



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: HDMI-TPX-RX109DU2K

FUNCTIONAL OVERVIEW

The HDMI-TPX-RX109DU2K is an SDVoE-based receiver endpoint for extending an HDMI 2.0 source signal from a compatible TPX transmitter over a single CATx (10GBase-T) link. It outputs the received stream as HDMI up to 4K60 4:4:4 with ultra-low latency (five lines / under 8 ms) and supports HDCP 2.3. The unit also provides network and control connectivity and includes Dante®/AES67 audio de-embedding for integrating HDMI audio into a Dante/AES67 audio network.

VIDEO INPUT AND OUTPUT

- Video input (TPX / SDVoE)
 - Connector: RJ45 female (TPX input)
 - Data rate: 10GBase-T
 - Compliance: SDVoE
 - HDCP compliance: HDCP 2.3
 - Color space: RGB, YCbCr
 - Video latency: 0 frame (five lines / under 8 ms)
 - Compression ratio: 1.4 : 1 (applied only if AV signal exceeds HDMI 1.4 bandwidth)
 - Supported resolutions at 8 bits/color: up to 4096x2160@60Hz (4:4:4) or up to 3840x2160@60Hz (4:4:4)
 - Transferred signals: Video, Audio, RS-232, Infrared, Ethernet, CEC
- Video output (HDMI)
 - Connector: 19-pole HDMI Type A receptacle
 - Standard: DVI 1.0, HDMI 1.4, HDMI 2.0
 - Supported resolutions at 8 bits/color: up to 4096x2160@60Hz (4:4:4) or up to 3840x2160@60Hz (4:4:4)
 - CEC support: Transparent

AUDIO CAPABILITIES

- HDMI embedded audio supported on the received stream
 - 8-channel PCM
 - Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos
 - DTS, DTS-HD Master Audio 7.1, WMA Pro
- Dante®/AES67 audio de-embedding output
 - Connector: RJ45 female, 1 port
 - Formats: Dante® or AES67
 - Channels: 2-channel stereo
 - Sampling rates: 44.1, 48, 88.2, 96 kHz
 - Supported audio type: 2-ch LPCM supported
 - Not supported: Multichannel, compressed DTS/Dolby
 - Note: AES67 mode is supported and can be set in Dante® Controller software

POWERING

- Local power via 48V DC input (2-pole Phoenix® connector)
- Remote power over TPX via PoE PD+PSE (IEEE802.3af) (device can receive or send power to the connected remote device)

CONTROL

- Ethernet control interface (1GBase-T, RJ45) for local control functions
- BlueRiver AV Manager (SDVoE Control Server-based configuration and monitoring)
- TCI API control via TCP/IP terminal connection to the endpoint
- REST API control via SDVoE Control Server
- RS-232 via 3-pole Phoenix® connector (bi-directional serial communication)
- USB (Icron USB 2.0) configuration/pairing controllable via SDVoE protocol when Icron control is enabled in SDVoE settings

GENERAL

- Dimensions (Size 1 enclosure): 138 W × 151.8 D × 26 H mm
- Weight: 646 g (1.42 lbs)
- Mounting options (compatibility)
 - 1U High Rack Shelf: compatible (3× Size 1 devices)
 - UD Mounting Plate F120: compatible (1×)
- Compliance / LVD compatibility
 - Electrical safety: EN 62368-1:2024
 - Compliance: CE, UKCA
 - EMC (emission): EN 55032:2015+A1:2020
 - EMC (immunity): EN 55035:2017+A11:2020
 - RoHS: EN 63000:2018
- Supplied accessories (receiver model)
 - Safety & Warranty Info
 - Quick Start Guide
 - TPX series extender unit
 - 48V DC adaptor with interchangeable plugs
 - Phoenix® Combicon connectors (as supplied for applicable ports)
- 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