

# Compact – high performance HD-SDI digital video switchers



## **8x1, 12x1, 16x1, 4x4, 8x4, 8x1 and 8x8 HD-SDI/SDI Video Routing Switcher with Digital and Analog Audio Options**

### Key features:

- \* Automatic cable compensation up to 1,000 feet
- \* Automatic HD/SDI rate detect and re-clocking
- \* RS232 and Ethernet remote control
- \* Compact size: 5 inches deep, less than 5 lb., less than 10VA
- \* Optional local control panel
- \* Optional remote control panel

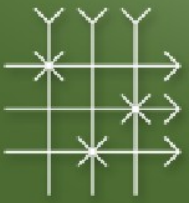
### Applications:

- \* Broadcast Studios
- \* Post-Production Facilities
- \* ENG/OB Applications
- \* Remote Trucks
- \* Flyaway video production cases

These compact switchers are an ideal solution for any HD and SDI video environment and will easily handle any SDI or HD format from 19 Mbps to 1.485 Gbps, as well as DVB-ASI signals. Each input has automatic cable loss equalization and each output auto detects standard SMPTE data rates. Standard SMPTE data rates are re-clocked. The Auto Rater Detect logic switches to bypass for any non-SMPTE data rate.

Each switcher size: 8x1, 12x1, 16x1, 4x4, 8x4, 8x1 and 8x8 is available with a variety of audio and control panel options. These include no audio (video only), AES3 S/PDIF 75 ohm digital audio on BNC I/O, AES3 Balanced 110 ohm digital audio, stereo analog audio, no local control panel, built in local control panel and or Ethernet TCP/IP based remote control panel(s).

The 8x1 and 16x1 systems each have four outputs. By incorporating output fan-out, external digital distribution amplifiers, with their attendant added jitter, cost and space requirements are avoided. The 4x4 and 8x4 systems have two outputs per channel.



## SPECIFICATIONS

### HD/SDI VIDEO INPUT:

Data Rate:	143Mbps, 270,Mbps, 1.483-1.484Gbps
Data Type:	SMPTE 259M, SMPTE 292M, SMPTE 344M, DVB-ASI
Input Cable Equalization:	Auto up to 300 meters@270 Mbps, 100 meters @ 1.485Gbps
Video Level:	800 mV
Impedance:	75 Ohm 1%
Coupling:	AC
Connector:	BNC
Return Loss:	15 dB @ 1.5Gbps

### AES DIGITAL AUDIO INPUTS:

Signal Type:	75 Ohm Unbalanced or 110 Ohm Balanced
Connector Type:	BNC or multi-pin - 3 pin breakout adapters available
Level:	100mV to 10 V p-p
CMR:	>25 V

### ANALOG AUDIO INPUTS:

Signal Type:	Balanced
Connector Type:	D25F with optional breakout adapters
Impedance:	> 30K Ohm
Level:	+8 dBm nominal +24 DBm maximum
CMRR:	> 70dB

### HD/SDI VIDEO OUTPUTS:

Connector:	BNC
Level:	800 mV
Return Loss:	12 dB @ 1.5 Gbps
Jitter:	<0.2 UI
Impedance:	75 Ohm 1%
Vertical Interval Switching:	Line 6

### AES DIGITAL AUDIO OUTPUTS:

Signal Type:	75 Ohm Unbalanced or 110 Ohm Balanced
Connector Type:	BNC or multi-pin - 3 pin breakout adapters available
Level:	7 V p-p
Jitter:	<0.25 UI

### ANALOG AUDIO OUTPUTS:

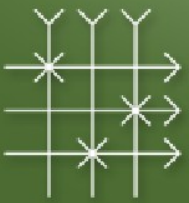
Signal Type:	Balanced
Connector Type:	D25F with optional breakout adapters
Impedance:	< 30 Ohms
Level:	+8 dBm nominal +24 DBm maximum
Frequency response:	10 Hz - 50 KHz +/- 0.1 dB
S/N:	> 110 dB 20 Hz to 20 Khz

### ENVIRONMENTAL:

Temperature:	0 C to 50 C ambient
Humidity:	10% - 100% non-condensing
Power consumption	7 VA typical
AC Voltage:	90-240VAC VAC 50 - 60Hz

### MECHANICAL:

Height:	1.75 inches
Width:	19 inches
Depth:	5 inches
Weight:	4 lbs



## Available Models

MSC-HD81	HD-SDI 8X1 with quad outputs
MSC-HD81E75	HD-SDI 8X1 with quad outputs + 75 ohm BNC AES3 audio
MSC-HD81E110	HD-SDI 8X1 with quad outputs + 110 ohm AES3 audio
MSC-HD81AA	HD-SDI 8X1 with quad outputs + stereo analog audio
Xxxxx-L	Add L to the above for local front control panel
MSC-CP81E	8X1 remote control panel
MSC-HD121	HD-SDI 12X1 with quad outputs
MSC-HD121E75	HD-SDI 12X1 with quad outputs + 75 ohm BNC AES3 audio
MSC-HD121E110	HD-SDI 12X1 with quad outputs + 110 ohm AES3 audio
MSC-HD121AA	HD-SDI 12X1 with quad outputs + stereo analog audio
Xxxxx-L	Add L to the above for local front control panel
MSC-CP12x1E	12X1 remote control panel
MSC-HD-161	HD-SDI 16X1 with quad outputs
MSC-HD-161E75	HD-SDI 16X1 with quad outputs + 75 ohm BNC AES3 audio
MSC-HD-161E110	HD-SDI 16X1 with quad outputs + 110 ohm AES3 audio
MSC-HD-161AA	HD-SDI 16X1 with quad outputs + stereo analog audio
Xxxxx-L	Add L to the above for local front control panel
MSC-CP16x1E	16X1 remote control panel
MSC-HD44	HD-SDI 4X4 with dual outputs
MSC-HD44E75	HD-SDI 4X4 with dual outputs + 75 ohm BNC AES3 audio
MSC-HD44E110	HD-SDI 4X4 with dual outputs + 110 ohm AES3 audio
MSC-HD44AA	HD-SDI 4X4 with dual outputs + stereo analog audio
Xxxxx-L	Add L to the above for local front control panel
MSC-CP4x4E	4x4 remote control panel
MSC-HD84	HD-SDI 8X4 with dual outputs
MSC-HD84E75	HD-SDI 8X4 with dual outputs + 75 ohm BNC AES3 audio
MSC-HD84E110	HD-SDI 8X4 with dual outputs + 110 ohm AES3 audio
MSC-HD84AA	HD-SDI 8X4 with dual outputs + stereo analog audio
Xxxxx-L	Add L to the above for local front control panel
MSC-CP8x4E	8x4 remote control panel
MSC-HD88	HD-SDI 8X8 with dual outputs (on Out 1 - 4 only)
MSC-HD88E75	HD-SDI 8X8 with dual outputs + 75 ohm BNC AES3 audio
MSC-HD88E110	HD-SDI 8X8 with dual outputs + 110 ohm AES3 audio
MSC-HD88AA	HD-SDI 8X8 with dual outputs + stereo analog audio
Xxxxx-L	Add L to the above for local front control panel
MSC-CP8x8E	8x8 remote control panel