



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-TPS-RX220AK

FUNCTIONAL OVERVIEW

HDMI-TPS-RX220AK is an HDBaseT™ (TPS) receiver with a 2×2 HDMI video crosspoint, audio de-embedding, and USB KVM (HID) extension support. It receives video, audio, Ethernet, RS-232 and infrared over a single CATx cable via the TPS input, and also provides a local HDMI input. Two HDMI outputs and one analog audio output are provided. The unit supports up to 4K UHD 30 Hz (HDMI 1.4 bandwidth) and can extend signals up to 170 m depending on resolution/cabling.

VIDEO INPUT AND OUTPUT

- TPS input port: RJ45; HDBaseT™ compliant; HDCP 1.4; transferred signals: Video, Audio, RS-232, Infrared, Ethernet
- HDMI input port: 19-pole HDMI Type A receptacle; DVI 1.0, HDMI 1.4; HDCP 1.4; color space: RGB, YCbCr; video delay: 0 frame; 3D support: yes; input cable equalization: +12 dB fixed
- HDMI output ports (2x): 19-pole HDMI Type A receptacle; DVI 1.0, HDMI 1.4; HDCP 1.4; color space: RGB, YCbCr
- 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)
- Maximum extension distances (Auto / Long reach TPS mode), examples:
 - 1920×1080@60Hz: up to 120 m / 170 m (CAT7 AWG23)
 - 3840×2160@30Hz: up to 100 m (CAT7 AWG23)

AUDIO CAPABILITIES

- Digital audio over TPS and HDMI; routed via 2×3 digital audio crosspoint to HDMI out 1, HDMI out 2, and Analog audio out
- Audio de-embedder function: embedded HDMI audio routable to analog audio output
- TPS input audio formats: 8 channel PCM; Dolby TrueHD, DTS-HD Master Audio 7.1
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- HDMI output audio formats: 8 channel PCM, Dolby TrueHD; DTS-HD Master Audio 7.1
- Analog audio output: 3.5 mm TRS (1/8" jack); 2-ch PCM; 48 kHz sampling frequency
- Analog volume range: 0 dB to -57 dB (step 0.375 dB / 1%)
- Analog balance: -100 to 100 (default 0 = center)

POWERING

- Local power: supplied 12V DC power adaptor (12V DC, 2A), locking DC connector (2.1/5.5 mm pin)
- Remote power: PoE via TPS input (IEEE 802.3af)
- TPS input is PoE-compatible and able to receive power
- Ethernet port does not support PoE
- If both remote and local power sources are connected, the remote power will be used

CONTROL

- Ethernet (RJ45) control; supports LW2 and LW3 protocols
- USB mini-B control interface; supports LW3 protocol
- RS-232 (3-pole Phoenix) control; pass-through / control / command injection modes
- Infrared (IR IN / IR OUT) via 3.5 mm connectors; pronto HEX format support
- CEC send/receive via HDMI ports (CEC not available through HDMI-to-DVI adaptation)
- Front panel control: Input Select button, Function button (special functions), Reset button

GENERAL

- Dimensions: 221 W × 100.4 D × 26 H mm (8.7 W × 3.95 D × 1.02 H in)
- Mounting options: 1U high rack shelf; under-desk double mounting kit; device is half-rack sized
- LVD / electrical safety: EN 62368-1:2020, Class II
- Warranty period: 3 years
- Cooling: Passive



- Supplied accessories
 - 12V DC power adaptor with interchangeable plugs
 - Phoenix combicon 3-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	2026-08-14	Initial version	Tamas Forgacs