Optospan

Platinum OEM Series

XFP SONET/SDH 2 km transceiver | Cisco Compatible 10G LR SONET OC-192 / STM-64 w/ CDR
Designed for OEM networks such as Cisco, HP, Juniper, Brocade, Alcatel etc.

Datasheet

SONET/SDH XFP Optical Transceiver Product Features

- Exclusive Japanese OSAs for Ultimate Reliability
- SONET OC-192 / STM-64 w/ CDR 9.2dB SONET/SDH XFP
- 2 km LR SONET/SDH XFP for SMF @ 10Gbps
- 1310nm FP+PIN Laser 2 km SONET/SDH XFP
- 0°C - 70°C Temperature - Extended/Industrial Available
- 2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)
- Hot-swappable for SONET/SDH 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

PXFS-10GT31K002

Applications

- SONET OC-192 / SDH STM-64
- OTN ITU-T G.709
- 10GBASE-SR @ 10.31Gbps
- 10GbE & 10Gb/s FC w/FEC

Description

Platinum OEM Series PXFS-10GT31K002 is a Cisco Compatible Duplex SONET OC-192 / STM-64 w/ CDR SONET/SDH XFP with CDR, FEC & OTN G.709 transceiver designed for long distance optical communications up to 2 km with signaling rates up to 10Gbps.

OptoSpan Platinum OEM Series 10Gbps Duplex 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 SONET/SDH 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 Duplex transceivers with LC interface.

Optical Budget Calculation for 2 km Platinum OEM SONET/SDH XFP Optical Transceiver

PXFS-10GT31K002	Distance: 2 km				Fiber: 1310nm SMF	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	-5.2	0	-14.4	0.5		
Optical Calculation Results			-7.1	-1.9	1.9	9.2

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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	0		+70
Recommended Operating Condition				
Supply Voltage	V	3.13		3.45
Supply Current	mA			500
Data Rate	Gbps			10.3125

Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Differential Input Voltage Swing	mVpp	120		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

Optical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Output Optical Power	dBm	-5.2		0
Optical Extinction Ratio	dB	3.5		
Optical Wavelength	nm	1270		1355
Spectral Width	nm			3
Side Mode Suppression Ratio	dB	30		
Receiver				
Optical Center Wavelength	nm	1260		1565
Receiver Sensitivity @ 10.7Gb/s	dBm	**-14.4**		**0.5**
LOS DE-Assert	dBm			-16.4
LOS Assert	dBm	-28.4		

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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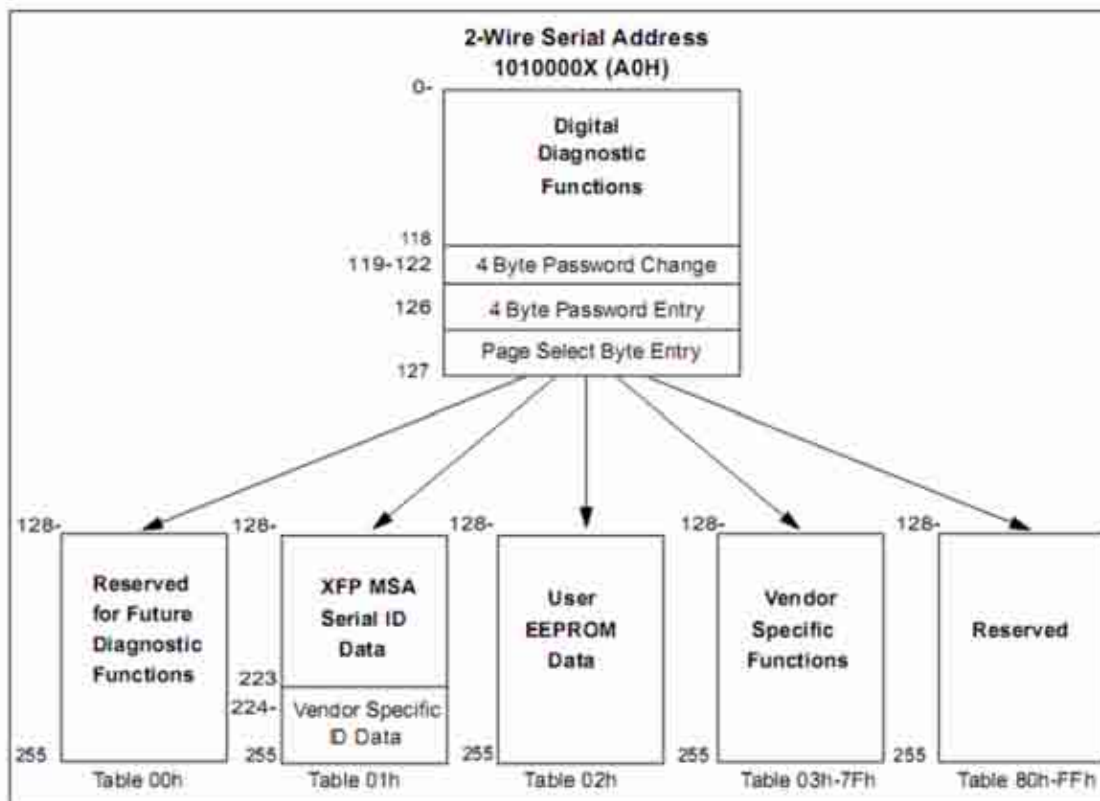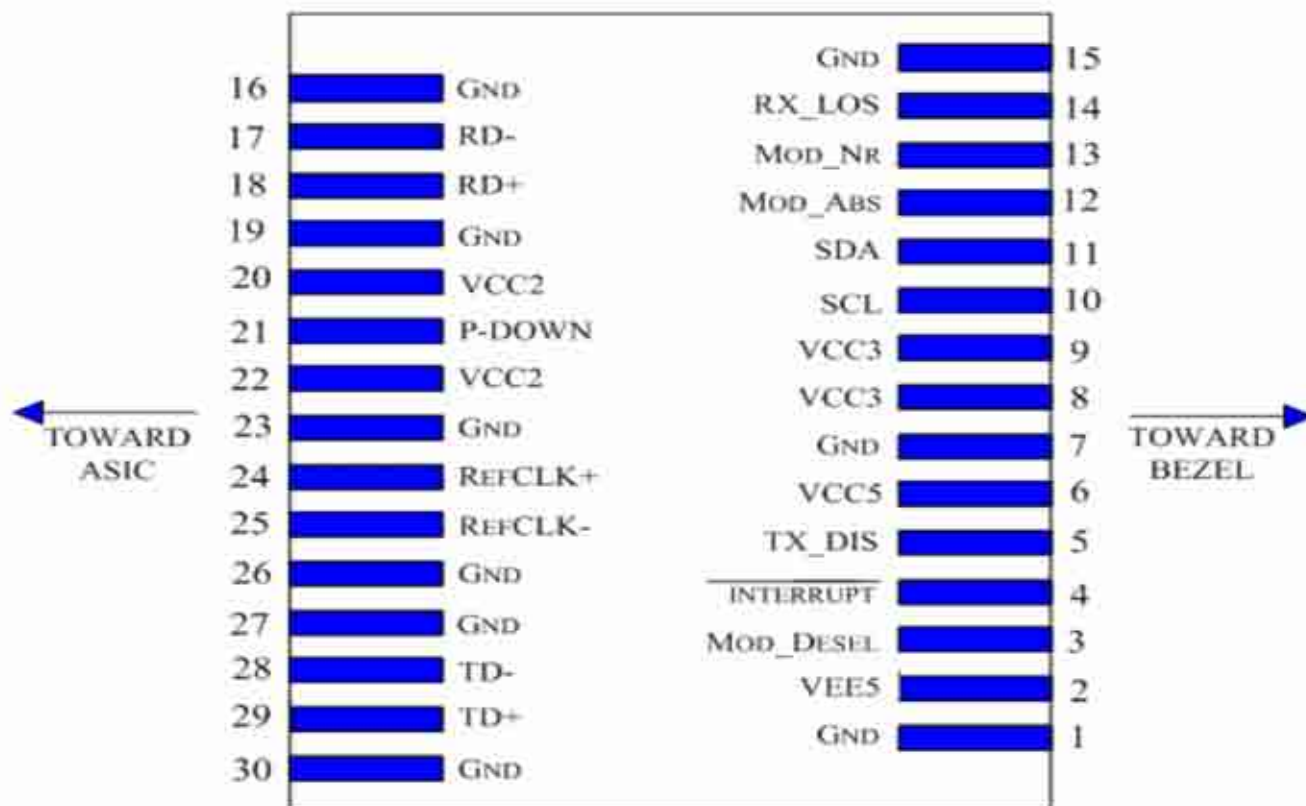
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PIN Functions

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
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 – Not required
21	Power Down
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
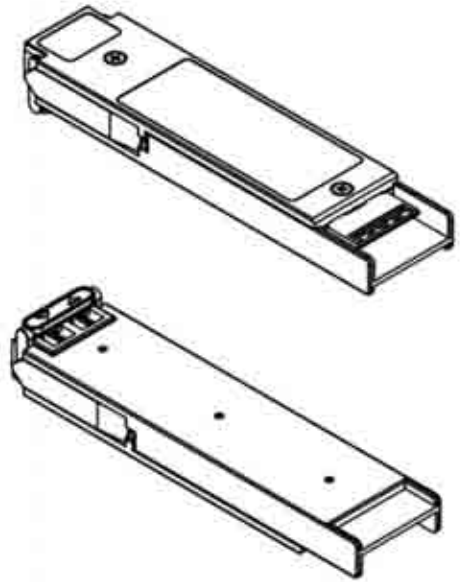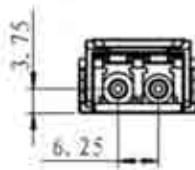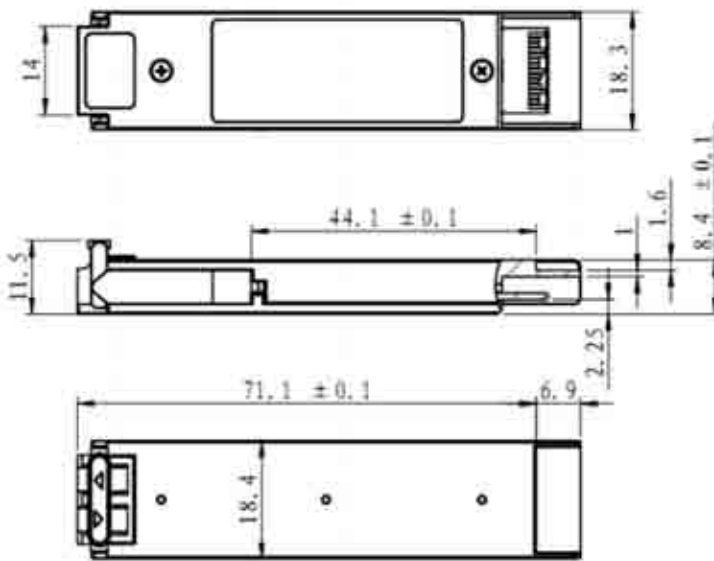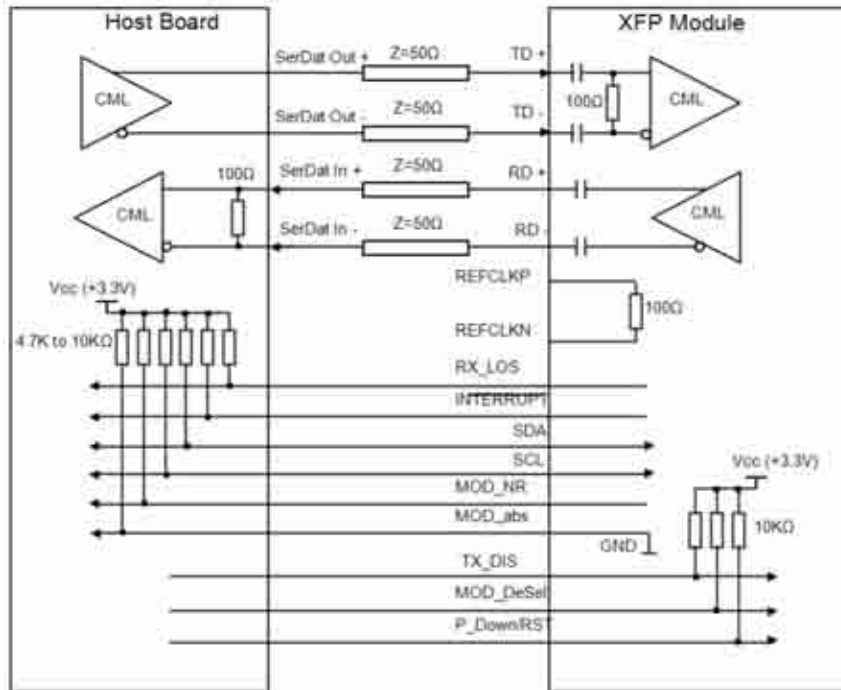
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