# fiber options

## OH-BD-1-1550-LC 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
- 1550nm TX Wavelength / 1310nm RX Wavelength
- For distances up to 10km\*\*
- For use with yellobrik, greenMachine and Series 5000 product lines
- Pluggable and hot swappable
- Lead free and RoHS compliant

The OH-BD-1-1550-LC 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 an optical SDI signal over a single fiber link. TX Wavelength is a fixed 1550nm and suitable for distances up to 10km\*\*. The RX wavelength is between 1480nm and 1600nm. The module accommodates 270Mbit / 1.485Gbit and 2.97Gbit SDI signals conforming to SMPTE 424M, 292M, 259M and DVB-ASI.



Shown with dust cap fitted

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

This SFP is typically used in simple WDM closed loop point to point applications and is intended to be paired with the OH-BD-1-1310-LC SFP at the other end of the fiber link.

#### **RX Specifications**

Parameter		Min	Тур	Max
Receiver Sensitivity	2.97 Gb/s	-16 dBm	-	-
	1.485 Gbit/s	-16 dBm	-	-
	270 Mbit/s	-16 dBm	-	-
Wavelength		1260nm	1310nm	1360nm
Overload		-	-	-3 dBm
Loss of Signal Asserted		-35 dBm	-	-
Loss of Signal De-Asserted		-	-	-16 dBm
Optical Hysteresis		0.5 dB	2dB	-

#### **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		1530nm	1550nm	1570nm
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			
Humidity (non condensing)	90%			

#### **Ordering Information**

EAN / UPC	Model	Description
4250479318304	OH-BD-1-1550-LC	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)

Country of manufacture: Taiwan

LYNXTechnik AG

Rev 1.3 Specifications subject to change