

## 3.3V / 622 Mbps InGaAs PIN-TIA Receiver

## PT-5330 Series

InGaAs PIN-TIA WITH PIGTAIL

### FEATURES

- ◇ InGaAs/InP PIN Photodiode with AGC transimpedance amplifier
- ◇ Differential ended output
- ◇ Single +3.3 V operation
- ◇ Speed up to 622 Mbps
- ◇ - 40 ~ +85 °C operation temperature

### DESCRIPTION

PT-5330 series are designed as optical signal receivers with AGC transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for telecommunications, especially SONET OC-12 / SDH STM-4, and Fiber Channel.

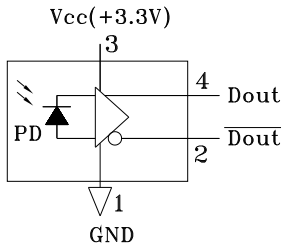
AC / ELECTRICAL AND OPTICAL CHARACTERISTICS (Tc=25°C)						
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
	Detection Range		1100	1310	1650	nm
G	Differential Gain	AC coupled, load=50 Ω	16	20	24	V/mW
BW	Bandwidth	-3 dB point	450			MHz
Psat	Saturation Power	λ =1300nm	-3		-	dBm
Sens	Sensitivity	BER=10 <sup>-10</sup> @622Mbps	-	-31	-30	dBm
Rout	Output Resistance		-	50	65	ohm
	Operation Speed			622		Mbps

DC / ELECTRICAL CHARACTERISTICS (Tc=25°C)					
Symbol	Parameter	Min.	Typ.	Max.	Unit
Vcc	Power Supply	3.15	3.3	3.45	V
Icc	Supply Current (no load)	-		40	mA

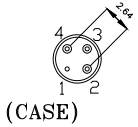
ABSOLUTE MAXIMUM RATING (Tc=25 °C)			
Symbol	Parameter	Value	Unit
V	Voltage	4.5	V
Topr	Operating Temperature	-40~+85	°C
Tstg	Storage Temperature	-40~+85	°C

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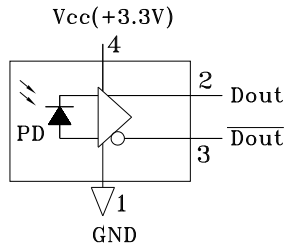
## MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



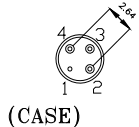
TYPE B



(CASE)

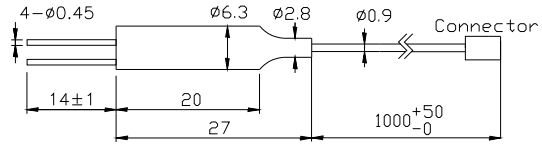


TYPE A

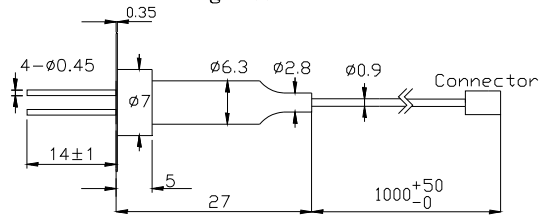
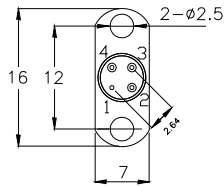
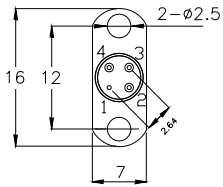


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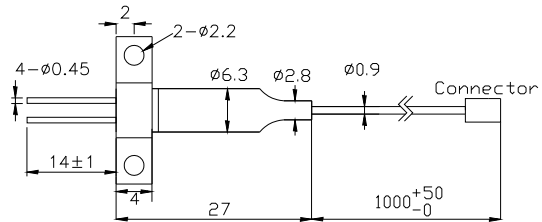
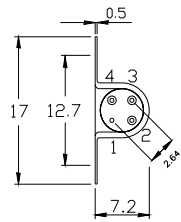
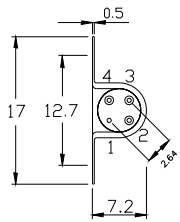
PIN	PIN Assignment	
	TYPE B	TYPE A
1	GND	GND
2	Dout	Dout
3	Vcc(3.3V)	Dout
4	Dout	Vcc(3.3V)



Flangeless



Vertical Flange



Horizontal Flange

**Note:** Specifications subject to change without notice.

## ORDER INFORMATION

Part No.: P T - 5 3 3   -

Code	Fiber
0	SMF, 9/125 $\mu$ m
1	MMF, 50/125 $\mu$ m
2	MMF, 62.5/125 $\mu$ m

Code	PIN Assignment
Blank	Type A
B	Type B

Code	Flange
V	Vertical
H	Horizontal
X	No Flange

Code	Connector
S	SC/PC
F	FC/PC
T	ST/PC
X	No Connector
SA	SC/APC
FA	FC/APC
TA	ST/APC

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## Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2002/11/1

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