



The ComNet FVT/FVR(X)MI[/M] features an HDMI™ fiber link for uncompressed high-resolution bi-directional communication with full HDCP copyright protection, EDID and CEC connection functionality. The FVT/FVR(X)MI[/M] transmits pixel-for-pixel images and full 24-bit scan rate with no contouring or bit reduction. Fully compatible with HDMI™ compliant sources and monitors, supporting all possible horizontal and vertical sync configurations. The FVT/FVR(X)MI[/M] transmits up to 8 channels of uncompressed audio at sample sizes of 16-bit, 20-bit and 24-bit, with sampling rates of 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz and 192 kHz. This series also supports any IEC 61937-compliant compressed audio stream, such as Dolby Digital and DTS, and up to 8 channels of one-bit DSD audio (as used on SACD/Super Audio CDs), and at rates up to four times that of Super Audio CD, and lossless compressed audio streams such as Dolby True HD and DTS-HD Master Audio.

FEATURES

- › Supports up to 1080p60
- › Scalable to HDMI Version 1.3a - 16 bit color
- › Bi-directional communication for HDCP copyright, EDID and CEC functionality
- › HDCP encoding remains intact and unmodified
- › Fully uncompressed, 100% transparent, No Frame Dropping
- › Mounting Options:
 - › Small stand-alone package (FVT/FVR1MI/M)
 - › Optional ComNet model C1 rack
 - › 1 RU racking system available
- › Power Supply Included
- › Locking cable screw prevents the connectors from accidental disconnection
- › Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events.
- › LED status indicators confirm operating status

- › Hot-Swappable Modules
- › ComFit Models are interchangeable between stand-alone or rack mount use
- › Small size units are designed as stand-alone for installations where space is at a premium.
- › May be DIN-rail mounted by the addition of ComNet model DINBKT1 or DINBKT4 adaptor plate.
- › Lifetime Warranty

APPLICATIONS

- › Medical and MRI Displays
- › Advertising and Signage
- › Event Video Displays
- › Digital Cinema
- › Radar Displays for ATC and Military Applications
- › Commodity and Stock Exchanges

SPECIFICATIONS

HDMI™

Video Modes	3.5 Gbps: 1920 × 1080p @ 60 Hz up to 500 m 1.65 Gbps: 1920 × 1080p @ 30 Hz up to 1000 m Scalable to HDMI Version 1.3a - 16 bit color
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Connectors

Optical	SC
Power	Terminal Block
HDMI™	Type A

Optical

Fiber	Multimode	
Wavelengths	778, 800, 825, 850, 911, 980 nm	
Power	0 dBm per lane typical	
Distance		
(assumes no skew limit)	≤ 1080p30	1080p60
OM1 (160 MHz/km)	200 m	100 m
OM2 (500 MHz/km)	400 m	200 m
OM3 (1000 MHz/km)	1000 m	500 m

Power

Operating Voltage Range	8 to 15 VDC
Power Consumption	1 Ch: 2 W Max; 2 Ch: 4 W Max
Rack Mount	Power supplied from rack
Current Protection	Automatic Resettable Solid-State Current Limiters

Electrical & Mechanical

Circuit Board	Meets IPC Standard
Indicating LEDs	Link Video RX TX
Mini Long Size	4.08 × 3.74 × 1.1 in (10.36 × 9.5 × 2.8 cm)
ComFit Size	6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 cm)
Shipping Weight	Mini: <1 lb / 0.45 kg; ComFit: <2 lb / 0.9 kg

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) ¹

AGENCY COMPLIANCE



ORDERING INFORMATION

Part Number	Description	Fibers	Optical Power Budget	Max. Distance ²	Rack Slots
FVT1MI	HDMI™ Transmitter - Single Channel	1	14 dB min., 16 dB typ.	1000 m (3280 ft)	1
FVT2MI	HDMI™ Transmitter - Dual Channel	2	14 dB min., 16 dB typ.	1000 m (3280 ft)	1
FVR1MI	HDMI™ Receiver - Single Channel	1	14 dB min., 16 dB typ.	1000 m (3280 ft)	1
FVR2MI	HDMI™ Receiver - Dual Channel	2	14 dB min., 16 dB typ.	1000 m (3280 ft)	1
FVTRMI	HDMI™ Transceiver - 1 Channel Transmitter, 1 Channel Receiver	2	14 dB min., 16 dB typ.	1000 m (3280 ft)	1
FVT1MI/M	Mini HDMI™ Transmitter - Single Channel	1	14 dB min., 16 dB typ.	1000 m (3280 ft)	NA
FVR1MI/M	Mini HDMI™ Receiver - Single Channel	1	14 dB min., 16 dB typ.	1000 m (3280 ft)	NA
Accessories	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included, for benign 0° to 50°C applications only. Hardened power supply available, consult factory)				
Options	[1] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit - With mounting hardware (Optional, order model DINBKT1 or DINBKT4)				

[2] Maximum distance requires OM3 grade fiber running at resolutions of 1080p30 or lower at 1.65 Gbps.

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

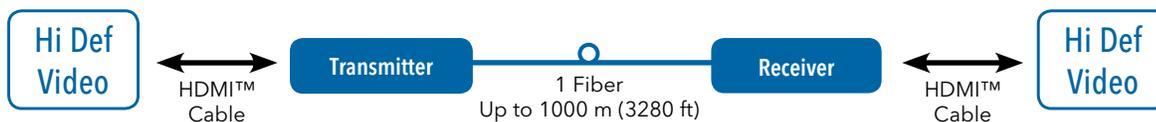
Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J.

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

RACK OPTIONS

C1	19 in wide × 4 RU high, 14 slot with internal power supply		C3	19 in wide × 1 RU high, 3 slot, for use with external power supply	
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TYPICAL APPLICATION



Low Power Consumption