# KRAMER



## Installation Instructions

MODELS:

### **617T, 617R** 4K HDR HDMI Tx/Rx over Extended-Reach Multi-Mode Fiber Optic Cable



#### SAFETY WARNING

Disconnect the unit from the power supply before opening and servicing

For the latest information on our products and a list of Kramer distributors, visit our Web site where updates to this user manual may be found.

We welcome your questions, comments, and feedback.

www.KramerAV.com info@KramerAV.com

#### 617T, 617R 4K HDR HDMI Tx/Rx over Extended-Reach Multi-Mode Fiber Optic Cable

Congratulations on purchasing your Kramer 617T and 617R Plug and Play active 4K HDR HDMI Tx/Rx over Extended-Reach Multi-Mode (MM) Fiber Optic cable. 617T and 617R extend signals of up to 4096x2160 @60Hz (4:4:4), over a distance of up to 100m (328ft) without signal scaling or data compression, providing a maximum data rate of 18Gbps. 617T and 617R are easily and securely connected via a 2LC fiber connector and can be powered from the USB connector. Alternatively, 617T only can be powered from the HDMI interface (pin #18).



Figure 1: 617T Transmitter and 617R Receiver

#### Safety



**Caution:** There are no operator serviceable parts inside the unit.

Warning: Disconnect the power and unplug the unit from the wall before installing.

Warning: Avoid direct eye exposure into the optic connectors when powered, although this product is regulated strictly enough to operate under the Laser Class 3R for eye safety.

See <u>www.KramerAV.com</u> for updated safety information.

#### Installation

#### To install 617T and 617R:

- Unpack the contents of the package with care. We recommend that you save the original box and packaging materials for possible future shipment.
- 2. Turn on the power to the HDMI source (for example, a laptop) and acceptor (for example, a display).
- 3. Power the 617T and 617R:
  - Connect the micro USB connector on each device to a USB cable (supplied).
  - Connect the USB cable either to the wall-mount power adapter (supplied) and to the mains, or to a USB port.

The POWER LED lights and the STATUS LED flashes three times.



Although **617T** can be powered via pin #18 on the HDMI interface, we recommend that you use the USB power adapter. **617R** can only be powered via the USB power adapter.  Connect the two LC optical fibers between 617T and 617R. Connect (A) to (A) and (B) to (B). Make sure that the duplex connectors are connected properly.

The STATUS LED flashes.



Do not look directly into the LC connectors on the **617T** (the transmitter side) when it's powered.

This product operates under LASER Class I, classified by CDRH/FDA for eye safety.

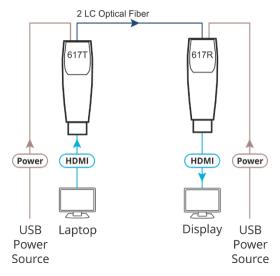


We recommend that you avoid using intermediate cables or adapters. Using them may affect the transmission quality.

5. Connect 617T to the HDMI connector on the source side and 617R on the acceptor side.



Make sure that the 617T is always connected to the source side and the 617R is connected to the acceptor side.



Once the system is connected the Status LEDs on both 617T and 617R flash.

#### Troubleshooting

#### If the display appears black:

- Check that the power source adapters are properly connected on both sides.
- Check that both HDMI connector heads are fully plugged into the devices.
- Check that the source and display devices are both switched on.
- Reset the system by disconnecting and then reconnecting the 617T or 617R, or by disconnecting and then reconnecting the power adapters.
- Reboot the system.

#### If the image appears distorted and/or there is background noise:

- Go to the display properties and check the settings. Make sure that the resolution is set below 4096x2160 at a 60Hz refresh ratio to check if the graphic resolution is properly defined.
- Reset the system by disconnecting and then reconnecting the 617T or 617R, or by disconnecting and then reconnecting the power adapters.



It is important to connect the devices correctly as marked: 617T to the source side and 617R to the acceptor side.

#### Specifications

Video	Max. Resolution	4K @60Hz 4:4:4 (4096x2160)
	Data Rate	Maximum 6 Gbps per channel
	Compliance	Supports HDMI 2.0, HDCP 2.2, EDID and CEC
Ports	617T (source end)	Male HDMI connector
	617R (display end)	Male HDMI connector
	617T (source end)	Micro USB (for power supply)
	617R (display end)	Micro USB (for power supply)
Power	5V	Via USB source
		Via external source
		From HDMI PIN #18 (617T only)
	Consumption	<2.5W
Recommended Cable	Structure	Dual Multi-mode OM3 (50/125um) glass fiber
	Optical Connectors	Duplex LC connectors
	Max. Fiber Cable Attenuation (λ=850nm)	2.5dB/KM
	Max. Skew	0.4ns
	Max. Insertion Attenuation	0.5dB
	Total Optical Attenuation	1dB max @ 328ft/100m extension
	Maximum Length	100m (330ft)
Environmental Conditions	Operating Temperature	0° to +50°C (32° to 122°F)
	Storage Temperature	-30° to +70°C (-22° to 158°F)
	Operating Humidity	0 to 85%
Standard Compliance	CE	EN 55032:2012/AC: 2013 (Class A), EN 61000-3-2:2014, EN 61000-3-3:2013, EN 55024:2010
	FCC	CFR 47 part 15 SUBPART B Class B, Section 15.101
	Environmental	RoHS (2011/65/ EU)
General	Net Dimensions (W, D, H), each	2.6cm x 7.2cm x 1.5cm (1" x 2.8" x 0.6")
	Shipping Dimensions (W, D, H)	19.3cm x 25.3cm x 62cm (7.6" x 10" x 24.4")
	Net Weight, each	0.12kg (0.3bs) approx.
	Shipping Weight	1.48kg (3.3lbs) approx.
Accessories	Included	2 Micro USB to USB type-A cables, 2 Wall-mount power adaptors