

**SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet**  
**Designed for OEM networks such as Cisco, HP, Juniper, Brocade, Alcatel etc.**

### Datasheet

#### SFP Optical Transceiver Product Features

- Exclusive Japanese OSAs for Ultimate Reliability
- 1000BASE-ZX Ethernet 31dB SFP
- 120 km ZX SFP for SMF @ 1.25Gbps
- 1490Tx-1550Rx DFB+APD Laser 120 km SFP
- 0°C - 70°C Temperature - Extended/Industrial Available
- 2-Wire Interface Digital Diagnostic Monitoring (SFF-8724)
- Hot-swappable for SFP LC ports
- Extended 2 Years Warranty
- Tested and Certified in Brand Specific Networks and Target Applications
- Assembled Using Highest Quality Raw Components
- SFP MSA / IEEE Std 802.3 & ROHS

#### PSFP-11DB49K120



#### Applications

- 1.25Gbps Gigabit Ethernet
- Fibre Channel 1x
- Switch to Switch Interface
- Other Optical Links

#### Description

Platinum OEM Series PSFP-11DB49K120 is a Cisco Compatible Single Fiber BiDirectional 1000BASE-ZX Ethernet SFP transceiver designed for long distance optical communications up to 120 km with signaling rates up to 1.25Gbps.

OptoSpan Platinum OEM Series 1.25Gbps 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 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 120 km Platinum OEM SFP Optical Transceiver

PSFP- 11DB49K120	Distance: 120 km				Fiber: 1490Tx-1550Rx	
	Tx Min dBm	Tx Max dBm	Rx Min dBm	Rx Max dBm	Link Attenuation dB	Power Budget dB
Product Specifications	-1	4	-32	-7		
Optical Calculation Results			-27.6	-22.6	26.6	31

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### General Specifications

Parameter	Unit	Min.	Typ.	Max
<b>Absolute Maximum Ratings</b>				
Maximum Supply Voltage	V	0		4
Storage Temperature	°C	-40		+85
Case Operating Temperature	°C	0		+70
<b>Recommended Operating Condition</b>				
Supply Voltage	V	3.13		3.45
Supply Current	mA			500
Data Rate	Gbps		1.25	

### Electrical Characteristics

Parameter	Unit	Min.	Typ.	Max
<b>Transmitter</b>				
Differential Input Voltage Swing	mVpp	400		1800
Input Differential Impedance	ohm	90	100	110
Transmit Disable Voltage - High	V	2.4		Vcc
Transmit Disable Voltage - Low	V	0		0.8
Transmit Fault Voltage - High	V	2.0		Vcc
Transmit Fault Voltage - Low	V	0		0.8
<b>Receiver</b>				
Differential Output Voltage Swing	mVpp	400		1800
Differential Output Impedance	ohms			
LOS Output Voltage - High	V	2.0		Vcc
LOS Output Voltage - Low	V			0.8

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## Optical Characteristics

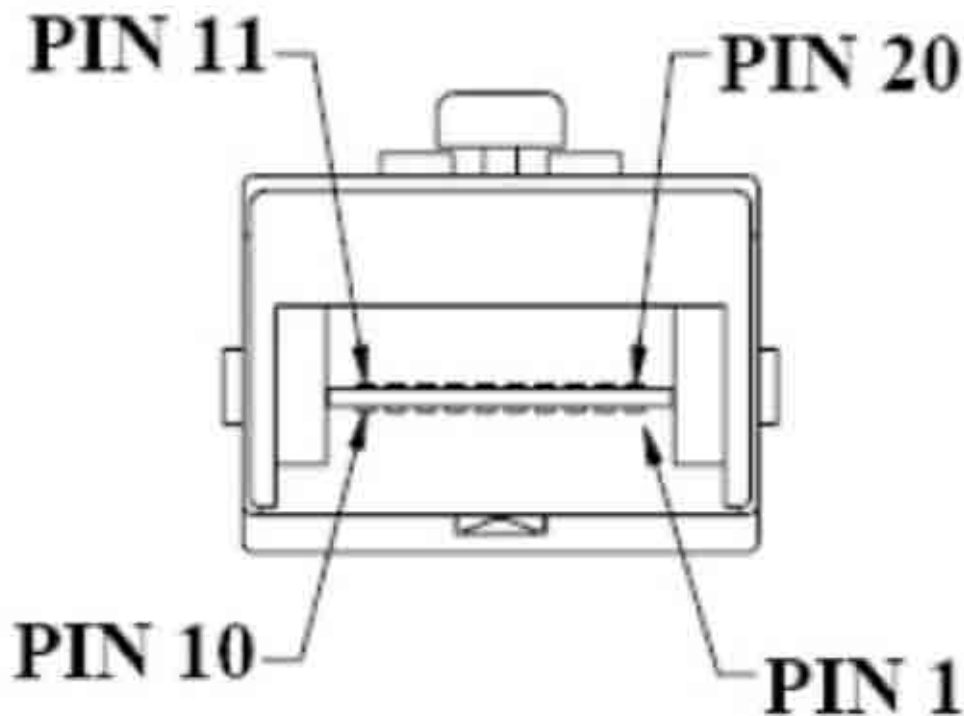
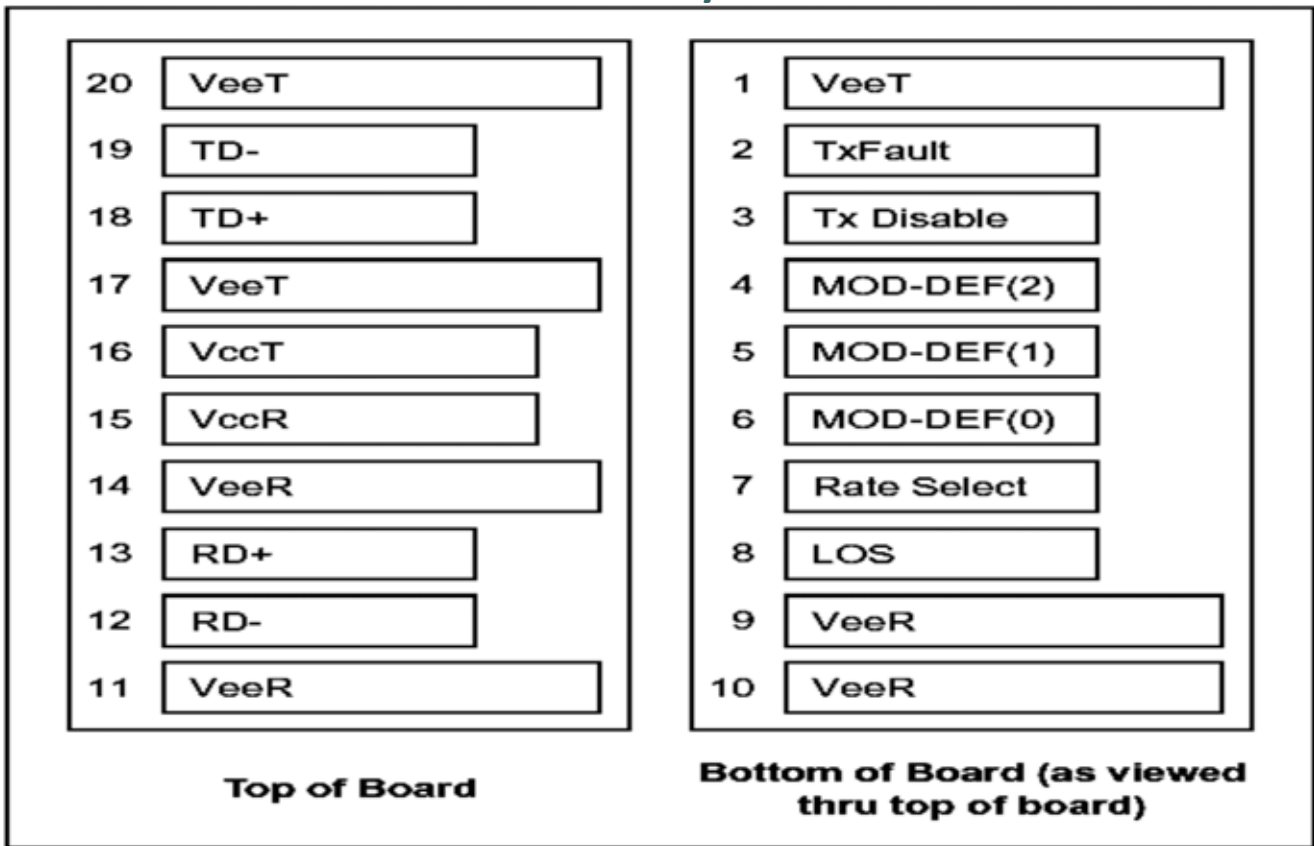
Parameter	Unit	Min.	Typ.	Max
<b>Transmitter</b>				
Output Optical Power	dBm	-1		4
Optical Extinction Ratio	dB	9		
Optical Wavelength	nm	1460	1490	1520
Spectral Width	nm			.88
Side Mode Suppression Ratio	dB	30		
<b>Receiver</b>				
Optical Center Wavelength	nm	1530	1550	1570
Receiver Sensitivity @ 1.25Gbps	dBm	-32		-7
LOS DE-Assert	dBm			-32
LOS Assert	dBm	-45		

## 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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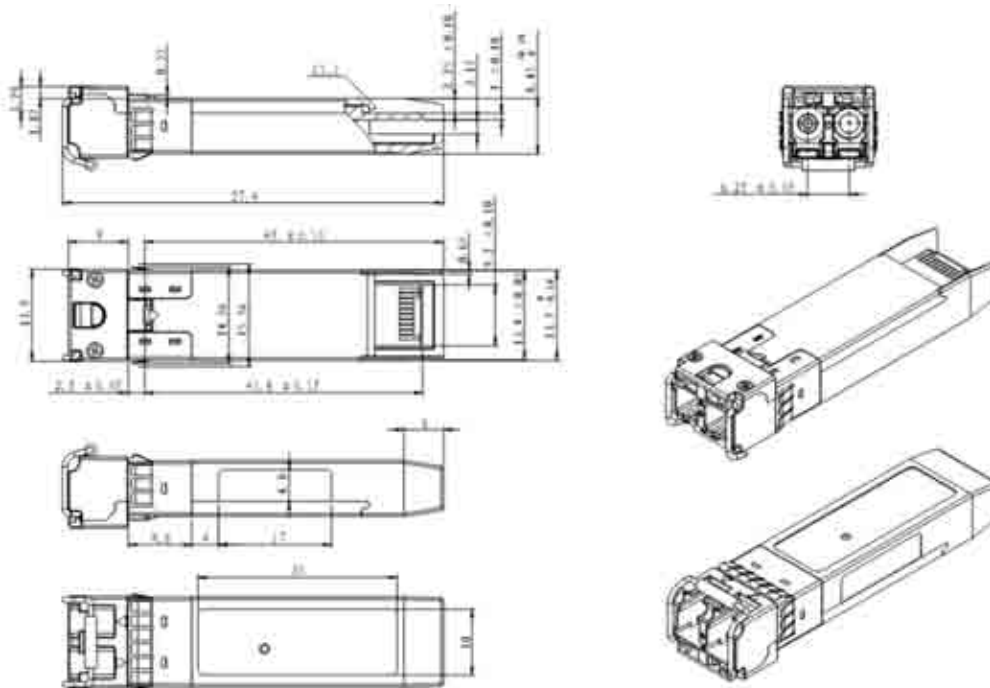
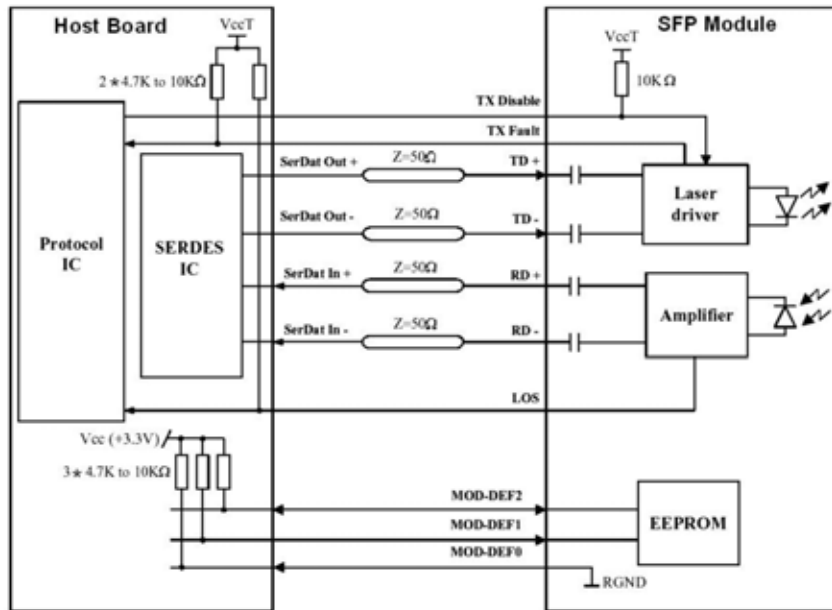
### PIN Layout



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PIN Functions

Pin #	Name - Description
1	Transmitter Ground
2	Transmitter Fault Indication
3	Transmitter Disable
4	SDA Serial Data Signal
5	SCL Serial Clock Signal
6	TTL Low
7	Not Connected
8	Loss of Signal
9	Receiver ground
10	Receiver ground
11	Receiver ground
12	Inv. Received Data Out
13	Received Data Out
14	Receiver ground
15	Receiver Power Supply
16	Transmitter Power Supply
17	Transmitter Ground
18	Transmit Data In
19	Inv. Transmit Data In
20	Transmitter Ground
21	
22	
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### SFP Single Fiber 120 km transceiver | Cisco Compatible 1G ZX Ethernet Mechanical Layouts



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