

**XFP Single Fiber 10 km transceiver | Cisco Compatible 10G LR 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-LR/LW Ethernet 9dB XFP
- 10 km LR XFP for SMF @ 10Gbps
- 1270Tx-1330Rx DFB+PIN Laser 10 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-10GB27K010



#### Applications

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

#### Description

Platinum OEM Series PXFP-10GB27K010 is a Cisco Compatible Single Fiber BiDirectional 10GBASE-LR/LW Ethernet 10G Ethernet / 8G FC XFP transceiver designed for long distance optical communications up to 10 km with signaling rates up to 10Gbps.

OptoSpan Platinum OEM Series 10Gbps 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 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 Single Fiber BiDirectional (BiDi) transceivers with LC interface.

#### Optical Budget Calculation for 10 km Platinum OEM XFP Optical Transceiver

PXFP- 10GB27K010	Distance: 10 km				Fiber: 1270Tx-1330Rx	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	-5	0	-14	+0.5		
Optical Calculation Results			-10.5	-5.5	5.5	9

## XFP Single Fiber 10 km transceiver | Cisco Compatible 10G LR Ethernet

### General Specifications

Parameter	Unit	Min.	Typ.	Max
<b>Absolute Maximum Ratings</b>				
Maximum Supply Voltage	V	-0.5		4.0
Storage Temperature	°C	-40		+85
Case Operating Temperature	°C	0		+70
<b>Recommended Operating Condition</b>				
Supply Voltage	V	3.13		3.45
Supply Current	mA			580
Data Rate	Gbps	9.95		10.52

### Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
<b>Transmitter</b>				
Differential Input Voltage Swing	mVpp	120		820
Input Differential Impedance	ohm	90	100	110
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			
<b>Receiver</b>				
Differential Output Voltage Swing	mVpp	340	650	850
Differential Output Impedance	ohms			
LOS Output Voltage - High	V	2.4		Vcc
LOS Output Voltage - Low	V	GND		GND+0.5

XFP Single Fiber 10 km transceiver | Cisco Compatible 10G LR Ethernet

## Optical Characteristics

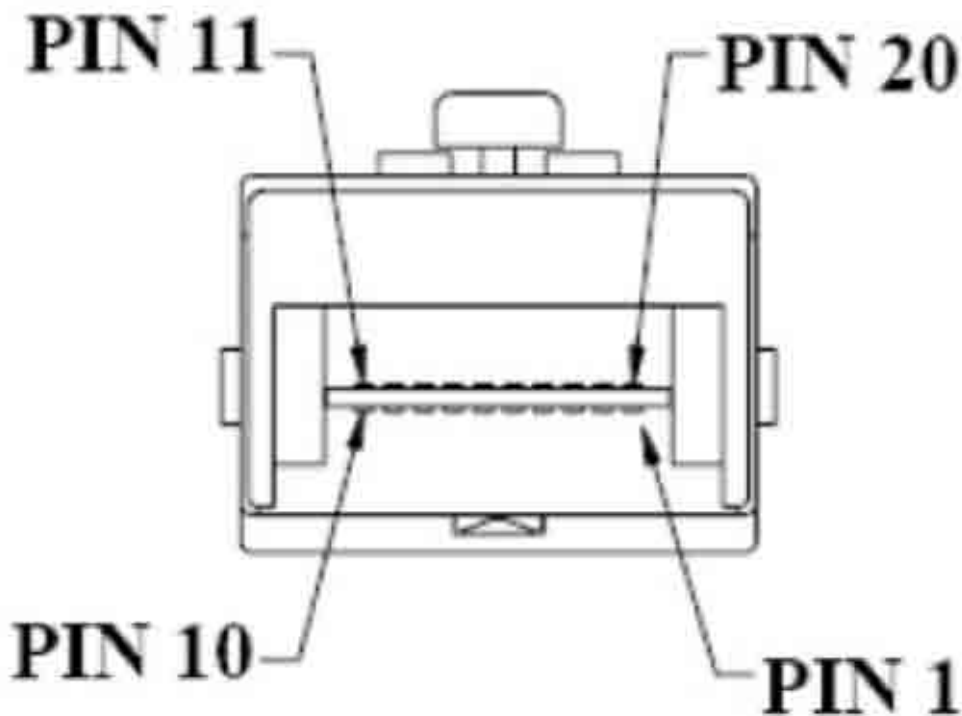
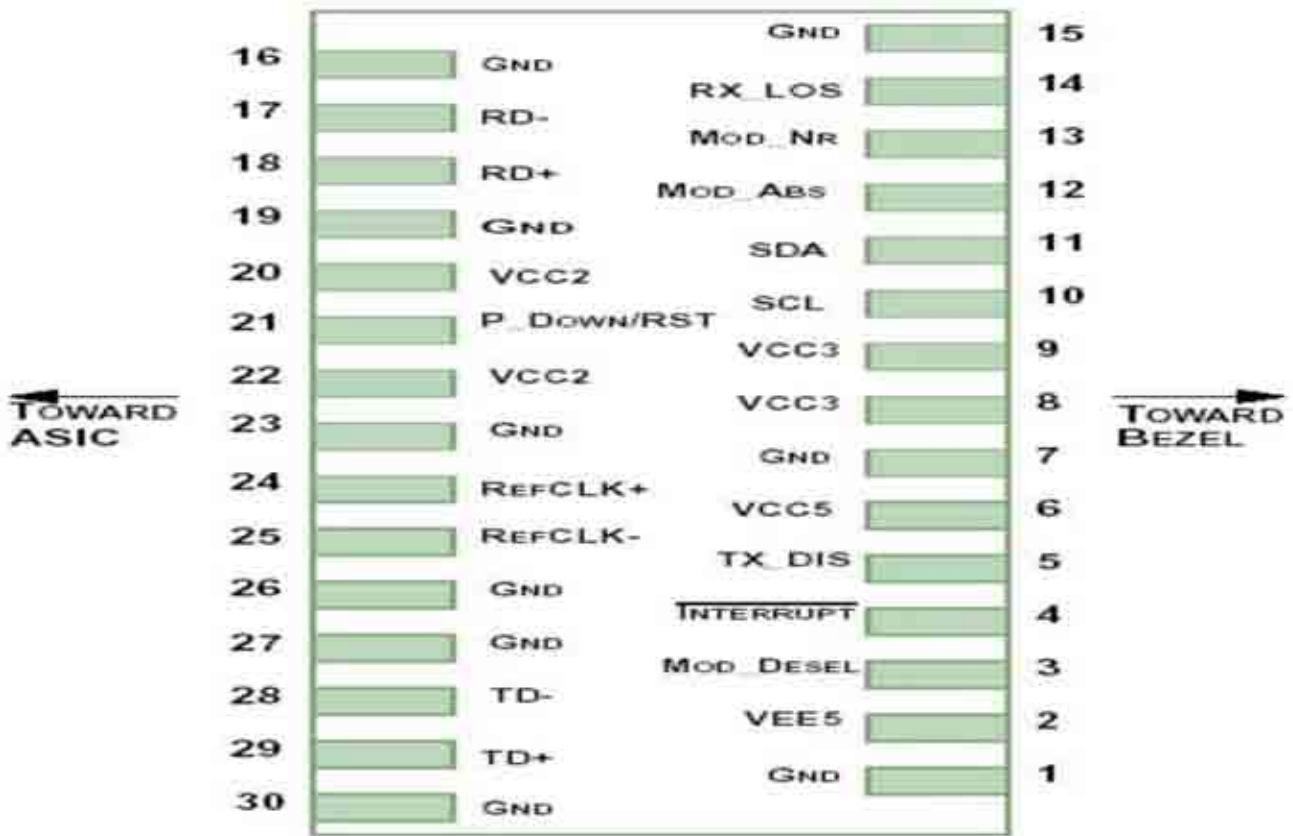
Parameter	Unit	Min.	Typ.	Max
<b>Transmitter</b>				
Output Optical Power	dBm	-5		0
Optical Extinction Ratio	dB	3.5		
Optical Wavelength	nm	1260	1270	1280
Spectral Width	nm			1
Side Mode Suppression Ratio	dB	30		
<b>Receiver</b>				
Optical Center Wavelength	nm	1320		1340
Receiver Sensitivity @ 10Gbps	dBm	-14		+0.5
LOS DE-Assert	dBm			-16
LOS Assert	dBm	-28		

## 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.

XFP Single Fiber 10 km transceiver | Cisco Compatible 10G LR Ethernet

### PIN Layout

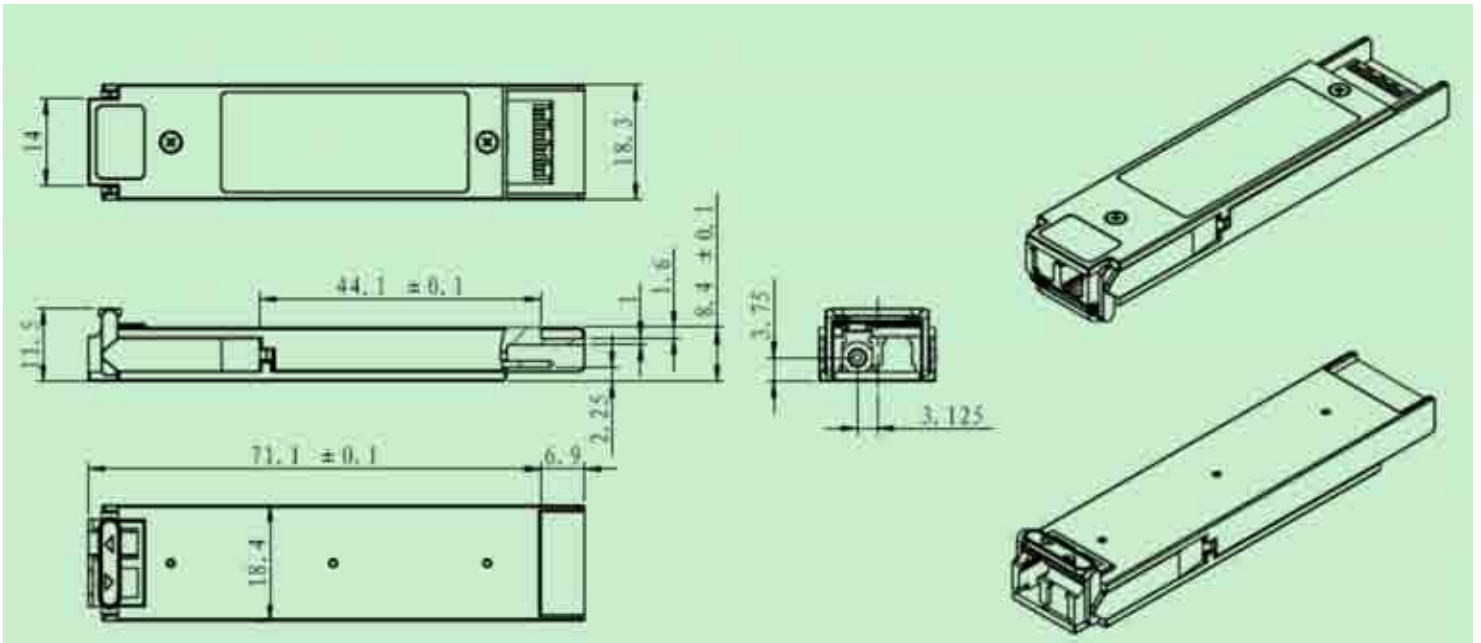
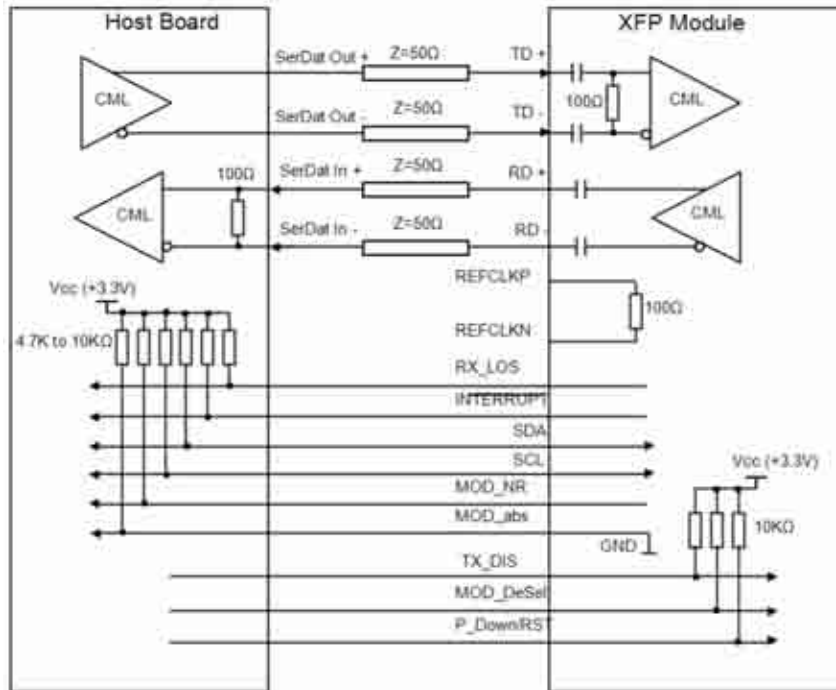


**XFP Single Fiber 10 km transceiver | Cisco Compatible 10G LR Ethernet**  
**PIN Functions**

Pin #	Name - Description
1	Module Ground
2	Optional -5.2 Power Supply – Not required
3	Module De-select; When held low allows the module to respond to 2-wire serial
4	Interrupt (bar); Indicates presence of an important condition
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. Grounded in the module
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
21	Power Down; When high
22	+1.8V Power Supply
23	Module Ground
24	Reference Clock non-inverted input
25	Reference Clock inverted input
26	Module Ground
27	Module Ground
28	Transmitter inverted data input
29	Transmitter non-inverted data input
30	Module Ground

### XFP Single Fiber 10 km transceiver | Cisco Compatible 10G LR Ethernet

### Mechanical Layouts



OptoSpan reserves the right to make changes or to discontinue any optical product or service without any notice. Applications and features described herein are for illustrative purposes only. OptoSpan makes no representation of warranty that such applications or features will be suitable for any specific use or compatibility without further testing or modifications. Not responsible for typographical errors.