

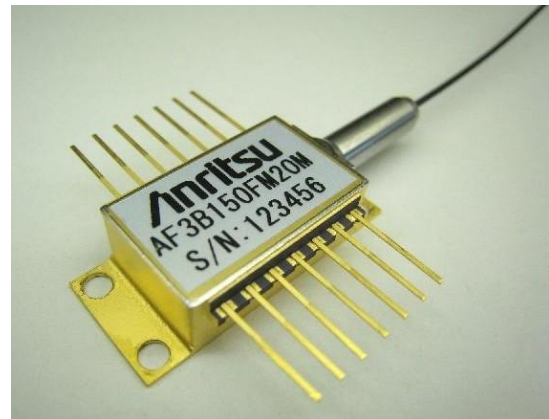
1.3 μ m LD Module AF3B150FM20M

Optical Output Power 500mW

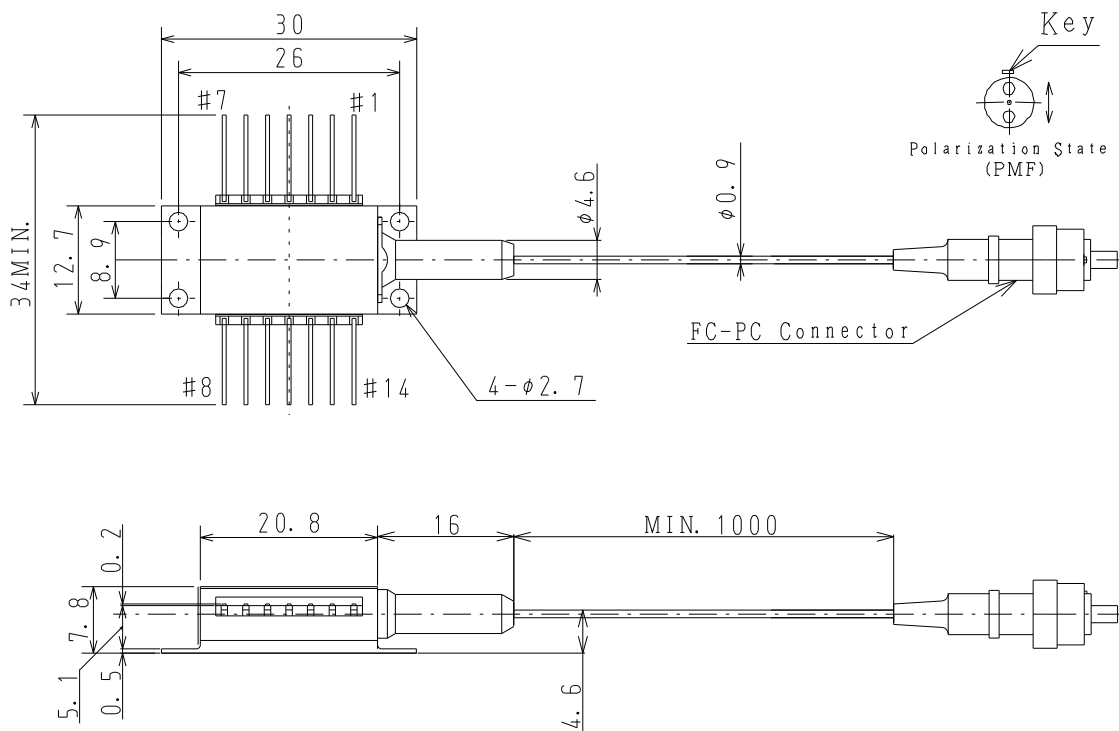
The AF3B150FM20M is 1.3 μ m laser diode module designed for optical measurement and communication. The laser is packaged in a 14-pin standard butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

FEATURES

- ◆ Optical output : 500mW ($I_F \leq 1800\text{mA}$)
- ◆ Wavelength : $1320 \pm 20\text{nm}$
- ◆ Fiber : Flame-retardant PMF ($\phi 0.9\text{mm}$)
- ◆ FC-PC connector
- ◆ 14-pin butterfly package
- ◆ Built-in optical isolator
- ◆ Internal monitor PD and TEC
- ◆ Low power consumption



DIMENSIONS

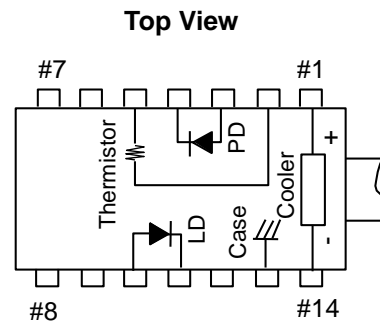


(Unit: mm)

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

■ 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



■ ABSOLUTE MAXIMUM RATINGS

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

Item	Symbol	Rating	unit
LD Forward Current	IF	2200	mA
LD Reverse Voltage	VR	2	V
Forward Current	IFD	10	mA
PD Reverse Voltage	VRD	20	V
Operating Case Temperature	TC	-20 to +70	°C
Storage Temperature	Tstg	-40 to +85	°C
Cooler Current	IC	5.8	A

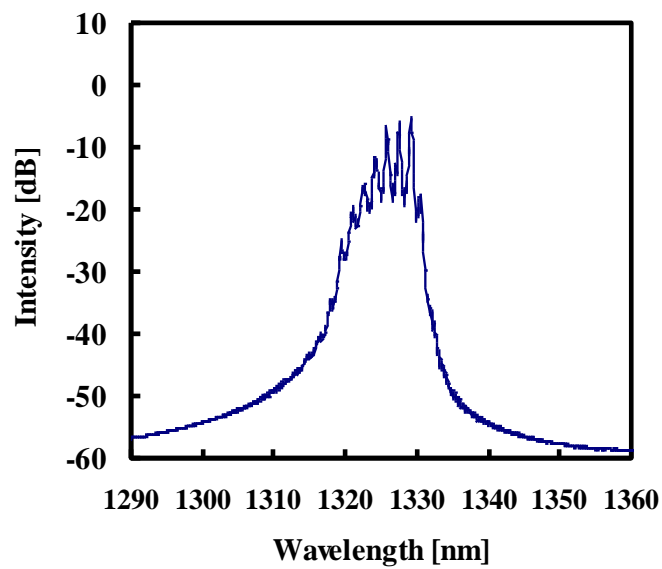
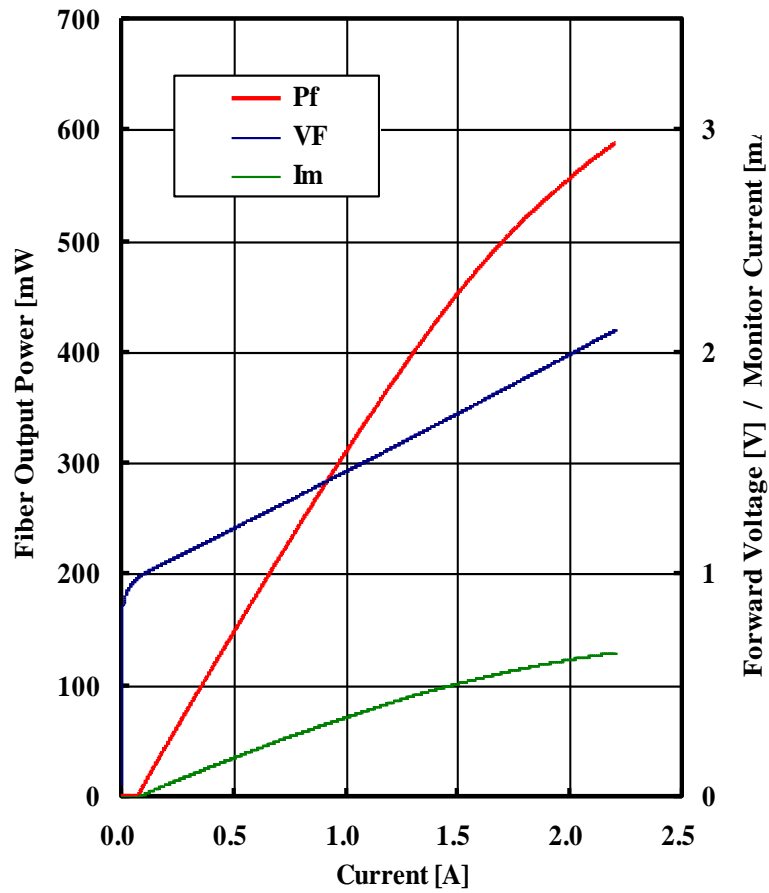
■ OPTICAL AND ELECTRICAL CHARACTERISTICS (TLD=25deg.C, TC=25deg.C)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Output Power	Pf				500	mW
Forward Voltage	VF	Pf = 500mW			2.3	V
Threshold Current	Ith				180	mA
Forward Current (BOL)	IF	Pf = 500mW			1800	mA
Center Wavelength	λ_c	Pf = 500mW, RMS(-20dB)	1300	1320	1340	nm
Spectral Width	$\Delta \lambda$	Pf = 500mW, RMS(-20dB)		5	10	nm
Monitor Current	Im	Pf = 500mW, VRD = 5V	100		2000	μ A
PD Dark Current	Id	VRD = 5V			0.1	μ A
Tracking Error	Δ PF	Im = const, TC = -20 to 70deg.C			0.5	dB
Cooler Voltage	VC	IF = EOL* ¹ , TC = 70deg.C			4.0	V
Cooler Current	IC	IF = EOL, TC = 70deg.C			3.5	A
Thermal Resistance	RTH	TLD = 25deg.C, B= 3900 \pm 100K	9.5	10.0	10.5	k Ω
Optical Isolation	Ro	TLD = 25deg.C		30		dB
Extinction Ratio	XP	Pf = 500mW	17			dB

Note) *¹: EOL (End of life) = BOL (Begin of Life) x 1.2

■ TYPICAL CHARACTERISTICS

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





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

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