

Datasheet

CFP Optical Transceiver Product Features

- 40GBASE-LR4 40G Ethernet 8.5dB CFP
- 20 km LR4 CFP for SMF @ 40Gbps
- 1310nm DFB+PIN Laser 20 km CFP
- 0°C - 70°C Temperature - Extended/Industrial Available
- MDIO interface with integrated Digital Diagnostic Monitoring
- Hot-swappable for CFP LC ports
- Tx/Rx @ CWDM 1271nm/1291nm/1311nm/1331nm
- Use with Finisar, Avago, JDSU & networks not requiring OEM compatibility
- Compliant with CFP MSA
- RoHS compliant

* For OEM Compatibility, use Platinum Series Part# PCFP-40GT31K020

Description

OptoSpan CFP-40G-K020T31 is a Duplex 40GBASE-LR4 40G Ethernet CFP transceiver designed for long distance optical communications up to 20 km with signaling rates up to 40Gbps.

OptoSpan 40Gb 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# PCFP-40GT31K020.

All OptoSpan long-reach CFP 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.

CFP-40G-K020T31



- 40GBASE-LR4 Ethernet

Applications

Optical Budget Calculation for 20 km CFP Optical Transceiver

CFP-40G-K020T31	Distance: 20 km				Fiber: 1310nm SMF	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	-3.0	2.3	-11.5	2.3		
Optical Calculation Results			-10.75	-5.45	7.75	8.5

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	3.135	3.3	3.465
Supply Current	mA			1500
Data Rate	Gbps		41.25	

Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Differential Input Voltage Swing	mVpp	150		1050
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			
Transmit Fault Voltage - Low	V			
Receiver				
Differential Output Voltage Swing	mVpp	340		850
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

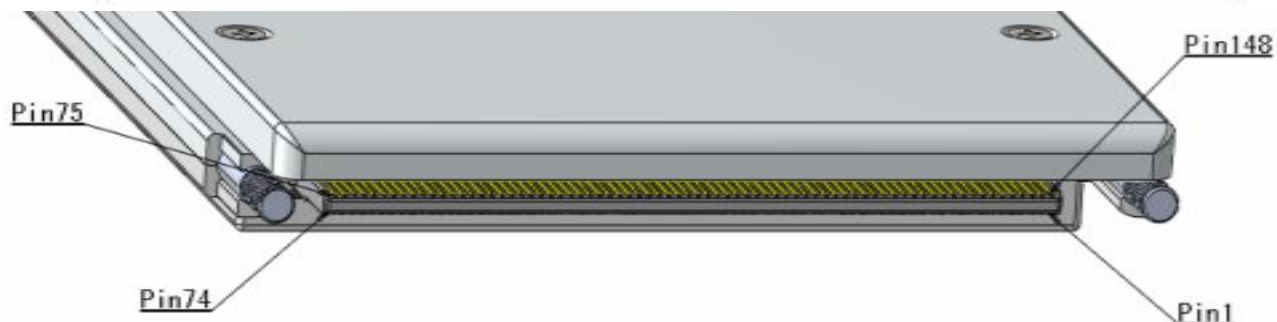
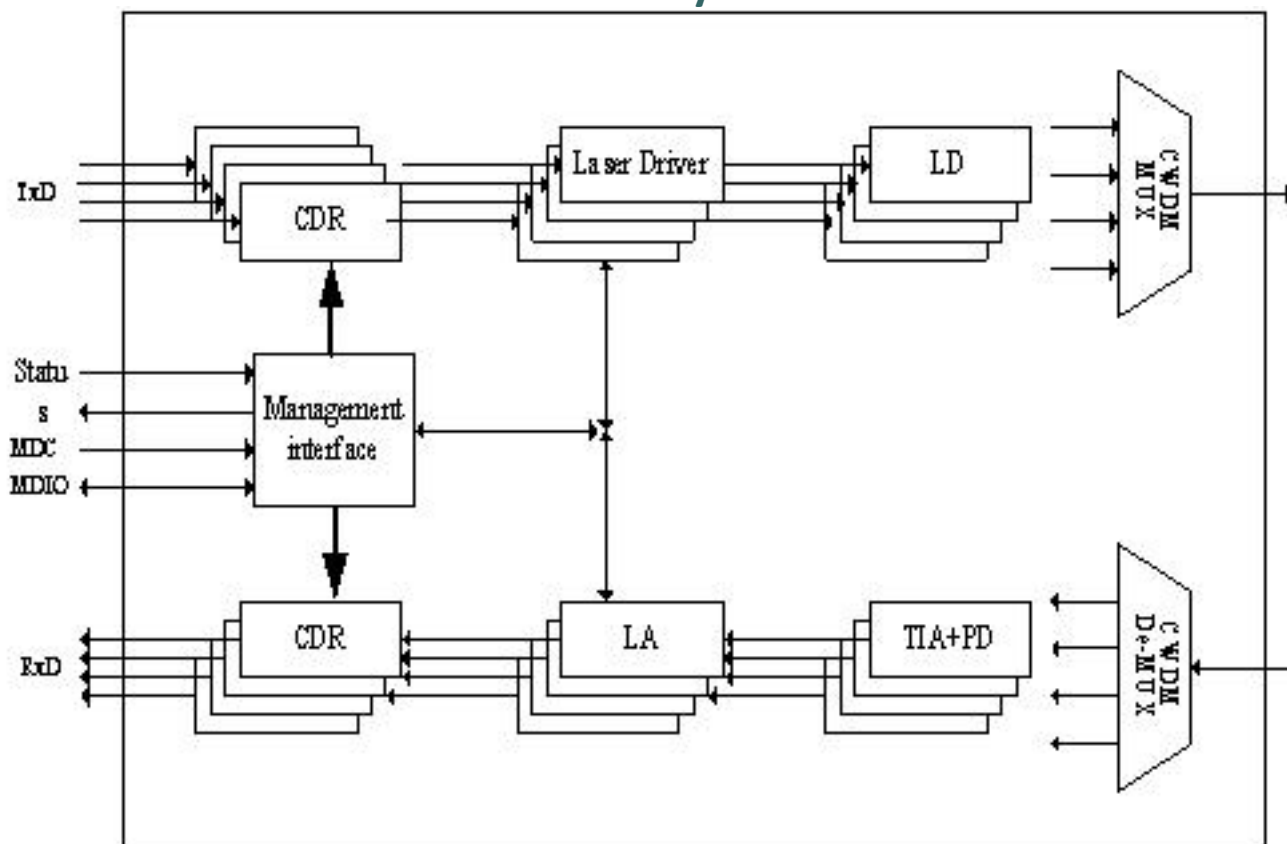
Optical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Output Optical Power	dBm	-3.0		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	-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.

PIN Layout



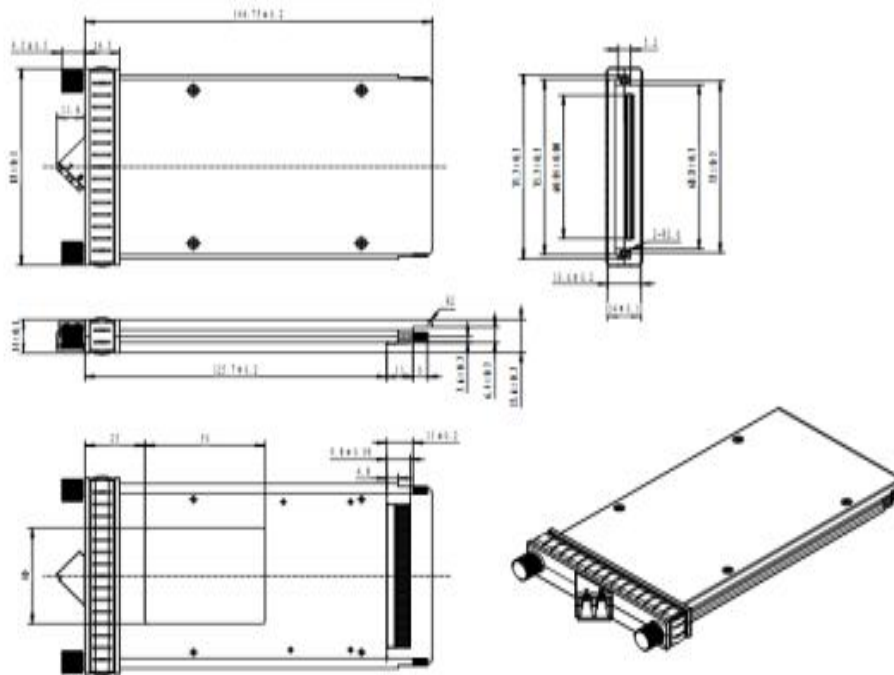
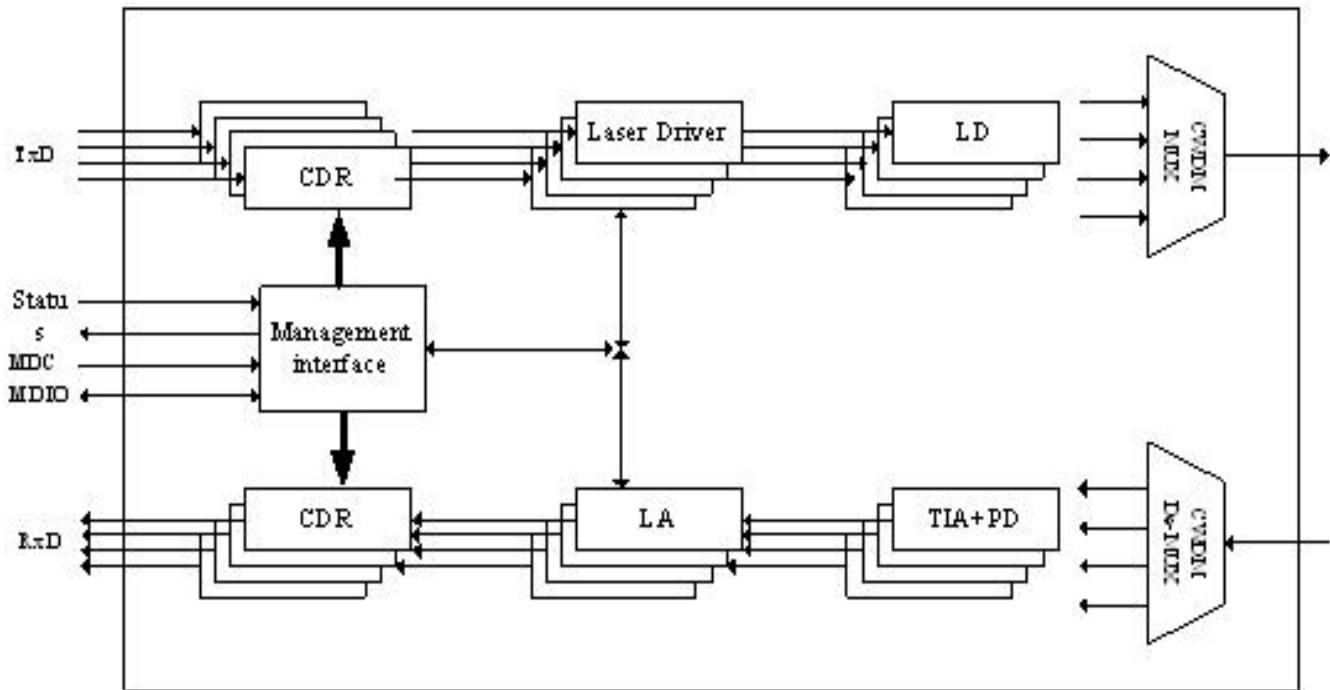


CFP 20 km transceiver | 40G LR4 Ethernet

PIN Functions

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



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