

C-13XX-DFB2.5-XD-SXXXX



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 Maximum Ratings ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Output Power			
L	P_f	1	mW
M		1.5	
H		2.5	
LD Reverse Voltage	V_{rld}	2	V
PD Reverse Voltage	V_{rpd}	10	V
PD Forward Current	I_{fpd}	2.0	mA
Operating Temperature	T_{opr}	0 to +70	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

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, $I_{th}+20$ mA, kink free
M		0.5	-	1		
H		1	-	2		
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 $^\circ\text{C}$
Forward Voltage	V_F	-	1.2	1.5	V	CW, $P_f = P_f(\text{Min})$
Rise Time, Fall Time	t_r, t_f	-	-	150	ps	$I_{bias}=I_{th}$, 10 to 90%
Tracking Error	$\Delta P_f / P_f$	-	-	± 1.5	dB	APC, 0 to +70 $^\circ\text{C}$
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	$V_{rpd} = 5\text{V}$, $f = 1\text{MHz}$

(All optical data refer to a coupled 9/125 μm SM fiber)

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Ordering Information

C-XXXX-DFB2.5-XD-SXXXX-X

Wavelength

1275=1275 nm
1300=1300 nm
1325=1325 nm
1350=1350 nm

Package

P=Pigtail
R=Receptacle

Pin Assignment

Connector

FC/ST/SC/MU/-

Fiber Output Power

"I" = Isolator

"-" = No isolator

Flange type (-;O;V;K)

2.5 Gbps DFB LD Modules-receptacle

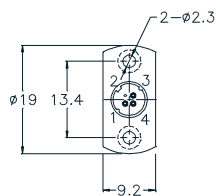
LD Pin Assignment

Units in mm

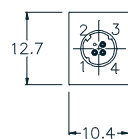
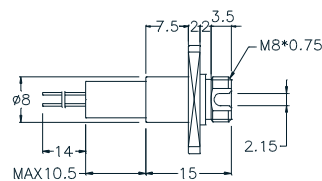


Pin 1 : Laser Anode and Monitor Diode Cathode
Pin 2 : Case Gnd
Pin 3 : Laser Cathode
Pin 4 : Monitor Diode Anode

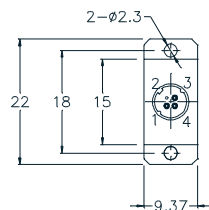
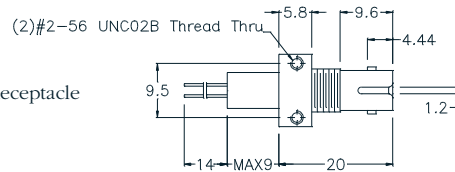
Connector Type



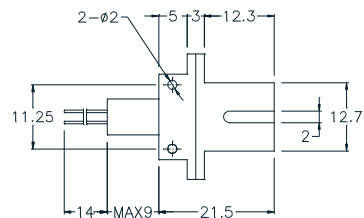
FC Receptacle



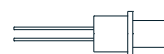
ST Receptacle



SC Receptacle



TOSA(FC,ST,SC,LC)
Customer Specified

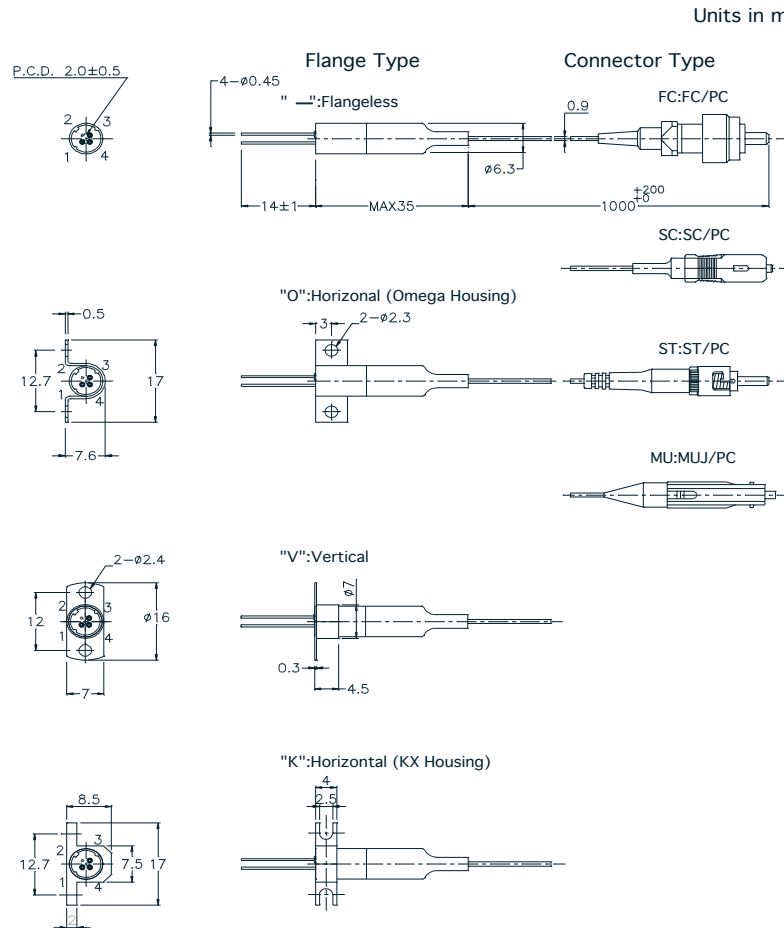


C-13XX-DFB2.5-XD-SXXXX

2.5 Gbps DFB LD Modules-pigttailed

Packaging Dimensions

Units in mm



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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