



## 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 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
- 3-Year Warranty
- ROHS Compliant

## Applications

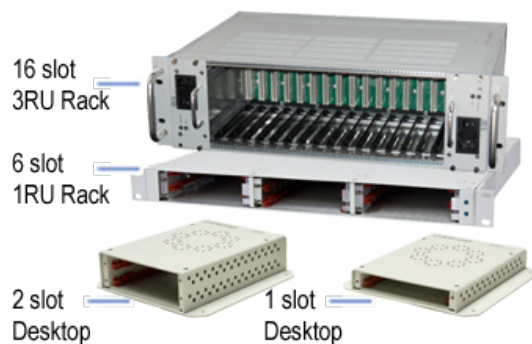
- High-Quality Video Security Systems
- Video Surveillance
- Train/Rail Station Camera Systems
- CCTV Applications
- Optical NTSC/PAL Video Switching

## 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.



## 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-A1/A3M-XX | OTP-1VR1ERT-A3M/A1-XX |
| OTP-1VT1ETR-A2/A3-XX  | OTP-1VR1ERT-A3/A2-XX  |
| OTP-1VT1ETR-A2/A3D-XX | OTP-1VR1ERT-A3D/A2-XX |
| OTP-1VT1ETR-A2/A3H-XX | OTP-1VR1ERT-A3H/A2-XX |
| OTP-1VT1ETR-L4x1-XX   | OTP-1VR1ERT-L4x1-XX   |
| OTP-1VT1ETR-NOC       | OTP-1VR1ERT-NOC       |

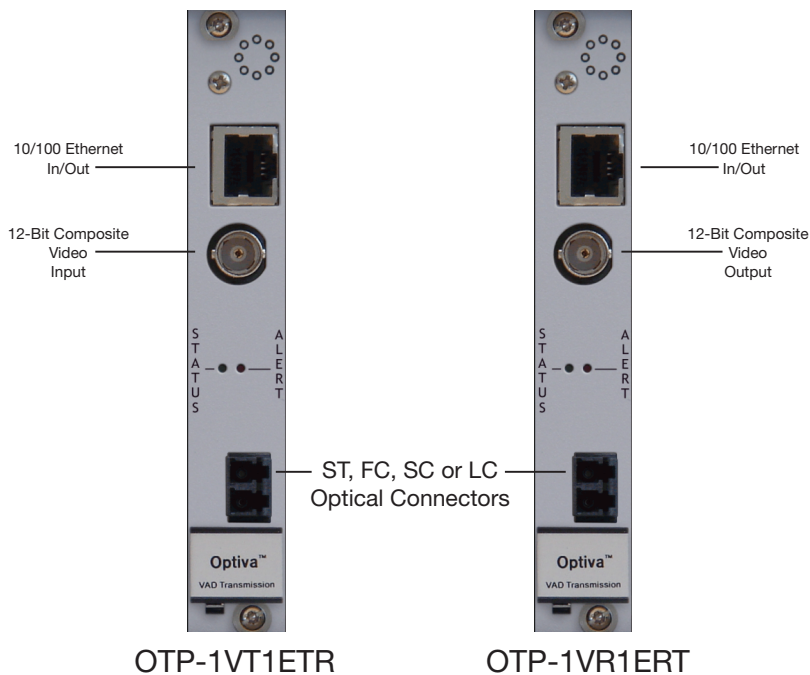
- When ordering, please substitute the "XX" in the model for one of the following optical connectors: ST, FC, SC, or LC.
- Standard SC connector type is UPC. APC is available upon request.

### Optical Specifications

| Ordering Code | Wavelength & Fiber Type | Optical Budget (dB) | Range (km) | Output Power (dBm) | RX Overload | Typical RX Sensitivity |
|---------------|-------------------------|---------------------|------------|--------------------|-------------|------------------------|
| A1/A3M        | 1310/1550 Multimode     | 5                   | 3          | -5.5 to 0.5        | 0           | -17                    |
| A2/A3         | 1310/1550 Singlemode    | 12                  | 20         | -5.5 to 0.5        | 0           | -18                    |
| A2/A3D        | 1310/1550 Singlemode    | 17                  | 40         | -3.5 to 1.5        | 0           | -21                    |
| A2/A3H        | 1310/1550 Singlemode    | 25                  | 60         | -2.5 to 2.5        | -8          | -28                    |

- 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)               |

### Ethernet

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

### 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-CTLR)

### Compliance

