

XFP CWDM 80 km transceiver | Cisco Compatible 10G ZR Ethernet
Designed for OEM networks such as Cisco, HP, Juniper, Brocade, Alcatel etc.

Datasheet

XFP Optical Transceiver Product Features

- Exclusive Japanese OSAs for Ultimate Reliability
- 10GBASE-ZR/ZW Ethernet 23dB XFP
- 80 km ZR XFP for SMF @ 10Gbps
- 1470nm - 1610nm EML+PIN Laser 80 km XFP
- 0°C - 70°C Temperature - Extended/Industrial Available
- 2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)
- Hot-swappable for XFP LC ports
- Extended 2 Years Warranty
- Tested and Certified in Brand Specific Networks and Target Applications
- Assembled Using Highest Quality Raw Components
- XFP MSA, IEEE 802.3ae & ROHS

PXFP-10GCXXK080



Applications

- 10GBASE-ZR @ 10.31Gbps
- 10 Gigabit Ethernet
- Fibre Channel 8x
- Fibre Channel 4x

Description

Platinum OEM Series PXFP-10GCXXK080 is a Cisco Compatible CWDM 10GBASE-ZR/ZW Ethernet 10G Ethernet / 8G FC XFP transceiver designed for long distance optical communications up to 80 km with signaling rates up to 10Gbps.

OptoSpan Platinum OEM Series 10Gbps CWDM 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 XFP s are ROHS compliant, allow for real-time diagnostic monitoring as per SFF-8472 and designed to meet Multi-Source Agreement (MSA) standards for CWDM transceivers with LC interface.

Optical Budget Calculation for 80 km Platinum OEM XFP Optical Transceiver

| PXFP- 10GCXXK080 | Distance: 80 km | | | | Fiber: 1470nm - 1610nm | |
|-----------------------------|-----------------|------------|------------|------------|------------------------|-----------------|
| | Tx Min dBm | Tx Max dBm | Rx Min dBm | Rx Max dBm | Link Attenuation dB | Power Budget dB |
| Product Specifications | 0 | + 4 | -23 | -10 | | |
| Optical Calculation Results | | | -22.8 | -18.8 | 22.8 | 23 |

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General Specifications

| Parameter | Unit | Min. | Typ. | Max |
|--|------|------|------|------|
| Absolute Maximum Ratings | | | | |
| Maximum Supply Voltage | V | -0.5 | | 4.0 |
| Storage Temperature | °C | -40 | | +85 |
| Case Operating Temperature | °C | -5 | | 70 |
| Recommended Operating Condition | | | | |
| Supply Voltage | V | 3.13 | 3.3 | 3.45 |
| Supply Current | mA | | | 300 |
| Data Rate | Gbps | 9.95 | | 11.1 |

Electrical Characteristics

| Parameter | Unit | Min. | Typ. | Max |
|-----------------------------------|------|---------|------|---------|
| Transmitter | | | | |
| Differential Input Voltage Swing | mVpp | 180 | | 820 |
| Input Differential Impedance | ohm | | 100 | |
| Transmit Disable Voltage - High | V | 2.0 | | Vcc |
| Transmit Disable Voltage - Low | V | GND | | GND+0.8 |
| Transmit Fault Voltage - High | V | | | |
| Transmit Fault Voltage - Low | V | | | |
| Receiver | | | | |
| Differential Output Voltage Swing | mVpp | 340 | 650 | 850 |
| Differential Output Impedance | ohms | | | |
| LOS Output Voltage - High | V | Vcc-0.5 | | VccHOST |
| LOS Output Voltage - Low | V | GND | | GND+0.5 |

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Optical Characteristics

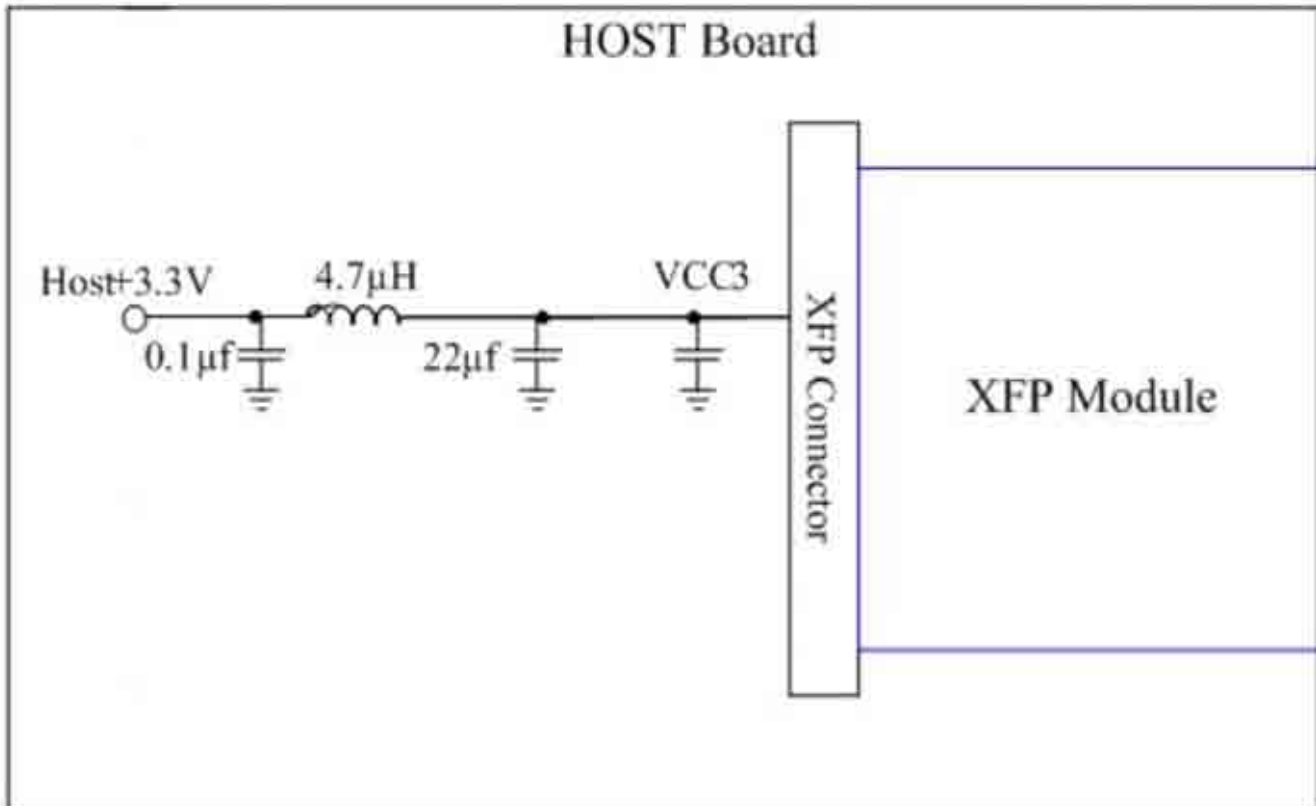
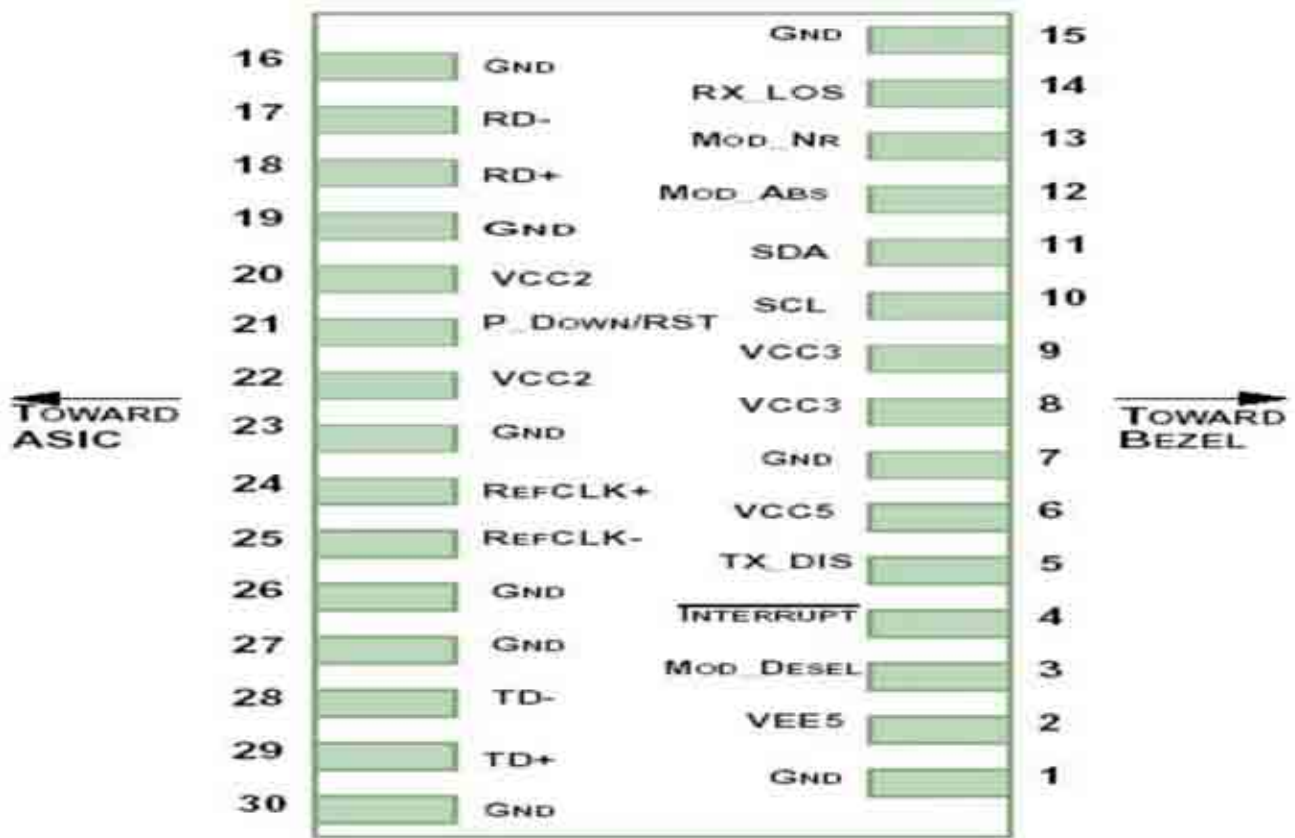
| Parameter | Unit | Min. | Typ. | Max |
|--------------------------------|------|-----------------|-------------|-------------------|
| Transmitter | | | | |
| Output Optical Power | dBm | 0 | | +4 |
| Optical Extinction Ratio | dB | 8.2 | | |
| Optical Wavelength | nm | $\lambda_c - 6$ | λ_c | $\lambda_c + 7.5$ |
| Spectral Width | nm | | | 1 |
| Side Mode Suppression Ratio | dB | 32 | | |
| Receiver | | | | |
| Optical Center Wavelength | nm | 1260 | | 1620 |
| Receiver Sensitivity @ 10.3125 | dBm | -23 | | -10 |
| LOS DE-Assert | dBm | | | -25 |
| 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.

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PIN Layout

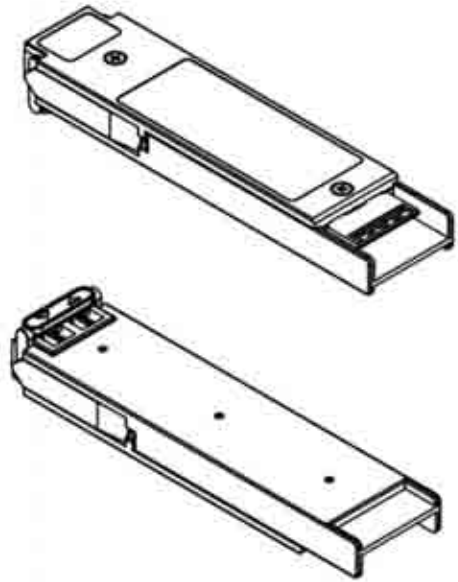
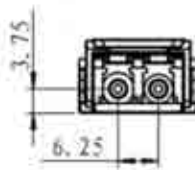
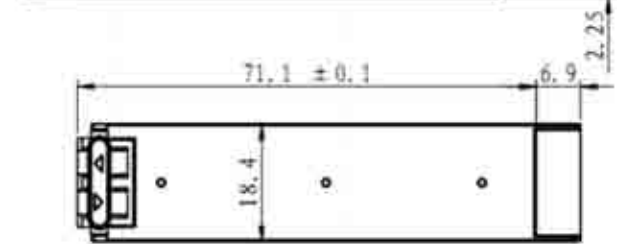
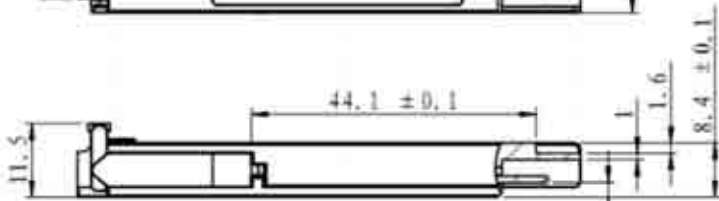
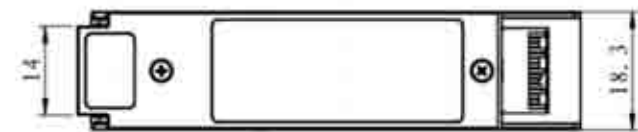
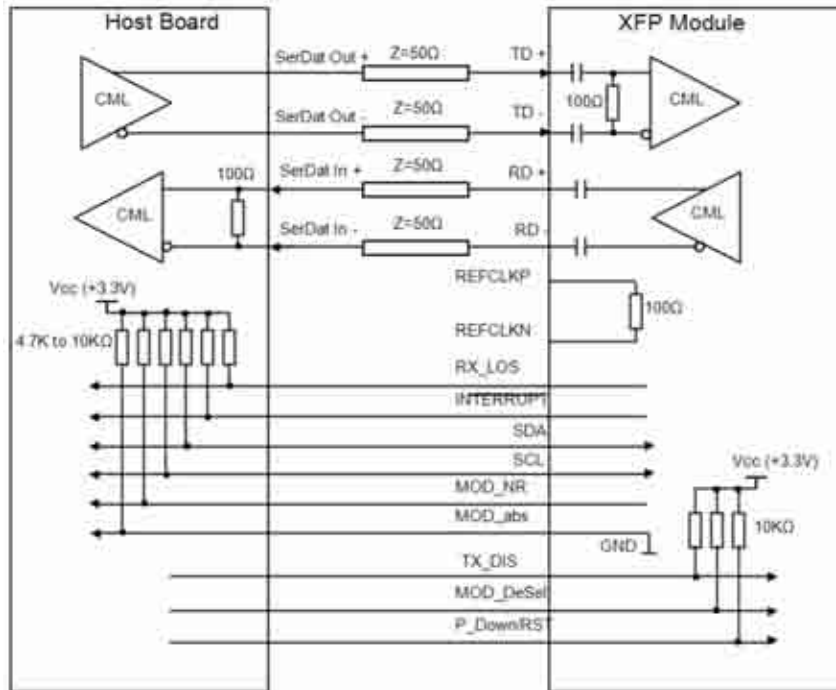


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PIN Functions

| Pin # | Name - Description |
|-------|---|
| 1 | Module Ground |
| 2 | Optional -5.2 Power Supply – Not Required |
| 3 | Module De-select |
| 4 | Interrupt (bar) |
| 5 | Transmitter Disable; Transmitter laser source turned off |
| 6 | +5 Power Supply - Not Required |
| 7 | Module Ground |
| 8 | +3.3V Power Supply |
| 9 | +3.3V Power Supply |
| 10 | Serial 2-wire interface clock |
| 11 | Serial 2-wire interface data line |
| 12 | Module Absent; Indicates module is not present. |
| 13 | Module Not Ready |
| 14 | Receiver Loss of Signal indicator |
| 15 | Module Ground |
| 16 | Module Ground |
| 17 | Receiver inverted data output |
| 18 | Receiver non-inverted data output |
| 19 | Module Ground |
| 20 | +1.8V Power Supply – Not required |
| 21 | Power Down; When high, places the module in the low power stand-by mode |
| 22 | +1.8V Power Supply – Not required |
| 23 | Module Ground |
| 24 | Reference Clock non-inverted input, AC coupled on the host board – Not required |
| 25 | Reference Clock inverted input, AC coupled on the host board – Not required |
| 26 | Module Ground |
| 27 | Module Ground |
| 28 | Transmitter inverted data input |
| 29 | Transmitter non-inverted data input |
| 30 | Module Ground |

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Mechanical Layouts



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