TAILORMADEMatrix™

Introducing the TAILORMADEMatrix high performance matrix switcher for composite video, s-Video (Y/C), component video, and RGBHV video signals on BNC connectors.

Supporting a full range of hardware and software control options including a remote control touch panel with alphanumeric LCD display, PC software, RS-232, RS-422 and Ethernet.

CUSTOMISED VIDEO/AUDIO ROUTING SWITCHERS

A380 Airbus

The Great Library
of Alexandria

The Georges Pompidou
Hospital in Paris

Conferences &
Boardrooms

The Kramer TAILORMADEMatrix™ is a high performance matrix switcher for composite video, s-Video (Y/C), component video, and RGBHV video signals on BNC connectors – with or without balanced or unbalanced stereo audio signals. The modular design allows the user to configure a router to meet exact system requirements through the use of different sets of input/output modules which can reside in the same frame.
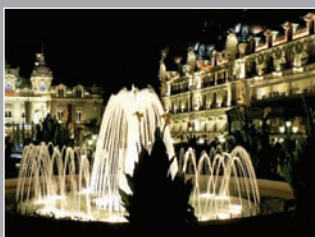
For over 25 years, Kramer Electronics has been developing, manufacturing and selling audio-video routing switchers. These can be found all over the world in convention centres, universities, hospitals, national libraries, railway stations, underground stations, theatres, aeroplanes, ships, yachts, hotels, houses of worship, military bases, TV stations, and even in large home cinema installations.

The Bibliotheque
Nationale de France

The European Parliament
in Strasbourg

Hotels in
Paris & Monaco

Luxury Yachts

FEATURES

- Modular design: expandable by 8 inputs or outputs up to 128X256.
- A TAILORMADEMatrix™ switcher can be configured up to 128x256. The unit is built in increments of 3RU metal housings. Each 1RU space in the housing can accept an input board with either 32 BNC connectors for video signals or 32 detachable terminal block connectors for audio signals.
- Full range of hardware and software control options including remote control touch panel with alphanumeric LCD display, PC software, RS-232, RS-422 and Ethernet.
- Remote LCD Touch Panel: Displays all inputs and outputs.
- On Screen Display (OSD) generator provides display of the switcher status to an external display at SVGA resolution.
- MatrixOp4™ control software allows the switcher to be programmed so the switcher can be operated without the need for a dedicated PC for control.
- Optional vertical interval switching module available.
- Audio level control through Volume Control Amplifier.
- Standard power supply unit is accessible and replaceable from the front panel and an optional redundant power supply is available.

MODULAR DESIGN

The Kramer TAILORMADEMatrix are fully modular switchers, giving you the flexibility to choose the format combination of your choice, Composite Video, YC, RGB, YUV, RGBHV and Audio (mono/stereo, balanced/unbalanced), all of which can be placed in the same rack. The switcher status is displayed on an external monitor at SVGA resolution.

REMOTE LCD PANEL

The standard touch panel included with every TAILORMADEMatrix switcher is housed in a 19 inch 1RU unit and is connected to the matrix via the RS422 port. The front panel has four source/destination selection buttons one validation "take" button, and an LCD display window.

The remote panel is programmed with the MatrixOp4 software, allowing the inputs and outputs to be easily named and then stored in the switcher and displayed via a 15-pin HD OSD at SVGA resolution. With MatrixOP4 software, switching can then be programmed to occur automatically based on the set up parameters created with MatrixOp4 which are stored in the switcher.

The system can support up to 10 panels at distance of 100m (300 ft.) from the switcher matrix.

ON SCREEN DISPLAY (OSD) GENERATOR

After programming with the MatrixOp4™ software, an internal video memory card will display via a 15-pin HD connector a list of up to 80 sources and 80 destinations and the current status of the matrix switcher. The display resolution of this output is SVGA. A mouse can be connected to control the switching of the matrix, and also the audio VCA levels. This display window is fully independent and is a fully functional and convenient self contained control system which eliminates the need for an external PC controller.

MULTIPORT COMMUNICATION

The Kramer TAILORMADEMatrix™ allows you multiple remote control possibilities: RS-232, RS-422, Ethernet, PC software and remote touch panel with alphanumeric LCD display.

MATRIXOP4 SOFTWARE

MatrixOp4 is a simple software able to control a TAILORMADEMatrix. First, all the devices that are connected to the matrix must be assigned to a library, with name and connector number, input or output direction and layer definition (video, audio, RGB…). To make a switch, first select a destination and then the source.

Automatically, MatrixOp4 will recall the library and switch the matrix with the layers and connector number specified. MatrixOP4 can also program the remote panel by transmitting all device names to the LCD display window. The remote panel becomes independent and can run without a computer. MatrixOp4 also controls the On Screen Display (OSD) generator.
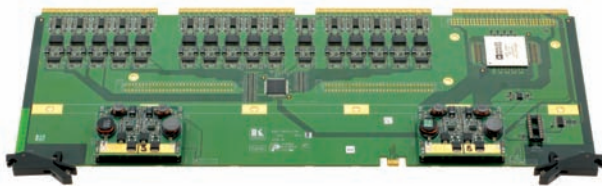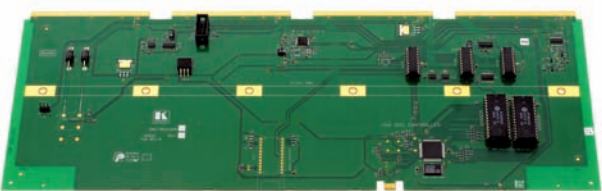
Front View   Back View

DESCRIPTION AND FLEXIBILITY

Kramer's TAILORMADEMatrix™ routing switcher is a high performance, multi-format routing switching system that can be configured for up to 128x256 video and audio signals. It can route one or all inputs to any or all outputs simultaneously. A TAILORMADEMatrix routing switcher can be built in multiples of 3RU. Each metal housing is 3RU and each 1 RU is able to house 32 BNC connectors or 32 stereo audio connectors, each of which can be defined as an input or output.
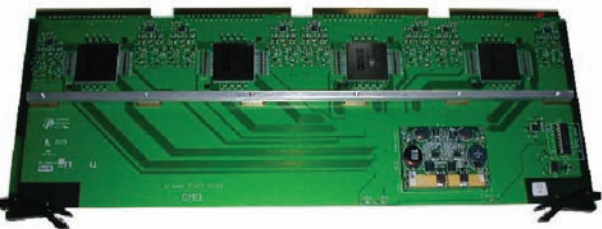

AUDIO CARD

Audio Card: A card is 1RU and can be Mono or Stereo. It can drive 32 inputs or outputs on detachable terminal blocks. Each input or output can be selected in balanced or unbalanced mode. Each input has a programmable level adjustment that fixes all inputs to a common internal level. Each output has a programmable Voltage Control Amplifier, easily useable by the customer.

COMMUNICATION CONTROL CARD

Switchers are operated by RS232 or RS422 serial connection, and Ethernet. Each cross-point whether Video, RGB, Audio, VGA, or other function, has a unique address that can be controlled via a computer, or a remote touch panel through the communication link, using a very simple Kramer protocol. This card has an internal SVGA On Screen Display (OSD) generator that can display the status of the matrix on an external display at SVGA resolution.
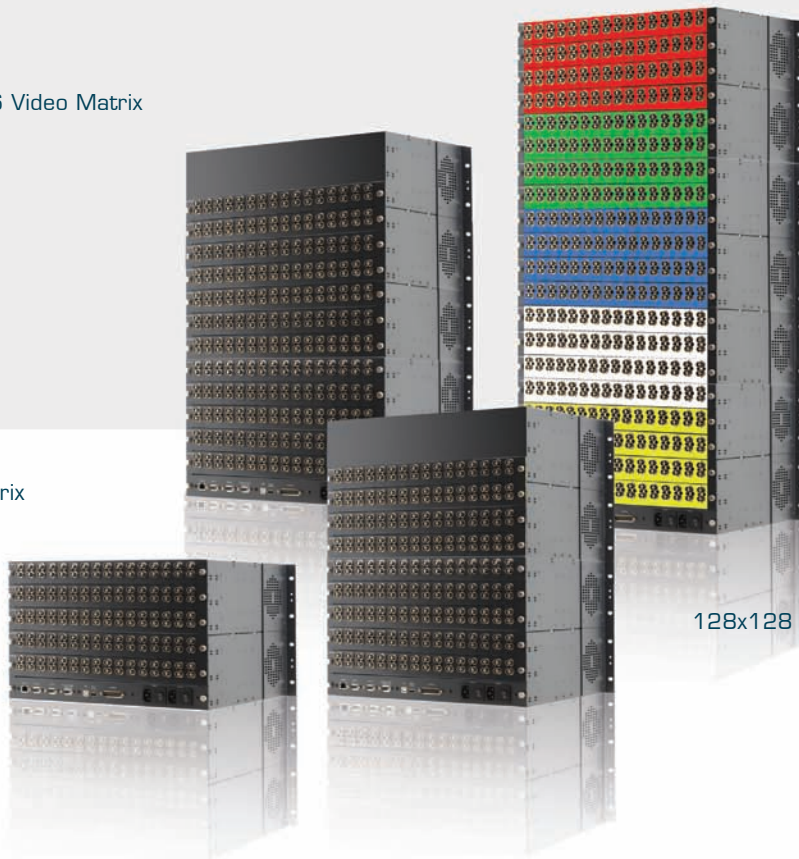

VIDEO CARD

A video card is 1RU and can drive one layer of 32 inputs or 32 outputs, on BNC's. Adjacent cards will upgrade the capacity up to 128x128. Composite video needs one layer, s-Video (2 layers), Component YUV (3 layers), RGB (3 layers), and RGBHV (5 layers).

A 64x64 RGBHV Matrix

128x256 Video Matrix

128x8 Video Matrix

128x128 Video Matrix

CABLES

5 BNC RGBHV Mini Coax Cable

Kramer's 5BM series cables are constructed of 5 mini coax cables in a single jacket with 75 ohm BNC connectors at each end. They offer outstanding quality, durability, and high performance for any RGBHV video signal application.

- Quality Construction - Constructed from flexible, high quality 5 mini coax cable.
- Applications - Ideal for routing typical computer graphics video RGBHV signals to display devices such as projectors and monitors.
- Easy Installation - Breakout length is 18 inches on any cable 6 feet or longer to support connection to larger matrix switcher. Shorter cables have approx 7 inch breakout.
- Cable Specs - For detailed cable specs see Kramer BC-5X.

VGA (HD-15) to 5 BNC Breakout Male-Male Cable

Kramer's computer graphics video breakout cables are constructed of 5 mini coax cables with a molded 15-pin HD (M or F) on one end and 5 BNC (M or F) on the other. They are used to convert between the two most common cabling formats used for routing computer graphic video signals, 15-pin HD, and 5 BNC.

- Quality Construction - Constructed using Kramer BC-5X high resolution mini coax cable, terminated with molded 15-pin HD connector on one end and 75Ω BNC connectors on the other.
- Easy Installation - Models 6ft or longer have an 18 inch (460mm) long spread at the 5 BNC end to fit large routers/switchers such as the Sierra Pro 32 series.
- Cable Specs - See Kramer BC-5X for detailed cable specs.

PERFORMANCE SPECIFICATIONS *

VIDEO	
INPUT AND OUTPUT	1Vpp/75Ω on BNC connectors
BANDWIDTH	350MHz (- 3dB) fully loaded.
ALL HOSTILE CROSSTALK	>50dB @5MHz
S/N	60dB @5MHz
DIFF GAIN	<0.15%
DIFF PHASE	<0.1°
VERTICAL INTERVAL SWITCHING	
AUDIO	
BANDWIDTH	24kHz (- 3dB) fully loaded.
THD+NOISE	0.05%
ALL HOSTILE CROSSTALK	>70dB @ 1kHz >60dB @ 20kHz
S/N RATIO	70dB
GENERAL	
STANDARD 19" RACK MOUNT SIZE	3U module Rack, ears included. 32 inputs or 32 outputs requires 1RU module.
FLEXIBLE CONTROL OPTIONS	Remote control via RS-232 (MatrixOp4 software included, K-Router™ Windows®), RS-422, Ethernet.
MAXIMUM RACK HEIGHT	42RU Flexible Control Options.
MEMORY STATUS	Store the matrix status to be recalled when power on.
COMMUNICATION PROTOCOLS	The Kramer 2000.
WORLDWIDE POWER SUPPLY	100/240VAC 50/60Hz.
ACCESSORIES:	Power cord, Windows®-based MatrixOp4 control software, Audio detachable terminal blocks for audio layer only.
REDUNDANT POWER SUPPLY	Optional
STORAGE TEMPERATURE	-10° to 50°C
OPERATING TEMPERATURE	5° to 35°C
HUMIDITY	10% to 90%, non-condensing
WARRANTY	7 years

*The specifications apply to a 32x32 machine configuration. For other configurations please contact us.

SEVEN-YEAR WARRANTY

Routers are the core of your system - "glueware" that is often taken for granted. In today's demanding video environment, you need to know that the backbone of your system will keep on working. When choosing a routing switcher, it is important that you discuss your requirements with a knowledgeable sales staff and identify the company's ability to provide long-term support. Be sure to make the right choice! Kramer is proud to offer a Seven-Year Warranty on most of our products. We've offered this warranty for two decades and stand behind our quality products. We have been successful because we believe in providing quality products that don't come back, to customers who do.

TAILORMADE Matrix™
CUSTOMISED VIDEO/AUDIO ROUTING SWITCHERS

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