

## 3.3V / 1.25 Gbps InGaAs PIN-TIA Receiver

## PT-7530 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 1.25 Gbps
- ✧ - 40 ~ +85 °C operation temperature

### DESCRIPTION

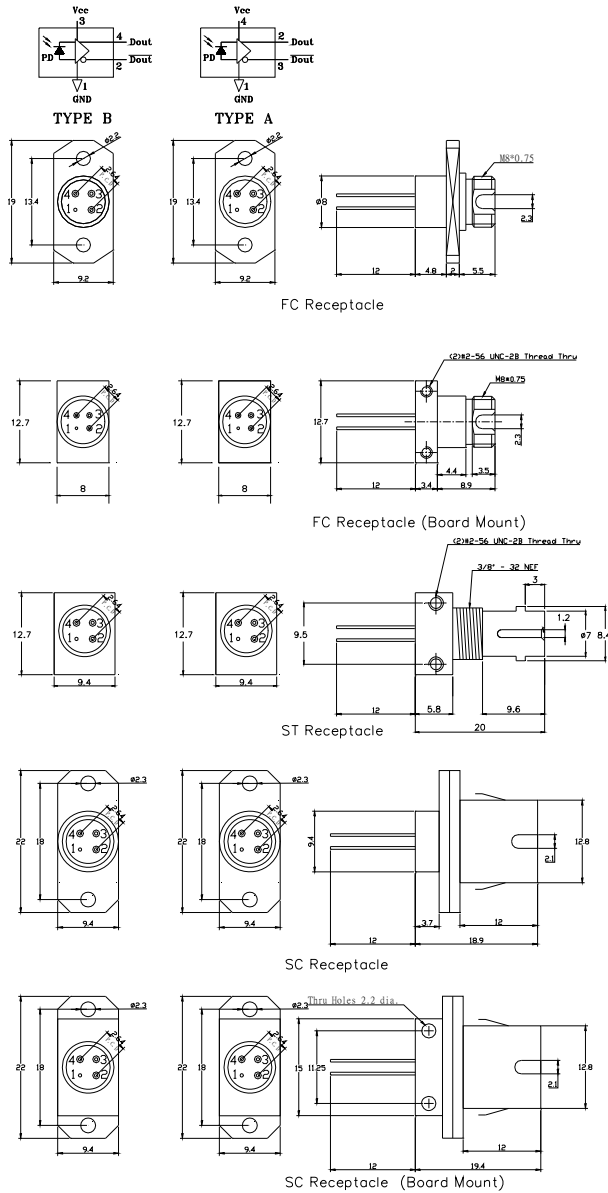
PT-7530 series are designed as optical signal receivers with AGC transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for telecommunications, especially Gigabit Ethernet and Fiber Channel.

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	6	8	10	V/mW
BW	Bandwidth	-3 dB point	850			MHz
Psat	Saturation Power	λ =1300nm	-3	-	-	dBm
Sens	Sensitivity	BER=10 <sup>-12</sup> @ 1.25 Gb/s			-24	dBm
Rout	Output Resistance		-	50	65	ohm
	Operation Speed			1250		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)	-	-	40	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 - 7 5 3 0  -

Code	PIN Assignment
Blank	Type A
B	Type B

Code	Connector Type
F	FC/PC
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	2002/5/18