

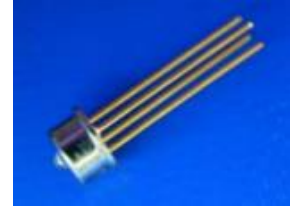


## 2.5Gbps 1260nm~1620nm InGaAs PIN plus AGC Pre-Amplifier Photodiode in TO-46 Package, 4-pin

Part No. PDT-A13P4-2GC3

### Features

- 1310nm/1550nm InGaAs PINTIA 4 pin TO
- Industry standard TO-46 package with AR coating cap lens and tab-less
- Optimized for fiber optic application
- Design for long wavelength 2.5Gbps applications
- Single power supply +3.3V

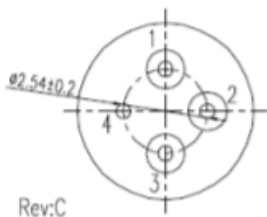
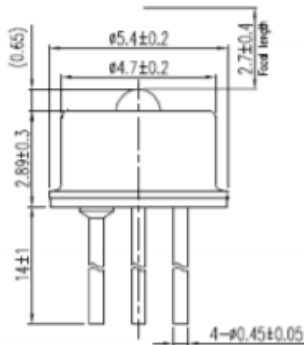


### Specifications

Electro-Optical Characteristics (Typical values are at + 3.3V@25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Power Supply	V <sub>CC</sub>	3.0	3.3	3.6	V	
Supply Current	I <sub>CC</sub>		43	50	mA	No loads
Differential Responsivity	R <sub>d</sub>	9	14.4	23	mV/uW	λ=1490nm, R <sub>load</sub> =100ohm, P=-28dBm
Single Ended Responsivity	R <sub>s</sub>	4.5	7.2	11.5	mV/uW	λ=1490nm, R <sub>load</sub> =50ohm, P=-28dBm
Small-Signal Bandwidth	BW	1.4			GHz	
Low-Frequency Cut Off	LF		20		kHz	
Rise/Fall Time (20-80%)	tr/tf		170	200	ps	P=-28dBm, λ=1490nm
Saturation Power	P <sub>sat</sub>	0	3		dBm	
Single Ended Output Impedance	R <sub>o</sub>		50		ohm	
Wavelength	λ	1260		1620	nm	
Sensitivity				-27.5	dBm	T <sub>A</sub> = 25°C, λ = 1490nm, @2488.32Mbps, PRBS23, ER=10dB, BER=10 <sup>-10</sup>

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	

### Outline Dimensions (unit: mm)

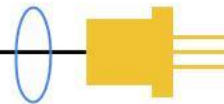


- Pinout:**
1. V<sub>CC</sub>
  2. D<sub>out</sub>
  3. D<sub>out</sub>
  4. Gnd

**Lasermate Group, Inc.**

19608 Camino De Rosa, Walnut, CA 91789, USA

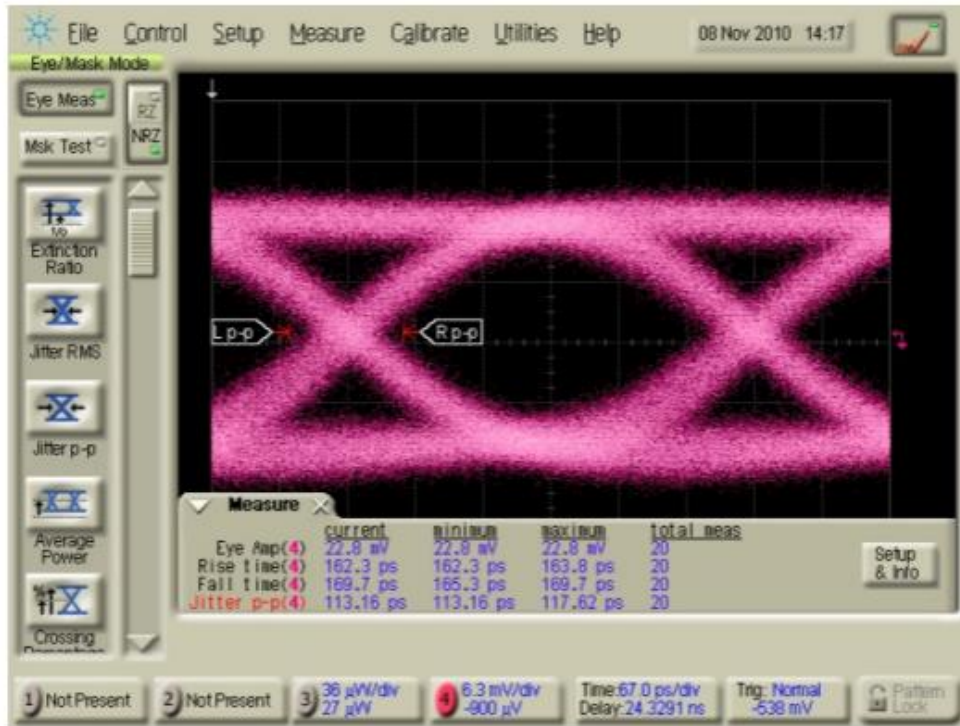
Tel: (909)718-0999 | Fax: (909)718-0998 | E-mail: info@lasermate.com | URL: <http://www.lasermate.com>



## Typical Characteristics

### Eye Diagram

$R_{load} = 50\Omega$ ,  $P = -28\text{dBm}$  @2488.32Mbps, 1490nm, PRBS 23.



$t_r=162.3\text{ps}$ ,  $t_f=169.7\text{ps}$ , Jitter p-p= $113.16\text{ps}$

Note: Specifications are subject to change without notice.