

HDMI™ Digital Interface multimode fiber link with HDCP / EDID / CEC

FVT/FVR(X)MI[/M]

APPEARANCE





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 high-resolution signal is transmitted over one multimode fiber using multiple wavelengths up to 1000m. Resolutions of up to 1080p60 are supported. HDCP encryption is not affected or compromised by the FVT/FVR(X)MI units.

The FVT/FVR(X)MI[/M] transmits pixel-for-pixel images and full 24-bit scan rate with no contouring or bit reduction. This unit is fully compatible with HDMI™ compliant sources and monitors, supporting all possible horizontal and vertical sync configurations. The CEC support provided by these units allows the user to communicate with up to ten CEC-enabled devices connected via HDMI™.

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.

A locking screw prevents the connectors from accidental disconnection.

Packaged in either a small stand-alone housing or the exclusive ComNet ComFit housing, the FVT/FVR(X)MI standard size product may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate.

HDMI[™] 1



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 connector
- > 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

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SPECIFICATIONS

HDMI™

Video Modes: 3.5Gbps: 1920 × 1080p @ 60Hz up to 500m

1.65Gbps: 1920 × 1080p @ 30Hz up to 1000m

Scalable to HDMI Version 1.3a - 16 bit color

Connectors

Optical: SC

Power: Terminal Block HDMI™: Type A

Optical

Fiber: Multimode

Wavelengths: 778, 800, 825, 850, 911, 980 nm

Power: OdBm per lane typical

Distance (assumes no skew limit): ≤ 1080p30 1080p60

 OM1 (160MHz/km)
 200 m
 100m

 OM2 (500MHz/km)
 400 m
 200m

 OM3 (1000MHz/km)
 1000 m
 500m

Led Indicator - Link -Source Cable - Source ON - Sink ON











Electrical & Mechanical

Mini Long

Surface Mount Power: 8 -15 VDC @ 0.125A

Size (L×W×H) $4.08 \times 3.74 \times 1.1 \text{ in. } (10.36 \times 9.5 \times 2.8 \text{ cm})$

Shipping Weight: <1 lb./0.45 kg

ComFit Power:

Surface Mount Power: 8 -15 VDC @ 0.125A (1CH) @ 0.250A (2CH)

Rack Mount Power: From Rack

Size (L×W×H) $6.1 \times 5.3 \times 1.1 \text{ in.} (15.5 \times 13.5 \times 2.8 \text{ cm})$

Shipping Weight: <2 lb./0.9 kg

Current Protection: Automatic Resettable Solid-State Current Limiters

Circuit Board: Meets IPC Standard

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)*

OPDEDING INFORMATION

INFORMATION	Fibers			# of Rack
Description	Required	Optical Power Budget	Max Distance [†]	Slots
HDMI [™] Transmitter - Single Channel	1	14 dB min., 16 dB typ.	1000m (3280 ft)	1
HDMI [™] Transmitter - Dual Channel	2	14 dB min., 16 dB typ.	1000m (3280 ft)	1
HDMI™ Receiver - Single Channel	1	14 dB min., 16 dB typ.	1000m (3280 ft)	1
HDMI [™] Receiver - Dual Channel	2	14 dB min., 16 dB typ.	1000m (3280 ft)	1
HDMI [™] Transceiver - 1 Channel Transmitter, 1 Channel Receiver	2	14 dB min., 16 dB typ.	1000m (3280 ft)	1
Mini HDMI™ Transmitter - Single Channel	1	14 dB min., 16 dB typ.	1000m (3280 ft)	NA
Mini HDMI™ Receiver - Single Channel	1	14 dB min., 16 dB typ.	1000m (3280 ft)	NA
Accessories 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) Options Add suffix '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1)				
	Description HDMI™ Transmitter - Single Channel HDMI™ Transmitter - Dual Channel HDMI™ Receiver - Single Channel HDMI™ Receiver - Dual Channel HDMI™ Transceiver - 1 Channel Transmitter, 1 Channel Receiver Mini HDMI™ Transmitter - Single Channel Mini HDMI™ Receiver - Single Channel 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included Add suffix '/C' for Conformally Coated Circuit Boards (Extra charg	Description Required HDMI™ Transmitter - Single Channel HDMI™ Transmitter - Dual Channel HDMI™ Receiver - Single Channel HDMI™ Receiver - Dual Channel HDMI™ Receiver - Dual Channel 2 HDMI™ Transceiver - 1 Channel Transmitter, 1 Channel Receiver Mini HDMI™ Transmitter - Single Channel Mini HDMI™ Receiver - Single Channel 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) Add suffix '/C' for Conformally Coated Circuit Boards (Extra charge, consult fac	Description Required Optical Power Budget HDMI™ Transmitter - Single Channel HDMI™ Transmitter - Dual Channel HDMI™ Receiver - Single Channel HDMI™ Receiver - Dual Channel HDMI™ Receiver - Dual Channel HDMI™ Transceiver - 1 Channel Transmitter, 1 Channel Receiver HDMI™ Tra	Description Required Optical Power Budget Max Distance [†] HDMI™ Transmitter - Single Channel 1 14 dB min., 16 dB typ. 1000m (3280 ft) HDMI™ Receiver - Single Channel 1 14 dB min., 16 dB typ. 1000m (3280 ft) HDMI™ Receiver - Dual Channel 1 14 dB min., 16 dB typ. 1000m (3280 ft) HDMI™ Receiver - Dual Channel 2 14 dB min., 16 dB typ. 1000m (3280 ft) HDMI™ Transceiver - 1 Channel Transmitter, 1 Channel Receiver 2 14 dB min., 16 dB typ. 1000m (3280 ft) Mini HDMI™ Transmitter - Single Channel 1 14 dB min., 16 dB typ. 1000m (3280 ft) Mini HDMI™ Receiver - Single Channel 1 14 dB min., 16 dB typ. 1000m (3280 ft) Mini HDMI™ Receiver - Single Channel 1 14 dB min., 16 dB typ. 1000m (3280 ft) Mini HDMI™ Receiver - Single Channel 1 14 dB min., 16 dB typ. 1000m (3280 ft) 9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included) Add suffix '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory)

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

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.

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



TYPICAL APPLICATION





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