

SFP MODULE SYSTEM PRODUCTS

2.5Gbps SFP Optical Transceiver, 300m-120km Reach



FEATURE

- Up to 2.5Gbps data-rate
- 850nm VCSEL laser and PIN photodetector
- 1310nm FP laser and PIN photodetector for 2-40km transmission
- 1550nm DFB laser and APD photodetector for 80-120km transmission
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Digital Diagnostic Monitoring: Internal Calibration or External Calibration
- 300m transmission with 50/125µm MMF
- 150m transmission with 62.5/125µm MMF
- Compatible with RoHS
- +3.3V single power supply
- Operating case temperature range of 0°C to +70°C (Standard)
or -40°C to +85°C (Industrial)



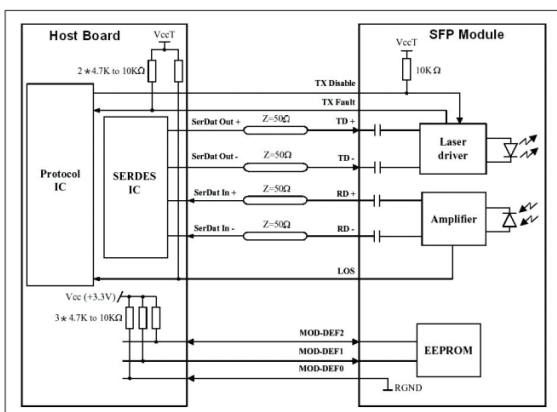
DESCRIPTION

- Class 1 laser product EN 60825-1 standards
- Compliant with SFP MSA and SFF-8472
- Compliant with SDH/SONET
- Duplex LC connector
- Hot pluggable
- 3.3V Single Power Supply

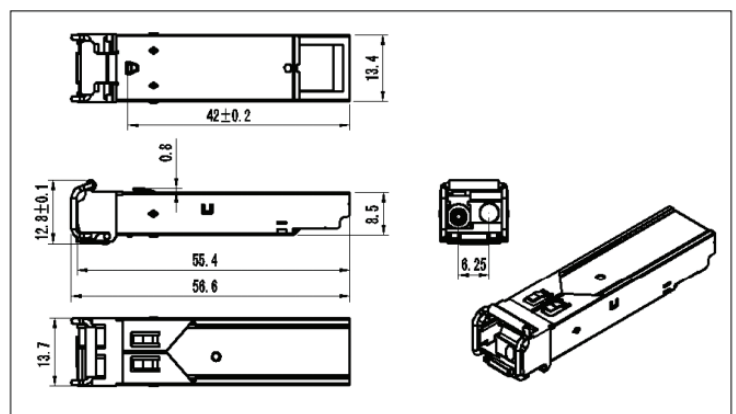
APPLICATIONS

- SDH STM-1, S-1.1, L-1.1, L-1.2
- SONET OC-3 IR1, LR1, LR2
- Router/Server interface
- Other optical transmission systems

RECOMMENDED INTERFACE CIRCUIT



MECHANICAL DIMENSIONS



ABSOLUTE MAXIMUM RATINGS

| Parameter | Symbol | Min | Max | Unit |
|---------------------|--------|------|-----|------|
| Storage Temperature | Ts | -40 | +85 | °C |
| Supply Voltage | Vcc | -0.5 | 4.5 | V |
| Operating Humidity | | 5 | 85 | % |

RECOMMENDED OPERATING CONDITIONS

| Parameter | Symbol | Min | Typical | Max | Unit |
|----------------------------|------------|------|---------|------|------|
| Operating Case Temperature | Commercial | Tc | 0 | +70 | °C |
| | Industrial | | -40 | +85 | °C |
| Power Supply Voltage | Vcc | 3.13 | 3.3 | 3.47 | V |
| Power Supply Current | Icc | | | 300 | mA |
| Data Rate | | | 2.5 | | Gbps |

RECOMMENDED OPERATING CONDITIONS

| Feature | Standard | Performance |
|--|-------------------------------|---|
| Electrostatic Discharge (ESD) to the Electrical Pins | MIL-STD-883E Method 3015.7 | Class 1(>500 V) Isolation with the case |
| Electromagnetic Interference(EMI) | FCC Part 15 Class B | Compatible with standards |
| Laser Eye Safety | FDA 21CFR 1040.10 and 1040.11 | Compatible with Class I laser product. |
| | EN60950, EN (IEC) 60825-1,2 | Compatible with TÜV standards |
| Component Recognition | UL and CUL | UL file E317337 |
| Green Products | 2002/95/EC 2005/618/EC | RoHS6 |

DESCRIPTION

| Model | Rate | Wavelength | Distance | Optical power | Sensitivity |
|--------------------|------|------------|----------|---------------|-------------|
| MC-SFP-SX-MM-0303 | 2.5G | 850nm | 300m | -9~-3dBm | <-18dBm |
| MC-SFP-LX-SM-0302 | 2.5G | 1310nm | 2km | -9~-3dBm | <-18dBm |
| MC-SFP-LX-SM-0315 | 2.5G | 1310nm | 15km | -5~0dBm | <-18dBm |
| MC-SFP-LX-SM-0340 | 2.5G | 1310nm | 40km | -2~3dBm | <-18dBm |
| MC-SFP-ZX-SM-0380 | 2.5G | 1550nm | 80km | 0~5dBm | <-28dBm |
| MC-SFP-ZX-SM-03120 | 2.5G | 1550nm | 120km | 2~7dBm | <-28dBm |

ORDER INFORMATION

| PRODUCT | PART NUMBER |
|---------------------------------------|--------------------|
| 850nm, 2.5Gbps, LC, 300m, 0°C~+70°C | MC-SFP-SX-MM-0303 |
| 1310nm, 2.5Gbps, LC, 2km, 0°C~+70°C | MC-SFP-LX-SM-0302 |
| 1310nm, 2.5Gbps, LC, 15km, 0°C~+70°C | MC-SFP-LX-SM-0315 |
| 1310nm, 2.5Gbps, LC, 40km, 0°C~+70°C | MC-SFP-LX-SM-0340 |
| 1550nm, 2.5Gbps, LC, 80km, 0°C~+70°C | MC-SFP-ZX-SM-0380 |
| 1550nm, 2.5Gbps, LC, 120km, 0°C~+70°C | MC-SFP-ZX-SM-03120 |