



## Composite Video & Ethernet Transmission

The Optiva OTP-1V1E provides for the transmission of 1 channel of composite video and 1 channel of duplex 10/100 Ethernet signals, over long or short distances, using a single fiber.

In addition, the OTP-1V1E is part of our innovative Optiva video, audio and data media transport system. Optiva was designed to maintain lossless fiber extension between input and output signals. New signals may be added without the need for additional fiber through our proprietary daisy-chain technology. The Optiva line of products also includes insert cards for up to 16 channels of multiplexing / demultiplexing, 16x16 matrix switching, optical add / drop, as well as remote system monitoring.



## Features

- SMPTE Compliant
- Composite Video over Fiber
- Duplex 10/100 Ethernet over Fiber
- Singlemode Options (up to 70 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
- 3-Year Warranty
- ROHS Compliant

## Applications

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

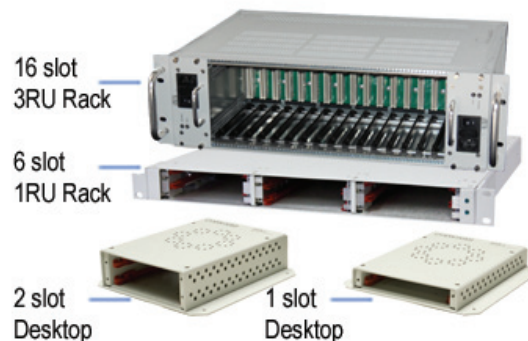
## System Design

Optiva insert cards support both 19" rackmount and compact tabletop or wall-mountable enclosures. The 3RU 19"

rackmount enclosures (Models: OT-CC-16 & OT-CC-16F) can support up to 16 insert cards as well as dual-redundant, hot-swappable power supplies utilizing two 100 watt or two 200 watt power supplies. Also available in the rackmount form factor is our 1RU enclosure (Model: OT-CC-6-1U) which can accommodate six insert cards and utilizes two 60 watt power supplies. For desktop or wall mounting applications there are one-slot (Model: OT-DTCR-1) and two-slot (Model: OT-DTCR-2) enclosures. Both use an external wall mount power supply.

**optiva** PLATFORM

## Enclosure Options



U.S. Patent #'s 7720385 & 8064773

# OTP-1V1E

12-Bit Composite Video and 10/100 Ethernet



## DATASHEET FIBER OPTICS

### Models

Transmitter	Receiver
OTP-1VT1ETR-XX/XX-YY	OTP-1VR1ERT-XX/XX-YY
OTP-1VT1ETR-L4x1/L4x1-YY	OTP-1VR1ERT-L4x1/L4x1-YY
OTP-1VT1ETR-NOC	OTP-1VR1ERT-NOC

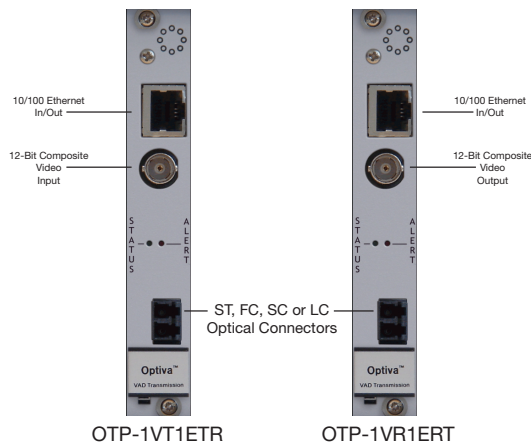
- When ordering replace "XX/XX" with one of the Optical Codes
- When ordering replace "YY" with one of the Connector Options
- When ordering CWDM, replace "x" in the Optical Code L4x1 with A (1270 nm), B (1290 nm), C (1310 nm), D (1330 nm), E (1350 nm), F (1370 nm), G (1390 nm), H (1410 nm), I (1430 nm), J (1450 nm), K (1470 nm), L (1490 nm), M (1510 nm), N (1530 nm), O (1550 nm), P (1570 nm), Q (1590 nm) or R (1610 nm)
- NOC: non-optical card
- Chromatic dispersion as well as other losses should also be taken into account
- Stated distances are the maximum range, shorter distance may require attenuation
- Standard connection type is UPC

### Duplex Optical Specifications

Optical Code "XX/XX"	Fiber Type / Number	Wavelength (nm)	Min. Output Power (dBm)	Rx Sensitivity (dBm)	Optical Budget (db)	Distance (km)	Connector Options "YY"
A0/A0	MM/2	850	-10	-17	7	0.5	LC (Dual)
A1/A1	MM/2	1310	-5.5	-10.5	5	2	LC (Dual)
A2/A2	SM/2	1310	-5.5	-12.5	7	10	LC (Dual)
A2D/A2D	SM/2	1310	-5.5	-17.5	12	20	LC (Dual)
A3/A3	SM/2	1550	-3.5	-20.5	17	40	LC (Dual)
A3D/A3D	SM/2	1550	0	-25	25	60	LC (Dual)
L4x1/L4x1*	SM/2	1270 to 1610 (CWDM)	-2.5	-27.5	25	50 to 70	LC (Dual)
A1/A3M*	MM/1	1310/1550	-5.5	-10.5	5	3	SC, FC or ST
A2/A3*	SM/1	1310/1550	-5.5	-17.5	12	20	SC, FC or ST
A2/A3D*	SM/1	1310/1550	-3.5	-20.5	17	40	SC, FC or ST
A2/A3H*	SM/1	1310/1550	-2.5	-27.5	25	60	SC, FC or ST

- \*Use "XX/XX" as is for ordering transmitter models but reverse for ordering receiver models

### Connection Diagram



### 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

### 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)

### Ethernet

Specifications	Values
Standard	Ethernet IEEE 802.3
Data Rate	10/100 Mbps (auto negotiation)
Connector	RJ-45

### 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

