



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-TPS-TX86

FUNCTIONAL OVERVIEW

HDMI-TPS-TX86 is an HDBaseT™ (TPS) transmitter that receives digital HDMI/DVI video with embedded digital audio and extends it over a single CATx cable to a compatible TPS receiver. The unit transmits HDMI/DVI audio/video plus pass-through RS-232 and Infrared on the TPS (HDBaseT™) output, with Ethernet and CEC also transferred via TPS. The extender supports HDCP and EDID compliance, Pixel Accurate Reclocking, and can be powered locally from 12V DC or supply/receive 12V remote power via the TPS link (when used with compatible Lightware devices).

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 is received on HDMI input and transferred via TPS (HDBaseT™)
- Audio formats: all formats in the line with HDMI 1.4 standard

POWERING

- Local power supply via 12V DC input (external power adaptor; supplied power adaptor: 12V DC, 2.5A; locking DC connector)
- 12V remote powering via TPS port (power sending or receiving through the TPS RJ45 connection; for compatible Lightware devices)

CONTROL

- RS-232 pass-through via local RS-232 port (3-pole Phoenix® connector); RS-232 switch supports Normal (pass-through) and Prog (firmware update/programming readiness)
- Infrared pass-through via IR input (3.5 mm Jack, 3-pole, TRS) and IR output (3.5 mm Jack, 2-pole, TS); IR output modulation selectable (Emitter 38 kHz ON / Wired 38 kHz OFF)
- Ethernet pass-through over TPS link (transferred via TPS)
- CEC transparency over HDMI/TPS (only between HDMI-TPS-TX86 and HDMI-TPS-RX86 models)

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