



Key Features

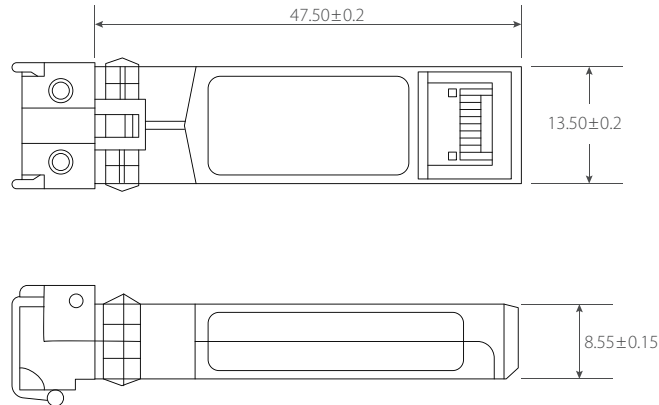
- Optical interface compliant to IEEE 802.3ae 10GBASE-LR
- Electrical interface compliant to SFF-8431
- Hot pluggable
- 850nm VCSEL transmitter, PIN photo-detector
- Maximum link length of 300m on 2000MHz/km MMF
- Low power consumption
- All-metal housing for superior EMI performance
- Advanced firmware allow customer system encryption information to be stored in transceiver
- Cost effective SFP+ solution, enables higher port densities and greater bandwidth
- RoHS6 compliant

Applications

- 10GBASE-SR at 10.3125Gbps
- 10GBASE-SW at 9.953Gbps
- Other optical links



Dimensions



Unit: mm

Absolute Maximum Ratings

| | Min. | Max. |
|------------------------------------|-------|-------|
| Storage Temperature | -40°C | +85°C |
| Operating Case Temperature | 0°C | +70°C |
| Relative Humidity (Non-condensing) | 0% | 85% |
| Supply Voltage | - | 3.6V |
| Rx Input Average Power | Pmaxt | - |

Optical Specifications – Transmitter

| | Symbol | Min. | Typ. | Max. |
|--|-------------|---------|-------|-----------|
| Center Wavelength | λ_t | 840nm | 850nm | 860nm |
| RMS Spectral Width | Pm | - | - | Note 1 |
| Average Optical Power *Note 2 | Pavg | -6.5dBm | - | -1dBm |
| Extinction Ratio *Note 3 | ER | 3.5dB | - | - |
| Transmitter Dispersion Penalty | TDP | - | - | 3.9dB |
| Relative Intensity Noise (12dB Reflection) | Rin | - | - | -128dB/Hz |
| Optical Return Loss Tolerance | - | - | - | 12dB |

| Optical Specifications – Receiver | Symbol | Min. | Typ. | Max. |
|-------------------------------------|-------------|--------|-------|----------|
| Center Wavelength | λ_r | 840nm | 850nm | 860nm |
| Receiver Sensitivity *Note 4 | Psens | - | - | -11.1dBm |
| Stressed Sensitivity in OMA *Note 4 | | - | - | -7.5dBm |
| Los Function | Los | -30dBm | - | -12dBm |
| Overload *Note 4 | Pin | - | - | -1.0dBm |
| Receiver Reflectance | | - | - | -12dB |

Notes:
 1. The optical power is launched into MMF
 2. Measured with a PRBS 2³¹-1 test pattern @10.3125Gbps
 3. Measured with a PRBS 2³¹-1 test pattern @10.3125Gbps, BER≤10⁻¹²

| Electrical Characteristics | Symbol | Min. | Typ. | Max. |
|----------------------------|--------|------|-------------|--------|
| Data Rate | | - | 10.3125Gbps | - |
| Power Consumption | | - | 1200mW | 1500mW |

| Electrical Characteristics - Transmitter | Symbol | Min. | Typ. | Max. |
|--|--------|-------|------|--------|
| Single Ended Output Voltage Tolerance | | -0.3V | - | 4.0V |
| C Common Mode Voltage Tolerance | | 15mV | - | - |
| Tx Input Diff Voltage | VI | 400mV | | 1600mV |
| Tx Fault (At 0.7mA) | VoL | -0.3V | | 0.4V |
| Data Dependent Input Jitter | DDJ | | | 0.10UI |
| Data Input Total Jitter | TJ | | | 0.28UI |

| Electrical Characteristics - Receiver | Symbol | Min. | Typ. | Max. |
|---|--------|-------|------|--------|
| Single Ended Output Voltage Tolerance | | -0.3V | - | 4.0V |
| Rx Output Diff Voltage | Vo | 300mV | | 850mV |
| Rx Output Rise and Fall Time (20% to 80%) | Tr/Tf | 30ps | | |
| Total Jitter | TJ | | | 0.70UI |
| Deterministic Jitter | DJt | | | 0.42UI |

