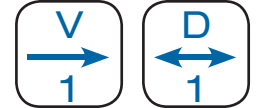




10-bit digital video with
bi-directional and up-the-coax data



Description

The ComNet™ FVT/FVR1031 series video transmitter/receiver and data transceiver supports simultaneous transmission of short-haul quality 10-bit digital video, bi-directional data and up-the-coax data over one multimode or single mode optical fiber. The module is universally compatible with major CCTV camera manufacturers and supports RS232, RS422 and 2 or 4-wire RS485 data interfaces, and most major data protocols as well as up-the-coax data. The FVT/FVR1031 allows the user to choose bi-directional data or up-the-coax data through a switch on the unit. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are ever required. Bi-color (Red/Green) LED indicators are provided for rapidly ascertaining equipment operating status. Packaged in the exclusive ComNet ComFit housing, these units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate.

Applications

- High Performance CCTV with PTZ Camera Control

Features

- 10-bit digitally encoded video transmission
- Exceeds all requirements for RS-250C short-haul transmission: True broadcast video performance
- Supports RS232, RS422 or RS485 (2 or 4-wire) data interfaces
- Compatible with all NTSC, PAL, or SECAM CCTV camera systems
- Tested and certified by an independent laboratory for full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- Automatic resettable fuses on all power lines
- Hot-Swappable Modules
- Distances up to 43 miles (69 km)
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Interchangeable between stand-alone or rack mount use - ComFit
- Lifetime Warranty

specifications

VIDEO

| | |
|------------------------------|--|
| Video Input: | 1 volt pk-pk (75 ohms) |
| Overload: | >1.5V pk-pk |
| Bandwidth: | 5 Hz - 10 MHz |
| Differential Gain: | <2% |
| Differential Phase: | <0.7° |
| Tilt: | <1% |
| Signal-to-Noise Ratio (SNR): | 67 dB @ Maximum Optical Loss Budget |
| Max. RG-59 COAX Distance: | 100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth |

DATA

| | |
|------------------|---|
| Data Format: | RS-232, RS-422, 2 or 4-wire RS-485 w/Tri-State, Manchester, bi-phase and up-the-coax data |
| Data Rate: | DC-115 Kbps (NRZ) |
| WAVELENGTH | 1310/1550 nm, MM and SM |
| NUMBER OF FIBERS | 1 |
| OPTICAL EMITTER | Laser Diode |
| LED INDICATORS | - Video Sync Presence - Received Data - Transmitted Data - Optical Carrier Detect |

CONNECTORS

| | |
|----------|--------------------------------------|
| Optical: | ST (Standard) SC or FC (Optional) |
| Power: | Terminal Block |
| Video: | BNC (Gold Plated Center-Pin) |
| Data: | Terminal Block |

ELECTRICAL & MECHANICAL

| | |
|------------------------|---|
| Power: | 8-15 VDC @ 2W |
| Surface Mount: | From Rack |
| Rack Mount: | 1 |
| Number of Rack Slots: | Automatic Resettable Solid-State Current Limiters |
| Current Protection: | Meets IPC Standard |
| Circuit Board: | 6.1 x 5.3 x 1.1 in., (15.5 x 13.5 x 2.8 cm) |
| Size (in./cm) (LxWxH): | <2 lb./0.9 kg |
| Shipping Weight: | |

ENVIRONMENTAL

| | |
|--------------------|-----------------------------|
| MTBF: | >100,000 hours |
| Operating Temp: | -40° C to +75° C |
| Storage Temp: | -40° C to +85° C |
| Relative Humidity: | 0% to 95% (non-condensing)* |

* May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.



| PART NUMBER | DESCRIPTION | FIBERS REQ'D | FIBER | OPTICAL PWR BUDGET | MAX. DISTANCE† | MAX. UTC DISTANCE† | # RACK SLOTS |
|-------------|--|--------------|-------------------------|--------------------|----------------|--------------------|--------------|
| FVT1031M1 | Video Transmitter/Data Transceiver | 1 | Multimode 62.5/125µm | 16 dB | 3 km (2 mi) | 1 km (0.6 mi) | 1 |
| FVR1031M1 | Video Receiver/Data Transceiver | | | | | | |
| FVT1031S1 | Video Transmitter/Data Transceiver | 1 | Single Mode 9/125µm | 23 dB | 69 km (43 mi) | 1 km (0.6 mi) | 1 |
| FVR1031S1 | Video Receiver/Data Transceiver | | | | | | |
| Accessories | 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) | | | | | | |
| Options | Add '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory) Add '/SC' for SC Connectors Add '/FC' for FC Connectors DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1) | | | | | | |

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended.

†Distance may be limited by optical dispersion. **Check with control system manufacturer for distance limits on up-the-coax systems.**

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

