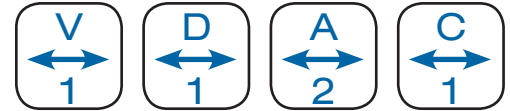


10-bit digitally encoded bi-directional video
+ bi-directional data channel
+ 2 bi-directional audio channels
+ bi-directional contact closure



Description

The ComNet™ FVTR1D1A2C1(M)(S)1 series transceivers support simultaneous transmission of short-haul quality 10-bit bi-directional digitally encoded video plus one bi-directional data channel, two channels of bi-directional audio and contact closure 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. The modules use 24-bit 96kHz sample rate digital encoding for superior transmission of balanced line-level audio. 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. These units are interchangeable between stand-alone or card mount configurations.

Applications

- High-Performance CCTV with PTZ Control
- Intercoms
- Point-to-Point Audio Communication
- Push-to-Talk Applications

Features

- 10-bit digitally encoded bi-directional video transmission or video sync plus one bi-directional data channel, two bi-directional audio channels and one bi-directional contact closure
- 24-Bit 96kHz Digitally Encoded Transmission
- 20Hz - 18kHz Audio Bandwidth
- 600 Ohms Audio Input Impedance
- 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
- Transmits Balanced Line-Level Audio up to +6dBm
- 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 rack modules
- Interchangeable between stand-alone or rack mount use - ComFit
- Distances up to 30 miles (48 km)
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Lifetime Warranty



FVTR1D1A2C1(M,S)1

10-bit digitally encoded bi-directional video
 + bi-directional data channel + 2 bi-directional audio channels
 + bi-directional contact closure

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: RS232, RS422, 2 or 4-wire RS485 w/Tri-State, Manchester and bi-phase
 DC-250 Kbps (NRZ)

Data Rate:

AUDIO

Input/Output Channels: 2 (balanced)
 Audio Input/Output Signal: 4.4 volt pk-pk (+6dBm)
 Bandwidth: 20Hz - 18kHz
 Total Harmonic Distortion: 0.02%
 Signal-to-Noise Ratio (SNR): 85dB (Typical)

CONTACT

Contact Interface: Response Time: 0.5 msec
 Input: Dry Contact Closure
 Output: SPST Relay - normally open, 30 VDC @ 150 mA, resistive loads only, 0.5 A Contact Rating

WAVELENGTH

NUMBER OF FIBERS

OPTICAL EMITTER

LED INDICATORS

1310/1550 nm, MM and SM
 1
 Laser Diode
 - Video Sync Presence - Data
 - Optical Carrier Detect - Audio - Contact

CONNECTORS

Optical: ST (Standard)
 SC or FC (Optional)
 Power: Terminal Block
 Audio: 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 2.2 in., (15.5 x 13.5 x 5.6 cm)
 Size (in./cm) (LxWxH): <2 lb./0.9 kg
 Shipping Weight:

ENVIRONMENTAL

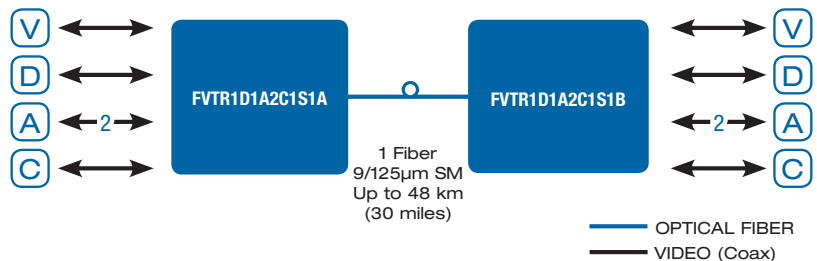
MTBF: >100,000 hours
 Operating Temp: -40° C to +75° C
 Storage Temp: -40° C to +85° C
 Relative Humidity: 0% to 95% (non-condensing)*
 * May be extended to condensation conditions by adding suffix '/C' to model number for conformal coating.

AGENCY COMPLIANCE



PART NUMBER	DESCRIPTION	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE**	# RACK SLOTS
FVTR1D1A2C1M1A	Video/Data/Audio/Contact Transceiver	1	Multimode	16 dB	3 km (2 miles)	1
FVTR1D1A2C1M1B	Video/Data/Audio/Contact Transceiver		62.5/125µm			
FVTR1D1A2C1S1A	Video/Data/Audio/Contact Transceiver	1	Single Mode	16 dB	48 km (30 miles)	1
FVTR1D1A2C1S1B	Video/Data/Audio/Contact Transceiver		9/125µm			
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, or '/FC' for FC Connectors					

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended. 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.
 Distance may be limited by optical dispersion. **Check with control system manufacturer for distance limits on up-the-coax systems.



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