

1310 nm Fiber Pigtailed Laser Diodes



Newport offers coaxial style laser diodes fiber pigtailed with 9/125/900um SMF. These wide bandwidth Fabry Perot Lasers are ideally suited to both digital and analog applications requiring up to 2GHz bandwidth. These lasers may be operated from -40 to 85°C while maintaining all of their spectral characteristics. These units are available in ready-to-use, fiber-pigtailed packages and may be terminated with all standard optical connector varieties .

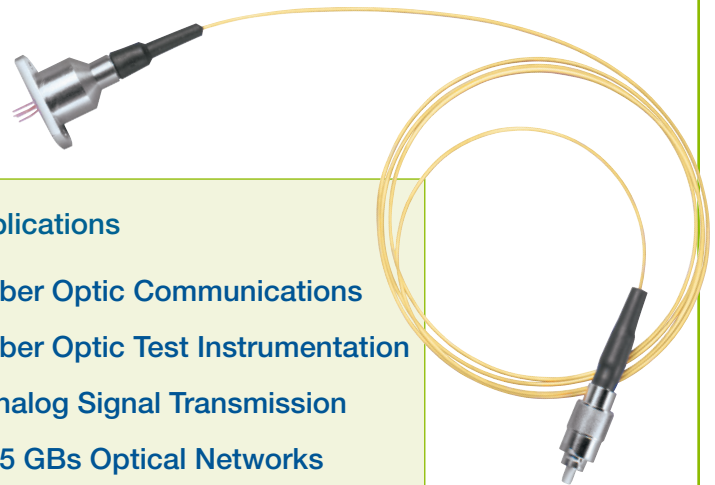
The InGaAsP FP laser diodes offered by Newport are of proven design and manufacture. The semiconductor lasers have been qualified as per Telcordia GR-468. The highly stable YAG Laser welded packaging ensures a low tracking error of +/- 1.0 dB maximum over OTR -40 to 85°C.

Product Features

- Internal Monitor Photodiode
- Compact, reliable, coax fiber-coupled package
- 0.1 to 2.0mW singlemode (9/125)
- 0.20 nsec typical rise/fall time

Applications

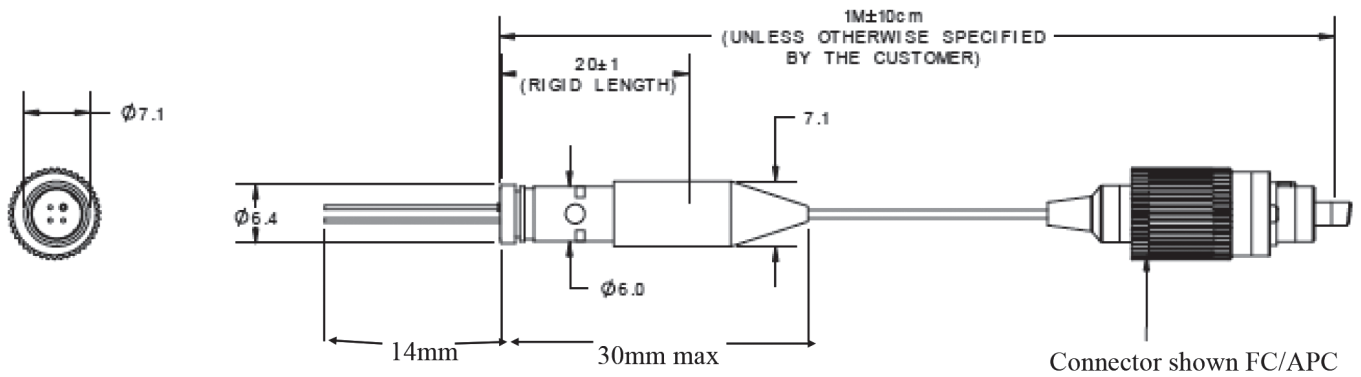
- **Fiber Optic Communications**
- **Fiber Optic Test Instrumentation**
- **Analog Signal Transmission**
- **1.5 GBs Optical Networks**



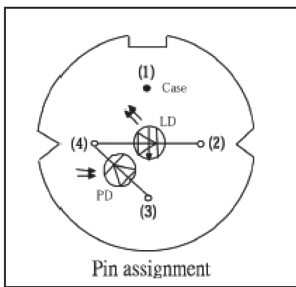
Part Number	Wavelength (nm)			Min. Fiber Coupled Power (mW)	Threshold Current (mA)		Operating Current (mA)		Pin-Out Style
	Min.	Type	Max		Typ.	Max	Typ.	Max	
LD-1310-31B	1290	1310	1330	1.5	5.0	15	12	20	"T" style

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Physical Dimensions (mm) & Pin Connection



T Style Pin-out
PL15P Series

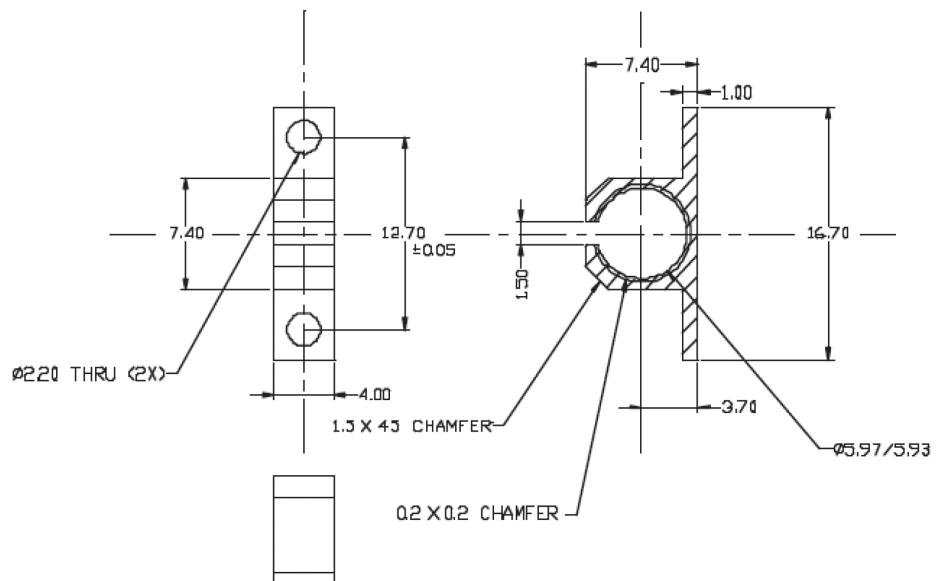


Laser Diode Lead
Orientation Bottom View

Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Value	Unit
Optical Output Power	P _O	3	mW
LD Reverse Voltage	V _{RLD}	2	V
LD Forward Current	I _n	I _{TH} +20mA	mA
PD Reverse Voltage	V _{RPD}	20	V
PD Forward Current	I _{FPD}	2	mA
Operating Temperature	T _{OPR}	-40 to 85	°C
Storage Temperature	T _{STG}	-40 to 85	°C
Soldering Temperature		260/10	°C/sec

Horizontal PCB Mounting Bracket Code "D"



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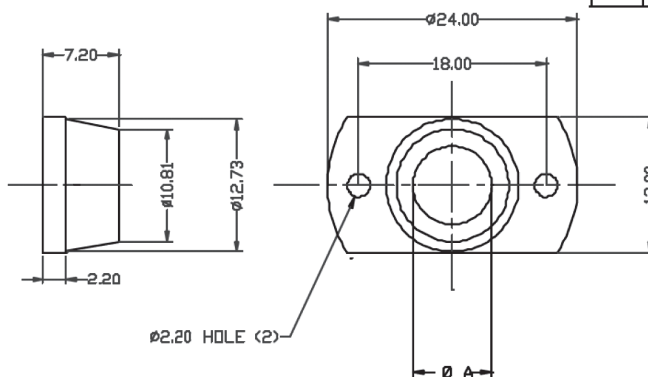
Electro-Optical Characteristics (Tc=25°C except as noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Laser Threshold	I _{th}	CW	4	5	15	mA
Slope Efficiency	n	1 mW	0.10	0.40		W/A
LD Forward Voltage	V _f	I _f =10 mA		1.1	1.5	V
Series Resistance	R	I _f =10 mA		4	7	Ohms
Optical Output Power	P _o	I _f =5 mA	0.1	2.0	3	mW
Wavelength	λ	1 mW	1280	1310	1340	nm
Wavelength Temperature Coefficient	λ _{ct}	I _f =10 mA		0.4		nm/ deg C
Monitor Output Current	I _m	I _f =I _{th} +5 mA	0.05		1.0	mA
Monitor Dark Current	I _d	5V reverse bias		1	100	nA
Monitor Capacitance	C	5V reverse bias		5	20	pF
Rise Time	t _r	20% to 80%	–	0.20	0.30	nsec
Fall Time	t _f	80% to 20%	–	0.20	0.30	nsec
Tracking Error		1 mW CW from -40 to 85 C	-1.0		1.0	dB

Board Mount Bracket "B"

Board Mount Bracket "B"

DASH	DIMENSION A	APPLICATION
-01	6.06/6.11	6mm DEVICES
-02	9.430/9.471 mm	9mm DEVICES
-03	6.32 / 6.40	DIC FIBERED LASERS



- NOTES:
 1. MEDIA TUMBLE DEBUR.
 2. PACK IN PLASTIC BAGS WITH NO MORE THAN 500 PER BAG.
 3. MARK BAGS WITH THE PART NUMBER AND THE PO NUMBER.