

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

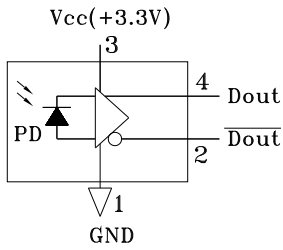
PT-9330 series are designed as optical signal receivers with AGC transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for telecommunications, especially Gigabit Ethernet, Fiber Channel and SONET OC-48.

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	λ =1300nm	-3			dBm
Sens	Sensitivity	BER=10 ⁻¹⁰ @2.5 Gb/s		-22	-19	dBm
Rout	Output Resistance		-	50	65	ohm
	Operation Speed			2500		Mbps

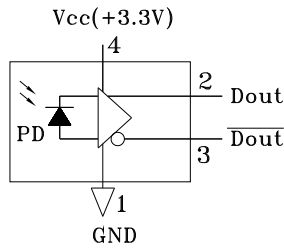
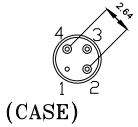
DC / ELECTRICAL CHARACTERISTICS (Tc=25°C)					
Symbol	Parameter	Min.	Typ.	Max.	Unit
Vcc	Power Supply	3.15	3.3	3.45	V
Icc	Supply Current (no load)	-	30	50	mA

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

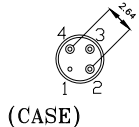
MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



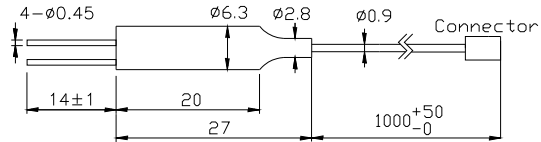
TYPE B



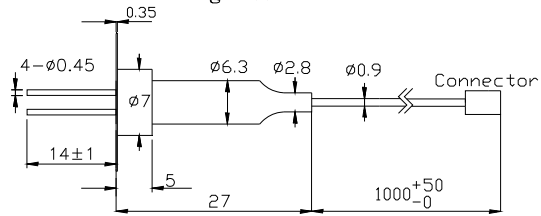
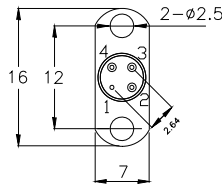
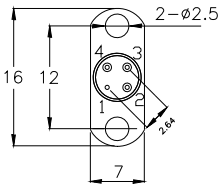
TYPE A



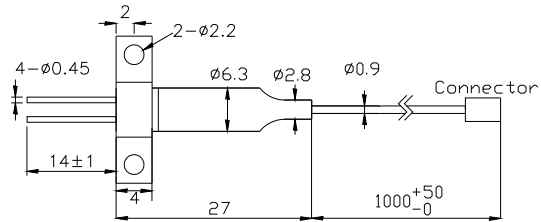
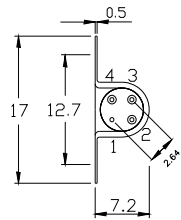
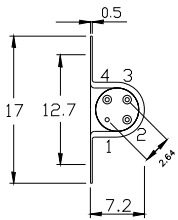
PIN	PIN Assignment	
	TYPE B	TYPE A
1	GND	GND
2	$\overline{\text{Dout}}$	Dout
3	Vcc(3.3V)	$\overline{\text{Dout}}$
4	Dout	Vcc(3.3V)



Flangeless



Vertical Flange



Horizontal Flange

Note: Specifications subject to change without notice.

ORDER INFORMATION

Part No.: P T - 9 3 3 -

Code	Voltage	Code	Fiber	Code	PIN Assignment	Code	Flange	Code	Connector
0	5V	0	SMF, 9/125 μm	Blank	Type A	V	Vertical	S	SC/PC
3	3.3V	1	MMF, 50/125 μm	B	Type B	H	Horizontal	F	FC/PC
		2	MMF, 62.5/125 μm			X	No Flange	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