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Platinum OEM Series

X2 80 km transceiver | Cisco Compatible 10G ZR Ethernet Designed for OEM networks such as Cisco, HP, Juniper, Brocade, Alcatel etc.

Datasheet PX2T-10GT55K080 **X2 Optical Transceiver Product Features** • Exclusive Japanese OSAs for Ultimate Reliability 10GBASE-ZR/ZW Ethernet 24dB X2 80 km ZR X2 for SMF @ 10Gbps 1550nm EML+APD Laser 80 km X2 0°C - 70°C Temperature - Extended/Industrial Available 2-Wire Interface Digital Diagnostic Monitoring (SFF-8724) • 10 Gigabit Ethernet Hot-swappable for X2 LC ports • Applications • 10GBASE-ZR @ 10.31Gbps **Extended 2 Years Warranty** • Other Optical Links **Tested and Certified in Brand Specific Networks and Target Applications** Assembled Using Highest Quality Raw Components

X2 MSA / IEEE 802.3ae/q/k & ROHS

Description

Platinum OEM Series PX2T-10GT55K080 is a Cisco Compatible Duplex 10GBASE-ZR/ZW Ethernet X2 transceiver designed for long distance optical communications up to 80 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 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.

PX2T-10GT55K080	Distance: 80 km				Fiber: 1550nm SMF	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	0	4	-24	-7		
Optical Calculation Results			-23.4	-19.4	23.4	24

Optical Budget Calculation for 80 km Platinum OEM X2 Optical Transceiver

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X2 80 km transceiver | Cisco Compatible 10G ZR Ethernet General Specifications

General Specifications				
Parameter	Unit	Min.	Тур.	Max
Absolute Maximum Ratings				
Maximum Supply Voltage	V	-0.3		4.0
Storage Temperature	°C	-40		85
Case Operating Temperature	°C	-5		70
Recommended Operating Condition				
Supply Voltage	V	3.14	3.3	3.47
Supply Current	mA			300
Data Rate	Gbps		10.31	

Electrical Characteristics

Parameter	Unit	Min.	Тур.	Max	
	Transmitter				
Differential Input Voltage Swing	mVpp	175		2000	
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				
	Receive	r	-		
Differential Output Voltage Swing	mVpp	800		1600	
Differential Output Impedance	ohms	80	100	120	
LOS Output Voltage - High	V				
LOS Output Voltage - Low	V				



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Optical Characteristics

Parameter	Unit	Min.	Тур.	Мах
	Transmitt	er		
Output Optical Power	dBm	0		4
Optical Extinction Ratio	dB	8.2		
Optical Wavelength	nm	1530	1550	1570
Spectral Width	nm		0.6	
Side Mode Suppression Ratio	dB	30		
	Receive	r		
Optical Center Wavelength	nm	1260		1600
Receiver Sensitivity @ 10.31Gbp	dBm	-24		-7
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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X2 80 km transceiver | Cisco Compatible 10G ZR Ethernet PIN Layout

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	70	GND
	99	GND
	68	RESERVED
	87	RESERVED
	66	GND
	65	TX LANE3-
	64	TX LANE3+
	63	GND
	62	TX LANE2-
	01	TX LANE2+
	00	GND
	59	TX LANE1-
	58	TX LANE1+
	57	GND
1	56	TX LANED-
	55	TX LANEO+
Toward Bezel	54	GND
\neg	53	GND
	62	GND
	51	RX LANE3-
	50	RX LANE3+
	49	GND
	-48	RX LANE2-
	47	RX LANE2+
	40	GND
	46	RX LANE1-
	44	RX LANE1+
	43	GND
	42	RX LANEO-
	41	RX LANEO+
	40	GND
	39	RESERVED
	38	RESERVED
	37	GND
	36	GND

1	GND	
2	GND	
э	GND	
-4	5.0V	
5	3.3V	
•	3.3V	
7	APS	
	APS	
0	LASI	
10	RESET	
11	VEND SPECIFIC	
12	TX ON/OFF	
13	RESERVED	
14	MOD DETECT	
15	VEND SPECIFIC	
10	VEND SPECIFIC	
17	MDIO	
10	MDC	
19	PRTAD4	
20	PRTAD3	
21	PRTAD2	
22	PRTAD1	
23	PRTADO	
24	VEND SPECIFIC	
26	APS SET	
28	RESERVED	
27	APS SENSE	
28	APS	
29	APS	
30	3.3V	
31	3.3V	
32	5.0V	
33	GND	
34	GND	
35	GND	

1	GND	GND	70
2	GND	GND	69
3	GND	RESERVED	68
4	5.0V (Not in USE)	RESERVED	67
5	3.3V	GND	66
6	3.3V	TXLANE3-	65
7	APS	TXLANE3+	64
8	APS	GND	63
9	LASI	TXLANE2-	62
10	RESET	TXLANE2+	61
11	VEND SPECIFIC	GND	60
12	TX ON/OFF	TXLANE1-	59
13	RESERVED	TXLANE1+	58
14	MOD_DET	GND	57
15	VEND SPECIFIC	TXLANED-	56
16	VEND SPECIFIC	TXLANE0+	55
17	MDIO	GND	54
18	MOC	GND	53
19	PRTAD4	GND	52
20	PRTAD3	RXLANE3-	51
21	PRTAD2	RXLANE3+	50
22	PRTAD1	GND	49
23	PRTADO	RXLANE2-	48
24	VEND SPECIFIC	RXLANE2*	47
25	APS SET	GND	46
26	RESERVED	RXLANE1-	45
27	APS SENSE	RXLANE1+	-44
28	APS	GND	43
29	APS	RXLANED-	42
30	3.3V	RXLANE0+	41
31	3.3V	GND	-40
32	5.0V (Not in USE)	RESERVED	39
33	GND	RESERVED	38
34	GND	GND	37
35	GND	GND	36



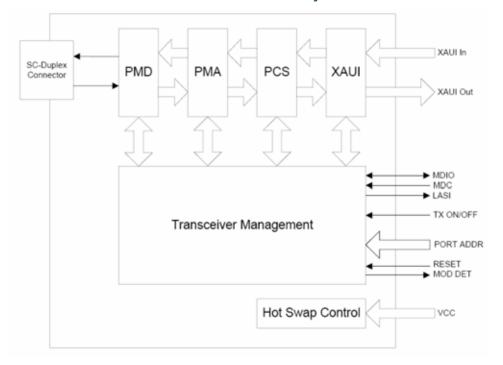
X2 80 km transceiver | Cisco Compatible 10G ZR Ethernet PIN Functions

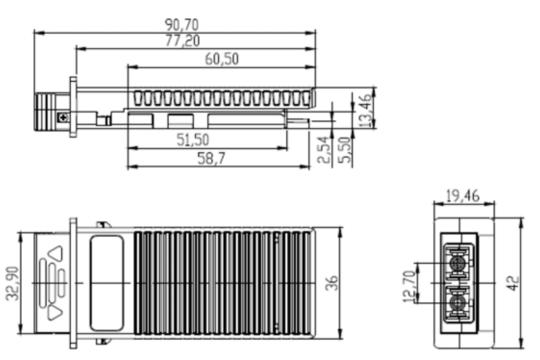
Pin #	Name - Description
1	Electrical Ground
2	Electrical Ground
3	Electrical Ground
4	Power
5	Power
6	Power
7	Adaptive Power Supply
8	Adaptive Power Supply
9	Open Drain Compatible.10K-22K pull up on host
10	Open Drain compatible.10-22K pull-up on transceiver
11	Vendor Specific Pin.Leave unconnected when not in use
12	Open Drain compatible.10-22K pull-up on transceiver
13	Reserved
14	Pulled low inside module through 1k
15	Vendor Specific Pin.Leave unconnected when not in use
16	Vendor Specific Pin.Leave unconnected when not in use
17	Management Data IO
18	Management Data Clock
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 when not in use
25	Feedback input for APS
26	Reserved for Avalanche Photodiode use
27	APS Sense Connection
28	Adaptive Power Supply
29	Adaptive Power Supply
30	Power



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X2 80 km transceiver | Cisco Compatible 10G ZR Ethernet Mechanical Layouts





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