

XENPAK 40 km transceiver | Cisco Compatible 10G ER Ethernet

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

Datasheet

XENPAK Optical Transceiver Product Features

- Exclusive Japanese OSAs for Ultimate Reliability
- 10GBASE-ER/EW Ethernet 14.8dB XENPAK
- 40 km ER XENPAK for SMF @ 10Gbps
- 1550nm EML+PIN Laser 40 km XENPAK
- 0°C - 70°C Temperature - Extended/Industrial Available
- 2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)
- Hot-swappable for XENPAK LC ports
- Extended 2 Years Warranty
- Tested and Certified in Brand Specific Networks and Target Applications
- Assembled Using Highest Quality Raw Components
- XENPAK MSA / IEEE 802.3ae/q/k & ROHS

PXEN-10GT55K040



Applications

- 10 Gigabit Ethernet
- 10GBASE-ER @ 10.31Gbps
- 10GBASE-EW @ 9.95Gbps
- Other Optical Links

Description

Platinum OEM Series PXEN-10GT55K040 is a Cisco Compatible Duplex 10GBASE-ER/EW Ethernet XENPAK transceiver designed for long distance optical communications up to 40 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 XENPAK 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 40 km Platinum OEM XENPAK Optical Transceiver

PXEN- 10GT55K040	Distance: 40 km				Fiber: 1550nm SMF	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	-1	2	-15.8	0.5		
Optical Calculation Results			-14.8	-9.8	13.8	14.8

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General Specifications

Parameter	Unit	Min.	Typ.	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	3.135	3.3	3.465
Supply Current	mA			300
Data Rate	Gbps		10.31	

Electrical Characteristics

Parameter	Unit	Min.	Typ.	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			
Receiver				
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

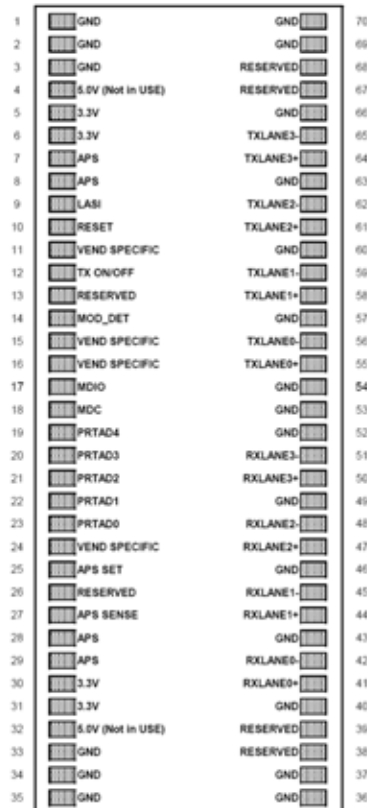
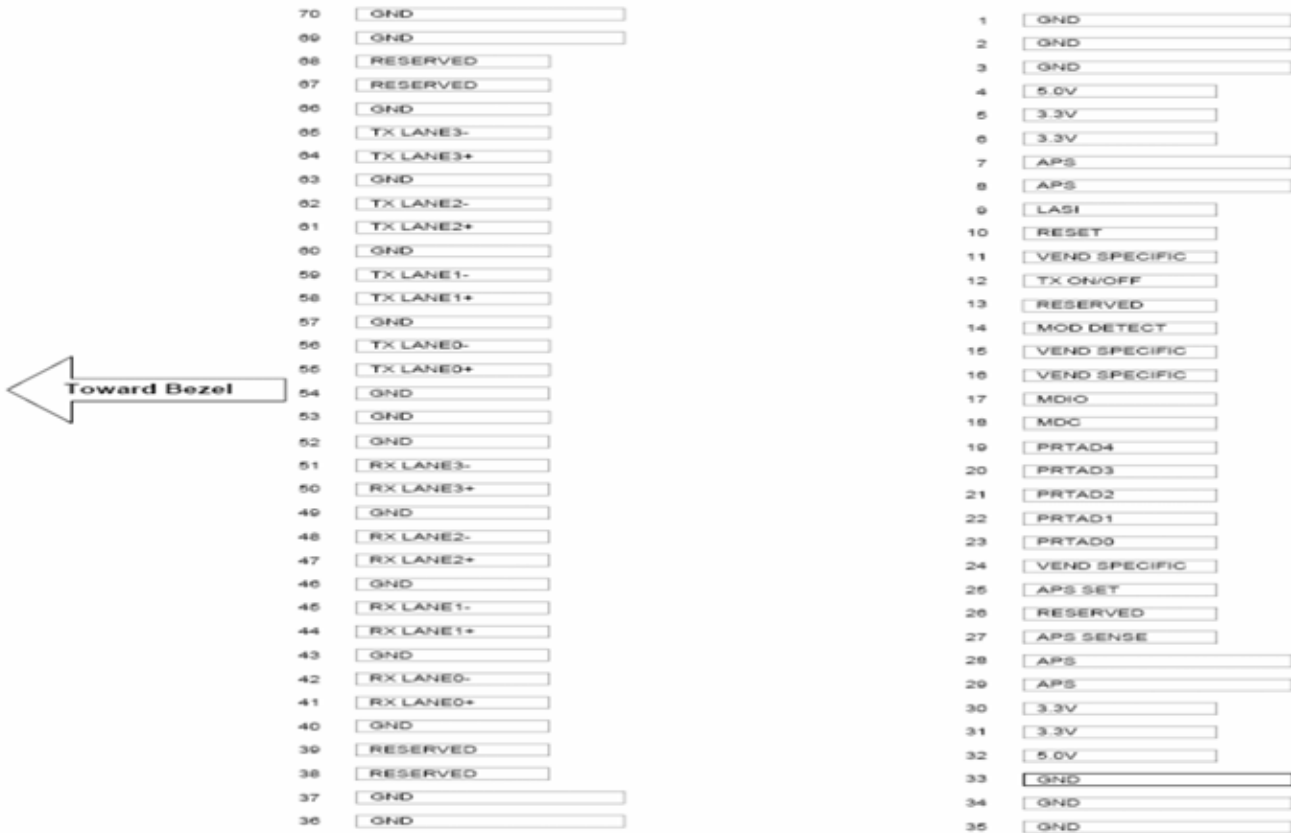
Parameter	Unit	Min.	Typ.	Max
Transmitter				
Output Optical Power	dBm	-1		2
Optical Extinction Ratio	dB		8.2	
Optical Wavelength	nm	1530	1550	1570
Spectral Width	nm			0.6
Side Mode Suppression Ratio	dB	30		
Receiver				
Optical Center Wavelength	nm	1260		1600
Receiver Sensitivity @ 10.31Gbp	dBm	-15.8		0.5
LOS DE-Assert	dBm			-16
LOS Assert	dBm	-30		

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

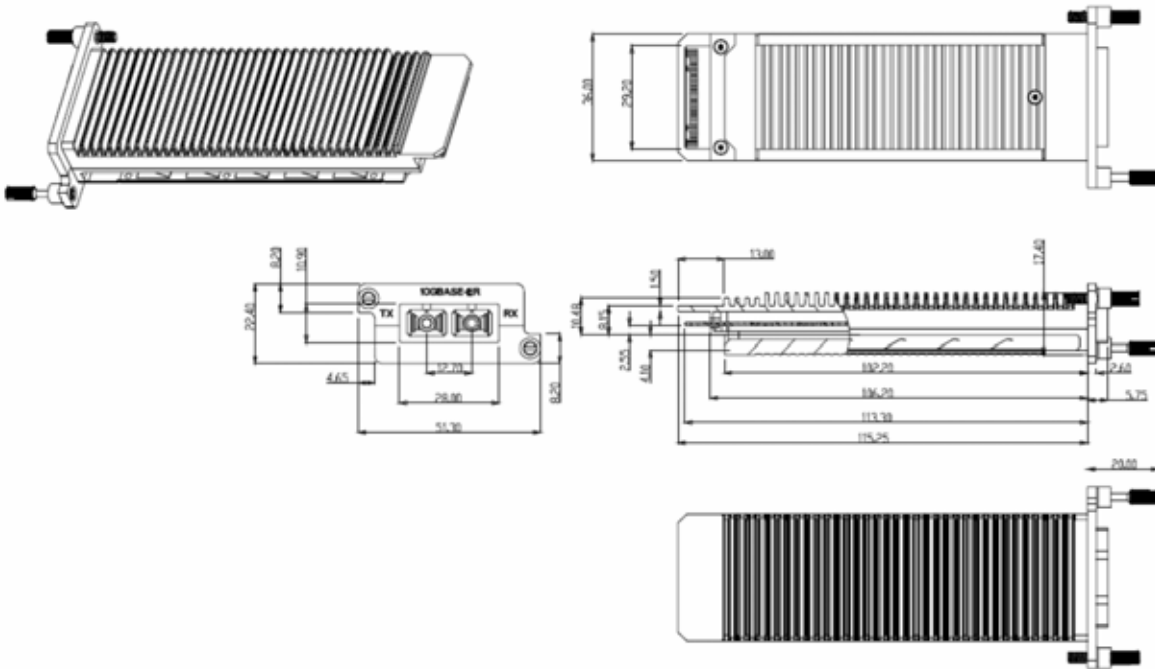
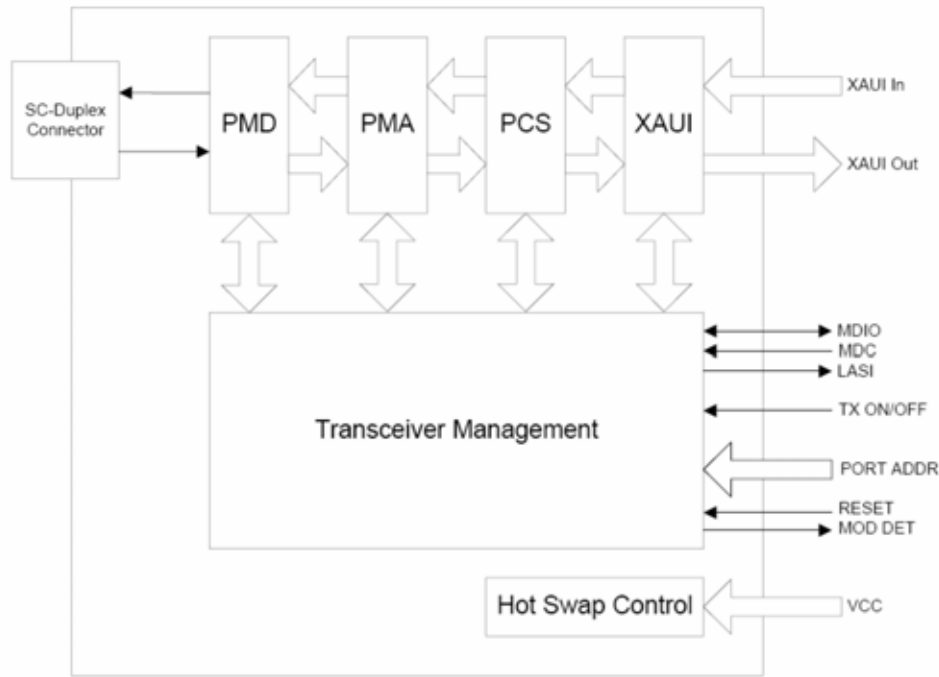


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PIN Functions

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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Mechanical Layouts



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