

MX-4TPS2-4HDMI-IB, -A, -S, -P, -AP, -SP

TPS and HDMI Input Board for Ethernet, Audio and Control



Part no: 9112 0041, 9112 0042 (A), 9112 0043 (S), 9112 0038 (AP), 9112 0039 (SP), 9112 0040 (P)



MX-4TPS2-4HDMI-IB

MX-4TPS2-4HDMI-IB is a mixed input board with four HDMI and four HDBaseT™ single CAT inputs providing HDMI 1.4, audio, Ethernet and RS-232 extension on a single CAT5/6/7 cable up to 120m in HDBaseT™ and 170m distance in Long reach mode.

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 with or without HDCP
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), 1080p @ 120 Hz, 2560 x 1600, 2048 x 2048,
- 10/100 Ethernet transmission
- Supports all HDMI audio formats
- Pixel Accurate Reclocking
- Advanced EDID Management
- Frame Detector
- Compatible with deep color, Dolby TrueHD and DTS-HD audio

Specification

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:	HDMI, RJ45, S/PDIF, Phoenix
Power consumption (3.3 V) -IB-P & -IB-SP:	2,9A (typ.), 6,7A (max.)
Power consumption (3.3 V) -IB-AP:	3,3A (typ.), 7,1A (max.)
Power consumption (5 V) -IB-P & -IB-SP:	3,6A (typ.), 5A (max.)
Power consumption (5 V) -IB-AP:	3,3A (typ.), 7,1A (max.)
Calculated AC Power -IB-P & -IB-SP:	27,6W (typ.), 47,1W (max.)
Calculated AC Power -IB-AP:	28,9W (typ.), 48,4W (max.)
Heat dissipation -IB-P & -IB-SP:	94,1 BTU/h (typ.), 160,7 BTU/h (max.)
Heat dissipation -IB-AP:	98,6 BTU/h (typ.), 165,3 BTU/h (max.)
Weight without add-ons	1025 g
Volume:	-63 - 0 dB
Gain:	0 - 24 dB
Balance:	Yes
Volume:	-78 - 0 dB
Balance:	Yes

Product Name	Audio Add-on	PoE Add-on
MX-4TPS2-4HDMI-IB	none	none
MX-4TPS2-4HDMI-IB-A	analog	none
MX-4TPS2-4HDMI-IB-S	spdif	none
MX-4TPS2-4HDMI-IB-P	none	yes
MX-4TPS2-4HDMI-IB-AP	analog	yes
MX-4TPS2-4HDMI-IB-SP	spdif	yes

MX-4TPS2-4HDMI-IB, -A, -S, -P, -AP, -SP

With PoE Add-On



MX-4TPS2-4HDMI-IB-P

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

With Analog Audio and PoE Add-On



MX-4TPS2-4HDMI-IB-AP

- Bi-directional configurable analog stereo ports 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) into the HDMI signal
- PoE compatible
- 48V remote powering
- Remote powering on/off switching
- Volume, gain, balance, bass and treble control
- Phase invert and de-emphasis option

Attention: The built-in PoE injector function requires the supplied PSU-48vp external power source to be connected directly to the board!

With Digital Audio and PoE Add-On



MX-4TPS2-4HDMI-IB-SP

- 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) into the HDMI signal
- PoE compatible
- 48V remote powering
- Remote powering on/off switching
- Status feedback
- S/PDIF can be sent over ARC back to the source device

Attention: The built-in PoE injector function requires the supplied PSU-48vp external power source to be connected directly to the board!

MX-4TPS2-4HDMI-IB, -A, -S, -P, -AP, -SP

With Analog Audio Add-On



MX-4TPS2-4HDMI-IB-A

- Bi-directional configurable analog stereo ports 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) into the HDMI signal
- Volume, gain, balance, bass and treble control
- Phase invert and de-emphasis option

With Digital Audio Add-On

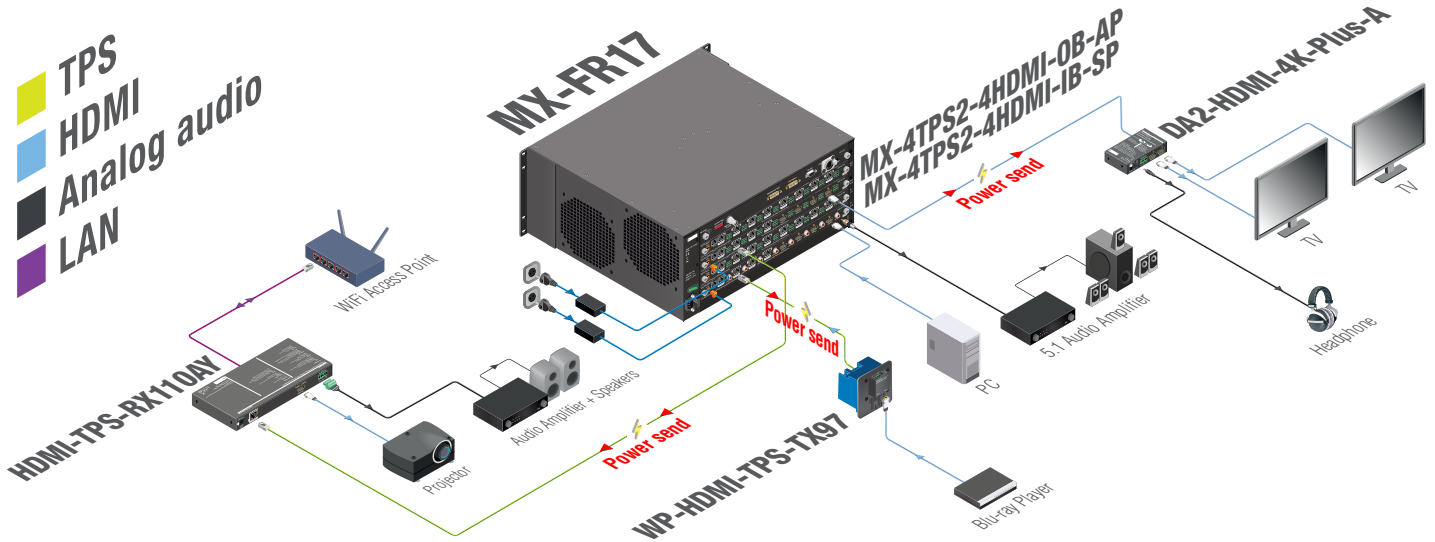


MX-4TPS2-4HDMI-IB-S

- 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) into the HDMI signal
- S/PDIF can be sent over ARC back to the source device

MX-4TPS2-4HDMI-IB, -A, -S, -P, -AP, -SP

Application Diagram



Max Cable Lengths with 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 / 60 bpp	148,5 MHz	100 m / 130 m*	90 m / 120 m*	120 m / 170 m*
1920x1080@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 / 36 bpp	223 MHz	70 m / NA	70 m / NA	100 m / NA
3840x2160@30 Hz 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.

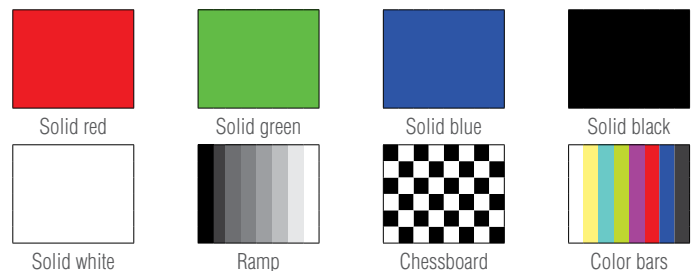
Supplied Accessory for the PoE Function



PSU-48VP2-120

Part No: 9134 0015
Power adaptor with IEC plug.
Power supply for PoE 48V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 48 V DC, 2.5 A

Test Patterns



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