

## Platinum High Powered Long Reach SFP Series – STM16/OC48 35dB budget

The Platinum SFP Series is a Cisco Compatible Duplex SONET OC-48 / STM-16 SFP transceiver designed for long distance optical communications up to 160km with signaling rates up to 2.67Gbps.

The Platinum SFP Series 2.67Gbps Multirate Duplex optical transceivers have undergone rigorous qualification and certification testing to provide End-to-End Compatibility using switching equipment from CISCO, BROCADE, CXR, JUNIPER, ALCATEL, DATACOM, HP (select models), NORTEL, EMC, QLOGIC, and other OEMs.



All of the Platinum 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 Duplex transceivers with LC interface.

### Features

- Exclusive Japanese OSAs for ultimate reliability
- SONET OC-48 / STM-16 35dB SFP
- 160km LX SFP for SMF @ 2.67Gbps multirate
- 1550nm DFB+APD laser 160km SFP
- 0°C - 70°C temperature - extended/industrial available
- 2-wire interface digital diagnostic monitoring (SFF-8724)
- Hot-swappable for SFP LC ports
- Extended 5 years manufacturer's warranty
- Tested and certified in brand specific networks and target applications
- Assembled using the highest quality raw components
- SFP MSA / IEEE Std 802.3 & ROHS

### Application

- 1.25Gbps Gigabit Ethernet
- Fibre Channel 2x
- SDH STM-16
- SONET OC-48
- Other Optical Links

### 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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## Optical Budget Calculation for 160 km Platinum SFP Optical Transceiver

<b>PSFP-MR2T55K160</b>	Distance: 160 km				Fiber: 1550nm SMF	
	<b>Tx Min dBm</b>	<b>Tx Max dBm</b>	<b>Rx Min dBm</b>	<b>Rx Max dBm</b>	<b>Link Attenuation dB</b>	<b>Power Budget dB</b>
<b>Product Specifications</b>	<b>5</b>	<b>8</b>	<b>-30</b>	<b>-10</b>		
<b>Optical Calculation Results</b>			<b>-29.6</b>	<b>-26.6</b>	<b>34.6</b>	<b>35</b>

## Specifications

### General Specification

Parameter	Unit	Min.	Typ.	Max
<b>Absolute Maximum Ratings</b>				
Maximum Supply Voltage	V	-0.5		3.6
Storage Temperature	°C	-40		+85
Case Operating Temperature	°C	0		+70
<b>Recommended Operating Condition</b>				
Supply Voltage	V	3.15	3.3	3.45
Supply Current	mA			300
Data Rate	Gbps		2.488	

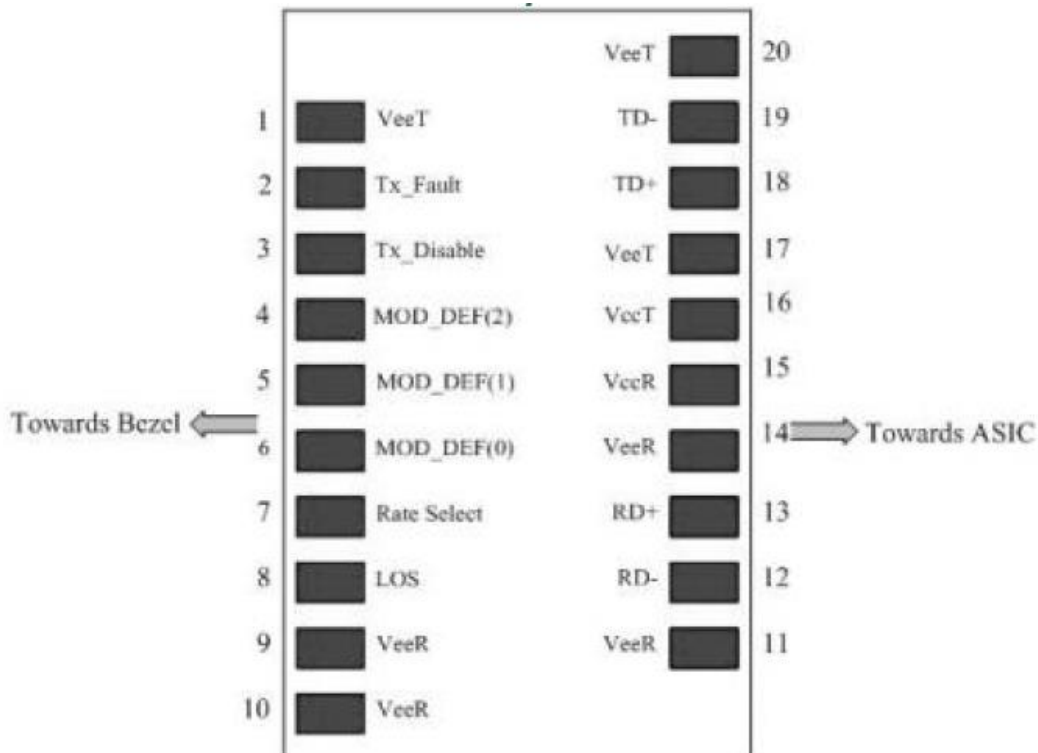
### Optical Specification

Parameter	Unit	Min.	Typ.	Max
<b>Transmitter</b>				
Output Optical Power	dBm	5		8
Optical Extinction Ratio	dB	8.2		
Optical Wavelength	nm	1500	1550	1600
Spectral Width	nm			1
Side Mode Suppression Ratio	dB	30		
<b>Receiver</b>				
Optical Center Wavelength	nm	1260		1600
Receiver Sensitivity @ 2.67Gbps	dBm	-30		-10
LOS DE-Assert	dBm			-31
LOS Assert	dBm	-42		

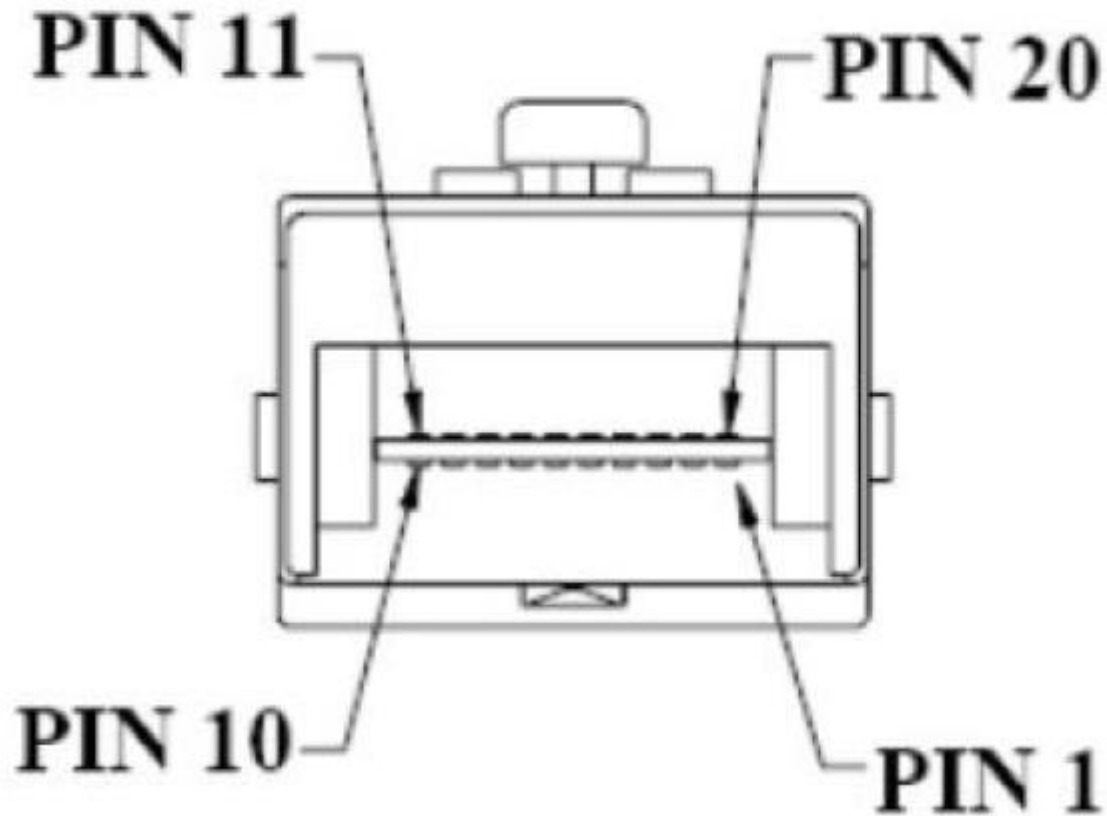
## Electrical Specifications

Parameter	Unit	Min.	Typ.	Max
<b>Transmitter</b>				
Differential Input Voltage Swing	mVpp	400		1600
Input Differential Impedance	ohm	85	100	115
Transmit Disable Voltage - High	V	2		Vcc
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
<b>Receiver</b>				
Differential Output Voltage Swing	mVpp	400	800	1200
Differential Output Impedance	ohms	85	100	115
LOS Output Voltage - High	V	2		Vcc+0.3
LOS Output Voltage - Low	V	0		0.8

## Pin Layout



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### Pin Function

Pin #	Name - Description	Pin #	Name - Description
1	Transmitter Ground	16	Transmitter Power
2	Transmitter Fault Indication	17	Transmitter Ground
3	Transmitter Disable	18	Transmit Data In
4	Module Definition 2	19	Inv. Transmit Data In
5	Module Definition 1	20	Transmitter Ground
6	Module Definition 0	21	Not Used
7	Not Connect	22	Not Used
8	Loss of Signal	23	Not Used
9	Receiver Ground	24	Not Used
10	Receiver Ground	25	Not Used
11	Receiver Ground	26	Not Used
12	Inv. Received Data Out	27	Not Used
13	Received Data Out	28	Not Used
14	Receiver Ground	29	Not Used
15	Receiver Power	30	Not Used

## Mechanical Layout

