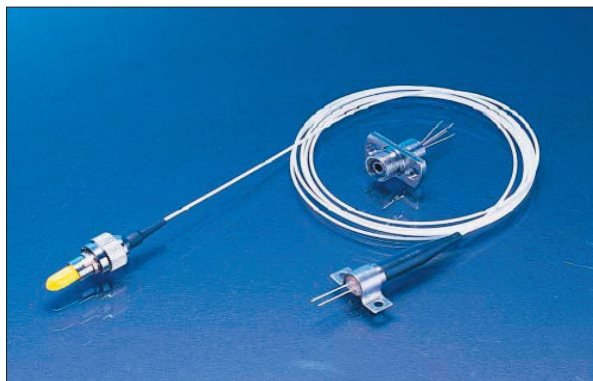


C-13-DFB2.5-XX-SXXXX/XXX-X-XX



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

Packaging

- TOSA
- FC/ST/SC receptacle package with 2-hole flange
- Fiber pigtailed with optional FC/ST/SC/MU/LC connector

Application

- Design for 2.5Gbps high speed optics 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} | 2.0 | mA |
| Operating Temperature | T_{opr} | 0 ~+70 | °C |
| Storage Temperature | T_{stg} | -40 ~+85 | °C |

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

Optical and Electrical Characteristics (Tc=25°C)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Conditions |
|-----------------------------|--------------------|------|------|------|------|---|
| Threshold Current | I_{th} | - | 10 | 15 | mA | CW |
| Fiber Output Power | L | 0.2 | - | 0.5 | mW | CW, $I_{th}+20mA$, kink free |
| | M | 0.5 | - | 1 | | |
| | H | 1 | 1.6 | - | | |
| | 2 | 2 | 2.5 | - | | |
| Peak Wavelength | λ | 1295 | 1310 | 1325 | nm | Note 3 |
| Side mode Suppression Ratio | Sr | 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 | - | - | 150 | ps | $I_{bias} = I_{th}$, 20~80% 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 | - | - | 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 | $V_{RPD} = 5V, f = 1MHz$ |

Note: 1.Pin assignment can be customized.

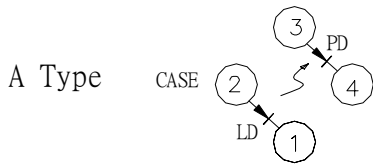
2.Specifications subject to change without notice.

3.Selected wavelength is available for WDM application.

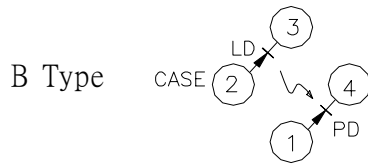
C-13-DFB2.5-XX-SXXXX/XXX-X-XX

LD Pin Assignment

Part Number: C-13-DFB2.5-RX-SXXXX-XX



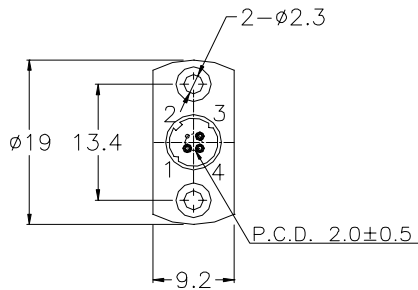
- Pin 1 : Laser Cathode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Monitor Diode Anode
- Pin 4 : Monitor Diode Cathode



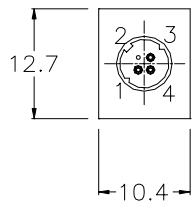
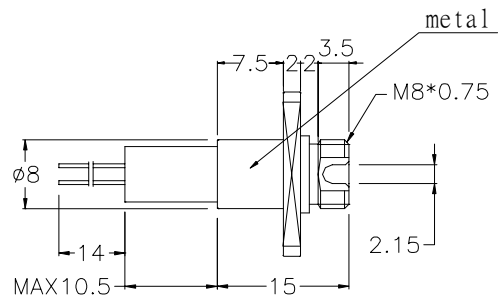
- Pin 1 : Monitor Diode Anode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Cathode



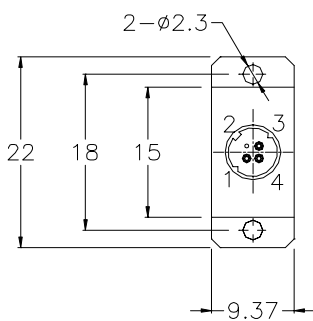
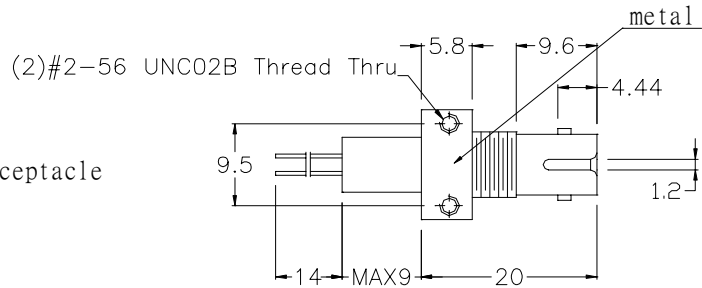
- Pin 1 : Laser Anode and Monitor Diode Cathode
- Pin 2 : Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Anode



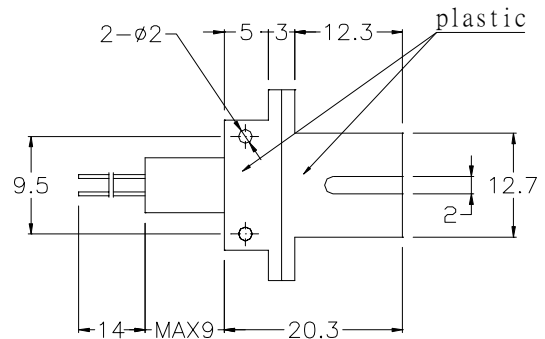
FC Receptacle



ST Receptacle



SC Receptacle

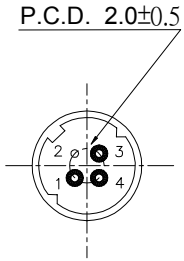


C-13-DFB2.5-XX-SXXXX/XXX-X-XX

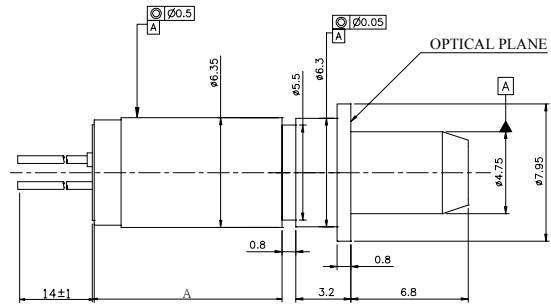
Packaging Dimension

Units in mm.

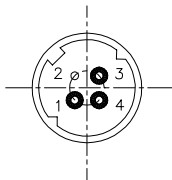
Part Number: C-13-DFB2.5-TX-SSCXX-XX



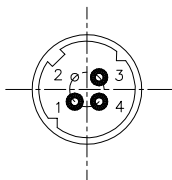
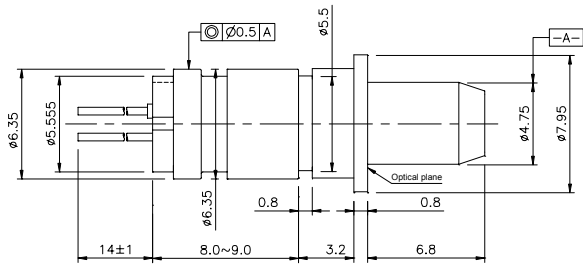
SC TOSA (L&M Power)
C-13-DFB2.5-TX-SSCXX-XX



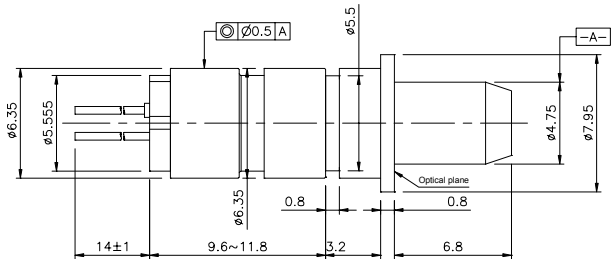
DIMENSION A: 7.77~8.37mm



SC TOSA
(L&M Power with Isolator)
C-13-DFB2.5-TX-SSCXI-XX



SC TOSA (H&2 Power)
C-13-DFB2.5-TX-SSCXX-XX

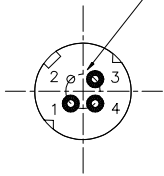


Packaging Dimension

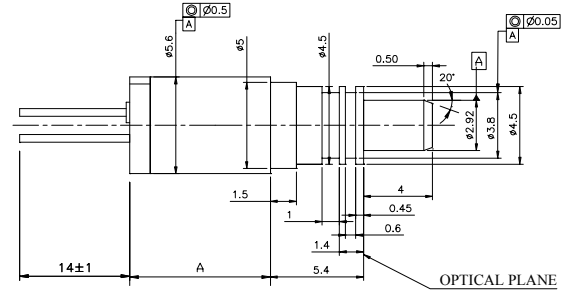
Units in mm.

Part Number: C-13-DFB2.5-TX-SLCXX-XX

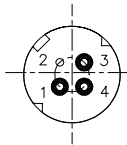
P.C.D. 2.0 ± 0.5



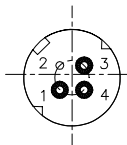
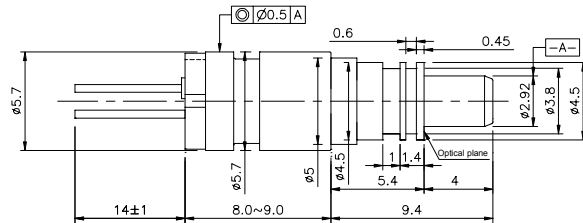
LC TOSA (L&M Power)
C-13-DFB2.5-TX-SLCX-XX



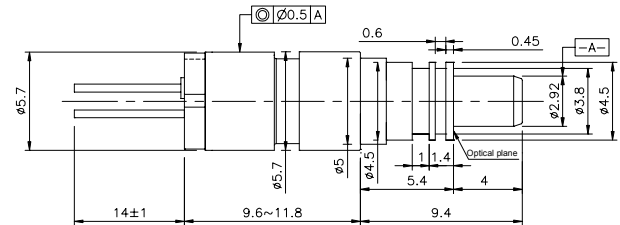
DIMENSION A: 7.77~8.37mm



LC TOSA
(L&M Power with Isolator)
C-13-DFB2.5-TX-SLCXI-XX



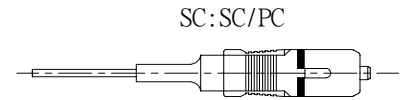
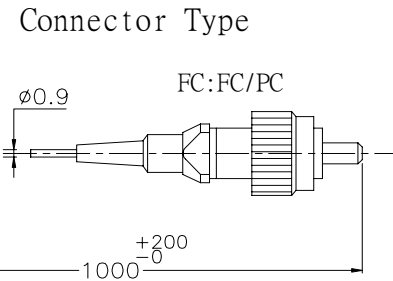
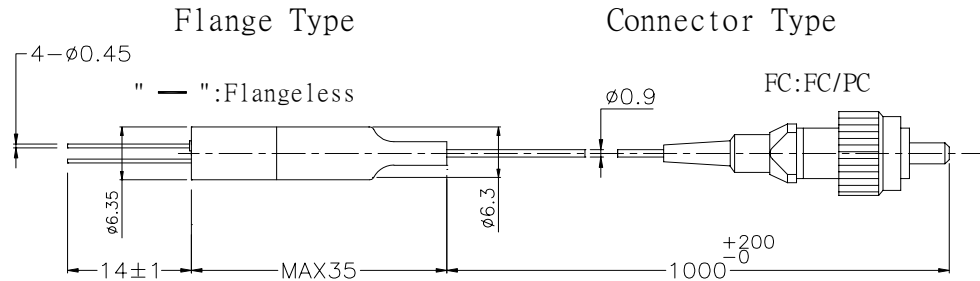
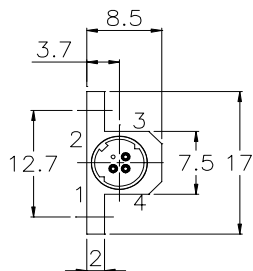
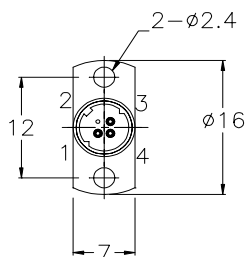
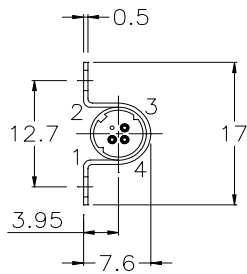
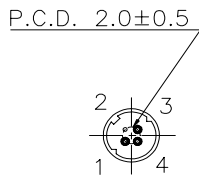
LC TOSA (H&2 Power)
C-13-DFB2.5-TX-SLCXX-XX



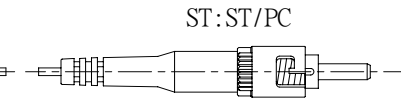
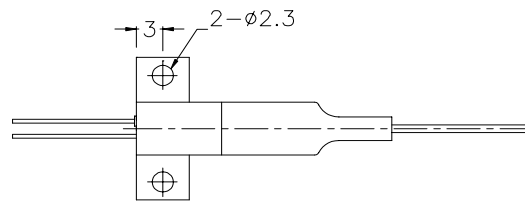
Packaging Dimension

Units in mm.

Part Number: C-15-DFB2.5-PX-SXXXX/XXX-X-XX



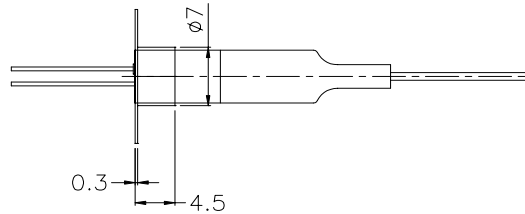
"O": Horizontal (Omega Housing)



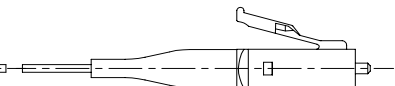
MU:MUJ / PC



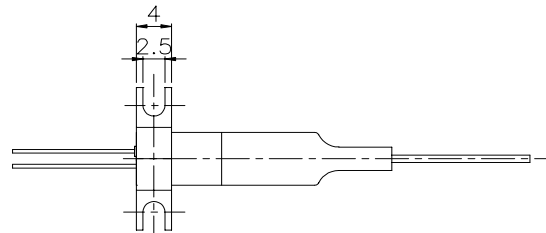
"V": Vertical



LC:LC/PC

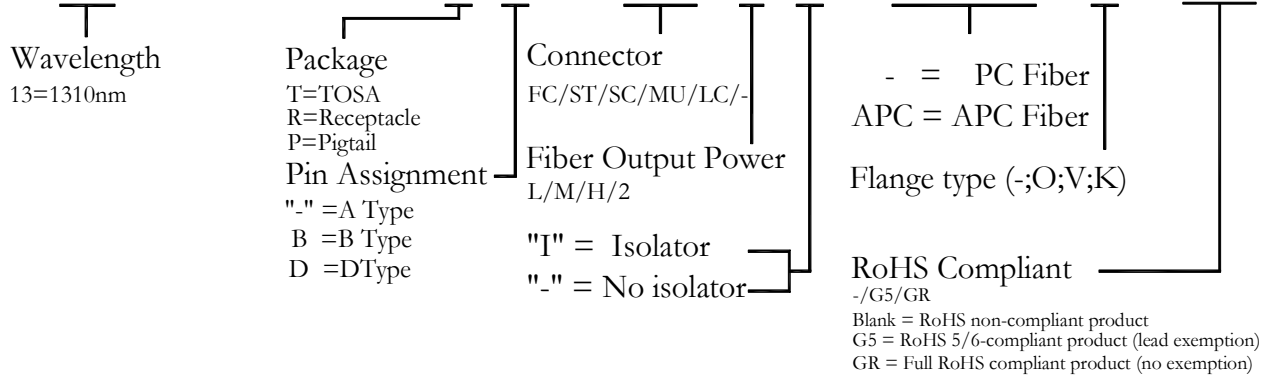


"K": Horizontal (KX Housing)



Ordering Information

C-13-DFB2.5-XX-SXXXXX/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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