



# kramer

## F676-OUT2-F16

4K60 4:2:0 HDMI over Ultra-Reach MM/SM  
Fiber Optic Output Card

| Fiber Optic



F676-OUT2-F16 is a high-performance HDMI fiber optic modular matrix output card for ultra-reach extension of 4K@60Hz (4:2:0) HDMI signals. Designed for the VS-1616DN-EM modular matrix, F676-OUT2-F16 converts HDMI and RS-232 input signals to an optical signal that is transmitted over a fiber optic cable to a compatible receiver that converts it back to HDMI and RS-232 signals. F676-OUT2-F16 includes a multi-mode SFP+ transceiver, but can be used with any Kramer certified SFP+ transceiver, such as a single-mode SFP+ transceiver

## FEATURES

**High Performance Standard Fiber Extender** - HDMI fiber transmitter for providing ultra-reach signals over either multi-mode or single-mode optical fiber infrastructures, using Kramer pluggable OSP SFP+ units (multi-mode SFP+ included). Near-zero latency video chroma sub-sampling conversion technology, is employed to auto-adapt above 10G HDMI signals to 10G optical link signal data-rate.

Note: To ensure specified performance, support, and warranty of this product, use only Kramer's certified hi-performance OSP SFP+ pluggable optical units

**Multi-drop Signal Distribution** - Use optical splitters to extend the signals from the output to multiple compatible receivers, for displaying the same content on multiple display devices using optical splitting only, with no need for AV distribution amplifiers

**HDMI Signal Extension** - HDCP 2.2 compliant and supports up to 10.2G (3.4G per channel) data rate, LPCM 7.1, Dolby True HD, and DTS-HD

**I-EDIDPro™ Kramer Intelligent EDID Processing™** - Intelligent EDID handling, processing and pass-through algorithm that ensures Plug and Play operation for HDMI source and display systems

**Bidirectional RS-232 Extension** - Serial interface data flows in both directions, to enable data transmission and control of devices

**Cost-Effective Maintenance** - Fiber link connection LEDs facilitate easy local troubleshooting



# kramer

## TECHNICAL SPECIFICATIONS

---

Outputs	2 Fiber Optic: On LC connectors
Ports	2 RS-232: On a 3-pin terminal block connector
Video	Max Bandwidth: 10.2Gbps Max Resolution: 4096x2160@60Hz 4K@60 (4:2:0) HDMI Support: 10.2G (3.4G per channel) data rate, LPCM 7.1, Dolby True HD, and DTS-HD Content Protection: HDCP 2.2
Extension Line	Optical Fiber: Multi-mode (MM) or single-mode (SM) Optical Module: Kramer 10Gbps SFP+ IEEE 802.3ae compliant modules (MM is included)
Multi-mode Line	Compliance: G.651.1 OFNR fiber Max Reach over OM3 MM Fiber: 3km (1.8 miles)
Single-mode Line	Compliance: G.652D OFNR fiber Max Reach over OS1 SM Fiber: 33km (20.5 miles)
STANDARDS COMPLIANCE	Laser Safety Compliance Class 1  SFP Regulatory Certifications FDA CDRH 21 CFR 1040 and Laser Notice No. 50, UL and CUL EN60950-2:2007, RoHS6, EMC EN 55022 and EN 55024, IEC 62368-1 and IEC 60825-1 and -2
Extended RS-232	Baud Rate: 300 to 115200
User Interface	Indicators: optical link LEDs
Power	Consumption: 9W
Environmental Conditions	Operating Temperature: 0° to +40°C (32° to 104°F) Storage Temperature: -40° to +70°C (-40° to 158°F) Humidity: 10% to 90%, RHL non-condensing
Regulatory Compliance (Standards Compliance)	Safety: CE, UL  Environmental: RoHs, WEEE
Accessories	Included: 2 MM SFP+ transceivers
Product Dimensions	19.00cm x 13.00cm x 2.00cm (7.48" x 5.12" x 0.79" ) W, D, H
Product Weight	0.2kg (0.4lbs) approx
Shipping Dimensions	24.00cm x 16.80cm x 5.80cm (9.45" x 6.61" x 2.28" ) W, D, H
Shipping Weight	0.3kg (0.6lbs) approx