



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: MX2-8X8-DH-4DPI-A

FUNCTIONAL OVERVIEW

The MX2-8x8-DH-4DPi-A standalone multimedia matrix switcher for routing HDMI 2.0 and DisplayPort 1.2 sources to HDMI outputs with support for 4K UHD signal switching and advanced signal/handshake management. Provides EDID emulation and storage, HDCP management, pixel-accurate reclocking, and detailed signal status/analysis. Includes front-panel LCD with jog-dial for local configuration and supports control via Ethernet, RS-232, USB, built-in web interface, and Lightware Device Controller software. Intended for rental/staging and fixed-install applications requiring flexible source-to-display routing and dependable signal integrity.

VIDEO INPUT AND OUTPUT

- Matrix size / routing: 8 inputs x 8 outputs (video crosspoint switching)
- Input connectors (model port set):
 - 4x DisplayPort inputs (DP input ports 1–4)
 - 4x HDMI inputs (HDMI input ports 5–8)
- Output connectors (model port set):
 - 8x HDMI outputs (HDMI output ports 1–8)
- HDMI input (electrical / format):
 - 19-pole HDMI Type A receptacle; DVI 1.0, HDMI 2.0
 - HDCP compliant: HDCP 2.3
 - Color space: RGB, YCbCr
 - Reclocking: Pixel Accurate Reclocking
 - Supported resolutions (examples as specified): up to 3840x2160@60Hz (4:4:4) and 4096x2048@60Hz; ultrawide support up to 5120x2160@30Hz (4:4:4) / 5120x2160@60Hz (4:2:0)
- DisplayPort input (electrical / format):
 - 20-pole DisplayPort receptacle; DP 1.2 (with 18 Gbps bandwidth limitation), DVI 1.0, HDMI 2.0
 - HDCP compliant: HDCP 2.3
 - Color space: RGB, YCbCr
 - 3D support: Yes
 - Restart Link Training supported

- HDMI output (electrical / format):
 - 19-pole HDMI Type A receptacle; DVI 1.0, HDMI 2.0
 - HDCP compliant: HDCP 2.3
 - Color space: RGB, YCbCr
 - Reclocking: Pixel Accurate Reclocking
- Maximum HDMI cable lengths (with premium certified cable):
 - 1920x1080@60Hz 4:4:4: 40 m
 - 3840x2160@30Hz 4:4:4: 15 m
 - 3840x2160@60Hz 4:4:4: 5 m

AUDIO CAPABILITIES

- Embedded audio handling (HDMI / DP streams):
 - HDMI audio formats: all formats in line with HDMI 2.0 standard (as specified, including Dolby/DTS family formats)
- Analog audio:
 - Analog audio output ports: 2 (audio output ports 1–2)
 - Balanced / unbalanced analog stereo on 5-pole Phoenix connector
 - De-embedded audio note: only stereo LPCM can be de-embedded from the HDMI signal
- Analog audio output characteristics (as specified):
 - 2-channel PCM, 48 kHz sampling frequency
 - Volume: -78 dB to 0 dB
 - Balance: -100 to +100 (0 = center)

POWERING

- Supported power source: 100–240V AC, 50/60 Hz
- AC power connector (non-redundant models): standard IEC connector (IEC C14 receptacle)
- 1 RU-high models: powered on immediately when AC power is connected (no front-panel power switch)
- AC fuse: F 3.15A

CONTROL

- Front panel control via color LCD menu and jog dial control knob
- Front panel buttons: sources/destinations selection, Take/Autotake switching, output lock, control lock, preset operations, reset
- Ethernet/LAN control via RJ45 connector
- RS-232 control: 3-pole Phoenix connector
- USB control via USB mini-B receptacle
- Built-in website (web browser control)
- Lightware Device Controller (LDC) via LAN or USB
- TCP/IP control protocols supported:
 - LW2 protocol via TCP port 10001
 - LW3 protocol via TCP port 6107

GENERAL

- Dimensions (same size category as compact 1RU models): 442 (482 with rack ears) W x 43.7 H x 277.4 D mm
- Rack mounting: rack-mountable; rack ears supplied
- Mounting options: standard rack installation; under-desk mounting available for 1U-high models (requires two additional rear rack ears, not supplied)
- Electrical safety / LVD-related compliance: EN 62368-1:2014 Second Edition
- Other compliance: CE, UKCA, UL; EMC EN 55032:2015+A1:2020 (emission), EN 55035:2017+A1:2020 (immunity); RoHS EN 63000:2018
- Warranty: 3 years
- Cooling: cooling fans; airflow from front to rear
- Supplied accessories:
 - Safety and Warranty Info
 - Quick Start Guide
 - IEC power cable
 - Phoenix Combicon 3-pole connector
 - Phoenix Combicon 5-pole connector (2 pcs)



DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-07-31	Initial version	Tamas Forgacs