Luminent
Bringing Communications to Light™

1470 nm Series 2.5 Gbps CWDM Laser Diode Modules

C-1470-DFB2.5-RD-SFCX • C-1470-DFB2.5-PD-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 2.5 Gbps CWDM high speed optic networks

Absolute Max Ratings (T_c = 25°C)

Parameter	Symbol	Value	Unit
Fiber Output Power			
L		0.4	
M	P_f	0.9	mW
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°C)

Parameter	Symbol	Min.	Typ	Max	Unit	Test condition
Threshold Current	I_{th}	-	10	15	mA	CW
Fiber Output Power						
L		0.2	-	0.5		
M	P_f	0.5	-	1	mW	CW, Ith+30mA, kink free
H		1	-	2		
2		2	-	3		
Peak Wavelength	□	n-2	n	n+2	nm	
Side Mode Suppression	S_r	30	35	-	dB	CW, P_f=P_f(Min),0 to +70°C
Forward Voltage	V_F	-	1.2	1.5	V	CW, Pf=Pf(Min)
Rise Time, Fall Time	t_r , t_f	-	-	150	Ps	I_{bias} = I_{th} , 10 to 90%
Tracking Error	□P_f/P_f	-	-	±1.0	dB	APC, 0 to +70°C
PD Monitor Current	I_m	100	-	-	□A	CW, P_f=P_f (Min),V_{rpd}=2V
PD Dark Current	I_{DARK}	-	-	0.1	□A	V_{rpd}=5V
PD Capacitance	C_t	-	6	15	pF	V_{rpd}=5V, f=1MHz

C-1470-DFB2.5-RD-SFCX • C-1470-DFB2.5-PD-SFCX

Ordering Information

C--1470--DFB2.5--XX--SXXXX-X

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
D= D type

Connector
FC/ST/SC/-

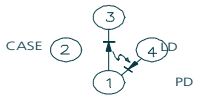
Fiber Output Power
"I"=Isolator
" "=No isolator

Flange type (-; O; V; K)

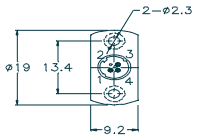
2.5G DFB LD Modules-receptacle

LD Pin Assignment Units in mm

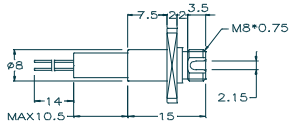
D Type

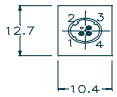


Pin 1 : Laser Anode and Monitor Diode Cathode
Pin 2 : Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Anode

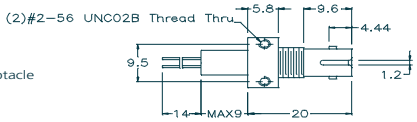


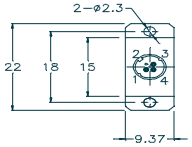
FC Receptacle



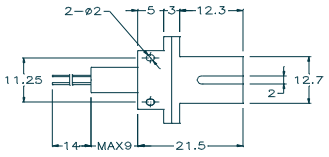


ST Receptacle

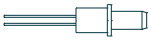




SC Receptacle



Customer Specified

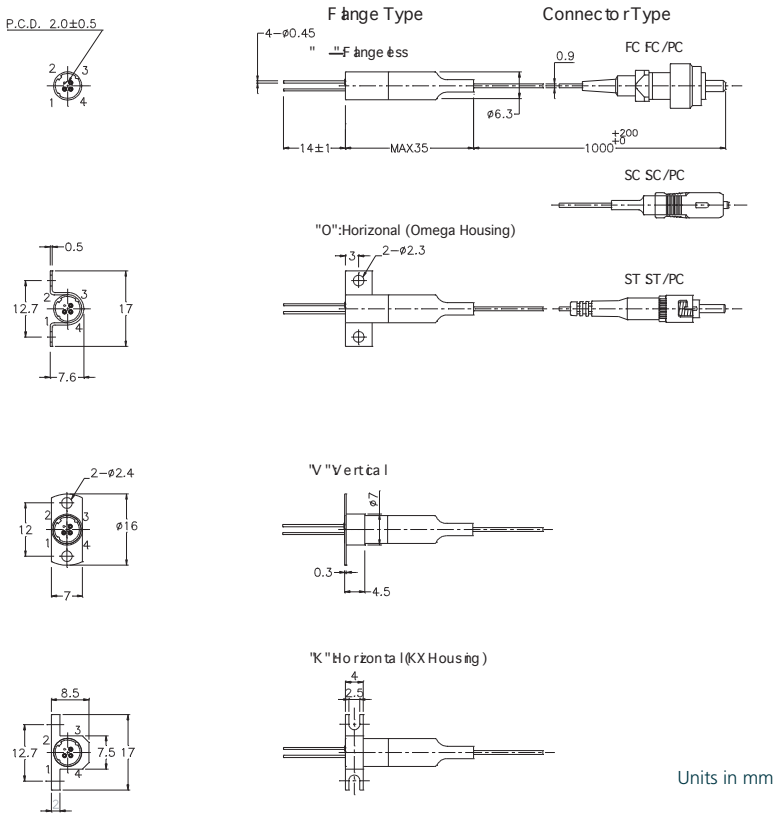


1470 nm Series 2.5 Gbps CWDM Laser Diode Modules

C-1470-DFB2.5-RD-SFCX • C-1470-DFB2.5-PD-SFCX

2.5G 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.

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