

1.25Gbps SFP Single-mode Transceiver

מק"ט: LRGP1312-20ATL

LR-LINK[®]



תיאור המוצר

Type: LR-LINK 1.25Gbps SFP Single-mode Transceiver Features:

- Single power supply +3.3V
- Hot-pluggable design
- Up to 1.25 Gb/s bi-directional data links
- 1310nm PF laser transmitter
- Conforms to IEEE 802.3 Gigabit Ethernet and 1000BASE-SX standards, complies with EN60825-1
- RoHS compliant
- The transmission distance can reach 20km on 9/125um single-mode fiber
- Working temperature range: Class C 0°C~70°C; Class I -40°C~85°C

Overview:

LR-LINK LRGP1312-20ATLD Gigabit SFP single-mode ethernet fiber optic module has a bidirectional data transmission capability of up to 1.25Gb/s and is suitable for 1.25Gb/s Ethernet. It complies with the Ethernet IEEE 802.3 standard and Fiber Channel FC-PI

Rev.5.0, providing a fast and reliable interface for GE/FC applications.

As a small pluggable optical transceiver module, LRGP1312-20ATLD complies with the SFF-8472 standard and implements digital diagnostic functions through a 2-wire serial bus.

Application

1.25Gb/s Gigabit Ethernet

1.063Gb/s Fiber Channel

Specifications:

| Absolute Maximum Ratings | | | | | |
|--------------------------|--------|------|---------|-------|------|
| Parameter | Symbol | Min. | Typical | Max. | Unit |
| Data rate | DR | | 1.25 | | Gb/s |
| | DR | | 1.063 | | Gb/s |
| BER | BER | | | 10–12 | |
| Operating temperature | TC | 0 | | 70 | °C |
| | | –40 | | 85 | °C |
| | | –40 | | 85 | °C |
| Storage temperature | TSTO | –40 | | 85 | °C |
| Working current | ICC | | 175 | 300 | mA |
| Operating voltage | VCC | 3.14 | 3.3 | 3.46 | V |
| Maximum voltage | VMAX | 0.5 | | 4 | V |

| Transmitter | | | | | |
|---|-----------------|------|---------|------|------|
| Parameter | Symbol | Min. | Typical | Max. | Unit |
| Transmitted optical power | P | –9.5 | | –3 | dBm |
| Optical center wavelength | λ_C | 1270 | | 1355 | nm |
| Extinction Ratio @1.25Gb/s | ER | 9 | | | dB |
| Spectral width (RMS) | $\Delta\lambda$ | | | 3 | nm |
| Optical signal rise/fall time (20%-80%) | tr/tf | | 150 | 300 | ps |

| Receiver | | | | | |
|-------------------------------------|-------------|------|---------|------|------|
| Parameter | Symbol | Min. | Typical | Max. | Unit |
| Receiver overload | POL | 0 | | | dBm |
| Optical center wavelength | λ_C | 1260 | | 1600 | nm |
| Receive Sensitivity | RX SEN1 | | | –24 | dBm |
| Return loss | ORL | 12 | | | dB |
| Receiver 3dB upper cutoff frequency | | | | 1500 | MHz |
| LOS signal active | LOSA | –35 | | | dBm |
| LOS signal failure | LOSD | | | –26 | dBm |
| LOS signal hysteresis interval | LOSH | 0.5 | | | dB |

| Transmitter | | | | | |
|------------------------------|--------|---------|---------|---------|----------|
| Parameter | Symbol | Min. | Typical | Max. | Unit |
| Differential input impedance | RIN | | 100 | | Ω |
| Differential input swing | VIN PP | 250 | | 1200 | mV |
| Transmitter off voltage | VD | VCC-1.3 | | VCC | V |
| Transmitter enable voltage | VEN | VEE | | VEE+0.8 | V |
| Transmitter off wait time | | | | 10 | us |

| Receiver | | | | | |
|---------------------------|---------|------|---------|------|------|
| Parameter | Symbol | Min. | Typical | Max. | Unit |
| Differential output swing | VOUT PP | 300 | 400 | 800 | mV |

| | | | | | |
|---|--------|---------|--|----------|----|
| Output signal rise time / fall time (20%-80%) | tr/tf | | | 300 | ps |
| LOS signal active | VLOS A | VCC-0.5 | | VCC HOST | V |
| LOS signal failure | VLOS D | VEE | | VEE+0.5 | V |