



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-TPX-TX106-V2

FUNCTIONAL OVERVIEW

The HDMI-TPX-TX106-V2 is an SDVoE-based TPX transmitter for point-to-point extension of an HDMI 2.0 signal over a single CATx (10GBase-T) TPX link to a compatible TPX receiver. It supports 4K60 4:4:4 video with ultra-low latency (five lines / under 8 ms) and HDCP 2.3. The unit provides EDID management (learned/transparent), RS-232 pass-through, and a 1GbE user Ethernet channel via a dedicated Gigabit Ethernet port.

VIDEO INPUT AND OUTPUT

- Video input (HDMI)
 - Connector: 19-pole HDMI Type A receptacle
 - Standards: DVI 1.0, HDMI 1.4, HDMI 2.0
 - Supported resolutions at 8 bits/color: up to 4096×2160@60Hz (4:4:4) or up to 3840×2160@60Hz (4:4:4)
 - Audio formats on HDMI input: 8 channel PCM; Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos; DTS, DTS-HD Master Audio 7.1, WMA Pro
 - CEC support: Transparent
- Video output (TPX / SDVoE)
 - Connector: RJ45 female connector; Data rate: 10GBase-T; Compliance: SDVoE
 - HDCP compliance: HDCP 2.3
 - Transferred signals: Video, Audio, RS-232, Infrared, Ethernet, CEC
 - Color space: RGB, YCbCr
 - Video latency: 0 frame (five lines / under 8 ms)
 - Compression ratio: 1.4 to 1 (compression is applied only if the AV signal exceeds the maximum bandwidth offered by the HDMI 1.4 specification)
 - Supported resolutions at 8 bits/color: up to 4096×2160@60Hz (4:4:4) or up to 3840×2160@60Hz (4:4:4)

AUDIO CAPABILITIES

- Embedded HDMI audio transport over TPX
 - 8 channel PCM; Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos; DTS, DTS-HD Master Audio 7.1, WMA Pro

POWERING

- Local power via 12V DC input locking connector (external power adaptor; supplied power: 12V DC, 2A)
- Remote power over TPX: PoC (Power over Cable / Power over Copper) between compatible TPX-106 series devices

CONTROL

- BlueRiver AV Manager (SDVoE/BlueRiver control software)
- BlueRiver API control
 - TCI API (terminal application connection over TCP/IP)
 - REST API (via SDVoE Control Server)
- Ethernet control port (1GBase-T, full duplex with autodetect; not PoE-capable)
- RS-232 (3-pole Phoenix connector; bi-directional serial communication)
- Front panel EDID button (transparent vs learned EDID; long press learns EDID)
- Factory reset via hidden F button

GENERAL

- Dimensions: 100.4 W × 151.8 D × 26 H mm
- Weight: 476 g (1.05 lbs)
- Mounting options (compatibility)
 - 1U High Rack Shelf: compatible (4×)
 - UD Mounting Kit: compatible
 - UD Mounting Kit Double: compatible (2×)
 - UD Mounting Plate F110: compatible
 - UD Mounting Plate F120: compatible (2×)
 - PRC-16-312 rackmount cage: compatible (16×)

- Compliance / LVD compatibility
 - Compliance: CE, UKCA
 - Electrical safety: EN 62368-1:2024
 - EMC (emission): EN 55032:2015+A1:2020
 - EMC (immunity): EN 55035:2017+A11:2020
 - RoHS: EN 63000:2018
- Supplied accessories)
 - Safety & Warranty Info
 - Quick Start Guide
 - TPX series extender unit
 - 12V DC adaptor with interchangeable plugs
 - Phoenix® Combicon 3-pole connector for analog audio port
- Warranty period: 3 years
- Cooling: Passive
- Packaging: the product has full paper / green packaging

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-07-28	Initial version	Tamas Forgacs