

Technical Specifications

SDI Video	1x 3G-SDI input on 75 Ohm BNC connector 1x 3G-SDI output on 75 Ohm BNC connector SMPTE 424M, SMPTE 292M, SMPTE 259M, DVB-ASI Multi-standard operation from 270Mbit/s to 3Gbit/s Automatic cable EQ: (Belden 1694A cable) 320m @ 270Mbit/s, 150m @ 1.5Gbit/s, 120m @ 3Gbit/s
Fiber	1x Fiber input, 1x Fiber output Duplex LC/PC connectors Single-mode 1310nm, Multi-mode or CWDM SMPTE 297M - 2006 Side-mounted TX/RX activity LEDs
Power	+12V DC @ 2W nominal - (supports 7 - 24V DC input range)
Physical	Size: 140mm x 42mm x 22mm (5.51" x 1.65" x 0.86") incl. connectors Weight: 125g (4.4oz)
Includes	Module, AC power supply, SFP depending on model

Ordering Information

Model	Mode	Type	TX Wavelength	SFP Included
OTR 1810-1	Single	Single	1310nm	Yes
OTR 1810-1 MM	Multi	Short Range	850nm	Yes
OTR 1810-1 CW	Single	Coarse	1270 - 1610nm	No



WARNING
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LASER RADIATION

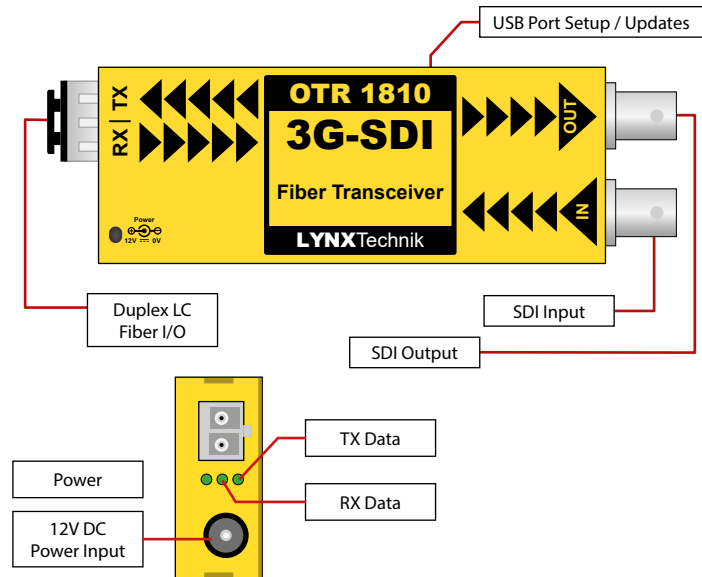
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OTR 1810-1

3G-SDI to Fiber Transceiver



The OTR 1810 is a compact fiber transceiver combining an independent transmitter and receiver in a single unit. It supports uncompressed 3G-SDI signals up to 1080p 60, with automatic detection and re-clocking of 3G, HD, and SD-SDI inputs. Available with standard 1310nm Single-mode, Multi-mode, and CWDM SFP options.

Connections

The SDI input and output are connected to the 75 Ohm BNC connections. Depending on the model, the fiber interface supports LC/PC duplex SMF, MMF, or CWDM connections.

To protect the optical interface from dust and contamination, keep the supplied dust plug installed whenever the fiber connection is not in use. A USB port is provided for firmware updates, configuration, and monitoring. Firmware updates are provided free of charge via yelloGUI and Lynx Centraal.

Operation

The OTR 1810-1 supports all SDI video formats from 270 Mbit/s up to 3 Gbit/s. Operation is fully automatic. Incoming fiber video signals are automatically detected, reclocked, and routed to the BNC output connectors. No user configuration or settings are required.

Data reception activity is indicated by the RX LEDs located on the side of the module. The module supports hot-swapping and hot-plugging of all connections.

Module LEDs

Power LED		
	Green	Device Running
	Yellow (blinking)	"Locate Module" function active
	Red (blinking)	Hardware Issues
	Off	Device Not Powered
TX LED		
	Green	Output Signal Active
	Off	No Input Signal Detected, No Signal Transmitted (Laser Active)
RX LED		
	Green	Valid Signal Received
	Green/Red	Incompatible Input Signal
	Off	No Signal Detected

Distances

- OTR 1810-1 Single-mode 1310nm: up to 10km (6.2 miles)
- OTR 1810-1 MM Multi-mode: up to 300m (1000 feet)
- OTR 1810-1 CW Single-mode Coarse Wavelengths: up to 80km (50 miles)

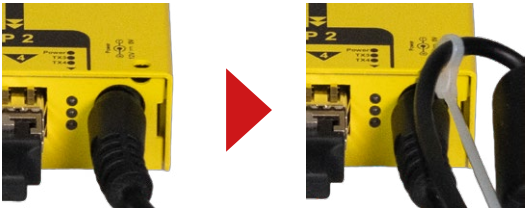
Power

The module requires a 12V DC power input. The LED indicates when power is connected. If using an external power supply, a clean 7–24V DC source is required.

The OTR 1810-1 has a power consumption of 2W (including SFP).

Power Lead Strain Relief

Yellobrik modules have a small hole above the power connection to prevent the power lead from being accidentally pulled out. Secure the lead using the supplied tie-wrap as shown below.



Optional Mounting Solutions

The optional RFR 1001 mounting bracket allows the module to be installed on any surface and 19" rack rails.



The RFR 1200 rack frame can hold up to 14 yellobriks and can provide power redundancy for all installed devices.

