Platinum OEM Series

X2 300m transceiver | Cisco Compatible 10G SR Ethernet

Designed for OEM networks such as Cisco, HP, Juniper, Brocade, Alcatel etc.

Datasheet

X2 Optical Transceiver Product Features

PX2T-10GT85M300

- **Exclusive Japanese OSAs for Ultimate Reliability**
- **10GBASE-SR/SW Ethernet 5.1dB X2**
- **300m SR X2 for MMF @ 10Gbps**
- **850nm VCSEL+PIN Laser 300m X2**
- **0°C - 70°C Temperature - Extended/Industrial Available**
- **2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)**
- **Hot-swappable for X2 LC ports**
- **Extended 2 Years Warranty**
- **Tested and Certified in Brand Specific Networks and Target Applications**
- **Assembled Using Highest Quality Raw Components**
- **X2 MSA / IEEE 802.3ae/q/k & ROHS**

Applications

- **10 Gigabit Ethernet**
- **10GBASE-SR @ 10.31Gbps**
- **Other Optical Links**

Description

Platinum OEM Series PX2T-10GT85M300 is a Cisco Compatible Duplex 10GBASE-SR/SW Ethernet X2 transceiver designed for long distance optical communications up to 300m 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 X2 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 Platinum OEM X2 Optical Transceiver

PX2T-10GT85M300	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	-6	-1	-11.1	-1		
Optical Calculation Results			-7.99	-2.99	1.99	5.1

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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	3.15	3.3	3.45
Supply Current	mA			300
Data Rate	Gbps		10.31	

Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Differential Input Voltage Swing	mVpp	150		1200
Input Differential Impedance	ohm	80	100	115
Transmit Disable Voltage - High	V	2		Vcc+0.3
Transmit Disable Voltage - Low	V	0		0.8
Transmit Fault Voltage - High	V	2		Vcc+0.3
Transmit Fault Voltage - Low	V	0		0.8
Receiver				
Differential Output Voltage Swing	mVpp	350		700
Differential Output Impedance	ohms	80	100	115
LOS Output Voltage - High	V	2		Vcc+0.3
LOS Output Voltage - Low	V	0		0.8

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Optical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Output Optical Power	dBm	-6		-1
Optical Extinction Ratio	dB	3.0	5.0	
Optical Wavelength	nm	840	850	860
Spectral Width	nm			0.45
Side Mode Suppression Ratio	dB			
Receiver				
Optical Center Wavelength	nm	840	850	860
Receiver Sensitivity @ 10.31Gbp	dBm	-11.1		-1
LOS DE-Assert	dBm			-13
LOS Assert	dBm	-25		

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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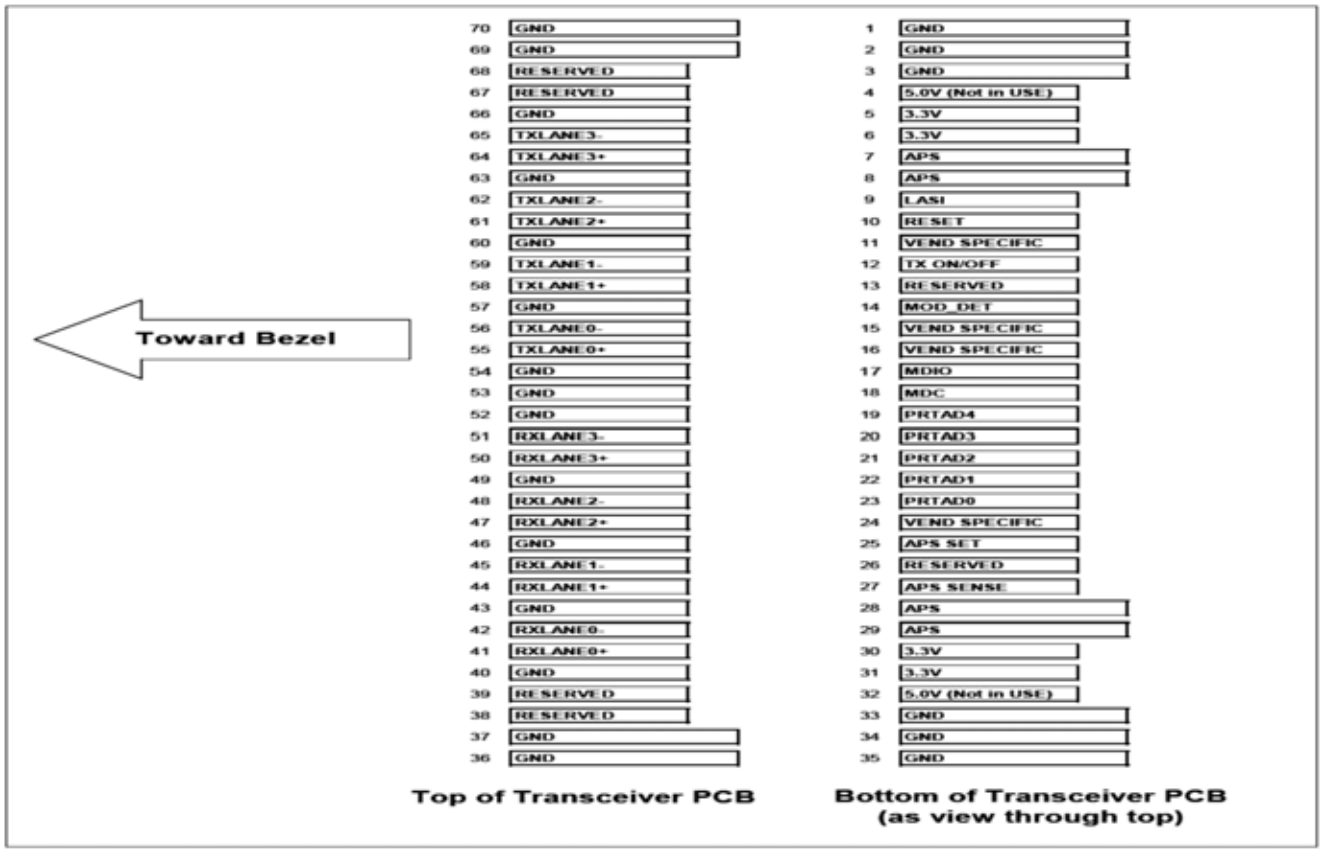
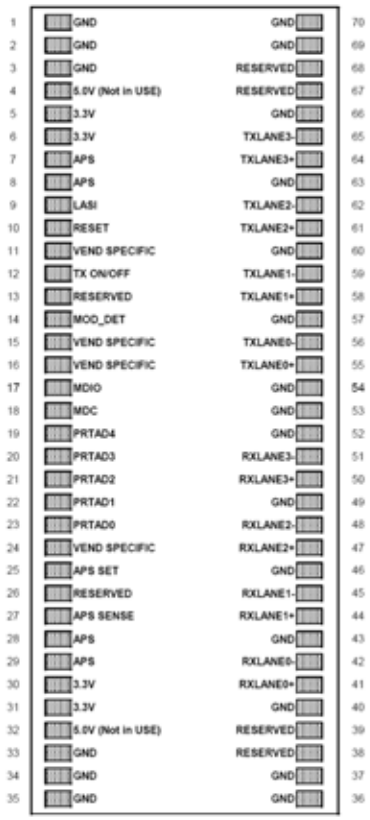
PIN Layout





PIN Functions

Pin #	Name - Description
1	Electrical Ground
2	Electrical Ground
3	Electrical Ground
4	Power
5	Power
6	Power
7	Adaptive Power Supply
8	Adaptive Power Supply
9	Link Alarm Status Interrupt,
10	Low active Reset Input 10KΩ pull-up on Transceiver
11	Vendor Specific Pin,. leave unconnected
12	High active Transmitter Enable Input 10KΩ pull-up on Transceiver
13	RESERVED
14	1kΩ to Ground On Transceiver
15	Vendor Specific Pin,. leave unconnected
16	Vendor Specific Pin,. leave unconnected
17	Management Data I/O. Requires external 10-22 kΩ pull-up to 1.2 V on host.
18	Management Clock Input
19	Port Address Bit 4(LOW=0)
20	Port Address Bit 3(LOW=0)
21	Port Address Bit 2(LOW=0)
22	Port Address Bit 1(LOW=0)
23	Port Address Bit 0(LOW=0)
24	Vendor Specific Pin,. leave unconnected
25	Feedback Input for APS, Input of APS Setting Resistor
26	RESERVED
27	APS Sense Output for APS Control Circuit
28	Adaptive Power Supply
29	Adaptive Power Supply
30	Power

Mechanical Layouts