

FL-5680 / PT-3610 SERIES

(RoHS Compliant)

8-Pin Ethernet Single-Mode Optical Transmitter / Receiver

FEATURES

- * Distance up to 20 km at signal rates of 1 to 20 MBd
- * 1550 nm wavelength emission
- * Single-mode fiber operation
- * Wave solder and aqueous wash process compatible
- * Panel mount ST connectors (FL-5680 / PT-3610)
- * Panel mount FC connectors (FL-5680F / PT-3610F)
- * Industrial standard 8-pin configuration
- * RoHS Compliant



APPLICATION

- * Single-mode extensions to Ethernet (10-Base-F) links
- * Single-mode connection

DESCRIPTION

FL-5680 / PT-3610 series is specified designed for the Ethernet single-mode transmitter / receiver application.

| FL-5680 / FL-5680F ELECTRICAL AND OPTICAL CHARACTERISTICS (T _C =25 °C) | | | | | | |
|---|---------------------|---------------------------------|------|------|------|------|
| Symbol | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
| I _{th} | Threshold Current | CW | --- | 12 | 20 | mA |
| V _{OP} | Operating Voltage | I _{op} =40mA, SM fiber | --- | 1.2 | 1.5 | V |
| P _f | Fiber Coupled Power | | -6 | --- | 0 | dBm |
| λ | Peak Wavelength | | 1510 | 1550 | 1580 | nm |
| Δλ | Spectrum Width | | --- | --- | 5 | nm |

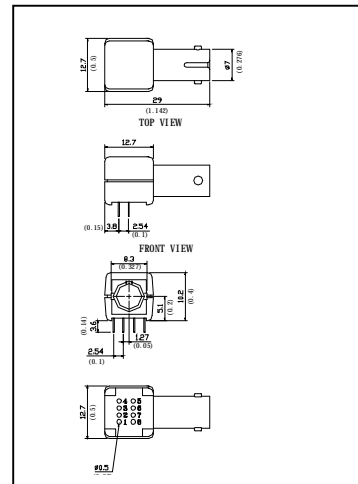
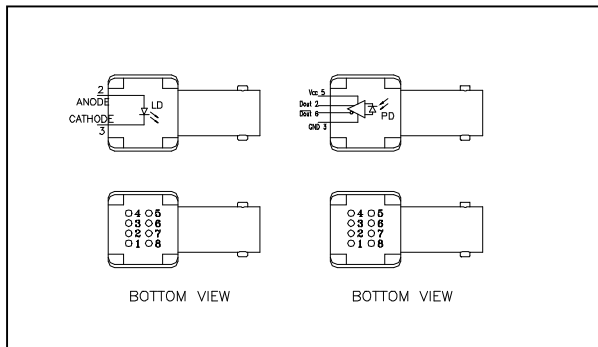
| PT-3610 / FL-3610F ELECTRICAL AND OPTICAL CHARACTERISTICS (T _C =25 °C) | | | | | | |
|---|----------------|-----------------------|------|------|------|------|
| Symbol | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
| Sen | Sensitivity | 1 to 20 MBd, SM fiber | | | -34 | dBm |
| P _{in, sat} | Saturation | | -5 | 0 | --- | dBm |
| V _{CC} | Supply Voltage | | 4.75 | 5 | 5.25 | V |
| I _{CC} | Supply Current | | 20 | 25 | 35 | mA |

| Recommended Operating Conditions | | | | | | |
|----------------------------------|-----------------------|-----------------|------|------|------|------|
| Symbol | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
| T _{opr} | Operating Temperature | | 0 | | 70 | °C |
| T _{stg} | Storage Temperature | | -40 | | 85 | °C |

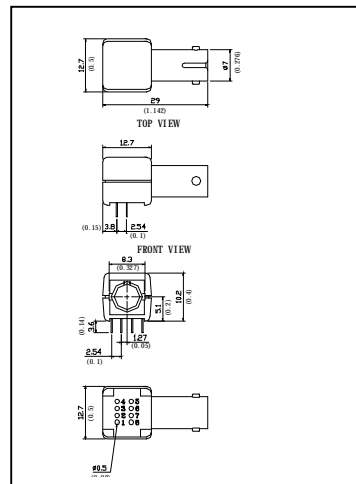
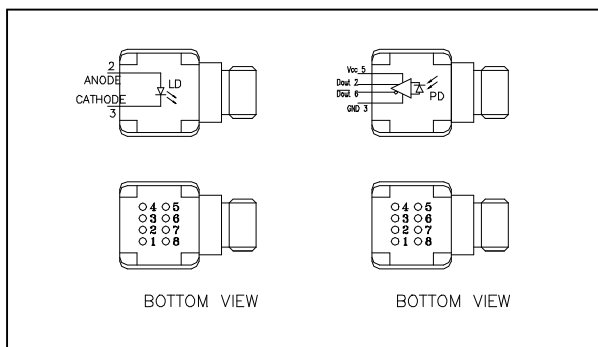
PINOUT DESCRIPTION

MECHANICAL DIMENSION (mm)

1) FL-5680 / PT-3610 (Panel mount ST connectors)



2) FL-5680F / PT-3610F (Panel mount FC connectors)



PIN ASSIGNMENT

FL-5680 / FL-5680F

| PIN | Function |
|------------------|------------|
| 2 | LD Anode |
| 3 | LD Cathode |
| 1, 4, 5, 6, 7, 8 | No Connect |

PT-3610 / PT-3610F

| PIN | Function |
|------------|------------|
| 2 | Dout |
| 3 | GND |
| 5 | Vcc |
| 6 | Dout Bar |
| 1, 4, 7, 8 | No Connect |

Note: Specifications subject to change without notice.

ORDER INFORMATION

| Transmitter | Receiver | Distance (km) | Fiber | Data Rate (MBd) | Connector |
|--------------------|--------------------|---------------|-------|-----------------|-----------|
| FL-3620 / FL-3620F | PT-3610 / PT-3610F | 20 | SM | 1 to 20 | ST / FC |
| FL-3640 / FL-3640F | PT-3610 / PT-3610F | 40 | SM | 1 to 20 | ST / FC |
| FL-5660 / FL-5660F | PT-3610 / PT-3610F | 60 | SM | 1 to 20 | ST / FC |
| FL-5680 / FL-5680F | PT-3610 / PT-3610F | 80 | SM | 1 to 20 | ST / FC |

Revision History

| Version | Subject | Release Date |
|---------|---|--------------|
| 1.0 | Initial datasheet | 2002/6/1 |
| 2.0 | Combine FL-5680/PT-3610 & FL-5680G/PT-3610G in one data sheet | 2007/12/1 |
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