# fiber options

# OH-BD-1-1310 Fiber SFP Data Sheet

# **3Gbit SDI Bidirectional Optical Transceiver**

- SDI multi-rate optical bidirectional transceiver for 3G-SDI, HD-SDI and SD-SDI signals
- 1 port bidirectional operation over single fiber (singlemode)
- Support for SMPTE 424M, SMPTE 292M, SMPTE 259M, DVB-ASI
- 1310nm TX Wavelength / 1550nm RX Wavelength
- For distances up to 10km\*\*
- For use with yellobrik and Series 5000 product lines
- Pluggable and hot swappable
- Lead free and RoHS compliant

The OH-BD-1-1310 SDI bidirectional optical transceiver is an integrated part or plug in option for select LYNX Technik yellobrik and Series 5000 products. This SFP module transmits an optical SDI signal and also receives a SDI signal over a single fiber link, TX Wavelength is a fixed 1310nm and suitable for distances up to 10km\*\*. The RX wavelength is between 1480 and 1600nm. The module accommodates 270Mbit / 1.485Gbit and 2.97Gbit SDI signals conforming to SMPTE 424M, 292M, 259M and DVB-ASI.

A socket, or "cage" is provided for the SFP in the supporting LYNX product for easy installation or upgrade. The SFP is hot swappable.



Shown with dust cap fitted

This SFP is typically used in simple WDM closed loop point to point applications and is intended to be paired with the **OH-BD-1-1550** SFP at the other end of the fiber link.

## **TX Specifications**

Parameter		Min	Тур	Max
Intrinsic Jitter (ps)	2.97 Gb/s	-	45	80
	1.485 Gbit/s	-	45	80
	270 Mbit/s	-	45	80
Wavelength		1290nm	1310nm	1330nm
Optical Power		-8dBm	-5dBm	-3dBm
Linear Extinction Ratio		5.0	8.0	-

#### Mechanical

Parameter		
Size (not including connector - typ)	57mm x 13.4mm x 12.4mm	
Weight	50g	
SFP Connector pinning	MSA	
Fiber connections	LC (Simplex) - Singlemode	
Operating Temperature Range	5°C - 40°C	
Power Supply Voltage	3.3VDC	
Power Consumption	200mA typical 300mA max	

#### **RX Specifications**

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Parameter		Min	Тур	Max
Receiver Sensitivity	2.97 Gb/s	-16 dBm	-	-
	1.485 Gbit/s	-16 dBm	-	-
	270 Mbit/s	-16 dBm	-	-
Wavelength		1480nm	1550nm	1600nm
Overload		-	-	-3 dBm
Loss of Signal Asserted		-35 dBm	-	-
Loss of Signal De-Asserted		-	-	-16 dBm
Optical Hysteresis		0.5 dB	2dB	-

Country of manufacture: Taiwan

### **Ordering Information**

EAN / UPC	Model	Description
4250479318298	OH-BD-1-1310	3G SDI Bidirectional Fiber Transceiver

<sup>\*\*</sup> Distance is an approximation. Actual distances achieved can be longer or shorter depending on the type of fiber cable and accumulated optical losses in the fiber link. Determine link losses and perform optical budget calculations to ensure correct operation.

#### WARNING

This SFP module is a Class 1 laser device which complies to IEC825 and FDA 21 CFR 1040.10 and 1040.11. The device must be operated within specified temperature and voltage limits. The optical ports of the module must always be terminated with an optical connector or a dust plug (dust plug supplied)





Rev 1.0 Specifications subject to change



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