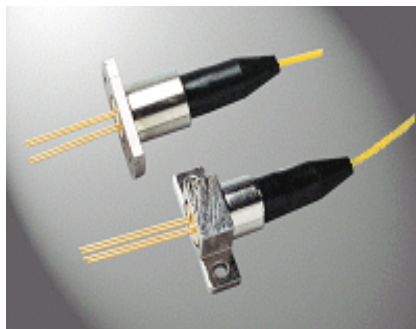


PD-PTCM961-416 (V1.0)**155Mb/s 5-pin Fiber Pigtailed PIN/TIA****PD-PTCM961-416****Features**

- Data rates up to 155Mb/s
- High performance InGaAs PIN Photodiode with Transimpedance Amplifier (TIA)
- Operating wavelength range: 1250~1620nm
- Single +3.3V power supply
- Wide dynamic range
- LC or FC fiber pigtail package (5-pin)
- Compliant to RoHS and WEEE requirements

Applications

- 155Mb/s Module
- Fiber Channel Module
- Fiber Sensors and Other applications

Description

PHOTONIK's PD-PTCM961-416 is a high-performance InGaAs photodiode and a transimpedance amplifier packaged for high-speed data communication.

The device inside packaged with InGaAs PIN and TIA. The PIN transduces incident light into optical current with high efficiency. The TIA converts the current signal into a voltage signal with a very low input noise current contribution. The TIA also can decrease the light to voltage conversion factor when the average incident optical power is relatively high. The golden wire's pull force is strictly tested to guarantee its fastness.

PD-PTCM961-416's TO cap is sealed under the condition of dew point and airproof control. So it can provide the best work environment. Our reliability criterion strictly controls each step of the device craftwork in order to ensure high reliability and the best performance.

It is designed for 155Mb/s module. The device is applicable for 1310nm/1550nm optical fiber communication systems for 155Mb/s, typically showing high sensitivity of -40dBm. It can also be used for fiber sensor systems.

PD-PTCM961-416 (V1.0)

Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Storage Temperature Range	T_s	°C	-40	85
Relative Humidity	RH	%	5	85
Power Supply Voltage	V_{cc}		-	4.5
Lead Solder Temperature	-	°C	-	260
Lead Solder Duration	-	S	-	10
Input Optical Power	P_{in}	dBm	-	3

Recommended Operating Conditions

Parameter	Symbol	Unit	Min	Typ	Max
Case Operating Temperature Range	T_c	°C	-10	25	70
Power Supply Voltage	V_{cc}		3	3.3	3.6
Relative Humidity	RH	%	5	-	85

Specifications (T=25 °C, unless otherwise noted)

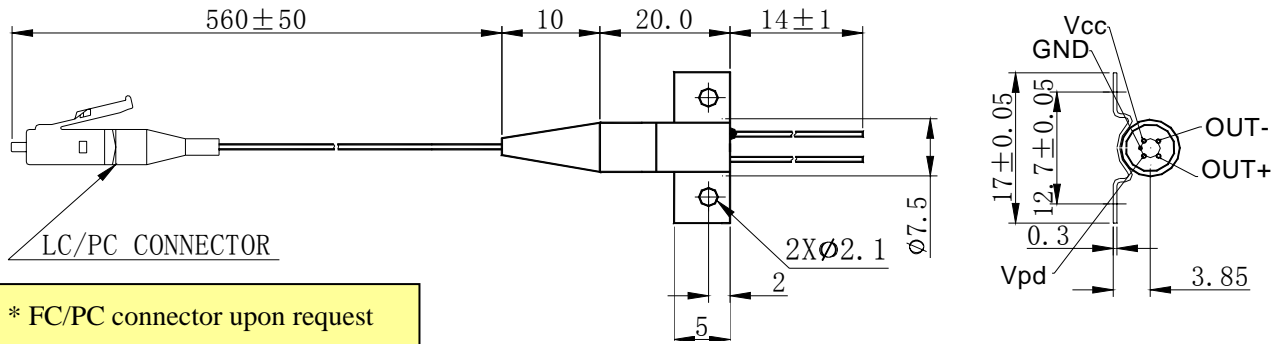
Parameter	Symbol	Unit	Min	Typ	Max	Test condition
Electrical Characteristics						
Operating Current	I_{cc}	mA	-	22	32	No loads
Detector Dark Current	I_d	nA	-	-	5	
Output Impedance	R_o	Ω	-	50	-	Single ended
-3dB Bandwidth	BW	MHz	110	140	-	Cutoff: < 20KHz
Differential Output Voltage	V_{out}	mV _{p-p}	-	-	800	
Optical Characteristics						
Wavelength Range	λ	nm	1250	-	1620	
Sensitivity	S	dBm	-	-40	-37	NRZ, ER=10dB, 155Mb/s, PRBS 2 ²³ -1, BER=10 ⁻¹⁰
Overload	P_{in-max}	dBm	-3	-	-	
Responsivity	R	A/W	0.80	0.85	-	1310nm

PD-PTCM961-416 (V1.0)

Pin Descriptions:

PTCM961-416		
Pin	Description	Bottom View
1	Vcc	
2	OUT-	
3	OUT+	
4	Vpd	
5	GND	

Package Dimension:



Regulatory Compliance

Feature	Test method	Performance
Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883E Method 3015.7	>500 V

Ordering Information

PHOTONIK P/N	Specification							
	Package	Datarate	Laser	Optical Power	Detector	Sensitivity	Temp	Others
PD-PTCM961-416LC	5pin LC Pigtail	155M	-	-	PIN+TIA	-40dBm	-10~70	+3.3V
PD-PTCM961-416FC	5pin FC Pigtail	155M	-	-	PIN+TIA	-40dBm	-10~70	+3.3V