yellobrik® OTR 1441

4K Fiber Transmission System

- Support for 4 independent 3G/HD/SD-SDI channels
- Transport 4K (uncompressed) up to 20km (12 miles)
- Each channel supports resolutions up to 1080p/60Hz
- Each channel individually reclocked
- Embedded audio / metadata support for each channel
- Integrated expansion port to add more channels
- LED indicators for channel activity and power
- Kit includes transmitter, receiver and power supplies
- Optional 19" Rack tray to mount (max) 4 modules

The OTR 1441 is a self-contained fiber transmission kit for the transport of 4 discreet SDI signals (or 4K / 12G uncompressed) over a single fiber link. The kit includes the fiber transmitter, fiber receiver, and power supplies. This is an ideal solution for the transmission of multiple uncompressed SDI streams, or 4K up to 20km* with zero losses.

Each SDI channel is fully independent. For 4K use, the signal is split over four separate 3G SDI links (12G) and supports full 4K resolution at 60fps. The system can also be used for any combination of SDI signals, with a mix of formats and bit-rates if required. Each channel will automatically detect and reclock SDI bit rates of 270Mbit/s, 1.5Gbit/s, and 3Gbit/s.

An expansion port is included for the connection of the OTR 1441 to add **4 more SDI channels** (or 8K/48G over a single fiber), **bidirectional ethernet** or **serial RS-232 data** into the link.

Note: Internal CWDM optical multiplexing is utilized within the modules. This kit should be considered a self contained point to point solution and should not be integrated into external CWDM systems. An expansion port is included on each module which can be used to add additional SDI channels from the OTR 1442.

Technical Specifications

SDI Video			
4 x SDI inputs (OTX 1441) on 75 Ohm BNC connections 4 x SDI outputs (ORX 1441) on 75 Ohm BNC connections			
SMPTE 259M-2008 , SMPTE 292-1:2012, SMPTE 292-2:2011 SMPTE 424M-2006 , DVB ASI			
Multi-standard / Multi-format operation auto-detect. Multi-rate reclocking: 270Mbit/s - 1.5Gbit/s - 3Gbit/s			
Electrical Return Loss:		to 1.5GHz >15dB	to 3GHz >10dB
Automatic cable EQ	270Mbit/s	1.5Gbit/s	3Gbit/s
	250m	190m	140m
		Belden 1694A	

Fiber Optical	
1 x Fiber optic I/O port (COM port) 1 x Fiber optic expansion port (UPG port) - **not available in SC variant** Duplex (singlemode) LC/PC or SC connections	
SMPTE 297M - 2006	
Internal CWDM Multiplexing	
Wavelengths:	1270nm, 1290nm, 1310nm, 1330nm
Optical budget:	10.6dB
Max. distance*	20km (12 miles)
Fiber activity LEDs for each channel	

Power	
+12V DC nominal. (Supports power from 7 - 24V DC) OTX 1441: 4.1W / ORX 1441: 3.8W	
2x Power LEDs on side per module	

Physical (per module)		
Size (incl. connectors)	170 x 99.7 x 40.5mm (6.7" x 3.9" x 1.6")	
Weight:	600g (21.1oz)	

Ambient	
5 - 40°C (41 - 104°F) 90% Humidity (non condensing)	

Model #		
OTR 1441 LC	EAN# 4250479321151	
OTR 1441 ST	EAN# 4250479325401	

Includes	
2 Modules, 2 Power Supplies	

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

Rack Mount Options

RFR 1018
19" Rack frame to mount up to 4 modules. No tools required, modules are clipped securely in place.

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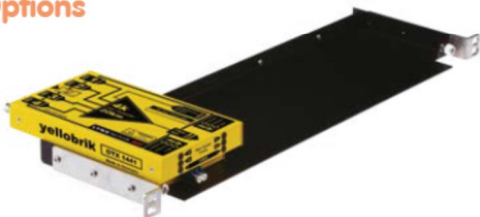
Applications

4 x SDI (4K 12G) Fiber Transport

This basic configuration is used for transporting up to 4 discreet SDI signals (SD/HD/3G) or it can be used for transporting a 4K (12G) signal over fiber.

8 x SDI (8K 24G) Fiber Transport

This configuration uses the UPG port to add more channels into the link from the OTR 1442. This can be used to transport 8 discreet SDI signals (SD/HD/3G) or it can be used for transporting a single 8K (24G) signal over a single fiber.
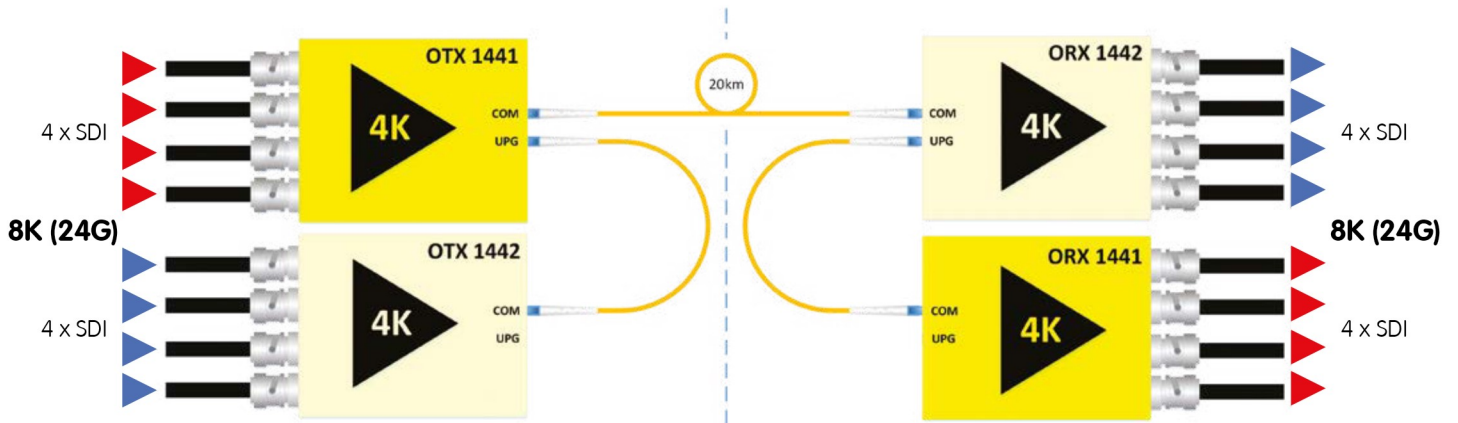
4 x SDI (4K 12G) Bidirectional Fiber Transport

This configuration uses the UPG port to add more channels into the link from the OTR 1442. This shows a bidirectional application sending and receiving 4 SDI channels, or sending and receiving 4K (12G) over a single fiber.