



## TP-590T

4K60 4:2:0 HDMI Transmitter with USB,  
RS-232, & IR over Long-Reach HDBaseT  
2.0

| HDMI | HDBaseT | 4K/60 UHD (4:2:0)



TP-590T is a high-performance, long-reach HDBaseT 2.0 transmitter for 4K60Hz (4:2:0) HDMI, USB, RS-232, and IR signals over twisted pair. TP-590T converts all input signals into the transmitted HDBaseT 2.0 signal. It extends video signals to up 40m (130ft) over CAT copper cables at up to 4K@60Hz (4:2:0) 24bpp video resolution and provides even further reach for lower HD video resolutions

## FEATURES

**High Performance Standard Extender** - Professional HDBaseT extender for providing long-reach signals over twisted-pair copper infrastructures. TP-590T is a standard extender that can be connected to any market-available HDBaseT-compliant extension product. For optimum extension reach and performance, use recommended Kramer cables

**HDMI Signal Extension** - HDCP 2.3, EDID and CEC signals are passed through from the source to the display. Supports deep color, x.v.Color™, lip sync, HDMI uncompressed audio channels, Dolby TrueHD, DTS-HD, 2K, 4K, and 3D as specified in HDMI 2.0

**Flexible USB 2.0 Extension** - An active USB host is connected at either the transmitter or receiver side. USB 2.0 signals are extended between the transmitter and receiver, enabling connection of the active USB host to both local and remote USB devices, such as camera and audio devices, or HID (Human Interface Devices) mouse or keyboard devices

**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

**Multi-channel Audio Transmission** - Up to 32 channels of digital stereo uncompressed signals for supporting studio-grade surround sound

**Bidirectional RS-232 Extension** - Serial interface data flows in both directions, allowing data transmission and device control

**Bidirectional Infrared Extension** - IR interface data flows in both directions, allowing remote control of peripheral devices located at either end of the extended line

**Cost-effective Maintenance** - Status LED indicators for HDMI, HDBT, and USB active host ports, facilitate easy local maintenance and troubleshooting

**Easy and Elegant Installation** - Compact DemiTOOLS™ fan-less enclosure for dropped-ceiling mounting, or side-by-side mounting of 2 units in a 1U rack space with the recommended rack adapter



## TECHNICAL SPECIFICATIONS

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|                                              |                                                                                                                                                                                                                              |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inputs                                       | 1 HDMI: On an HDMI connector                                                                                                                                                                                                 |
| Outputs                                      | 1 HDBT: On an RJ-45 female connector                                                                                                                                                                                         |
| Ports                                        | 1 USB 2.0 Host: On a USB-B connector<br>3 USB 2.0 Device: On USB type-A connectors<br>1 IR: On a 3.5mm mini jack for IR link extension,<br>1 RS-232: On a 3-pin terminal block for serial link extension                     |
| USB Features                                 | Integrated USB Hubs 1                                                                                                                                                                                                        |
| Extension Line                               | Up to 40m (130ft): At 4K @60Hz (4:2:0):<br>Up to 70m (230ft): At full HD (1080p @60Hz 36bpp)<br>Note: When using Kramer HDBaseT cables<br>Standards Compliance: HDBaseT 2.0                                                  |
| Video                                        | Max Data Rate: 10.2Gbps bandwidth (3.4Gbps per graphic channel)<br>Max Resolution: 4K UHD @60Hz (4:2:0) 24bpp resolution<br>Content Protection: HDCP 2.3<br>HDMI Support: 4K as specified in HDMI 2.0                        |
| Extended USB                                 | Host Compliance: 1.1 and 2.0<br>Extended Line Rate Bandwidth: Up to 127Mbps (out of max 480 USB)                                                                                                                             |
| Extended RS-232                              | Baud Rate: 300 to 115200                                                                                                                                                                                                     |
| Power                                        | Source: 5V DC, 4A<br>Consumption: 3.2A<br>USB Device Charging Max Total Current: 2A                                                                                                                                          |
| Enclosure                                    | Size: DemiTools<br>Type: Aluminum<br>Cooling: Convection ventilation                                                                                                                                                         |
| Environmental Conditions                     | Operating Temperature: 0° to +40°C (32° to 104°F)<br>Storage Temperature: -40° to +70°C (-40° to 158°F)<br>Humidity: 10% to 90%, RHL non-condensing<br>Vibration: ISTA 1A in carton (International Safe Transit Association) |
| Regulatory Compliance (Standards Compliance) | Safety: CE<br>Environmental: RoHs and WEEE<br>ACCESSORIES:                                                                                                                                                                   |

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| Accessories         | Included: Power adapter, bracket, rubber feet                |
| Product Dimensions  | 19.05cm x 5.96cm x 2.74cm (7.50" x 2.35" x 1.08" ) W, D, H   |
| Product Weight      | 0.5kg (1.1lbs) approx                                        |
| Shipping Dimensions | 34.50cm x 16.50cm x 5.20cm (13.58" x 6.50" x 2.05" ) W, D, H |
| Shipping Weight     | 1.0kg (2.2lbs) approx                                        |

