

## 3.3V / 2.5 Gbps InGaAs PIN-TIA Receiver

## PT-9530 Series

InGaAs PIN-TIA WITH RECEPTACLE

### FEATURES

- ◇ InGaAs/InP PIN Photodiode with AGC transimpedance amplifier
- ◇ Differential ended output
- ◇ Single +3.3V operation
- ◇ Speed up to 2.5 Gbps
- ◇ - 40 ~ +85 °C operation temperature

### DESCRIPTION

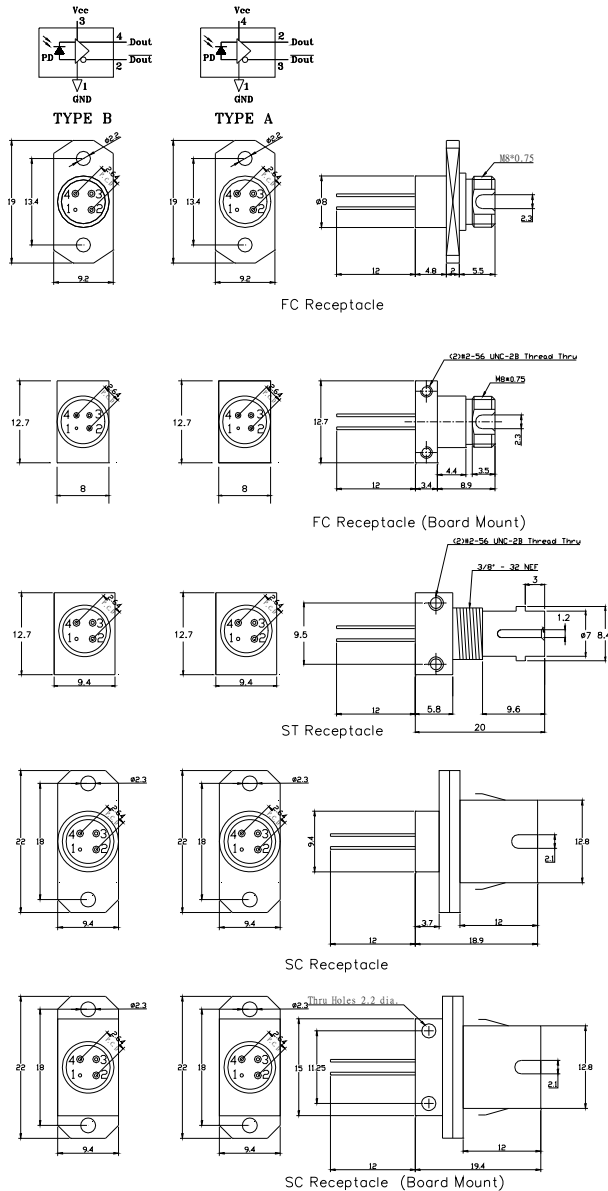
PT-9530 series are designed as optical signal receivers with AGC transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for telecommunications, especially Gigabit Ethernet, Fiber Channel and SONET OC-48.

AC / ELECTRICAL AND OPTICAL CHARACTERISTICS (T <sub>c</sub> =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 <sup>-10</sup> @2.5 Gb/s		-22	-19	dBm
Rout	Output Resistance		-	50	65	ohm
	Operation Speed			2500		Mbps

DC / ELECTRICAL CHARACTERISTICS (T <sub>c</sub> =25°C)					
Symbol	Parameter	Min.	Typ.	Max.	Unit
V <sub>CC</sub>	Power Supply	3.15	3.3	3.45	V
I <sub>CC</sub>	Supply Current (no load)	-	30	50	mA

ABSOLUTE MAXIMUM RATING (T <sub>c</sub> =25 °C)			
Symbol	Parameter	Value	Unit
V	Voltage	4.5	V
T <sub>opr</sub>	Operating Temperature	-40~+85	°C
T <sub>stg</sub>	Storage Temperature	-40~+85	°C

MECHANICAL DIMENSION (mm) and PIN ASSIGNMENT



Note: Specifications subject to change without notice.

## ORDER INFORMATION

Part No.: P T - 9 5 3 0  -

Code	Voltage	Code	PIN Assignment	Code	Connector Type
0	5V	Blank	Type A	F	FC/PC
3	3.3V	B	Type B	FB	FC/PC (Board Mount)
				T	ST/PC
				S	SC/PC
				SB	SC/PC (Board Mount)

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## Revision History

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

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