

# Sierra Pro XL™

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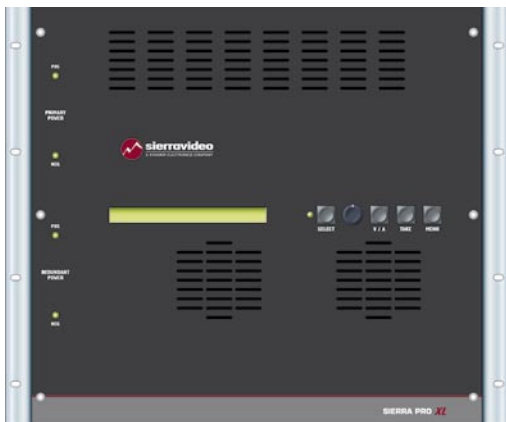
- PREMIERE ROUTING SWITCHER FOR PROFESSIONAL VIDEO ENVIRONMENTS
- WIDEBAND VIDEO & STEREO AUDIO
- RGBHV, RGBS, COMPONENT VIDEO & S-VIDEO



# Sierra Pro XL

## Wideband Routing Switchers for Professional Presentation Environments

Sierra Video's premiere line of high bandwidth routing switchers provides top-of-the-line performance in the most demanding presentation environments. With 450MHz bandwidth in 8 Series to 32 Series models, and with 500MHz bandwidth in 64 Series models, incredibly flat response, Matrix Mapping and IP connectivity, Sierra Pro XL routing switchers are an outstanding combination of value and performance.



### Matrix Sizes

| INPUTS              | OUTPUTS        |
|---------------------|----------------|
| 8x                  | 4 8 16         |
| 12x                 | 4 8            |
| 16x                 | 8 16 32        |
| 32x                 | 16 32          |
| 32x 40x 48x 56x 64x | 32 40 48 56 64 |

### FORMATS

Each frame size can be ordered as a 5-channel (RGBHV) system or a 3-channel (RGB) system with or without balanced stereo audio, or it can be ordered with high bandwidth video boards in place of the H and V boards so that video can be input into all channels (or levels) of the routing switcher.

### Video Features

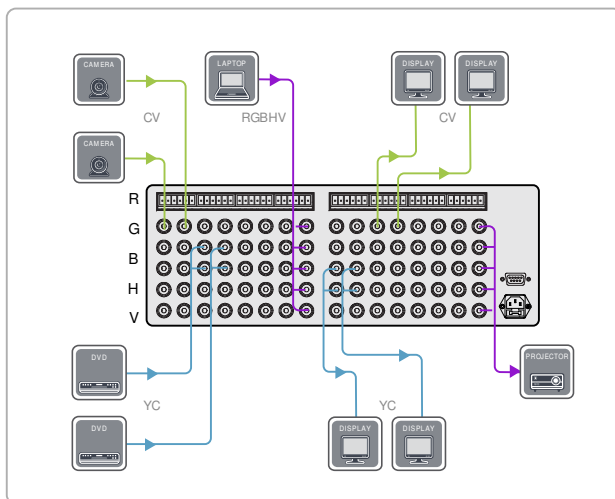
**High Bandwidth** – 450MHz @ -3dB fully loaded in 8 Series to 32 Series models. 500MHz @ -3dB fully loaded in 64 Series models. Proven flat response at high bandwidths provides optimal performance.

**Low Crosstalk** – -80dB @ 1MHz, -47dB @ 100MHz, -30dB @ 150MHz.

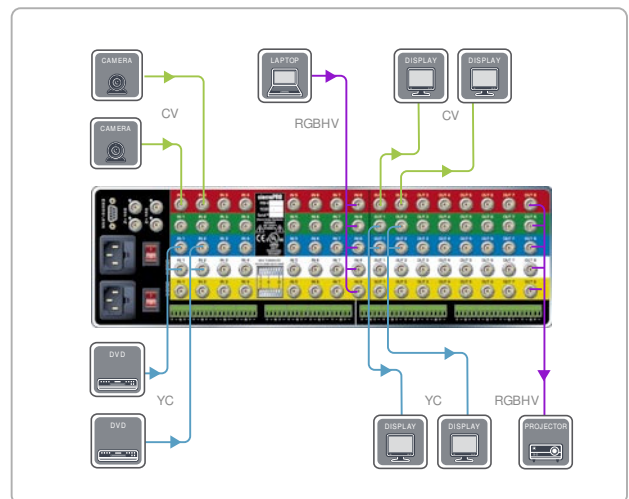
**Room Grouping Capability** - Several inputs may be grouped and operated independently of other input groups on the routers. This allows one router to be used for multiple "rooms" where the control system for each room will address only the inputs and outputs assigned to that room.

### Matrix Mapping™ Universal Breakaway Switching

Find more real estate without a costly upgrade



Competitive Models



Sierra Pro XL Models

Sierra Video's Matrix Mapping Universal Breakaway Switching allows switching of every level of every input of the router independently. Switch a single level or any combination of levels of the R, G, B, H, V, left audio and right audio levels of any input. For example, input a composite video signal on the R level of input one and an s-Video (Y/C) signal on the G and B levels of input one and switch only the composite video signal on the R level, switch only the s-Video Y and C signals on the G and B levels, or switch all three levels together.

## Sync Features

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**Sync Reporting** - Through the front panel or RS-232, the routing switcher can capture and report the input sync rates for each input signal.

**Input Detection** - 200mV. Re-shapes and re-squares sync to output correct TTL level.

**Selectable Termination** - 510 or 75 Ohm (each input).

**Genlock Input** - Looping internal sync input for vertical interval switching.

## Audio Features

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**Audio Type** - Balanced or unbalanced stereo on terminal blocks.

**Input (Level) Adjustment Capability** - - 8dB to + 20.5dB.

**Output (Volume) Adjustment Capability** - Mute, - 59.5dB to + 15dB.

**No Zipper Effect** - Sierra Pro XL routing switchers employ zero crossover chip technology which eliminates the annoying "zipper sound effect" associated with digital volume controls.

**Audio Mute Capability.**

**Crosstalk** - < - 80dB @ 1kHz (unity gain), < - 60dB @ 10kHz (unity gain).

**Dynamic Range** - 96dB (20-20kHz unweighted) (unity gain).

## Comprehensive Control Options

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**IP (Ethernet Control)** - Via standard TCP/IP socket connection, Mac or PC.

**Front Panel Control** - Local control with 80 character LCD readout in 8 Series through 32 Series frames, XY push button control in 64 Series frames.

**RS-232 & RS-422.**

**RS-485 For Optional Control Panels.**

**TyLinX Pro™ and TyLinX Pro Net™ Router Control Software** - Advanced, customizable GUI control interface.

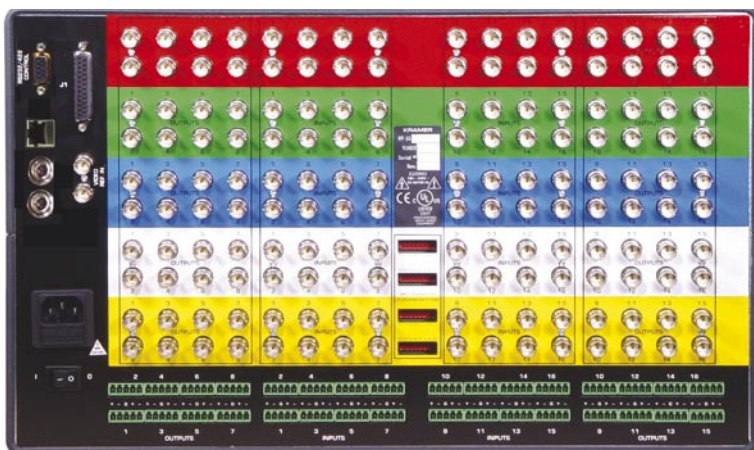
**Remote Control Panels** - Programmable, Single Bus, and XY panels optional.

## Redundant Power Supply

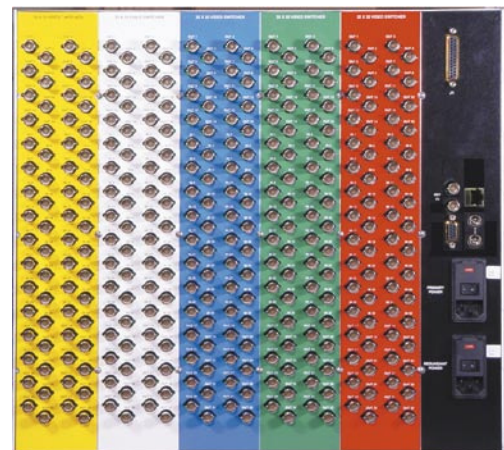
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**Optional in 8x16, 16x8 and 16x16 models.**

**Standard on 16x32, 32x16, 32x32 and all 64 Series models.**



Sierra Pro 1616V55xl

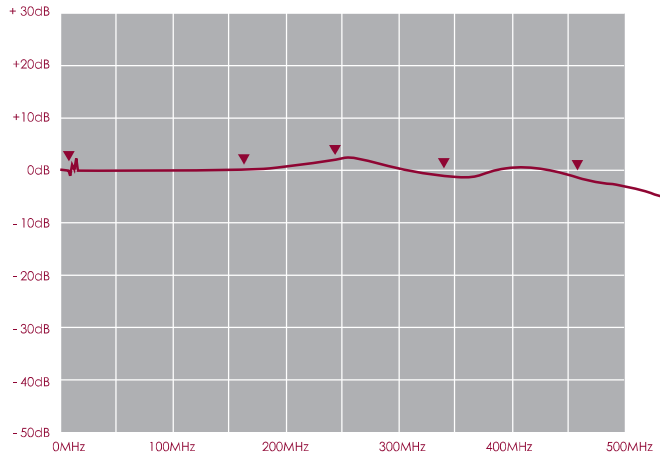


Sierra Pro 3232V5xl

| MODEL             | FORMAT        | INPUTS | OUTPUTS | SIZE | HEIGHT | DESCRIPTION  |
|-------------------|---------------|--------|---------|------|--------|--|
| <b>84V3xl</b>     | RGB           | 8      | 4       | 3RU  | 5.25"  | 8x4 3-channel wideband video<br>▪ 450MHz ▪ IP Control  |
| <b>84V3Sxl</b>    | RGB           | 8      | 4       | 3RU  | 5.25"  | 8x4 3-channel wideband video + stereo audio<br>▪ 450MHz ▪ IP Control   |
| <b>84V5xl</b>     | RGB + HV      | 8      | 4       | 3RU  | 5.25"  | 8x4 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control   |
| <b>84V5Sxl</b>    | RGB + HV      | 8      | 4       | 3RU  | 5.25"  | 8x4 3-channel wideband video, 2 sync channels + stereo audio<br>▪ 450MHz ▪ IP Control  |
| <b>84V5Vxl</b>    | 5-level video | 8      | 4       | 3RU  | 5.25"  | 8x4 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control  |
| <b>84V5VSxl</b>   | 5-level video |        | 4       | 3RU  | 5.25"  | 8x4 Custom format 5-channel (no sync) wideband video + stereo audio<br>▪ 450MHz ▪ IP Control   |
| <b>88V3xl</b>     | RGB           | 8      | 8       | 3RU  | 5.25"  | 8x8 3-channel wideband video<br>▪ 450MHz ▪ IP Control  |
| <b>88V3Sxl</b>    | RGB           | 8      | 8       | 3RU  | 5.25"  | 8x8 3-channel wideband video + stereo audio<br>▪ 450MHz ▪ IP Control   |
| <b>88V5xl</b>     | RGB + HV      | 8      | 8       | 3RU  | 5.25"  | 8x8 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control   |
| <b>88V5Sxl</b>    | RGB + HV      | 8      | 8       | 3RU  | 5.25"  | 8x8 3-channel wideband video, 2 sync channels + stereo audio<br>▪ 450MHz ▪ IP Control  |
| <b>88V5Vxl</b>    | 5-level video | 8      | 8       | 3RU  | 5.25"  | 8x8 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control  |
| <b>88V5VSxl</b>   | 5-level video | 8      | 8       | 3RU  | 5.25"  | 8x8 Custom format 5-channel (no sync) wideband video + stereo audio<br>▪ 450MHz ▪ IP Control   |
| <b>816V3xl</b>    | RGB           | 8      | 16      | 6RU  | 10.5"  | 8 x 16 three-channel wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                                       |
| <b>816V3Sxl</b>   | RGB           | 8      | 16      | 6RU  | 10.5"  | 8 x 16 three-channel wideband video + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                        |
| <b>816V5xl</b>    | RGB + HV      | 8      | 16      | 6RU  | 10.5"  | 8 x 16 three-channel wideband video, two sync channels<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                    |
| <b>816V5Sxl</b>   | RGB + HV      | 8      | 16      | 6RU  | 10.5"  | 8 x 16 three-channel wideband video, two sync channels + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional     |
| <b>816V5Vxl</b>   | 5-level video | 8      | 16      | 6RU  | 10.5"  | 8 x 16 Custom Format five-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                |
| <b>816V5VSxl</b>  | 5-level video | 8      | 16      | 6RU  | 10.5"  | 8 x 16 Custom Format five-channel (no sync) wideband video + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional |
| <b>1204V3xl</b>   | RGB           | 12     | 4       | 3RU  | 5.25"  | 12x4 3-channel wideband video<br>▪ 450MHz ▪ IP Control   |
| <b>1204V3Sxl</b>  | RGB           | 12     | 4       | 3RU  | 5.25"  | 12x4 3-channel wideband video + stereo audio<br>▪ 450MHz ▪ IP Control  |
| <b>1204V5xl</b>   | RGB + HV      | 12     | 4       | 3RU  | 5.25"  | 12x4 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control  |
| <b>1204V5Sxl</b>  | RGB + HV      | 12     | 4       | 3RU  | 5.25"  | 12x4 3-channel wideband video, 2 sync channels + stereo audio<br>▪ 450MHz ▪ IP Control   |
| <b>1204V5Vxl</b>  | 5-level video | 12     | 4       | 3RU  | 5.25"  | 12x4 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control   |
| <b>1204V5VSxl</b> | 5-level video | 12     | 4       | 3RU  | 5.25"  | 12x4 Custom format 5-channel (no sync) wideband video + stereo audio<br>▪ 450MHz ▪ IP Control  |
| <b>1208V3xl</b>   | RGB           | 12     | 8       | 3RU  | 5.25"  | 12x8 3-channel wideband video<br>▪ 450MHz ▪ IP Control   |
| <b>1208V3Sxl</b>  | RGB           | 12     | 8       | 3RU  | 5.25"  | 12x8 3-channel wideband video + stereo audio<br>▪ 450MHz ▪ IP Control  |
| <b>1208V5xl</b>   | RGB + HV      | 12     | 8       | 3RU  | 5.25"  | 12x8 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control  |
| <b>1208V5Sxl</b>  | RGB + HV      | 12     | 8       | 3RU  | 5.25"  | 12x8 3-channel wideband video, 2 sync channels + stereo audio<br>▪ 450MHz ▪ IP Control   |
| <b>1208V5Vxl</b>  | 5-level video | 12     | 8       | 3RU  | 5.25"  | 12x8 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control   |
| <b>1208V5VSxl</b> | 5-level video | 12     | 8       | 3RU  | 5.25"  | 12x8 Custom format 5-channel (no sync) wideband video + stereo audio<br>▪ 450MHz ▪ IP Control  |

| MODEL             | FORMAT        | INPUTS   |          | SIZE | HEIGHT | DESCRIPTION   |
|-------------------|---------------|----------|----------|------|--------|---|
| <b>1608V3xl</b>   | RGB           | 16       | 8        | 6RU  | 10.5"  | 16x8 3-channel wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional  |
| <b>1608V3Sxl</b>  | RGB           | 16       | 8        | 6RU  | 10.5"  | 16x8 3-channel wideband video + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                             |
| <b>1608V5xl</b>   | RGB + HV      | 16       | 8        | 6RU  | 10.5"  | 16x8 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                           |
| <b>1608V5Sxl</b>  | RGB + HV      | 16       | 8        | 6RU  | 10.5"  | 16x8 3-channel wideband video, 2 sync channels + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional            |
| <b>1608V5Vxl</b>  | 5-level video | 16       | 8        | 6RU  | 10.5"  | 16x8 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                    |
| <b>1608V5VSxl</b> | 5-level video | 16       | 8        | 6RU  | 10.5"  | 16x8 Custom format 5-channel (no sync) wideband video + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional     |
| <b>1616V3xl</b>   | RGB           | 16       | 16       | 6RU  | 10.5"  | 16x16 3-channel wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional   |
| <b>1616V3Sxl</b>  | RGB           | 16       | 16       | 6RU  | 10.5"  | 16x16 3-channel wideband video + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                            |
| <b>1616V5xl</b>   | RGB + HV      | 16       | 16       | 6RU  | 10.5"  | 16x16 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                          |
| <b>1616V5Sxl</b>  | RGB + HV      | 16       | 16       | 6RU  | 10.5"  | 16x16 3-channel wideband video, 2 sync channels + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional           |
| <b>1616V5Vxl</b>  | 5-level video | 16       | 16       | 6RU  | 10.5"  | 16x16 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional                   |
| <b>1616V5VSxl</b> | 5-level video | 16       | 16       | 6RU  | 10.5"  | 16x16 Custom format 5-channel (no sync) wideband video + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply optional    |
| <b>1632Sxl</b>    | Stereo Audio  | 16       | 32       | 4RU  | 7"     | 16 x 32 stereo audio<br>▪ IP Control ▪ Redundant power supply standard  |
| <b>1632V3xl</b>   | RGB           | 16       | 32       | 9RU  | 15.75" | 16 x 32 three-channel wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard                                     |
| <b>1632V5xl</b>   | RGB + HV      | 16       | 32       | 9RU  | 15.75" | 16 x 32 three channels wideband video, two sync channels + stereo audio<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard  |
| <b>1632V5Vxl</b>  | 5-level video | 16       | 32       | 9RU  | 15.75" | 16 x 32 Custom Format five-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard              |
| <b>3216Sxl</b>    | Stereo Audio  | 32       | 16       | 4RU  | 7"     | 32x16 stereo audio. Companion units for 3216 video frames, not stand-alone units.<br>▪ IP Control ▪ Redundant power supply standard |
| <b>3216V3xl</b>   | RGB           | 32       | 16       | 9RU  | 15.75" | 32x16 3-channel wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard   |
| <b>3216V5xl</b>   | RGB + HV      | 32       | 16       | 9RU  | 15.75" | 32x16 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard                          |
| <b>3216V5Vxl</b>  | 5-level video | 32       | 16       | 9RU  | 15.75" | 32x16 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard                   |
| <b>3232Sxl</b>    | Stereo Audio  | 32       | 32       | 4RU  | 7"     | 32x32 stereo audio. Companion units for 3216 video frames, not stand-alone units.<br>▪ IP Control ▪ Redundant power supply standard |
| <b>3232V3xl</b>   | RGB           | 32       | 32       | 9RU  | 15.75" | 32x32 3-channel wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard   |
| <b>3232V5xl</b>   | RGB + HV      | 32       | 32       | 9RU  | 15.75" | 32x32 3-channel wideband video, 2 sync channels<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard                          |
| <b>3232V5Vxl</b>  | 5-level video | 32       | 32       | 9RU  | 15.75" | 32x32 Custom format 5-channel (no sync) wideband video<br>▪ 450MHz ▪ IP Control ▪ Redundant power supply standard                   |
| <b>6464S</b>      | Stereo Audio  | Up to 64 | Up to 64 | 5RU  | 8.75"  | Up to 64 x 64 stereo audio<br>▪ IP Control ▪ Redundant power supply standard  |
| <b>6464V3xl</b>   | RGB           | Up to 64 | Up to 64 | 20RU | 35"    | Up to 64 x 64 three-channel wideband video<br>▪ 500MHz ▪ IP Control ▪ Redundant power supply standard                               |
| <b>6464V5xl</b>   | RGB + HV      | Up to 64 | Up to 64 | 20RU | 35"    | Up to 64 x 64 three-channel wideband video, two sync channels<br>▪ 500MHz ▪ IP Control ▪ Redundant power supply standard            |
| <b>6464V5Vxl</b>  | 5-level video | Up to 64 | Up to 64 | 20RU | 35"    | Up to 64 x 64 Custom Format five-channel (no sync) wideband video<br>▪ 500MHz ▪ IP Control ▪ Redundant power supply standard        |

**INCREDIBLY FLAT RESPONSE PERFORMANCE**



Typical Response Curve for a Sierra Pro XL Routing Switcher, Fully Loaded

Wideband Video

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|                        |                              |                  |
|------------------------|------------------------------|------------------|
| <b>BANDWIDTH</b>       | <b>8 Series to 32 Series</b> | 450MHz @ -3dB    |
|                        | <b>64 Series</b>             | 500MHz @ -3dB    |
| <b>VIDEO GAIN</b>      | Unity                        |                  |
| <b>CROSSTALK</b>       | - 80dB @ 1MHz                |                  |
|                        | - 47dB @ 100MHz              |                  |
|                        | - 30dB @ 150MHz              |                  |
| <b>SWITCHING SPEED</b> | Deterministic                |                  |
| <b>INPUT</b>           |                              |                  |
| <b>VIDEO LEVEL</b>     | <b>8 Series to 32 Series</b> | 0.2V to 5V p-p   |
|                        | <b>64 Series</b>             | 0.3V to 2.5V p-p |
| <b>IMPEDANCE</b>       | 75 Ohm                       |                  |
| <b>RETURN LOSS</b>     | < - 30dB @ 5MHz              |                  |
| <b>CONNECTOR TYPE</b>  | BNC                          |                  |
| <b>OUTPUT</b>          |                              |                  |
| <b>VIDEO LEVEL</b>     | 0.2V to 5Vp-p                |                  |
| <b>IMPEDANCE</b>       | 75 Ohm                       |                  |
| <b>RETURN LOSS</b>     | < - 30dB @ 5MHz              |                  |
| <b>CONNECTOR TYPE</b>  | BNC                          |                  |



## Analog Audio - 8 Series to 32 Series

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|                                      |   |
|--------------------------------------|---|
| INPUT GAIN ADJUST RANGE              | +20.5dB to -8dB   |
| OUTPUT GAIN ADJUST RANGE             | +15dB to -59.5dB and fully off (MUTE)   |
| FREQUENCY RESPONSE                   | 20Hz to 20kHz +/- 0.5dB (typical - 3dB @ 120kHz) (unity gain)   |
| DYNAMIC RANGE                        | 96dB (20-20kHz unweighted) (unity gain)   |
| CROSSTALK (ALL INPUTS HOSTILE)       | < - 80dB @ 1kHz (unity gain);   |
| IM & THD (20 TO 20KHZ)               | < - 60dB @ 10kHz (unity gain)<br>THD: < 0.025% (20Hz - 20kHz @ + 4dBu) (unity gain)<br>IM: < 0.025 SMPTE-DIN @ + 4dBu (unity gain)<br>< 0.01% CCIF @ + 16dBu (unity gain) |
| <b>INPUT</b>                         |   |
| MAX. SOURCE LEVEL                    | + 24dBu   |
| IMPEDANCE                            | > 20k   |
| CONNECTOR TYPE                       | 5 pin terminal block for balanced or unbalanced operation   |
| <b>OUTPUT</b>                        |   |
| MAX. SOURCE LEVEL                    | + 24dBu balanced<br>+18dBu unbalanced   |
| IMPEDANCE                            | < 50 Ohm  |
| CONNECTOR TYPE                       | 5 pin terminal block for balanced or unbalanced operation   |
| <b>CONTROL</b>                       |   |
| SERIAL                               | General Purpose 9 pin-D, each switchable RS-232 or RS-422<br>2 on 32 Series and 64 Series models, 1 on all others<br>9600, 38400, 115200 baud                             |
| PROTOCOLS                            | SVS host, simple Kramer, and select others  |
| ETHERNET                             | 10/100 Base-T, full duplex, RJ-45 connector   |
| PROTOCOLS                            | ARP, ICMP, TCP/IP, Telnet, HTTP   |
| WEB SERVER                           | For control   |
| CONTROL PANELS                       | Supports SCP programmable control panels, XY & single bus control panels  |
| <b>GENERAL</b>                       |   |
| <b>RACK UNIT SIZE/FRAME</b>          |   |
| 8x & 12x                             | 3RU   |
| 16x, 8x16 Reverse Matrix             | 6RU   |
| 32x, 16x Reverse Matrix - Video Only | 9RU   |
| 32x - Audio only                     | 4RU   |
| Up to 64 - Video only                | 20RU (4RU per channel)  |
| Up to 64 - Audio only                | 5RU   |
| <b>DIMENSIONS</b>                    |   |
| 8x & 12x                             | 19"w x 5.25"h x 19"d  |
| 16x, 8x16 Reverse Matrix             | 19"w x 10.5"h x 19"d  |
| 32x, 16x32 Reverse Matrix            | 19"w x 15.75"h x 19"d   |
| 32x - Audio Only                     | 19"w x 7"h x 19"d   |
|                                      | Mounts in standard 19" rack<br>Depth measurements do not include front panel hardware or rear cabling   |
| Up to 64 - Video only                | 9"w x 7"h x 20 3/8"d (per channel)  |
| Up to 64 - Audio only                | 9"w x 8.75"h x 20 3/8"d   |
| POWER                                | 90VAC - >240 VAC 50/60HZ (<150 Watts) auto-detecting  |
| REDUNDANT POWER SUPPLY               | Optional in 8x16 Reverse Matrix and 16 Series, standard in 16x32 Reverse Matrix, 32 Series and 64 Series  |
| STORAGE TEMPERATURE                  | -40° to +150° F   |
| OPERATING TEMPERATURE                | 30° to 100° F ambient   |
| HUMIDITY                             | 10% to 90 % non-condensing  |
| WARRANTY                             | 7 Years   |