



155Mbps SFP Transceiver LR2 P/N AL22P0x-1550 (80km)



Description

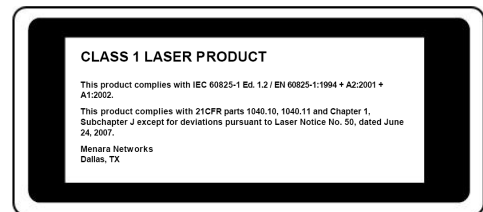
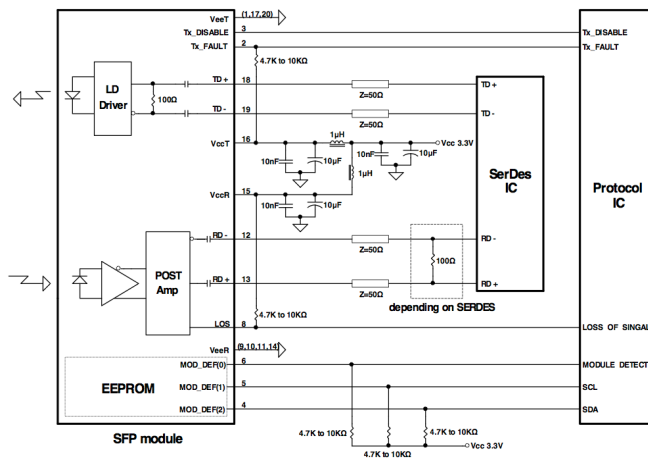
Menara Networks' 155Mb/s AL22P0x-1550 SFP is designed for use in OC-3 SONET LR2 and STM-1 L-1.2 1550nm links up to 80km over 9/125µm singlemode fiber. The use of a 1550nm transmitter provides a high performance transport optic option for SONET/SDH transport. Digital Optical Monitoring interfaces are provided via the SFP SFF-8472 standards compliant I²C interface.

Applications

- 155Mb/s 80km transmission distance over 9/125µm singlemode fiber
- SONET/SDH transport

Features

- Hot-pluggable SFP footprint
- 155Mb/s bit rates
- 1550nm DFB transmitter
- Single 3.3V power supply
- Power dissipation < 1W
- 0°C to +70°C or -40°C to +85°C
- Duplex LC fiber connectors
- SONET OC-3 LR-2 compliance
- SDH STM-1 L-1.2
- Full Digital Optical Monitoring
- Metal enclosure for lower EMI
- Complies with RoHS directive (2002/95/EC)
- Compliant with SFP MSA SFF-8472 and SFF-8074
- Laser Class 1 IEC/CDRH compliant
- Links of 80km over 9/125µm singlemode fiber



Transmitter E-O Characteristics

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Note |
|----------------------------------|-----------------|------|------|-----------------|----------|------|
| Support data rate | - | | 155 | | Mb/s | |
| Center Wavelength | λ | 1480 | 1550 | 1580 | nm | |
| Spectral Width (RMS) | $\Delta\lambda$ | | | 1 | nm | |
| Side Mode Suppression Ratio | SMSR | 30 | | | dB | |
| Average Optical Output Power | P _o | -5 | - | 0 | dBm | 1 |
| Extinction Ratio | E _r | 9 | | | dB | |
| Optical Rise/Fall Time (20%~80%) | tr/tf | | | 0.26 | ns | |
| Data Input Swing Differential | V _{IN} | 400 | | 1800 | mV | 2 |
| Input Differential Impedance | Z _{IN} | 90 | 100 | 110 | Ω | |
| TX Disable | Disable | 2.0 | | V _{CC} | V | |
| | Enable | 0 | | 0.8 | V | |
| TX Fault | Fault | 2.0 | | V _{CC} | V | |
| | Normal | 0 | | 0.8 | V | |

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated

Receiver O-E Characteristics

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Note |
|--------------------------------|------------------|------|------|-----------------|------|------|
| Support data rate | - | | 155 | | Mb/s | |
| Operating Wavelength | λ | 1260 | - | 1580 | nm | |
| Receiver sensitivity | S _{en} | | | -34 | dBm | 3 |
| Saturation | P _{sat} | -3 | | | dBm | 3 |
| LOS Assert | LOS _A | -45 | | | dBm | |
| LOS Deassert | LOS _D | | | -36 | dBm | |
| LOS Hysteresis | | 1 | | 4 | dB | |
| Data Output Swing Differential | V _{OUT} | 370 | | 1800 | mV | 4 |
| LOS | High | 2.0 | | V _{CC} | | |
| | Low | 0 | | 0.8 | V | |

3. Measured with a PRBS 2²³-1 test pattern @ 155Mbps, BER $\leq 1 \times 10^{-10}$
4. Internally AC coupled

Ordering Information

| Part Number | ROHS Compliant | Operating Case Temperature |
|--------------|----------------|----------------------------|
| AL22P0x-1550 | ROHS-6 | 0°C ~ +70°C |
| AL22P2x-1550 | | -40°C ~ +85°C |

x = J for Juniper
x = C for Cisco
x = A for Alcatel
x = O for Cisco ONS



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