



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 2.5Gbps high speed 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 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	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	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, f = 1MHz

Note:

1. Pin assignment can be customized.
2. Specifications subject to change without notice.
3. Selected wavelength is available for WDM application.

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

Wavelength
 13=1310 nm

Package
 T=TOSA
 R=Receptacle
 P=Pigtail

Pin Assignment
 Blank=A Type
 B=B Type
 D=D Type

Connector
 FC/ST/SC/MU/LC/Blank

Fiber Output Power
 L/M/H/2

I=Isolator
 Blank=No Isolator

Blank=PC Fiber
 APC=APC Fiber

Flange type (Blank;O;V;K)

RoHS Compliant
 Blank/G5/GR
 Blank = RoHS non-compliant product
 G5 = RoHS 5/6-compliant product (lead exemption)
 GR = Full RoHS compliant product (no exemption)

Packaging Dimensions (Units in mm)

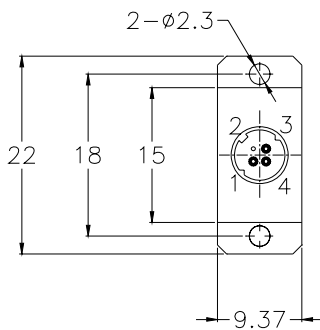
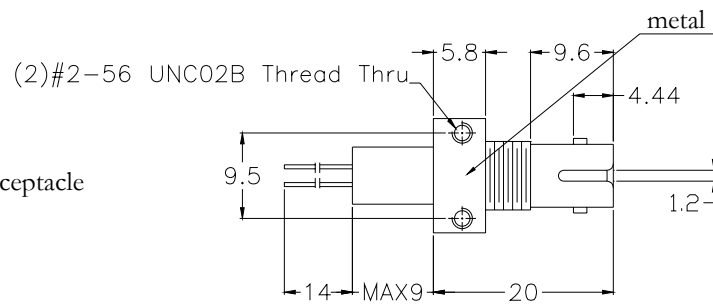
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FC Receptacle



ST Receptacle



SC Receptacle

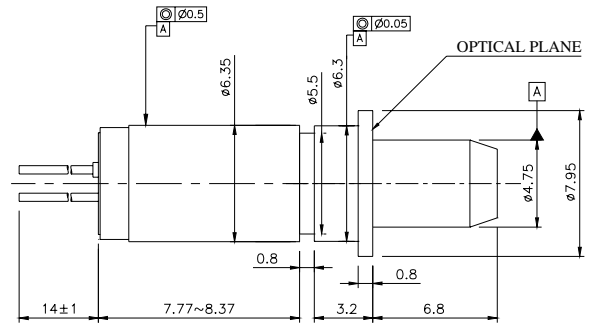


Packaging Dimensions (Units in mm)

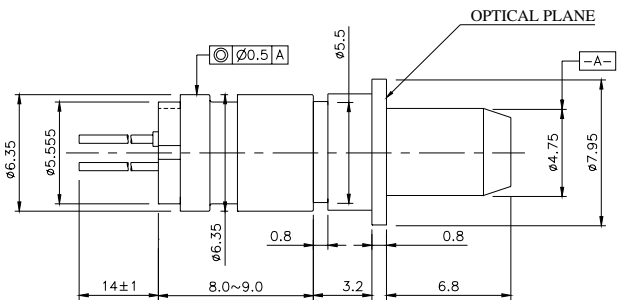
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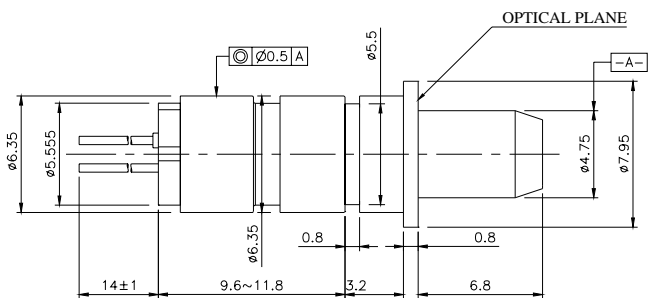
SC TOSA (L&M Power)
C-13-DFB2.5-TX-SSCXX-XX



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

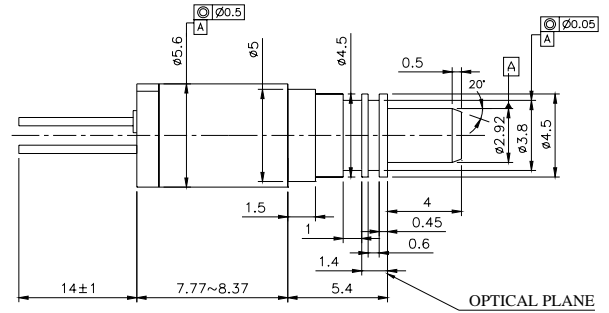


Packaging Dimensions (Units in mm)

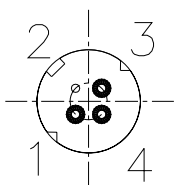
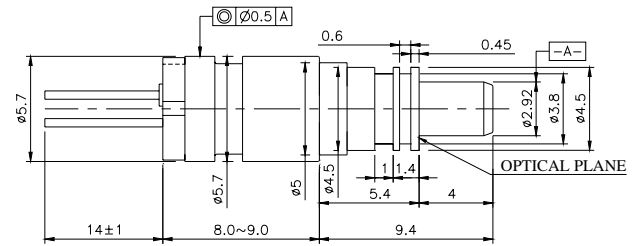
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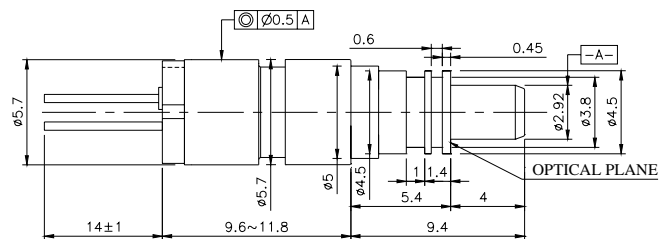
LC TOSA (L&M Power)
C-13-DFB2.5-TX-SLCX-XX



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



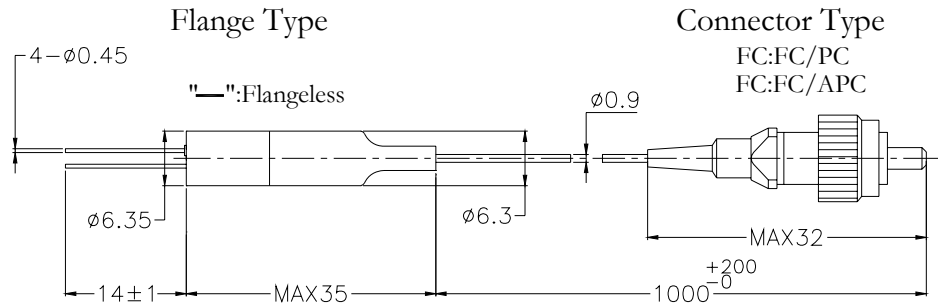
LC TOSA (H&2 Power)
C-13-DFB2.5-TX-SLCXX-XX



Packaging Dimensions (Units in mm)

Part Number: C-13-DFB2.5-PX-SXXXX/XXX-X-XX

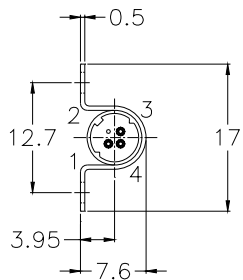
P.C.D. 2.0 ± 0.5



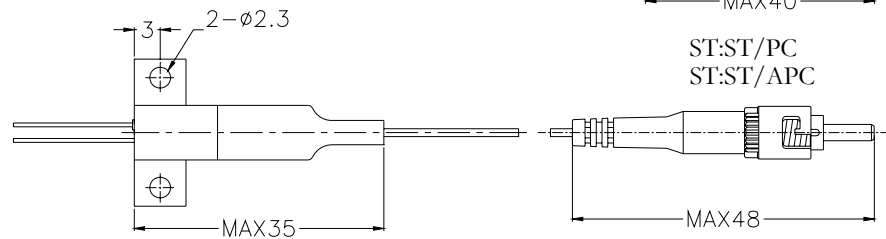
Connector Type

FC:FC/PC
 FC:FC/APC

SC:SC/PC
 SC:SC/APC

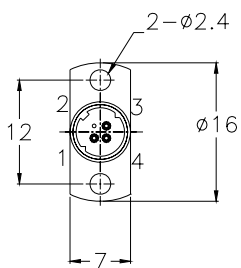
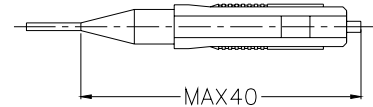


"O": Horizontal (Omega Housing)

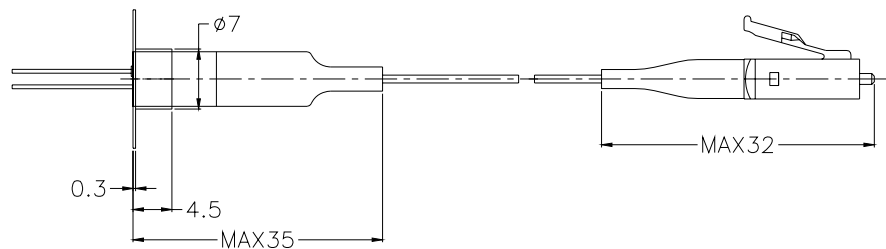


ST:ST/PC
 ST:ST/APC

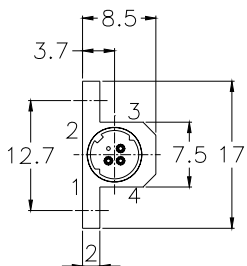
MU:MU Connector



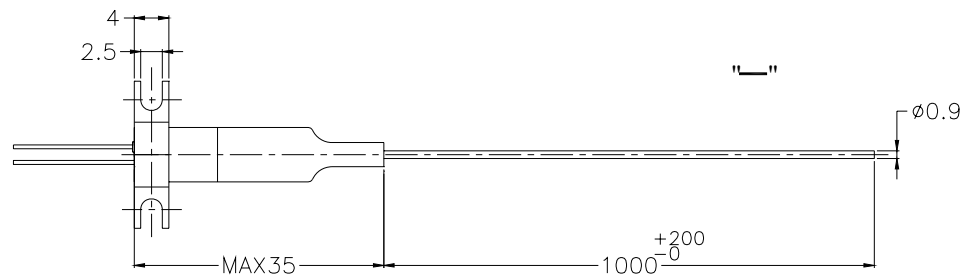
"V": Vertical



LC:LC/PC
 LC:LC/APC



"K": Horizontal (KX Housing)



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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