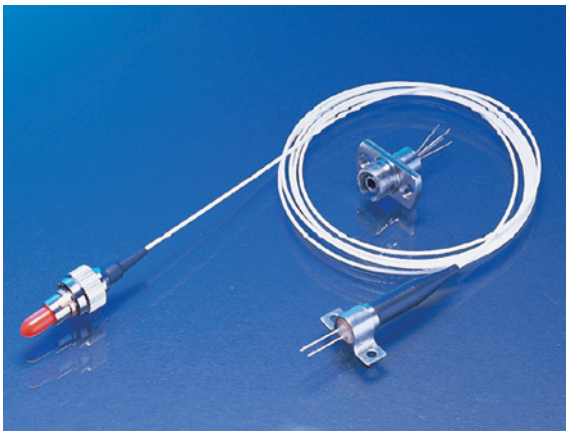
Luminent
Bringing Communications to Light™

1310 nm 2.5 MQW-DFB Laser Diode Module

C-13-DFB2.5-T/R/PX-SXXXX/XXX-X



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 Bellcore TA-NWT-000983
- Single frequency operation with high SMSR
- TOSA package
- FC/ST/SC receptacle package with 2-hole flange
- Fiber pigtailed package with optional FC/ST/SC/MU/LC connector
- Design for 2.5G high speed optic networks application

Absolute Maximum Rating (Tc=25°C)

Parameter	Symbol	Value	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 to +70	°C
Storage Temperature	T_{stg}	-40 to +85	°C

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

Optical and Electrical Characteristics(T=25°C)

Parameter	Symbol	Min	Typical	Max	Unit	Test Condition
Threshold Current	I_{th}	-	10	15	mA	CW
Fiber Output Power L M H 2	P_f	 0.2 0.5 1 2	 - - 1.6 2.5	 0.5 1 - -	mW	CW, I_{th}+20mA, kink free
Peak Wavelength	λ	1295	1310	1325	nm	Note 3
Side mode Suppression Ratio	Sr	30	35	-	dB	CW,P_f=P_f(Min),0 to 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}, 10% to 90%
Tracking Error	$\Delta P_f / P_f$	-	-	±1.5	dB	APC, 0 to +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

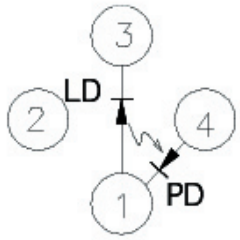
Ordering Information

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

- Wavelength: 13=1310nm
- Package: T=TOSA, P=Pigtail, R=Receptacle
- Pin Assignment: D = D Type
- Fiber Output Power: L/M/H/2
- Connector: FC/ST/SC/MU/LC/-
- "I" = Isolator, "-" = No Isolator
- - : PC Fiber, APC : APC Fiber
- Flange type (-;O;V;K)

Pin Assignment

Type CASE

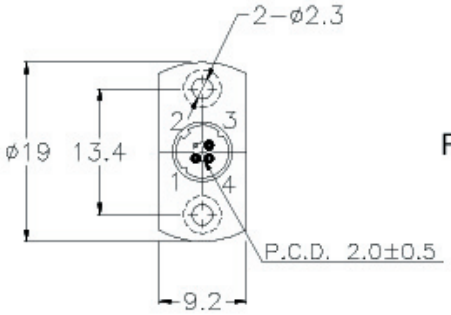


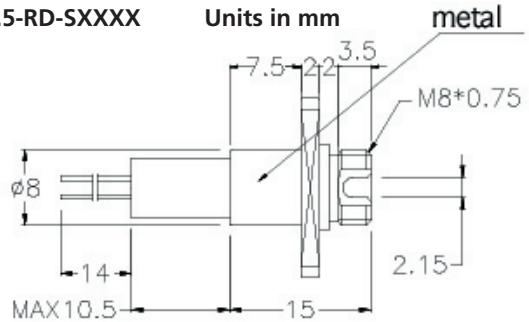
P in1 : Laser Anode and Monitor Diode Cathode
P in2 : Case Gnd
P in3 : Laser Cathode
P in4 :Monitor Diode Anode

Packaging Dimension (Receptacle)

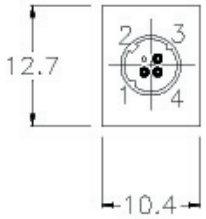
DFB LD Module- receptacle **Part Number: C-13-DFB2.5-RD-SXXXX** **Units in mm**

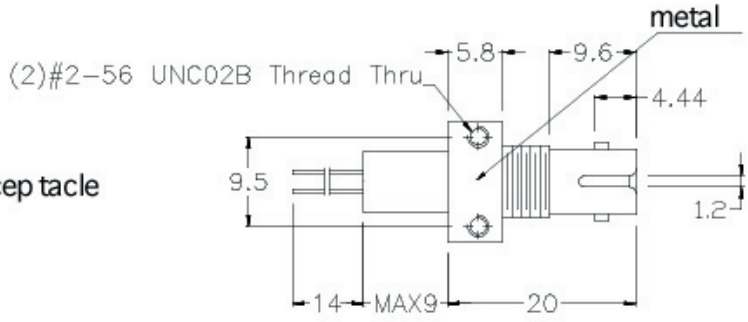
FC Receptacle



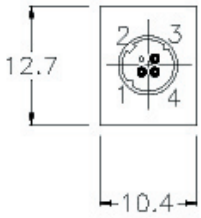


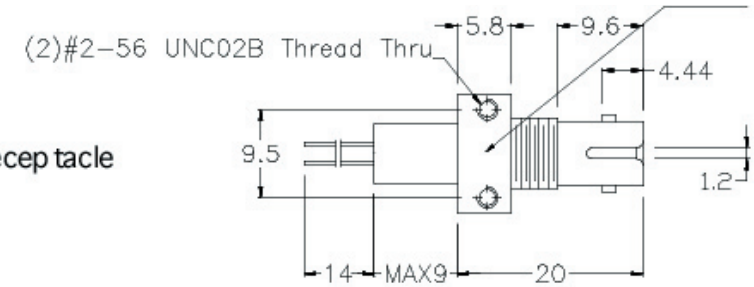
ST Receptacle



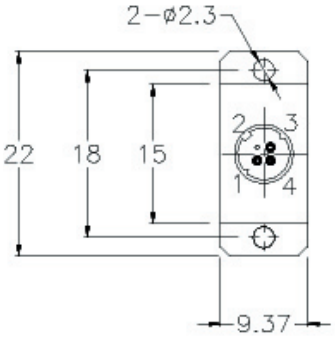


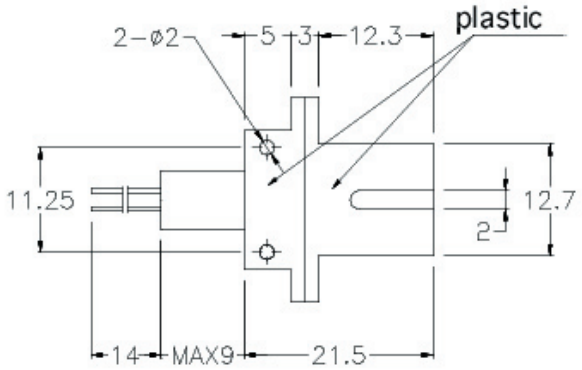
ST Receptacle





SC Receptacle



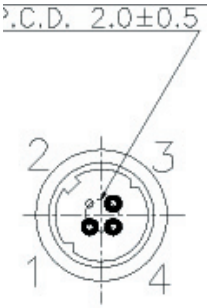


Packaging Demension (TOSA)

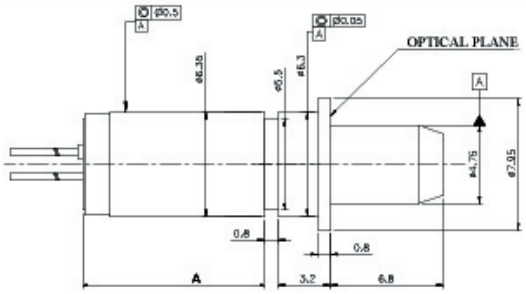
2.5G DFB LD Module- TOSA

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

Units in mm

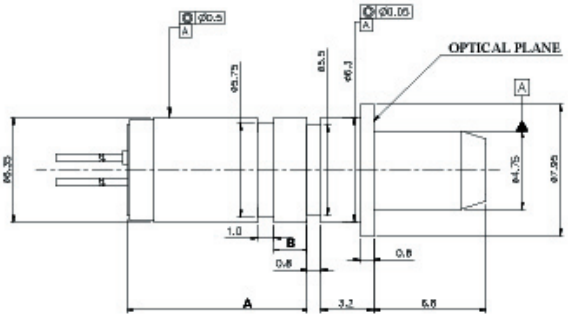


SC TOSA (L&M Power)
C-13-DFB2.5-TX-SSCX



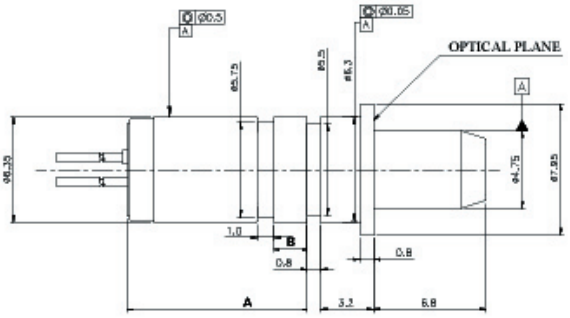
DIMENSION A:7.77~8.37mm

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



DIMENSION A:8.07~9.07mm
B:1.0~2.0mm

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



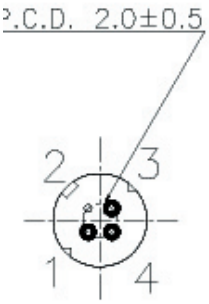
DIMENSION A:9.7~11mm
B:2.0~3.3mm

Packaging Demension (TOSA)

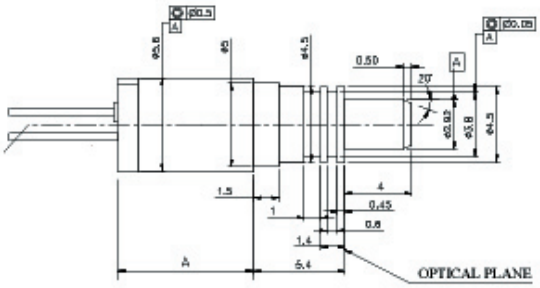
2.5G DFB LD Module- TOSA

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

Units in mm

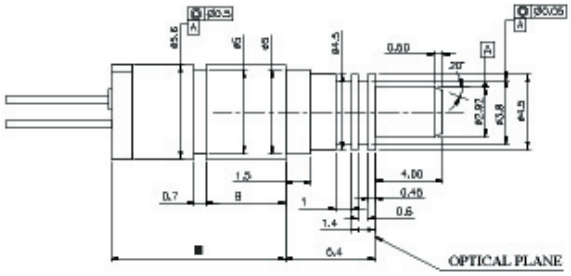


LC TOSA (L&M Power)
C-13-DFB2.5-TX-SLCX



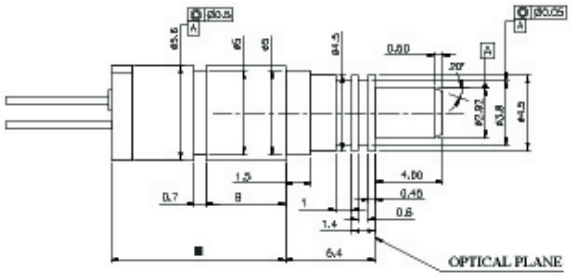
DIMENSION A:7.77~8.37mm

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



DIMENSION A:8.07~9.07mm
B:2.8~3.8mm

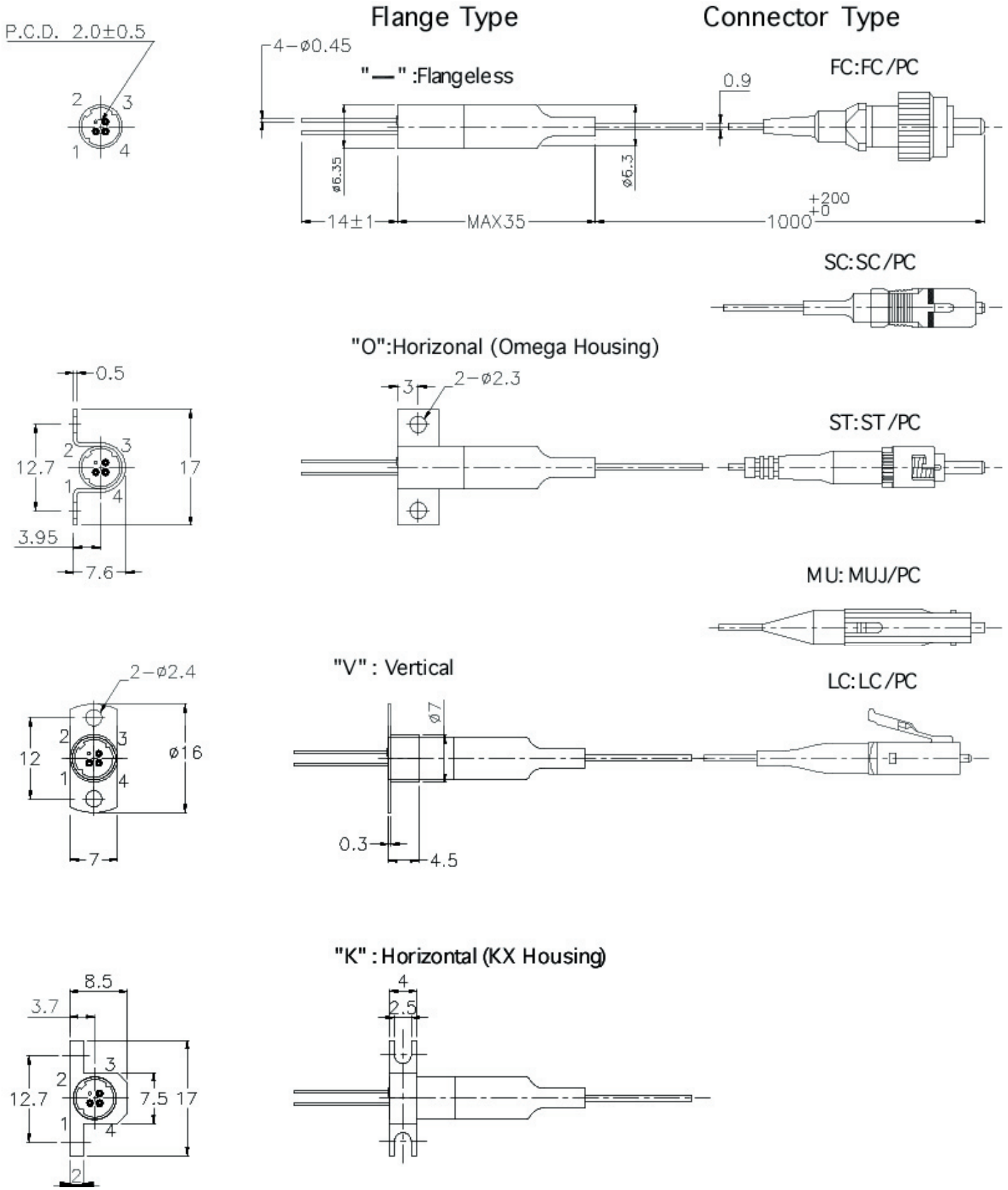
LC TOSA (H&2 Power)
C-13-DFB2.5-TX-SLCXX



DIMENSION A:9.7~11mm
B:2.9~4.2mm

Packaging Demension (TOSA)

2.5G DFB LD Module- Pigtailed **Part Number: C-13-DFB2.5-PX-SXXXX/XXX-X** **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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