

Low Speed Singlemode Bi-Directional Single Fiber Optical Transceiver

Features

- 1310nm/1550nm LD
- InGaAs PD
- Industrial standard 1 x 9 pin footprint



Specifications

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|--|-----------------|------|------|-----------|---------|
| Transmitter | | | | | |
| Optical Output Power (avg.) ⁽¹⁾ | | | | | |
| -1 | P _o | -14 | - | -8 | dBm |
| -2 | P _o | -8 | - | -3 | dBm |
| -3 | P _o | -3 | - | 0 | dBm |
| Optical Wavelength | | | | | |
| TR13R15 (1310nm FP LD) | λ_c | 1260 | 1310 | 1360 | nm |
| TR15R13 (1550nm FP LD) | λ_c | 1490 | 1550 | 1610 | nm |
| Spectral Width | $\Delta\lambda$ | - | 1.0 | 2.5 | nm |
| Laser Diode Forward Current | | - | 15 | 25 | mA |
| Laser Diode Forward Voltage | | 1 | 1.2 | 1.5 | V |
| Monitor Current (PD) | I _m | 0.1 | 0.7 | - | mA |
| Dark Current (PD) | I _d | - | - | 0.1 | μ A |
| Output Rise Time (10-90%) | t _r | - | 0.3 | 0.7 | ns |
| Output Fall Time (10-90%) | t _f | - | 0.3 | 0.7 | ns |
| Tracking Error (-40 to 85 °C) | E _t | - | - | \pm 1.0 | dB |

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|-----------------|------|------|------|------|
| Receiver | | | | | |
| Optical Input Responsivity ⁽¹⁾ | | | | | |
| -1 | P _{IN} | 0.7 | 0.8 | - | A/W |
| Optical Wavelength | λ | 1250 | - | 1650 | nm |
| Output Rise Time (10-90%) | t _r | - | - | 1 | ns |
| Output Fall Time (10-90%) | t _f | - | - | 1 | ns |
| Dark Current | I _d | - | - | 1 | nA |
| Capacitance | C _t | - | - | 0.8 | pF |
| Optical Return Loss | RL | 50 | - | - | dB |
| Optical Cross Talk | CL | 35 | - | - | dB |

Note:

(1) With 0.275 NA, 9/125 μ m fiber.

(2) The transmitter output should not be viewed directly.



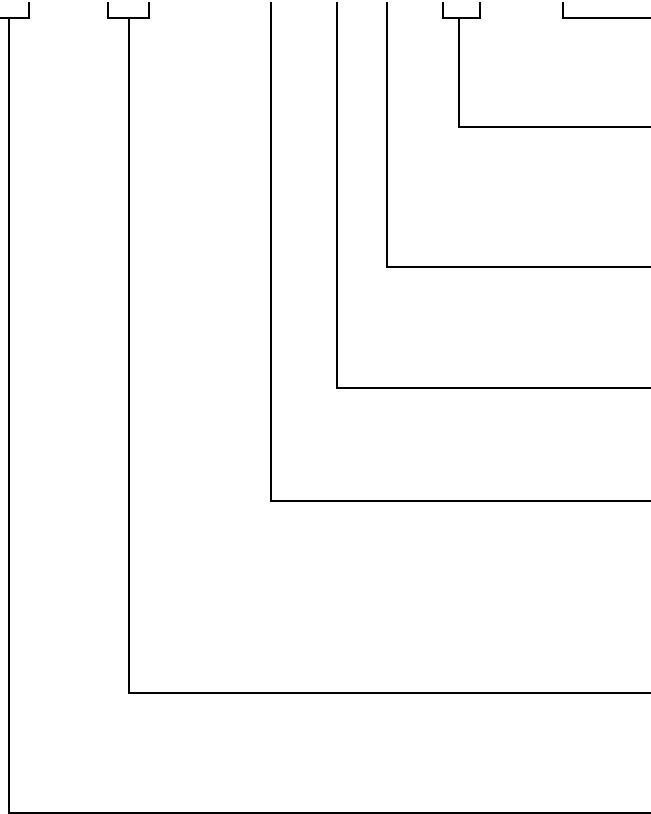
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Absolute Maximum Ratings

| Parameter | | Min. | Max. | Unit |
|-----------------------|----|------|--------|---------|
| Operating Temperature | -1 | 0 | 70 | °C |
| | -2 | -40 | 85 | °C |
| Storage Temperature | | -40 | 100 | °C |
| Lead Soldering Limits | | - | 240/10 | °C /sec |

Ordering Information

T R R S M - - M G



RoHS Compliant

Operating Temperature Range :

1 : 0 ~ 70°C

2 : -40 ~ 85°C

Connector Type :

SC : SC Connector

FC : FC Connector

ST : ST Connector

Package Type :

P : Pigtail (fiber length = 100cm)

R : Receptacle

Responsivity Grade :

(refer to Specifications)

1 : -1

Tx Output Power Grade :

(refer to Specifications)

1 : -1

2 : -2

3 : -3

Receiver Wavelength :

13 : 1310nm (FP LD)

15 : 1550nm (FP LD)

Transmitter Wavelength :

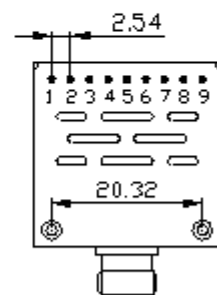
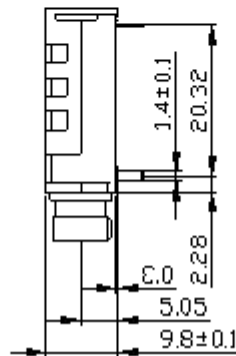
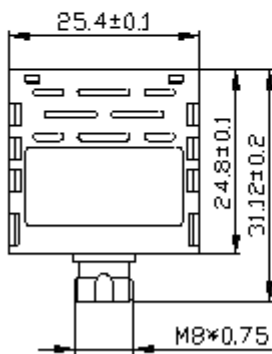
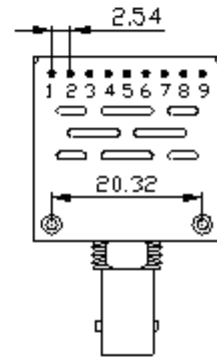
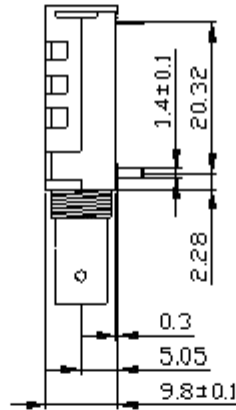
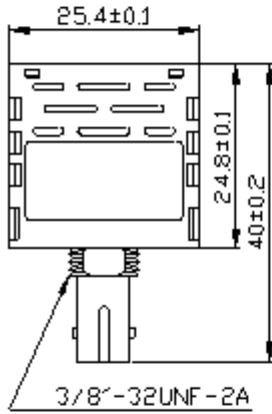
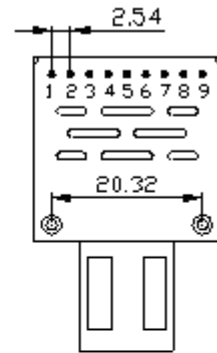
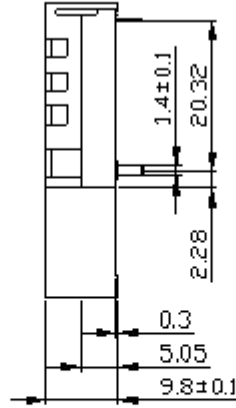
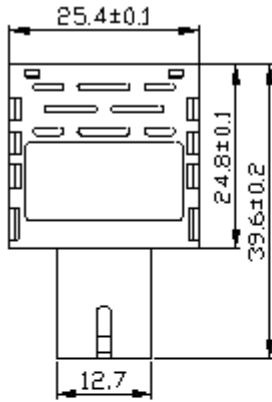
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Outline Drawing

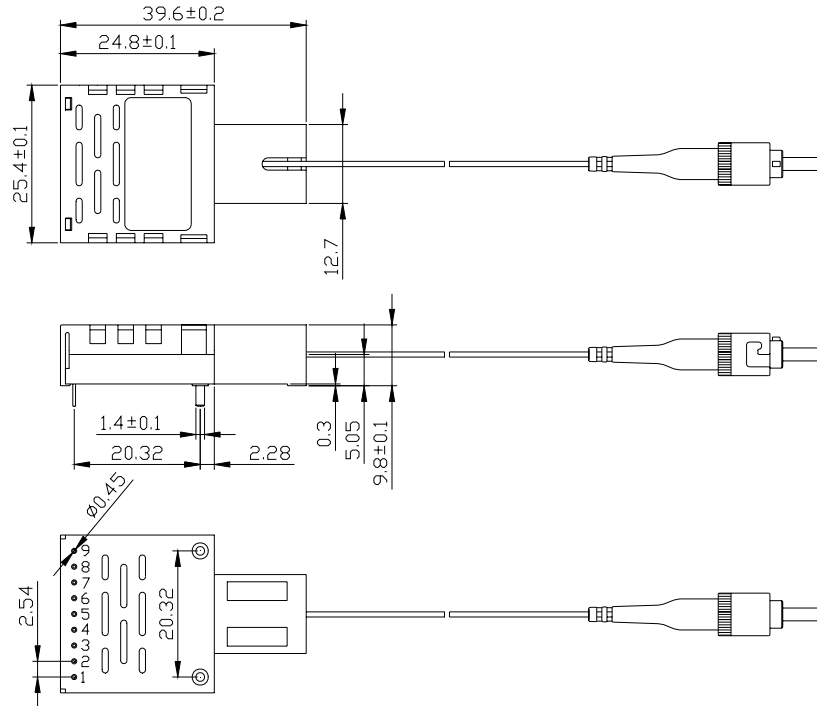
Receptacle Type :



UNIT : mm

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Pigtail Type :



UNIT : mm

Pinout Description

| Pin No. | Symbol | Description |
|---------|--------|---------------|
| 1 | PD-Gnd | PD Ground |
| 2 | PD+ | PD Anode |
| 3 | PD- | PD Cathode |
| 4 | NC | No Connection |
| 5 | NC | No Connection |
| 6 | NC | No Connection |
| 7 | LD- | LD Cathode |
| 8 | LD+ | LD Anode |
| 9 | LD-Gnd | LD Ground |

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