

## CIS-SFP-1G-BX49D31-20-SO

Cisco compatible, SFP 1G, Bidi D Tx:1490/Rx:1310,  
20km/11dB over SMF, LC simplex, Commercial  
Temperature



### 1. PRODUCT SPECIFICATIONS & FEATURES

- ✓ Brand Compatibility: **Cisco**
- ✓ Form Factor: **SFP**
- ✓ Operating Data Rate: **1G**
- ✓ Protocol: **Ethernet**
- ✓ Fiber Type: **SMF**
- ✓ Technique: **BX43**
- ✓ Lane count: **1**
- ✓ Channel(s)/ Wavelength(s): **D: 1490 / 1310 nm**
- ✓ Distance: **20 km**
- ✓ Power Budget: **11 db**
- ✓ Connector: **LC Simplex**
- ✓ Default temp: **0°C to 70°C**
- ✓ Compliant with **SFP** MSA specification
- ✓ Digital diagnostic monitor interface (also called DOM or DDM)
- ✓ Laser Type: **DFB**
- ✓ Receiver Type: **PIN**

## 2. ABSOLUTE CHARACTERISTICS

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
SIGNAL INPUT VOLTAGE	V <sub>in</sub>	-0.3	-	V <sub>cc</sub> +0.3	V
POWER SUPPLY VOLTAGE	V <sub>cc</sub>	-0.5	-	4	V
OPERATING TEMPERATURE	T <sub>case</sub>	0	-	70	°C
STORAGE TEMPERATURE	T <sub>s</sub>	-40	-	85	°C

## 3. ELECTRICAL CONDITIONS

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
SUPPLY CURRENT	I <sub>cc</sub>	-	-	280	mA
SUPPLY VOLTAGE	V <sub>cc</sub>	3.13	3.3	3.47	V

## 4. OPTICAL CHARACTERISTICS

### RECEIVER

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
OPTICAL WAVELENGTH	λ <sub>C</sub>	1260	1310	1360	nm
LOS HYSTERESIS	LOSH	0.5	2	6	dB
LOS ASSERT	LOSA	-35	-	-	dBm
LOS DE-ASSERT	LOSD	-	-	-21	dBm
RECEIVER MAX. SENSITIVITY	P <sub>min</sub>	-	-	-20	dBm
DAMAGE THRESHOLD	P <sub>max</sub>	-3	-	-	dBm
OPTICAL RETURN LOSS	ORL	-	-	-	dB

## TRANSCEIVER

PARAMETERS	SYMBOLS	MIN.	TYP.	MAX.	UNIT
OPTICAL WAVELENGTH	$\lambda_C$	1480	1490	1500	nm
OPTICAL EXTINGUCTION RATIO	ER	9	-	-	dB
SIDE MODE SUPPRESSION RATIO	SMSR	30	-	-	dB
SPECTRAL WIDTH	$\Delta\lambda$	-	-	1	nm
OPTICAL TRANSMIT POWER	P <sub>out</sub>	-9	-	-3	dBm

## 5. DOM PARAMETERS

PARAMETERS	MIN.	TYP.	MAX.	UNIT
RECEIVE POWER MONITOR ACCURACY	-2	-	2	dB
TRANSMIT POWER MONITOR	-2	-	2	dB
LASER BIAS CURRENT MONITOR ACCURACY	-10	-	10	%
TRANSCEIVER TEMPERATURE MONITOR ACCURACY	-5	-	5	°C
INTERNALLY MEASURED TRANSCEIVER SUPPLY VOLTAGE	-	-	3	%

## 6. WARNINGS & SYMBOLS



This is a CLASS 1 LASER product; be cautious. There is visible laser radiation present. Avoid long term viewing of the laser.



Solid Optics EN N.V. has tested the equipment based on European legislation and it is safe, doesn't intervene with other electronic devices and that it is not affected by interference from other Electronic devices.



Hazardous Goods; Our optical transceivers comply with Directive 2011/65/EU (RoHS II) and 2002/95 EC (RoHS I)

Laser Class 1

Our products comply with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007



Only (dis)connect the Optical Transceivers in a EPA (ESD Protected Area) while using only certified equipment and taking all necessary precautions as detailed in this chapter.

## 7. DISCLAIMER & COPYRIGHT

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