

# MXWall

POWERED BY Smart-AM



**HDMI Matrix. Video Wall. Digital Signage.**  
*All in One Device.*

Manage and route up to 32 HDMI video sources to 32 HDMI displays in real time with fully integrated video wall and digital signage control

## FEATURES:

- ✓ Expandable to 32 HDMI Inputs and 32 HDMI Outputs
- ✓ Full Hardware Solution, No Operating System Required
- ✓ Real Time Image Display, No Dropped Frames
- ✓ Supports Multiple Video Wall Layouts
- ✓ Built-In Digital Signage Functionality
- ✓ Delivers Reliable, "24/7" Uninterrupted Use
- ✓ HDMI 1.4 and HDCP Compliant
- ✓ Output Resolution up to 1920x1080
- ✓ Scales Each Input to 1080p
- ✓ Supports Partial Input and Output Cards with Mixed Interpolation
- ✓ High-Speed Bus Parallel Processing Technology and High-Bandwidth Uncompressed Processing
- ✓ Control via Front Panel Buttons, RS-232 or Ethernet
- ✓ User-Friendly GUI Software
- ✓ Supports Open Protocol for Integration with AMX, Creston
- ✓ Android Application Available
- ✓ Integrated Media Player for Video, Photos and Web Browsing with Local Storage

## APPLICATIONS:

- ✓ Command Centers
- ✓ Control Rooms
- ✓ Security Centers
- ✓ Server Hubs
- ✓ Emergency Operation Centers
- ✓ Medical Campuses
- ✓ Public Safety/Traffic Centers
- ✓ Dealer Rooms
- ✓ Production Studios
- ✓ Audio/Video Presentations
- ✓ Shopping Centers
- ✓ Air Traffic Control Rooms





# OVERVIEW

For the ultimate in control over a high definition video matrix, the new MXWall delivers complete flexibility to route and distribute 32 HD inputs and 32 HD outputs with video wall functionality. No other video matrix on the market today provides the unique combination of full matrix switching with included video wall operation, which offers the ideal video routing solution for the most demanding of environments and applications.

The MXWall gives users the ability to control 32 high definition screens, each with its own input. Then, in real time, users can switch to create a multi-screen display of any of the 32 inputs in any section of the 32 screens, providing the unique functionality of a video wall in the middle of multi-screen matrix display with full scaling capabilities.

Users can route multiple 2x2, 3x3 or 4x4 configurations of various sources, or stretch a single image across all 32 screen at the click of a button. There has never been a video routing solution that provides this much user-friendly customization.



This technology provides nearly limitless possibilities for applications like law enforcement, defense, security and more. With 32 HDMI inputs and 32 HDMI outputs, each screen can deliver full 1080p HD. No matter the input resolution, the MXWall always scales the content to 1080p output.

The MXWall supports full control and switching access via RS-232 and Ethernet connections. That means users can connect remotely, whether that's from the opposite side of the room or halfway around the world, to securely control all of the matrix's functions.



The MXWall offers a secure, hardware-only solution that requires no additional drivers or software. That insulates the device from hacking, viruses and even the need to reboot. The MXWall provides the top level of reliability, even in intense periods of usage in the most critical applications possible.

# **MXWALL FEATURES**

## **POWERFUL WEB INTERFACE**

Maximizing the effectiveness of the MXWall is easy with the powerful web interface it offers. With user-friendly drag-and-drop capabilities, it takes just a few clicks of the mouse to organize and change the layout of the video feeds being controlled by the device. There's no need for additional plug-ins, drivers or software. The MXWall has everything users need in the box to manage their content.

## **DIGITAL SIGNAGE BUILT IN**

While other video walls and matrix routers require users to input their content exactly as it will be displayed, the MXWall delivers an extra layer of customizable content management. That's because the device comes with a built-in digital signage controller, giving users an extra edge in managing content. Using SmartAVI's SignagePro technology, users can access the digital signage interface to load and update content on the fly. SmartAVI's digital signage interface is employed across the globe on a daily basis, so users know they can maintain complete control with this technology built into the MXWall.

## **INTERNET ACCESS INCLUDED**

The MXWall is a device specifically designed for high-level usage by delivering a wide array of features that can't be found in one device, including built-in Internet access. This gives users the ability to display live web pages, including streaming video, on any of the 32 screens that are connected to the device. Users can attach a KM (Keyboard and Mouse) controller to operate the Internet from the MXWall. Combine this functionality with RS-232 and Ethernet control options, and it's clear that there's no more powerful or more easily-integrated solution on the market today.

## **CUSTOMIZABLE CONTENT INTEGRATION**

The MXWall enables users to create the most professional video wall solution currently available. The final touch to customizing the MXWall is on the start-up screen. The device allows users to upload their own logo so the device can be branded for any venue, giving the video wall an even more professional and customized appearance.



# REAL WORLD APPLICATIONS

The technology involved with security, data, servers and elsewhere has greatly evolved in recent years. In various control room environments where managing all of these new technologies and sources is crucial, the MXWall provides the utmost in flexibility and customization, along with crystal clear resolution.



**COMMAND CENTER:** Users need to show dozens of video sources on multi-screen displays, while keeping the option of displaying one or a few of those sources over multiple displays instantly. The MXWall offers this unique flexibility, allowing users to reconfigure the screen set up at a moment's notice.



**SECURITY CONTROL ROOM:** Users provide security surveillance by monitoring lots of video feeds at once. The high-quality resolution and full HD scaling on the MXWall is absolutely critical when users need to review all of the details that have been captured on video.



**PUBLIC SAFETY AND UTILITIES:** Public safety departments and infrastructure systems in cities rely on up-to-date information that's accessible 24/7. When something goes wrong on the grid, officials need to be fully informed about what's going on, and the MXWall is the ideal tool to stay on top of any situation.

# FLEXIBLE CONTROL

The MXWall can be controlled from the easily accessible LCD front panel and keypad that allows users to determine which inputs are connected to which outputs.

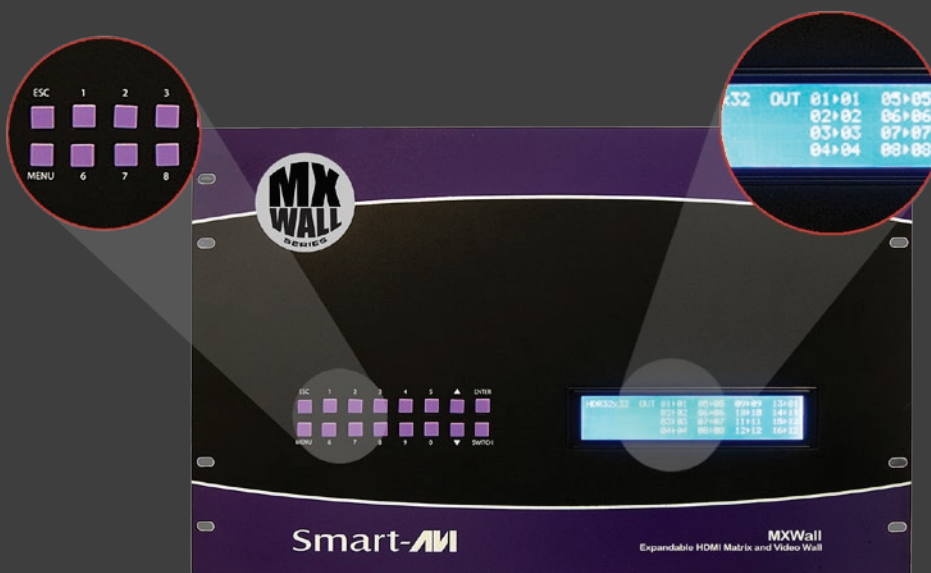
RS-232: Controlling the MXWall is effortless with SmartAVI's Windows®-based SmartControl software. Users can assign a unique name to each port on the matrix along with a display for specific project requirements. SmartControl allows customization of all the device's functions.

Ethernet: If users need to make changes instantly but can't be there in person, the Net-IP-Pro control module is the solution. SmartAVI's optional Net-IP-Pro module is effective for real-time remote location management. Simply connect the Net-IP-Pro module to the MXWall while connected to the Internet and the matrix can be controlled from anywhere in the world.

## INTEGRATED DIGITAL SIGNAGE

A key feature of the MXWall is its built-in digital signage control. Digital signage allows users to create unique, fully-integrated content with a host of scheduled videos, images, HTML 5 widgets and more. It's easy to edit and update with SmartAVI's user-friendly digital signage management software.

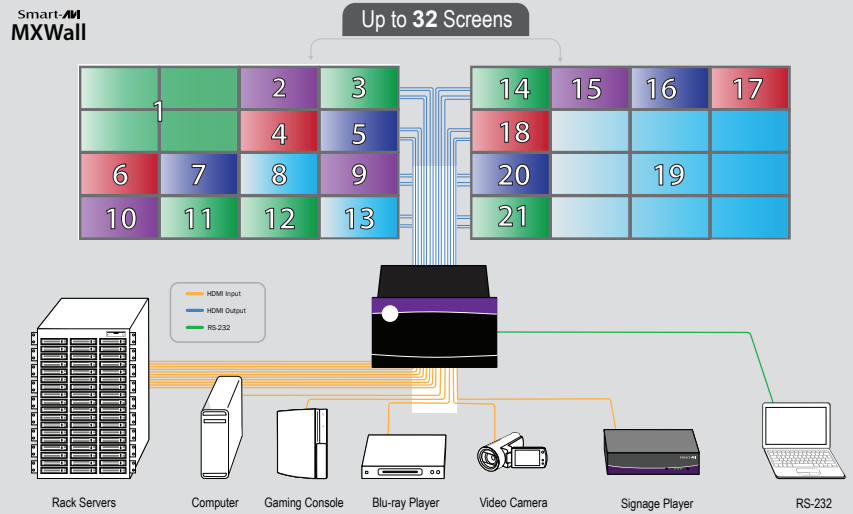
Once users have generated their specific digital signage content, the MXWall's user interface makes it easy to drag and drop the content anywhere into the device's outputs. With unparalleled control and the power of digital signage, the MXWall is the most powerful content controller on the market.



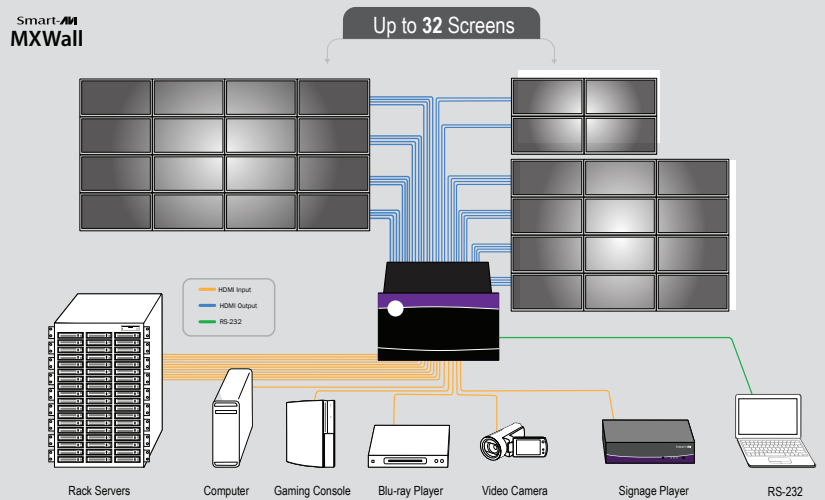
# APPLICATION DIAGRAMS:

The MXWall can be used to route any 32 HDMI input to any 32 HDMI screens:

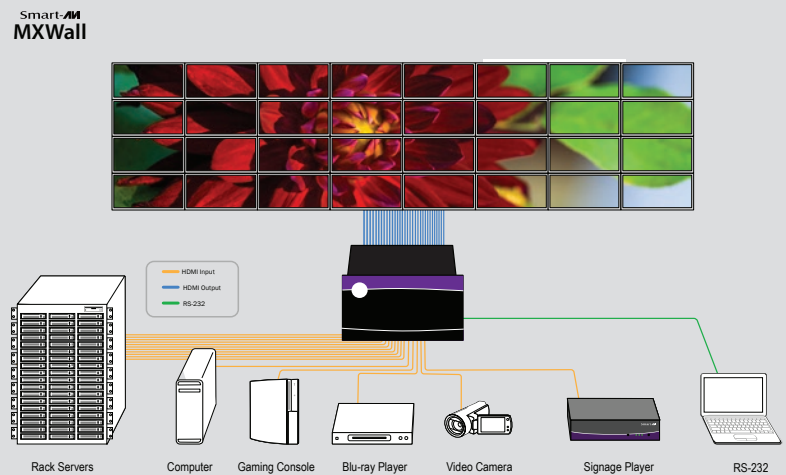
The MXWall can be used to create a video wall configuration in the midst of a 32 screen matrix set up:



The MXWall can be used to create multiple video wall configuration in the midst of 32 screen matrix set up:

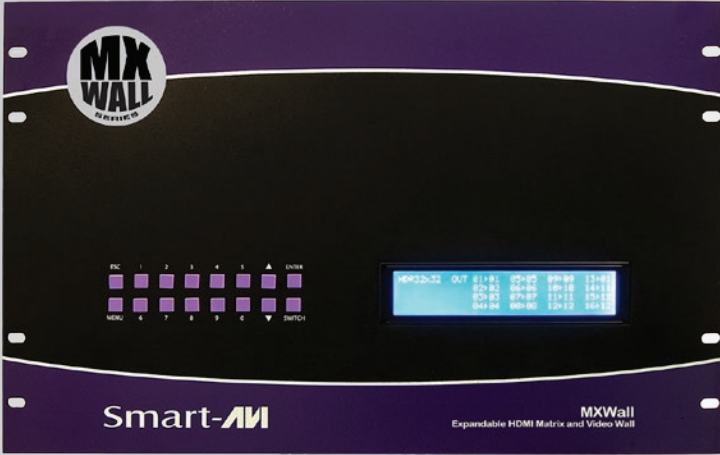


The MXWall can be used to create one large video wall display across all 32 screens:





# SPECIFICATIONS



MXWall Front



MXWall Rear

VIDEO	
Video Amplifier Bandwidth	3.2G
Input Video Signal	Video (TMDS) 0.5~1.0Vpp
Input DDC Signal	5 volts
Compliances	HDMI 1.4 and HDCP
Pixel Rates	Clock frequency beyond 165Mpix/second
Format	4:4:4 and 4:2:2 data input formats
Resolution	480p, 720p, 1080i, 1080p
Input Card Format	HDMI
Output Card Format	HDMI
Input Slots	Up to 8 cards of 4 HDMI input each
Output Slots	Up to 8 cards of 4 HDMI output each
Video Type	RGB/YCBCR : 24/30/36-bits, YCBCR: 8/10/12/16/20/24-bits

CONTROLS	
Front	2x8 keyboard with 4x40 LCD
RS-232	9600bps, Software flow DB9 Female
TCP/IP	Webserver, Telnet
OTHER	
Working Temperature	0°C~+55°C
Storage Humidity	10%~90%
Weight	30 lbs.
Dimensions	17.125 in (W) x 12 in (H) x 12 in (D)
Power Supply	50/60Hz, 100~230 VAC
Consumption	300W

## ORDERING INFORMATION

Part No.	Description
MXWall-1616-S	16x16 HDMI Matrix with Integrated Video Wall. Includes: [MXWall-1616 & (CCPWR06)]
MXWall-3232-S	32x32 HDMI Matrix with Integrated Video Wall. Includes: [MXWall-3232 & (CCPWR06)]

Configurations starting at 4 inputs and 4 outputs up to 32 inputs and 32 outputs are available. Contact us to learn more.



Designed and Manufactured in the USA

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**Smart-AVI**  
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