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 matrix switchers 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 matrix switchers 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 fibre 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%.

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.
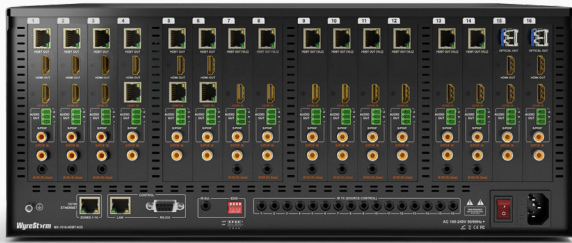
CEC TRIGGERING

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.
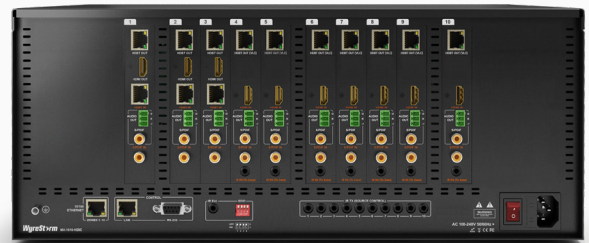
2160p 4:4:4 60

16 Slot 18Gbps 4K HDR Modular Matrix Switch Chassis
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

16-slot 4K UHD matrix switcher featuring 16 inputs and 16 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

10 Slot 18Gbps 4K HDR Modular Matrix Switch Chassis
MX-1010-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-slot 4K UHD matrix switcher featuring 10 inputs and 10 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

5 YEAR WARRANTY™

All WyreStorm Signal Extension Solutions include a 5 Year limited warranty for one of the highest levels of cover available and ultimate peace of mind.

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

Offering transmission of 18Gbps HDMI content up to 70m/230ft, the MXV-0808-H2A-70 brings the familiar power of the WyreStorm H2-series to a compact 1U chassis. Unlike competing compression methods such as CSC, which permanently remove color data, WyreStorm's VLC uses a lossless compression technology to ensure signal integrity.

Proprietary compression algorithm enables 60Hz 4K UHD content (4:4:4 or HDR) 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

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

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

4K HDR 4:4:4 60Hz HDBaseT™ 6x6 Matrix Switch with Zone Audio De-Embed and 4 Mirrored HDMI Outputs
MXV-0606-H2A-70

Offering transmission of 18Gbps HDMI content up to 70m/230ft, the MXV-0606-H2A-70 brings the familiar power of the WyreStorm H2-series to a compact 1U chassis. Unlike competing compression methods such as CSC, which permanently remove color data, WyreStorm's VLC uses a lossless compression technology to ensure signal integrity.

Proprietary compression algorithm enables 60Hz 4K UHD content (4:4:4 or HDR) to be sent over HDBaseT to 70m/230ft

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HDMI Inputs and HDMI outputs support bandwidths of up to 18Gbps

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

6 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

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

Offering transmission of 18Gbps HDMI content up to 35m/115ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm, the MXV-0808-H2A brings the familiar power of the WyreStorm H2-series to a compact 1U chassis. 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

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

Offering transmission of 18Gbps HDMI content up to 35m/115ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm, the MXV-0606-H2A brings the familiar power of the WyreStorm H2-series to a compact 1U chassis. 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

4x8 4K HDR Matrix with
6 HDBaseT/2 HDMI Outputs and Audio Breakout
MXV-0408-H2A

Offering transmission of 18Gbps HDMI content up to 35m/115ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm, the MXV-0408-H2A brings the familiar power of the WyreStorm H2-series to a compact 1U chassis. 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 2 HDMI outputs all offering 18Gbps signal distribution

A/V mute function cuts signal to any output on demand

PoH technology powers receivers from the matrix

8x8 4K HDR HDMI Matrix with Assignable Audio Breakouts
MX-0808-H2A

Compact and fully-featured, the MX-0808-H2A matrix supports 18Gbps throughput to the full video capability of HDMI 2.0; it handles distribution of 4:4:4/60 and HDR content, supporting the latest broadcast standards and next generation 4K HDR source content.

8x8 pure HDMI-to-HDMI 18Gbps matrix with support for 4K/60 4:4:4

Supports latest HDR standards including HDR-10, HLG and Dolby Vision

Dual S/PDIF and stereo phoenix audio matrix outputs with mute

API Controlled A/V Mute function to cut signal to any output on demand

CEC power triggering of connected screens, automatic based on signal presence or via API

SmartEDID dynamically detects display/source capabilities to output the highest resolution available

Control via IR, RS-232, LAN or WebUI

6x6 4K HDR HDMI Matrix with Assignable Audio Breakouts
MX-0606-H2A

Compact and fully-featured, the MX-0606-H2A matrix supports 18Gbps throughput to the full video capability of HDMI 2.0; it handles distribution of 4:4:4/60 and HDR content, supporting the latest broadcast standards and next generation 4K HDR source content.

6x6 pure HDMI-to-HDMI 18Gbps matrix with support for 4K/60 4:4:4

Supports latest HDR standards including HDR-10, HLG and Dolby Vision

Dual S/PDIF and stereo phoenix audio matrix outputs with mute

API Controlled A/V Mute function to cut signal to any output on demand

CEC power triggering of connected screens, automatic based on signal presence or via API

SmartEDID dynamically detects display/source capabilities to output the highest resolution available

Control via IR, RS-232, LAN or WebUI

4x4 4K HDR HDMI Matrix with Audio Breakouts
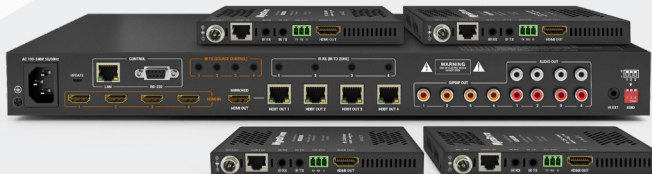#### MX-0404-H2A

Compact and fully-featured, the MX-0404-H2A matrix switcher might be the entry level model of the H2 matrix family, but don't let that fool you. Supporting 18Gbps throughput to the full video capability of HDMI 2.0, it handles distribution of 4:4:4/60 and HDR content, supporting the latest broadcast standards and next generation 4K HDR source content.

4x4 pure HDMI-to-HDMI 18Gbps matrix with support for 4K/60 4:4:4

Supports latest HDR standards including HDR-10, HLG and Dolby Vision

4x Stereo RCA's for audio breakout of matrix output

API Controlled A/V Mute function to cut signal to any output on demand

CEC power triggering of connected screens, automatic based on signal presence or via API

SmartEDID dynamically detects display/source capabilities to output the highest resolution available
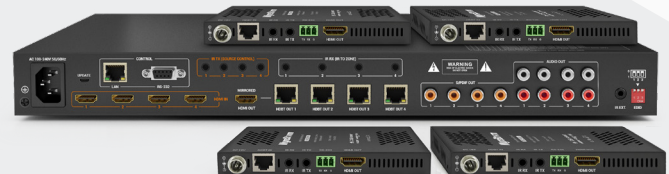
Control via IR, RS-232, LAN or WebUII

4x4 4K HDR HDBaseT Matrix Kit with HDCP 2.2, Audio Breakout and 4x PoH Receivers
MXV-0404-H2A-KIT

Offering transmission of 18Gbps HDMI content up to 35m/115ft by pairing HDBaseT with WyreStorm's powerful lossless compression algorithm, the MXV-0404-H2A-KIT brings the familiar power of the WyreStorm H2-series to a compact 1U chassis. 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

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

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

EXP-MX-0404-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 EXP-MX-0404-KIT has 3 HDBaseT zone outputs with PoH and a single switched HDMI output.

The EXP-MX-0404-KIT doesn't stop there, offering zone audio breakout via S/PDIF, CEC triggering for all connected screens and the A/V mute function enhances the offering for the modern home or commercial installation.

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 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

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WyreStorm Essentials™ 4K UHD 4:2:0 60Hz 8x8 HDBaseT™ Matrix Switch with 6 Receivers & S/PDIF De-Embed

EXP-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 EXP-MX-0808-KIT has 6 HDBaseT zone outputs with PoH and two switched HDMI outputs.

The EXP-MX-0808-KIT doesn't stop there, offering zone audio breakout via S/PDIF, CEC triggering for all connected screens and the A/V mute function enhances the offering for the modern home or commercial installation.

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

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

2160p
4:4:4 60

2160p
4:4:4 60

WyreStorm Essentials™ 4K HDR 4 Input 2 Scaling Output HDMI Matrix Switcher with ARC, Analog and Digital Audio De-Embed
EXP-MX-0402-H2

A vast upgrade from its predecessor, the EXP-MX-0402-H2 takes the EXP-MX0402-010 features to new heights, whilst maintaining its cost effect platform. Keeping up with the latest standards, the EXP-MX-0402-H2 has been upgraded to an 18Gbps backbone with HDCP 2.2 compliance and now featuring a powerful built-in auto scaler on both of its outputs allowing users to simultaneously connect a mix of 4K and 1080p displays.

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

Supports 4K@60Hz 10bit 4:2:0 | 4:4:4 and HDR@24Hz 10bit BT.2020

HDMI Inputs and HDMI 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 analog audio de-embed from output 1

Supports digital audio de-embed from output 2 or HDMI ARC from a smart display

Rich control options including IR, push button controls and RS-232 control

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

Enhanced API offeres 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

Supports 12-bit Deep Color, 3D, Lip Sync and loss-less HD audio formats pass throughSupports 12-bit Deep Color, 3D, Lip Sync and loss-less HD audio formats pass through

WyreStorm Essentials™ 4 Input and 4 Scaling Output 4K HDR HDMI Matrix Switcher W/ Digital S/PDIF Audio De-Embed
EXP-MX-0404-H2

The WyreStorm EXP-MX-0404-H2 is a powerful plug and play 4K matrix switcher solution. With 18Gbps pure HDMI support, the EXP-MX-404-H2 allows up to four UHD 4K sources to be independently routed to four UHD displays. Each Output has the capability to scale 4K content down to connected 1080p displays without affecting the 4K source.

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 HDMI 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.

Rich control options including IR, push button controls LAN and RS-232 control.

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

Enhanced API offeres 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

Supports 12-bit Deep Color, 3D, Lip Sync and loss-less HD audio formats pass throughSmartEDID feature also dynamically detects display/source capabilities and automatically outputs the highest possible resolution

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.

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

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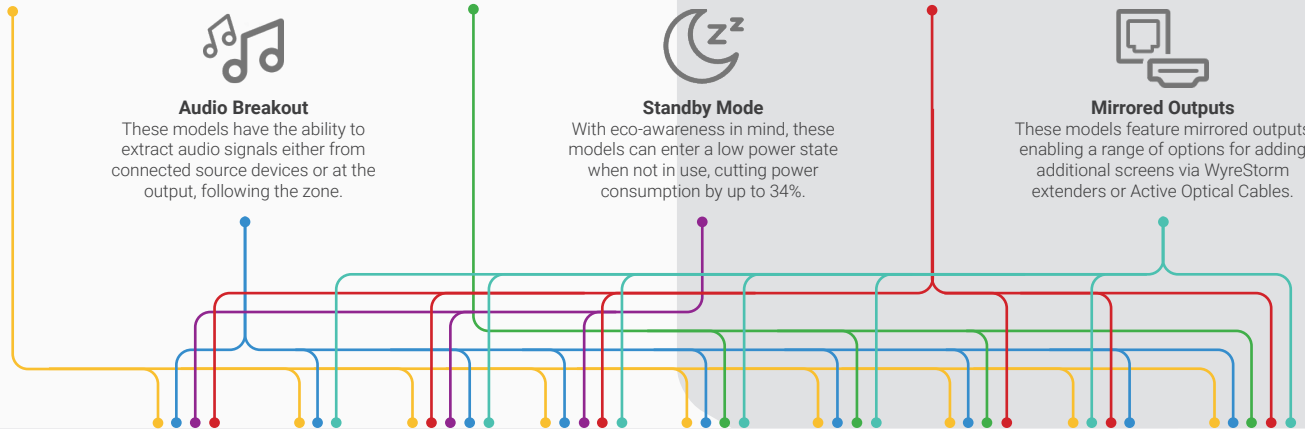
Standby Mode
With eco-awareness in mind, these models can enter a low power state when not in use, cutting power consumption by up to 34%.

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

	MX-H2A Series	H2A-KIT	MXV Series	MXV-70 Series	H2XC with HDMI Card	H2XC with HDBT Card	H2XC with VLC Card	H2XC with OM3 Card	H2XC with ADZ Card
Audio + Video									
Technology	HDMI	HDBaseT Class B	HDBaseT Class B	HDBaseT Class A	HDBaseT Class A	HDBaseT Class A	HDBaseT Class A	HDMI over MM fibre	HDMI
HDCP	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	300m/984ft	15m Copper HDMI*
4K Distance	7m Copper HDMI*	35m/115ft	35m/115ft	70m/230ft	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
HDR Support	✓	✓ (30Hz)	✓	✓	✓ (30Hz)	✓ (30Hz)	✓	✓	✓
Zone Audio Breakout	✓	✓	✓	✓	✓	✓	✓	✓	✓
Source Audio Breakout	✓ 6x6 & 8x8 only	✓	✓	✓	✓	✓	✓	✓	✓
HDMI Mirrored Outputs	NA	✓	✓	✓	✓	✓	✗	✓	✓
ARC (Audio Return Channel)	✗	✗	✗	✗	✓	✓	✓	✗	✗
VLC Signal Compression	NA	✗	✓	✓	✗	✗	✓	✓	✗
Communication									
Ethernet to Zone	NA	✗	✗	✗	✓	✓	✓	✗	✗
Setup Via Web UI	✓	✓	✓	✓	✓	✓	✓	✓	✓
System Diagnostics	✗	✗	✗	✗	✓	✓	✓	✓	✓
Control									
IR (Bidirectional)	NA	✓	✓	✓	✓	✓	✓	✓	✗
API Generated RS-232 to Zone	NA	✗	✗	✗	✓	✓	✓	✓	✗
AV Mute for Outputs	✓	✗	✓	✓	✗	✗	✗	✗	✗
CEC Power Triggering	✓	✓	✓	✓	✓	✓	✓	✗	✓
Power									
Standby Mode	✓	✗	✓	✓	✗	✗	✗	✗	✗
PoH	NA	✓	✓	✓	✓	✓	✓	NA	NA

WyreStorm.

Powerful. Reliable. Simple.

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