



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: MX2-8X8-DH-8DPPIO-A

FUNCTIONAL OVERVIEW

The MX2-8x8-DH-8DPio-A standalone multimedia matrix switcher providing 8x8 routing with DisplayPort 1.2 inputs and DisplayPort 1.2 outputs. Provides EDID emulation and storage, HDCP management, pixel accurate reclocking, and detailed signal diagnostics. DisplayPort parameters are shown in detail and can be adjusted (e.g., link data rate and lane count); Restart Link Training is supported to reset link training without unplugging. Local configuration is available via front-panel color LCD and jog dial; remote control is available via built-in web interface, Lightware Device Controller, Ethernet, RS-232, and USB using LW2/LW3 ASCII control protocols.

VIDEO INPUT AND OUTPUT

- Matrix size / routing: 8 inputs x 8 outputs (video crosspoint switching)
- Input connectors (model port set):
 - 8x DisplayPort inputs (DP input ports 1–8)
- Output connectors (model port set):
 - 8x DisplayPort outputs (DP output ports 1–8)
- DisplayPort input (electrical / format):
 - Connector type: 20-pole DisplayPort receptacle
 - AV standard: DVI 1.0, HDMI 2.0, DP 1.2 (with 18 Gbps bandwidth limitation)
 - HDCP compliance: HDCP 2.3
 - Color space: RGB, YCbCr
 - Video delay: 0 frame
 - 3D support: Yes
 - DisplayPort diagnostics/management and Restart Link Training supported
 - DP power capability: DisplayPort can supply 1.5 W (500 mA, 3.3V) towards the connected device (DP_PWR)
- DisplayPort output (electrical / format):
 - Connector type: 20-pole DisplayPort receptacle
 - AV standard: DVI 1.0, HDMI 2.0, DP 1.2 (with 18 Gbps bandwidth limitation)
 - HDCP compliance: HDCP 2.3
 - Color space: RGB, YCbCr
 - Video delay: 0 frame

- 3D support: Yes
- DP power capability: provides about 1.5 W (500 mA @ 3.3V) on DP_PWR pin

AUDIO CAPABILITIES

- Embedded audio limitations on DP outputs:
 - DisplayPort output ports cannot transmit embedded audio stream with more than 2 channels
 - Accepted audio signals on DP outputs: 2-channel PCM between 48 and 192 kHz
- Analog audio (model port set / connectors):
 - Analog audio input ports: 4 (audio input ports 1–4)
 - Analog audio output ports: 8 (audio output ports 1–8)
 - Connector type: 5-pole Phoenix connector (balanced analog audio line in/out; unbalanced supported)
- Analog audio input characteristics:
 - Audio formats: 2-channel PCM; sampling frequency: 48 kHz
 - Gain: -12 dB to +35 dB
 - Balance: -100 to +100 (0 = center)
- Analog audio output characteristics:
 - Audio formats: 2-channel PCM; sampling frequency: 48 kHz
 - 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+A11:2020 (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 (12 pcs)

DOCUMENT REVISION HISTORY

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