yellobrik® OTR 1A41

8k Fiber Transmission System

- Support for 4 independent 12G/6G/3G/1.5G/270M channels
- Transport 8k (uncompressed) singals up to 10km* (6.2miles)
- Each channel supports resolutions up to 2160p/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 up to 4 modules

The OTR 1A41 is a self contained fiber transmission kit for the transport of four discreet SDI signals (or 8k / 48G 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 12G/4k signals.

Each SDI channel is fully independent. For 8k use, the signal is split over four separate 12G SDI links (48G) and supports full 8k 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, 3Gbit/s, 6Gbit/s and 12Gbit/s.

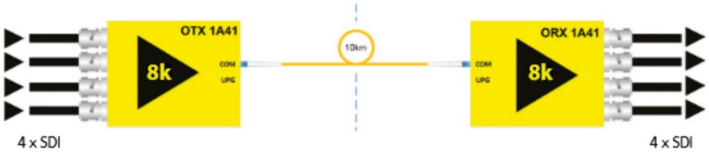
LED Indicators are provided for channel presence and power. An optional 19" rack mount tray is available which can accommodate up to four modules (RFR 1018).

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.

Application Example

4 x 12G SDI (8k/48G) Fiber Transport

This basic configuration is used for transporting up to four discreet SDI signals (SD/HD/3G/6G/12G) or it can be used for transporting a 8k (48G) signal over fiber.



4 x SDI
8k (48G)

4 x SDI
8k (48G)

Rack Mount Options

RFR 1018

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

Technical Specifications

SDI Video	4 x SDI inputs on 75 Ohm BNC connections (OTX 1A41) 4 x SDI outputs on 75 Ohm BNC connections (ORX 1A41)			
	SMPTE 259M-2008 , SMPTE 292-1:2012, SMPTE 292-2:2011 SMPTE 424M-2006 , SMPTE ST-2081, SMPTE ST-2082			
	Multi-standard / Multi-format operation auto-detect.			
	Multi-rate reclocking: 270Mbit/s - 1.5Gbit/s - 3Gbit/s - 12Gbit/s			
	Electrical Return Loss:	to 1.5GHz >15dB	to 3GHz >10dB	to 6GHz >7dB	to 12GHz >4dB
	Automatic cable EQ	270Mbit/s	1.5Gbit/s,	3Gbit/s	12Gbit/s
		250m	190m	140m	80m
		Belden 1694A		Belden 4794R	
Fiber Optics	1 x Fiber optic I/O port (COM port) 1 x Fiber optic expansion port (UPG port) Duplex (singlemode) LC/PC connections			
	SMPTE 297M - 2006			
	Internal CWDM Multiplexing			
	Wavelengths	1270nm, 1290nm, 1310nm, 1330nm		
	Optical budget	10.6dB		
	Max. Distance*	10km (6.2 miles)		
	Fiber activity LEDs for each channel			
Power	+12V DC - (Supports input range 7 - 24 V DC)			
	OTX 1A41: 5.4W | ORX 1A41: 4.4W			
	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 1A41	EAN# 4250479326637		
Includes	2 Modules, 2 Power Supplies			

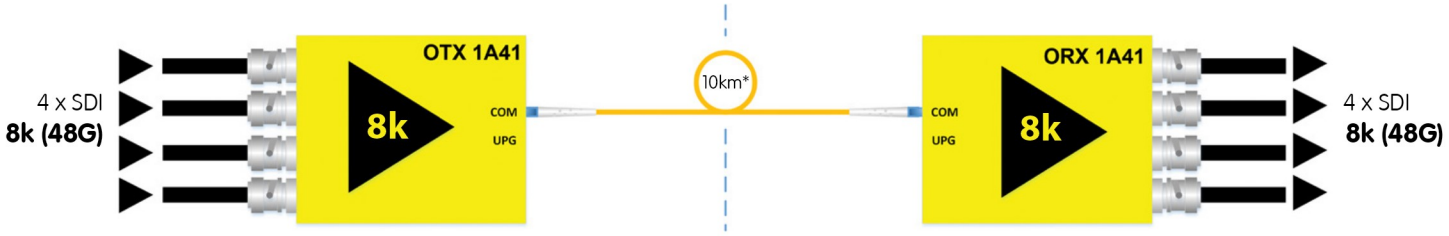
*Distance is an approximation. Actual distances achieved can be longer or shorter depending on the type of cable. Determine link losses and perform optical budget calculations to ensure correct operation.

yellobrik® OTR 1A41

Applications

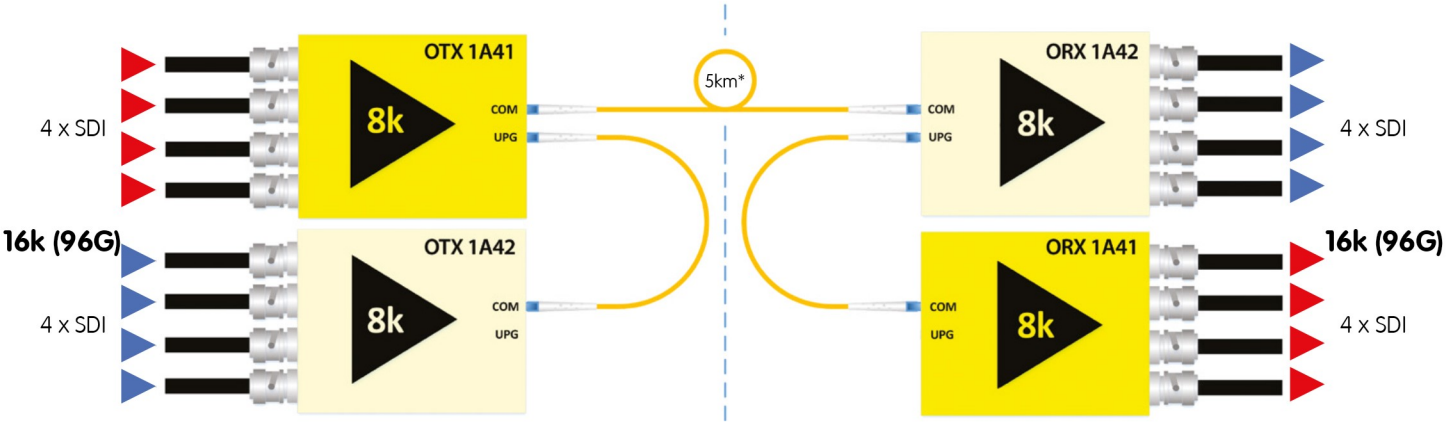
4 x 12G SDI (8k/48G) Fiber Transport

This basic configuration is used for transporting up to four discreet SDI signals (SD/HD/3G/6G/12G) or it can be used for transporting a 8k (48G) signal over fiber.



8 x 12G SDI (16k/96G) Fiber Transport

This configuration uses the UPG port to add more channels into the link from the OTR 1A42. This can be used to transport eight discreet SDI signals (SD/HD/3G/6G/12G) or it can be used for transporting a single 8k (48G) signal over a single fiber.



4 x 12G SDI (8k/48G) Bidirectional Fiber Transport

This configuration uses the UPG port to add more channels into the link from the OTR 1A42. This shows a bidirectional application sending and receiving four SDI channels, or sending and receiving 8k (48G) over a single fiber.