opticomm
travel by light®

Composite Video, Audio and Serial Data Transmission

1 → Video

2 ↔ Audio

1 ↔ Data

The OTS-1V2ATR1DTR provides for the digital transmission of 1 Channel of Composite Video, 2 Channels of Duplex Analog Audio and 1 Channel of Duplex Serial Data.
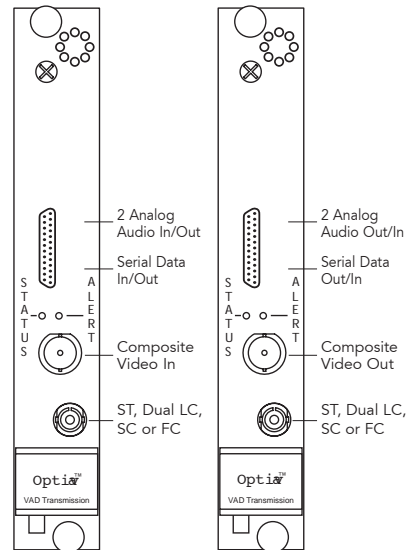
System Design

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 370 Mbps.

OTS-1VT2ATR1DTR

2 Analog Audio In/Out
Serial Data In/Out
Composite Video In
ST, Dual LC, SC or FC
STATUS
ALERT
Optiva™ VAD Transmission

OTS-1VR2ART1DRT

2 Analog Audio Out/In
Serial Data Out/In
Composite Video Out
ST, Dual LC, SC or FC
STATUS
ALERT
Optiva™ VAD Transmission

Each insert card comes with a label identifying the specific protocols handled, connector pin-out and other vital information.

For optimal bandwidth allocation, each insert card can daisy-chain with an additional card in the same chassis. **See "Optiva™ Upgrade Path".**

Features

- Composite Video, Analog Audio and Serial Data
- 10-Bit Digital Transmission
- TDM - Single fiber, dual wavelength
- Complies with SMPTE standards for Video transmission
- 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-1VT2ATR1DTR-A1/A3M-XX-IC	OTS-1VR2ATR1DRT-A3M/A1-XX-IC	ST, FC, Dual LC or SC	10	3	IC (1-slot)
1310/1550 Singlemode	OTS-1VT2ATR1DTR-A2/A3-XX-IC	OTS-1VR2ATR1DRT-A3/A2-XX-IC	ST, FC, Dual LC or SC	12	20	IC (1-slot)
1310/1550 SM (D)	OTS-1VT2ATR1DTR-A2/A3D-XX-IC	OTS-1VR2ATR1DRT-A3D/A2-XX-IC	ST, FC, Dual LC or SC	17	40	IC (1-slot)
1310/1550 SM (H)	OTS-1VT2ATR1DTR-A2/A3H-XX-IC	OTS-1VR2ATR1DRT-A3H/A2-XX-IC	ST, FC, Dual LC or SC	25	60	IC (1-slot)
1270-1610 SM (CWDM)	OTS-1VT2ATR1DTR-L4/L4-XX-IC	OTS-1VR2ATR1DRT-L4/L4-XX-IC	ST, FC, Dual LC or SC	Varies	20-70	IC (1-slot)
Non-Optical Version	OTS-1VT2ATR1DTR-NOC-IC	OTS-1VR2ATR1DRT-NOC-IC	N/A	N/A	N/A	IC (1-slot)

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.

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).

* Contact Opticomm for other versions available.

** XX indicates the type of optical connector. Each of ST, FC, Dual LC or SC are available.

*** Chromatic dispersion and additional losses should be taken into account.

800-867-8426 • info@opticomm.com • www.opticomm.com • Contact Opticomm for custom requirements.

Video

Standard	SMPTE 170M; RS-250C
Bit Resolution	10-Bit Processing; 10-Bit Transmission
Level	1.0 Volt p-p
Bandwidth	5.5 MHz
Differential Gain	< 1%
Differential Phase	< 0.7°
Compatibility	NTSC, PAL
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	24-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

Connector	Micro DB25
RS-232, RS-422	
Data Rate	DC to 1 Mbps
RS-485 (2 Wire)	
Data Rate	DC to 1 Mbps
RS-485 (4 Wire)	
Data Rate	DC to 1 Mbps
Contact Closure	
Data Rate	DC to 1 Mbps

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	1 Amp Max 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

10 YEAR WARRANTY   **ISO 9001:2000 CERTIFIED**

CSA   CE

FCC PART 15 COMPLIANT

MADE IN THE USA

Sample Configuration

Video — Data — Audio — OTS-1VT2ATR1DTR — 1 Fiber — OTS-1VR2ATR1DTR — Video — Data — Audio