



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: UMX-TPS-TX140

FUNCTIONAL OVERVIEW

UMX-TPS-TX140 is a universal transmitter designed to extend digital and analog video (VGA, DVI, HDMI, DisplayPort) and audio over a single CATx link using a TPS/HDBaseT-compatible output. It supports HDCP-encrypted video, converts analog audio/video to digital, and can de-embed audio from video, enabling multiple A/V transmission combinations. The unit provides advanced EDID management and transports bi-directional IR, RS-232, and Ethernet, including command injection from the LAN. It supports PoE remote powering or local powering.

VIDEO INPUT AND OUTPUT

- HDMI input
 - Connector type: 19-pole HDMI Type A receptacle
 - A/V standard: DVI 1.0, HDMI 1.4
 - HDCP compliance: HDCP 1.4
 - Color space: RGB, YCbCr
 - Video delay: 0 frame
 - Supported resolutions at 8 bits/color: up to 4096x2160@30Hz (4:4:4) or 4096x2160@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
- DisplayPort input
 - Connector type: 20-pole DisplayPort receptacle
 - A/V standard: DP 1.1a
 - HDCP compliance: HDCP 1.4
 - Color space: RGB, YCbCr
 - Video delay: 0 frame
 - Supported resolutions at 8 bits/color: up to 4096x2400@30Hz; up to 2560x1600@60Hz; 1920x1080@120Hz
 - 3D support: yes

- DVI-I input
 - Connector type: 29-pole DVI-I
 - Digital A/V standard: DVI 1.0, HDMI 1.4
 - Digital HDCP compliance: HDCP 1.4
 - Digital color space: RGB, YCbCr
 - Digital video delay: 0 frame
 - Digital supported resolutions at 8 bits/color: up to 4096x2160@30Hz (4:4:4) or 4096x2160@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
 - Analog supported video signal: Analog RGB and YPbPr video
 - Analog max. video resolutions: 1600x1200@60 Hz, 24 bits
- VGA input
 - Connector type: DE-15F (15-pole D-sub Female)
 - Supported video signal: Analog RGB and YPbPr video
 - Max. resolution: Up to 1600x1200@60 Hz
- TPS output
 - Connector type: RJ45 connector
 - Compliance: HDBaseT
 - Power over Ethernet (PoE): yes (IEEE 802.3af)
 - HDCP compliance: HDCP 1.4
 - Transferred signals: Video, Audio, RS-232, Infrared, Ethernet
 - Color space: RGB, YCbCr
 - Video delay: 0 frame
 - Supported resolutions at 8 bits/color: up to 4096x2160@30Hz (4:4:4) or 4096x2160@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
- EDID management
 - EDID emulation: yes, advanced EDID management
 - EDID memory: 120 factory presets, 15 programmable

AUDIO CAPABILITIES

- Audio over TPS output: 8 channel PCM; Dolby TrueHD; DTS-HD Master Audio 7.1
- HDMI input audio formats: 8 channel PCM; Dolby TrueHD; DTS-HD Master Audio 7.1
- DisplayPort input audio formats: 8 channel PCM

- Analog audio input (Jack)
 - Connector type: 3.5 mm TRS (1/8" jack)
 - Audio format: 2-ch PCM
 - Sampling frequency: 48 kHz
 - Signal transmission: unbalanced signal
 - Maximum input level: +0 dBu, 0.77 Vrms, 2.19 Vpp
- Analog audio input (Phoenix)
 - Connector type: 5-pole Phoenix connector
 - Audio format: 2-ch PCM
 - Sampling frequency: 48 kHz
 - Signal transmission: balanced / unbalanced signals
 - Maximum input level: +4 dBu, 1.23 Vrms, 3.47 Vpp
- Audio handling
 - Analog signals (audio) are converted to digital format
 - Audio can be de-embedded from the video

POWERING

- Power over Ethernet (PoE) via TPS output (IEEE 802.3af)
- Local power via supplied power adaptor
 - Supported power source: 100-240 V AC; 50/60 Hz
 - Supplied power: 12V DC, 1 A
 - DC power plug: Locking DC connector (2.1/5.5 mm pin)
- Power supply option: Power adaptor / PoE

CONTROL

- Ethernet
 - Connector type: RJ45 female connector
 - Ethernet data rate: 10/100Base-T, full duplex with autodetect
 - Supports bi-directional Ethernet transmission over TPS
- RS-232 serial port
 - Connector type: 3-pole Phoenix connector
 - Baud rates: between 4800 and 115200 Baud
 - Data bits: 8 or 9
 - Parity: None / Odd / Even

- Stop bits: 1 / 1.5 / 2
- Supports bi-directional and transparent RS-232 transmission and command injection from LAN
- Infrared
 - Input connector type: 3.5 mm TRS (approx. 1/8" jack)
 - Output connector type: 3.5 mm TS (approx. 1/8" jack)
 - Input carrier frequency: 38 kHz
 - Supports bi-directional and transparent IR transmission and command injection from LAN
- GPIO
 - Connector type: 8-pole Phoenix connector
 - Number of configurable pins: 7
 - Port direction: input or output

GENERAL

- Dimensions: 221W x 100.4D x 26H mm (8.7W x 3.95D x 1.02H inch)
- Weight: 629 g
- Mounting options: standalone; rack shelf mounting; under-desk mounting; fixing screws for mounting (4 pcs.)
- LVD compatibility: Electrical safety standard EN 62368-1:2020 (CE, UKCA compliance listed)
- Supplied accessories
 - 12V DC power adaptor with interchangeable plugs
 - Phoenix Combicon 3-pole connector
 - Phoenix Combicon 5-pole connector
 - Phoenix Combicon 8-pole connector
 - Safety and Warranty Info
 - Quick Start Guide
- Warranty period: 3 years
- Cooling: Passive
- Packaging: product has a full paper / green packaging



DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-08-17	Initial version	Tamas Forgacs