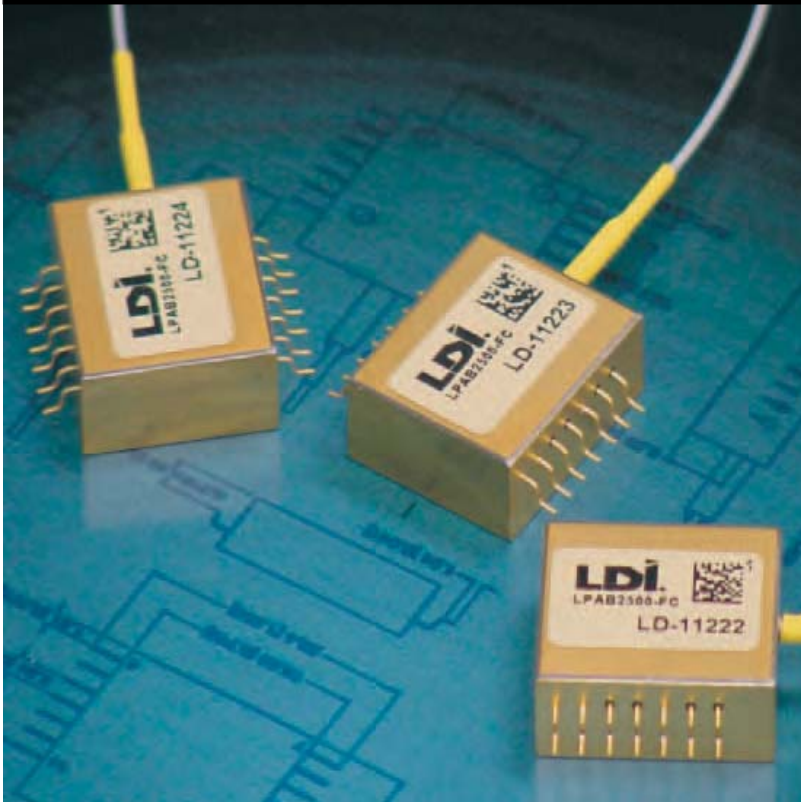


2.5 Gb/s PINAMP optical receiver



LPAB 2500 SERIES

- 2.5 Gb/s data rate, 14-pin Butterfly package
- High responsivity, low dark current InGaAs PIN detector
- High sensitivity / wide dynamic range
- Single power supply
- Access to detector pin
- Hermetic package
- Differential output
- Low back reflection

Applications:

- Long haul transmission systems
- Short haul transmission systems
- Instrumentation and testing
- Digital receivers in DWDM transponders
- SDH/SONET single mode applications

Laser Diode Incorporated's LPAB 2500 PINAMP module integrates a high responsivity, low leakage current, high speed InGaAs photodiode with a GaAs transimpedance amplifier. The transimpedance amplifier incorporates automatic gain control, enabling high optical overload performance. The Butterfly package offers high reliability capable of satisfying TELCORDIA GR-468-CORE specifications.

The 2.5 G/bs PINAMP optical receiver is available with industry standard connectors.

Absolute Maximum Ratings

Operation above absolute maximum ratings can cause damage to the device. Normal operation of the device should be per the operating conditions provided in the data sheet.

	Min	Typ	Max	Units
Negative Supply Voltage			-6	V
Optical Input Power			+8	dBm
Operating Temperature	-40		+85	°C
Storage Temperature	-40		+85	°C

DC Specifications

	Min	Typ	Max	Units
Negative Supply Voltage	-4.9	-5.2	-5.5	V
Supply Current		130		mA
Power Dissipation		0.7		W

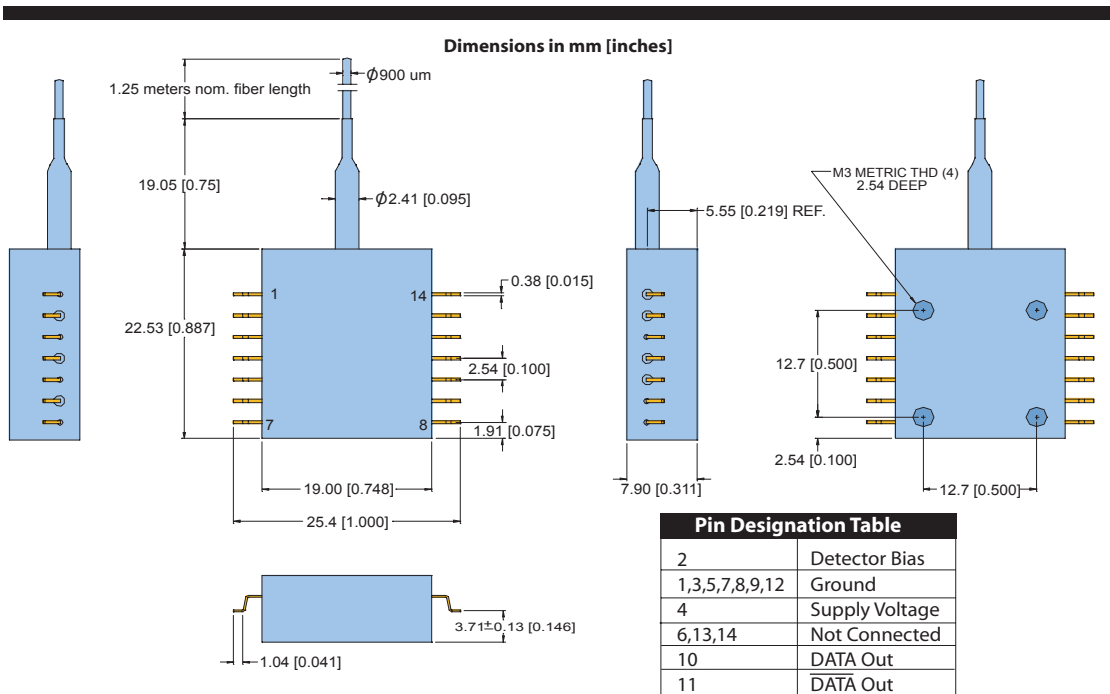
Performance Specifications (Unless otherwise noted, the specifications are at +25° C temperature, -5.2 V supply, and 0 V detector bias.)

Parameter	Specification			Units
	Min	Typ	Max	
Sensitivity *		-24	-22	dBm
Overload (Optical Power)		+1		dBm
Transimpedance (Differential)	5	8		KΩ
Gain Flatness		±1		dB
Bandwidth	1.5	1.7		GHz
Dynamic Range		25		dB
Optical Back Reflection			-27	dB
Dark Current			1	nA
Responsivity				
@ 1300nm	0.85	0.90		A/W
@ 1550nm	0.90	0.95		A/W
Output Return Loss (50Ω)		10		dB

* **Data Rate: 2.5 Gb/s; data sequence, PRBS 2²³ -1, BER=1E-10, DATA and DATA are internally AC coupled to package pins.**

Fiber Specifications

Fiber type	Index Profile	N/A	Nominal Size (um)	Cladding Tolerance	900 um Buffer Material
Single-Mode Tight Buffer	Step	0.13	9/125/245/900	125 +/- 1.0 um	Hytel



Ordering Information

LPAB 2500-XX

Pigtail connector termination designations:

- Use **FC** to indicate an FC type connector
- Use **LC** to indicate an LC type connector
- Use **SC** to indicate an SC type connector

Other connector options are available. Contact the Laser Diode Incorporated Sales Department or your local Laser Diode representative to discuss your requirements. For a complete listing of representatives, visit our website at www.laserdiode.com.

Product Changes

Laser Diode Incorporated reserves the right to make changes to the product(s) or information contained herein without notice. No liability is assumed as a result of their use or application.

Handling Precautions

Handle optical fiber with normal care, avoiding stretch, tension, twist, kink, or bend abuse. Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload.