

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 1442 is a self contained fiber transmission kit for the transport of 4 discreet 3G SDI (or a single, 4K/12G, uncompressed) signals 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 4 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.

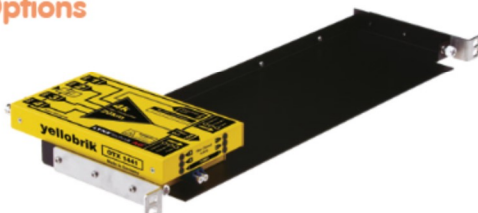
LED Indicators are provided for channel presence and power. An optional 19" rack mount tray is available which can accommodate up

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 1441, bidirectional ethernet or serial RS-232 signal.

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 [OTX 1442] on 75 Ohm BNC connections 4 x SDI outputs [ORX 1442] 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	
Automatic Cable EQ	270Mbit/s	1.5Gbit/s	3Gbit/s
	250m	190m	140m
	Belden 1694A cable		
Fiber Optics	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/PC connections		
	SMPTE 297M - 2006		
	Internal CWDM Multiplexing		
	Wavelengths	1350nm, 1370nm, 1390nm, 1410nm	
	Optical budget	10.6dB	
Power	Max. distance*	20km (12 miles)	
	4 Fiber activity LEDs, one for each channel		
	+12V DC nominal. ORX1442 = 3.8W, OTX 1442 = 4.1W Supports external power input from 7 - 24 V DC		
Physical (per module)	2x Power LEDs on side per module		
	Size (incl connectors)	170mm x 99.7mm 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 1442 LC	EAN# 4250479324374	
	OTR 1442 SC	EAN# 4250479325418	
Includes	2 Modules, 2 Power Supplies		

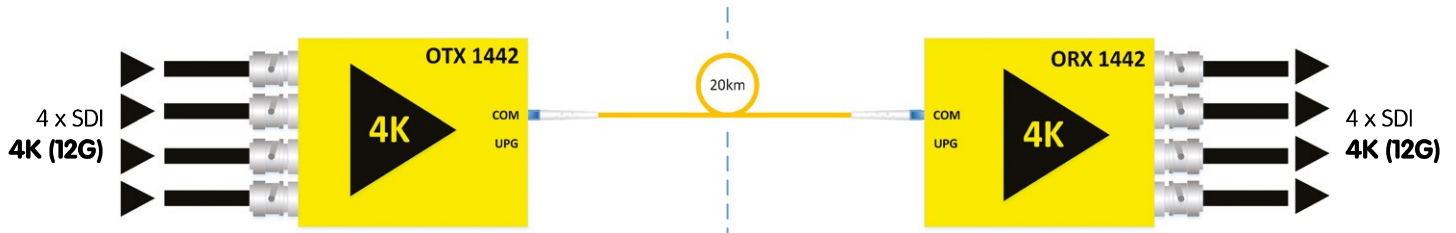
*Distance is an approximation. Actual distances achieved can be longer or shorter depending on the type of cable. Determine link losses and perform optical budget calculations to ensure correct operation.



Applications

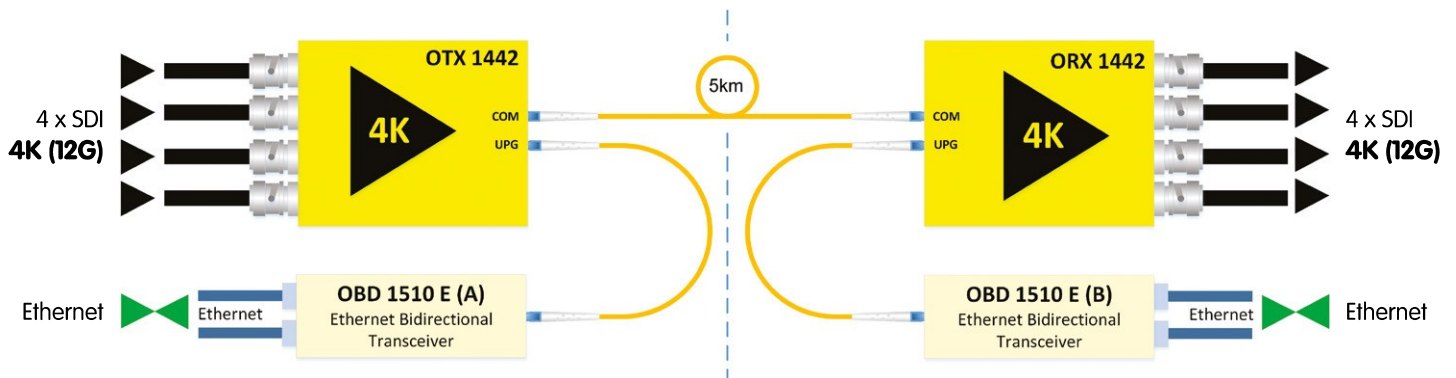
4 x SDI (4K 12G) Fiber Transport

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.



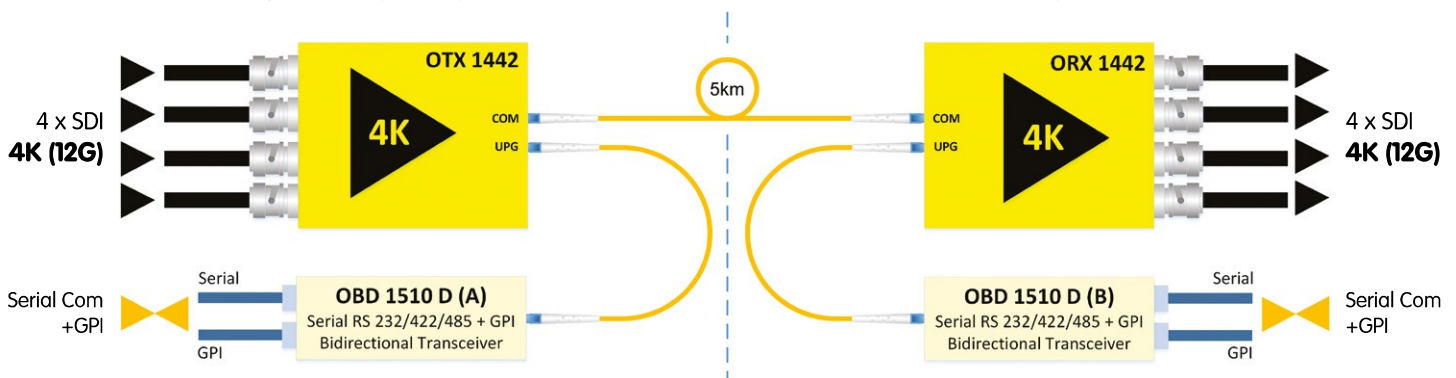
4 x SDI (4K 12G) Fiber Transport + Ethernet

This configuration transports 4 discreet SDI signals (SD/HD/3G) or 4K (12G) and also adds bidirectional Ethernet from the OBD 1510 E into the same fiber link using the UPG expansion port. **Note: Total distance is reduced to 5km when used in this configuration.**



4 x SDI (4K 12G) Fiber Transport + Serial RS 232 + GPI

This configuration transports 4 discreet SDI signals (SD/HD/3G) or 4K (12G) and also adds bidirectional Serial data (RS232/422/485) + GPI from the OBD 1510 D into the same fiber link using the UPG expansion port. **Note: Total distance is reduced to 5km when used in this configuration.**



8 x SDI (8K 24G) Fiber Transport and 4K Bidirectional Fiber Transport

Connecting the OTR 1441 into the expansion port will add 4 more SDI channels to the system which will enable the transport of uncompressed 8K (24G) over a single fiber link. It is also possible to have 4K (12G) uncompressed bidirectional fiber transport over a single fiber link. Please refer to the product information for the OTR 1441 for diagrams of these configurations.

