Platinum OEM Series

SFP+ SONET/SDH Single Fiber 60 km transceiver | Cisco Compatible 10G ER SONET OC-192 / STM
Designed for OEM networks such as Cisco, HP, Juniper, Brocade, Alcatel etc.

Datasheet

SONET/SDH SFP+ Optical Transceiver

Product Features

- **Exclusive Japanese OSAs for Ultimate Reliability**
- **SONET OC-192 / STM-64 w/ CDR 21dB SONET/SDH SFP+**
- **60 km ER SONET/SDH SFP+ for SMF @ 10Gbps**
- **1270Tx-1330Rx DFB+PIN Laser 60 km SONET/SDH SFP+**
- **0°C - 70°C Temperature - Extended/Industrial Available**
- **2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)**
- **Hot-swappable for SONET/SDH SFP+ LC ports**
- **Extended 2 Years Warranty**
- **Tested and Certified in Brand Specific Networks and Target Applications**
- **Assembled Using Highest Quality Raw Components**
- **Compliant with SFF-8431, SFF-8432 & ROHS**

PSPS-81DB27K060

Applications

- **SONET OC-192 / SDH STM-64**
- **OTN ITU-T G.709**
- **10GBASE-ER @ 10.31Gbps**
- **10GbE & 10Gb/s FC w/FEC**

Description

Platinum OEM Series PSPS-81DB27K060 is a Cisco Compatible Single Fiber BiDirectional SONET OC-192 / STM-64 w/ CDR SONET/SDH SFP+ with CDR, FEC & OTN G.709 transceiver designed for long distance optical communications up to 60 km with signaling rates up to 10Gbps.

OptoSpan Platinum OEM Series 10Gbps Single Fiber BiDirectional (BiDi) 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 SONET/SDH SFP+ s are ROHS compliant, allow for real-time diagnostic monitoring as per SFF-8472 and designed to meet Multi-Source Agreement (MSA) standards for Single Fiber BiDirectional (BiDi) transceivers with LC interface.

Optical Budget Calculation for 60 km Platinum OEM SONET/SDH SFP+ Optical Transceiver

PSPS-81DB27K060	**Distance:** 60 km				**Fiber:** 1270Tx-1330Rx	
	Tx Min dBm	**Tx Max dBm**	**Rx Min dBm**	**Rx Max dBm**	**Link Attenuation dB**	**Power Budget dB**
Product Specifications	**1**	**6**	**-20**	**-6**		
Optical Calculation Results			**-19.8**	**-14.8**	**20.8**	**21**

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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			430
Data Rate	Gbps		9.95/10.31	

Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
Transmitter				
Differential Input Voltage Swing	mVpp	150		1200
Input Differential Impedance	ohm	85	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		0.5
Receiver				
Differential Output Voltage Swing	mVpp	350		700
Differential Output Impedance	ohms	85	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	1		6
Optical Extinction Ratio	dB	3.5		
Optical Wavelength	nm	1260	1270	1280
Spectral Width	nm			1
Side Mode Suppression Ratio	dB	30		
Receiver				
Optical Center Wavelength	nm	1320		1340
Receiver Sensitivity @	dBm	-20		-6
LOS DE-Assert	dBm			-21
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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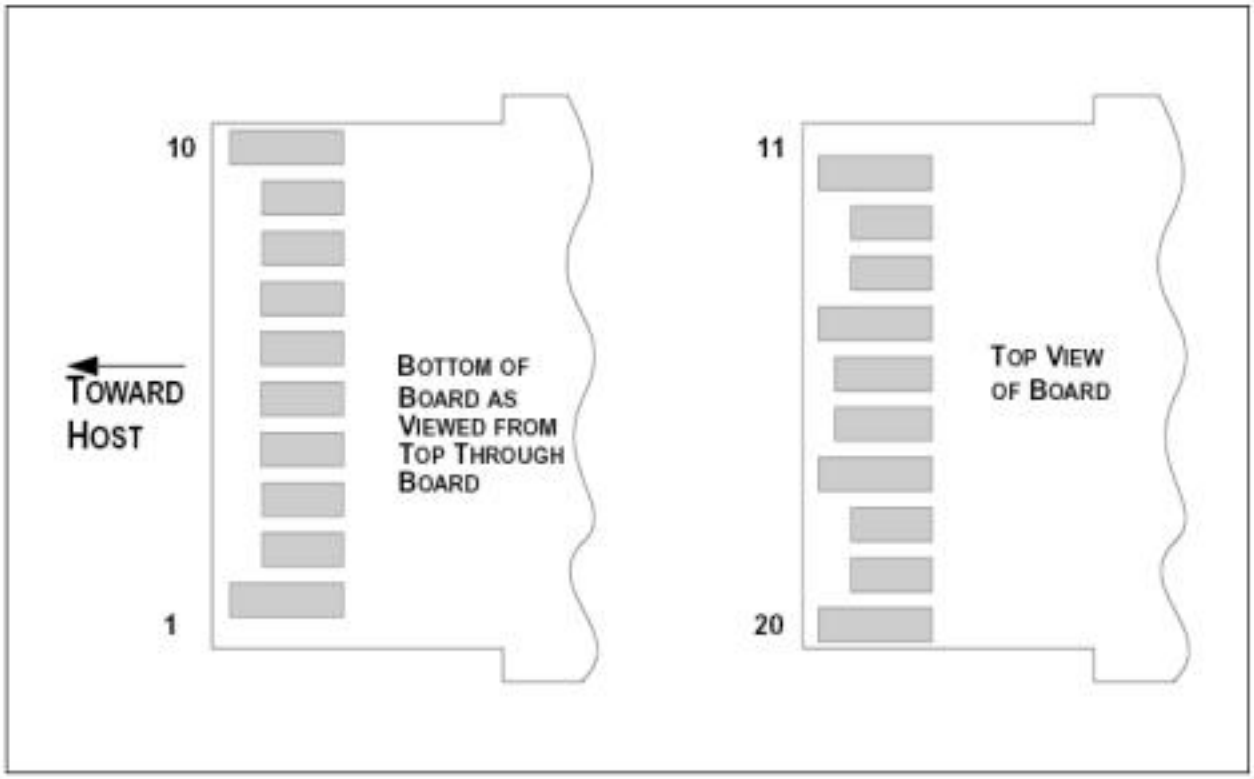
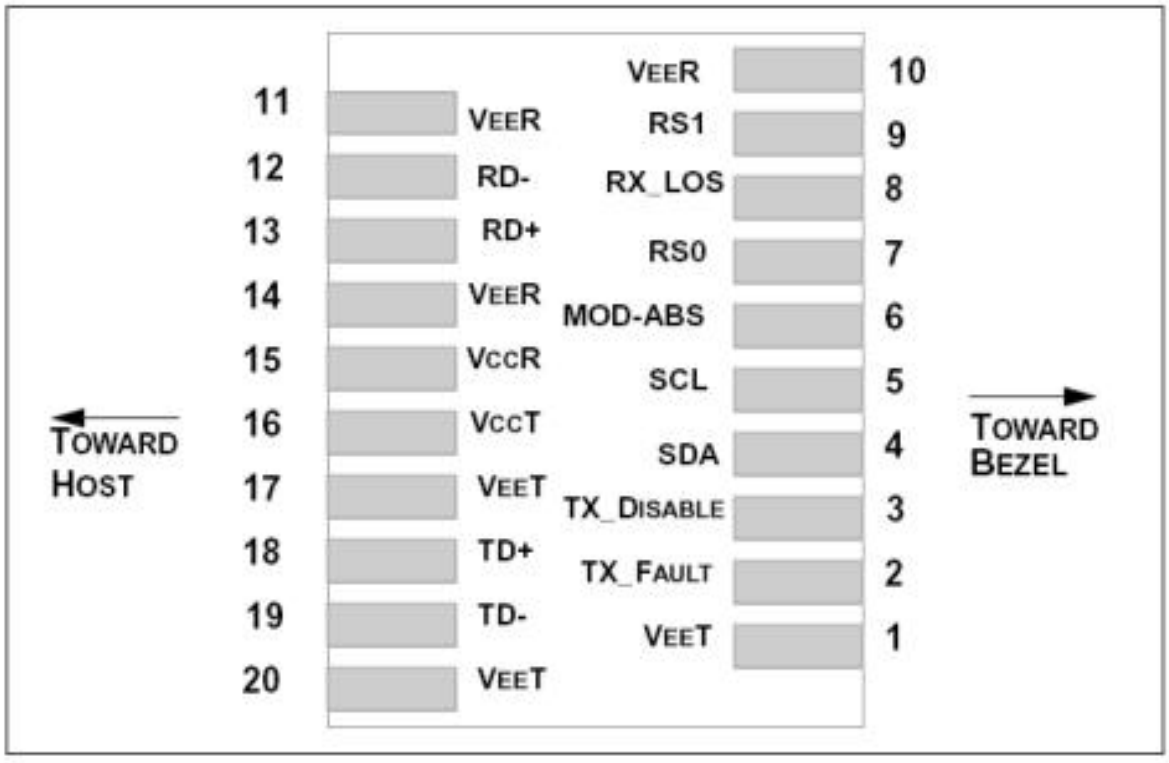
PIN Layout





PIN Functions

Pin #	Name - Description
1	Transmitter Ground
2	Transmitter Fault
3	Transmitter Disable. Laser output disabled on high or open
4	2-wire Serial Interface Data Line
5	2-wire Serial Interface Clock Line
6	Module Absent. Grounded within the module
7	RS0 for Rate Select: Open or Low = Module supports ≤4.25Gbps
8	Loss of Signal indication. Logic 0 indicates normal operation
9	No connection required
10	Receiver Ground
11	Receiver Ground
12	Receiver Inverted DATA out. AC Coupled
13	Receiver DATA out. AC Coupled
14	Receiver Ground
15	Receiver Power Supply
16	Transmitter Power Supply
17	Transmitter Ground
18	Transmitter Ground
19	Transmitter Inverted DATA in. AC Coupled
20	Transmitter Ground
21	
22	
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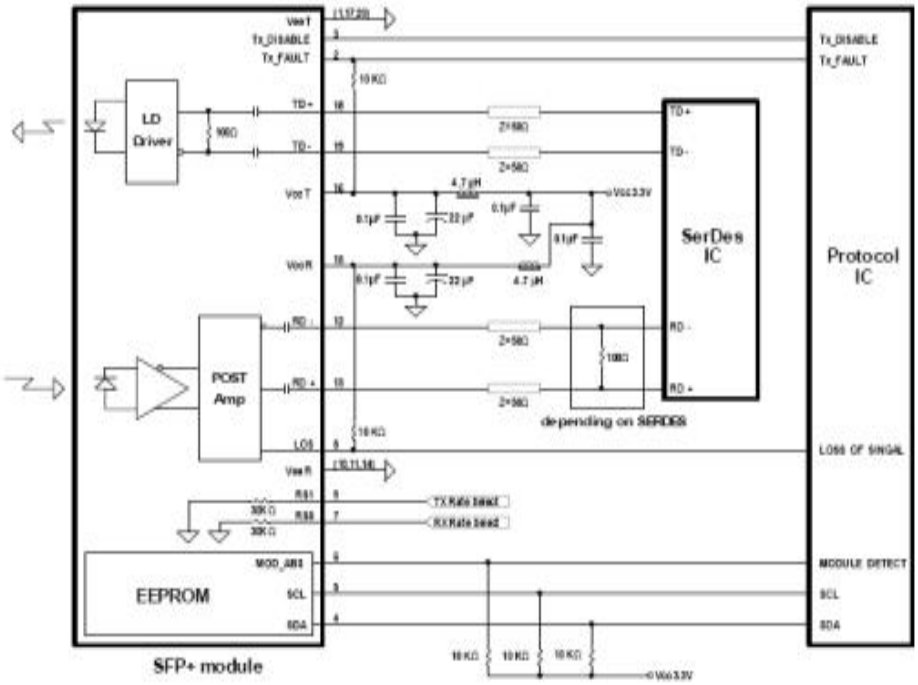
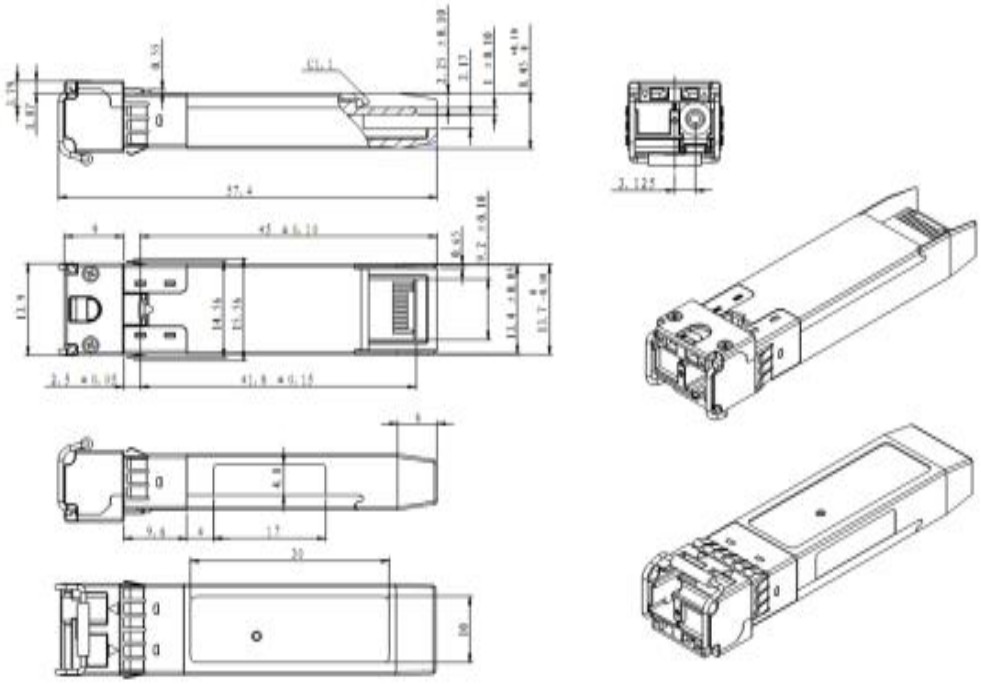
Mechanical Layouts





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