

## TPS Input Board with PoE Option



Part No: 9112 0035 (P), 9112 0036 (AP), 9112 0037 (SP)

### Features

- HDMI extension supporting 3D and 4K
- Accepts HDMI + Ethernet + RS-232 over one CAT5/6/7 cable up to 170m distance
- HDMI 1.4; DVI and HDCP compliant
- 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- 10/100 Ethernet transmission
- Supports all HDMI audio formats
- Digital or analog audio add-on option
- Adjustable analog audio settings
- Built-in PoE injector\*

\*HDMI-TPS-TX95 and DVI-HDCP-TPS-TX95 remote powering is supported by these boards:  
MX-TPS-IB, MX-TPS-IB-A, MX-TPS-IB-S

MX-TPS2-IB is an eight channel twisted pair Input Board providing HDMI 1.4, audio, Ethernet and RS-232 extension on a single CAT5/6/7 cable up to a 100m in HDBaseT™ and a 170m distance in Long Reach Mode (maximal resolution is Full HD 1080p in Long Reach Mode). Resolutions up to 4K and 48-bit color depth are handled with all standard audio formats as well as 120Hz 3D signals. The board offers bi-directional RS-232 and Ethernet transmission (each board has a 10/100 uplink connector for the Ethernet network connection) and remote powering option for the TPS extenders available with the PoE add-on.\* The Input Board is available with audio add-ons: digital S/ PDIF or analog stereo connectors are available for advanced audio functions (HDMI embedded audio signals are managed by the board).

The MX-TPS2-IB without the digital or analog audio option also handles HDMI embedded audio. Advanced functions such as HDCP enable/disable mode, Pixel Accurate Reclocking, Advanced EDID Management and Frame Detector are integrated providing professional set-up and operation. The board is compatible with deep color, Dolby TrueHD and DTS-HD audio, and features PCM audio sample rate conversion.



MX-TPS2-IB-P

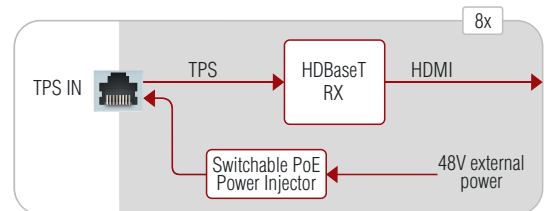


MX-TPS2-IB-AP

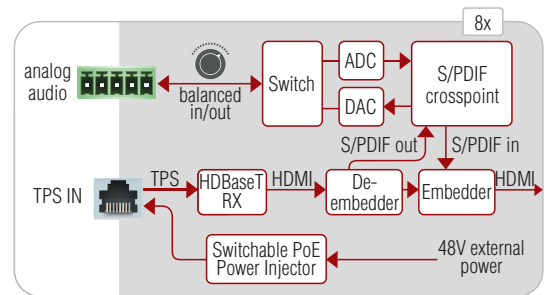


MX-TPS2-IB-SP

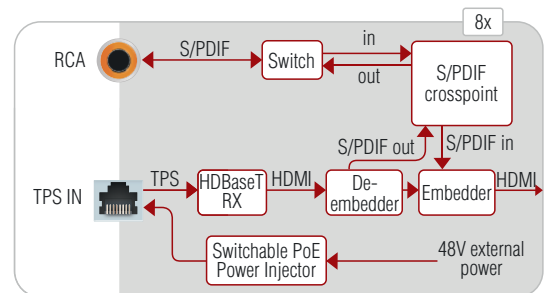
Port Diagrams:



MX-TPS2-IB-P



MX-TPS2-IB-AP



MX-TPS2-IB-SP

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# MX-TPS2-IB-P, -AP, -SP

## MX-TPS2-IB-P

### Additional Features

- PoE compatible
- 48V remote powering
- Remote powering on/off switching
- Status feedback

## MX-TPS2-IB-AP

### Additional Features

- Bi-directional configurable analog stereo port with 5 pole Phoenix connector
- Stereo PCM audio up to 96 kHz can be de-embedded from the HDMI signals
- Digitalized audio (PCM 48 kHz) can be embedded (or replaced) to the HDMI signal
- Volume, gain control
- PoE compatible
- 48V remote powering
- Remote powering on/off switching
- Status feedback

## MX-TPS2-IB-SP

### Additional Features

- S/PDIF breakout for every port
- Bi-directional configurable S/PDIF connectors:
  - audio can be de-embedded from the HDMI signals or
  - audio can be embedded (or replaced) to the HDMI signal
- PoE compatible
- 48V remote powering
- Remote powering on/off switching
- Status feedback

Supplied Accessory:



### PSU-48VP-280 (Part No: 9134 0012)

Power supply for PoE 48V remote powering function.  
Universal input: 100-240 V AC, 50-60 Hz. Output: 48 V DC, 5.84 A.

## Specifications

HDCP compliancy:	Yes
Max resolution:	Up to 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0)
3D signal compatibility:	Frame packing, side-by-side, top-bottom
Input connectors:	RJ45, S/PDIF, Phoenix
Power consumption (3.3 V) -IB-P & -IB-SP:	2,9 A (typ.), 6,7 A (max.)
Power consumption (3.3 V) -IB-AP:	3,3 A (typ.), 7,1 A (max.)
Power consumption (5 V) -IB-P & -IB-SP:	5 A (typ.), 6,9 A (max.)
Power consumption (5 V) -IB-AP:	5 A (typ.), 6,9 A (max.)
Calculated AC Power -IB-P & -IB-SP:	35 W (typ.), 51,6 W (max.)
Calculated AC Power -IB-AP:	36 W (typ.), 53 W (max.)
Heat dissipation -IB-P & -IB-SP:	120 BTU/h (typ.), 176 BTU/h (max.)
Heat dissipation -IB-AP:	123 BTU/h (typ.), 180 BTU/h (max.)
Weight MX-TPS-IB-P:	1025 g
Weight MX-TPS-IB-SP:	1130 g
Weight MX-TPS-IB-AP:	1095 g

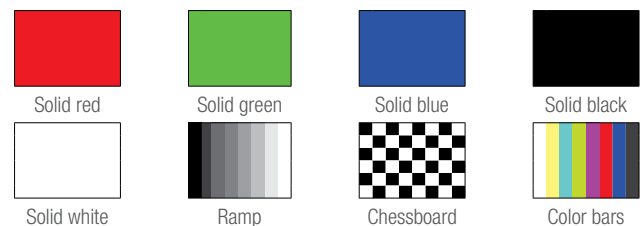
## Analog Audio Inputs

Volume:	-63 .. 0 dB
Gain:	0 .. 24 dB
Balance:	Yes

## Analog Audio Outputs

Volume:	-78 .. 0 dB
Balance:	Yes

Available Video Patterns:



Test pattern generator video formats:  
480p, 576p, 720p, 1080p, 1080p deep color

## Max Cable Lengths Supported by the Available Firmware Versions

Resolution	Pixel Clock Rate	Cable Lengths (Auto / LR Link Mode)		
		CAT5e AWG24	CAT7 AWG26	CAT7 AWG23
1024x768@60Hz	65 MHz	100 m / 130 m*	90 m / 120 m*	120 m / 170 m*
1280x720p@60Hz	73.8 MHz	100 m / 130 m*	90 m / 120 m*	120 m / 170 m*
1920x1080p@60Hz / 24bpp	148.5 MHz	100 m / 130 m*	90 m / 120 m*	120 m / 170 m*
1920x1200@60Hz	152.9 MHz	100 m / NA*	90 m / NA*	120 m / NA*
1600x1200@60Hz	162 MHz	100 m / NA*	90 m / NA*	120 m / NA*
1920x1080@60Hz / 36bpp	223 MHz	70 m / NA*	70 m / NA*	100 m / NA*
3840x2160@30Hz UHD	297 MHz	70 m / NA*	70 m / NA*	100 m / NA*
4096x2160@30Hz 4K	297 MHz	70 m / NA*	70 m / NA*	100 m / NA*

\* with Long reach operation mode which supports pixel clock frequencies up to 148,5 MHz.