



## TP-583R

4K HDR HDMI Receiver with RS-232 & IR  
over Long-Reach HDBaseT

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



TP-583R is a high-performance, long-reach HDBaseT receiver for 4K HDR HDMI, RS-232 and IR signals over twisted pair. TP-583R converts the HDBaseT signal and outputs it to its HDMI and control ports. It enables extending video signals to up to 70m (230ft) over Kramer copper cables at up to 4K@60Hz (4:4:4) video resolutions. It is compatible with standard HDBaseT-compliant extenders at 4K@30Hz and HD video resolutions

## FEATURES

**High Performance Standard Extender** - Professional HDBaseT extender for providing long-reach signals over twisted-pair copper infrastructures. It employs low-level video compression technology that delivers visually lossless performance for 4K@60 (4:4:4) and HDR signals with near-zero latency. This high-quality compressed signal is extended to almost double the extension reach of the uncompressed signal

**Future-proof, Standard Extender** - TP-583R is a standard HDBaseT extender, backwards compatible with other standard HDBT extenders. It extends either compressed or uncompressed HDBaseT signal, by auto-adapting to the compression capabilities of its connected extender. This enables it to be connected to any market-available HDBaseT-compliant extension product

**Intelligent Compression Handling** - Automatically detects a standard HDBaseT extender without compression and disables the compression to extend the signal in compliance with the detected extender

**HDMI Signal Extension** - HDR HDCP 2.2 compliant. 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. EDID and CEC signals are passed through from the source to the display

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

**Multi-channel Audio Extension** - 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 and HDBT ports facilitate easy local maintenance and troubleshooting. Local firmware upgrade via RS-232 connection ensures lasting, field-proven deployment

**Easy Installation** - Compact DigiTOOLS® fan-less enclosure for dropped-ceiling mounting, or side-by-side mounting of 3 units in a 1U rack space with the recommended rack adapter



## TECHNICAL SPECIFICATIONS

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|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inputs                                                | 1 HDBT: On an RJ-45 connector                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Outputs                                               | 1 HDMI: On a female HDMI connector                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Ports                                                 | 1 RS-232: On a 3-pin terminal block connector for serial link extension<br>1 IR: On a 3.5mm mini jack connector                                                                                                                                                                                                                                                                                                                                                     |
| Extension Line                                        | Standard Compression Up to 40m (130ft) at 4K@60Hz (4:4:4) or 4K@60Hz (4:2:0)<br>Up to 70m (230ft) at 4K@30Hz (4:4:4) or full HD (1080p @60Hz 36bpp)<br>High Compression Up to 70m (230ft) at 4K@60Hz (4:4:4), 4K@60Hz (4:2:0), or full HD (1080p @60Hz 36bpp)<br>No Compression Extension Up to 40m (130ft) at 4K@60Hz (4:2:0)<br>Up to 70m (230ft) at full HD (1080p @60Hz 36bpp)<br>Standards Compliance HDBaseT 1.0<br>Note When using recommended Kramer cables |
| Video                                                 | Max Data Rate: Up to 18Gbps (6Gbps per graphic channel)<br>Standard Compression Max Resolution: 4096x2160@60Hz (4:4:4) 24bpp<br>High Compression Max Resolution: 3840x2160@60Hz (4:4:4) 24bpp<br>No Compression Max Resolution 4096x2160@60Hz (4:2:0) 24bpp<br>Compliance: HDCP 2.2, HDR 10<br>HDMI Support 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                       |
| EXTENDED<br>BIDIRECTIONAL RS-<br>232:                 | 300 to 115200 baud rate                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| EXTENDED<br>BIDIRECTIONAL IR:                         | 20kHz to 100kHz frequency                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| User Interface                                        | Indicators: IN, OUT, LINK and ON LEDs<br>Controls: DIP-switches                                                                                                                                                                                                                                                                                                                                                                                                     |
| Power                                                 | Source: 12V DC, 2A<br>Consumption: 680mA                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Environmental<br>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                                                                                                                                                                                                                                                                                                                 |
| Regulatory<br>Compliance<br>(Standards<br>Compliance) | Safety: CE, UL<br><br>Environmental: RoHs, WEEE                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Enclosure                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Size: DigiTOOLS®

Type: Aluminum

Cooling: Convection ventilation

Accessories Included: Power adapter, power cord, bracket set

Product Dimensions 12.00cm x 7.15cm x 2.44cm (4.72" x 2.81" x 0.96" ) W, D, H

Product Weight 0.3kg (0.6lbs) approx

Shipping Dimensions 49.00cm x 18.60cm x 58.80cm (19.29" x 7.32" x 23.15" ) W, D, H

Shipping Weight 0.7kg (1.5lbs) approx

