

1030nm DFB Laser Diode Module

1. Description:

The BFLD-1030-50SM-FA series 1030nm laser module utilizes a planar construction with chip on subcarrier. The high power chip is hermetically sealed in a epoxy-free and flux-free 14-pin butterfly package and fitted with a thermistor, thermoelectric cooler, and monitor diode. This module complies described in Telcordia GR-468-CORE requirement.

2. Features:

- Multi-Quantum well(MQW) Distributed feedback (DFB) lasers;
- CW or pulsed operation;
- Operating temperature range -40°C to $+50^{\circ}\text{C}$;
- Wavelength/temperature coefficient $0.01\text{nm}/^{\circ}\text{C}$;
- Built-in monitor photodiode, thermo-electric cooler and thermistor;
- Single mode fiber pigtail (Corning HI1060, NA=0.14, MFD=6.2um@1060nm);
- Optional FC/APC connector.

3. Applications:

- Spectroscopy;
- Telecom;
- Illumination;
- Sensing.

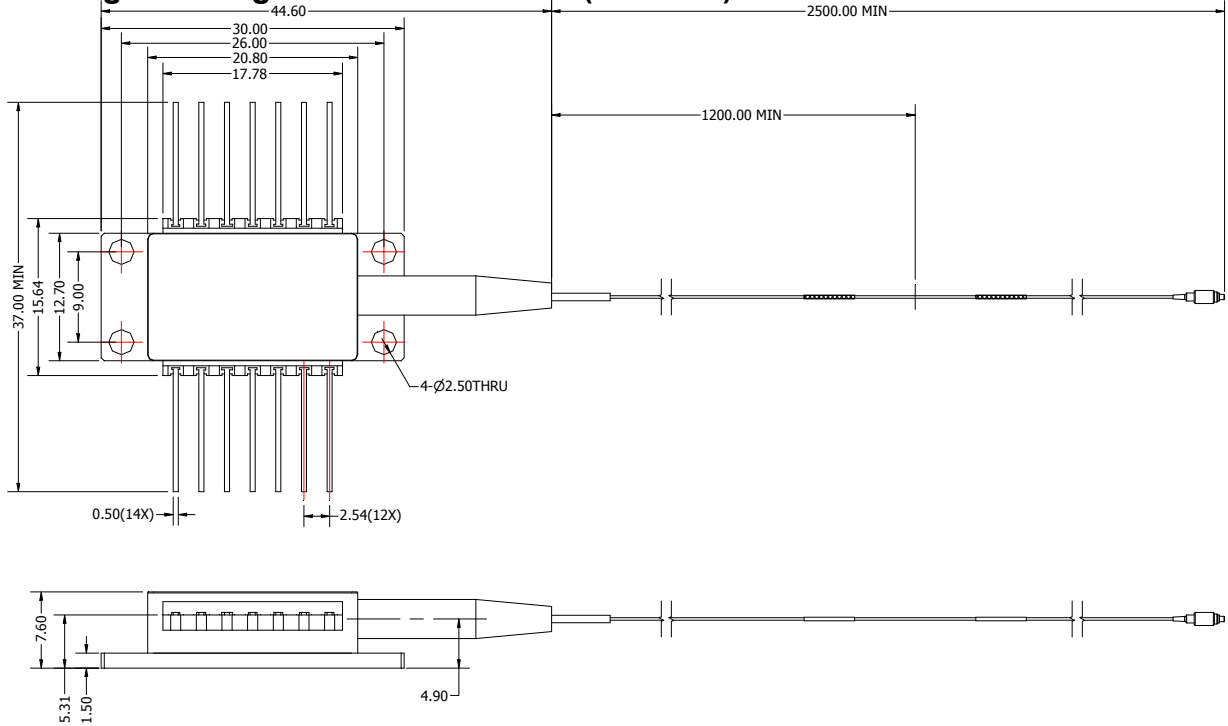
4. Electro-Optical Characteristics(25°C laser temperature):

Parameter	Symbol	Min	Typical	Max	Unit
Output power from pigtail	P_F	-	50		mW
Range of available wavelengths	λ_c	1028		1032	nm
Spectral width (FWHM)				3	MHz
Sidemode suppression ratio at P_f	SMSR	40	45		dB
Wavelength shift with current			3	5	pm/mA
Wavelength shift with temperature			0.08	0.1	nm/ $^{\circ}\text{C}$
Operating current	I_{OP}		200	300	mA
Threshold current	I_{TH}		30	50	mA
Forward voltage	V_F		2	2.3	V
Polarization extinction ratio	PER	15	20		dB
Thermoelectric cooler current	I_{TEC}			3	A
Thermoelectric cooler voltage	V_{TEC}			4	V
Chip operating temperature range	T_{OP}	15	25	40	$^{\circ}\text{C}$
Case operating temperature range	T_C	10	25	50	$^{\circ}\text{C}$
Storage temperature	T_S	5		80	$^{\circ}\text{C}$

5. Optical Fiber Specifications:

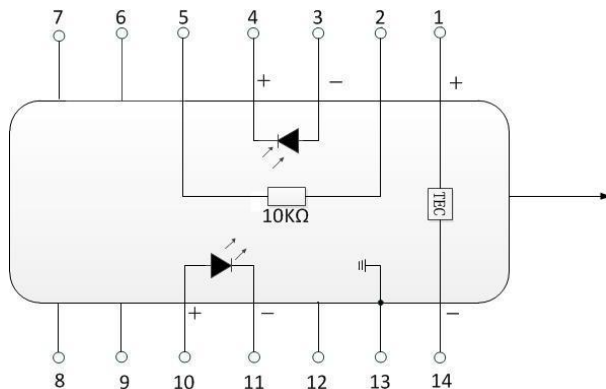
Parameters	Description
Fiber type	Hi1060 fiber or PM fiber
Pigtail type	Bare fiber
Pigtail length	1.5±0.1m
Connector type	Without

6. Package drawing&PIN-OUT Definition(Unit:mm):



DIMENSION: MM

GENERAL TOLERANCE: ± 0.1



PIN	Description	PIN	Description
1	TEC(+)	14	TEC(-)
2	Thermistor	13	Case Ground
3	PD Anode	12	NC
4	PD Cathode	11	LD Cathode
5	Thermistor	10	LD Anode
6	NC	9	NC
7	NC	8	NC