Matrix Switch Corporation Product Brief
32x32 3G/HD/SD-SDI Video Router
Aviation Ready Models

Matrix Switch Corporation aviation ready 2RU SDI video routing switchers offer factory configurable matrix I/O size configurations in input OR output increments of 8 up to 32x32 for a total of 12 different sizes. These systems are 2RU in height and less than 7 inches deep, allowing for installation in space and weight limited situations. Forced air cooling ensures low internal temperatures for long service life in the most harsh environments.
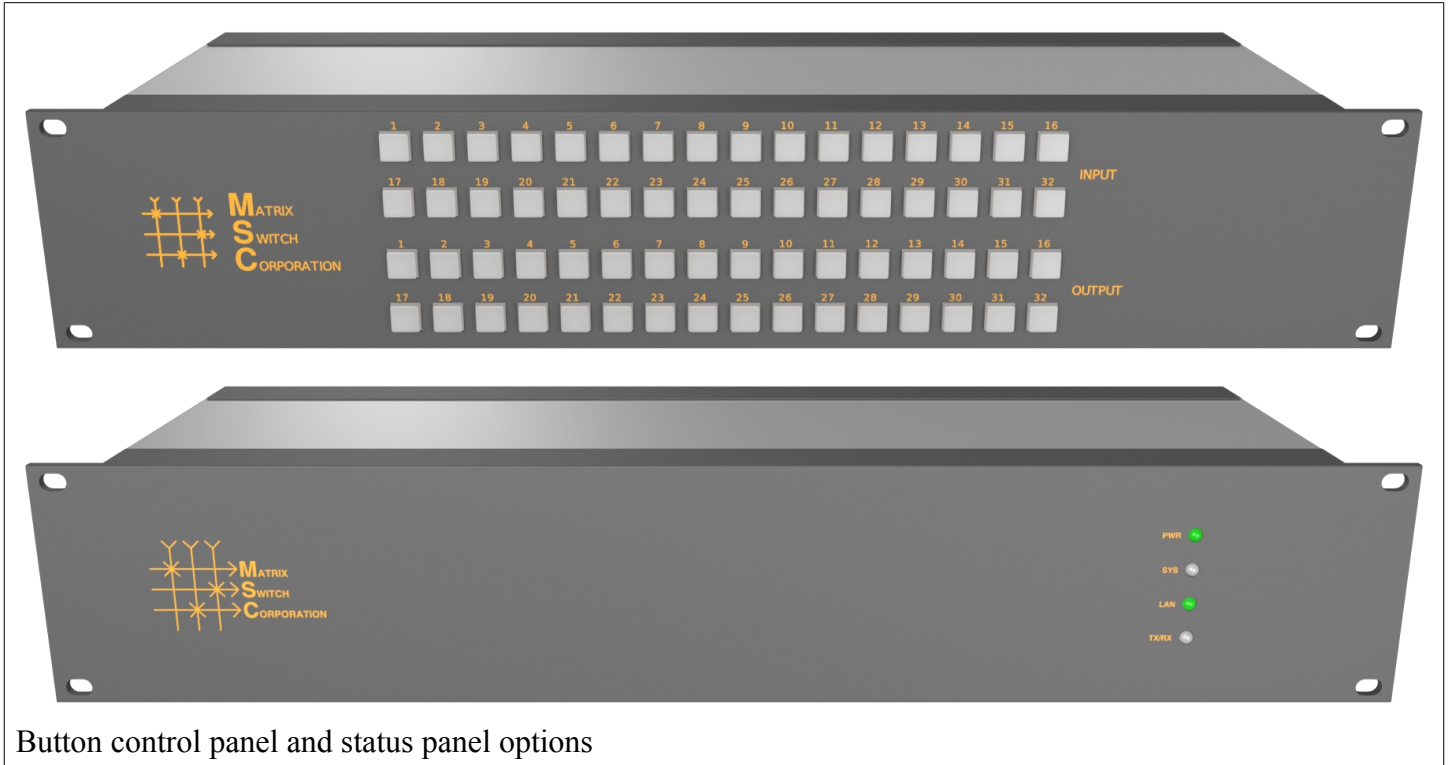
Aviation ready models come with a MIL spec power connector (two pin MIL-C-26482 series 1) for aircraft DC power interfaces, 18-50 VDC isolated internal power supply (28 VDC nominal), secured (Locktite) screws and chassis components for anti-vibration and airworthiness, and 24 hour burn-in. Manufactures' 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-2HD3232L+DC	MSC-2HD3232S+DC

Button control panel and status panel options

Feature Highlights

- Re-clocking of standard SD, HD and 3G SDI data rates (auto bypasses non-standard SDI rates)
- 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 - 2RU less than 7 inches deep
- 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

Additional +DC Aviation Model Features

- 18-50 VDC isolated internal power supply (28 VDC nominal) with Mil-Spec power connector for aircraft DC power interface
- 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 3.5"H x 7"D
Rack Size	2RU
Weight	8 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

Control Specifications

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

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