



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-TPS-RX110AY-PLUS

FUNCTIONAL OVERVIEW

Compact HDBaseT™ (TPS) receiver with one PoE-capable TPS input and one HDMI output, supporting 4K/UHD, 3D, and HDCP compliance. Extends HDMI/DVI, audio, Ethernet, RS-232 and IR over a single CATx cable from compatible transmitters/matrix boards and is also compatible with third-party HDBaseT™ devices. De-embeds HDMI audio to balanced analog output with volume and balance control. Includes Event Manager and dual relays; the “Plus” variant adds advanced control features including CEC message sending, IR message sending, RS-232 recognizer, and TCP recognizer.

VIDEO INPUT AND OUTPUT

- Input (TPS / HDBaseT™): 1x RJ45 (TPS IN), HDBaseT™ compliant
- Output (HDMI): 1x HDMI Type A receptacle (HDMI OUT), DVI 1.0 / HDMI 1.4
- HDCP compliance: HDCP 1.4 (TPS input and HDMI output)
- Color space: RGB, YCbCr
- Video delay: 0 frame
- Supported resolutions (8 bits/color): up to 4096×2048@30Hz (4:4:4) or 4096×2048@60Hz (4:2:0); up to 3840×2160@30Hz (4:4:4) or 3840×2160@60Hz (4:2:0)
- Supported resolutions (up to 12 bits/color): 1920×1080@60Hz (4:4:4)
- Bandwidth: supports standard VESA/CEA and custom resolutions up to 300 MHz (HDMI 1.4)

AUDIO CAPABILITIES

- Embedded audio transport (TPS and HDMI): supports multichannel formats including 8 channel PCM, Dolby TrueHD, DTS-HD Master Audio 7.1
- Analog audio output: balanced / unbalanced stereo via 5-pole Phoenix connector
- De-embedding support note: de-embedding supports 2-channel PCM only (other formats are not supported for de-embedding)
- Sampling frequency (analog output): 48 kHz
- Volume control (analog output): -57 dB to 0 dB
- Balance control (analog output): 0–100 (50 = center)
- Nominal differential output level (at 0 dB volume): +6.72 dBu (balanced)

POWERING

- Local power: supplied 12V DC power adaptor (12V DC, 2A) via locking DC connector
- Remote power (PoE): via TPS input (IEEE 802.3af) from a compatible PoE source equipment
- Remote power option using injector: TPS-PI-IP1 power injector (TPS+PoE to receiver TPS IN)
- Priority when both connected: if remote and local power are both present, remote power is used
- PoE limitation: device can receive PoE via TPS input; it cannot send PoE to other devices; LAN port does not support PoE

CONTROL

- Ethernet (LAN port): device control via LW2 and LW3 protocols; supports multiple simultaneous TCP/IP connections
- USB: USB 2.0 mini-B for control via Lightware Device Controller (LW3 protocol)
- RS-232: 3-pole Phoenix serial control; supports Pass-through/Control/Command Injection modes
- Infrared (IR): IR IN and IR OUT via 3.5 mm TRS connectors for IR extension
- Relays: two controllable relay outputs (configurable via Lightware Device Controller and LW3)
- Event Manager: configurable Conditions/Actions via Lightware Device Controller; supports automation using device status changes
- (-Plus) CEC message sending: supported (Consumer Electronics Control over HDMI)
- (-Plus) Infra message sending: supported (sending Pronto Hex IR codes via IR output)
- (-Plus) RS-232 recognizer: supported (recognize incoming RS-232 messages to trigger actions)
- (-Plus) TCP recognizer: supported from FW package v1.5.0b3 (incoming TCP message recognition to trigger actions)
- (-Plus) Batch commands / macros / HTTP salvo: supported from FW package v1.5.0b3 (macros stored in device; LW3 command salvo via HTTP POST to / protocol.lw3)
- (-Plus) Basic IT security features: supported from FW package v1.5.0b3 (cleartext login, IP port block, MAC filtering)

GENERAL

- Enclosure: 1 mm steel
- Dimensions: 221 (W) × 100.4 (D) × 26 (H) mm
- Weight: 607 g
- Mounting options: 1U high rack shelf; under-desk double mounting kit (optional accessories)
- Form factor note: half-rack sized
- Compliance: CE, UKCA; RoHS (EN 63000:2018); EMC emission EN 55032:2015+A1:2020; EMC immunity EN 55035:2017+A11:2020
- LVD / electrical safety compatibility: EN 62368-1:2020
- Cooling: passive
- Warranty: 3 years
- Supplied accessories (box contents):
 - 12V DC power adaptor
 - Phoenix® Combicon 3-pole connector
 - Phoenix® Combicon 4-pole connector
 - Phoenix® Combicon 5-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