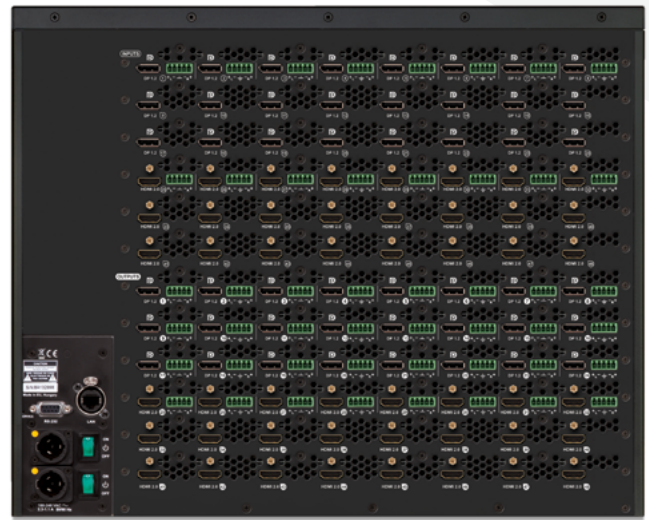
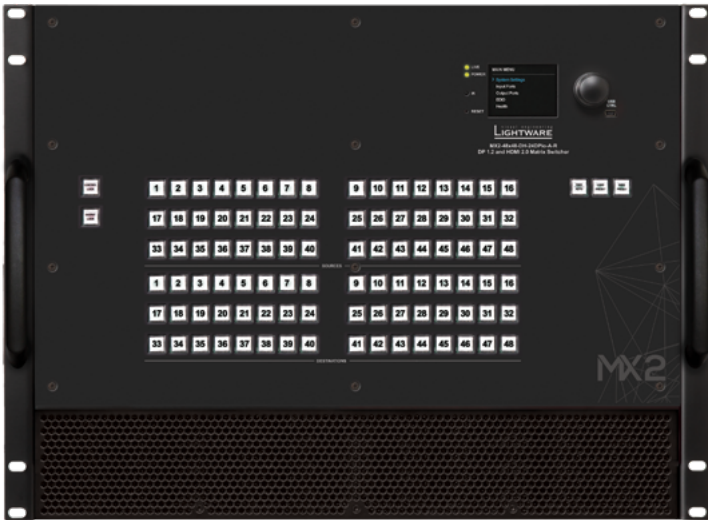


MX2-48x48-DH-24DPio-A-R

Full 4K HDMI 2.0 and DisplayPort 1.2 Matrix Switcher



Part No: 9131 0071

MX2-48x48-DH-24DPio-A-R is a member of the Lightware MX2 standalone matrix switcher series, supporting uncompromised 4K UHD resolution at 60Hz with RGB 4:4:4 colorspace and with down-conversion capabilities to 4:2:2. The DisplayPort inputs on the MX2 Dpi series routers allow connecting DisplayPort 1.2 video sources directly, without the need of adapters or dongles.

This device is fully HDMI 2.0 compatible with DisplayPort input signals transformed to HDMI for signal management. Input signals that do not fit in the HDMI 2.0 bandwidth of 18GHz can be converted to 4:2:2 while maintaining bit depth, thus allowing for HDR transmission. This switcher is particularly suitable for fix-install applications and future-proof operation centers, for installations where both HDMI 2.0 and DisplayPort 1.2 input and output ports are required.

MX2-48x48-DH-24DPio-A-R supports 3D, Dolby TrueHD and DTS-HD Master Audio and also HDR10, HDR10+ and Dolby Vision. Proprietary Lightware technologies like Pixel Accurate Reclocking and Advanced EDID Management are included, and the device can be controlled via the built-in website.

MX2-48x48-DH-24DPio-A-R allow embedding audio to, and de-embedding audio from the signal stream at dedicated analog audio I/O ports, with 5-pole Phoenix type connectors.

Crosspoint switching functions are available via keys on the front panel.

Highlight features

- HDMI 2.0 and DisplayPort 1.2 compliant
- DisplayPort input signals are converted to HDMI signals via the built-in chipset on each port
- Maximum resolution on HDMI input is 4K@60Hz with 4:4:4 sampling pattern and 8 bit per component
- Maximum resolution on DP input is 4K@60Hz with 4:4:4 sampling pattern and 10 bit per component
- Fully non-blocking switching architecture with zero frame delay
- 18 Gbps bandwidth video crosspoint
- Supports conversion from 4K/UHD at 60Hz 4:4:4 to 4K/UHD at 60 Hz YCbCr 4:2:2 (when HDMI input is used)
- Supports conversion from 4K/UHD at 60Hz 4:4:4 10bit to 4K/UHD at 60 Hz YCbCr 4:2:2 10 bit (when DP input is used)
- HDCP 2.2 and HDCP 1.4 compliant with cross conversion capabilities
- Pixel Accurate Reclocking on each input
- Advanced EDID Management
- Built-in website, RS-232, Ethernet and USB control options
- LCD, push buttons and rotary switch for front panel control
- Front to back cooling airflow
- HDR10, HDR10+ and Dolby Vision support
- Analog audio embedding from analog audio inputs and de-embedding to analog audio outputs

Technical Limitations of Matrices with DisplayPort connectors

The matrix is recognized by the connected DisplayPort source as a DP-to-HDMI converter, and video input signals of 3840x2160 4:4:4 RGB 10 bit are converted to 3840x2160 4:2:2 YCbCr 10 bit or 3840x2160 4:4:4 RGB 8 bit on the DisplayPort input.

Furthermore, it's important to note that DP Multi-Stream (MST), Dual-mode DisplayPort (DP++), Adaptive-Sync and FreeSync™ are not supported, and neither is HDR on DisplayPort outputs.

Specification

| | |
|------------|---|
| Speed | 18 Gbps per port |
| Resolution | Up to 4096x2160@60Hz at RGB or YCbCr 4:4:4 (up to 600MHz pixel clock) |
| Dimensions | 8 RU |
| Mounting | Rack mountable, removable rack ears |

Connectors

| | |
|------------------|--|
| Power | 2x Neutrik Powercon True1, 110/220V |
| Video inputs | 24xDisplayPort 1.2 + 24xHDMI 2.0 |
| Video outputs | 24xDisplayPort 1.2 + 24xHDMI 2.0 |
| Audio inputs* | 8x Phoenix ports at DP and 8x Phoenix ports at HDMI |
| Audio outputs | 24x Phoenix ports at DP and 8x Phoenix ports at HDMI |
| Serial control | D-sub 9-pole |
| Ethernet Neutrik | Ethercon |
| USB | Mini USB B |

Please see the below table for the comparison of the MX2 DH matrix switcher series:

| | Product | Inputs | | | Outputs | | | Front panel I/O buttons | Front panel LCD menu | Redundant power supply |
|-----------------|-------------------------|--------|-----|---------|---------|-----|----------|-------------------------|----------------------|------------------------|
| | | HDMI | DP | Audio | HDMI | DP | Audio | | | |
| MIXED HDMI / DP | MX2-8x8-DH-4DPi-A | 4x | 4x | ✗ | 8x | ✗ | 2x | ✓ | ✓ | ✗ |
| | MX2-8x8-DH-8DPi-A | ✗ | 8x | 4xD | 8x | ✗ | 4xH | ✓ | ✓ | ✗ |
| | MX2-16x16-DH-8DPi-A-R | 8x | 8x | 8xH | 16x | ✗ | 4xH+4xA | ✓ | ✓ | ✓ (PowerCON) |
| | MX2-24x24-DH-12DPi-A-R | 12x | 12x | 8xH+4xD | 24x | ✗ | 8xH | ✓ | ✓ | ✓ (PowerCON) |
| | MX2-24x24-DH-12DPi-R | 12x | 12x | ✗ | 24x | ✗ | ✗ | ✓ | ✓ | ✓ (PowerCON) |
| | MX2-32x32-DH-16DPi-A-R | 16x | 16x | 8xH+4xD | 32 | ✗ | 8xH+8xA | ✓ | ✓ | ✓ (PowerCON) |
| | MX2-48x48-DH-24DPio-A-R | 24x | 24x | 8xH+8xD | 24x | 24x | 8xH+24xD | ✓ | ✓ | ✓ (PowerCON) |
| DP | MX2-8x8-DH-8DPio-A | ✗ | 8x | 4xD | ✗ | 8x | 8xD | ✓ | ✓ | ✗ |
| | MX2-24x24-DH-24DPio-A-R | ✗ | 24x | 8xD | ✗ | 24x | 24xD | ✓ | ✓ | ✓ (PowerCON) |
| | MX2-48x48-DH-48DPio-A-R | ✗ | 48x | 16xD | ✗ | 48x | 48xD | ✓ | ✓ | ✓ (PowerCON) |

H: next to HDMI **A:** independent audio out **D:** next to DP