an emcore company
opticomm
travel by light®

OTS-1VTR2ATR4DTR
Optiva® Standard,
1 Duplex Composite Video, 2 Duplex Audio
and 4 Duplex RS-232/422/485 Data

1 Video

2 Audio

4 Data

Composite Video, Audio and Data Transmission

The OTS-1VTR2ATR4DTR provides for the digital transmission of 1 Channel of Duplex Composite Video, 2 Channels of Duplex Analog Audio and 4 Channels of Duplex Serial Data.
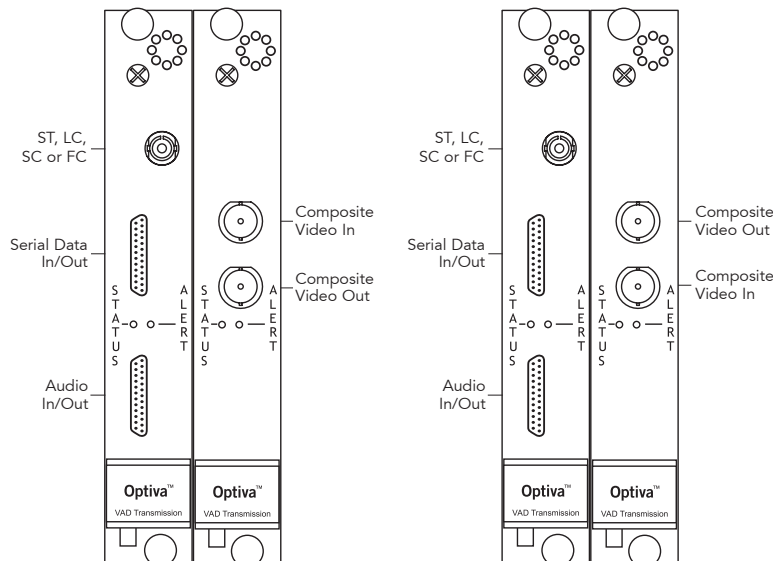
System Design

All units come in an insert card version. The cards can be inserted into our 16-slot, 19" rack-mountable card cage (OT-CC-16-100) or one of our smaller Optiva Desktop Card Racks (OT-DTCR Series).

The Optiva® Desktop Card Racks can handle one, two or four insert cards, creating compact, mountable, stand alone systems. The use of separate OT-DTCR enclosures allows for future flexibility and expansion as all cards are hot-swappable and can be used in any enclosure. Each one of our card housing units operate with an appropriate power supply. See "Accessories" for power supply specifications.

Optiva® Upgrade Path

This system can be purchased without an optical port as an add-on to an existing Optiva® system daisy-chain. (See "Non-Optical Version" below).

The Optiva® bandwidth requirement of this system is 397 Mbps.

OTS-1VTR2ATR4DTR   OTS-1VRT2ART4DRT

Features

• Composite Video, Analog Audio and Serial Data over one fiber

• 12-Bit Digital Transmission (Video)

• TDM - Single fiber, dual wavelength

• Complies with SMPTE 259M for uncompressed SDI

• Compatible with MDM-7000 Series for WDM and CWDM multiplexing

• No EMI or RFI and no ground loops

• Stand alone or rack-mount

• Ideal for Professional AV applications

Versions Available*

Wavelength (nm) & Fiber	Transmit/Receive**	Receive/Transmit**	Optical Connector	Optical Budget (dB)	Range*** (km)	Form Factor
1310/1550 Multimode	OTS-1VTR2ATR4DTR- A1/A3M-XX-IC	OTS-1VRT2ART4DRT-A3M/A1-XX-IC	ST, FC, LC or SC	10	3	IC (2-slots)
1310/1550 Singlemode	OTS-1VTR2ATR4DTR- A2/A3-XX-IC	OTS-1VRT2ART4DRT-A3/A2-XX-IC	ST, FC, LC or SC	12	20	IC (2-slots)
1310/1550 SM (D)	OTS-1VTR2ATR4DTR-A2/A3D-XX-IC	OTS-1VRT2ART4DRT-A3D/A2-XX-IC	ST, FC, LC or SC	17	40	IC (2-slots)
1310/1550 SM (H)	OTS-1VTR2ATR4DTR-A2/A3H-XX-IC	OTS-1VRT2ART4DRT-A3H/A2-XX-IC	ST, FC, LC or SC	25	60	IC (2-slots)
1270-1610 SM (CWDM)	OTS-1VTR2ATR4DTR-L4/L4-XX-IC	OTS-1VRT2ART4DRT-L4/L4-XX-IC	ST, FC, LC or SC	Varies	20-70	IC (2-slots)
Non-Optical Version	OTS-1VTR2ATR4DTR-NOC-IC	OTS-1VRT2ART4DRT-NOC-IC	N/A	N/A	N/A	IC (2-slots)

Serial Data Codes - "D" indicates RS-232. For other Serial Data preferences, please use: "DJ" = RS-422; "DK" = RS-485 (2W); and "DW" = RS-485 (4W).
Analog Audio Codes - To indicate your Analog Audio impedance preference, please use the following instead of "A" in the model number: "AB" = Input Balanced 600 Ohm, Output Balanced 600 Ohm; "ABH" = Input Balanced Hi-Z, Output Balanced Low-Z; and "AUH" = Input Unbalanced Hi-Z, Output Unbalanced Low-Z.

Contact Opticomm for other versions available.
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*** XX indicates the type of optical connector. Each of ST, FC, LC or SC are available.*
**** Chromatic dispersion and additional losses should be taken into account.*

Video

Standard	SMPTE 170M; 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°
Passband Ripple	< ±0.2 dB to 5.5 MHz
Chroma/Luma Delay	<12ns
Compatibility	NTSC, PAL, SECAM
Signal to Noise Ratio	> 67 dB
Connector	BNC (IEC 60169-8)

Analog Audio

Level	6 dBm In/Out
Bandwidth	20 Hz to 20 KHz
Signal to Noise Ratio	> 80 dB
Total Harmonic Distortion	< 0.1%
Signal Coding	20-bit
Connector	Micro DB25

Impedance Options:

Input		Output	
Balanced	600 Ohm	Balanced	600 Ohm
Balanced	Hi-Z	Balanced	Low-Z
Unbalanced	Hi-Z	Unbalanced	Low-Z

Data

RS-232, RS-422
RS-485 (2 Wire)
RS-485 (4 Wire)

Data Rate	DC to 1 Mbps
Connector	Micro DB25

Contact Closure

Connector	Micro DB25

General

Dimensions & Weight	Insert Card (IC): 6.3" L x 0.8" W x 4.0" H 11 oz
Operating temperature	-20° C to +55° C
Storage temperature	-40° C to +85° C
Humidity	0 to 95% non-condensing
Operating voltage	9-12 V_{DC}
Consumption	< 7w per insert card
System Latency	Less than 1ms (Audio <10ms)

Local Monitoring   LED Status Indication

Remote Monitoring   Compatible with OptivaView™
SNMP Management Suite

Optiva™ Configurable Communication Platform
Network Management
SDI & HD-SDI
Composite Video, Audio & Data
RGB/VGA/DVI
Audio/FSK/Intercom
Data (Ethernet/Serial/USB)
CATV/RF & L-Band
Optical Switching, Routing & Redundancy
Passive Multiplexing Solutions
Enclosures, Racks & Frames
Power Supplies & Accessories

MADE IN THE USA

Sample Configuration