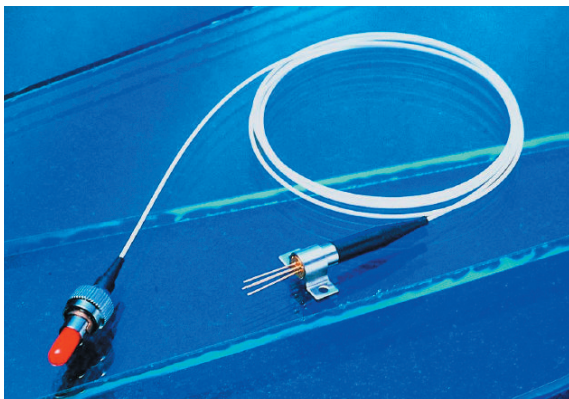


C-13-001A-P-SXXXI/XXX-X-XX



Features

- Laser diode with multi-quantum-well structure
- Un-cooled operation at -40 to +85°C
- Built-in InGaAs monitor photodiode
- Hermetically sealed active component
- Complies with Telcordia Technologies GR-468-CORE
- Fiber pigtailed package with optional FC/ST/SC/LC/MU connector
- Design for analog fiber optics application
- RoHS Compliant available

Absolute Maximum Rating (Tc=25°C)

Parameter	Symbol	Value	Unit
Fiber Output Power H/2	P_f	2.5(H)/3(2)	mW
Reverse Voltage	V_{RLD}	2	V
PD Reverse Voltage	V_{RPD}	10	V
PD Forward Voltage	I_{FPD}	1.0	mA
Operating Temperature	T_{opr}	-40 to +85	°C
Storage Temperature	T_{stg}	-40 to +85	°C

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

Optical and Electrical Characteristics(Tc=25°C)

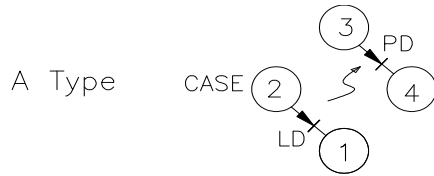
Parameter	Symbol	Min	Typical	Max	Unit	Test Condition
Threshold Current	I_{th}	-	10	20	mA	CW
Operating Current	I_{op}	-	30	45	mA	CW
Optical Output Power	P_f	1 2	- -	2 -	mW	CW, $I_{th}+20$ mA, kink free
Operating Voltage	P_f	-	1.2	1.5	V	CW, $P_f=P_f(\text{Min})$
Center Wavelength	λ_c	1290	1310	1330	nm	CW, $P_f=P_f(\text{Min})$
Spectral Width (RMS)	$\Delta\lambda$	-	-	3	nm	CW, $P_f=P_f(\text{Min})$
Slope Efficiency	S_e	0.05 0.1	- -	0.1 -	mW/mA	CW, $P_f=P_f(\text{Min})$
Optical Isolation	OI	45 30	- -	- -	dB	-40°C < Tc < 85°C
Rise/Fall Time	t_r/t_f	-	-	0.3	ns	$I_{bias}=I_{th}$ 10% to 90%
Relative Intensity Noise	RIN	-	-145	-140	dB/Hz	CW
Second Order Distortion	SSO	-	-	-50	dBc	Note 1
Third Order Distortion	STO	-	-	-55	dBc	Note 1
Monitor Current	I_m	100	-	1000	µA	CW, $P_f=P_f(\text{Min})$, $V_{RPD}=2V$
Monitor Dark Current	I_{DARK}	-	-	0.1	µA	$V_{RPD}=5V$
Photodiode Capacitance	C	-	6	15	pF	$V_{RPD}=5V$, $f=1\text{MHz}$
Tracking Error	$\Delta P_f / P_f$	-1.5	-	1.5	dB	APC, -40 to +85°C

Note:

1. The laser is modulated with two-carrier tones ($f_1=13\text{MHz}$, $f_2=19\text{MHz}$) at OMI=15% per carrier tone.

C-13-001A-P-SXXXI/XXX-X-XX

Pin Assignment



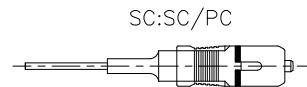
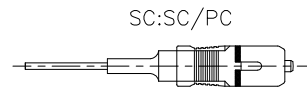
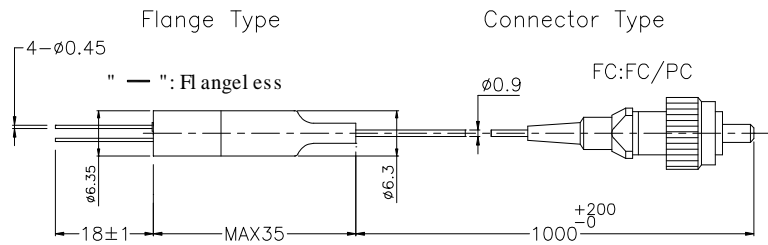
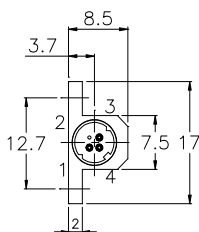
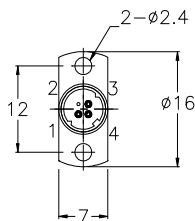
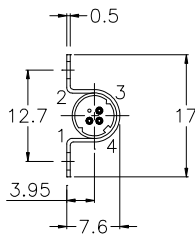
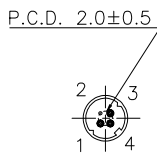
- Pin 1 : Laser Cathode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Monitor Diode Anode
- Pin 4 : Monitor Diode Cathode

Packaging Dimensions

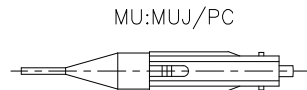
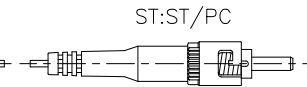
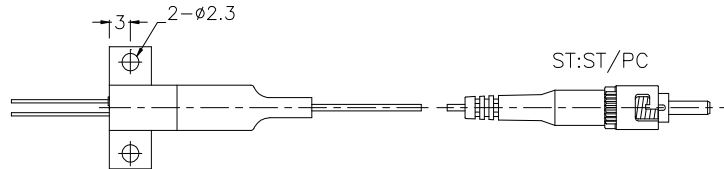
LD Module- Pigtailed

Part Number: C-13-001A-P-SXXXI/XXX-X-XX

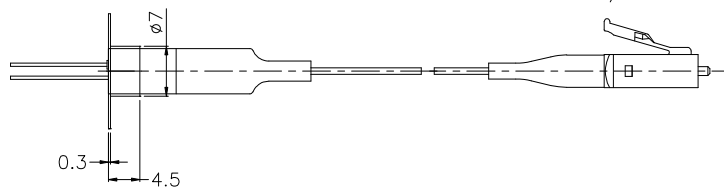
Units in mm



"O":Horizontal (Omega Housing)

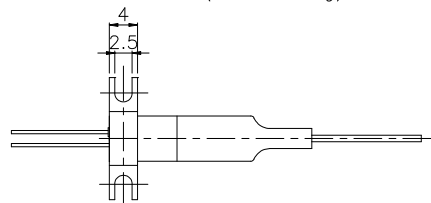


"V":Vertical



LC:LC/PC

"K":Horizontal (KX Housing)



Ordering Information

C-13-001A-PX-SXXXI/XXX-X-XX

Wavelength
13=1310nm

Analog
Package
P=Pigtail
Pin Assignment
"- " = A Type

Connector
FC/ST/SC/MU/LC/-
Fiber Output Power
H&2
"I" = Isolator

" - " = PC Fiber
APC = APC Fiber
Flange type (-;O;V;K)
RoHS Compliant
-/G5/GR
Blank = RoHS non-compliant product
G5 = RoHS 5/6-compliant product (lead exemption)
GR = Full RoHS compliant product (no exemption)

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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