



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: MX2-16X16-HDMI20

FUNCTIONAL OVERVIEW

The MX2-16x16-HDMI20 is a standalone HDMI 2.0 matrix switcher designed for switching and distributing AV signals across a 16x16 crosspoint. It supports uncompromised 4K UHD routing with Pixel Accurate Reclocking, advanced EDID management, and HDCP handling. The device provides local operation via front panel (color LCD with jog dial) and remote configuration/control via Ethernet, USB, and RS-232 using Lightware software tools and ASCII-based protocols. Non-volatile memory preserves the last configuration through power cycles.

VIDEO INPUT AND OUTPUT

- Matrix size: 16x16
- Video inputs: 16x HDMI (19-pole HDMI type A receptacle)
- Video outputs: 16x HDMI (19-pole HDMI type A receptacle)
- AV standard: DVI 1.0, HDMI 2.0
- HDCP compliance: HDCP 2.3
- Color space: RGB, YCbCr
- Video delay: 0 frame
- Supported resolutions at 12 bits/color: up to 5120x2160@30Hz (4:4:4) or 5120x2160@60Hz (4:2:0)
- Supported resolutions at 8 bits/color: up to 4096x2048@60Hz (4:4:4) or 4096x2048@60Hz (4:2:0); up to 3840x2160@60Hz (4:4:4) or 3840x2160@60Hz (4:2:0); 1920x1080@60Hz (4:4:4) up to 12 bits/color
- Reclocking: Pixel Accurate Reclocking
- 3D support: Yes
- Input cable equalization: Yes, +12dB fixed
- Max. HDMI cable length (premium certified cable): 40m at 1920x1080@60Hz 4:4:4; 15m at 3840x2160@30Hz 4:4:4; 5m at 3840x2160@60Hz 4:4:4
- EDID management: EDID emulation Yes; EDID memory 144 factory presets, 100 user-programmable

AUDIO CAPABILITIES

- Embedded audio supported in line with HDMI 2.0; formats listed: Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, Dolby Vision; DTS, DTS-HD Master Audio 7.1, WMA Pro

POWERING

- Supported power source: 100–240V AC, 50–60Hz
- AC power connector: IEC C14 receptacle
- AC fuse: F 3.15A
- Power consumption (no signal / max. signal): 47 W / 83 W
- Heat dissipation (no signal / max. signal): 160.3 BTU/h / 283.1 BTU/h
- Power switch: the matrix can be switched on/off by the power switch (1U-high models are not supplied with a power switch)

CONTROL

- Front panel control: color LCD + jog dial control knob (front panel buttons available on certain models)
- Ethernet/LAN control (10/100Base-T)
- Built-in website control via web browser
- USB control (USB mini-B; USB 2.0; device class HID)
- RS-232 serial control (3-pole Phoenix connector in other models; factory default serial settings: RS-232 enabled; 57600 Baud; Protocol: LW3)
- Control protocols: LW2, LW3, P#2

GENERAL

- Compliance: CE, UKCA, UL
- EMC (emission): EN 55032:2015+A1:2020
- EMC (immunity): EN 55035:2017+A1:2020
- RoHS: EN 63000:2018
- Electrical safety (LVD): EN 62368-1:2014 Second Edition
- Warranty: 3 years
- Cooling: cooling fans; air flows from front to rear
- Operating temperature: 0° to +50°C
- Storage temperature: -20 to +70°C



- Operating humidity: 10% to 90%, non-condensing
- Storage humidity: 0% to 95%, non-condensing
- Mounting: rack mountable; rack ears supplied
- Enclosure material: 1 mm steel
- Dimensions: 441 W x 132.6 H x 280.2 D mm (with rack-mounting ears: 483 mm width)
- Supplied accessories:
 - Safety and Warranty Info
 - QSG
 - IEC power cable

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-07-28	Initial version	Tamas Forgacs