

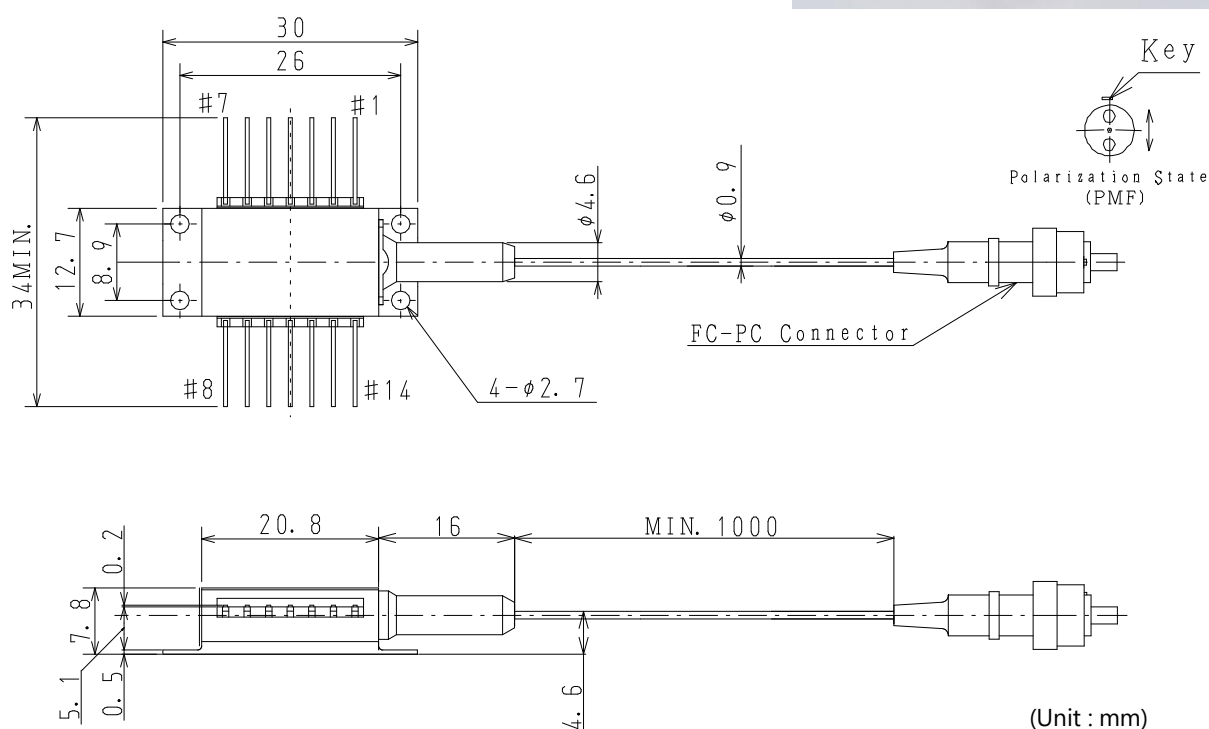
1.31 μm LD Module **AF3B310DM10L**

AF3B310DM10L is 1.31 μm high power laser diode modules designed for optical measurement and communication. The laser is packaged in a 14-pin butterfly package with optical isolator, monitor photodiode and thermo-electric cooler (TEC).

FEATURES

- Optical output : $\geq 100 \text{ mW}$ ($I_F = 500 \text{ mA}$)
- Fiber : PMF output ($\phi 0.9 \text{ mm}$)
- FC-PC connector
- 14-pin butterfly package
- Built-in optical isolator, Internal monitor PD and TEC

DIMENSIONS

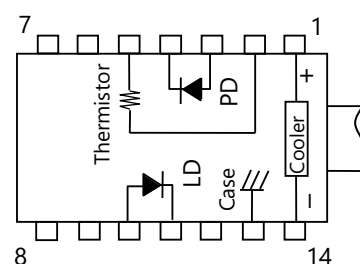


(Note) Polarization state of LD is aligned parallel to the slow axis.

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

TOP VIEW



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
LD Forward Current	I_F	900	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 to +70	°C
Storage Temperature	T_{stg}	-40 to +85	°C
Cooler Current	I_C	2	A

*Excess over the absolute maximum ratings may cause device failure.

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

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Power	P_f	$I_F = 500 \text{ mA}$	100	—	—	mW
Forward Voltage	V_F	$I_F = 500 \text{ mA}$	—	2.0	2.5	V
Threshold Current	I_{th}	—	—	30	60	mA
Center Wavelength	λ_C	$I_F = 500 \text{ mA}$, RMS (-20 dB)	1295	1310	1325	nm
Spectral Width	$\Delta\lambda$	$I_F = 500 \text{ mA}$, RMS (-20 dB)	—	4	8	nm
Monitor Current	I_m	$I_F = 500 \text{ mA}$, $V_{RD} = 5 \text{ V}$	100	400	—	μA
PD Dark Current	I_d	$V_{RD} = 5 \text{ V}$	—	—	0.1	μA
Tracking Error	ΔP_f	$I_m = \text{const.}$, $T_C = -20 \text{ to } 75^\circ\text{C}$	-0.5	—	0.5	dB
Cooler Voltage	V_C	$I_F = 600 \text{ mA}$, $T_C = 70^\circ\text{C}$	—	—	3.2	V
Cooler Current	I_C	$I_F = 600 \text{ mA}$, $T_C = 70^\circ\text{C}$	—	—	1.2	A
Thermistor Resistance	R_{th}	$T_{LD} = 25^\circ\text{C}$, $B = 3900 \pm 100 \text{ K}$	9.5	10.0	10.5	k Ω
Isolation	R_O	$T_{LD} = 25^\circ\text{C}$	—	30	—	dB
Extinction Ratio	X_P	$I_F = 500 \text{ mA}$	17	—	—	dB



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 AVOID EXPOSURE Invisible laser radiation is emitted from this aperture	DANGER INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION 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
--	---

ANRITSU CORPORATION

SENSING & DEVICES COMPANY SALES DEPT.

<https://www.anritsu.com/sensing-devices>

Tel +81 46 296 6783 Fax +81 46 225 8390
5-1-1 Onna, Atsugi-shi, Kanagawa
243-8555 Japan



Contact URL

<https://www.anritsu.com/en-gb/sensing-devices/contact-us>

Please read "Notes on Handling Optical Devices" before use.

<https://www.anritsu.com/sensing-devices/guide/optdevices-handling>



■ This product and its manuals may require an Export License / Approval by the Government of the product's country of origin for re-export from your country.
Before re-exporting the product or manuals, please contact us to confirm whether they are export-controlled items or not. When you dispose of export-controlled items, the products / manuals need to be broken / shredded so as not to be unlawfully used for military purpose.
■ Anritsu Corporation reserves the right to change the content of the catalog at any time without notice.