

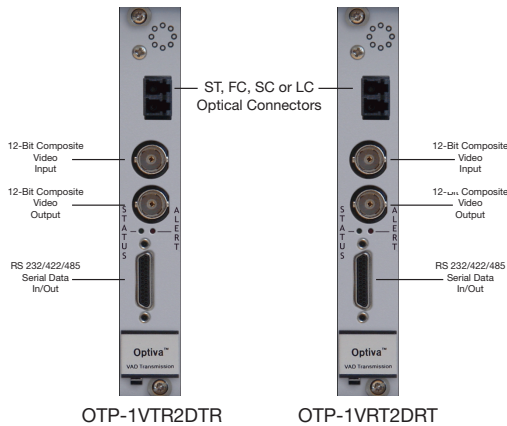
# OTP-1VTR2DTR

12-Bit Duplex Composite Video and Duplex Serial Data



DATASHEET

FIBER OPTICS



## Composite Video and Serial Data Transmission

The OTP-1VTR2DTR provides for the digital transmission of 1 channel of Duplex Composite Video and 2 channels of Duplex Serial Data, at broadcast quality.

OTP-1VTR2DTR is an excellent choice for transporting composite video and serial data signals over long or short distances over a single optical fiber. The system offers the complete flexibility needed for transporting fully digital composite video and serial data over one fiber. In addition, the OTP-1VTR2DTR is part of the innovative Optiva Series Video, Audio and Data Media Transport System. New signals may be added or fully redundant optical transport solutions may be developed.

## Features

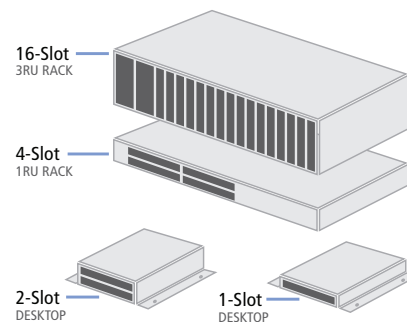
- SMPTE Compliant
- Duplex Composite Video over Fiber
- Duplex Serial Data over Fiber
- Singlemode Options (up to 60 km)
- Multimode Options (up to 2 km)
- Uses All-Digital Processing for Crystal Clear Picture with No Compression
- Real-Time Video Transmission for Exceptional Quality and Resolution
- TDM - Single Wavelength
- No EMI, RFI, or Ground Loops
- Compatible with MDM-7000 Series for CWDM Multiplexing
- 3-Year Warranty

## System Design

Optiva insert cards support both 19" rack mount and compact tabletop or wall-mountable enclosures. The 3RU 19" rackmount enclosure (Model: OT-CC-16-100) can support up to 16 insert cards. It also supports dual-redundant, hot-swappable power supplies (Model: OT-CC-16-100-RPS) utilizing two PS-100 power supplies or two PS-200 power supplies (Model: OT-CC-16-200-RPS). Also available in the rackmount form factor is the four-slot (Model: OT-CC-4-1U) which houses four insert cards in 1RU of rack space. The compact one-slot (Model: OT-DTCR-1) and two-slot (Model: OT-DTCR-2) enclosures both use an external power supply (Model: PS-9012).



## Enclosure Options



## Applications

- High-Quality Video Security Systems
- Video Surveillance
- Train/Rail Station Camera Systems
- CCTV Applications
- Optical NTSC/PAL Video Switching

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## DATASHEET FIBER OPTICS

### Models

Transmitter	Receiver
OTP-1VTR2DTR-A0-XX	OTP-1VRT2DRT-A0-XX
OTP-1VTR2DTR-A1-XX	OTP-1VRT2DRT-A1-XX
OTP-1VTR2DTR-A2-XX	OTP-1VRT2DRT-A2-XX
OTP-1VTR2DTR-A2D-XX	OTP-1VRT2DRT-A2D-XX
OTP-1VTR2DTR-A3-XX	OTP-1VRT2DRT-A3-XX
OTP-1VTR2DTR-A3D-XX	OTP-1VRT2DRT-A3D-XX
OTP-1VTR2DTR-L4x1-XX	OTP-1VRT2DRT-L4x1-XX
OTP-1VTR2DTR-NOC	OTP-1VRT2DRT-NOC

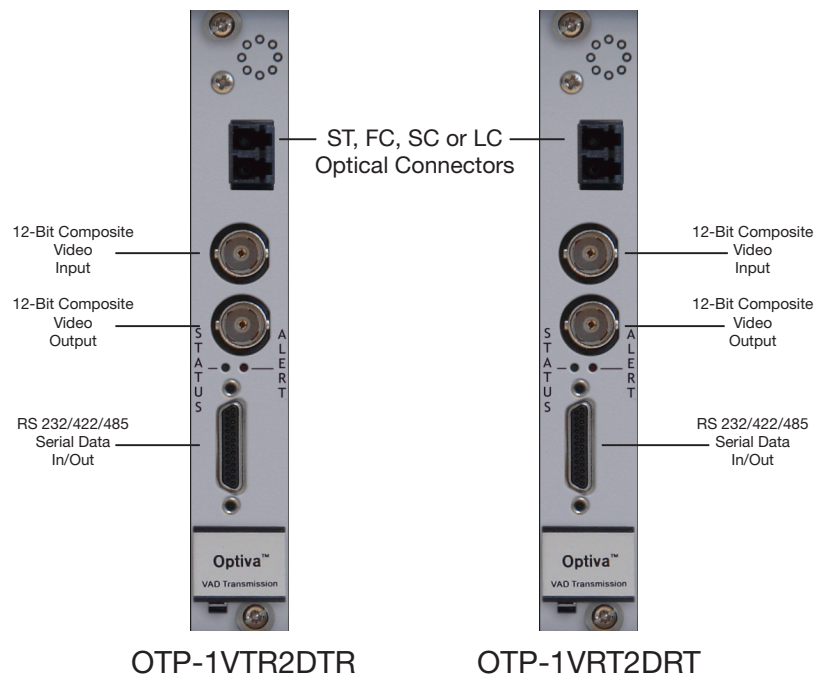
- When ordering, please substitute the "XX" in the model for one of the following optical connectors: ST, FC, SC, or LC.
- Standard SC connector type is UPC. APC is available upon request.

### Optical Specifications

Code	Fiber Type	Wavelength	Optical Budget	Distance
A0	Multimode	850 nm	7 dB	0.5 km
A1	Multimode	1310 nm	5 dB	2 km
A2	Singlemode	1310 nm	7 dB	10 km
A2D	Singlemode	1310 nm	12 dB	20 km
A3	Singlemode	1550 nm	17 dB	40 km
A3D	Singlemode	1550 nm	25 dB	60 km
L4x1	Singlemode	CWDM	Varies	20-70 km

- Chromatic dispersion as well as other losses should also be taken into account
- Stated distances are the maximum range, shorter distance may require attenuation

### Connection Diagram



### Video

Specifications	Values
Standards	SMPTE 170, RS-250C (Short Haul)
Bit Resolution	12-Bit Digital Transmission
Level	1.0 Volt p-p
Bandwidth	5.5 MHz
Differential Gain	< 2%
Differential Phase	< 0.7°
Compatibility	NTSC, PAL, SECAM
Signal to Noise Ratio	> 67 dB
Connector	BNC (IEC 60169-8)

### Data

Specifications	Values
Data Rate (RS-232)	DC to 200 Kbps
Data Rate (RS-422-2W, RS-485-2W & RS-485-4W)	DC to 1 Mbps
Connector	Micro DB25

### General

Specifications	Values
Dimensions (Insert Card)	6.69" L x 0.81" W x 5.06" H
Weight	11 oz.
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Humidity	0 to 95% (non-condensing)
Operating Voltage	12 VDC
Power Consumption	6 Watts
Bit Error Rate	10 <sup>-14</sup>
System Latency	< 1 ms
Warranty	3 year

### Monitoring & Control

Specifications	Values
Local	Front panel LED status and alert indicators
Remote	OptivaView SNMP Management Suite*

- \* Requires OptivaView SNMP Controller Card (Model: OPV-CTRL)

### Compliance

