

VIDEO

- Input impedance: 75 Ω (internally terminated)
- Frequency response: ± 0.1 dB to 10 MHz
- 3 dB to 50 MHz
- Differential gain:
Without level controls: $\leq 0.1\%$
With level controls: $\leq 0.2\%$
- Differential phase:
Without level controls: $\leq 0,1^\circ$
With level controls: $\leq 0,2^\circ$
- K_{2T} : $\leq 0.3 \%$
- K_{PB} : $\leq 0.25 \%$
- Y/C Delay: ≤ 4 nS
- Crosstalk: Better than 65 dB at 4.43 MHz
- Gain control range: ± 3 dB
- Equalization: Up to 500 m (8281 type coax)

AUDIO

- Input impedance: 12 K Ω , Balanced; opt. 600 Ω
- Output impedance: 50 Ω , Balanced; opt. 600 Ω
- Frequency response: $\pm 0,5$ dB to 100 KHz
- Maximum input level: 28 dBu
- Gain control range: - 20 dB to + 6 dB
- CMRR: ≥ 90 dB
- Harmonic distortion: $\leq 0,01\%$
- Crosstalk: Better than 80 dB



POWER

- Input voltage: 100 - 240 VAC, autodetect
47 - 63 Hz
- Consumption: Depending on configuration

MECHANICAL

- 32x32: 2 RU
- 32x32 expandable, 64x64 & up (includes power supply): 12 RU
- Redundant power supply: 2 RU
- Maximum depth: 18 in
- Weight: Depending on configuration

ORDERING INFORMATION

				OPTIONALS				
MSL	YYY x	ZZZ	AAA	V	6	L	R	E
M-Link controlled Magna Scientific routes	Input channels	Output channels	One A per Audio Channel, BLANK: video only	One Video Channel, BLANK: audio only	600 Ω input-output audio impedance, BLANK: high input, low output impedances	Level and Equalization control	Redundant Power Supply	Expandable to 128x128



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MSL

*Series
Routing
Matrixes*

MSL Series

Routing Matrixes

MSL SERIES IS A FAMILY OF FULL BROADCAST QUALITY VIDEO AND AUDIO ROUTING MATRIXES, DEVELOPED USING STATE OF THE ART TECHNOLOGY AND CONTROLLED EITHER BY A PC COMPATIBLE COMPUTER OR REMOTE UNITS, THROUGH OUR PROPRIETARY **M-LINK** NETWORK

Features

- Standard configurations: 16x16, 32x32, 64x64, 96x96 and 128x128, with or without loop through inputs.
- Custom configurations and special designs.
- Capability to select Auxiliary Inputs and Outputs.
- Non blocking architecture.
- Field expandable.
- Automatic, manual or externally activated (cue tone, GPI, etc.) insertion of external sources.
- AFV (Audio Following Video) or AFV Breakaway switching.
- Video Absence detection with programmable automatic response.
- Vertical Interval switching.
- Equalization and Video level control for every crosspoint.
- Clamped Video Outputs.



- 1, 2 or 3 balanced audio channels (R + L + SAP).
- Clickless audio switching.
- Independent level control for every audio crosspoint.
- Automatic recovery after main power failure.

Additional Benefits

1. Level Control

Every crosspoint has its own video output level and equalization adjustment performed through the software. The right, left and SAP audio levels can also be adjusted independently. These settings are stored in the computer and in the non-volatile memory.

2. Video Absence Detection

The matrix is able to detect video absence on every Output, allowing the programming of the action to be performed in each case: Ignore, Alarm only or Switch to another input (station ID, back up program, generator, etc.).

3. Quadripole Insertion

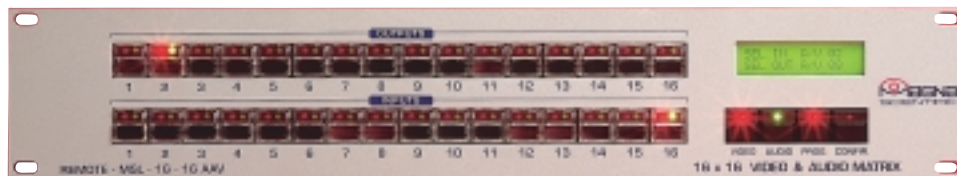
The control program allows the user to choose an Input/Output pair for the insertion of additional signals in the normal programmed route.

For example: an auxiliary Input/Output group may be used to insert commercials, a character generator or a logo generator in different outputs following a play list sequence.

4. Event Programming

The event programming mode allows the user to specify changes in the matrix configuration to be carried out at a certain moment (date and time) or external command (cue tone, GPI, RS-232, RS-485, etc.). The event may be as simple as a

connection change or as complex as the total Matrix re-configuration. An event can be performed once, daily or weekly. Besides, the event may be programmed to be carried out automatically or to request a human confirmation.



5. Monitoring Mode

The monitoring mode may be entered manually or at regular time intervals. In this Mode each input is sequentially connected, for a user pre-established period, to a programmed output. This automatic sequence may be interrupted, if so required, by the operator.

If the user has an automatic measuring system the matrix can be configured to give the corresponding commands in order to automate the whole measuring and monitoring process.

6. Remote Control

MSL routing matrixes may be operated from programmable remote control panels with several configurations and characteristics:

X-Y remote: controls the whole Matrix.

Keyboard remote: 2, 3 or 4 rows of 10, 12 or 16 button combinations, to exclusively operate with certain inputs and outputs previously programmed by the computer.

The system is so versatile that accepts any remote control panel combinations, so the user can decide the best configuration to suit his/her application: remote panels can be added or canceled at anytime and can share, or not, inputs and/or outputs.

Remote panels may replace the control computer and if it fails or gets disconnected, they continue operating normally.

7. Interfaces

Another possible way of remote controlling is through the QDEC interface; a cue tone decoder which allows the detection of DTMF tone sequences triggering actions according to the programmed schedule.

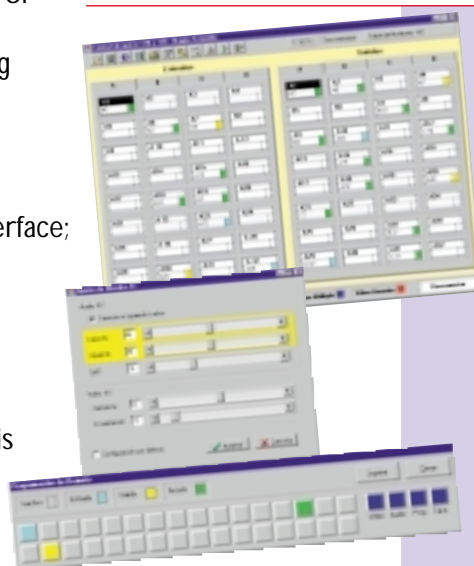
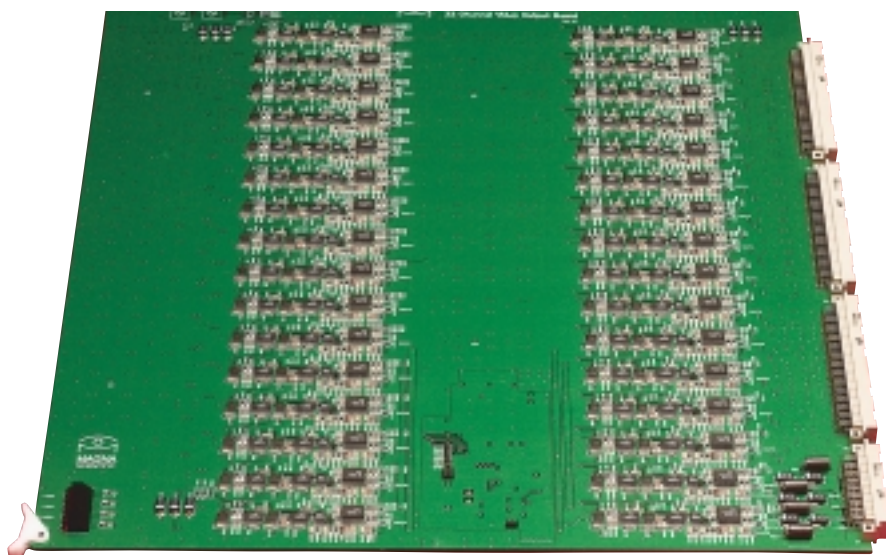
Magna Scientific routers may also be controlled by other equipment, as it is possible to add the UMI Universal Interface, which is a third party to

M-LINK protocol translator.

Finally, the MVCR makes it possible to configure a versatile automatic system, which lets the user interface to almost any remote controlled videocassette player.

8. Power Failure

The matrixes store the full status in non-volatile memory, so that their configuration (connected crosspoints and settings) can be recovered instantly as soon as the main power supply is restored, without requiring the help of an operator or control from the central computer.



M-Link

The control software is based on graphic interfaces so that the router operation becomes quite easy and can simply be carried out using the mouse.

The user may assign a name (alphanumeric characters) to each Input and Output in order to obtain a quick, efficient organization of the matrix status and programming.

Every Input can be routed to one or more Outputs with no limitations at all (non blocking matrix), so one Input can even be sent to all Outputs and still keep the quality of the original input signal.