

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

TPS and HDMI Output Board for Ethernet, Audio and Control



Part no: 9113 0046, 9113 0047 (A), 9113 0048 (S), 9113 0050 (AP), 9113 0051 (SP), 9113 0049 (P)



MX-4TPS2-4HDMI-OB

MX-4TPS2-4HDMI-OB 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:	RJ45, S/PDIF, 5 Pole Phoenix
Power consumption (3.3 V)	119 factory preset, 15 user programmable
-OB-P & -OB-SP:	3,4 A (typ.), 7,8 A (max.)
Power consumption (3.3 V) -OB-AP:	3,8 A (typ.), 8,2 A (max.)
Power consumption (5 V)	Yes, configurable
-OB-P & -OB-SP:	2,2 A (typ.), 3,1 A (max.)
Power consumption (5 V) -OB-AP:	2,2 A (typ.), 3,1 A (max.)
Calculated AC Power -OB-P & -OB-SP:	22 W (typ.), 41 W (max.)
Calculated AC Power -OB-AP:	23,5 W (typ.), 42,5 W (max.)
Heat dissipation -OB-P & -OB-SP:	75 BTU/h (typ.), 140 BTU/h (max.)
Heat dissipation -OB-AP:	80 BTU/h (typ.), 145 BTU/h (max.)
Weight without add-ons	1025 g
Volume:	-63 - 0 dB
Gain:	0 - 24 dB
Balance:	Yes

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

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With PoE Add-On



MX-4TPS2-4HDMI-OB-P

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

With Analog Audio and PoE Add-On



MX-4TPS2-4HDMI-OB-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-OB-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

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-OB, -A, -S, -P, -AP, -SP

With Analog Audio Add-On



MX-4TPS2-4HDMI-OB-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

With Digital Audio Add-On

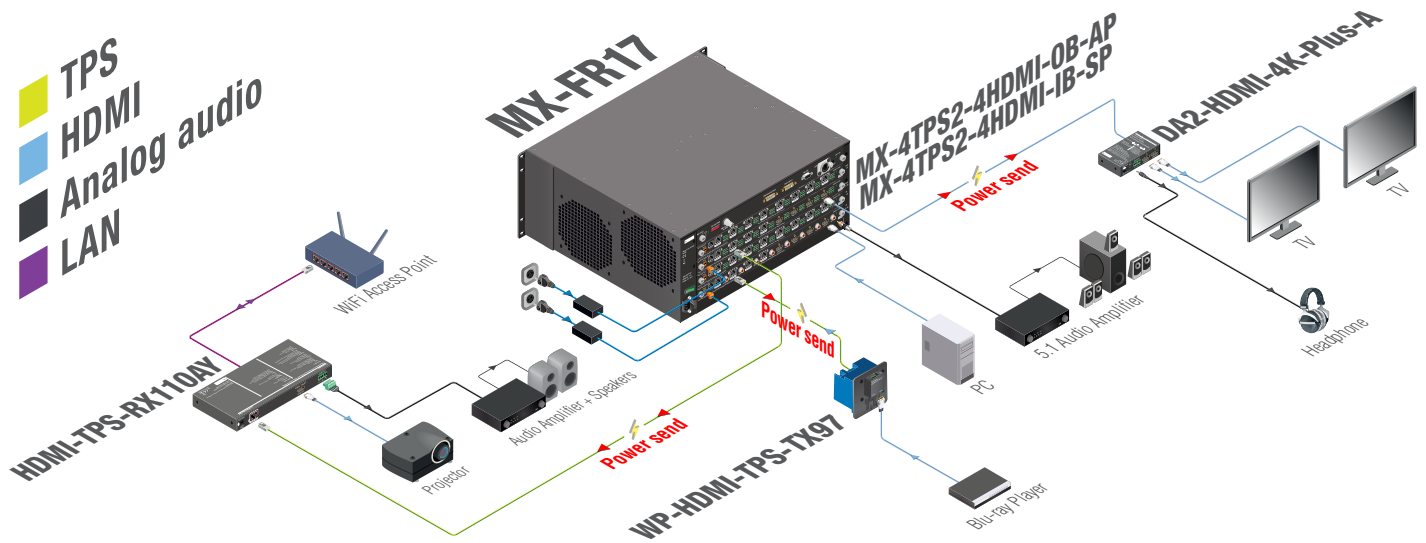


MX-4TPS2-4HDMI-OB-S

- 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

MX-4TPS2-4HDMI-OB, -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.

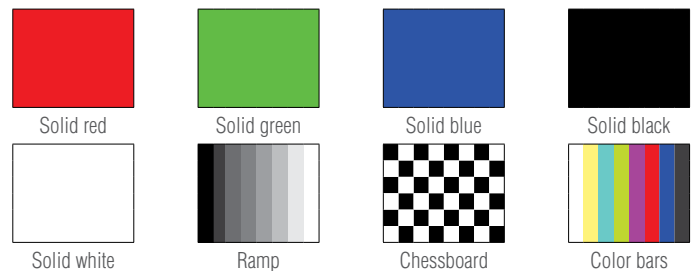
Supplied Accessory for the PoE Function



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