

Features

- Laser diode with multi-quantum-well structure
- Un-cooled operation at 0~70
- Hermetically sealed active component
- Built-in InGaAs monitor photodiode
- Complies with Telcordia Technologies GR-468-CORE
- Single frequency operation with high SMSR
- Fiber pigtailed with FC/ST/SC/MU/LC connector
- Design for Analog fiber-optics application
- RoHS Compliant available

Absolute Maximum Ratings (Tc=25 °C)

Parameter	Symbol	Rating	Unit
Fiber Output Power	P_f	2(H)/2.6(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	
Storage Temperature	T_{stg}	-40 ~ 85	

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

Optical and Electrical Characteristics (Tc=25 °C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Threshhold Current	I_{th}	-	-	20	mA	CW
Operating Current	I_{op}	-	35	50	mA	CW
Optical Output Power	P_f	1 2	- 2.5	2 -	mW	CW, $I_{th}+25mA$, kink free CW, $I_{th}+30mA$, kink free
Operating Voltage	V_F	-	1.2	1.5	V	CW, $P_f = P_f(\text{Min})$
Peak Wavelength		n-3	n	n+3	nm	Note 4
Side mode Suppression	S_r	30	35	-	dB	CW, $P_f = P_f(\text{Min})$, 0 ~ 70
Optical Isolation	OI	45 30	- -	- -	dB	$T_c=25$ 0 < T_c < 70
Rise / Fall Time	T_r/T_f	-	-	0.3	ns	$I_{bias}=I_{th}$, 10~90%
Relative Intensity Noise	RIN	-	-150	-145	dB/Hz	CW
Second Order Distortion	SSO	-	-	-40	dBc	Note1
Third Order Distortion	STO	-	-	-50	dBc	Note1
Monitor Current	I_m	100	-	1000	μ A	CW, $P_f = P_f(\text{Min})$, $V_{RPD} = 2V$
Monitor Dark Current	I_{dark}	-	-	0.1	μ A	$V_{RPD} = 5V$

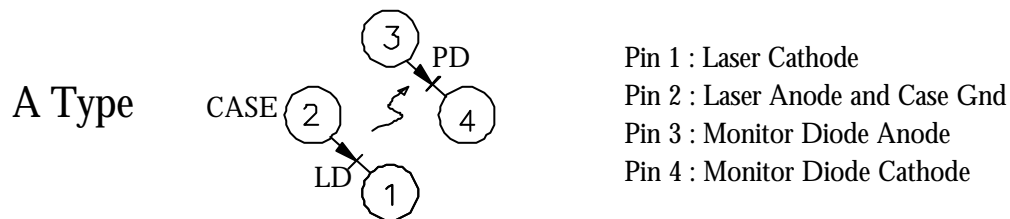
Photodiode Capacitance	C	-	6	15	pF	$V_{RPD} = 5V, f = 1MHz$
Tracking Error	Pf / Pf	-1.5	-	1.5	dB	APC, 0 ~ 70

Note:

1. The laser is modulated with two-carrier tones ($f_1=13MHz, f_2=19MHz$) at OMI=15% per carrier tone.
2. Pin assignment can be customized.
3. Specifications subject to change without notice.
4. Selected wavelength is available for WDM application.

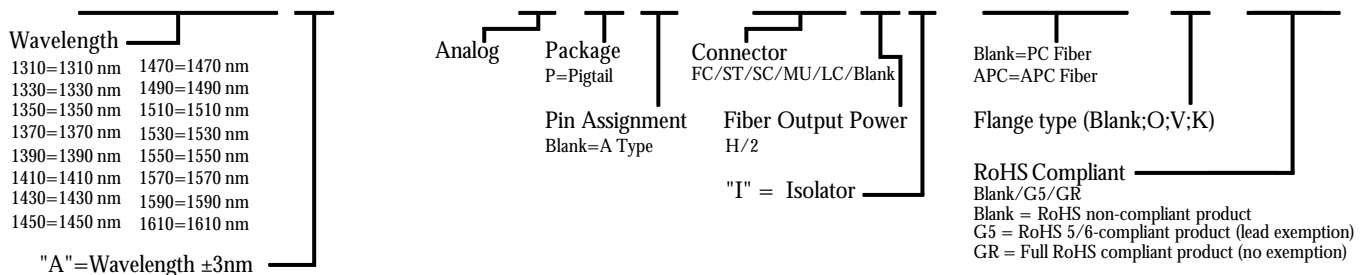
* Peak wavelength n=1270;1290;1310;1330;1350;1370;1390;1410;1430;1450;1470;1490
;1510;1530;1550;1570;1590;1610

Pin Assignment

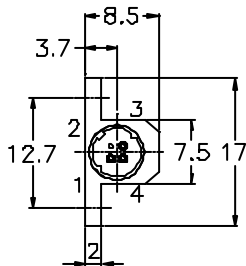
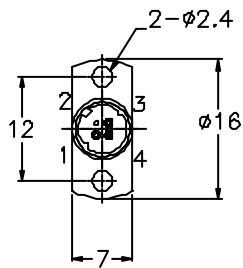
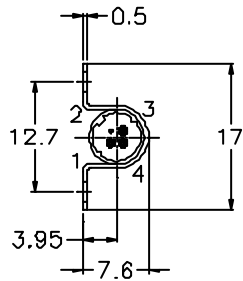
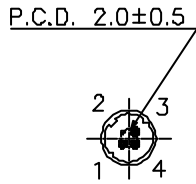


Ordering Information

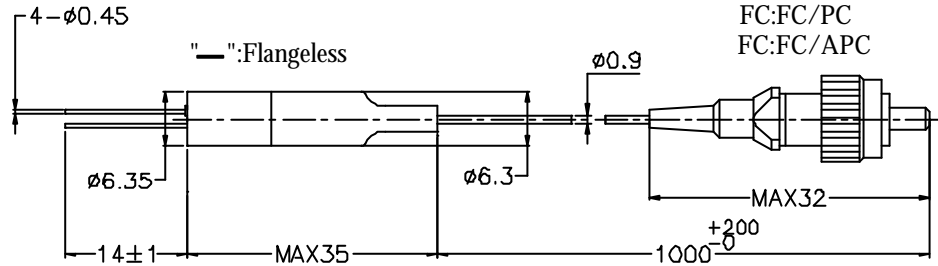
C-XXXXA-DFBA-PX-SXXXI/XXX-X-XX



Packaging Dimensions (Units in mm)



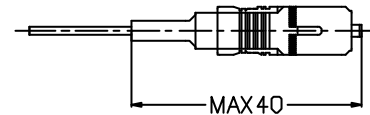
Flange Type



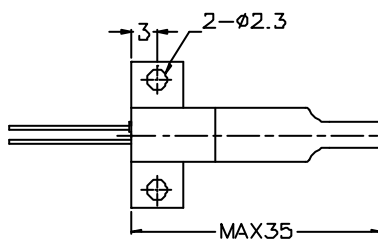
Connector Type

FC:FC/PC
 FC:FC/APC

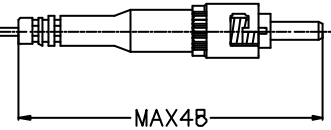
SC:SC/PC
 SC:SC/APC



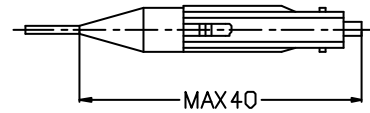
"□":Horizontal (Omega Housing)



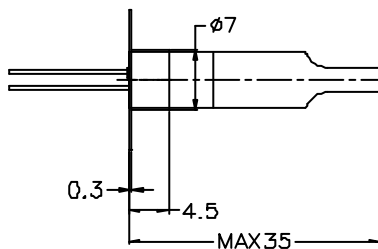
ST:ST/PC
 ST:ST/APC



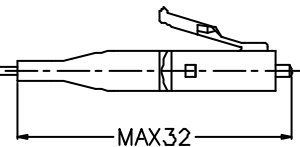
MU:MUJ/PC



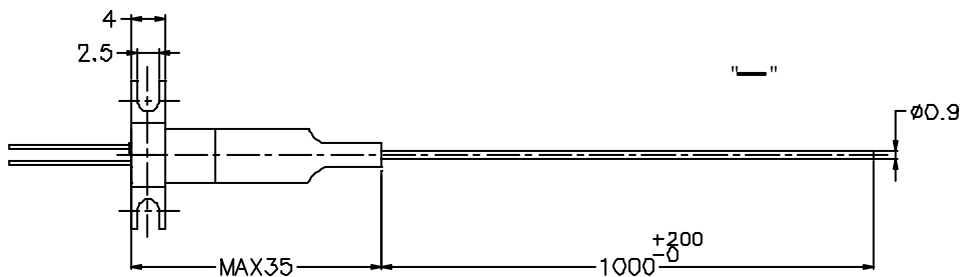
"V":Vertical



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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