



Features

- Un-cooled laser diode with multi-quantum-well 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 FC/ST/SC/MU/LC connector
- Design for fiber-optic networks
- RoHS Compliant available

Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Rating	Unit
Fiber Output Power L/M/H/2	P _f	1(L)/1.5(M)/2.5(H)/3(2)	mW
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 ~ 70	°C
Storage Temperature	T _{stg}	-40 ~ 85	°C

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

Optical and Electrical Characteristics (Tc=25°C)

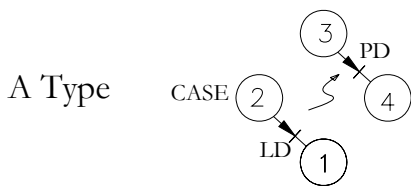
Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Threshold Current	I _{th}	-	10	15	mA	CW
Optical Output Power	P _f	0.2	-	0.5	mW	CW, I _{th} +20mA, kink free
L		0.5	-	1		
M		1	1.6	-		
H		2	2.5	-		
Peak Wavelength	λ	1295	1310	1325	nm	CW, P _f = P _f (Min)
Spectral Width (-20dB)	Δλ	-	-	0.8	nm	CW, P _f = P _f (Min)
Side mode Suppression Ratio	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 / Fall Time	T _r / T _f	-	-	0.3	ps	I _{bias} =I _{th} , 10~90% Lead length=1mm
Tracking Error	ΔP _f /P _f	-1.5	-	1.5	dB	APC, 0 ~ 70°C
PD Monitor Current	I _m	100	-	-	μA	CW, P _f = P _f (Min), V _{RPD} = 2V
PD Dark Current	I _{dark}	-	-	0.1	μA	V _{RPD} = 5V

PD Capacitance	C_t	-	6	15	pF	$V_{RPD} = 5V$
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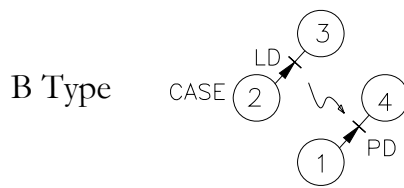
Note:

1. Pin assignment can be customized.
2. Specifications subject to change without notice.

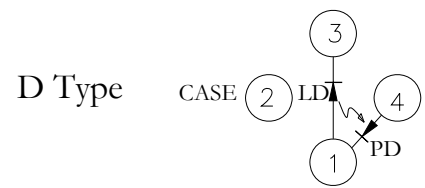
Pin Assignment



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



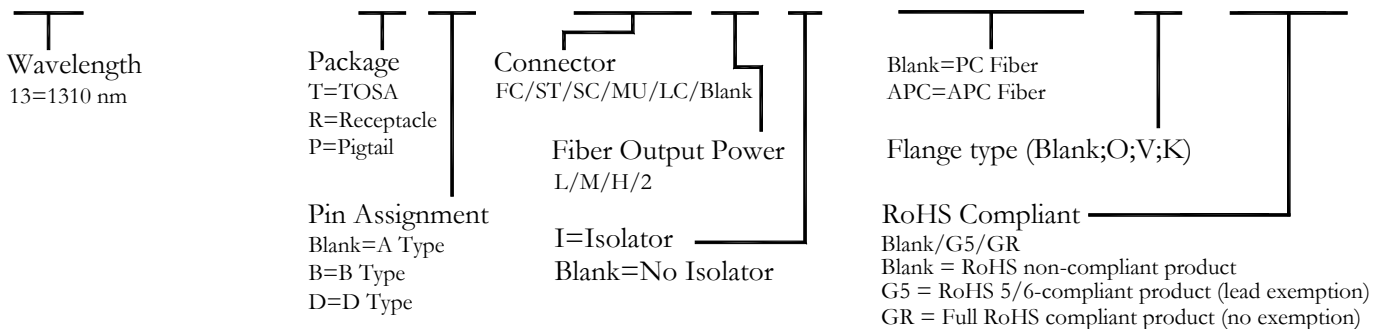
- Pin 1 : Monitor Diode Anode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Cathode



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

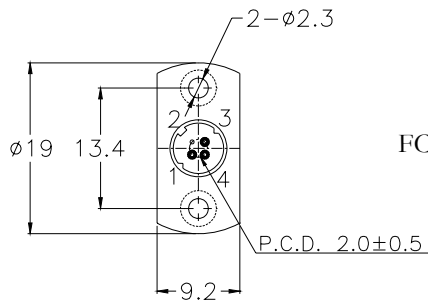
Ordering Information

C-13-DFB-XX-SXXXX/XXX-X-XX

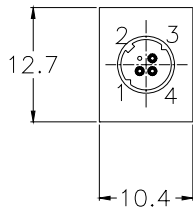
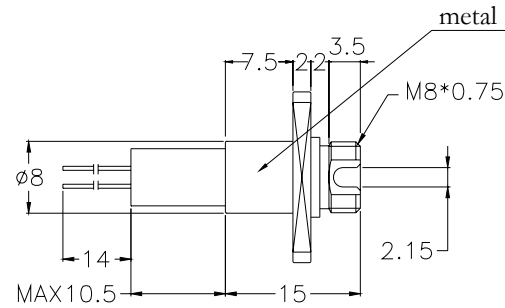


Packaging Dimensions (Units in mm)

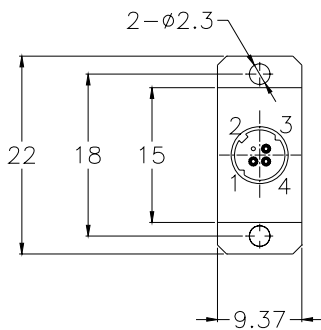
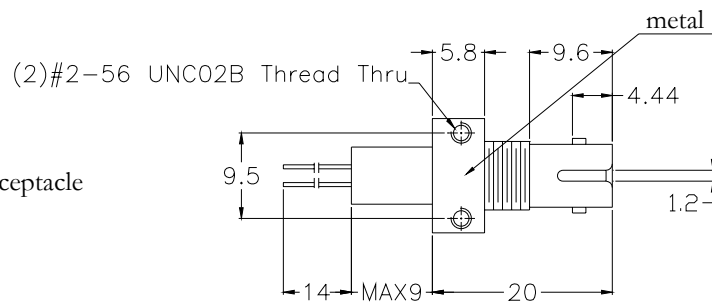
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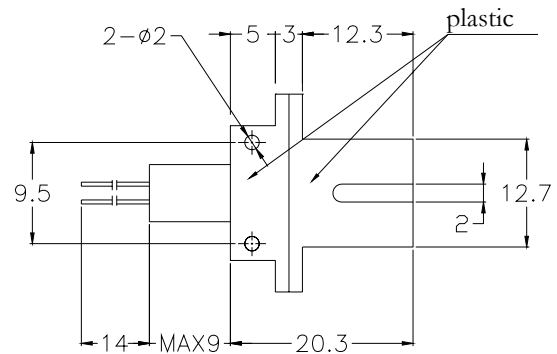
FC Receptacle



ST Receptacle

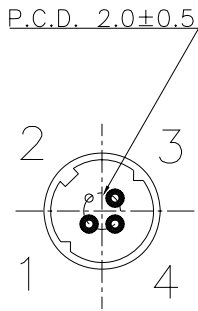


SC Receptacle

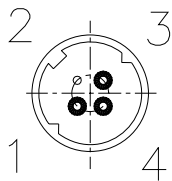
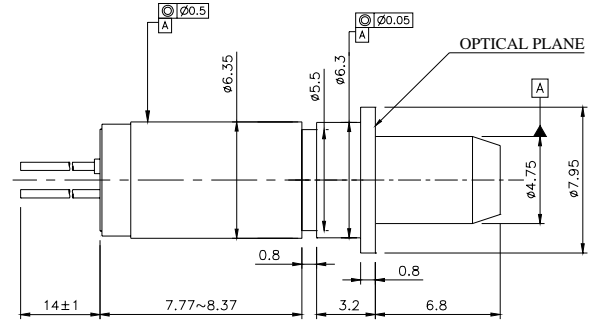


Packaging Dimensions (Units in mm)

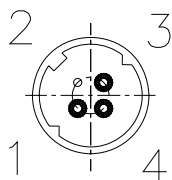
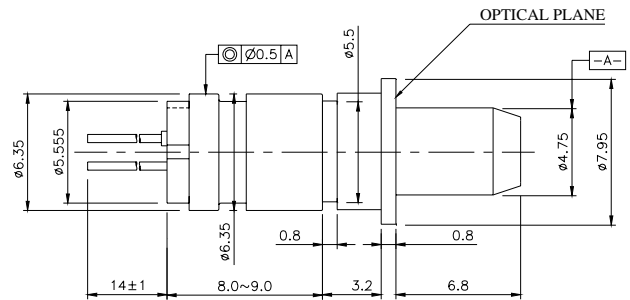
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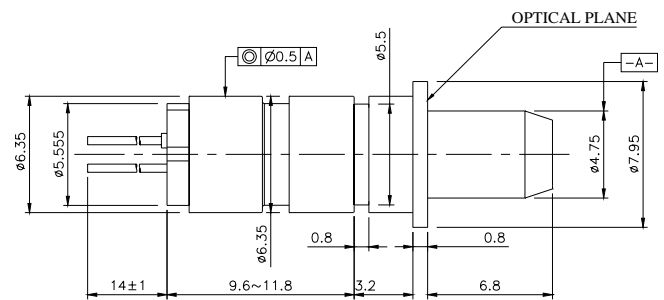
SC TOSA (L&M Power)
C-13-DFB-TX-SSCXX-XX



SC TOSA (L&M Power with Isolator)
C-13-DFB-TX-SSCXI-XX

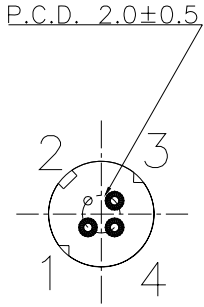


SC TOSA (H&2 Power)
C-13-DFB-TX-SSCXX-XX

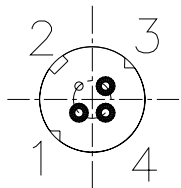
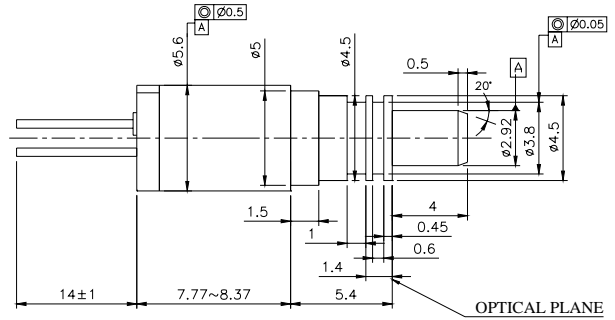


Packaging Dimensions (Units in mm)

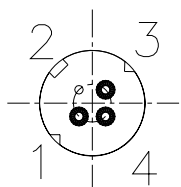
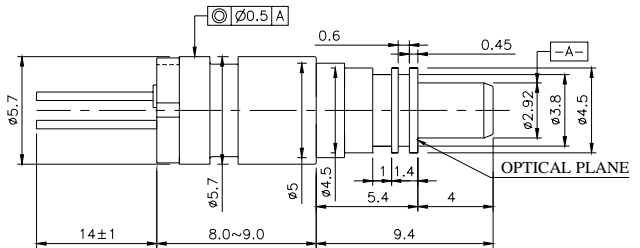
Part Number: C-13-DFB-TX-SLCXX-XX



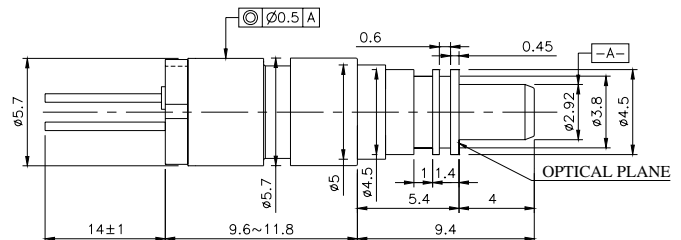
LC TOSA (L&M Power)
C-13-DFB-TX-SLCX-XX



LC TOSA (L&M Power with Isolator)
C-13-DFB-TX-SLCXI-XX

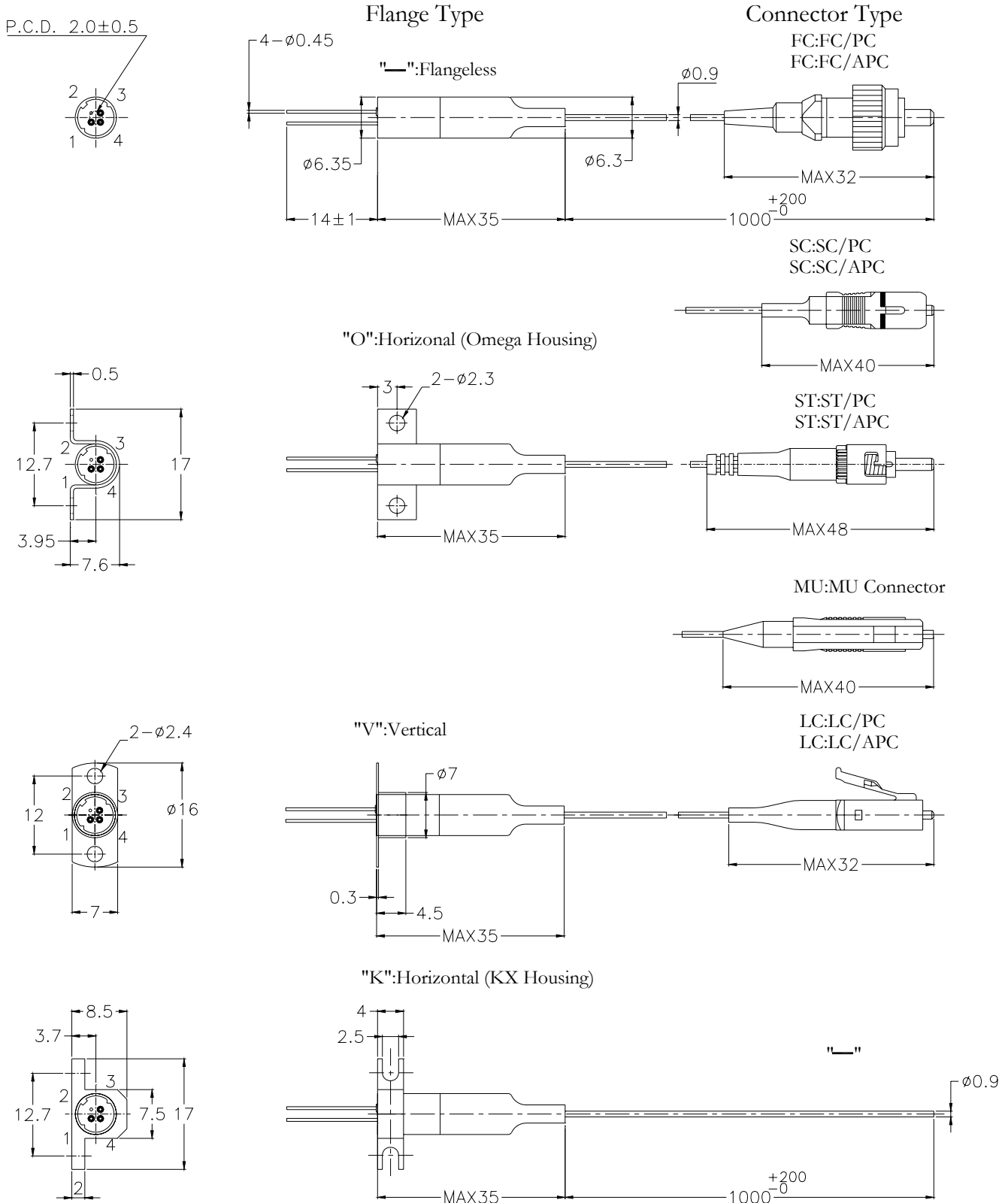


LC TOSA (H&2 Power)
C-13-DFB-TX-SLCXX-XX



Packaging Dimensions (Units in mm)

Part Number: C-13-DFB-PX-SXXXX/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.

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