

MSC0603

6 X 3 COMPOSITE VIDEO / S-VIDEO AND STEREO AUDIO MATRIX SWITCHER

FEATURES

- 100 MHz Video Bandwidth
- Ergonomic Front Panel Design Featuring Soft-Touch Buttons and Integrated Labeling System
- Robust RS-232 / RS-422 / RS-485 Serial Control Capability
- IR Remote Control Capability
- INLINE Control Software with IP Server Software Included
- Audio Inputs and Outputs Compatible with Balanced or Unbalanced Stereo Audio Signals
- Master Volume Control and Mute for Each Output
- Individual Audio Input Trim Levels
- 32 Configuration Memories
- Genlock Input —
Matrix Offers Vertical Interval Switching for Glitch-Free Transitions when Used with Synchronous Video Sources
- Installs in 1U Rack Space Using Included Rack-Ears



The MSC0603 is a 6-Input, 3-Output matrix switcher for composite video and stereo audio or s-video and stereo audio signals. MSC0603 matrices are compatible with NTSC, PAL and SECAM video signals.

Video Matrix Models

The MSC0603-1 and MSC0603-2 composite video matrices feature one BNC female connector for input and output port.

S-Video Matrix Models

The MSC0603-3 and MSC0603-4 S-Video matrices feature two BNC female connectors for each input and output port to route the Y (luma) and C (chroma) signal components of S-Video signals. The MSC Series S-Video matrix models can also be used to route composite video signals on either the Y or the C connectors.

Superb Video Performance

Offering video bandwidth in excess of 100 MHz and extremely flat response from 0 – 10 MHz, the MSC0603 matrix provides ample performance for composite and s-video signals in the NTSC, PAL or SECAM formats.

Advanced Audio Switching Capability

The MSC0603-2 and MSC0603-4 models offer very high quality signal routing for stereo audio signals. These matrices feature 5-pin captive screw connectors for audio inputs / outputs and are compatible with balanced or unbalanced line level audio signals. By wiring the inputs and outputs appropriately, unbalanced input signals can be output as balanced audio and vice versa. Unique gain trim levels can be adjusted and stored for each input, helping standardize signal levels among various types of audio sources. Each output offers variable audio output level and mute capability that can be controlled locally using the front panel Volume and Mute buttons, or remotely via serial commands or using the optional CTL120-2 IR remote control. Left / Right Balance can also be adjusted as required using serial commands.

Audio-Follow-Video Switching

The default operation mode for the MSC0603 is audio-follow-video switching, where audio and video signals switch together. For special applications requiring audio breakaway switching, users can switch the video and audio signals separately through the serial control port using the powerful ICS100 control software (included) or a third-party control system.

Configuration Memories

Featuring 32 Configuration Memories, the MSC0603 can store frequently used configurations and then quickly recall them using just two button presses. 9 memory settings are available from the front panel and all 32 configuration memories are available via serial commands. The memories store all input / output patches as well as the current audio level for each output. The configuration memories make it easy to set up complex switching arrangements ahead of time and then recall them quickly and reliably at the appropriate times during a show or presentation.

Ergonomic Front Panel Design

The MSC0603 features large soft-touch rubber buttons for input / output selection with ample room to accommodate input and output labels.

Integrated Labeling System

The matrix faceplate includes attachment posts to hold optional engravable nameplates to clearly identify the input sources and output destinations. INLINE offers custom-engraving services for an additional fee.

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Blank Button

The **Blank** button disconnects the video and audio input sources from the output. Blank only affects the currently selected output (the other outputs remain unchanged).

Genlock Input

The MSC0603 includes genlock capability, offering glitch-free transitions when used with synchronous video sources. A BNC connector is provided for Genlock Input and a second BNC connector provides Genlock Output signal.

Robust Remote Control Capability

All matrix functions can be controlled remotely using serial commands. The control port is compatible with RS-232, RS-422 and RS-485 protocols and offers fast communication speeds with advanced control signal buffering for enhanced reliability. The MSC0603 uses the new **INLINE** serial control protocol, which provides fast, easy programming and powerful control options like individual unit addresses.

Powerful Control Software

The **INLINE** Control Software included with the MSC0603 offers an intuitive graphical interface for effortless control of all matrix switcher functions using a PC. **IP Server Software** is also included, providing comprehensive control of the MSC0603 over a LAN, WAN or the Internet. For IP control applications, the **INLINE** Control Software is installed on a local computer (Client) while the **IP Server Software** is installed on a remote computer (Server) located near the MSC0603. A serial control cable is then connected between the server computer's serial port and the MSC0603 serial port. For more information on the **INLINE** Control Software, see page 112.

IR Remote Control

Input / Output selection, volume and mute can be controlled remotely via infrared commands using the optional **CTL120-2** infrared remote control or a third-party control system with infrared emitters.



CTL120-2 REMOTE CONTROL

SPECIFICATIONS

VIDEO	GENLOCK	AUDIO	CONTROL	GENERAL
<p>Gain: Unity (1.0 V/V)</p> <p>Bandwidth: 100 MHz @ -3dB with .7V p-p input signal, fully loaded</p> <p>0 - 10 MHz: < +0.1 dB to -0.1 dB</p> <p>0 - 30 MHz: < +0.3 dB to -0.3 dB</p> <p>Crosstalk: 1 MHz: -67.2dB (worst) to -74.3dB (best)</p> <p>10 MHz: -51.2dB (worst) to -70.2dB (best)</p> <p>VIDEO INPUT Number / Connectors: MSC0603-1 / -2: (6) BNC Female for Composite Video MSC0603-3 / -4: (6) Pairs of BNC Female for Composite Video or S-Video</p> <p>Nominal Input Level: Composite Video: 1.0V S-Video - Chroma: 0.3V S-Video - Luma: 1.0V</p> <p>Maximum Input Level: 1.8 Vp (including any DC Offset)</p> <p>Impedance: 75Ω</p> <p>Input Return Loss: -46.0 dB @ 5 MHz</p> <p>VIDEO OUTPUT Number / Connectors / Signal Type: MSC0603-1 / -2: (3) BNC Female for Composite Video MSC0603-3 / -4: (3) Pairs of BNC Female for Composite Video or S-Video</p> <p>Impedance: 75Ω</p> <p>Output Return Loss: -46.0 dB @ 5 MHz</p>	<p>Input Connector: (1) BNC female for External Sync (Genlock)</p> <p>Signal Level: 0.3 - 0.4V p-p</p> <p>Output Connector: (1) BNC female for Genlock loop out</p>	<p>Frequency Response: 10 Hz to 175 KHz - 30dB 20 Hz to 20 KHz ± 0.05dB</p> <p>THD+Noise: 0.0038% (1.0Vp-p @ 1 KHz)</p> <p>S/N Ratio: 87.0 dB</p> <p>Output Gain Adjustment: +9.5 dB to -54.5 dB</p> <p>Crosstalk: -95 dB (1.0Vp-p @ 1 KHz)</p> <p>Stereo Separation: -95 dB (1.0Vp-p @ 1 KHz)</p> <p>AUDIO INPUT Number / Connectors / Signal Type: (6) 5-Pin Captive Screw Terminal for Balanced / Unbalanced Stereo Audio</p> <p>Impedance: 20 KΩ</p> <p>Maximum Input Level: +16 dBu</p> <p>Input Gain Adjustment: 0dB to -55dB</p> <p>AUDIO OUTPUT Number / Connectors / Signal Type: (3) 5-Pin Captive Screw Terminal for Balanced / Unbalanced Stereo Audio</p> <p>Impedance: 50Ω Unbalanced / 100Ω Balanced</p> <p>Maximum Output Level: +22dBu (High Z) / +16dBm (600 Ω)</p> <p>Gain Error: ± 0.1dB (channel to channel)</p>	<p>Connector: 5-Pin Captive Screw Terminal</p> <p>Serial Protocol: RS-232 / RS-422 / RS-485</p> <p>Baud Rate: 1,200 to 38,400 bps</p>	<p>Power Supply: 90-260VAC; 47-63 Hz</p> <p>Shipping Weight: 9.6 lbs. / 4.4 kg</p> <p>Product Weight: 5.9 lbs. / 2.7 kg</p> <p>Dimensions: 1.78" x 17" x 11.35" / 4.5cm x 43.2cm x 28.8cm</p> <p>MTBF: 35,000 Hours</p> <p>Storage Temperature / Humidity: -40° to 158° (-40° to 70° C) / 10% to 90% non-condensing</p> <p>Ambient Operating Temperature / Humidity: 32° to 113° (0° to 45° C) / 10% to 90% non-condensing</p> <p>Regulatory Approvals: UL1950, CAN/CSA-22.2 No.950, Third Edition CE: EN55022 (1987), EN50081-1 (1991), EN50082-1 (1992 and 1994), EN60950-92</p> <p>INCLUDED ACCESSORIES</p> <p>IN9123B Rack Mounting Ears IN9339 Inline Adjustment Tool ICS100 Inline Control Software</p>

ORDER INFORMATION

MSC0603-1 6x3 Matrix Switcher: Composite Video Only	MSC0603-4 6x3 Matrix Switcher: S-Video and Balanced / Unbalanced Stereo Audio
MSC0603-2 6x3 Matrix Switcher: Composite Video and Balanced / Unbalanced Stereo Audio	CTL120-2 Infrared Remote Control
MSC0603-3 6x3 Matrix Switcher: S-Video Only	Switcher & Matrix Accessories

