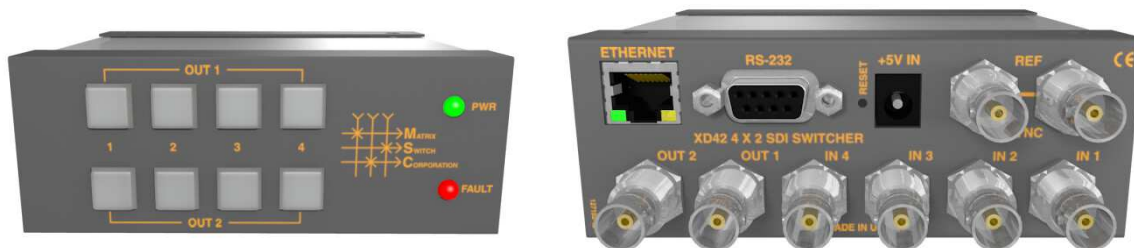# Model MSC-XD42L

4 Input 2 Output 3G-SDI Video Router With Button Panel

The **MSC-XD42L** SDI routing switcher has 4 inputs and 2 outputs, supports reclocking of standard 3G/HD/SD SDI rates, automatic bypass of non-standard rates between 20 Mbit/s and 3 Gbit/s, and passes all SDI embedded audio/ancillary data. In addition any output can be independently muted. Switch on vertical sync is provided with the sync reference input with a pass-through connector and provides support for Tri-level sync and NTSC/PAL black burst signals.

Matrix Switch Corporation routers provide several options for control and system integration. The built-in webpage interface offers a convenient method for control and configuration using a PC or mobile device (Interactive Demo). In addition to Matrix Switch Corporation's powerful yet easy to use MASCOT protocol, there is also support for some common 3rd party protocols. Additional control interfaces on this router include: RS-485, RS-232, and TCP/IP over the Ethernet interface.

Matrix Switch Corporation Remote Panels can also be used with this router for remote control up to a virtually unlimited distance over TCP/IP. The built-in button panel provides an additional interface for directly changing the matrix routing state.

- Re-clocks standard SDI rates UHD (11.88 Gbit/s), 3G (2.97 Gbit/s), HD (1.485 Gbit/s), and SD (270 Mbit/s)
- Auto bypass of non-standard SDI rates from 20 Mbit/s to 11.88 Gbit/s
- Passes SDI embedded audio and ancillary data
- Different SDI rates can be used on different inputs interchangeably and without restriction
- Inputs can be switched to multiple outputs without restriction
- Outputs can be individually muted
- Vertical interval switching using vertical sync input (Tri-level sync or NTSC/PAL black burst)
- Store and recall up to 10 preset salvos
- Includes button control panel interface
- Supports Matrix Switch Corporation Remote Panels
- Ethernet port for control via built in web page interface or TCP/IP ports
- Interactive web page interface (Interactive Demo)
- Serial control via RS-232 port
- RS-485 port for an additional high speed long distance capable control interface

- Support for some common 3rd party protocols for added integration flexibility
- Real Time Operating System (RTOS) with 32 bit ARM processor
- System software updates from webpage interface
- Compact enclosure design with a depth of only 5 inches
- Less than 2 pounds
- External DC power supply
- Redundant power supply included
- Complies with all relevant FCC, U/L, CE, and RoHS requirements
- Backed by a full 2 year manufacturer parts and labor warranty

General

Inputs	4
Outputs	2
Size	5" x 1.75" x 5"
Weight	2.0 lbs
USA List Price	$825
Power	5.0 VDC 2A Adapters
Power Connector	5.5mm OD 2.5mm ID coaxial
Panel Type	Buttons
Ethernet	10/100 Base-T Auto MDIX
Made in	USA
Operating Temp.	0 - 70C
Storage Temp.	-10 - 90C
MTBF	50,000+ Hours
MTTR	< 48 Hours

SDI Inputs

Connector Type	BNC
Data Rates	19 Mbit/s through 3.0 Gbit/s
Input Return Loss	> 15dB @ HD, > 12dB @ 3G
Input Impedance	75 Ohms +/- 1%
Input Level	800 mV P-P +/- 20%
Cable Equalization	400m @ SD, 140m @ HD, 120m @ 3G (1694A coax)

SDI Outputs

Connector Type	BNC
Data Rates	19 Mbit/s through 3.0 Gbit/s
Re-clocking Data Rates	2.97 Gbit/s, 1.485 Gbit/s, 270 Mbit/s
Output Return Loss	> 15dB @ HD, > 12dB @ 3G
Output Impedance	75 Ohms +/- 1%
Output Level	800 mV P-P +/- 5%
Output Jitter	< 0.2 UI

SDI Standards

SD Formats	625i25 PAL and 525i29.97 NTSC
HD Formats	720p23.98, 720p24, 720p25, 720p29.97, 720p30, 720p50, 720p59.94, 720p60, 1080p23.98, 1080PsF23.98, 1080p24, 1080PsF24, 1080p25, 1080PsF25, 1080p29.97, 1080PsF29.97, 1080p30, 1080PsF30, 1080i50, 1080i59.94, 1080i60
3G Formats	1080p50, 1080p59.94, 1080p60
2K Formats	2048 x 1556p23.98/24/25
Compliance	SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 310M, SMPTE 425M-A, SMPTE 425M-B, ITU-R BT.656 and ITU-R BT.601
Video Sampling	4:2:2 and 4:4:4
Audio Sampling	24 bit @ 48 KHz
Color Precision	4:2:2 and 4:4:4 10 bit
Color Space	YUV or RGB
Metadata Support	Ancillary data as defined by SMPTE 352M
Reference Sync	
Connector Type	Analog BNC with pass-through
Format	Tri-Level Sync and NTSC/PAL Black Burst