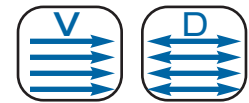


- (4) 10-bit digital video channels with 4 bi-directional data channels/daisy chain 8 video channels on one optical fiber/dual optical port self-healing ring configuration/ single fiber operation



Description

The ComNet™ FVT/FVR4014-SHR series of optical video links provides (4) 10-bit digitally encoded video channels, medium haul video quality, and 4 bi-directional data channels and a “Dual Optical Port” (DOP) Self-Healing Ring (SHR) topology. Up to (8) video channels and multiple video receivers can be “Daisy Chained” on one optical fiber.

The Self-Healing Ring (SHR) topology using the Dual Optical Ports (DOP) provide fail safe operation in the event of loss of one fiber or one optical module. Each optical port uses wavelength division multiplexing (WDM) to both transmit and receive on one optical fiber.

The data channels support RS232, RS422 and 2 wire and 4 wire RS485. 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 confirming operating status. These units are interchangeable between stand-alone or card mount configurations.

Features

- Up to (4) 10-bit digitally encoded video channels
- 4 Bi-directional data channel; or, 8 or 16 contact closures
- Daisy chain 8 video links on one single mode fiber
- Dual optical port Self-Healing Ring (SHR) configuration
- Exceeds all requirements for RS-250C medium haul transmission
- 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. (In Process)
- 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 30 miles (48 km)
- Bi-color (Red/Green) LED status indicators provide rapid indication of critical operating parameters
- Lifetime Warranty

PART NUMBER	FIBERS REQUIRED	FIBER
FVT4014M1-SHR FVR4014M1-SHR	1 (1310/1550 nm)	Multimode 62.5/125µm
FVT4014S1-SHR FVR4014S1-SHR	1 (1310/1550 nm)	Single Mode 9/125µm

(4) 10-bit digital video channels with 4 bi-directional data channels/
 daisy chain 8 video channels on one optical fiber/
 dual optical port self-healing ring configuration/single fiber operation

FVT/FVR4014(M)(S)1-SHR SELF-HEALING RING

specifications

VIDEO

Video Input:	1 volt pk-pk (75 ohms)
Bandwidth:	5 Hz - 6.5 MHz
Differential Gain:	<2%
Differential Phase:	TBA
Tilt:	<1%
Signal-to-Noise Ratio (SNR):	67 dB @ Maximum Optical Loss Budget

DATA

Data Interface:	RS-232, RS-422 and RS-485 (2W/4W)
Data Format:	NRZ, NRZI, Manchester and Bi-phase
Data Rate:	DC-250 Kbps (NRZ)

WAVELENGTH

1310/1550 nm, MM and SM

NUMBER OF FIBERS

1 In/1 Out

OPTICAL EMITTER

Laser Diode

LED INDICATORS

FVT Transmitter/Data Transceiver Unit:	FVR Receiver/Data Transceiver Unit:
- Fiber Status	- Fiber Status
- Video Input Sync Presence	- Video Output Sync Presence
- Received Data	- Received Data
- Transmitted Data	- Transmitted Data
- Power	- Power

CONNECTORS

Optical:	2 ST connectors for the Dual Port configuration (Required for Daisy Chain Self-Healing Ring operation)
Power:	Terminal Block
Video:	BNC (Gold Plated Center-Pin)
Data:	Terminal Block

ELECTRICAL & MECHANICAL

Power:	8-15 VDC @ 3W
Surface Mount:	From Rack
Rack Mount:	3
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
FVT4014M1-SHR	Video Transmitter/Data Transceiver	1 In/1 Out	Multimode 62.5/125µm	16 dB	2 km (1.2 miles)	3
FVR4014M1-SHR	Video Receiver/Data Transceiver					
FVT4014S1-SHR	Video Transmitter/Data Transceiver	1 In/1 Out	Single Mode 9/125µm	16 dB	48 km (30 miles)	3
FVR4014S1-SHR	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)					

NOTE: This product requires a fiber installation with a minimum 35 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.

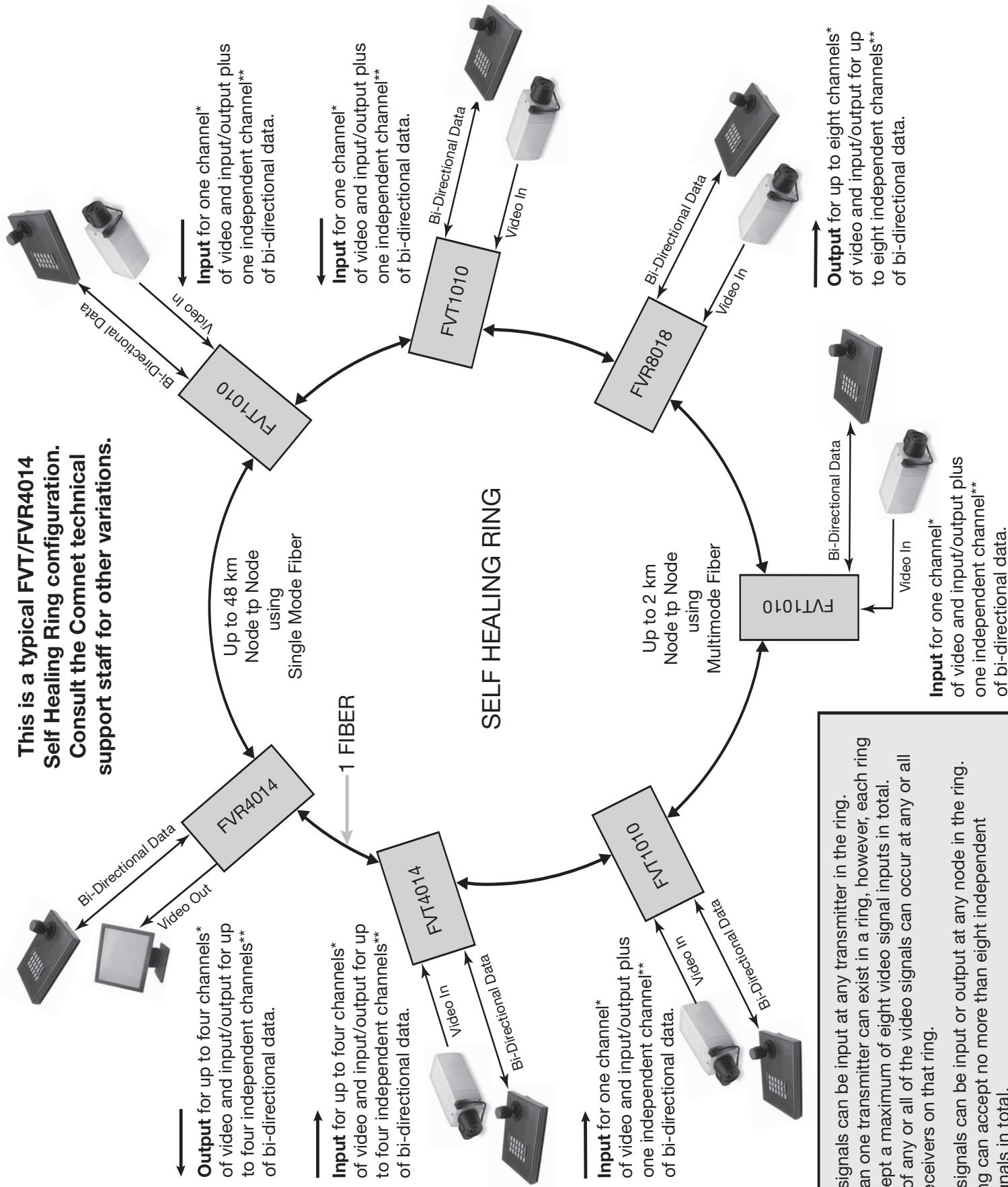


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**This is a typical FVT/FVR4014
Self Healing Ring configuration.
Consult the Comnet technical
support staff for other variations.**



Output for up to four channels* of video and input/output for up to four independent channels** of bi-directional data.

Input for up to four channels* of video and input/output for up to four independent channels** of bi-directional data.

Input for one channel* of video and input/output plus one independent channel** of bi-directional data.

* Video signals can be input at any transmitter in the ring. More than one transmitter can exist in a ring, however, each ring can accept a maximum of eight video signal inputs in total. Output of any or all of the video signals can occur at any or all of the receivers on that ring.

** Data signals can be input or output at any node in the ring. Each ring can accept no more than eight independent data signals in total.

Input for one channel* of video and input/output plus one independent channel** of bi-directional data.

Input for one channel* of video and input/output plus one independent channel** of bi-directional data.

Output for up to eight channels* of video and input/output for up to eight independent channels** of bi-directional data.

Input for one channel* of video and input/output plus one independent channel** of bi-directional data.