

Datasheet

SONET/SDH XFP Optical Transceiver Product Features

- SONET OC-192 / STM-64 w/ CDR 6.2dB SONET/SDH XFP
- 300m SR SONET/SDH XFP for MMF @ 10Gbps
- 850nm VCSEL+PIN Laser 300m 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
- OptoSpan 1 year standard warranty
- Use with Finisar, Avago, JDSU & networks not requiring OEM compatibility
- XFP MSA, IEEE 802.3ae
- RoHS compliant

* For OEM Compatibility, use Platinum Series Part# PXFS-10GT85M300

XFS-10G-M300T85



Applications

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

Description

OptoSpan XFS-10G-M300T85 is a 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 300m with signaling rates up to 10Gbps.

OptoSpan 10Gb Standard optical transceivers are compatible with many brands such as Finisar, Avago, JDSU and network environments that do not require any special compatibility. For networks that require special OEM compatibility, such as CISCO, BROCADE, JUNIPER, ALCATEL, HP, NORTEL, EMC, QLOGIC and other OEMs, consider OptoSpan Platinum OEM Series transceiver model# PXFS-10GT85M300.

All OptoSpan 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 300m SONET/SDH XFP Optical Transceiver

XFS-10G-M300T85	Distance: 300m				Fiber: 850nm MMF	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	-7.3	-1	-13.5	1		
Optical Calculation Results			-9.29	-2.98	1.98	6.2



XFP SONET/SDH 300m transceiver | 10G SR SONET OC-192 / STM-64 w/ CDR

General Specifications

Parameter	Unit	Min.	Typ.	Max
Absolute Maximum Ratings				
Maximum Supply Voltage	V	0.5		3.6
Storage Temperature	°C	-40		+85
Case Operating Temperature	°C	0		+70
Recommended Operating Condition				
Supply Voltage	V	3.13	3.3	3.46
Supply Current	mA		325	600
Data Rate	Gbps	9.95		10.71

Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Differential Input Voltage Swing	mVpp	120		
Input Differential Impedance	ohm	80	100	120
Transmit Disable Voltage - High	V			
Transmit Disable Voltage - Low	V			
Transmit Fault Voltage - High	V			
Transmit Fault Voltage - Low	V			
Receiver				
Differential Output Voltage Swing	mVpp			
Differential Output Impedance	ohms	80	100	120
LOS Output Voltage - High	V			
LOS Output Voltage - Low	V			



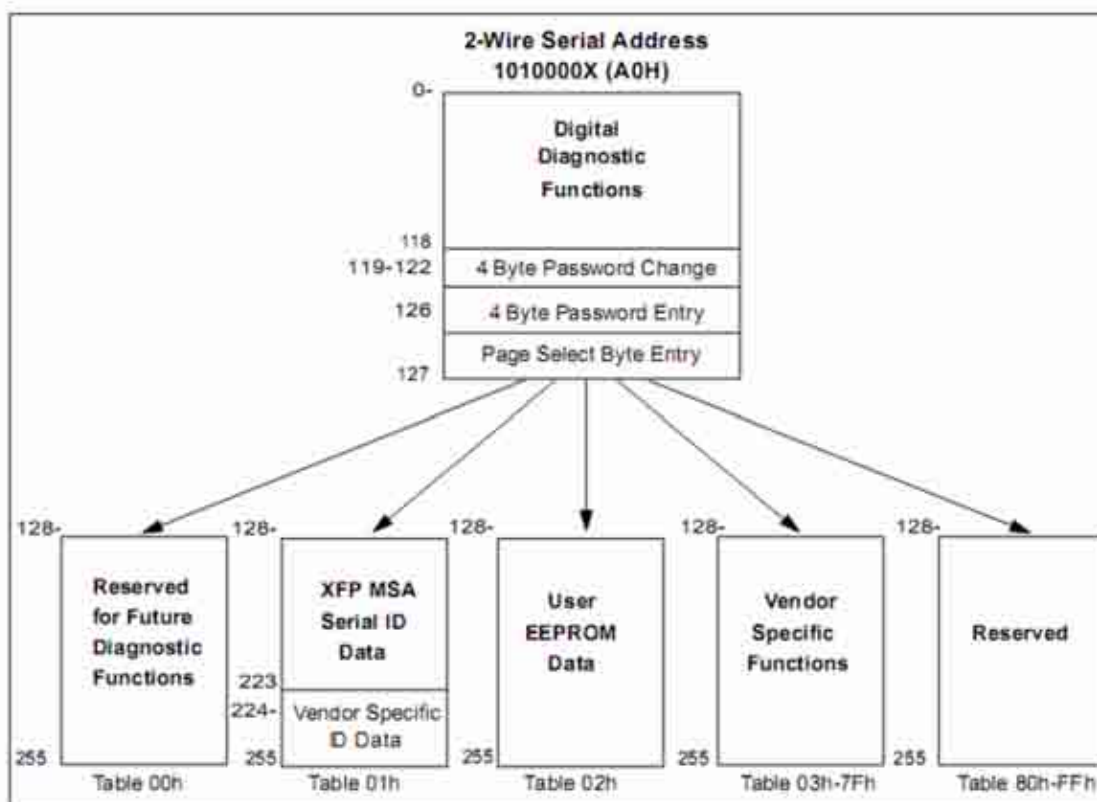
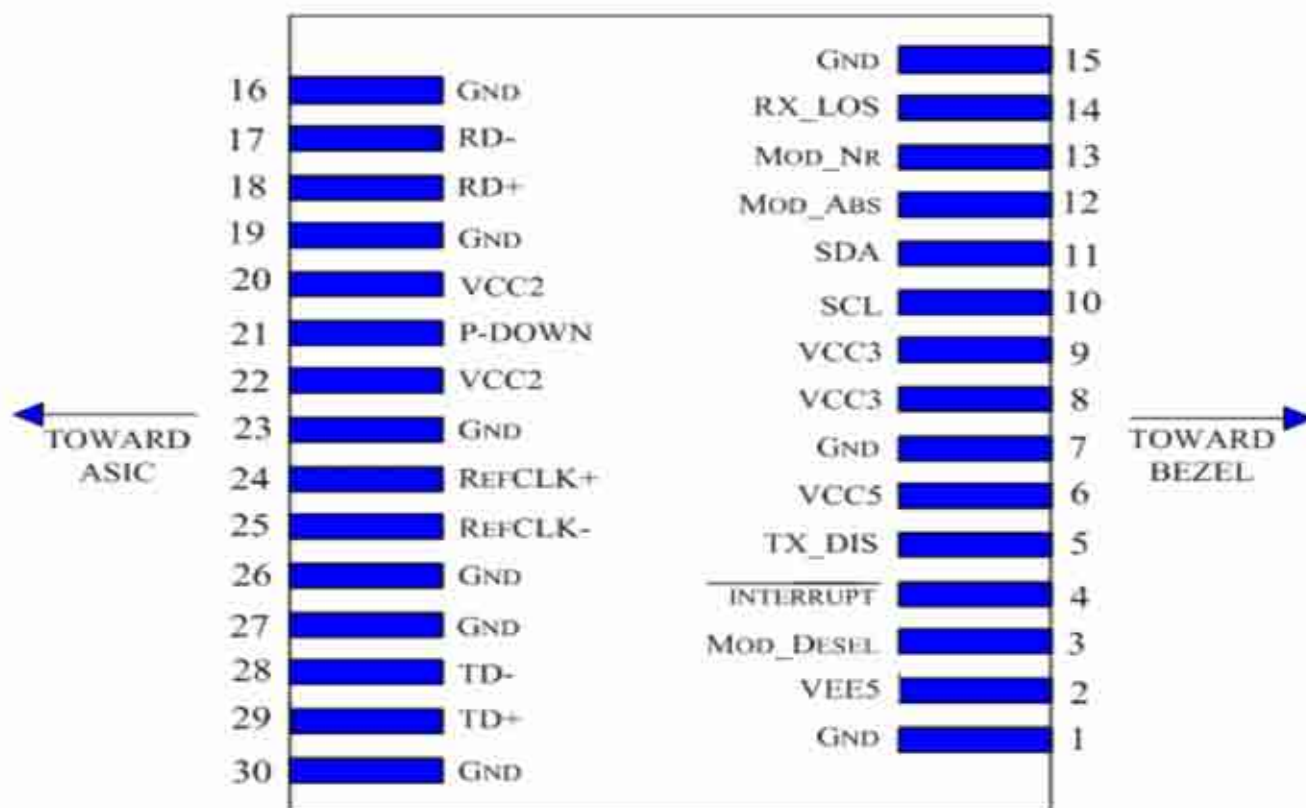
XFP SONET/SDH 300m transceiver | 10G SR SONET OC-192 / STM-64 w/ CDR

Optical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Output Optical Power	dBm	-7.3	-2.6	-1
Optical Extinction Ratio	dB	3.5	5.5	
Optical Wavelength	nm	840	850	860
Spectral Width	nm		0.4	0.45
Side Mode Suppression Ratio	dB			
Receiver				
Optical Center Wavelength	nm	840	850	860
Receiver Sensitivity @	dBm	-13.5		1
LOS DE-Assert	dBm			
LOS Assert	dBm			

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.

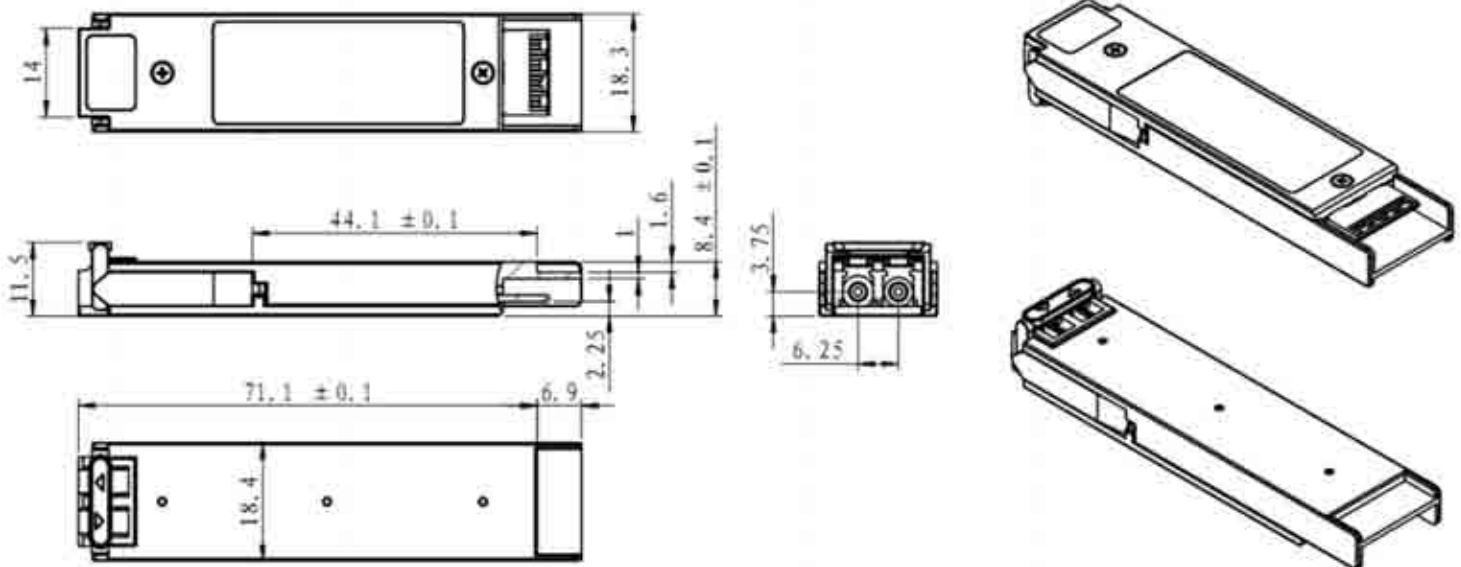
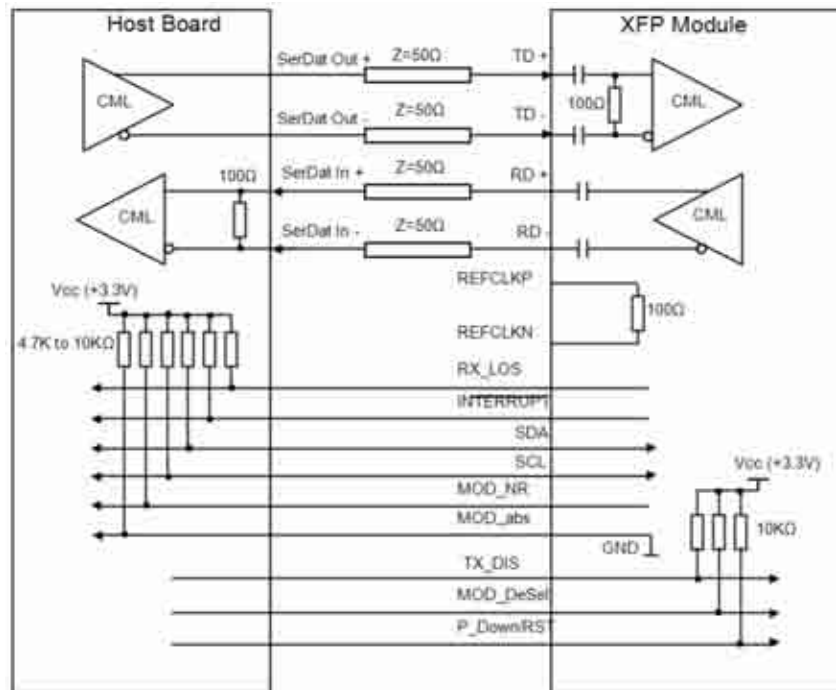




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PIN Functions

Pin #	Name - Description
1	Module Ground
2	Optional-5.2V Power Supply
3	Mode De-select; When held low allows module to 2-wire serial interface commands
4	Interrupt(inverted)
5	Transmitter Disable; Turns off transmitter laser output
6	+5V Power Supply
7	Module Ground
8	+3.3V Power Supply
9	+3.3V Power Supply
10	2-Wire Serial Interface Clock
11	2-Wire Serial Interface Data Line
12	Indicates Module is not present. Grounded in the module
13	Module Not Ready; Indicating module operational fault
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
22	+1.8V Power Supply
23	Module Ground
24	Reference Clock Non-Inverted Input; AC coupled on the host board
25	Reference Clock Non-Inverted Input
26	Module Ground
27	Module Ground
28	Transmitter Inverted Data Input
29	Transmitter Non-Inverted Data Input
30	Module Ground

XFP SONET/SDH 300m transceiver | 10G SR SONET OC-192 / STM-64 w/ CDR Mechanical Layouts



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