

3.3V / 2.5 Gbps InGaAs PIN-TIA Receiver

PT-9330 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 2.5 Gbps
- ✧ - 40 ~ +85 °C operation temperature

DESCRIPTION

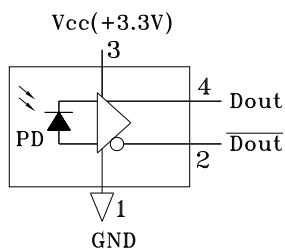
PT-9330 series are designed as optical signal receivers with AGC transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for telecommunications, especially Gigabit Ethernet, Fiber Channel and SONET OC-48.

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	2	2.5	3	V/mW
BW	Bandwidth	-3 dB point	1.5	2		GHz
Psat	Saturation Power	$\lambda = 1300\text{nm}$	-3			dBm
Sens	Sensitivity	BER=10 ⁻¹⁰ @2.5 Gb/s		-22	-19	dBm
Rout	Output Resistance		-	50	65	ohm
	Operation Speed			2500		Mbps

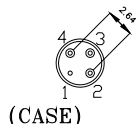
DC / ELECTRICAL CHARACTERISTICS (Tc=25°C)					
Symbol	Parameter	Min.	Typ.	Max.	Unit
Vcc	Power Supply	3.15	3.3	3.45	V
Icc	Supply Current (no load)	-	30	50	mA

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

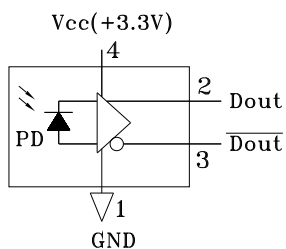
MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



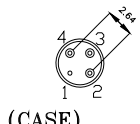
TYPE B



(CASE)

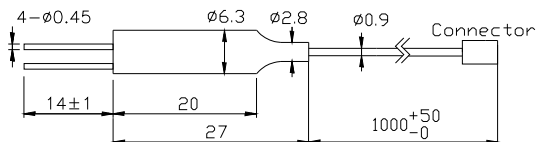


TYPE A

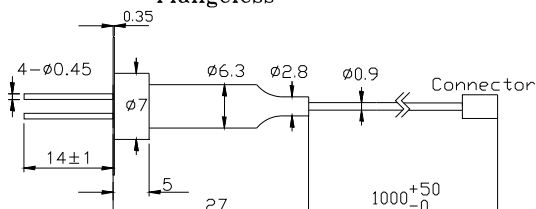
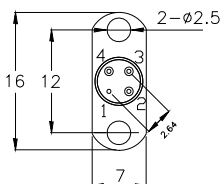
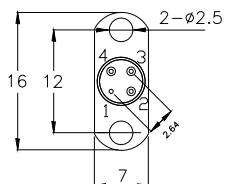


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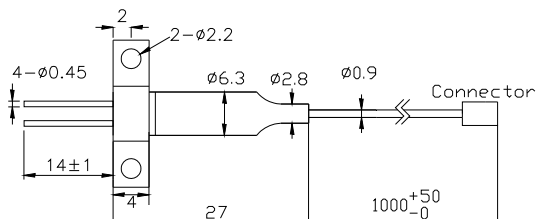
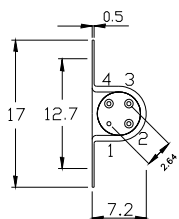
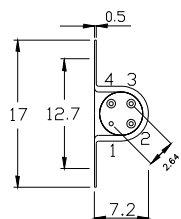
PIN	PIN Assignment	
	TYPE B	TYPE A
1	GND	GND
2	Dout	Dout
3	Vcc(3.3V)	Dout
4	Dout	Vcc(3.3V)



Flangeless



Vertical Flange



Horizontal Flange

Note: Specifications subject to change without notice.

ORDER INFORMATION

Part No.: P T - 9 3 3 [] [] - [] []

Code	Voltage
0	5V
3	3.3V

Code	Fiber
0	SMF, 9/125 μ m
1	MMF, 50/125 μ m
2	MMF, 62.5/125 μ 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

Revision History

Version	Subject	Release Date
1.0	Initial datasheet	2002/12/1
2.0	Modify the mechanical dimension and PIN assignment	2009/4/9
