

WyreStorm®

MATRIX SWITCHERS

SOLUTIONS GUIDE



The WyreStorm Difference



Your Multi-Technology, Cross-Market Specialists

We're a leading manufacturer of award-winning 4K and full HD AV signal distribution and control solutions for Pro AV/ commercial, residential/custom install and retail markets. Specializing in providing innovative single-platform and hybrid solutions, WyreStorm products are developed to minimize system complexity and connectivity for increased ease of installation and reliability, while offering exceptional performance and functionality for the best value and end-user experience.



Only Manufacturer Offering Clear, Unbiased Opinions and Advice

In an industry of bandwagon-jumping, self-promotion and exaggeration, we simply prefer to deal in fact so you'll never find us making a claim about our company or products that isn't technically accurate. We aim to demystify what can be at times be a confusing landscape with clear, impartial advice focused on dealer and end-user satisfaction to ensure the right technology is used and the right application achieved.



Modular Product Architecture for Ultimate Install Options

Out-of-box doesn't fit all applications - build to your specification. The modular architecture of our matrices and NetworkHD™ AV over IP products enable solutions to be perfectly tailored and effortlessly expanded to applications, no matter the size, budget, function or complexity of the project.



Global Network of Offices, Sales Advisors & Support

With offices in the US, UK, India and the Middle East, our own R&D and production facilities in Asia, and an ever-growing network of distribution partners throughout the world, WyreStorm is ideally placed as a total solutions provider serving customers wherever they may be.



Six Technology Platforms and Counting

When it comes to AV distribution, we believe there's no such thing as one size fits all. Our multi-platform approach to product design spans HDMI™, HDBaseT™, fiber, H.264, JPEG 2000, and SDVoE™. And with more technologies always on the horizon, we're all about giving the integrator the options they need to provide the best possible solution for their AV project.

MATRIX SWITCHING: AN EXTENSIVE RANGE OF SOLUTIONS FOR EVERY APPLICATION

WyreStorm is proud to present a range of matrices specifically tailored to meet the increased demands of today's source content. A formidable range of 18Gbps matrix platforms that represent a leap forward in understanding the AV signal management demands for medium to large commercial and residential applications. Shared features of all models crucially include the ability to handle both 4K/60 HDR and 8-bit 4:4:4 content to all zones and have assignable audio breakouts for each output or source; most models also feature mirrored HDMI outputs to feed additional screens.

Offering such features as full audio matrixing, multi-point distribution over HDBT or fiber and CEC triggering for all compatible connected TV's or projectors, WyreStorm matrices continually look ahead and bring new innovative features such as the ability to switch any zone "off" using AV Mute and standby mode which can put the unit into a low power state when not in use, cutting power consumption by up to 34%.



2160p
4:4:4 60



HDMI 2.0 MAXED OUT!

Bringing lossless compression technology from our HDBaseT extenders, the MXV and H2XC platforms can handle both current & future video content technologies up to 4K/60 4:4:4 and high framerate HDR. The highest possible bandwidth that currently exists according to the HDMI 2.0 specification is no longer limited to short range copper HDMI cables.

DE-EMBEDDED AUDIO

With audio functionality to match its video capability, WyreStorm matrices have the ability to extract audio signals from either source devices or from the output, following the zone. Having S/PDIF connectivity means having the flexibility to send multi-channel 5.1 audio to local AVR's or downmix to stereo using the EXP-CON-DAC-D.



CEC TRIGGERING

Working automatically on signal presence or triggered via the API, the MXV's can send power trigger commands to all compatible connected screens or projectors meaning an integrated autonomous control solution.



MIRRORED HDMI OUTPUTS

In addition to the audio breakout ports, most of our matrices also feature HDMI mirrored output ports which can be paired with any of WyreStorm's HAOC hybrid optical HDMI cables for transmission up to 50m/164ft or any extender for transmission of HDBaseT or OM3 fiber.



10/16 Slot 18Gbps 4K HDR Modular Matrix Switch Chassis
MX-1010-H2XC | MX-1616-H2XC

The H2XC platform gives integrators the utmost in switching and flexibility; for large projects that demand the latest in 4K HDR technology, while giving the integrator the freedom to choose exactly what goes into its chassis, making a perfect fit for the install. Fully utilizing the matrix, not your wallet.

- Populate with personal selection of multi-format transmission card options
- 10/16-slot 4K UHD matrix switcher featuring 10/16 inputs and switchable zone outputs with integrated audio matrixing
- 18Gb/s backplane for support of HDMI2.0 video standard
- Supports HDR-10 HLG and Dolby Vision™ HDR content



2160p
4:4:4 60

2160p
4:4:4 60 70M



4K HDR 4:4:4 60Hz HDBaseT™ 8x8 Matrix Switch with Zone Audio De-Embed and 4 Mirrored HDMI Outputs
MXV-0808-H2A-70

The MXV-0808-H2A-70 offers transmission of 18Gbps HDMI content up to 70m/230ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm. Unlike competing compression methods such as CSC, which permanently remove color data, WyreStorm's VLC uses a lossless compression technology to ensure signal integrity.

- Enables 60Hz 4K HDR content to be sent over HDBaseT to 70m/230ft
- 4 HDMI outputs mirroring HDBaseT Outputs 1-4 for connecting additional slave screens, projectors or AVR's
- HDMI Inputs and HDMI outputs support bandwidths of up to 18Gbps
- 8 Assignable audio outputs allow audio to be independently de-embedded from sources or outputs via Toslink optical
- A/V Mute mode allows the routing of a signal to an output to be deactivated
- Send custom CEC commands when standard CEC commands aren't compatible*
- RS-232 routing over HDBaseT allows discrete control of all display devices*



2160p
4:4:4 60

2160p
4:4:4 60



8x8 4K HDR HDBaseT Matrix with 4 Mirrored HDMI Outputs and Audio Breakout
MXV-0808-H2A

The MXV-0808-H2A offers transmission of 18Gbps HDMI content up to 35m/115ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm. Unlike competing compression methods such as CSC, which permanently remove color data, WyreStorm's VLC uses lossless compression technology to ensure signal integrity.

- HDBaseT transmission of 4K/60 4:4:4 up to 35m/115ft to 8 zones
- S/PDIF Toslink audio matrix outputs with mute
- Supports 60Hz HDR-10 & HLG content and Dolby Vision at 30Hz over HDBaseT
- 8 HDBaseT and 4 HDMI outputs all offering 18Gbps signal distribution to 12 screens
- A/V mute function cuts signal to any output on demand
- PoH technology powers receivers from the matrix
- Send custom CEC commands when standard CEC commands aren't compatible*
- RS-232 routing over HDBaseT allows discrete control of all display devices*



6x6 4K HDR HDBaseT Matrix with 4 Mirrored HDMI Outputs and Audio Breakout
MXV-0606-H2A

The MXV-0606-H2A offers transmission of 18Gbps HDMI content up to 35m/115ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm. Unlike competing compression methods such as CSC, which permanently remove color data, WyreStorm's VLC uses lossless compression technology to ensure signal integrity.

- HDBaseT transmission of 4K/60 4:4:4 up to 35m/115ft to 6 zones
- S/PDIF Toslink audio matrix outputs with mute
- Supports 60Hz HDR-10 & HLG content and Dolby Vision at 30Hz over HDBaseT
- 6 HDBaseT and 4 HDMI outputs all offering 18Gbps signal distribution to 10 screens
- A/V mute function cuts signal to any output on demand
- PoH technology powers receivers from the matrix



*Only available on MXV-0808 v3 Models

2160p
4:4:4 60



**4K HDR 8x8 Pure HDMI Matrix with Scaling Outputs,
Audio De-embed & ARC**

MX-0808-H2A-MK2

The MK2 is familiar on the surface but has a host of improvements and added features. To start, the HDMI outputs now feature 4K > 1080p downscalers promoting easier integration of mixed resolution displays into a single system. The HDMI outputs also now support Audio Return Channel from smart TVs to bring audio from apps like Netflix, Prime Video, Hulu, etc....to an external audio system.

- Uncompressed HDMI signal distribution supporting full 18Gbps bandwidth and 4K/60 4:4:4 video content
- Supports latest HDR standards including HDR10, HDR10+ Dolby Vision & HLG
- Balanced analog & digital S/PDIF audio de-embed
- HDMI outputs support 4K to 1080p downscaling
- Audio Return Channel supported on all 8 output
- Supports AV Mute for enabling/disabling HDMI outputs per zone
- Send custom CEC commands when standard CEC commands aren't compatible



2160p
4:4:4 60



4x4 4K HDR HDMI Matrix with Digital S/PDIF Audio De-Embed
MX-0404-HDMI

The MX-0404-HDMI is a powerful plug and play matrix switcher, bundled in a small compact chassis. With 18Gbps pure HDMI support, it allows up to four 4K sources to be independently routed to displays. Each output has the capability to scale 4K content down to connected 1080p displays without affecting the 4K source. Lastly, this 18Gbps HDMI switch comes fully equipped to fit in a standard 19" rack space.

- Routes up to four 4K HDR HDMI sources to four 4K HDR display devices
- Supports 4K@60Hz 10bit 4:2:0 | 4:4:4 and HDR@24Hz 10bit BT.2020
- HDMI Inputs and outputs support bandwidths of up to 18Gbps
- Fully HDCP 2.2 compliant
- HDR and Dolby Vision support

HDMI outputs support scaling down to 1080p without affecting 4K source content
Supports coaxial S/PDIF audio de-embed from all outputs.
Support of timed CEC trigger and time delay on both outputs when input is not detected on selected output.



2160p
4:4:4 60

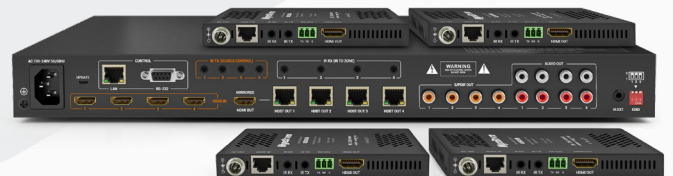


**4K HDR 4:4:4 60Hz HDBaseT™ 4x4 Matrix Kit with
2 Standard/2 Scaling Receivers & Audio De-Embed**

MXV-0404-H2A-KIT

The MXV-0404-H2A-KIT offers transmission of 18Gbps HDMI content up to 35m/115ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm. Unlike competing compression methods such as CSC, which permanently remove color data, WyreStorm's VLC uses a lossless compression technology to ensure signal integrity.

- HDBaseT transmission of 4K/60 4:4:4 up to 35m/115ft
- Dual S/PDIF and stereo RCA audio matrix outputs with mute
- Supports 60Hz HDR-10 & HLG content and Dolby Vision at 30Hz over HDBaseT
- Single mirrored HDMI output for connection to local AVR or TV
- A/V mute function cuts signal to any output on demand
- PoH technology powers 4 included receivers from the matrix
- Includes two scaling receivers that can scale 4K UHD content to 1080p displays



**4x4 4K HDR HDBaseT Matrix Kit with
HDCP 2.2, Audio Breakout and 4x PoH Receivers**

MX-0404-HDBT-H2A-KIT

The latest in WyreStorm's 4x4 H2 matrix + PoH receiver kit line gets an audio upgrade in the form of the MX-0404-HDBT-H2A-KIT for 4K distribution with CEC triggering of connected screens and enhanced audio fit for the modern home.

- HDBaseT transmission of 4K/60 4:2:0 up to 35m/115ft
- Dual S/PDIF and stereo RCA audio matrix outputs with mute
- Supports 10-bit HDR at 24Hz over HDBaseT
- Single mirrored HDMI output for connection to local AVR or TV
- PoH technology powers the receivers from the matrix





WyreStorm[®] Essentials

WyreStorm Essentials Matrices have been developed as a simple and affordable line of plug-and-play HDMI products for 4K and HD connectivity in the home. Essentials Matrices are ideal for integrating satellite or cable boxes and the latest gaming consoles with multiple consumer display devices.

2160p
4:4:4 60



4K UHD 4:2:0 60Hz 4x4 HDBaseT™ Matrix Switch with 3/6 Receivers & S/PDIF De-Embed

MX-0404-KIT | MX-0808-KIT

Offering transmission of HDMI content up to 4K UHD & HDR content to 35m/115ft, pairing HDBaseT with WyreStorm's powerful crosspoint HDMI switching chipset. The MX-0404-KIT has 3 HDBaseT zone outputs with PoH and a single switched HDMI output.

4K UHD HDBaseT™ 4x4 Matrix Switch, supporting content up to 4K/60 4:2:0 8-bit or 4K/30 4:2:0 10-bit and the latest HDR standards, including 30Hz HDR-10 & Dolby Vision

HDCP 2.2 encryption technology ensuring compatibility with the latest 4K UHD content and sources

HD Multichannel audio up to DTS:X and Dolby Atmos to all outputs

Compatible with DVI-I and DP++ v1.3 signals from compatible devices

4/8 audio outputs allows audio to be independently de-embedded from outputs

Automatic (signal sensing) or manual (API operated) CEC power triggering

A/V Mute function allows the signal to any zone to be independently switched off

SmartEDID feature also dynamically detects display/source capabilities and automatically outputs the highest possible resolution

WyreStorm Essentials™ 4K HDR 4 Input 2 Scaling Output HDMI Matrix Switcher with ARC, Analog and Digital Audio De-Embed

EXP-MX-0402-H2 | EXP-MX-0404-H2

Keeping up with the latest standards, the EXP-MX-0402-H2 and EXP-MX-0404-H2 have been upgraded to an 18Gbps backbone with HDCP 2.2 compliance and now features a powerful built-in auto scaler on its outputs, allowing users to simultaneously connect a mix of 4K and 1080p displays.

Routes four 4K HDR HDMI sources to two 4K HDR display devices

Supports 4K@60Hz 10bit 4:4:4 and HDR@24Hz 10bit BT.2020

HDMI Inputs and outputs support bandwidths of up to 18Gbps

HDR and Dolby Vision support

Outputs support 4K to 1080p scaling

Supports analog and digital audio de-embed HDMI ARC from a smart display (EXP-MX-0402-H2)

Supports coaxial S/PDIF audio de-embed from all outputs (EXP-MX-0404-H2)

Rich control options includes IR, Push buttons and RS-232

Support of timed CEC trigger and time delay on both outputs when input is not detected on selected output.

Enhanced API offers an abundance of control features such as video switching, audio mute of discrete audio outputs, CEC trigger and time delay, EDID control and many troubleshooting options



NEED HDMI, HDBASET OR FIBER **MATRIX** SWITCHING, **WYRESTORM** HAS YOU COVERED.

4K UHD

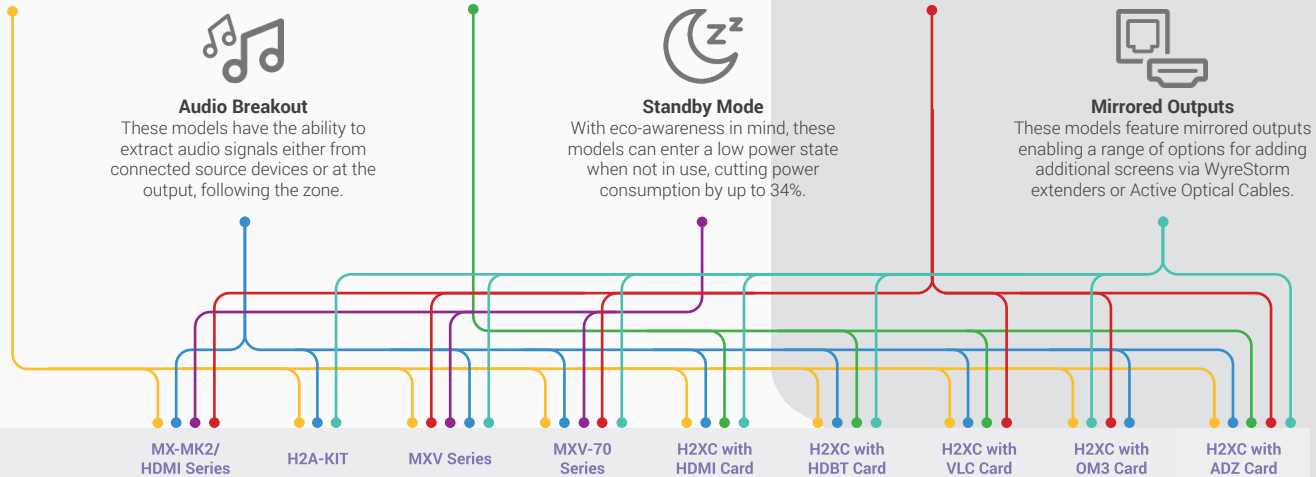
Ready for a world of 4K content, all of our matrix model are compatible with the latest 4K UHD at 4:2:0/60 as a minimum.

ARC

Audio Matrix
Supports up to 48 audio inputs (HDMI de-embedded, S/PDIF In & ARC) to independent audio zones with DSP for volume control, delay and EQ adjustment.

2160p 4:4:4 60

2160 4:4:4
Our VLC chipset (Variable Lossless Compression) can send HDR or 4:4:4 content running at 60Hz over a regular HDBaseT link without loss in quality.



Audio Breakout
These models have the ability to extract audio signals either from connected source devices or at the output, following the zone.

Standby Mode
With eco-awareness in mind, these models can enter a low power state when not in use, cutting power consumption by up to 34%.

Mirrored Outputs
These models feature mirrored outputs enabling a range of options for adding additional screens via WyreStorm extenders or Active Optical Cables.

Audio + Video

Technology	HDMI	HDBaseT Class B	HDBaseT Class B	HDBaseT Class A	HDBaseT Class A	HDBaseT Class A	HDBaseT Class A	HDBaseT Class A	HDMI over MM fiber	HDMI
HDCP	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
1080p Distance	15m Copper HDMI	70m/230ft	70m/230ft	100m/328ft	140m/459ft	140m/459ft	140m/459ft	140m/459ft	300m/984ft	15m Copper HDMI
4K Distance	7m Copper HDMI	35m/115ft	35m/115ft	70m/230ft	100m/328ft	100m/328ft	100m/328ft	100m/328ft	300m/984ft	7m Copper HDMI
Max. Resolution	2160p@60 4:4:4	2160p@60 4:2:0	2160p@60 4:4:4	2160p@60 4:4:4	2160p@60 4:2:0	2160p@60 4:2:0	2160p@60 4:4:4	2160p@60 4:4:4	2160p@60 4:4:4	2160p@60 4:4:4
HDR Support	✓	✓ (30Hz)	✓	✓	✓ (30Hz)	✓ (30Hz)	✓	✓	✓	✓
Zone Audio Breakout	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Source Audio Breakout	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HDMI Mirrored Outputs	NA	✓	✓	✓	✓	✓	✗	✓	✓	✓
ARC (Audio Return Channel)	✓ (MK2 Only)	✗	✗	✗	✓	✓	✓	✓	✗	✗
VLC Signal Compression	NA	✗	✓	✓	✗	✗	✓	✓	✓	✗
Communication										
Ethernet to Zone	NA	✗	✗	✗	✓	✓	✓	✓	✗	✗
Setup Via Web UI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
System Diagnostics	✓ (MK2 Only)	✗	✗	✗	✓	✓	✓	✓	✓	✓
Control										
IR (Bidirectional)	NA	✓	✓	✓	✓	✓	✓	✓	✓	✗
API Generated RS-232 to Zone	NA	✗	✓*	✓*	✓	✓	✓	✓	✓	✗
AV Mute for Outputs	✓ (MK2 Only)	✗	✓	✓	✗	✗	✗	✗	✗	✗
CEC Power Triggering	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓
Power										
Standby Mode	✓ (MK2 Only)	✗	✓	✓	✗	✗	✗	✗	✗	✗
PoH	NA	✓	✓	✓	✓	✓	✓	✓	NA	NA

*Only available on MXV-0808 v3 Models



Powerful. Reliable. Simple.

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