

# Kramer 691 4K60 4x2x0 HDMI MM/SM Fiber Optic Extender (Transmitter) with USB/Ethernet/RS-232/IR/Stereo Audio

## INPUTS

- 1 HDMI on HDMI connector,
- 1 stereo analog unbalanced audio on a 3.5mm mini jack

## OUTPUTS

- 1 fiber optic on a 10Gbps SFP+ LC connector complying with IEEE 802.3ae

## PORTS

- 1 IR on a 3.5mm mini jack for IR link extension,
- 1 USB on a female USB-B connector for USB link extension,
- 1 RS-232 on a 3-pin terminal block for serial link extension,
- 1 RS-232 on a 3-pin terminal block for transmitter control,
- 1 100BaseT Ethernet on an RJ-45 female connector for device control and LAN extension

## EXTENSION LINE

- HDBaseT 2.0 compliant
- Multi-mode (MM) or single-mode (SM) optical fiber,
- 2 simplex fiber strands

## MULTIMODE LINE

- G.651.1 compliant OFNR fiber,
- 850 nm nominal peak wavelength,
- 10.2Gbps max data rate,
- -2.5dBm typical optical transmission power,
- 8.6dB typical optical maximum loss budget,
- Up to 3km (1.8 miles) reach over OM3 MM fiber

## SINGLEMODE LINE

- G.652D compliant OFNR fiber,
- 1310 nm nominal peak wavelength,
- 10.2Gbps max data rate,
- -2.5dBm typical optical transmission power,
- 11.9dB typical optical maximum loss budget,
- Up to 33Km (20.5 miles) reach over OS1 SM fiber

## VIDEO

- Up to 10.2Gbps bandwidth (3.4Gbps per graphic channel),
- Up to 4K UHD @60Hz (4:2:0) 24bpp resolution,
- HDMI 2.0 and HDCP 1.4 signal compliance

## AUDIO

- Up to 1 Vrms level,
- 0.03% THD + noise @1kHz at nominal level

## EXTENDED USB

- 1.1 and 2.0 host compliance,
- Up to 127Mbps (out of max 480 USB) extended line rate bandwidth,
- Up to 7 devices,
- Up to 2 hubs,
- Up to 8 ports per hub

## EXTENDED ETHERNET

- Up to 100Mbps Ethernet transmission bandwidth

## EXTENDED RS-232

- 300 to 115200 baud rate

## CONTROL RS-232

- 115200 baud rate

## **SUPPORTED PC WEB BROWSERS**

- Windows 7 and higher:
- Internet Explorer (32/64 bit) version 10,
- Firefox version 30,
- Chrome version 35
- MAC:Chrome version 35,
- Firefox version 30,
- Safari version 7,
- Note: Minimum browser window size 1024 x 768

## **POWER SOURCE**

- 12V DC, 1.36A

## **POWER CONSUMPTION**

- 12V DC, 600mA

## **ENCLOSURE**

- Half 19" 1U rack unit size, aluminium type

## **COOLING**

- Convection ventilation

## **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

## **VIBRATION**

- ISTA 1A in carton (International Safe Transit Association)

## **SAFETY REGULATORY COMPLIANCE**

- CE, UL

## **ENVIRONMENTAL REGULATORY COMPLIANCE**

- Complies with appropriate requirements of RoHs and WEEE

## **INCLUDED ACCESSORIES**

- Power supply (12V, 1.36A)

## **PRODUCT DIMENSION**

- 21.46cm x 16.30cm x 4.36cm (8.45" x 6.42" x 1.72" ) W, D, H

## **PRODUCT WEIGHT**

- 1.0kg (2.1lbs) approx

## **SHIPPING DIMENSION**

- 35.10cm x 21.20cm x 7.20cm (13.82" x 8.35" x 2.83" ) W, D, H

## **SHIPPING WEIGHT**

- 1.5kg (3.2lbs) approx