

## 3.3V / 155 Mbps InGaAs PIN-TIA Receiver

## PT-3530 Series

InGaAs PIN-TIA WITH RECEPTACLE

## FEATURES

- 2 InGaAs/InP PIN Photodiode with AGC transimpedance amplifier
- 2 Differential ended output
- 2 Single +3.3V operation
- 2 - 40 ~ +85 °C operation temperature

## DESCRIPTION

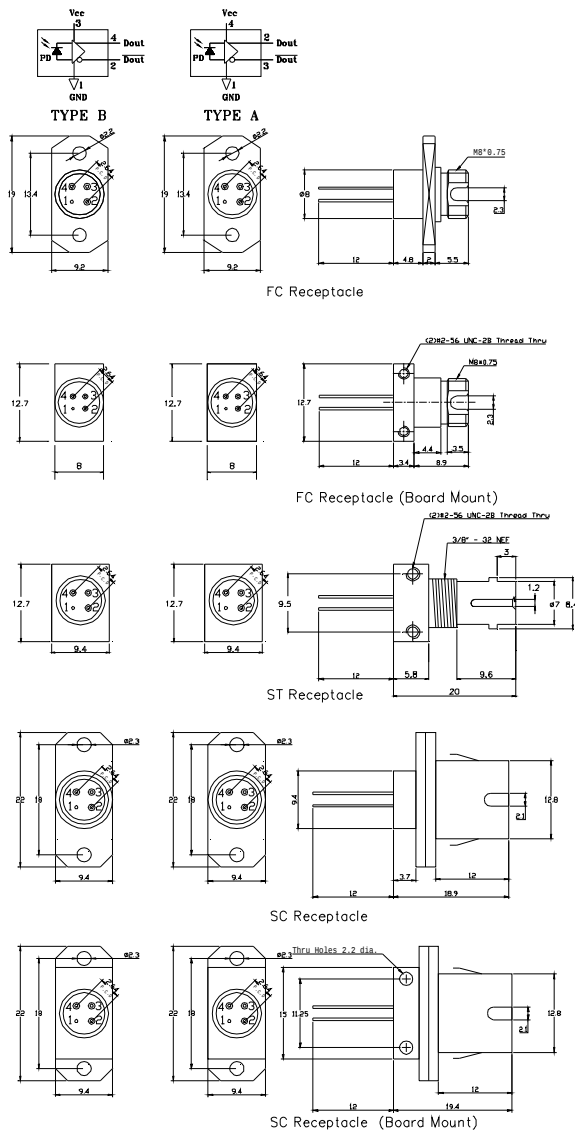
PT-3530 series are designed as optical signal receivers with AGC transimpedance amplifier. Their wide dynamic ranges, differential outputs are suited for telecommunications, especially SONET OC-3 / SDH STM-1, Fast Ethernet, and Fiber Channel.

| 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                                                                  | <a href="#">Gain@10Mbps</a> Differential | $\lambda = 1300\text{nm}$      | 50   | -    | 70   | V/mW |
| BW                                                                 | Bandwidth                                | P <sub>f</sub> = 1 $\mu$ W     | 120  | 140  |      | MHz  |
| Psat                                                               | Saturation Power                         | $\lambda = 1300\text{nm}$      | -3   | 0    | -    | dBm  |
| Sens                                                               | Sensitivity                              | BER=10 <sup>-10</sup> @155Mbps | -    | -37  | -35  | dBm  |
| Rout                                                               | Output Resistance                        |                                | -    | 50   | 65   | ohm  |
|                                                                    | Operation Speed                          |                                |      | 155  | 170  | 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   | 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 - 3 5 0 -

| Code | Voltage |
|------|---------|
| 0    | +5V     |
| 3    | +3.3V   |

| 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) |