



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-TPS-TX87

FUNCTIONAL OVERVIEW

HDMI-TPS-TX87 is an HDBaseT™ (TPS) transmitter extender that accepts HDMI/DVI video with embedded digital audio and extends it over a single CATx cable to a compatible TPS receiver, carrying video/audio plus RS-232 and Infrared on the same link. The device supports full HDCP and EDID compliance, standard AV resolutions including 120 Hz 3D signals, and Pixel Accurate Reclocking for stable transmission. It supports remote powering via PoE 48V through the CATx (TPS) connection or operation from a local power supply.

VIDEO INPUT AND OUTPUT

- Video input (HDMI input)
 - Connector type: 19-pole HDMI Type A receptacle
 - Standard: DVI 1.0, HDMI 1.4
 - Supported resolutions at 8 bits/color: up to 4096x2048@30Hz (4:4:4) or 4096x2048@60Hz(4:2:0);upto3840x2160@30Hz(4:4:4)or3840x2160@60Hz(4:2:0)
 - Color space: RGB, YCbCr
 - EDID support: Transparent
 - CEC support: Transparent (only between HDMI-TPS-TX96 and HDMI-TPS-RX96 models)
 - Reclocking: Pixel Accurate Reclocking
 - Equalization: adaptive, automatic
 - 3D support: Yes
- Video output (via TPS output)
 - Connector type: RJ45 female connector
 - Compliance: HDBaseTTM
 - HDCP compliance: HDCP 1.4
 - Transferred signals: Video, Audio, RS-232, Infrared, Ethernet, CEC
 - Video latency: 0 frame
 - Supported resolutions at 8 bits/color: up to 4096x2048@30Hz (4:4:4) or 4096x2048@60Hz(4:2:0);upto3840x2160@30Hz(4:4:4)or3840x2160@60Hz(4:2:0)
 - Color space: RGB, YCbCr

- Power over Ethernet: 12V power sending or receiving
- Data rate: 10GBase-T

AUDIO CAPABILITIES

- Embedded digital audio supported over HDMI/TPS
- Audio formats: all formats in the line with HDMI 1.4 standard

POWERING

- External power adaptor via DC input: 12V DC (supplied adaptor: 12V DC, 2.5A)
- PoE PD via TPS port (IEEE802.3af)

CONTROL

- RS-232 port (3-pole Phoenix®): bidirectional serial data connection and firmware update (programming)
- RS-232 switch: Normal (pass-through) / Prog (pass-through disabled for firmware update)
- Infrared: IR input (3.5 mm Jack, 3-pole, TRS) and IR output (3.5 mm Jack, 2-pole, TS)
- IR mode switch: Emitter (38 kHz modulation on) / Wired (38 kHz modulation off)
- Ethernet extension over TPS: 10/100 Mbps; auto crossover

GENERAL

- Dimensions: 100.4 W x 100.4 D x 26 H (mm)
- Weight: 302 g (0.66 lbs)
- Enclosure material: 1 mm steel
- Mounting options (compatibility)
 - 1U High Rack Shelf (4x)
 - UD Mounting Kit (1x)
 - UD Mounting Kit Double (2x)
 - UD Mounting Plate F110 (1x)
 - UD Mounting Plate F120 (2x)
 - PRC-16-312 rackmount cage (16x)
- LVD compatibility: Electrical safety compliance EN 62368-1:2024

- Supplied accessories
 - 12V DC power adaptor with interchangeable plugs
 - Phoenix combicon 3-pole connector
 - Safety and Warranty Info
 - Quick Start Guide
- Warranty period: 3 years
- Cooling: Passive
- Packaging: product has a full paper / green packaging

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-08-14	Initial version	Tamas Forgacs