



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: SW4-TPS-TX240

FUNCTIONAL OVERVIEW

The SW4-TPS-TX240 is an HDBaseT™-compatible transmitter/switcher designed to extend digital video and audio, plus Ethernet, RS-232 and infrared signals, over a single CATx cable via its TPS interface. It supports HDCP-encrypted content and advanced EDID management (factory, dynamic, user, and transparent EDID emulation) to enforce required source formats. The device includes pixel accurate reclocking for stable transmission, a local HDMI output mirroring the TPS output, analog audio embedding capability, and multiple options for source selection including front panel switching and Autoselect.

VIDEO INPUT AND OUTPUT

- Inputs: DisplayPort input (DisplayPort connector for DisplayPort audio/video signal); HDMI input(s) (HDMI connector for DVI video or HDMI video and audio); DVI-D input (DVI-I connector for DVI-D video and audio)
- HDMI input: 19-pole HDMI Type A receptacle; A/V Standard: DVI 1.0, HDMI 1.4
- DisplayPort input: 20-pole, DP 1.1a receptacle; A/V Standard: DisplayPort 1.2a
- DVI-D input: 29-pole DVI-I, digital only; Standard: DVI 1.0, HDMI 1.4
- HDCP compliance: Yes, 1.4
- Color space: RGB, YCbCr
- Video delay: 0 frame
- 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
- Reclocking: Pixel Accurate Reclocking
- 3D support: Yes
- Outputs: TPS output (RJ45, HDBaseT™ signal transmission); local HDMI output with the same AV content as the TPS output
- TPS output port: 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 formats (HDMI/DVI/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 to HDMI outputs and embedded audio can be routed to the analog audio output

POWERING

- Local powering: 12V DC input via locking 12V DC connector; supplied power adaptor: 12V 1A DC; supported power source 100-240 V AC; 50/60 Hz
- Remote powering (PoE): Power over Ethernet (PoE) via TPS output (IEEE802.3af)
- Using PoE with a power injector: connect TPS OUT (PoE) to TPS+PoE port of TPS-PI-1P1 power injector, and connect receiver TPS input to TPS port of TPS-PI-1P1
- Using PoE with matrix/input board: connect TPS OUT (PoE) to PoE-compatible TPS input port of the matrix or input board
- Ethernet port does not support PoE; only TPS port supports PoE
- If both remote and local power sources are connected, the remote power will be used

CONTROL

- Ethernet control: locking RJ-45 connector for configuring using Lightware Device Controller (LDC) or updating using Lightware Device Updater (LDU); third-party control systems can use this port to control the device
- Control protocols: supports LW2 and LW3 protocols over Ethernet
- RS-232: 3-pole Phoenix connector for controlling the device with LDC or third-party control systems, or third-party device control; bi-directional serial port pass-through supported
- IR: IR IN and OUT via 3.5 mm jack; bi-directional and transparent IR transmission; supported carrying frequency is 38 kHz
- Front panel buttons: Video Select button (SW4 models: desired video input can be selected); Audio Select button; Show Me button (DHCP settings, restore factory defaults, firmware update mode, Event Manager condition launching); Reset button
- Autoselect: senses port status on input ports and selects automatically (first detect, last detect, priority detect)

- GPIO: 8-pole Phoenix connector with seven GPIO pins operating at TTL digital signal levels, configurable as input or output
- Event Manager: performs predefined actions in response to device status changes
- Device control over Ethernet / RS-232 / Infrared supported

GENERAL

- Enclosure: 1 mm steel
- Dimensions: 221W x 100.4D x 26H mm (8.7 W x 3.95 D x 1.02 H)
- Weight (SW4 series): 647 g
- 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	2026-08-03	Initial version	Tamas Forgacs