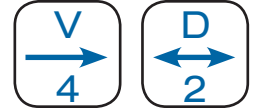


4-channel digitally-encoded video + 2 bi-directional data channels transmitter and receiver



Description

The ComNet™ FVT412M1 and FVR412M1 transmit four (4) channels of video utilizing state of the art digital encoding and decoding for high-quality video transmission, along with two (2) channels of bi-directional data over one multimode optical fiber. This equipment is environmentally hardened and suitable for use in unconditioned roadside or out-of plant installations. The FVT/FVR412 is compatible with NTSC, PAL and SECAM video transmission protocols and supports bi-directional RS232, 422 and RS485 (2 & 4 Wire) data. Plug-and-play design ensures ease of installation and no electrical or optical adjustments are required.

Bi-Color (RED/GREEN) LED indicators are provided to indicate the status of the system, video and data. 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. No additional parts or power supplies are required.

Applications

- High-Performance CCTV (Fixed Video)

Features

- Digitally-encoded video transmission: transmits 4 real-time color video signals and 2 bi-directional data signals on one optical fiber
- Supports RS232, RS422, and 2- or 4-wire RS485
- 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.
- Robust design ensures extremely high reliability in unconditioned out-of-plant environments
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Hot-swappable rack modules
- 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
 # Input/Output Channels: 4
 Bandwidth (minimum): 10 Hz - 6.5 MHz per channel
 Differential Gain: <4%
 Differential Phase: <0.7°
 Tilt: <1%
 Signal-to-Noise Ratio (SNR): 57 dB Typical
 Max. RG-59 COAX Distance: 100m (300ft) Camera to Fiber Optic Module to maintain 6Mhz Bandwidth

DATA

Data Channels: 2
 Data Interface: RS232, RS422 and RS485 (2W/4W)
 Data Format: NRZ, NRZI, Manchester, Bi-Phase and Sensornet
 Data Rate: DC-250 Kbps (NRZ)
 Bit Error Rate: <1 in 10-9 @ Maximum Optical Loss Budget
 Operating Mode: Simplex or Full-Duplex

WAVELENGTH

1310/1550 nm, Multimode

NUMBER OF FIBERS

1

LED INDICATORS

- Video Sync Presence for Each Video Channel
- Received Data
- Transmitted Data
- Optical Carrier Detect

OPTICAL EMITTER

Laser Diode

CONNECTORS

Optical: ST
 Power: Terminal Block
 Video: BNC (Gold Plated Center-Pin)
 Data: Terminal Block

ELECTRICAL & MECHANICAL

Power: 8-15 VDC @ 4W
 Surface Mount: From Rack
 Rack Mount: 2
 Number of Rack Slots: Automatic Resettable Solid-State Current Limiters
 Current Protection: Meets IPC Standard
 Circuit Board: 6.1 x 5.3 x 3.3 in., (15.5 x 13.5 x 8.3 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 REQUIRED | FIBER | OPTICAL PWR BUDGET | MAX. DISTANCE** | # RACK SLOTS |
|-------------|---|-----------------|----------------------|--------------------|-----------------|--------------|
| FVT412M1 | Video Transmitter/Data Transceiver (1310/1550 nm) | 1 | Multimode 62.5/125µm | 16 dB | 3 km (2 miles) | 2 |
| FVR412M1 | Video Receiver/Data Transceiver (1550/1310 nm) | | | | | |

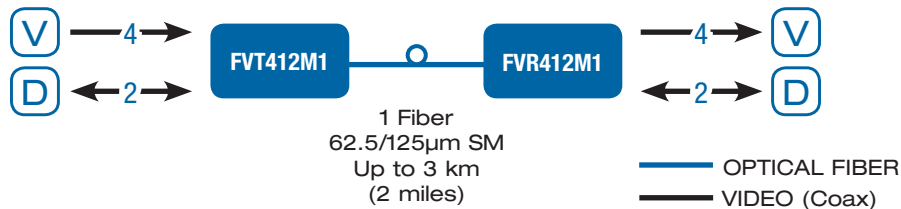
| | |
|-------------|--|
| Accessories | 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) |
| Options | Add '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1) |

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.

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.



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