

SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet Designed for OEM networks such as Cisco, HP, Juniper, Brocade, Alcatel etc.

Datasheet

SFP Optical Transceiver Product Features

- Exclusive Japanese OSAs for Ultimate Reliability
- 1000BASE-ZX Ethernet 30dB SFP
- 120 km ZX SFP for SMF @ 1.25Gbps
- 1550Tx-1490Rx DFB+APD Laser 120 km SFP
- 0°C 70°C Temperature Extended/Industrial Available
- 2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)
- Hot-swappable for SFP LC ports
- Extended 2 Years Warranty
- Tested and Certified in Brand Specific Networks and Target
 Applications
- Assembled Using Highest Quality Raw Components
- SFP MSA / IEEE Std 802.3 & ROHS

PSFP-11DB55K120



Applications

- 1.25Gbps Gigabit Ethernet
- Fibre Channel 1x
- Switch to Switch Interface
- Router/Server Interface
- Other Optical Links

Description

Platinum OEM Series PSFP-11DB55K120 is a Cisco Compatible Single Fiber BiDirectional 1000BASE-ZX Ethernet SFP transceiver designed for long distance optical communications up to 120 km with signaling rates up to 1.25Gbps.

OptoSpan Platinum OEM Series 1.25Gbps Single Fiber BiDirectional (BiDi) optical transceivers have undergone rigorous qualification and certification testing to provide End-to-End Compatibility using switching equipment from CISCO, BROCADE, JUNIPER, ALCATEL, HP (select models), NORTEL, EMC, QLOGIC and other OEMs.

All OptoSpan Platinum OEM Series long-reach SFP s are ROHS compliant, allow for real-time diagnostic monitoring as per SFF-8472 and designed to meet Multi-Source Agreement (MSA) standards for Single Fiber BiDirectional (BiDi) transceivers with LC interface.

Optical Budget Calculation for 120 km Platinum OEM SFP Optical Transceiver

| PSFP-11DB55K120 | Distance: 120 km | | | | Fiber: 1550Tx-1490Rx | |
|-----------------------------|------------------|---------------|---------------|---------------|------------------------|-----------------------|
| | Tx Min dBm | Tx Max dBm | Rx Min dBm | Rx Max dBm | Link Attenuation dB | Power Budget dB |
| Product Specifications | 0 | +5 | -30 | -9 | | |
| Optical Calculation Results | | | -26.6 | -21.6 | 26.6 | 30 |



SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet General Specifications

| Parameter | Unit | Min. | Тур. | Max |
|---------------------------------|------|------|-------|------|
| Absolute Maximum Ratings | | | | |
| Maximum Supply Voltage | V | -0.5 | | 4.5 |
| Storage Temperature | oC | -40 | | +85 |
| Case Operating Temperature | oC | 0 | | +70 |
| Recommended Operating Condition | | | | |
| Supply Voltage | V | 3.13 | 3.3 | 3.45 |
| Supply Current | mA | | | 300 |
| Data Rate | Gbps | | 1.063 | 1.25 |

Electrical Characteristics

| Parameter | Unit | Min. | Тур. | Max | |
|-----------------------------------|-------------|------|------|------|--|
| | Transmitter | | | | |
| Differential Input Voltage Swing | mVpp | 400 | | 1800 | |
| Input Differential Impedance | ohm | 90 | 100 | 110 | |
| Transmit Disable Voltage - High | V | 2.0 | | Vcc | |
| Transmit Disable Voltage - Low | V | 0 | | 0.8 | |
| Transmit Fault Voltage - High | V | 2.0 | | Vcc | |
| Transmit Fault Voltage - Low | V | 0 | | 0.8 | |
| Receiver | | | | | |
| Differential Output Voltage Swing | mVpp | 400 | | 1800 | |
| Differential Output Impedance | ohms | | | | |
| LOS Output Voltage - High | V | 2.0 | | Vcc | |
| LOS Output Voltage - Low | V | | | 0.8 | |



SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet

Optical Characteristics

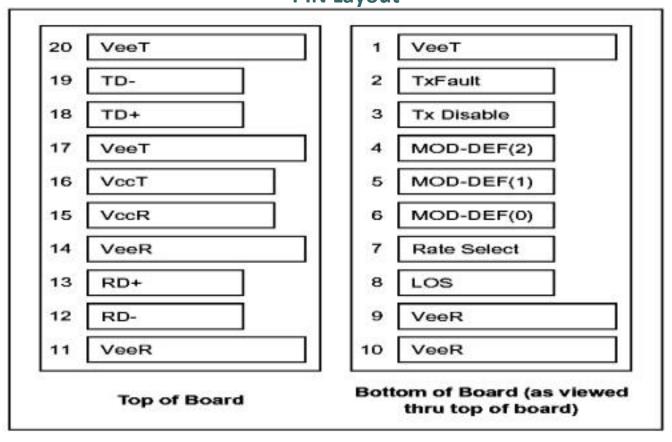
| Parameter | Unit | Min. | Тур. | Max |
|---------------------------------|------|------|------|------|
| Transmitter | | | | |
| Output Optical Power | dBm | 0 | | +5 |
| Optical Extinction Ratio | dB | 9 | | |
| Optical Wavelength | nm | 1530 | 1550 | 1570 |
| Spectral Width | nm | | | 1 |
| Side Mode Suppression Ratio | dB | 30 | | |
| Receiver | | | | |
| Optical Center Wavelength | nm | 1470 | 1490 | 1510 |
| Receiver Sensitivity @ 1.25Gbps | dBm | -30 | | -9 |
| LOS DE-Assert | dBm | | | -31 |
| LOS Assert | dBm | -37 | | _ |

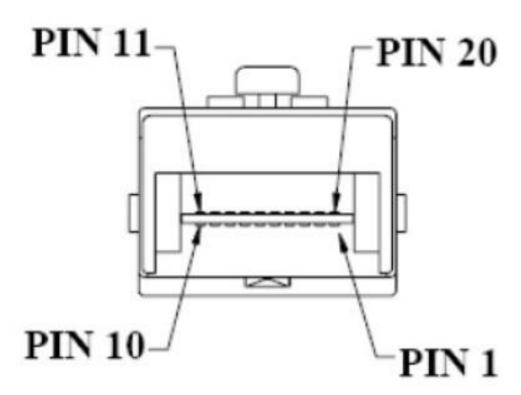
Laser Safety

This is a class 1 Laser Product according to IEC 60825-1:1993:+A1:1997+A2:2001. This product complies with 21 CFR 1040.10 and 1040 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001.



SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet PIN Layout





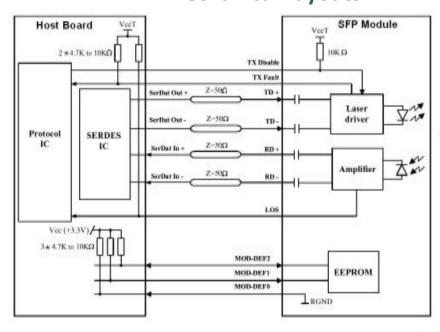


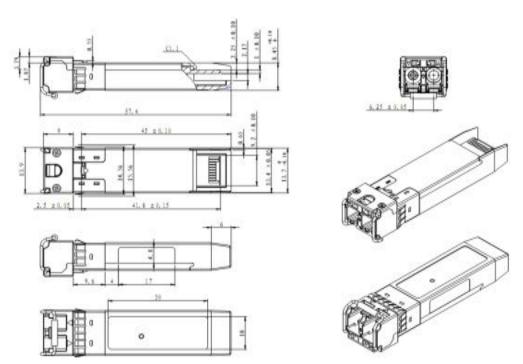
SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet PIN Functions

| Pin# | Name - Description |
|------|------------------------------|
| 1 | Transmitter Ground |
| 2 | Transmitter Fault Indication |
| 3 | Transmitter Disable |
| 4 | SDA Serial Data Signal |
| 5 | SCL Serial Clock Signal |
| 6 | TTL Low |
| 7 | Not Connected |
| 8 | Loss of Signal |
| 9 | Receiver ground |
| 10 | Receiver ground |
| 11 | Receiver ground |
| 12 | Inv. Received Data Out |
| 13 | Received Data Out |
| 14 | Receiver ground |
| 15 | Receiver Power Supply |
| 16 | Transmitter Power Supply |
| 17 | Transmitter Ground |
| 18 | Transmit Data In |
| 19 | Inv. Transmit Data In |
| 20 | Transmitter Ground |
| 21 | |
| 22 | |
| 23 | |
| 24 | |
| 25 | |
| 26 | |
| 27 | |
| 28 | |
| 29 | |
| 30 | |



SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet | Mechanical Layouts





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