HYBRID MODULAR MATRICES

The Standard for Variable Matrix Routers

MX SERIES

MX- Frames

- MX-FR9 ..... 9x9 digital crosspoint router frame with built-in control panel and CPU2
- MX-FR17 ..... 17x17 digital crosspoint router frame with built-in control panel and CPU2
- MX-FR33L ..... 33x33 digital crosspoint router frame with built-in control panel and CPU2
- MX-FR33R ..... 33x33 digital crosspoint router frame with redundant power supplies, built-in control panel and CPU2
- MX-FR65R ..... 65x65 digital crosspoint router frame with redundant power supplies, built-in control panel and CPU2
- MX-FR80R ..... 80x80 digital crosspoint router frame with redundant power supplies, built-in control panel and CPU2
- MX-CPU2 ..... Processor board for modular matrix frames

Input Boards

- MX-DVID-IB ..... DVI-D Single-Link input board with DVI-I connectors
- MX-DVIDL-IB ..... Dual-Link DVI digital only input board with DVI-I connectors
- MX-DVI-HDCP-IB ..... DVI, HDCP and HDMI compliant input board
- MX-DVII-HDCP-IB ..... DVI-I input board supporting VGA, YUV, DVI and HDMI with HDCP signals
- MX-HDMI-3D-IB ..... HDMI input board including 4K, 3D and Deep Color
- MX-HDMI-3D-IB-A ..... HDMI input board including 4K, 3D and Deep Color, with Phoenix connectors
- MX-HDMI-3D-IB-S ..... HDMI input board including 4K, 3D and Deep Color, with S/PDIF connectors
- MX-4TPS2-4HDMI-IB ..... TPS-HDMI input board
- MX-4TPS2-4HDMI-IB-A ..... TPS-HDMI input board with analog audio
- MX-4TPS2-4HDMI-IB-S ..... TPS-HDMI input board with digital audio
- MX-4TPS2-4HDMI-IB-P ..... TPS-HDMI input board with PoE
- MX-4TPS2-4HDMI-IB-AP ..... TPS-HDMI input board with PoE and analog audio
- MX-4TPS2-4HDMI-IB-SP ..... TPS-HDMI input board with PoE and digital audio
- MX-3GSDI-IB ..... 3G-SDI input board supporting SDI embedded, S/PDIF and AES/EBU audio
- MX-TPS-IB ..... TPS input board
- MX-TPS-IB-A ..... TPS input board with analog audio
- MX-TPS-IB-S ..... TPS input board with digital audio
- MX-TPS2-IB-P ..... TPS input board for HDMI, Ethernet, audio and control, with optional PoE
- MX-TPS2-IB-AP ..... TPS input board for HDMI, Ethernet, audio and control, with optional PoE and analog audio
- MX-TPS2-IB-SP ..... TPS input board for HDMI, Ethernet, audio and control, with optional PoE and digital audio
- MX-DVI-TP-IB ..... Twisted pair input board for DVI over CAT5-CAT7 cables
- MX-DVI-TP-IB+ ..... Twisted pair input board for DVI over CAT5-CAT7 cables
- MX-HDMI-TP-IB ..... Twisted pair HDMI input board for CAT5-CAT7 cables
- MXD-HDMI-TP-IB ..... Double slot twisted pair HDMI input board with control
- MX-DVI-OPT-IB-LC ..... Fiber optical input board for Single-Link DVI-D signal extension, with LC connectors
- MX-DVI-OPT-IB-NT ..... Fiber optical input board for Single-Link DVI-D signal extension, with Neutrik OpticalCON connectors
- MX-DVI-OPT-IB-SC ..... Fiber optical input board for Single-Link DVI-D signal extension, with SC connectors
- MX-DVI-OPT-IB-ST ..... Fiber optical input board for Single-Link DVI-D signal extension, with ST connectors
- MX-DVIDL-OPT-IB-LC ..... Dual-Link DVI fiber optical input board, with LC connectors
- MX-DVIDL-OPT-IB-NT ..... Dual-Link DVI fiber optical input board, with Neutrik OpticalCON connectors
- MX-HDMI-OPT-IB-LC ..... HDMI and HDCP compliant fiber optical input board including 4K, 3D, with LC connectors
- MX-HDMI-OPT-IB-NT ..... HDMI and HDCP compliant fiber optical input board including 4K, 3D, with Neutrik OpticalCON connectors
- MX-HDMI-OPT-IB-SC ..... HDMI and HDCP compliant fiber optical input board including 4K, 3D, with SC connectors

Output Boards

- MX-AUDIO-OB ..... Analog audio output board
- MX-DVID-OB ..... DVI-D Single-Link output board with DVI-I connectors
- MX-DVIDL-OB ..... Dual-Link DVI digital only output board with DVI-I connectors
- MX-DVI-HDCP-OB ..... DVI, HDCP and HDMI compliant output board
- MX-HDMI-3D-OB ..... HDMI output board including 4K, 3D and Deep Color
- MX-HDMI-3D-OB-A ..... HDMI output board including 4K, 3D and Deep Color, with Phoenix connectors
- MX-HDMI-3D-OB-S ..... HDMI output board including 4K, 3D and Deep Color, with S/PDIF connectors
- MX-TPS-OB ..... TPS output board for HDMI, Ethernet, audio and control
- MX-TPS-OB-A ..... TPS output board for HDMI, Ethernet, audio and control with analog audio
- MX-TPS-OB-S ..... TPS output board for HDMI, Ethernet, audio and control with digital audio
- MX-TPS2-OB-P, -AP, -SP ..... TPS output board with PoE option
- MX-4TPS2-4HDMI-OB ..... TPS and HDMI Output board for Ethernet, audio and Control
- MX-DVI-TP-OB ..... Twisted pair output board for DVI over CAT5-CAT7 cables
- MX-DVI-TP-OB+ ..... Twisted pair output board for DVI over CAT5-CAT7 cables
- MX-HDMI-TP-OB ..... Twisted pair HDMI output board for CAT5-CAT7 cables
- MXD-HDMI-TP-OB ..... Double slot twisted pair HDMI output board with control and audio
- MX-DVI-OPT-OB-LC ..... Fiber optical output board for extending DVI-D signals, with LC connectors
- MX-DVI-OPT-OB-SC ..... Fiber optical output board for extending DVI-D signals, with SC connectors
- MX-DVI-OPT-OB-ST ..... Fiber optical output board for extending DVI-D signals, with ST connectors
- MX-DVI-OPT-OB-R-LC ..... Fiber optical output board with Pixel Accurate Reclocking, with LC connectors
- MX-DVI-OPT-OB-R-NT ..... Fiber optical output board with Pixel Accurate Reclocking, with Neutrik OpticalCON connectors
- MX-DVI-OPT-OB-R-SC ..... Fiber optical output board with Pixel Accurate Reclocking, with SC connectors
- MX-DVI-OPT-OB-R-ST ..... Fiber optical output board with Pixel Accurate Reclocking, with ST connectors
- MX-DVIDL-OPT-OB-LC ..... Dual-Link DVI fiber optical output board, with LC connectors
- MX-DVIDL-OPT-OB-NT ..... Dual-Link DVI fiber optical output board, with Neutrik OpticalCON connectors
- MX-HDMI-OPT-OB-LC ..... HDMI and HDCP compliant fiber optical output board, with LC connectors
- MX-HDMI-OPT-OB-NT ..... HDMI and HDCP compliant fiber optical output board, with Neutrik OpticalCON connectors
- MX-HDMI-OPT-OB-SC ..... HDMI and HDCP compliant fiber optical output board, with SC connectors
- MX-HDMI-OPT-OB-R-LC ..... HDMI optical output board with Pixel Accurate Reclocking including 4K, 3D and Deep Color with LC connectors
- MX-HDMI-OPT-OB-R-NT ..... HDMI optical output board with Pixel Accurate Reclocking including 4K, 3D and Deep Color with NT connectors

Matrix Switcher Frames

The MX series matrix routers are the highest performance, modular expandable DVI and HDMI compliant switchers, available in five different frame sizes.
The built-in sophisticated software and hardware features make these routers the most flexible integrated solution for AV professionals and high-end home theatre applications.

Tel: +36 1 255 3800

Non-Blocking Topology:

Any input can be tied to any one or more outputs without limitations. One source can be viewed on multiple destinations at the same time. Crosspoint switching is done instantly without frame delay or frame latency. Different frame sizes are available from 9x9 up to 80x80 allowing the building of custom I/O sized matrices.

Hybrid Modular Architecture:

Lightware's Hybrid Modular matrix switchers have various input and output interface boards, which can be mixed in the same frame without limitation. The hybrid architecture allows for routing signals between the boards even if they have different type of interfaces (DVI, HDMI, fiber optical, or CATx twisted pair). A wide range of compatible extender devices is available for all interface boards.

Cross-Platform Signal Routing:

DVI, HDMI, analog VGA, SDI, HD-SDI, 3G-SDI, S/PDIF and analog stereo audio signals are handled in the same frame without routing limitations.

MX Series Frame Features:

- Equipped with MX-CPU2 processor board
- Additional I/O ports accessible on MX-CPU2 processor board
- Dual-Link DVI compatible (one Dual-Link port uses two Single-Link ports)
- Compatible with all MX- and MXD- I/O boards
- Provide Ethernet and RS-232 extension to the endpoints
- Frame Detector for input signal analysis on any port
- Multiple TCP/IP connection
- Non-blocking topology
- Advanced error handling and logging with time code
- Combine non-HDCP and HDCP capable I/O boards in the same frame
- Advanced EDID Management
- Intuitive control software
- HDCP compliant
- Simultaneous control over several interfaces
- Optional redundant power supplies
- Hybrid Modular and Cross Platform technology
- Full crosspoint configuration save and reload as preset (32 presets)

Control Options:

- Front panel buttons and 4 line LCD menu
- RS-232
- TCP/IP Ethernet (multiple connections)
- Built-in website (multiple access)
- Front panel USB
- Christie (ex-Vista) Spyder and Barco Encore compatible

Processor Board

MX-CPU2

Part No: 9111 0008

MX-CPU2 contains an additional input and output port that fully support DVI and 3D HDMI signals with or without HDCP encryption. The test input and preview output ports turn an existing 16x16 matrix to a 17x17, an existing 32x32 to a 33x33.

MX-CPU2

Remote Control Panels (RCP)

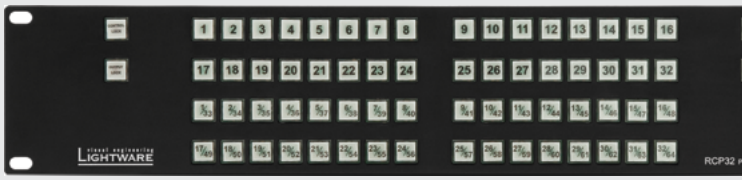
MX-RCP16 and MX-RCP32

Part No: 9111 0009 (RCP16), 9111 0010 (RCP32)

Features:

- Remote access to matrix switchers
- Setup and programming through Ethernet connection
- 10/100 Ethernet connection
- Programmable Preset and Salvo functions
- 16+16 and 32+32 button versions
- XY control possibility

Lightware MX-RCP16 and MX-RCP32 are remote control panels for controlling Lightware matrix routers remotely through LAN connection. The RCPs can be used just like the front panel buttons on matrix routers to make crosspoint changes, or they can be programmed for special functions like salvo mode or universal device control.



MX-RCP32 Front View

MX-RCP32 Rear View

visual engineering
LIGHTWARE

Available MX Frames Sizes and Specifications:

	MX-FR80R	MX-FR65R	MX-FR33R	MX-FR33L	MX-FR17	MX-FR17R	MX-FR9	MX-FR9R
Equipped with MX-CPU2 processor board	✓	✓	✓	✓	✓	✓	✓	✓
I/O board slots	10 in, 10 out	8 in, 8 out	4 in, 4 out	4 in, 4 out	2 in, 2 out	2 in, 2 out	1 in, 1 out	1 in, 1 out
Additional I/O ports accessible on MX-CPU2	✓	✓	✓	✓	✓	✓	✓	✓
Custom I/O sizes (Crosspoint size)	from 9x9 to 80x80	from 9x9 to 65x65	from 9x9 to 33x33	from 9x9 to 33x33	from 9x9 to 17x17	from 9x9 to 17x17	9x9	9x9
Dual-Link DVI compatible (Dual-Link crosspoint size)	from 4x4 to 40x40	from 4x4 to 32x32	from 4x4 to 16x16	from 4x4 to 16x16	from 4x4 to 8x8	from 4x4 to 8x8	4x4	4x4
Rack height	15U	15U	7U	6U	4U	4U	4U	4U
Redundant high reliability power supplies	✓	✓	✓	×	×	✓	×	✓
Number of power supplies	3	2	2	1	1	2	1	2
Power supply hot swappable	✓	✓	✓	×	×	×	×	×
Power consumption [1]	114 W	114 W	27 W	26 W	19 W	19 W	19 W	19 W
Heat dissipation (BTU) [1]	389	389	92	89	65	65	65	65
Cooling (forced convection) 120 mm fans	10	10	4	2	2	2	2	2
Dimensions with rack mounting ears:	482 W x 665 H x 392 D mm	482 W x 665 H x 392 D mm	482 W x 309,5 H x 400 D mm	482 W x 265,5 H x 300 D mm	482 W x 176,5 H x 300 D mm	482 W x 176,5 H x 300 D mm	482 W x 176,5 H x 300 D mm	482 W x 176,5 H x 300 D mm
Dimensions without rack mounting ears:	440 W x 665 H x 392 D mm	440 W x 665 H x 392 D mm	440 W x 309,5 H x 400 D mm	440 W x 265,5 H x 300 D mm	440 W x 176,5 H x 300 D mm	440 W x 176,5 H x 300 D mm	440 W x 176,5 H x 300 D mm	440 W x 176,5 H x 300 D mm
Net weight [2]	26,7 kg	25,4 kg	14 kg	13,29 kg	12,09 kg	11,4 kg	9,8 kg	11,68 kg

[1] with CPU2 board and without I/O boards

[2] with CPU2 board, power supplies and without I/O boards

Specifications for All Frames:

Video data rate:	12.8 Gbps
EDID memory:	100 factory preset and 50 user programmable
EDID emulation:	256-Byte Extended EDID v1.3
Front panel buttons:	Yes
Front panel LCD:	Yes, 4 x 20 characters
RS-232:	Selectable (9600, 38400, 57600, 115200) Baud RX, TX (default: 57600)
LAN:	Ethernet 10Base-T or 100Base-TX (Auto-sensing)
WEB:	Built-in website
Temperature:	0°C to +50°C operational, -40°C to +70°C storage
Humidity::	10 to 90% non-condensing
Altitude:	2000 m operational
EMI/EMC compliance:	Yes, EN 55022 Class B
RoHS compliance:	Yes
Warranty:	3 years

Available Models, Rear Views

MX-FR80R, MX-FR65R

MX-FR33R

MX-FR33L

MX-FR17

MX-FR9

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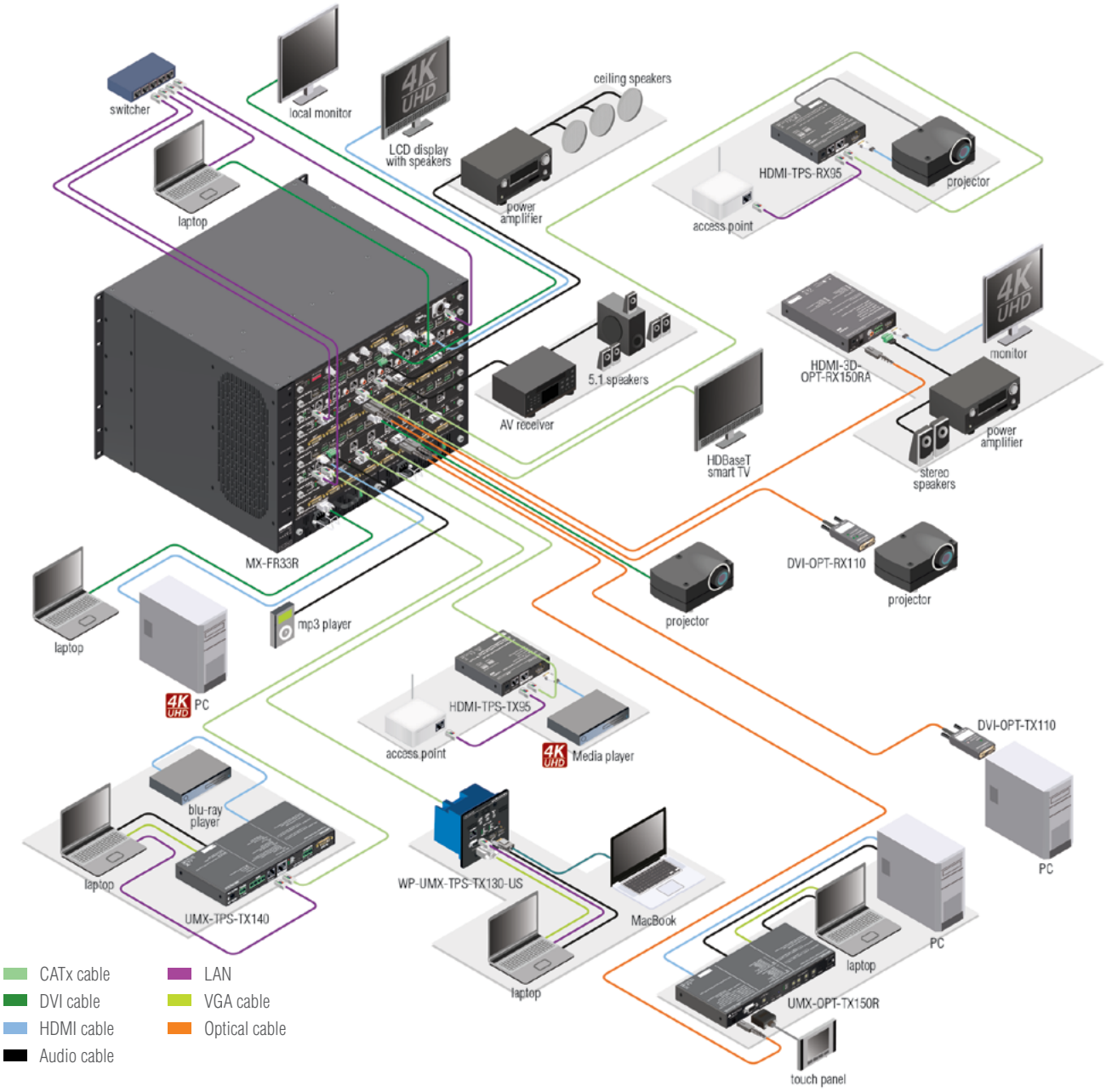
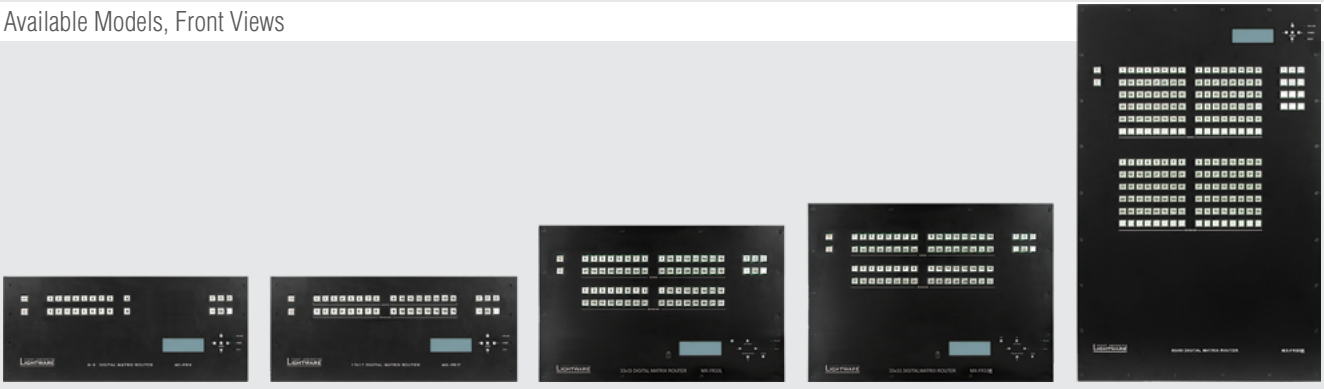
Limitless Variations:



Available Models, Front Views



MX-FR9 | MX-FR17 | MX-FR33L | MX-FR33R | MX-FR80R, MX-FR65R

Single-Link DVI Input Board

MX-DVID-IB

Part no: 9112 0001

MX-DVID-IB

The MX-DVID-IB Input Board has eight input channels accepting digital-only DVI signals.

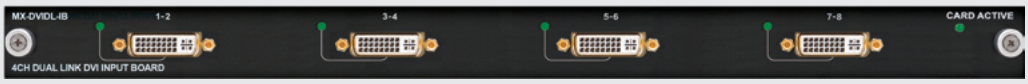
Features:

- 8 DVI-D input ports
- Adaptive and manual equalization for up to 60 m DVI cable
- Advanced EDID Management
- Compatible with HDCP and non-HDCP sources
- Supports resolutions from 640 x 480 to 1920 x 1200 or 2048 x 1080 with interlaced or progressive scan

Dual-Link DVI Input Board

MX-DVIDL-IB

Part no: 9112 0005



MX-DVIDL-IB

MX-DVIDL-IB is a four-channel Dual-Link DVI Input Board.

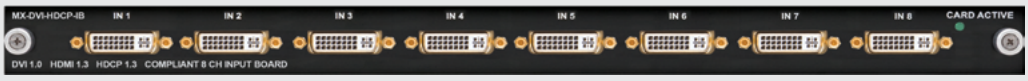
Features:

- 4 gold plated DVI connectors
- Pro series Dual-Link DVI input board
- 60 m copper cable equalization - adaptive or manual mode
- Advanced EDID Management
- Designed for high video resolutions of 2560 x 1600 or 4096 x 2400 as well as 100 or 120 Hz 3D signals

DVI, HDCP and HDMI Compliant Input Board

MX-DVI-HDCP-IB

Part no: 9112 0002



MX-DVI-HDCP-IB

MX-DVI-HDCP-IB is an eight channel Input Board with DVI connectors which can receive digital DVI and HDMI 1.3 signals with or without HDCP encryption.

Features:

- 8 DVI input ports
- HDMI 1.3; DVI and HDCP compliant with or without HDCP encryption
- 60 m copper cable compensation on all input - adaptive or manual
- Advanced EDID Management
- Supports all HDMI audio formats: Dolby TrueHD and DTS-HD Master Audio
- Pixel Accurate Reclocking
- 36-bit deep color support
- 3D signal compatibility with frame packing, side-by-side and top-bottom formats

Analog and Digital DVI-I Input Board

MX-DVII-HDCP-IB

Part no: 9112 0003

MX-DVII-HDCP-IB is an all-around Input Board which was designed to handle analog VGA, YUV, digital DVI and HDMI 1.3 video signals with HDCP compliancy.

Features:

- DVI-I (analog+digital) input board
- Digitizes VGA, YUV analog input formats and converts to HDMI or DVI
- 10-bit HD and SD; interlaced and progressive A/D conversion
- Accepts DVI and HDMI 1.3 digital signals with embedded audio
- HDCP compliant
- Autodetects input signal
- Deep color support
- Picture adjustments per input port, contrast, black level, color etc.
- Pixel Accurate Reclocking
- Advanced digital and analog EDID Management
- Adaptive DVI and HDMI cable equalization for up to 20 meters

3G-SDI Input Board

MX-3GSDI-IB

Part no: 9112 0010

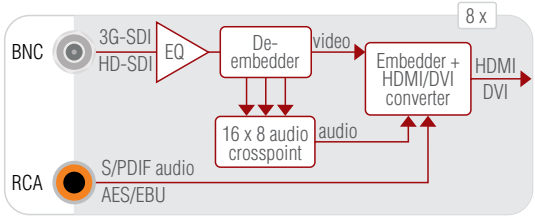
MX-3GSDI-IB

The MX-3GSDI-IB input board allows 3G-SDI sources to be connected, routed and extended, brings your 3G-SDI sources to an HDMI, DVI routing system.

Features:

- 8 BNC and 8 RCA connectors
- Built-in 8 x SDI to HDMI converter
- Converts SDI, HD-SDI and 3G-SDI to DVI or HDMI
- SDI multichannel audio de-embedding
- Embeds multichannel SDI or external S/PDIF digital audio into the HDMI signal
- Auto-detects input formats
- Input cable equalization
- PLL Reclocking
- Supporting stereo PCM and 5.1 AC3 encoded formats

Port Diagram:



4K, 3D and Deep Color HDMI Input Board

MX-HDMI-3D-IB, -A, -S

Part no: 9112 0007, 9112 0008 (A), 9112 0009 (S)

MX-HDMI-3D-IB provides eight channel HDMI 1.4 extension with 4K resolution, 3D formats and local audio support.

Features:

- 8 HDMI input ports
- HDMI 1.4a; DVI and HDCP compliant
- For advanced audio optional 8 S/PDIF (S) or 8 stereo audio (A) connectors
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), 1080p @ 120 Hz, 2560 x 1600, 2048 x 2048, HDCP enable/disable mode, HD video resolutions and all 3D formats are supported
- Advanced EDID Management and Frame Detector
- Pixel Accurate Reclocking
- Dolby TrueHD and DTS-HD Master Audio
- 36-bit deep color support

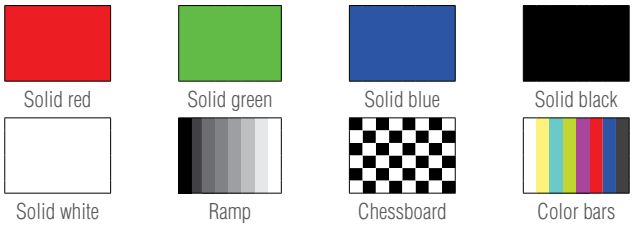
With Digital S/PDIF Audio Add-On: MX-HDMI-3D-IB-S

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

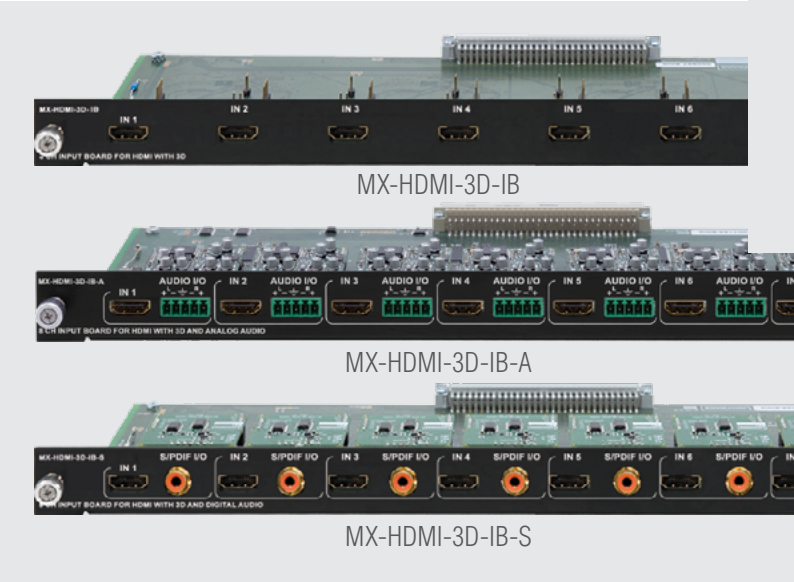
With Analog Stereo Audio Add-On: MX-HDMI-3D-IB-A

- 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, balance, bass and treble control
- Phase invert and de-emphasis option

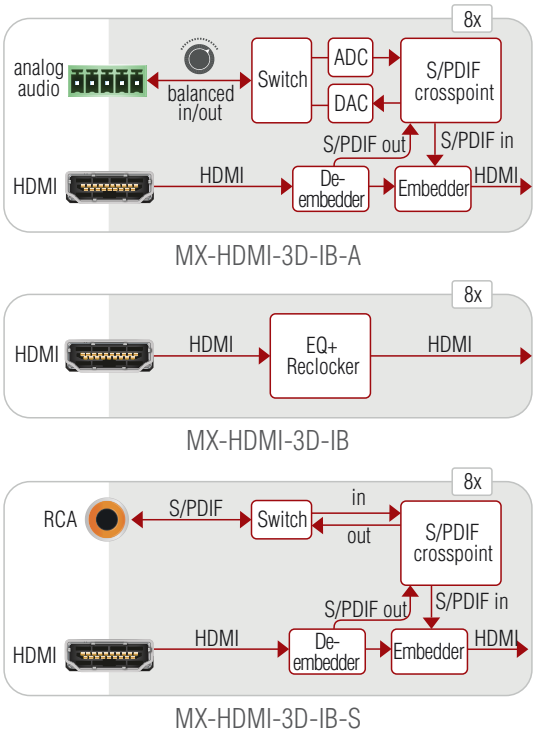
Available Video Patterns:



Test Pattern Generator Video Formats:
480p, 576p, 720p, 1080p, 1080p deep color



Port Diagrams:



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TPS and HDMI Input Board for Ethernet, Audio and Control new!

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

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

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

With PoE Add-On

MMX-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!

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

TPS Input Board for HDMI, Ethernet, Audio and Control

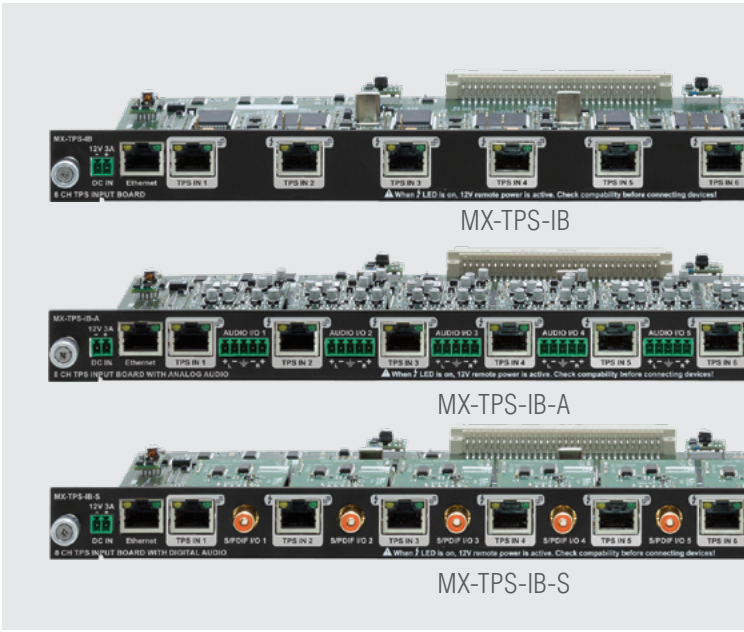
MX-TPS-IB, -A, -S

Part no: 9112 0027, 9112 0028 (A), 9112 0029 (S)

MX-TPS-IB Input Board is a long distance single CAT HDBaseT™ solution with.

Features:

- 8 channel twisted pair input board
- 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 with or without HDCP
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), UHD, 2560 x 1600, HD video resolutions and all 3D formats are supported
- 10/100 Ethernet transmission
- Supports all HDMI audio formats
- Compatible with deep color, Dolby TrueHD and DTS-HD audio
- Features PCM audio sample rate conversion
- Pixel Accurate Reclocking, Advanced EDID Management and Frame Detector



With Digital S/PDIF Audio Add-On:

MX-TPS-IB-S

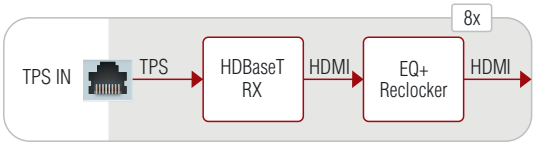
- S/PDIF breakout for every port
- Bi-directional configurable S/PDIF connectors:
  audio can be de-embedded from the HDMI signals or
  audio can be embedded (or replaced) to the HDMI signal

With Analog Stereo Audio Add-On:

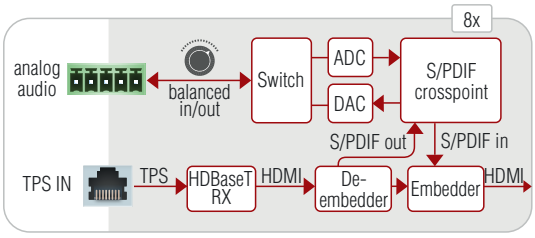
MX-TPS-IB-A

- 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, balance, bass and treble control
- Phase invert and de-emphasis option

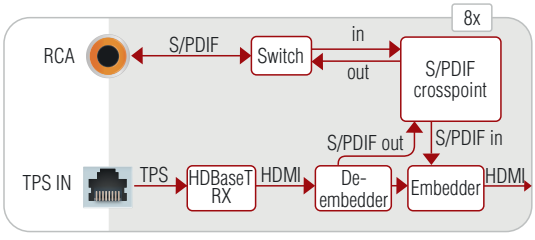
Port Diagrams:



MX-TPS-IB

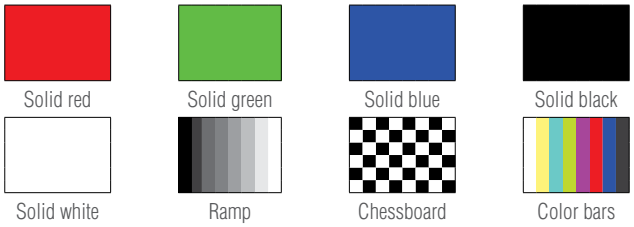


MX-TPS-IB-A



MX-TPS-IB-S

Available Video Patterns:



Test Pattern Generator Video Formats:
480p, 576p, 720p, 1080p, 1080p deep color

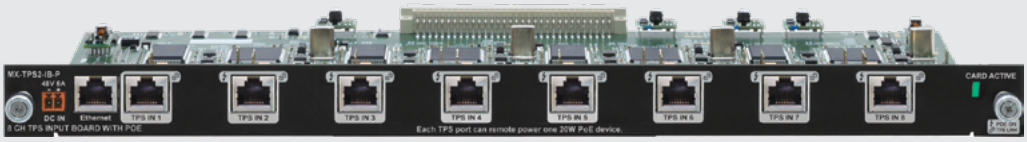
Supplied Accessory Required for the PoE Function

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for 12V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

TPS Input Board with PoE new!

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

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



MX-TPS2-IB-P

MX-TPS2-IB-AP

MX-TPS2-IB-SP

MX-TPS2-IB is an eight channel HDMI and single CAT HDBaseT™ 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.

Features:

- HDMI extension supporting 3D and 4K
- Accepts HDMI + Ethernet + RS-232 over one CAT5/6/7 cable to up to 170m distance
- HDMI 1.4; DVI with or without HDCP
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), 2560 x 1600, HD video resolutions and all 3D formats are supported
- 10/100 Ethernet transmission
- Supports all HDMI audio formats
- Digital or analog audio add-on option
- Adjustable analog audio settings
- Integrated PoE power injection option for TPS extenders
- Pixel Accurate Reclocking, Advanced EDID Management and Frame Detector
- Compatible with deep color, Dolby TrueHD and DTS-HD audio
- Features PCM audio sample rate conversion

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

With Analog Audio Add-On

MX-TPS2-IB-AP

- 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

With Digital Audio Add-On

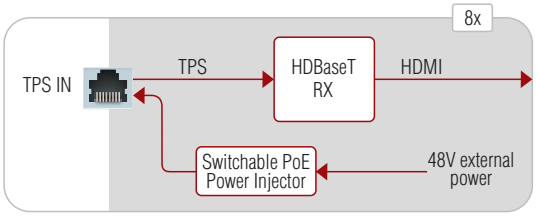
MX-TPS2-IB-SP

- 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) to the HDMI signal
- PoE compatible
- 48V remote powering
- Remote powering on/off switching
- Status feedback

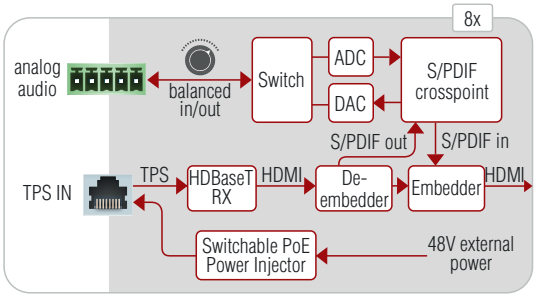
Supplied Accessory Required for the PoE Function

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.

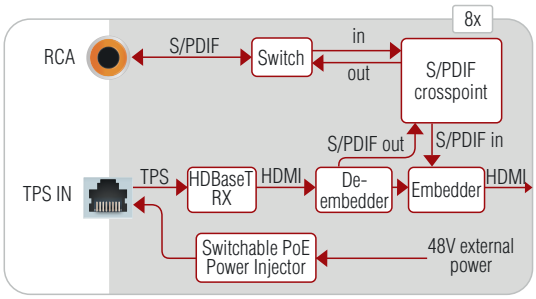
Port Diagrams:



MX-TPS2-IB-P



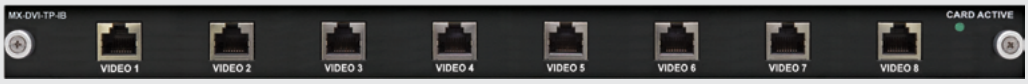
MX-TPS2-IB-AP



MX-TPS2-IB-SP

Twisted Pair Single-Link DVI Input Board

MX-DVI-TP-IB
Part no: 9112 0011



MX-DVI-TP-IB

Features:

- 8 channel twisted pair input board
- Accepts DVI signals over CAT5, CAT6 or CAT7 cables
- Input cable equalization: adaptive or manual

Compatible Products:

- Transmitters:
  DVI-TP-TX200
  DVI-TP-TX300
  DVI-HDCP-TP-TX100R

Twisted Pair Single-Link DVI Input Board

MX-DVI-TP-IB+

Part no: 9112 0012

MX-DVI-TP-IB+

Features:

- 8 channel dual twisted pair Input Board
- Accepts DVI signals over CAT5, CAT6 or CAT7 cables
- Optional extender remote powering over second CATx cable
- Advanced EDID Management over a second CATx cable
- Input cable equalization: adaptive or manual
- 12V remote powering of compatible devices

Attention: The built-in remote powering injector function requires the supplied PSU-12vp external power source to be connected directly to the board!

Compatible Products:

- Transmitters:
  DVI-TP-TX200
  DVI-TP-TX300
  DVI-HDCP-TP-TX50
  DVI-HDCP-TP-TX100R

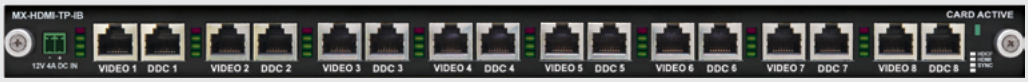
Supplied Accessory Required for Remote Powering:

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for 12V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

Twisted Pair HDMI Input Board

MX-HDMI-TP-IB

Part no: 9112 0013



MX-HDMI-TP-IB

Features:

- Built-in CAT7 to HDMI converters
- Accepts HDMI 1.3 and DVI signals over CAT5, CAT6 or CAT7 cables
- HDCP compliant
- Supports all HDMI audio formats such as Dolby TrueHD and DTS-HD Master Audio
- Advanced EDID Management
- Adaptive and manual cable equalization
- Pixel Accurate Reclocking and Frame Detector
- 3D signal compatibility with frame packing, side-by-side and top-bottom formats

Attention: The built-in remote powering injector function requires the supplied PSU-12vp external power source to be connected directly to the board!

Compatible Products:

- Transmitters:
  WP-HDMI-TP-TX50R
  WP-DVI-HDCP-TP-TX50R
  DVI-TP-TX200
  DVI-TP-TX300
  DVI-HDCP-TP-TX50
  DVI-HDCP-TP-TX100R
  HDMI-TP-TX50
  HDMI-TP-TX100R
  HDMI-TP-TX200R

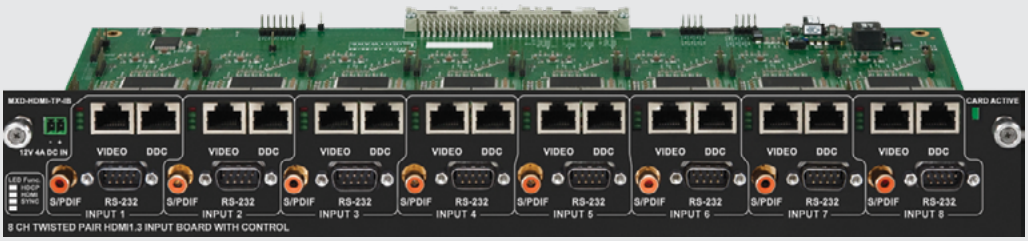
Supplied Accessory:

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for PoE remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

Twisted Pair HDMI Input Board

MXD-HDMI-TP-IB

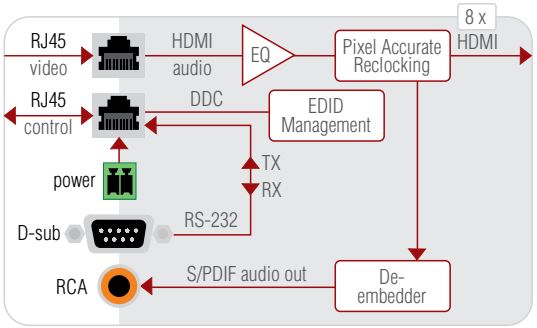
Part no: 9112 0014



MXD-HDMI-TP-IB

The MXD-HDMI-TP-IB double-slot board accepts HDMI 1.3 and 3D signals over two CATx cables and provides a bi-directional RS-232 link to each remote source device when using compatible CATx transmitters.

Port Diagram:



Supplied Accessory Required for the PoE Function

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for 12V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

Features:

- 8 channel twisted pair Input Board
- Accepts HDMI 1.3 and DVI signals over CAT5 or better category cables
- Supports all HDMI Audio formats such as Dolby TrueHD and DTS-HD Master Audio
- Double slot output board - needs two cards' slot in the frame
- S/PDIF audio output per channel
- RS-232 control over twisted pair for each input port
- HDCP compliant
- Advanced EDID Management
- Pixel Accurate Reclocking
- Adaptive or manual CATx cable equalization
- Automatic or adjustable color range conversion
- 3D signal compatibility with frame packing, side-by-side and top-bottom formats

Attention: The built-in remote powering injector function requires the supplied PSU-12vp external power source to be connected directly to the board!

Compatible Products:

- Transmitters:
  WP-HDMI-TP-TX50R
  WP-DVI-HDCP-TP-TX50RW
  DVI-TP-TX200
  DVI-TP-TX300
  DVI-HDCP-TP-TX50
  DVI-HDCP-TP-TX100R
  HDMI-TP-TX50
  HDMI-TP-TX100R
  HDMI-TP-TX200R

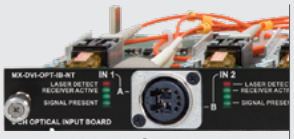
Fiber Optical Single-Link DVI Input Board

MX-DVI-OPT-IB -LC, -NT, -SC, -ST

Part no: 9112 0015 (LC), 9112 0016 (ST), 9112 0017 (SC), 9112 0018 (NT)

MX-DVI-OPT-IB-LC

MX-DVI-OPT-IB-ST



MX-DVI-OPT-IB-NT

MX-DVI-OPT-IB-SC

MX-DVI-OPT-IB offers an extremely long, 2500m distance extension over a single Multimode fiber for Single-Link DVI signals on eight channels.

Features:

- 8 x single Multimode fiber input
- Selectable connectors: Neutrik OpticalCON, -LC, -SC, -ST
- Laser detect feedback LED for each input
- No video compression
- Zero frame delay
- Extension distance: up to 2500 m (1600 x 1200 @ 60Hz)
- Incoming signals are converted to DVI-D

Compatible Products:

- Transmitters:
  DVI-OPT-TX110
  DVI-OPT-TX220-Pro

Fiber Optical Dual-Link DVI Input Board

MX-DVIDL-OPT-IB-LC, -SC, -NT

Part no: 9112 0019 (LC), 9112 0022 (NT)

MX-DVIDL-OPT-IB-LC

MX-DVIDL-OPT-IB-NT

MX-DVIDL-OPT-IB offers an extremely long, 2500m distance extension over a duplex Multimode fiber for Dual-Link DVI signals on four channels.

Features:

- 4 Dual-Link DVI Multimode fiber input
- Selectable connectors: Neutrik OpticalCON, -LC, -SC, -ST
- Dual-Link DVI Multimode fiber input for DUAL-Link DVI
- Supports Dual-Link DVI video resolutions and 120 Hz 3D signals
- Selectable connectors: Neutrik OpticalCON, -LC, -SC, -ST
- Laser detect feedback LED for each input
- No video compression
- Preserves signal integrity with zero frame delay
- Extension distance: up to 2500 m

Compatible Products:

- Transmitters:
  DVIDL-OPT-TX200

4K, 3D and Deep Color HDMI Optical Input Board

MX-HDMI-OPT-IB-LC, -NT, -SC

Part no: 9112 0023 (LC), 9112 0025 (SC), 9112 0026 (NT)

MX-HDMI-OPT-IB-NT

MX-HDMI-OPT-IB-SC

MX-HDMI-OPT-IB-LC

MX-HDMI-OPT-IB offers an extremely long, 2500m distance extension over a single Multimode fiber for HDMI, DVI, VGA signals on 8 channels with 4K resolution and 3D formats support.

Features:

- 8 channels with 4K resolution and 3D format support
- Single Multimode fiber for HDMI, DVI and VGA signals
- Built-in HDMI to fiber converter
- Selectable connectors: Neutrik OpticalCON, -LC, -SC
- 4K x 2K @ 30 Hz, 1080p @ 120 Hz, 2560 x 1600, 2048 x 2048 HD video resolutions and all 3D formats are supported
- Laser detect LED
- No video compression
- Zero frame delay, no latency
- Extension distance: 2500 m (1600 x 1200 @ 60Hz)

Compatible Products:

- Transmitters:
  DVI-OPT-TX110
  DVI-OPT-TX220-Pro
  HDMI-OPT-TX100
  HDMI-OPT-TX100R
  HDMI-OPT-TX200R
  HDMI-3D-OPT-TX210A
  HDMI-3D-OPT-TX210RAK
  SW4-OPT-TX240RAK
  HDMI-3D-OPT-RX150RA
  MX-HDMI-OPT-LC, NT
  MX-HDMI-OPT-LC, NT
  25G-MX-HDMI-OPT-OB

TPS and HDMI Output Board for Ethernet, Audio and Control new!

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

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

HDBT

Call sales for availability

MX-4TPS2-4HDMI-OB

MX-4TPS2-4HDMI-OB is a mixed output board with four HDMI and four HDBaseT™ single CAT outputs 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

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

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!

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
- Stereo audio (up to 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-OB-S

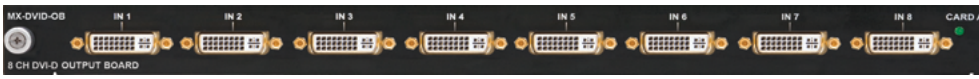
- S/PDIF breakout for every port
- Bi-directional configurable S/PDIF digital audio port with RCA connectors: audio can be de-embedded from the HDMI signals or audio can be embedded (or replaced) into the HDMI signal

Analog Audio Output Board
MX-AUDIO-OB-A **new!**
Part no: 9113 0045

MX-AUDIO-OB-A is an eight-channel analog audio output board to switch audio de-embedded from a video signal to an output port. The board has adjustable audio setting options.

Features:
- Analog audio breakaway switching
- Eight Phoenix (Euroblock) connectors
- Stereo PCM audio up to 96 kHz de-embedded from the HDMI signals
- Volume, balance, bass and treble control
- Phase invert option
- Pre-emphasis option

Single-Link DVI Output Board
MX-DVID-OB
Part no: 9113 0001



MX-DVID-OB is a cost effective solution for routing DVI signals.

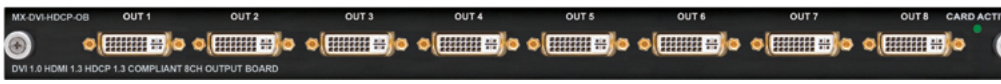
Features:
- 8 DVI-D connectors
- Advanced EDID Management
- Pixel Accurate Reclocking
- +5 V fiber extender powering powering with up to 500 mA current (comparible device: DVI-OPT-TX110)

Dual-Link DVI Output Board
MX-DVIDL-OB
Part no: 9113 0003

MX-DVIDL-OB is a Dual-Link DVI Output Board supporting four Dual-Link DVI-D connectors.

Features:
- 4 gold plated DVI connectors
- Pro series Dual-Link I/O board
- Advanced EDID Management
- TMDS Reclocking
- Fiber adapter powering on output
- Supports High Definition computer signals and 120Hz 3D

DVI, HDCP and HDMI Compliant Output Board
MX-DVI-HDCP-OB
Part no: 9113 0002



MX-DVI-HDCP-OB is an eight channel Output Board with DVI connectors able to receive digital DVI and HDMI 1.3 signals with or without HDCP encryption.

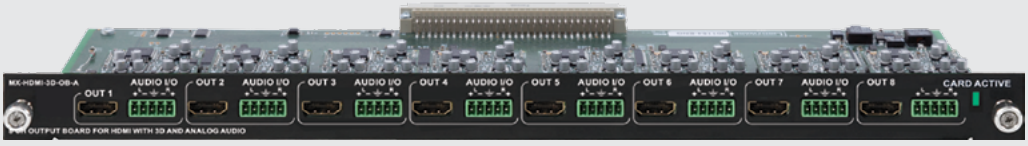
Features:
- 8 channel Output Boardwith screw-locable DVI connectors
- HDMI 1.3 and DVI with or without HDCP
- Advanced EDID Management
- Supports all HDMI audio formats such as Dolby TrueHD and DTS-HD Master Audio
- Pixel Accurate Reclocking
- 36-bit deep color support
- Color space conversion: RGB and YUV
- Color range scaling (16:235 to 0:255)
- 3D signal compatibility with frame packing, side-by-side and top-bottom formats

4K, 3D and Deep Color HDMI Output Board

MX-HDMI-3D-OB, -A, -S

Part no: 9113 0005, 9113 0006 (A), 9113 0007 (S)

MX-HDMI-3D-OB



MX-HDMI-3D-OB-A

MX-HDMI-3D-OB-S

MX-HDMI-3D-OB provides eight channel HDMI 1.4 extension with 4K resolution, 3D and local audio support.

Features:

- 8 HDMI output ports
- HDMI 1.4a; DVI with or without HDCP
- For advanced audio optional 8 S/PDIF (S) or 8 stereo audio (A) connectors
- Available models: analog stereo audio option (MX-HDMI-3D-OB-A) or digital S/PDIF audio option (MX-HDMI-3D-OB-S) or without audio (MX-HDMI-3D-OB)
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), 1080p @ 120 Hz, 2560 x 1600, 2048 x 2048 , HD video resolutions and all 3D formats are supported
- Advanced EDID Management and Frame Detector
- Pixel Accurate Reclocking
- HDMI (24 bit RGB) to DVI conversion
- Dolby TrueHD and DTS-HD Master Audio
- 36-bit deep color support

With Digital S/PDIF Audio Add-On:

MX-HDMI-3D-OB-S

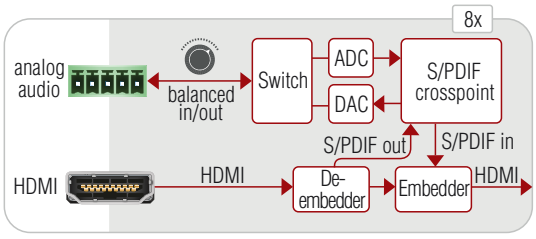
- S/PDIF breakout for every port
- Bi-directional configurable S/PDIF connectors: audio can be de-embedded from the HDMI signals or audio can be embedded (or replaced) to the HDMI signal

With Analog Stereo Audio Add-On:

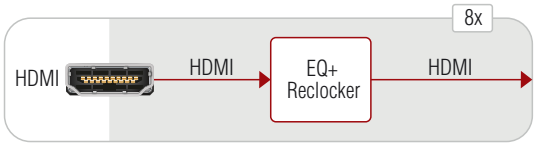
MX-HDMI-3D-OB-A

- 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

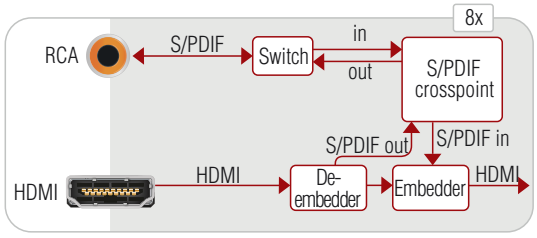
Port Diagrams:



MX-HDMI-3D-IB-A

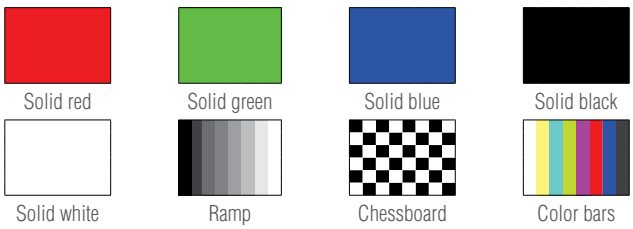


MX-HDMI-3D-IB



MX-HDMI-3D-IB-S

Available Video Patterns:



Test Pattern Generator Video Formats:
480p, 576p, 720p, 1080p, 1080p deep color

TPS Output Board for HDMI, Ethernet, Audio and Control

MX-TPS-OB, -A, -S

Part no: 9113 0027, 9113 0028 (A), 9113 0029 (S)

MX-TPS-OB Output Board is a long-distance single CAT HDBaseT™ solution with localized audio embedding and de-embedding points.

Features:

- 8 channel twisted pair Output Board
- HDMI extension supporting 3D and 4K
- Accepts HDMI + Ethernet + RS-232 over one CAT5/6/7 cable to up to 170m distance
- HDMI 1.4; DVI and HDCP compliant
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), UHD, 2560 x 1600
- Compatible with deep color, Dolby TrueHD and DTS-HD audio
- PCM audio sample rate conversion
- HD video resolutions and all 3D formats are supported
- 10/100 Ethernet transmission
- Supports all HDMI audio formats
- Options for cards with digital or analog audio connectors
- HDCP enable/disable mode, Pixel Accurate Reclocking, Advanced EDID Management and Frame Detector
- 12V Remote powering of compatible devices

Attention: The built-in remote powering injector function requires the supplied PSU-12vp external power source to be connected directly to the board!

With Digital S/PDIF Audio Add-On:

MX-TPS-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) to the HDMI signal

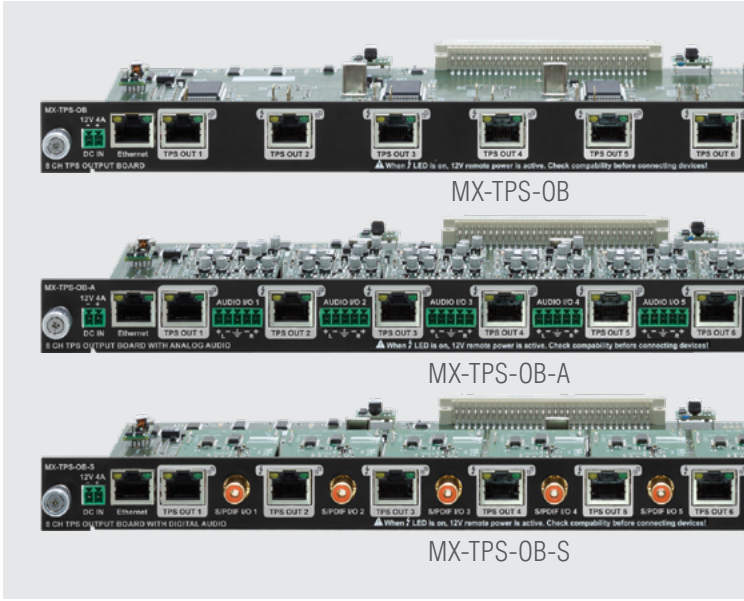
With Analog Stereo Audio Add-On:

MX-TPS-OB-A

- 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, balance, bass and treble control
- Phase invert and de-emphasis option

Supplied Accessory Required for Remote Powering:

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for 12V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

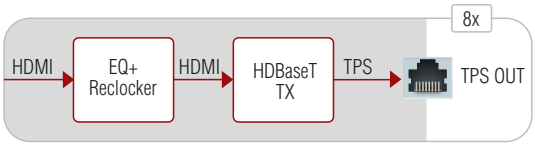


MX-TPS-OB

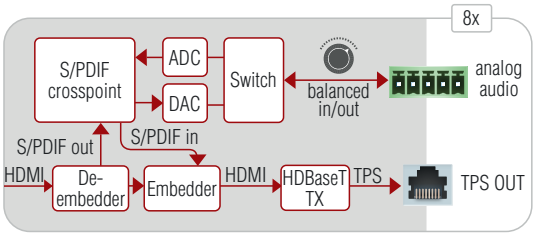
MX-TPS-OB-A

MX-TPS-OB-S

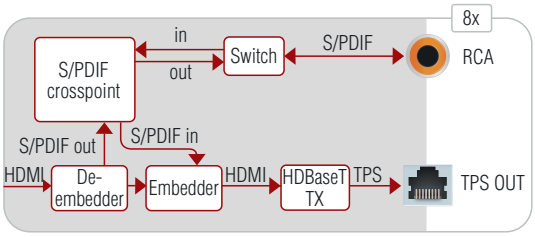
Port Diagrams:



MX-TPS-OB

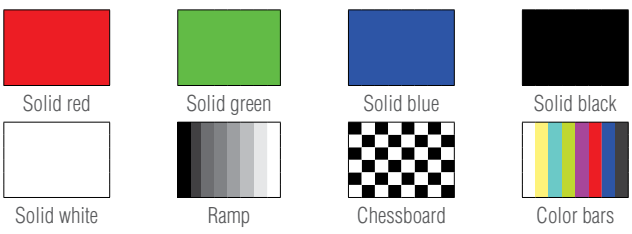


MX-TPS-OB-A



MX-TPS-OB-S

Available Video Patterns:



Test Pattern Generator Video Formats:
480p, 576p, 720p, 1080p, 1080p deep color

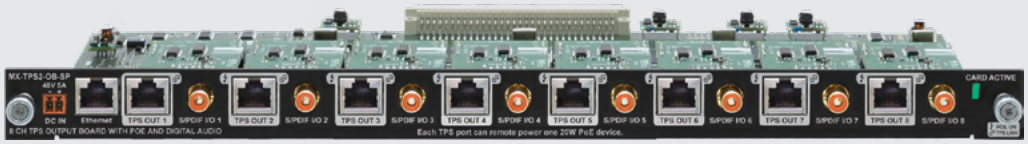
TPS Output Board with PoE Option new!

MX-TPS2-OB-P, -AP, -SP

Part no: 9113 0042 (P), 9113 0043 (AP), 9112 0044 (SP)

MX-TPS2-OB-P

MX-TPS2-OB-AP



MX-TPS2-OB-SP

MX-TPS2-OB-P the 8 channel twisted pair output board provides HDMI 1.4, audio, Ethernet and RS-232 transmission on a single CAT5/6/7 cable up to 100m 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 to up 170m distance
- HDMI 1.4 and DVI with or without HDCP
- 4K / UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0), UHD, 2560 x 1600, HD video resolutions and all 3D formats are supported
- 10/100 Ethernet transmission
- Supports all HDMI audio formats
- Compatible with deep color, Dolby TrueHD and DTS-HD audio
- Features PCM audio sample rate conversion
- Pixel Accurate Reclocking, Advanced EDID Management and Frame Detector
- Integrated PoE power injection option for TPS extenders

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

With Analog Audio Add-On

MX-TPS2-OB-AP

- 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
- Digitized 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

With Digital Audio Add-On

MX-TPS2-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) to the HDMI signal
- PoE compatible
- 48V remote powering
- Remote powering on/off switching
- Status feedback

Supplied Accessory Required for the PoE Function

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.

Twisted Pair Single-Link DVI Output Board

MX-DVI-TP-OB

Part no: 9113 0008

MX-DVI-TP-OB

Features:

- 8 channel twisted pair Output Board
- Converts and transmits Single-Link digital DVI-D signals over one CATx cable
- Pixel Accurate Reclocking

Twisted Pair Single-Link DVI Output Board

MX-DVI-TP-OB+

Part no: 9113 0009

MX-DVI-TP-OB+

Supplied Accessory Required for Remote Powering:

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for 12V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

Features:

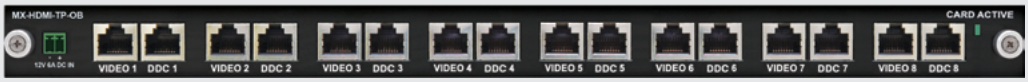
- 8 channel twisted pair Output Board
- Converts and transmits DVI signals over CAT5, CAT6 or CAT7 cables
- Advanced EDID Management
- Pixel Accurate Reclocking
- Optional extender remote powering over second CATx cable

Attention: The built-in remote powering injector function requires the supplied PSU-12vp external power source to be connected directly to the board!

Twisted Pair HDMI Output Board

MX-HDMI-TP-OB

Part no: 9113 0010



MX-HDMI-TP-OB

Supplied Accessory Required for Remote Powering:

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for 12V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

Features:

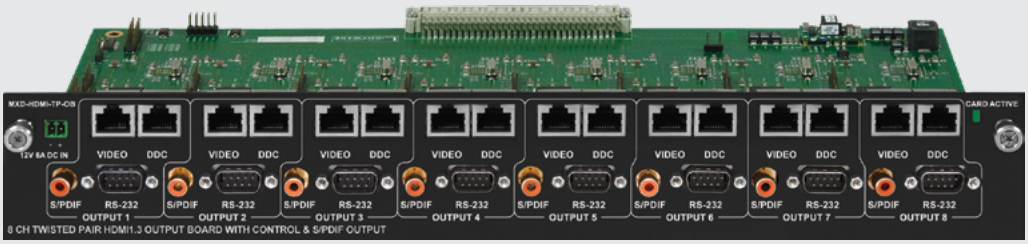
- Built-in CAT7 to HDMI converters
- Transmits HDMI 1.3 and DVI signals over CAT5, CAT6 or CAT7 cables
- HDCP compliant
- Supports all audio formats over HDMI: Dolby TrueHD and DTS-HD Master Audio
- Advanced EDID Management
- Pixel Accurate Reclocking
- 3D signal compatibility with frame packing, side-by-side and top-bottom formats

Attention: The built-in remote powering injector function requires the supplied PSU-12vp external power source to be connected directly to the board!

Twisted Pair HDMI Output Board

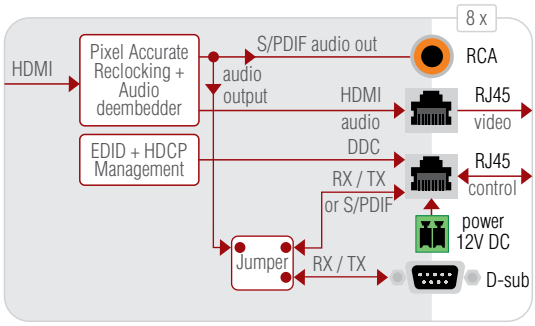
MXD-HDMI-TP-OB

Part no: 9113 0011



MXD-HDMI-TP-OB

Port Diagram:



Supplied Accessory Required for Remote Powering:

Part No: 9134 0007
Power adaptor with IEC plug.
Power supply for 12V remote powering function.
Universal input: 100-240 V AC, 50-60 Hz.
Output: 12 V DC, 6,67 A.

Features:

- 8 channel twisted pair Output Board
- Transmits HDMI 1.3 and DVI signals over CAT5, CAT6 or CAT7 cables
- Supports all audio formats over HDMI: Dolby TrueHD and DTS-HD Master Audio
- Double slot Output Board - needs two cards' slot in the frame
- RS-232 or S/PDIF over twisted pair on each output
- HDCP compliant
- Advanced EDID Management
- Pixel Accurate Reclocking
- Automatic or adjustable color space and color range conversion
- PCM subsampling by 2 x or 4 x
- 3D signal compatibility with frame packing, side-by-side and top-bottom formats

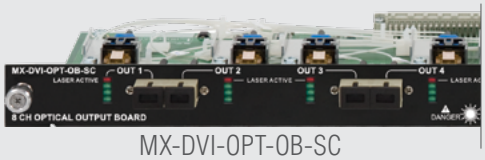
Attention: The built-in remote powering injector function requires the supplied PSU-12vp external power source to be connected directly to the board!

Fiber Optical Single-Link DVI Output Board

MX-DVI-OPT-OB-LC, -ST, -SC

Part no: 9113 0012 (LC), 9113 0013 (ST), 9113 0014 (SC),

MX-DVI-OPT-OB-LC



MX-DVI-OPT-OB-SC

MX-DVI-OPT-OB-ST

MX-DVI-OPT-OB provides extremely long, 2500m distance extension over a single Multimode fiber for Single-Link DVI signals on eight channels.

Features:

- 8 Single-Link DVI Multimode fiber outputs
- Selectable connectors: -LC, -SC, -ST
- Laseractive feedback LED for each output
- No video compression
- Zero frame delay
- Extension distance: 2500 m (1600 x 1200 @ 60Hz)

Fiber Optical Reclocking Single-Link DVI Output Board

MX-DVI-OPT-OB-R, -LC, -ST, -SC, -NT

Part no: 9113 0015 (LC), 9113 0016 (ST), 9113 0017 (SC), 9113 0018 (NT)

MX-DVI-OPT-OB-R-LC

MX-DVI-OPT-OB-R-SC

MX-DVI-OPT-OB-R-NT

MX-DVI-OPT-OB-R-ST

MX-DVI-OPT-OB-R Output Board provides extremely long, 2500m extension and reclocking for DVI-D signals over Multimode fiber on eight channels.

Features:

- 8 Single-Link DVI Multimode fiber output
- DVI Pixel Accurate Reclocking
- Selectable connectors: Neutrik OpticalCON, -LC, -SC, -ST
- No video compression
- Zero frame delay
- Extension distance: 2500 m (1600 x 1200 @ 60Hz)

Fiber Optical Dual-Link DVI Output Board

MX-DVIDL-OPT-OB-LC, -NT

Part no: 9113 0019 (LC), 9113 0022 (NT)

MX-DVIDL-OPT-OB-NT

MX-DVIDL-OPT-OB-LC

MX-DVIDL-OPT-OB provides extremely long, 2500m extension over a duplex Multimode fiber for Dual-Link DVI signals on 4 channels.

Features:

- 4 Dual-Link DVI Multimode fiber output
- Selectable connectors: Neutrik OpticalCON, -LC
- Laseractive feedback LED for each output
- No video compression
- Zero frame delay
- Extension distance: up to 2500 m
- Supports 120 Hz 3D signals

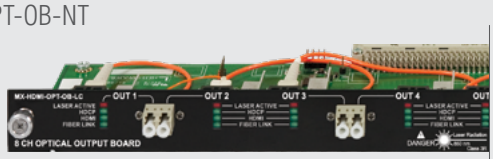
4K Fiber Optical HDMI Output Board

MX-HDMI-OPT-OB-LC, -SC, -NT

Part no: 9113 0023 (LC), 9113 0025 (SC), 9113 0026 (NT)

MX-HDMI-OPT-OB-NT

MX-HDMI-OPT-OB-SC



MX-HDMI-OPT-OB-LC

MX-HDMI-OPT-OB provides extremely long 2500m distance extension over a single Multimode fiber for HDMI, DVI, VGA signals on 8 channels with 4K resolution and 3D formats support.

Features:

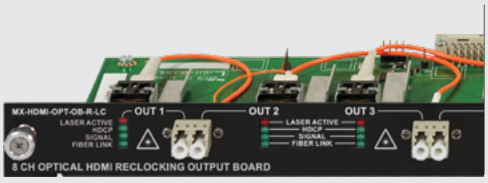
- 8 channel fiber optical Output Board
- Built-in HDMI to fiber converter
- Selectable connectors: Neutrik OpticalCON, -LC, -SC
- 4K x 2K @ 30 Hz, 1080p @ 120 Hz, 2560 x 1600, 2048 x 2048 , HD video resolutions and all 3D formats are supported
- Laser detect feedback LED
- No video compression
- Zero frame delay
- Extension distance: 2500 m (1600 x 1200 @ 60Hz)

4K, 3D and Deep Color HDMI Optical Output Board with Reclocking

MX-HDMI-OPT-OB-R-LC, -NT

Part no: 9113 0030 (LC), 9113 0032 (SC), 9113 0033 (NT)

MX-HDMI-OPT-OB-R-NT



MX-HDMI-OPT-OB-R-LC

MX-HDMI-3D-OB-R is an eight channel Multimode optical Output Board providing HDMI 1.4, audio and RS-232 extension over a single Multimode fiber up to 2500m distance.

Features:

- HDMI 1.4a; DVI and HDCP compliant 8 output matrix board
- Selectable connectors: Neutrik OpticalCON, -LC
- Resolution up to 4096x2048@30Hz and all 3D formats are supported
- Extension distance: 2500 m (up to 1920 x 1200 @ 60Hz), 1100m (4096 x 2048 @ 30Hz)
- Dolby TrueHD and DTS-HD Master Audio
- Advanced EDID Management
- Frame Detector
- Pixel Accurate Reclocking
- One bi-directional RS-232 channel per port