



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-TPS-TX226

FUNCTIONAL OVERVIEW

The HDMI-TPS-TX226 is an HDBaseT™-compatible transmitter designed to extend digital video (HDMI 1.4 / DVI 1.0) and audio over a single CATx cable via its TPS interface, while also transporting Ethernet, RS-232, and infrared signals. It supports HDCP-encrypted content, advanced EDID management (factory, dynamic, user, and transparent emulation), and pixel-accurate reclocking for stable transmission. The unit provides a local HDMI output mirroring the TPS output and supports bidirectional control interfaces for system integration.

VIDEO INPUT AND OUTPUT

- HDMI input: 19-pole HDMI Type A receptacle; A/V Standard: DVI 1.0, HDMI 1.4
- HDCP compliance: Yes, 1.4
- Color space: RGB, YCbCr
- Supported resolutions at 8 bits/color: up to 4096x2048@30Hz (4:4:4) or 4096x2048@60Hz (4:2:0); up to 3840x2160@30Hz (4:4:4) or 3840x2160@60Hz (4:2:0); 1920x1080@60Hz (4:4:4) up to 12 bits/color
- Video delay: 0 frame
- Reclocking: Pixel Accurate Reclocking
- 3D support: Yes
- Local HDMI output: 19-pole HDMI Type A receptacle; same AV content as the TPS output
- TPS output: RJ45 connector; Compliance: HDBaseT™; transferred signals: Video, Audio, RS-232, Infrared, Ethernet
- EDID management: EDID emulation yes, advanced EDID management; EDID memory: 120 factory presets, 15 programmable; Supported standard EDID v1.3

AUDIO CAPABILITIES

- Embedded audio over HDMI / TPS: 8 channel PCM, Dolby TrueHD, DTS-HD Master Audio 7.1
- Analog audio input: 3.5 mm TRS (1/8" jack); Audio formats: 2-ch PCM; Sampling frequency: 48 kHz; Signal transmission: Unbalanced signal
- Maximum analog input level: +0 dBu, 0.77 Vrms, 2.19 Vpp
- Analog audio processing ranges: Volume -95.62 – 0 dB; Gain -12 dB – +6 dB

- Audio embedding: analog audio can be embedded into the output video stream

POWERING

- Local powering: 12V DC input via locking DC connector (5.5/2.1mm pin); supplied power adaptor: 12V 1A DC; supported power source: 100-240 V AC; 50/60 Hz
- Remote power feature (not PoE-compatible): can send/receive power to/from compatible Lightware devices: HDMI-TPS-RX96; HDMI-TPS-RX95, DVI-HDCP-TPS-RX95 (with proper jumper setting); MX-TPS-IB, -IB-A, -IB-AS input boards (with HW v11) installed in an MX-FR matrix
- Remote powering notes: TX and RX must be in the same building; maximum recommended cable length is 30 m; CATx cable must not be cut or crimped when connected on either end because it is under voltage
- Ethernet port: does not support PoE

CONTROL

- Ethernet control: locking RJ-45 connector for configuring the device using Lightware Device Controller (LDC) or updating using Lightware Device Updater (LDU); supports multiple simultaneous TCP/IP connections with ASCII-based control
- Control protocols: LW2 and LW3 supported over Ethernet
- RS-232 control: 3-pole Phoenix connector; Baud rates 4800–115200; Data bits 8 or 9; Parity None/Odd/Even; Stop bits 1/1.5/2
- IR control: IR IN and OUT via 3.5 mm jack (TRS); supported carrying frequency: 38 kHz; bidirectional and transparent IR transmission
- Front panel control: Reset button; Show Me button (DHCP enable, factory default restore, firmware update mode access, Event Manager condition launching); Audio Select button (model-dependent)
- Command injection support: IR and RS-232 support command injection for sending control commands directly from the LAN connection
- Event Manager: device can perform predefined actions in response to device status changes
- Advanced Control Pack features (firmware package version dependent):
 - MiniWeb
 - Dark mode
 - Combine links feature

GENERAL

- Enclosure: 1 mm steel
- Dimensions: 221W x 100.4D x 26H mm (8.7 W x 3.95 D x 1.02 H)
- Cooling: Passive
- Operating temperature: 0 to +50 °C (+32 to +122 °F)
- Operating humidity: 10% to 90%, non-condensing
- Compliance: CE, UKCA; Electrical safety: EN 62368-1:2020; RoHS: EN 63000:2018; EMC (emission): EN 55032:2015+A1:2020; EMC (immunity): EN 55035:2017+A11:2020
- Warranty: 3 years
- Mounting options: under-desk mounting options; rack shelf mounting options (1U high rack shelf); device has two mounting holes with inner thread on the bottom side; optional mounting accessories available
- Supplied accessories:
 - transmitter device
 - 12V DC power adaptor
 - Phoenix® Combicon 3-pole connector
 - Phoenix® Combicon 8-pole connector
 - Safety and warranty info
 - Quick Start Guide
- Packaging: product has a full paper / green packaging

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-07-31	Initial version	Tamas Forgacs