

C-XXXXX-DFB2.5-XX-SXXXI/XXX-X-XX



### Features

- Un-cooled laser diode with MQW structure
- High temperature operation without active cooling
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Telcordia Technologies GR-468-CORE
- Single frequency operation with high SMSR
- TOSA
- FC/ST/SC receptacle package with 2-hole flange
- Fiber pigtailed with optional FC/ST/SC/MU/LC connector
- Design for 2.5G CWDM high speed optic networks
- RoHS Compliant available

### Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Fiber Output Power L/M/H/2	$P_f$	0.6(L)/1(M)/2(H)/2.6(2)	mW
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 ~ 70	°C
Storage Temperature	$T_{stg}$	-40 ~ 85	°C

(All optical data refer to a coupled 9/125 $\mu$ m S/M fiber)

### Optical and Electrical Characteristics (Tc=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions	
Threshold Current	$I_{th}$	-	-	20	mA	CW	
Fiber Output Power	$P_f$	L	0.2	-	0.5	mW	CW, $I_{th}+25$ mA, kink free
		M	0.5	-	1.0		
		H	1.0	1.6	-		CW, $I_{th}+30$ mA, kink free
		2	2.0	2.5	-		
Peak Wavelength	$\lambda$	n-2	n	n+2	nm	Note 3	
		n-3	n	n+3			
Side mode Suppression	$S_r$	30	35	-	dB	CW, $P_f = P_f$ (Min), 0~70°C	
Forward Voltage	$V_f$	-	1.2	1.5	V	CW, $P_f = P_f$ (Min)	
Rise Time	$t_r$	-	-	150	ps	$I_{bias} = I_{th}$ , 20~80%	
Fall Time	$t_f$	-	-	200		lead length=1mm	
Tracking Error	$\Delta P_f/P_f$	-1.5	-	1.5	dB	APC, 0~70°C	
PD Monitor Current	$I_m$	100	-	-	$\mu$ A	CW, $P_f = P_f$ (Min), $V_{RPD}=2$ V	
PD Dark Current	$I_{dark}$	-	-	0.1	$\mu$ A	$V_{RPD}=5$ V	
PD Capacitance	$C_t$	-	6	15	pF	$V_{RPD}=5$ V, f=1MHz	
Optical Isolation	OI	30	-	-	dB	Tc=25°C	
		20	-	-		0°C<Tc<70°C	

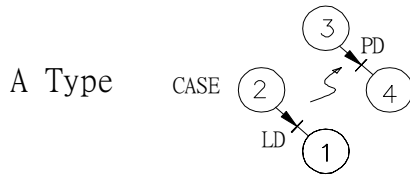
**Note: 1.Pin assignment can be customized.**

**2.Specifications subject to change without notice.**

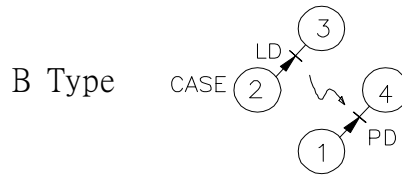
**3.Selected wavelength is available for WDM application**

**\*Peak wavelength n=1270;1290;1310;1330;1350;1370;1390;1410;1430;1450;1470;1490;1510;1530;1550;1570;1590;1610**

LD Pin Assignment



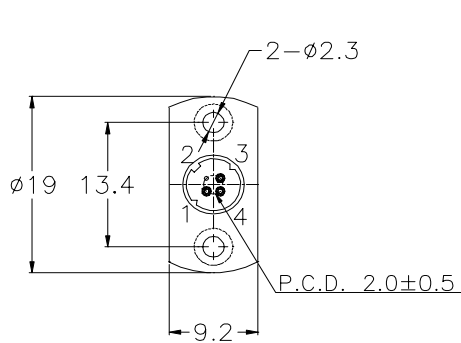
Pin 1 : Laser Cathode  
Pin 2 : Laser Anode and Case Gnd  
Pin 3 : Monitor Diode Anode  
Pin 4 : Monitor Diode Cathode



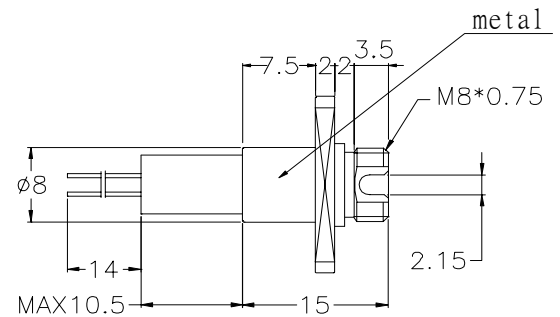
Pin 1 : Monitor Diode Anode  
Pin 2 : Laser Anode and Case Gnd  
Pin 3 : Laser Cathode  
Pin 4 : Monitor Diode Cathode



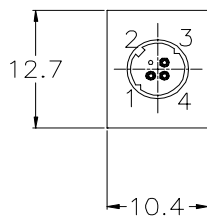
Pin 1 : Laser Anode and Monitor Diode Cathode  
Pin 2 : Case Gnd  
Pin 3 : Laser Cathode  
Pin 4 : Monitor Diode Anode



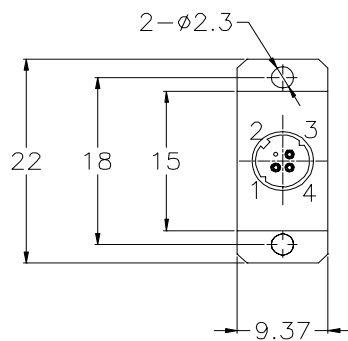
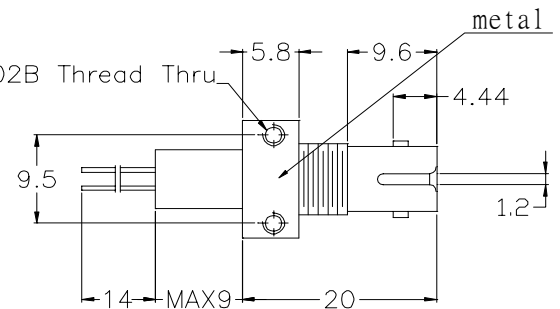
FC Receptacle



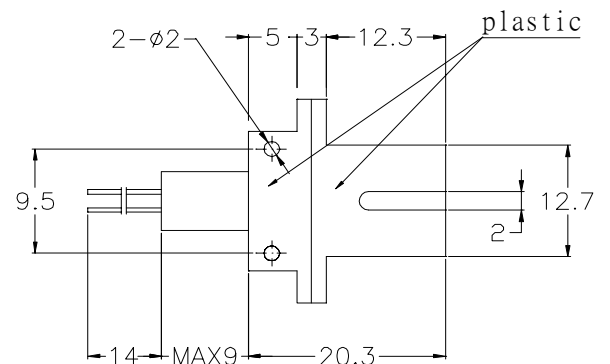
(2)#2-56 UNC02B Thread Thru



ST Receptacle



SC Receptacle

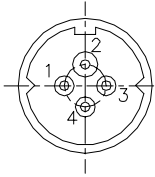


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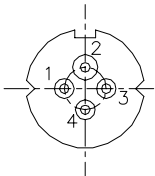
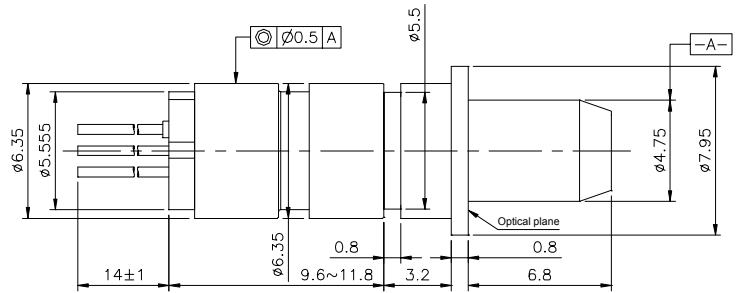
Packaging Dimension

Units in mm.

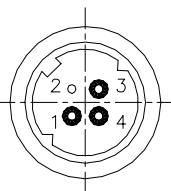
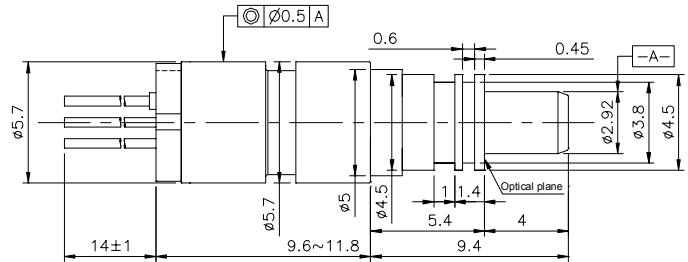
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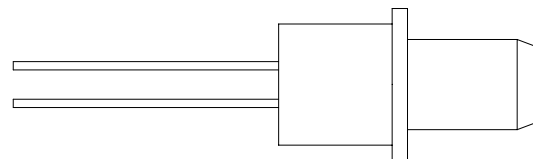
SC TOSA  
C-XXXXX-DFB2.5-TX-SSCXX



LC TOSA  
C-XXXXX-DFB2.5-TX-SLCXI



Customer Specified  
TOSA



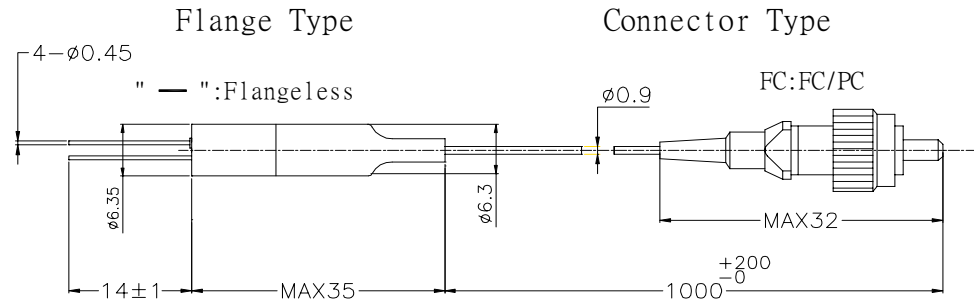
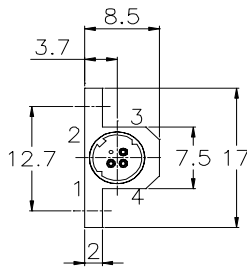
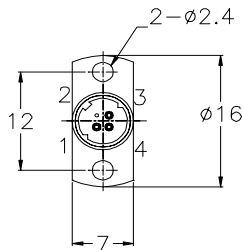
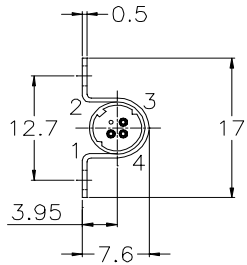
C-XXXXX-DFB2.5-XX-SXXXI/XXX-X-XX

Packaging Dimension

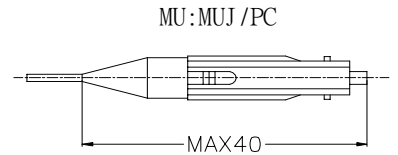
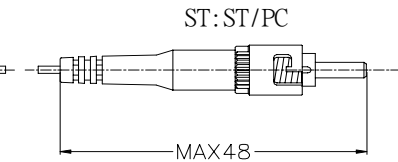
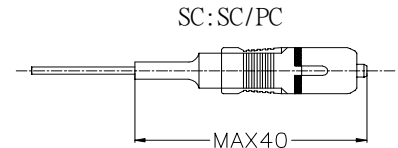
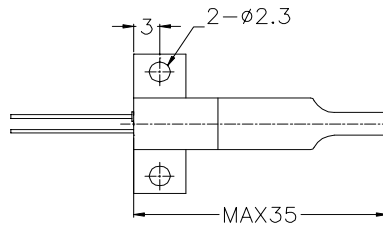
Units in mm.

Part Number: C-XXXXX-DFB2.5-PX-SXXXI/XXX-X-XX

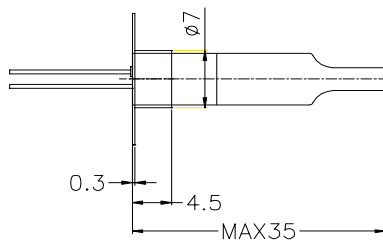
P.C.D.  $2.0 \pm 0.5$



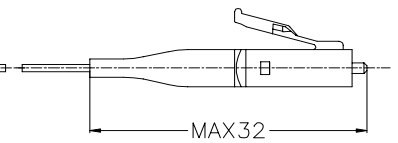
"□": Horizontal (Omega Housing)



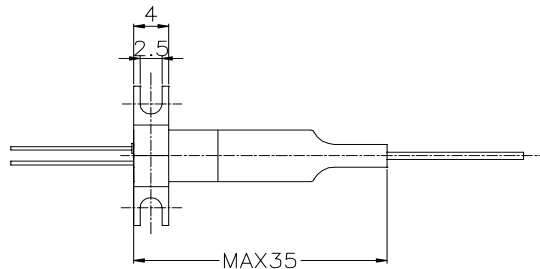
"V": Vertical



LC:LC/PC



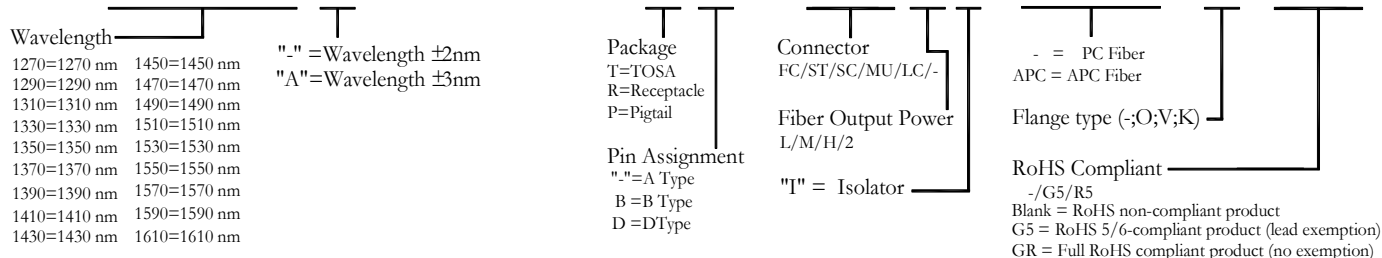
"K": Horizontal (KX Housing)



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## Ordering Information

# C-XXXXX-DFB2.5-XX-SXXXI/XXX-X-XX



## 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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