



LIGHTWARE'S MX2 DELIVERS ROCK-SOLID 4K60 HDMI 10-BIT SIGNAL ROUTING FOR MICROSOFT IGNITE 2025

Market

Live Events and Entertainment

Country

USA

Lightware Equipment Used in Project

MX2-48x48-HDMI20-A-R

LIGHTWARE'S MX2 48X48 HDMI ROUTER POWERED PIXEL-PERFECT VIDEO DISTRIBUTION AT MICROSOFT IGNITE 2025.

Microsoft Ignite, a major annual conference hosted by Microsoft for developers, IT professionals, partners and business leaders, showcases innovations in areas such as cloud computing, artificial intelligence, productivity tools and more. The event features keynote presentations, product demos and workshops, with a high-impact 360-degree LED screen setup for slides, demos and live visuals. As Microsoft's premier event, it draws over 20,000 in-person attendees and more than 200,000 digital participants. To ensure this large-scale production runs smoothly for both in-person and online attendees, it requires the use of sophisticated video distribution and control.

For the 2025 event at the Chase Center in San Francisco, High Resolution Engineering, a trusted provider of AV rental kits for live events, was enlisted to support the operation, using Lightware's MX2 48x48 HDMI 2.0 matrix switcher alongside three Christie Spyder X80 video processors to ensure flawless switching, control and video quality of all audience-facing video screens.

"I've been working with Lightware products for almost 20 years, using the MX2 in our rental inventory regularly," comments Drew Taylor, CEO of High Resolution Engineering. ***"With a large-scale project like Microsoft Ignite, Lightware's powerful MX2 48X48 HDMI 2.0 switcher stands out as the #1 choice. Many brands simply don't offer solutions at this scale for events of this size, and we know from experience that the MX2 is super reliable."***

Lightware's MX2 48x48 provided the backbone of the event's video distribution system, routing over 30 4K60 10-bit video feeds from media servers, PowerPoint machines and an Unreal Engine server while distributing the signals to Spyder X80 video processors. These processors then drove 18 4K outputs to a complex arrangement of LED screens around the stage. The unique stage design featured three levels of screens: ground, mid and high-level, allowing presenters to turn in any direction whilst ensuring all visual content was visible from every angle.

"With over 142 million pixels spread across 20 different ROE LED screen surfaces, the setup provided a truly immersive, wow-factor visual experience," explains Taylor. ***"Maintaining clarity and sharpness on every screen was crucial, and the MX2's 4k at 60Hz 10-bit support ensured that high-resolution content was distributed without any loss of quality."***



One of the key challenges in managing LED setups for live events on this scale is dealing with the wide variety of resolutions and signal requirements, which can make distributing and scaling video signals across a complex arrangement of screens difficult. ***"With LED, you're dealing with a range of formats and custom resolutions—we had one screen with a massive resolution of 11,520 pixels wide by 2,112 pixels tall. The MX2 can easily handle multiple resolutions and different custom EDID without any issues,"*** confirms Taylor. The MX2's flexibility and high-capacity allowed it to route and manage diverse video feeds, ensuring consistent performance and image quality across all screens throughout every presentation. ***"The matrix integrates flawlessly with our other equipment, such as the Spyder video processors and Companion control software."***

To enable 10-bit, 4K media server content to run via HDMI 2.0, HRE created custom EDIDs with reduced colour subsampling (4:2:2) and other tweaks to the colour space. Whilst this can sacrifice some colour quality, it enhances black levels and overall image standard. ***“Using Lightware’s Advance EDID management features, we were able to configure custom 10-bit setups for improved visual performance.”*** By ensuring the source sends an appropriate signal, EDID management also helps to prevent common issues such as no signal, flickering or lower-than-4k resolutions.



With processing systems, it’s usual for there to be a little latency in the scaling and image processing, so it is important that there is no additional delay from the router. Any noticeable delay between what the audience sees on the screens and what is happening on stage can disrupt the experience, so the MX2’s zero latency was crucial for maintaining real-time synchronisation across multiple screens.

“The Lightware MX2 48x48 stands out for its unmatched performance and value. At this scale of inputs and outputs, there’s simply no other option that works as well. Most competing products tend to stop at much smaller capacities and lack the advanced features,” explains Taylor. ***“We’ve used the MX2 successfully for both rental and live events, as well as installations. It’s a reliable product that anyone can learn to use quite quickly. Thanks to its intuitive built-in web GUI, there’s no need to install additional software, making it extremely user-friendly.”***

Microsoft Ignite 2025 was a remarkable showcase of cutting-edge technology, both on screen and behind the scenes. By leveraging the power of Lightware’s MX2 48x48 HDMI 2.0 router, High Resolution Engineering ensured that the complex 360-degree LED screen setup ran smoothly, delivering low latency and high-resolution for both in-person attendees and online viewers. The production highlights the importance of using the right tools for large-scale events, with the MX2 proving to be a key component in ensuring its success.

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