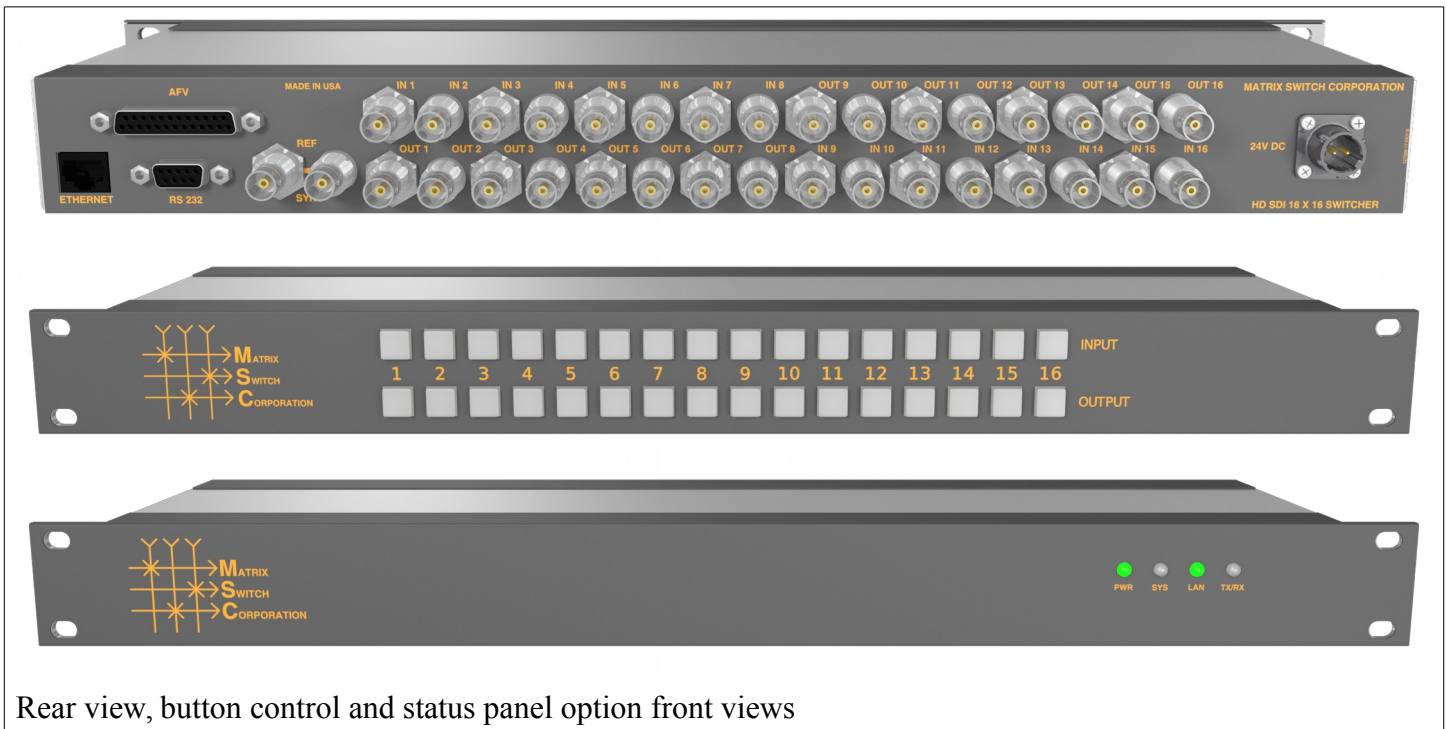


Matrix Switch Corporation 16x16 3G/HD/SD-SDI Video Router Aviation Ready Models



Rear view, button control and status panel option front views

Matrix Switch Corporation [aviation ready 1RU SDI video routing switchers](#) offer factory configurable matrix I/O size configurations of 8x16, 16x8 and 16x16. These systems are 1RU in height and less than 6 inches deep, allowing for installation in space and weight limited situations.

Aviation ready models come with a MIL spec power connector (two pin MIL-C-26482 series 1) for aircraft DC power interfaces, 18-50 VDC isolated internal power supply (28 VDC nominal), secured (Locktite) screws and chassis components for anti-vibration and airworthiness, and 24 hour burn-in. Manufactures' conformance certificate issued for all systems.

The choice of a button control panel or status only panel provides an additional savings opportunity for applications that only use remote control panels, web page interface, telnet or RS-232 serial control.

Matrix Switch Corporation routers offer flexible and user friendly control, including a built in Javascript enabled web page interface and simple yet powerful text based control protocol which can be sent via TCP/IP, RS-232 Serial Port or the web page interface.

Models – Button Control Panel or Status Panel

Button Control Panel	Status Panel
MSC-1HD1616L+DC	MSC-1HD1616S+DC

Feature Highlights

- Re-clocking of standard SD, HD and 3G SDI data rates
- Auto bypasses non-standard SDI rates from 20Mbit/s to 3Gbit/s
- Video mute on every output
- Passes SDI embedded audio and ancillary data
- Interactive web page interface ([demo](#))
- Vertical interval switching
- Store and recall up to 10 presets (complete or partial matrix state recall)
- Compact design - 1RU less than 6 inches deep
- Low power consumption – less than 20VA
- Software updates via Ethernet port
- Backed by a full 2 year manufacturer parts and labor warranty
- Flexible control using the [MASCOT text based protocol](#) via TCP/IP, serial port or web page interface
- Can be used with one or more Matrix Switch Corporation TCP/IP [Remote Panels](#)
- Optional additional 75 ohm AES digital audio (model [MSC-DE1616](#) connected via D25 connector)
- Optional additional balanced analog stereo audio (model [MSC-AA1616](#) connected via D25 connector)

Additional +DC Aviation Model Features

- 18-50 VDC isolated internal power supply (28 VDC nominal) with Mil-Spec power connector for aircraft DC power interfaces
- Secured (Locktite) screws and chassis components for anti-vibration and airworthiness
- 24 hour burn in
- Manufactures' conformance certificate issued for all systems



Specifications

Size	19"W x 1.75"H x 6"D
Rack Size	1RU
Weight	5 lbs
Power	18-50 VDC (28VDC Nominal)
Power Connector	MS3112E8-2P
Storage Temp	-10 Through +50 Deg C
Operating Temp	0 Through +40 Deg C
Humidity	0 Through 90% Non-Condensing
Warranty	2 Years Parts & Labor

SDI Video

Connector type	BNC
Data Types	SMPTE 259/292/424
Data Rates	19 Mbit/s through 3.0 Gbit/s
Re-clocking Data Rates	270 Mbit/s, 1.485 Gbit/s, 2.97 Gbit/s
Input/Output Return Loss	> 15dB @ HD, > 12dB @ 3G
Input Level	800 mV P-P +/- 20%
Input Impedance	75 Ohms +/- 1%
Cable equalization (1694A coax)	350m @ SD, 175m @ HD, 100m @ 3G
Output Level	800 mV P-P +/- 5%
Output Impedance	75 Ohms +/- 1%
Output Jitter	< 0.2 UI

Reference Signal

Connector Type	Analog BNC with pass-through
Format	NTSC, PAL and Tri-level sync

Digital Audio

(optional MSC-DE1616)

Connector Type	BNC
Input level	200mV to 5V P-P
Input impedance	75 Ohm +/- 1%
Output level	1V P-P
Output impedance	75 Ohm 1%

Analog Audio

(optional MSC-AA1616)

Connector type	D25 (Tascam pin compatible)
Channels	Stereo
Maximum input level	+24dBm
Input impedance	20K Ohm
Gain	Unity +/- 0.5dB
Output impedance	30 Ohms
S/N ratio	> 100dB
Frequency response	10Hz - 30kHz +/- 0.1dB
Distortion	< 0.1%
Crosstalk	Better than 80 dB at 10KHz

Control Specifications

Serial RS232	9600 Baud 8N1
Ethernet	10 BaseT TCP/IP
Panel control	Local and remote button control panel options