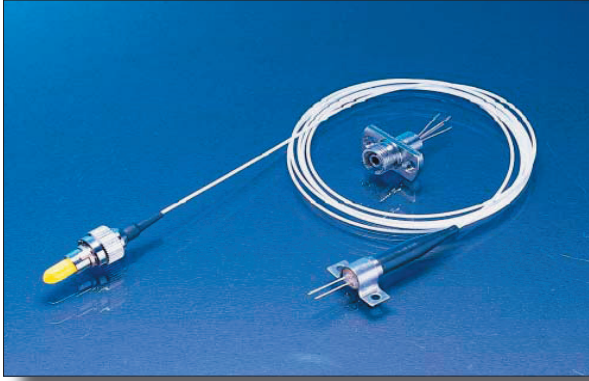


C-13-DFB2.5-XX-SXXXX/XXX-X-XX



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	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	-	-	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.

A Type

```
graph TD; 2((2)) -- LD --- 1((1)); 2((2)) -.- 3((3)); 3((3)) -- PD --- 4((4))
```

B Type

Diagram illustrating a B Type network topology. The nodes are labeled 1, 2, 3, and 4. The connections are labeled LD (Link Distance) and PD (Path Distance). The topology shows a path from node 2 to node 3 (LD) and from node 3 to node 4 (PD). Node 1 is connected to node 4 via a wavy line. The label 'CASE' is placed near node 2.

D Type

CASE

```
graph TD; 1((1)) -- LD --> 2((2)); 2((2)) -- PD --> 4((4)); 3((3)) --- 1; 3((3)) --- 2; 3((3)) --- 4;
```

[illegible]

Technical drawing of a mechanical assembly. The drawing shows a cross-section of a component with a central hole. The outer diameter is labeled $\phi 8$. The inner hole has a diameter of $\phi 2.2$. The total length of the component is labeled MAX10.5. The distance from the left end to the start of the central hole is 14. The distance from the start of the central hole to the right end is 15. The distance from the left end to the center of the central hole is 7.5. The distance from the center of the central hole to the right end is 3.5. The right end features a threaded section with a label M8*0.75. A label metal points to the central hole area. A dimension of 2.15 is shown for the distance from the right end to the center of the central hole.

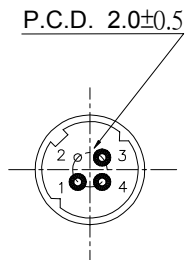
Technical drawing of a metal receptacle assembly. The drawing shows a side view of the assembly with the following dimensions and labels:

- Labels:**
 - (2)#2-56 UNC02B Thread Thru
 - metal
 - receptacle
- Dimensions:**
 - 5.8 (Distance from top edge to center of top thread)
 - 9.6 (Distance from top edge to center of bottom thread)
 - 4.44 (Distance from center of bottom thread to right edge)
 - 9.5 (Total height of the assembly)
 - 1.2 (Radius of the rounded end)
 - 14 (Distance from left edge to center of bottom thread)
 - MAX9 (Maximum distance from left edge to center of bottom thread)
 - 20 (Total length of the assembly)

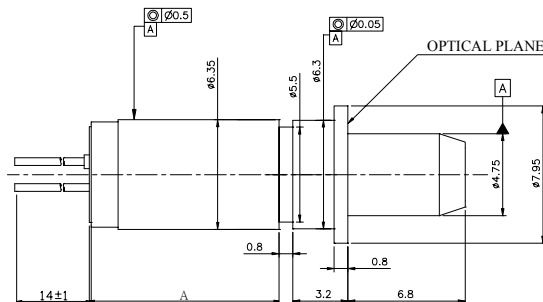
Packaging Dimension

Units in mm.

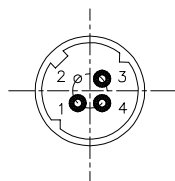
Part Number: C-13-DFB2.5-TX-SSCXX-XX



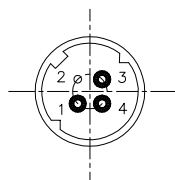
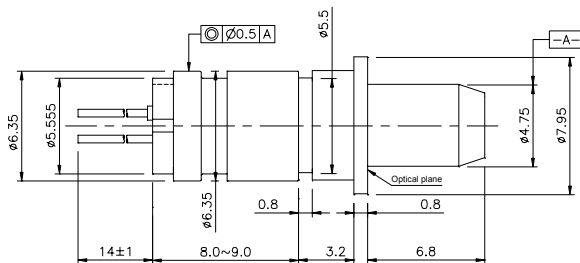
SC TOSA (L&M Power)
C-13-DFB2.5-TX-SSCX-XX



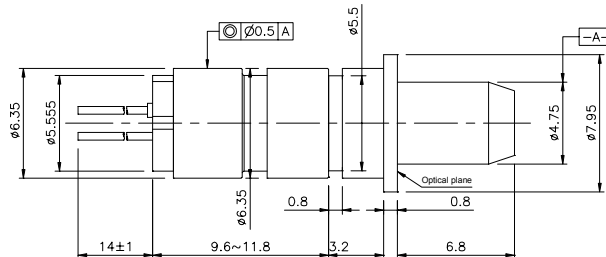
DIMENSION A: 7.77~8.37mm



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



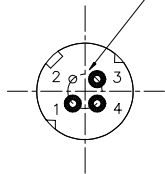
C-13-DFB2.5-XX-SXXXX/XXX-X-XX

Packaging Dimension

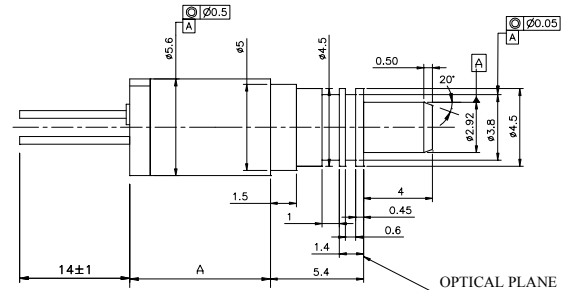
Units in mm.

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

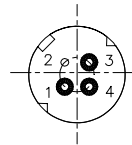
P.C.D. 2.0 ± 0.5



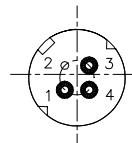
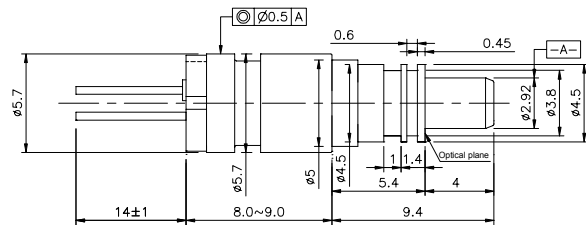
LC TOSA (L&M Power)
C-13-DFB2.5-TX-SLCX-XX



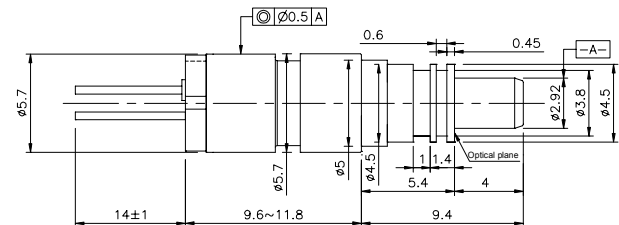
DIMENSION A: 7.77~8.37mm



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

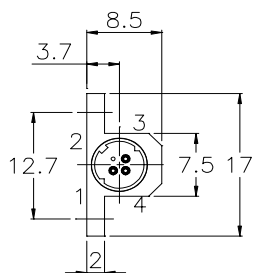
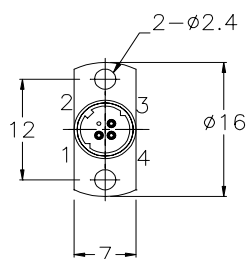
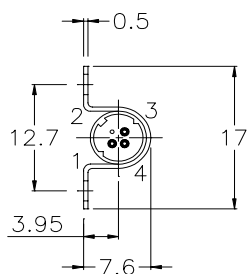
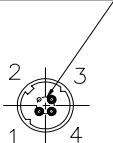


Packaging Dimension

Units in mm.

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

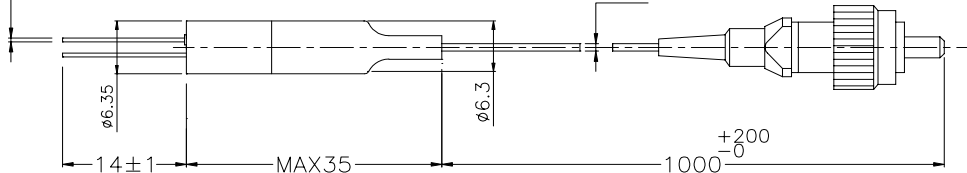
P.C.D. 2.0 ± 0.5



Flange Type

4- $\phi 0.45$

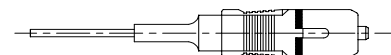
"":Flangeless



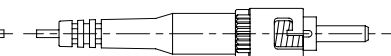
Connector Type

FC:FC/PC

SC:SC/PC



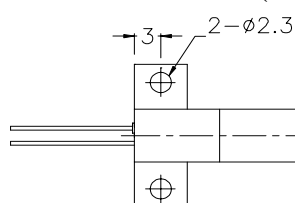
ST:ST/PC



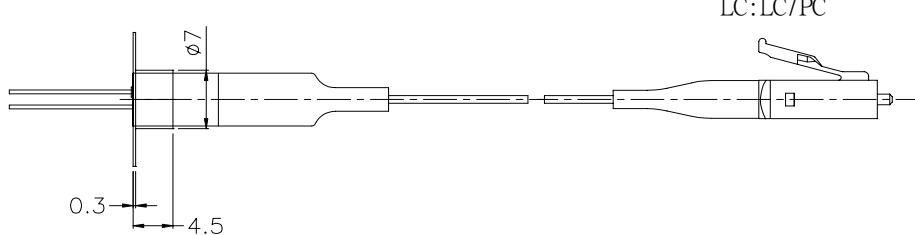
MU:MUJ /PC



"O":Horizontal (Omega Housing)

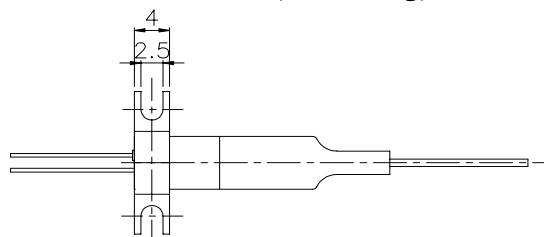


"V":Vertical



LC:LC/PC

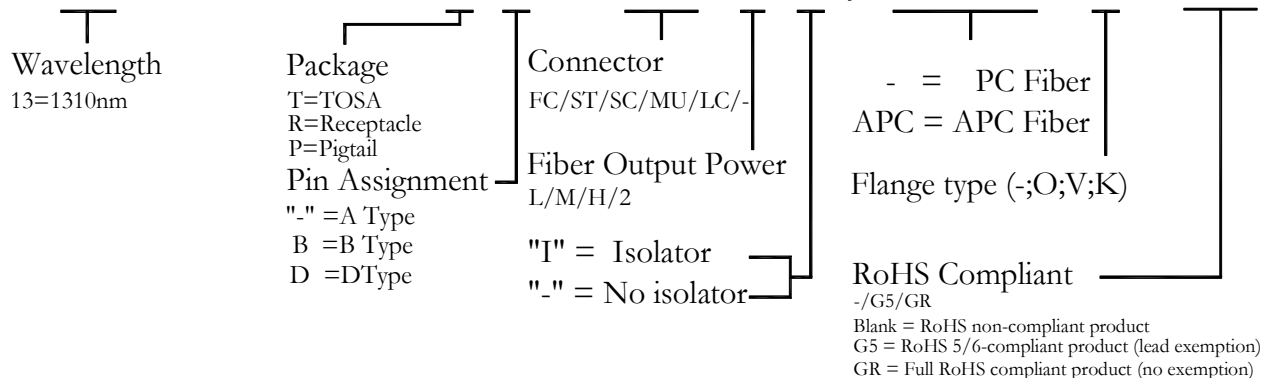
"K":Horizontal (KX Housing)



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

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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