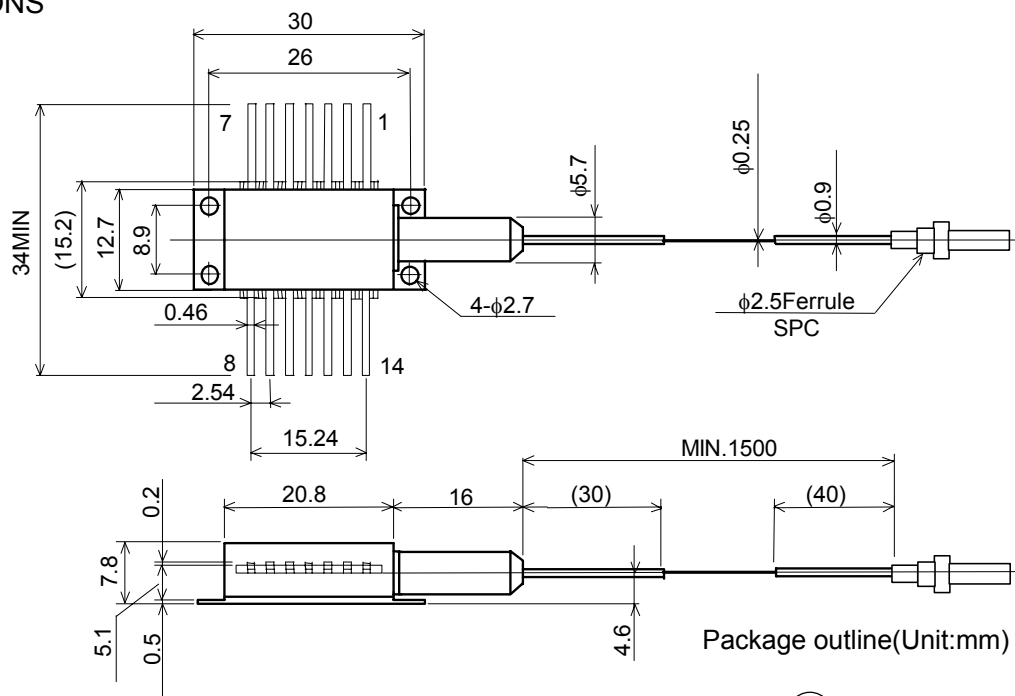
The AF4B SERIES type C is 1.48 μ m high power laser diode modules designed for Er doped fiber amplifier. The laser is packaged in a 14-pin butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

FEATURES

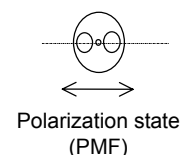
- ◆ Optical output :
 - 300mW ($I_F \leq 1100\text{mA}$) AF4B130CA75L / AF4B130CD75L
 - 350mW ($I_F \leq 1400\text{mA}$) AF4B135CA75L / AF4B135CD75L
 - 400mW ($I_F \leq 1400\text{mA}$) AF4B140CA75L / AF4B140CD75L
- ◆ Fiber
 - SMF output (UV coating fiber: $\phi 0.25\text{mm}$)
 - PMF output (UV coating 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.

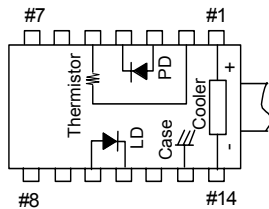


■ ABSOLUTE MAXIMUM RATINGS (T_{LD}=25°C)

Item	Symbol	Rating			unit
		AF4B130CA75L AF4B130CD75L	AF4B135CA75L AF4B135CD75L	AF4B140CA75L AF4B140CD75L	
LD Forward Current	I _F	1400	1700		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	-20~+70			°C
Storage temperature	T _{stg}	-40~+85			°C
Cooler Current	I _C	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

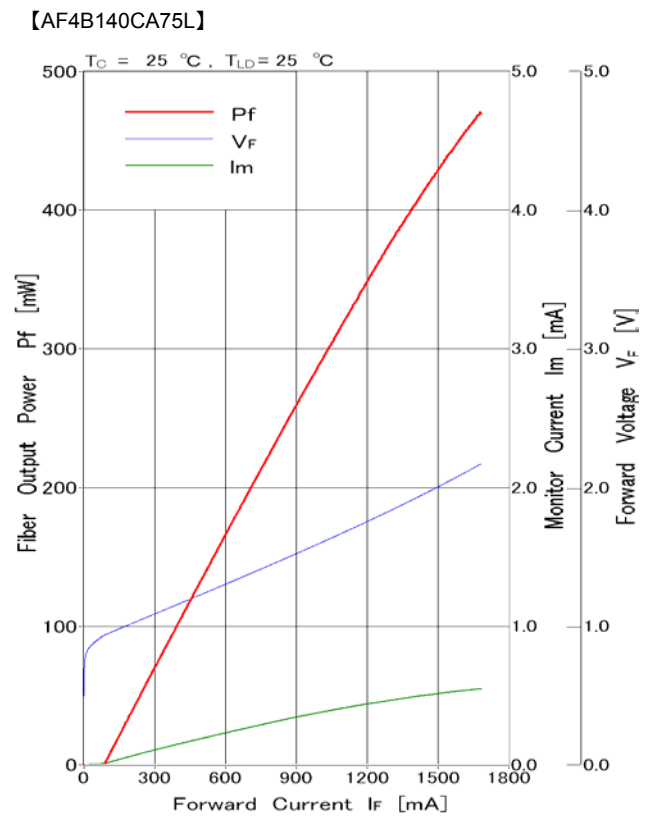
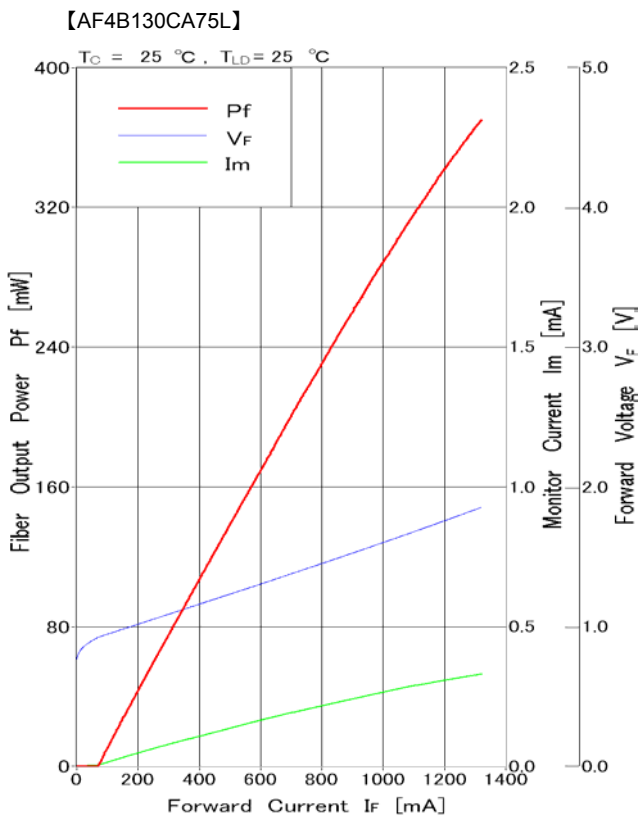
■ OPTICAL AND ELECTRICAL CHARACTERISTICS(T_{LD}=25°C, T_C=25°C)

Item	Symbol	Test condition		AF4B130CA75L AF4B130CD75L	AF4B135CA75L AF4B135CD75L	AF4B140CA75L AF4B140CD75L	Unit
				300	350	400	
Output power	P _f			300	350	400	mW
Forward Voltage	V _F	At Output Power	Max.	2			V
Threshold Current	I _{th}		Typ.	100			mA
			Max.	150			
Forward Current (BOL)	I _F	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	I _m	At Output Power V _{RD} =5V	Min.	100			μA
			Typ.	—			
			Max.	2000			
PD Dark Current	I _d	V _{RD} =5V	Max.	0.1			μA
Tracking Error	ΔP _f	I _m =const, T _c =-20~70°C	Max.	0.5			dB
Cooler Voltage	V _c	I _F =*EOL, T _c =70°C	Max.	2.9	3.1		V
Cooler Current	I _c	I _F =*EOL, T _c =70°C	Max.	2.7	3		A
Thermistor Resistance	R _{th}	T _{LD} =25°C B=3900±100K	Min.	9.5			KΩ
			Typ.	10			
			Max.	10.5			
Optical Isolation	R _o	T _{LD} =25°C	Typ.	30			dB

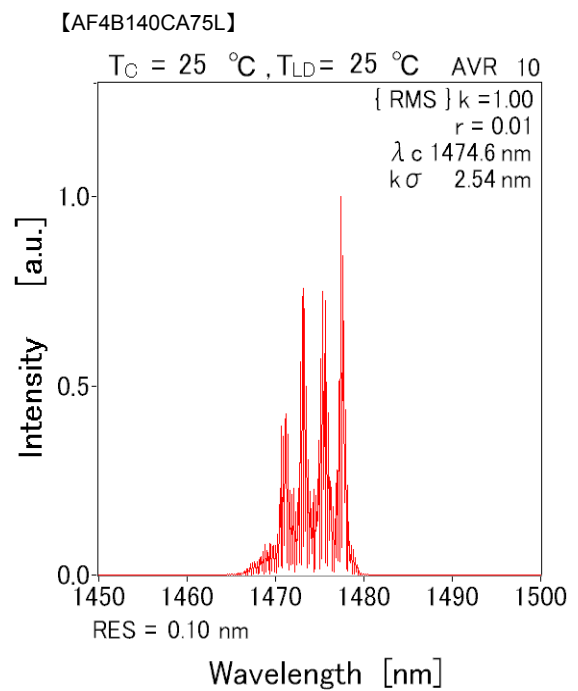
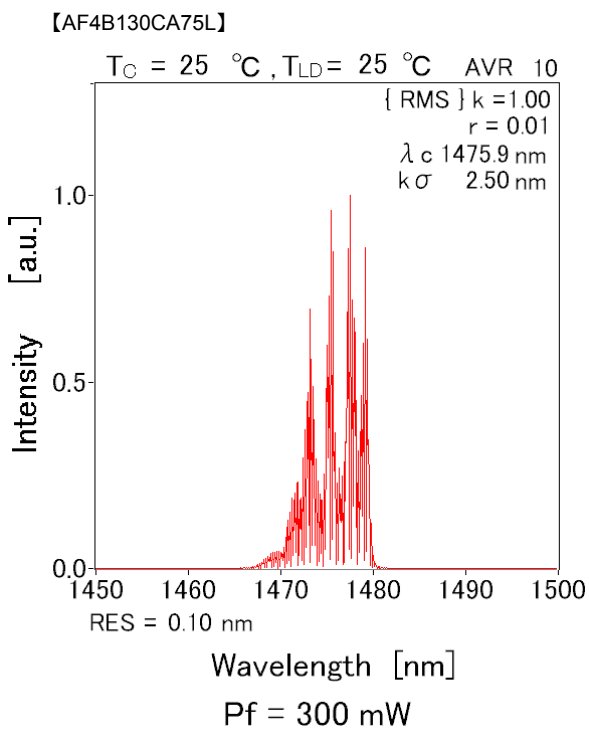
*EOL = BOL × 1.2

AF4B SERIES type C TYPICAL CHARACTERISTICS

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



◆EMISSION SPECTRUM



ORDERING INFORMATION

MODEL : AF4B1 # # C # # # #

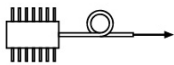
◆ Center Wavelength range
L:±15nm M:±20nm K:±10nm

◆ Center Wavelength
75:1475nm 80:1480nm
70:1470nm 65:1465nm

◆ Fiber and connector
A:SMF Ferrule D:PMF Ferrule
G:SMF FC/PC K:PMF FC/PC

◆ Optical output power
30:300mW 35:350mW
40:400mW

SEMICONDUCTOR LASER



AVOID EXPOSURE
Invisible laser radiation is emitted
from this aperture



INVISIBLE LASER RADIATION
AVOID DIRECT EXPOSURE TO BEAM
OUTPUT POWER 500mW
WAVELENGTH 1.40 to 1.50 μm
CLASS IIIb 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

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

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