RLC-P85P426-3V

2.5Gbps LC Connectorized GaAs PIN plus Pre-Amplifier Photodiode

Data Sheet

Overview

The Lasermate RLC-P85P426-3V is a high-speed photodetector module featuring a GaAs PIN photodiode integrated with a pre-amplifier. It is optimized for the 770nm to 860nm wavelength spectral range and is housed in an LC connectorized receptacle. This module is designed for use in multi-mode fiber optic data communication systems operating from 1.0625Gbps up to 2.5Gbps, with an opposite data output pin assignment to suit specific integration requirements.

Features

- Pre-aligned LC-type receptacle for multi-mode fiber communication
- Design for Small Form Factor transceivers
- Suitable to run 1.0625Gbps to 2.5Gbps
- With opposite data output pin assignment
- Single power supply +3.3V

Specifications

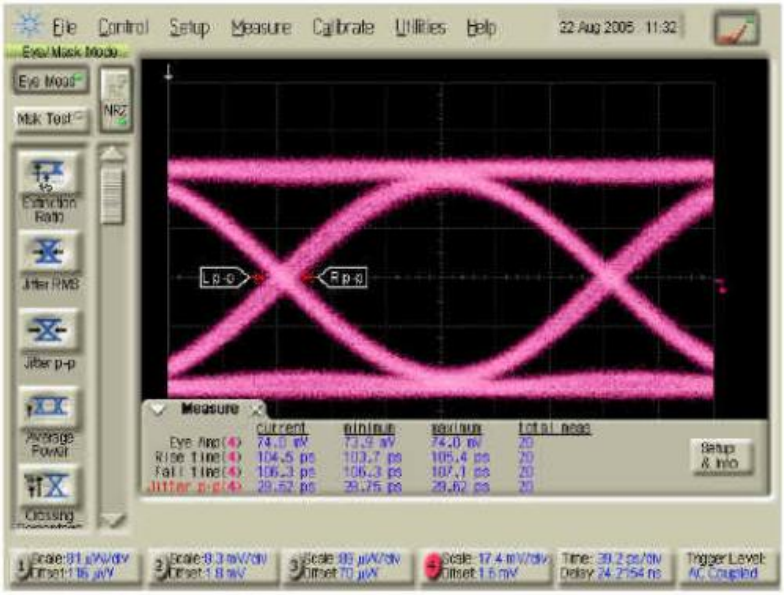
Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	°C	
Operating Temperature	-40	85	°C	
Lead Solder Temperature		260	°C	10 seconds

Electro-Optical Characteristics (Typical values are at +3.3V at 25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power Supply	V_{CC}	3.0	3.3	3.6	V	
Supply Current	I_{CC}		25	35	mA	no loads
Differential Responsivity	Rd	1.8	2.6	3.8	mV/μW	R_{load}=100ohm, P=-15dBm, λ=850nm
Single Ended Responsivity	Rs	0.9	1.3	1.9	mV/μW	R_{load}=50ohm, P=-15dBm, λ=850nm
Small-Signal Bandwidth	BW	1.6			GHz	P=-15dBm
Low-Frequency Cut off	LF			100	kHz	
Rise / Fall Time (20%~80%)	tr/tf		115	200	ps	P=-15dBm, λ=850nm
Saturation Power	P_{Sat}	0			dBm	
Single Ended Output Impedance	R_O		50		ohm	
Maximum Differential Output Voltage		220	280		mV p-p	R_{load}=100ohm, P=0dBm, λ=850nm
Wavelength	λ	770		860	nm	
Sensitivity				-20	dBm	λ=850nm @2488.32Gbps, PRBS7, ER=10dB, BER=1E-10

Typical Characteristics

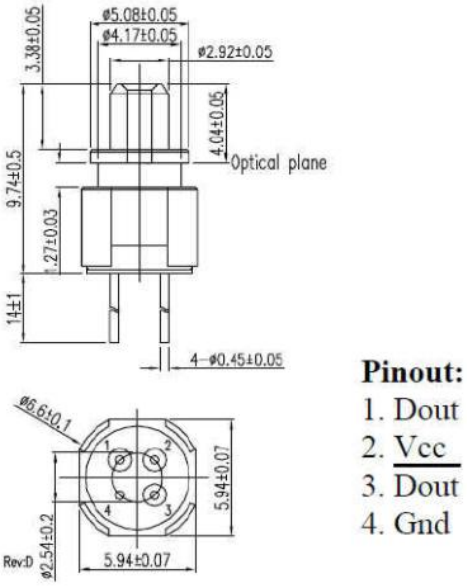
Eye Diagram

R_{load} = 50ohm, P = -15dBm @2488.32Mbps, 850nm, PRBS 7.



tr=104.5ps, tf=106.3ps, Jitter p-p=29.62ps

Outline Dimensions (unit: mm)



Pinout:

1. Dout
2. Vcc
3. Dout
4. Gnd

Note: Specifications are subject to change without notice.