



## ARCHITECTURAL AND ENGINEERING SPECIFICATION

### PRODUCT: MX2-24X24-HDMI20

#### FUNCTIONAL OVERVIEW

The MX2-24x24-HDMI20 is a standalone HDMI 2.0 matrix switcher providing 24x24 routing for high-bandwidth AV signals. It supports uncompromised 4K UHD switching up to 60 Hz 4:4:4, HDCP 2.3 compliance, advanced EDID management (factory, dynamic, user, and emulated memories), and pixel accurate reclocking to improve signal integrity over longer cabling. The unit can be operated from the front panel LCD/jog dial and controlled remotely via built-in web, Lightware Device Controller (LAN/USB), Ethernet protocols, and RS-232.

#### VIDEO INPUT AND OUTPUT

- Matrix size: 24 inputs x 24 outputs
- Video inputs:
  - 24x HDMI inputs (AV standard DVI 1.0, HDMI 2.0)
  - Connector: 19-pole HDMI Type A receptacle
- Video outputs:
  - 24x HDMI outputs (AV standard DVI 1.0, HDMI 2.0)
  - Connector: 19-pole HDMI Type A receptacle
- HDCP compliance: HDCP 2.3
- Color space: RGB, YCbCr
- Video delay: 0 frame
- Reclocking: Pixel Accurate Reclocking
- Supported resolutions:
  - At 12 bits/color: up to 5120x2160@30Hz (4:4:4) or 5120x2160@60Hz (4:2:0)
  - At 8 bits/color: up to 4096x2048@60Hz (4:4:4) or 3840x2160@60Hz (4:4:4) (and 4:2:0 where applicable)
- Max. HDMI cable length (premium certified cable, series guidance):
  - 40 m at 1920x1080@60Hz 4:4:4
  - 15 m at 3840x2160@30Hz 4:4:4
  - 5 m at 3840x2160@60Hz 4:4:4
- Input cable equalization: Yes, +12 dB fixed
- 3D support: Yes

## AUDIO CAPABILITIES

- HDMI embedded audio formats: “all formats in line with HDMI 2.0 standard”; Dolby Digital / Dolby Digital Plus / Dolby TrueHD / Dolby Atmos / Dolby Vision; DTS / DTS-HD Master Audio 7.1 / WMA Pro
- Audio routing behavior: there is no independent audio layer; embedded audio is switched together with the routed AV stream

## POWERING

- Power source: 100–240 V AC, 50/60 Hz
- Power supply option: Built-in PSU
- AC power connector: IEC C14 receptacle
- Powering on behavior (4 RU model): powered on by power switch (models with power switch per Product Overview)

## CONTROL

- Front panel control: color display (LCD) + jog dial control knob
- Front panel buttons: sources/destinations selection, Take/Autotake switching, output lock, control lock, preset operations, reset
- USB control: USB mini-B receptacle; USB 2.0; device class HID
- LAN control: Neutrik etherCON connector for Ethernet/LAN connection
- RS-232 control: 3-pole Phoenix connector
- Built-in website (web browser control)
- Lightware Device Controller (LDC) control via LAN or USB
- Ethernet services / ports
  - LW2 protocol: TCP 10001
  - LW3 protocol: TCP 6107
  - Secondary protocol: TCP 23
  - HTTP port: TCP 80
- RS-232 factory default settings: RS-232 enabled; 57600 Baud; Protocol: LW3

## GENERAL

- Dimensions (MX2-24x24 family): 440.5 (483 with rack ears) W x 177 H x 280.2 D mm; 17.3 (19 with rack ears) W x 6.9 H x 11 D in
- Rack height / enclosure: 4 RU
- Mounting options
  - Standard rack installation (rack ears supplied)
- LVD compatibility (Electrical safety): EN 62368-1:2014 Second Edition
- Compliance: CE, UKCA, UL
- Warranty: 3 years
- Cooling: by cooling fans, air flows from front to rear
- Supplied accessories
  - Safety and Warranty Info
  - Quick Start Guide
  - 2x Neutrik powerCON power cable
  - 3-pole Phoenix connector

## DOCUMENT REVISION HISTORY

| Document | Release Date | Changes         | Checked by    |
|----------|--------------|-----------------|---------------|
| v1       | 2026-07-29   | Initial version | Tamas Forgacs |