



## TP-588D

4K60 4:2:0 HDMI/DVI PoE Receiver with Ethernet, RS-232, IR & Stereo Audio Extraction over Extended-Reach HDBaseT



TP-588D is a high-performance, extended-reach HDBaseT 1.0 receiver for 4K60Hz (4:2:0) DVI or HDMI, Ethernet, RS-232, IR and stereo audio signals over twisted pair. It extends video signals to up to 100m (330ft) 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 extended-reach signals over twisted-pair copper infrastructures. TP-588D 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** - HDMI 2.0 and HDCP 1.4 compliant. Supports deep color, x.v.Color™, lip sync, HDMI uncompressed audio channels, Dolby TrueHD, DTS-HD, 2K, 4K, and 3D. EDID signal is passed through from the source to the display.
- **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 HDMI Audio Extension** - Up to 32 channels of digital stereo uncompressed signals for supporting surround sound at studio level.
- **Audio De-embedding (Drop-and-Continue)** - The transmitted digital audio signal is extracted from the AV signal (dropped), converted to digital or analog signals for transmission to stereo S/PDIF digital and balanced analog audio outputs, in parallel to being transmitted (continued) to the DVI or HDMI AV output. This enables high-quality audio playback by routing the audio to an AV receiver and external speakers in parallel to routing the audio to the connected AV acceptor device's local speakers (such as TVs with speakers).
- **Ethernet Extension** - Ethernet interface data flows in both directions, allowing extension of up to 100Mbps Ethernet connectivity for LAN communication and device control.
- **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, with optional extension to a remote panel connected via device GPI/O ports, for DVI, HDMI and HDBT ports facilitate easy local and remote maintenance and troubleshooting. Remote device management via built-in web UI, RS-232 connection, and Kramer Network. Local and remote firmware upgrade via mini-USB, RS-232 or Ethernet connection and the K-Upload tool ensure lasting, field-proven deployment.
- **Easy Installation** - Single cable connectivity for both HDBaseT signals and power. Compact MegaTOOLS™ fan-less enclosure for dropped-ceiling mounting, or side-by-side mounting of 2 units in a 1U rack space with the optional RK-T2B rack adapter.

## TECHNICAL SPECIFICATIONS

INPUT:	1 HDBT on an RJ-45 female connector.
OUTPUTS:	1 HDMI on an HDMI connector, 1 DVI-D on a DVI-I connector, 1 Stereo S/PDIF digital audio on an RCA connector, 1 Stereo analog balanced stereo audio on a 5-pin terminal block.
PORTS:	1 IR on a 3.5mm mini jack for IR 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 device control, 4 remote LED ports on a 5-pin terminal block, 1 10Base-T/100BaseTx Ethernet on an RJ-45 female connector for device control and network traffic extension.
EXTENSION LINE:	HDBaseT 1.0 compliant; Up to 100m (330ft) at 4K @60Hz (4:2:0); up to 130m (430ft) at full HD (1080p @60Hz 36bpp); up to 180m (590ft) at HDBaseT ultra mode and full HD (1080p @60Hz 24bpp); Note: When using Kramer HDBaseT cables.
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 2 Vrms level 0.03% THD + NOISE @ 1 KHz at nominal level.
EXTENDED ETHERNET:	Up to 100Mbps extended line rate bandwidth.
EXTENDED RS-232:	300 to 115200 baud rate.
CONTROL RS-232:	115200 baud rate.
SUPPORTED WEB BROWSERS:	Windows 7 and higher: Internet Explorer (32/64 bit) version 11, Firefox version 30, Chrome version 35; MAC: Chrome version 35, Firefox version 27, Safari version 7; Android OS: Chrome version 35; iOS: Chrome version 35, Safari version 7.
POWER SOURCE:	12V DC, 2A.
POWER CONSUMPTION:	12V DC, 770mA.
ENCLOSURE:	Mega Tools 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.
ENVIRONMENTAL REGULATORY COMPLIANCE:	RoHs and WEEE.
INCLUDED ACCESSORIES:	Power supply.
PRODUCT DIMENSIONS:	18.75cm x 11.50cm x 2.54cm (7.38" x 4.53" x 1.00" ) W, D, H
PRODUCT WEIGHT:	0.5kg (1.0lbs) 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.