MXCORE-HD SERIES

Expandable High-Definition Video Matrix up to 32x32

MXCORE-HD series is an expandable High-Definition video router, capable of routing 1080p signals in configurations of 2x2 up to 32x32

MADE IN THE USA

MEMBER OF (((HDCP))) GROUP

HD ready 1080p

Smart-AVI
SMART AUDIO VIDEO INNOVATION

The Matrix

The MXCORE-HD, HDMI Matrix router allows you to distribute and route any of your input HD sources onto more than one HD display device. Supporting high resolutions of 480p, 720p, 1080i and 1080p, along with 7.1 Digital Surround Sound Audio. This can be done without any loss of picture clarity and no ghosting of images.

The HDMI signal allows the transfer of both audio, as well as video, signals simultaneously. The matrix also supports HDMI 1.4, HDCP, and DVI 1.0 protocol. Support of for 12-bit color depth all HDTV resolutions including 1080p/60, and PC resolution up to 1920 x 1200 is also included. The HDMI cable is automatically equalized and can compensate the long distance by reducing the number of additional input signals. The processing apparatus supports this input of up to 35 meters in the long term.

Features

- Switches any hdmi source input to any output up to 32x32
- Sources can be routed independently to any display
- Supports high definition video resolutions of 480p, 720p, 1080i and 1080p
- Supports PC resolutions VGA, SVGA, SXGA, UXGA and WUXGA (1920 x 1200)
- Supports digital video formats in Deep Color to 12bit per color
- Compatible with HDMI version 1.4a and DVI
- Supports 7.1 Digital Surround Sound Audio
- Supports EDID for total control of compliant displays
- Delivers uncompressed digital video with zero signal loss
- Input cable equalization
- Outputs HDMI up to 25 feet and 40ft with Premium HDMI Cables
- Switching controlled via RS-232,IR, SmartControl GUI or web server
- Front panel 4x40 LCD display
- Front panel switches for easy switching
- Browser Graphical User Interface (GUI)
- Web based interface
- Telnet support
- Firmware upgradeable for future support
- Input cable equalization

Applications

- Wall Displays
- Digital Signage
- Airports
- Dealer Rooms
- Control Rooms
- Audio/Visual Presentations
- Shopping Centers
- Security
- Point-of-Sale
- Hotels/Resorts
- KVM Switch

HDMI MATRIX SWITCHING MADE EASY

Users can locally switch between sources via the easy to operate front panel, or can do so remotely through a RS-232, IR, or TCP/IP connection. The MXCORE-HD Series can be controlled by SmartAVI's very own Windows®-based manager software, a cornerstone of all SmartAVI products.

FLEXIBLE CONTROL

MXCORE-HD Series by SmartAVI can be controlled from the easily accessible front panel LCD and keypad that allows users to determine which inputs are connected to which outputs.

RS232: Controlling the MXCORE-HD Series matrix switchers have never been simpler with SmartAVI's Windows®-based SmartControl software. Users can assign a unique name to each port on the matrix switcher along with a display for specific project requirements.

Although all the functions of the matrix are available locally on the front panel, SmartControl allows customization of all the matrix functions.

IR: Many system professionals prefer the IR control interface because it offers greater flexibility to manage the MXCORE-HD switches at a distance. In some cases, the displays will not be visible from the matrix, which would then make it necessary to control the matrix with Infrared command signals.

TCP/IP: If you 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 control management. Simply connect the NET-IP-PRO module to the MXCORE-HD switch while connected to the internet and the matrix can be controlled from anywhere in the world.

EDID EMULATION

Each input incorporates our unique "SmartEDID" programmable technology capable of learning video resolutions, audio settings, and 3D data. The EDID memory of each display is stored in a single flash memory, giving users freedom to choose any EDID and emulation of any display.

MXCore-HD series enables HDMI and DVI sources to continuously read the EDID of a monitor with full emulation at any given time.

The EDID management allows learning and saving of up to 100 displays including audio. With the support of HDMI 1.3 HDCP, MXCore-HD series can learn EDID from any display device provided.

SmartAvi offers multiple solutions to control the MX-Core series

- Windows application
- Web based application
- Front panel switches and LCD
- Easy protocol for integration with the most common control systems such as: AMX, Creston, and more.

SmartControl

SmartConrol is the windows GUI application that enables users to control SmartAVI matrixes using graphic user interface with out having to write the codes and send serial commands to the devices.

The software enables configuration of the size and type of the matrix, including a preset defined at macro.

The software also enables identification by name for each source and display.
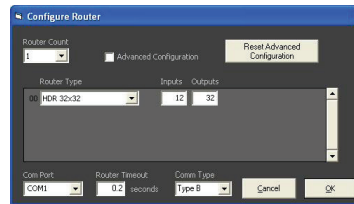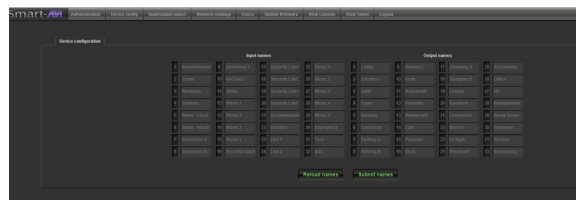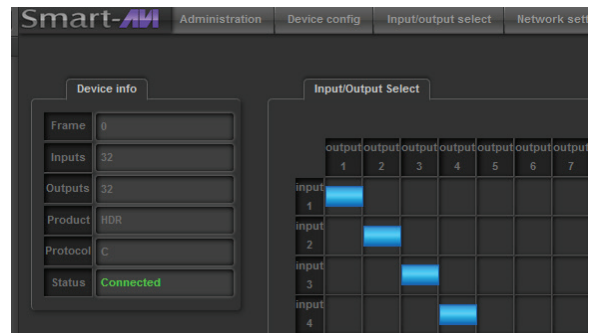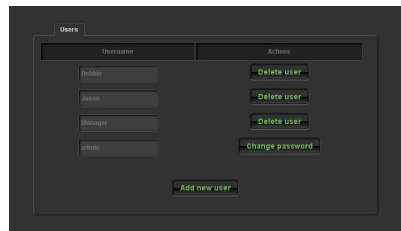
Net IP Pro

NetIPPro gives the user full control of the matrixes from anywhere in the world through this advanced new web browser software.

NetIPPro enables multiple users to control and configure the Matrix, including names of sources, names of displays, IP address, and low level features of the matrix.
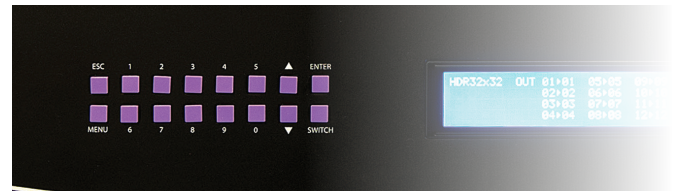
The NetIPPro enables the support of telnet for easy integration with other control systems.

Front Panel

The MXCORE-HD front panel enables one to switch directly from the matrix without the use of any software.
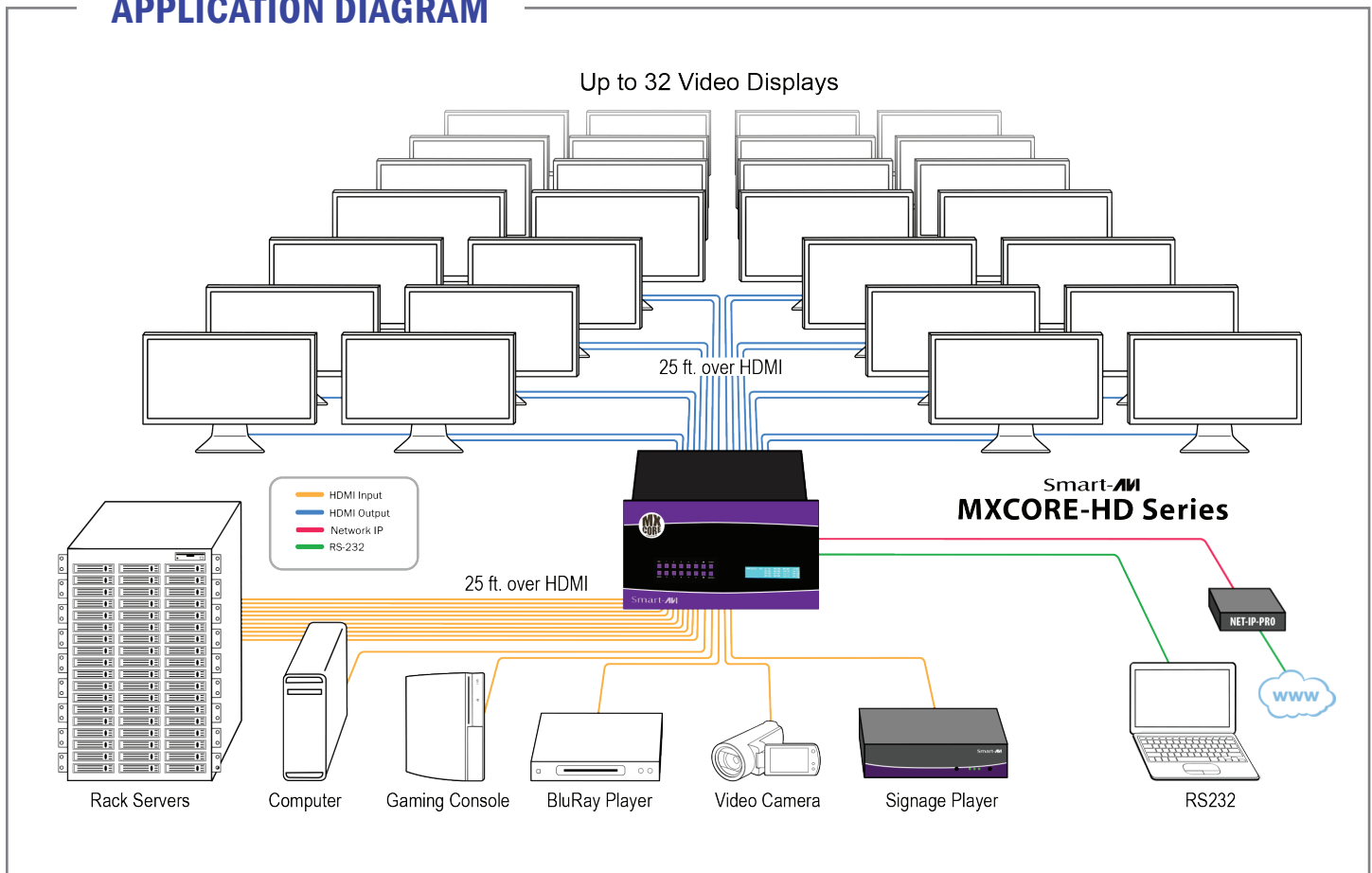
Its LCD (4x40) offers detailed information about the status of the switch at any given moment.
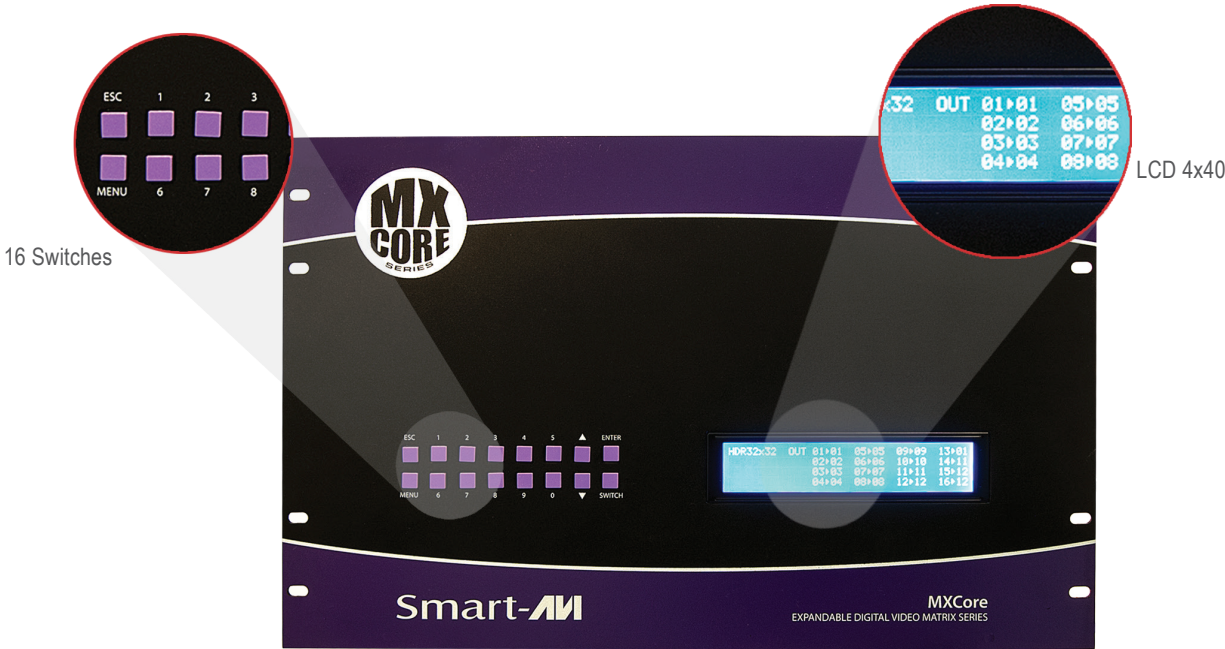
The Protocol

Smartavi offers multiple protocols to control the Matrix, easy protocols to integrate in short period of time, and also more advanced protocols with error detecting code for secure switching.

APPLICATION DIAGRAM

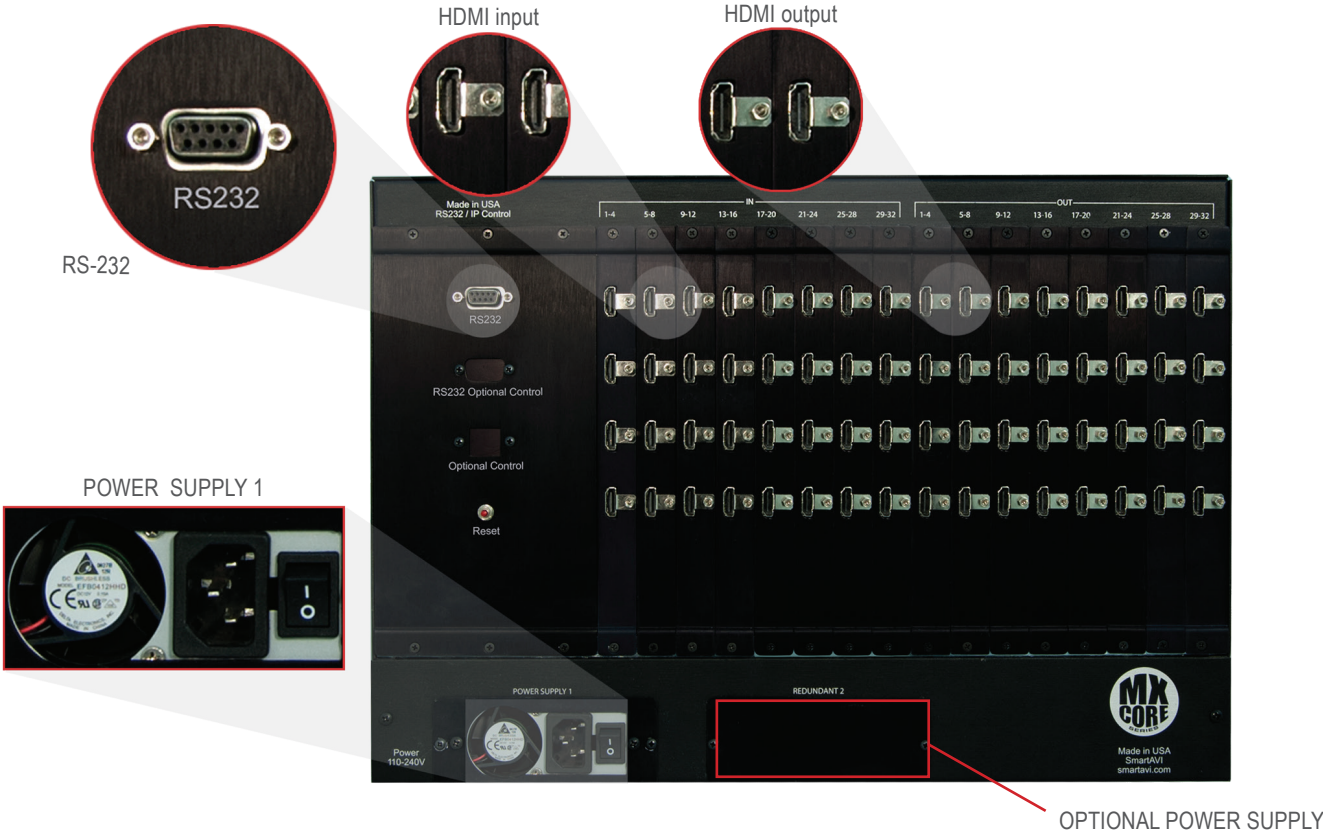Up to 32 Video Displays

25 ft. over HDMI

HDMI Input
HDMI Output
Network IP
RS-232

25 ft. over HDMI

Smart-AVI
MXCORE-HD Series

NET-IP-PRO

www

| Rack Servers | Computer | Gaming Console | BluRay Player | Video Camera | Signage Player | RS232 |

MX CORE HD Front

16 Switches

LCD 4x40

MX CORE HD Back

HDMI input

HDMI output

RS-232

POWER SUPPLY 1

OPTIONAL POWER SUPPLY

HDMI INPUT AND OUTPUT
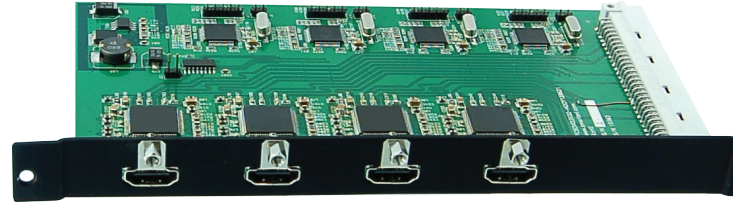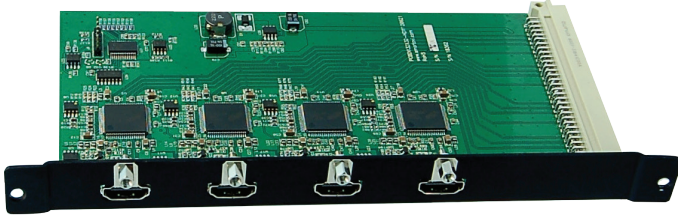
MX CORE HD Specifications

VIDEO

Video Amplifier Bandwidth	3.2G
Input Video Signal	Video (TMDS) 0.5~1.0Vpp
Input DDC Signal	5 volts
Signal Supports	HDMI Standard, DVI and HDCP compliant
Pixel Rates	clock frequency beyond 165Mpix/second
Format	4:4:4 and 4:2:2 data input formats
Resolution	480, 720p, 1080i, 1080p HDMI formats and DVI up to 1920x1200x60hz
Input Cards	4x HDMI Type A 19-pin Female TMDS
Output Cards	4x HDMI Type A 19-pin Female TMDS
Input Slots	8 cards of 4 hdmi input each
Output Slots	8 cards of 4 hdmi input each
Video Type	RGB/YCBCR : 24/30/36-bits,YCBCR: 8/10/12/16/20/24-bits

POWER SUPPLY

	50/60Hz, 100~230 VAC
Consumption	300W

AUDIO

Audio Supported	DTS-HD Master Audio, Dolby True- HD & Dolby Digital Plus integrated in hdmi signal

CONTROLS

IR	38Khz RC5
Front	2x8 keyboard with 4x40 LCD
RS232	9600bps, Software flow DB9 Female
TCP/IP	webserver, Telnet

OTHER

Working Temperature	0°C~+55°C
Storage Temperature	10%~90%
Weight	10Kg

DIMENSIONS

17.125" x 12" x 12"

WEIGHT

20 lbs.

ORDERING INFORMATION

Part No.	Description
MXC-HD08X16S	MXCORE-HD Expandable HDMI 8X16 Matrix Switcher. Includes: [MXC-HD08X16, SM-CSW, and CCPWR06]
MXC-HD08X32S	MXCORE-HD Expandable HDMI 8X32 Matrix Switcher. Includes: [MXC-HD08X32, SM-CSW, and CCPWR06]
MXC-HD12X16S	MXCORE-HD Expandable HDMI 12X16 Matrix Switcher. Includes: [MXC-HD12X16, SM-CSW, and CCPWR06]
MXC-HD12X32S	MXCORE-HD Expandable HDMI 12X32 Matrix Switcher. Includes: [MXC-HD12X32, SM-CSW, and CCPWR06]
MXC-HD16X08S	MXCORE-HD Expandable HDMI 16X8 Matrix Switcher. Includes: [MXC-HD16X08, SM-CSW, and CCPWR06]
MXC-HD16X12S	MXCORE-HD Expandable HDMI 16X12 Matrix Switcher. Includes: [MXC-HD16X12, SM-CSW, and CCPWR06]
MXC-HD16X16S	MXCORE-HD Expandable HDMI 16X16 Matrix Switcher. Includes: [MXC-HD16X16, SM-CSW, and CCPWR06]
MXC-HD16X32S	MXCORE-HD Expandable HDMI 16X32 Matrix Switcher. Includes: [MXC-HD16X32, SM-CSW, and CCPWR06]
MXC-HD32X08S	MXCORE-HD Expandable HDMI 32X8 Matrix Switcher. Includes: [MXC-HD32X08, SM-CSW, and CCPWR06]
MXC-HD32X12S	MXCORE-HD Expandable HDMI 32X12 Matrix Switcher. Includes: [MXC-HD32X12, SM-CSW, and CCPWR06]
MXC-HD32X16S	MXCORE-HD Expandable HDMI 32X16 Matrix Switcher. Includes: [MXC-HD32X16, SM-CSW, and CCPWR06]
MXC-HD32X32S	MXCORE-HD Expandable HDMI 32X32 Matrix Switcher. Includes: [MXC-HD32X32, SM-CSW, and CCPWR06]

MADE IN THE USA

www.smartavi.com

Smart-AVI
SMART AUDIO VIDEO INNOVATION