

QSFP+ 10 km transceiver | Cisco Compatible 40G LR4 Ethernet

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

Datasheet

QSFP+ Optical Transceiver Product Features

- Exclusive Japanese OSAs for Ultimate Reliability
- 40GBASE-LR4 40G Ethernet 4.5dB QSFP+
- 10 km LR4 QSFP+ for SMF @ 40Gbps
- 1310nm DFB+PIN Laser 10 km QSFP+
- 0°C - 70°C Temperature - Extended/Industrial Available
- 2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)
- Hot-swappable for QSFP+ LC ports
- Tx/Rx @ CWDM 1271nm/1291nm/1311nm/1331nm
- Tested and Certified in Brand Specific Networks and Target Applications
- Assembled Using Highest Quality Raw Components
- Compliant with QSFP+ MSA & ROHS

PQSP-40GT31K010



Applications

- 40GBASE-LR4 Ethernet
- Infiniband QDR and DDR
- 40G Telecom connections

Description

Platinum OEM Series PQSP-40GT31K010 is a Cisco Compatible Duplex 40GBASE-LR4 40G Ethernet QSFP+ transceiver designed for long distance optical communications up to 10 km with signaling rates up to 40Gbps.

OptoSpan Platinum OEM Series 40Gbps 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 QSFP+ 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 10 km Platinum OEM QSFP+ Optical Transceiver

PQSP-40GT31K010	Distance: 10 km				Fiber: 1310nm SMF	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	-7	2.3	-11.5	2.3		
Optical Calculation Results			-10.7	-1.4	3.7	4.5

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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		+75
Case Operating Temperature	°C	-10		+70
Recommended Operating Condition				
Supply Voltage	V	3.15	3.3	3.465
Supply Current	mA			1000
Data Rate	Gbps		41.25	

Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Differential Input Voltage Swing	mVpp			
Input Differential Impedance	ohm	85	100	115
Transmit Disable Voltage - High	V	2.0		Vcc+0.3
Transmit Disable Voltage - Low	V	0		0.8
Transmit Fault Voltage - High	V	2.4		Vcc+0.3
Transmit Fault Voltage - Low	V	0		0.8
Receiver				
Differential Output Voltage Swing	mVpp			
Differential Output Impedance	ohms	85	100	115
LOS Output Voltage - High	V	2.4		Vcc+0.3
LOS Output Voltage - Low	V	0		0.8

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Optical Characteristics

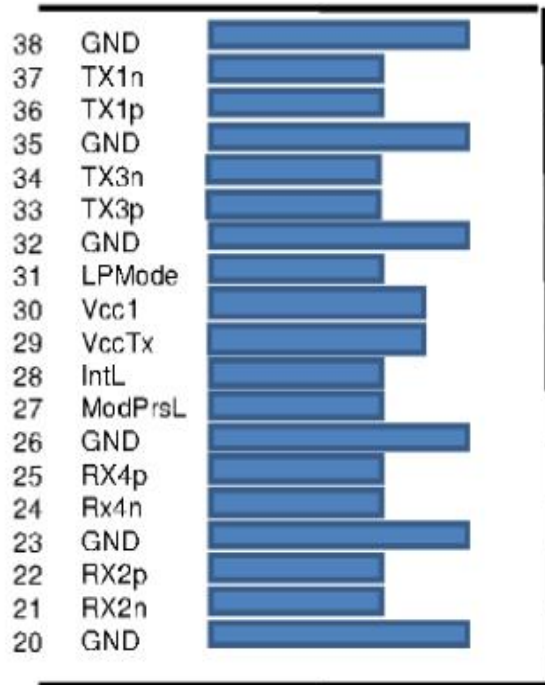
Parameter	Unit	Min.	Typ.	Max
Transmitter				
Output Optical Power	dBm	-7		2.3
Optical Extinction Ratio	dB	3.5		
Optical Wavelength	nm	Var		Var
Spectral Width	nm			
Side Mode Suppression Ratio	dB	30		
Receiver				
Optical Center Wavelength	nm	Var		Var
Receiver Sensitivity @	dBm	-11.5		2.3
LOS DE-Assert	dBm			-11.5
LOS Assert	dBm	-20		

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.

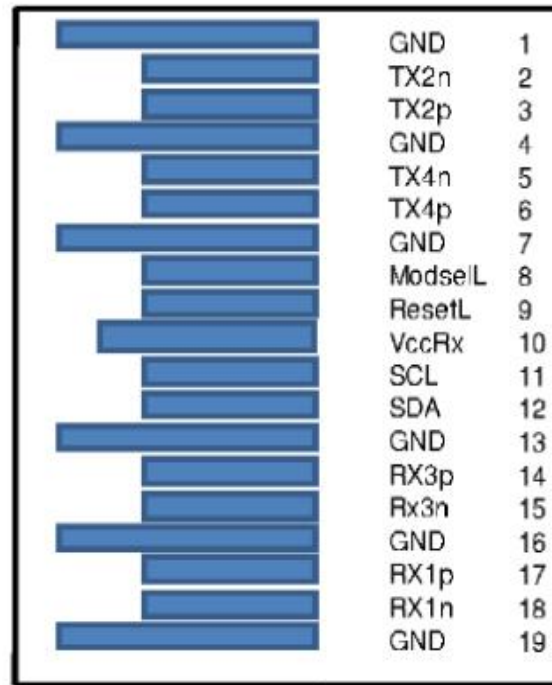
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PIN Layout



Top Side
Viewed From Top

Module Card Edge



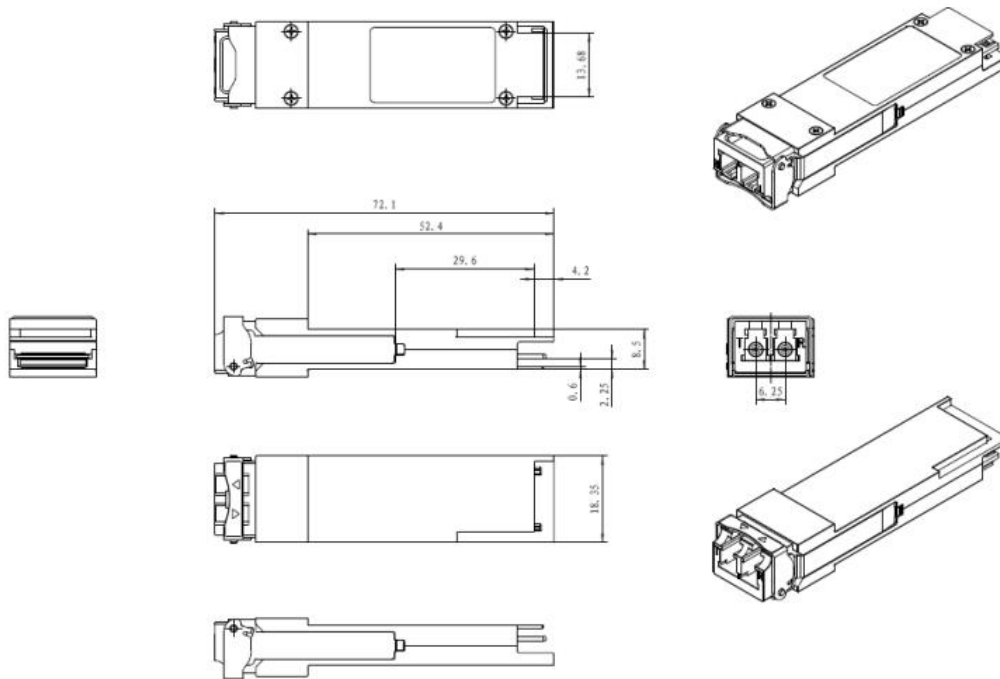
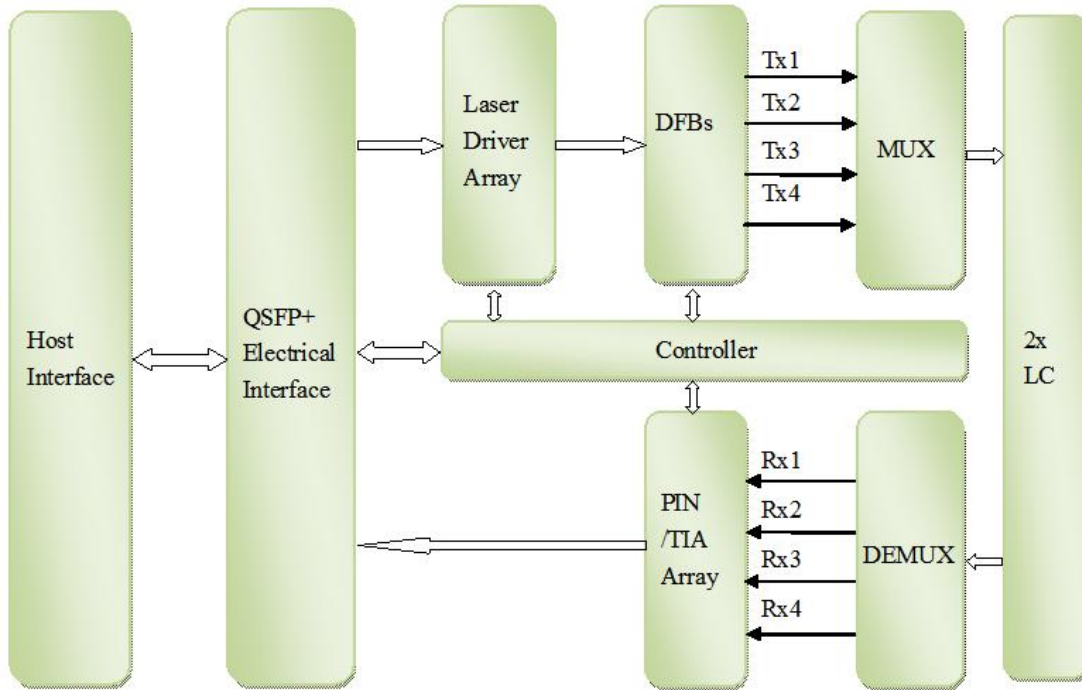
Bottom Side
Viewed From Bottom

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PIN Functions

Pin #	Name - Description
1	Contact OptoSpan for detailed pin layout.
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Mechanical Layouts



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