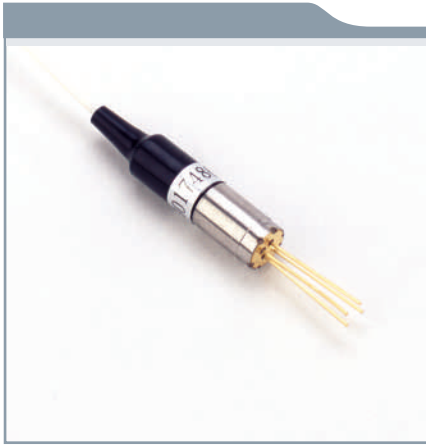


C-1470-DFB-RA-SFCX • C-1470-DFB-PA-SFCX



Features

- Uncooled laser diode with MQW structure
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Bellcore TA-NWT-000983
- Single frequency operation with high SMSR

Application

- Designed for CWDM fiber optic networks

Absolute Max Ratings

Parameter	Symbol	Value	Unit
Fiber Output Power			
L	P_f	0.4	mW
M		0.9	
H		1.6	
LD Reverse Voltage	V_{rld}	2	V
PD Reverse Voltage	V_{rpd}	10	V
PD Forward Current	I_{fpd}	2	mA
Operating Temperature	T_{opr}	0 to +70	°C
Storage Temperature	T_{stg}	-40 to +85	°C

Optical and Electrical Characteristics ($T_c = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ	Max	Unit	Test condition
Threshold Current	I_{th}	-	10	15	mA	CW
Fiber Output Power						
L	P_f	0.2	-	0.5	mW	CW, $I_{th}+30\text{mA}$, kink free
M		0.5	-	1		
H		1	-	2		
2		2	-	3		
Peak Wavelength	λ	n-2	n	n+2	nm	
Side Mode Suppression	S_r	30	35	-	dB	CW, $P_f=P_f(\text{Min})$, 0 to +70°C
Forward Voltage	V_F	-	1.2	1.5	V	CW, $P_f=P_f(\text{Min})$
Rise Time, Fall Time	t_r, t_f	-	-	0.5	ns	$I_{bias} = I_{th}$, 10 to 90%
Tracking Error	$\Delta P_f/P_f$	-	-	±1.0	dB	APC, 0 to +70°C
PD Monitor Current	I_m	100	-	-	μA	CW, $P_f=P_f(\text{Min})$, $V_{rpd}=2\text{V}$
PD Dark Current	I_{DARK}	-	-	0.1	μA	$V_{rpd}=5\text{V}$
PD Capacitance	C_t	-	6	15	pF	$V_{rpd}=5\text{V}$, $f=1\text{MHz}$

C-1470-DFB-RA-SFCX • C-1470-DFB-PA-SFCX

Ordering Information

C--1470--DFB--XX--SXXXI

Wavelength

1470= 1470 nm
1490= 1490 nm
1510= 1510 nm
1530= 1530 nm
1550= 1550 nm
1570= 1570 nm
1590= 1590 nm
1610= 1610 nm

Package

P=Pigtail
R=Receptacle

Pin Assignment

A= A type
B= B type
D= D type

Connector

FC/ST/SC

Fiber Output Power

Isolator

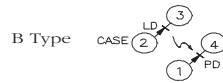
DFB LD Modules-receptacle

LD Pin Assignment

Units in mm



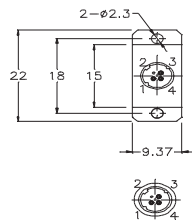
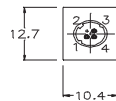
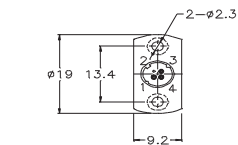
Pin 1 : Laser Cathode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Monitor Diode Anode
Pin 4 : Monitor Diode Cathode



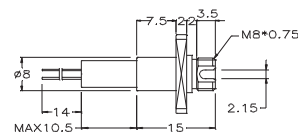
Pin 1 : Monitor Diode Anode
Pin 2 : Laser Anode and Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Cathode



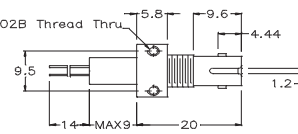
Pin 1 : Laser Anode and Monitor Diode Cathode
Pin 2 : Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Anode



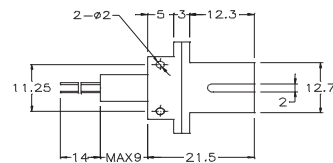
FC Receptacle



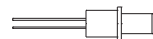
ST Receptacle



SC Receptacle



Customer Specified

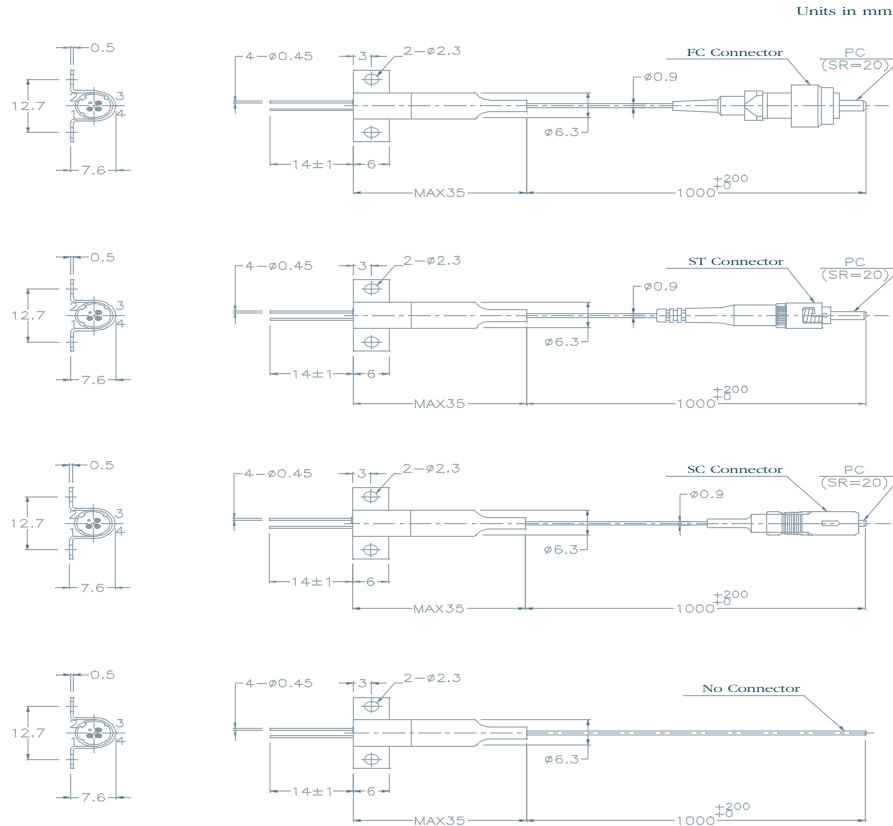


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DFB LD Modules-pigtailed

Packaging Dimension

Units in mm



Note: This singlemode transceiver is a class I laser product. it complies with IES 825 and FDA 21 CFR 1040.10 and 1040.11. The transceiver must be operated within the specified temperature and voltage limits. The optical parts of the module will terminate with an optical connector or with a dust plug.

Warnings

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

Legal Notice

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