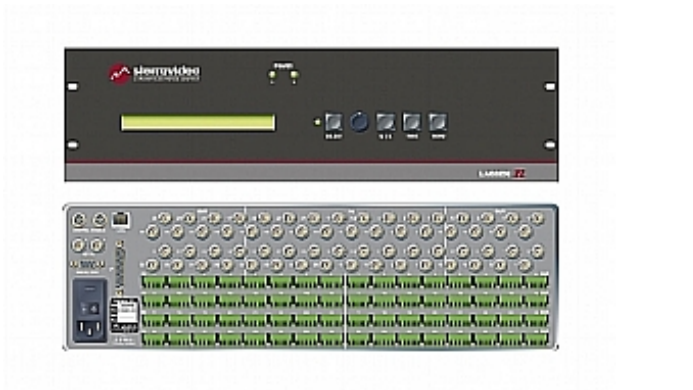


## Lassen XL 16x16 & 32x32 Analog & Digital Audio Router Family

16x16 & 32x32 Analog & Digital Audio Routers



16x16 & 32x32 Balanced Stereo or Digital Audio Matrix Switcher with 6 Configurations

## Lassen XL 16x16 & 32x32 Analog & Digital Audio Router Family

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### HD-SDI Video Features

- Max. Data Rate - 1.485Gbps single link, 3Gbps dual link.
- Backwards Compatible With SDI Signals.
- Standards - SMPTE 372, SMPTE 310, SMPTE 292, SMPTE 259, DVB-ASI.
- Jitter - < 0.2UI.

### SDI Video Features

- Max. Data Rate - 360Mbps.
- Standards - SMPTE 310M, SMPTE 259M, DVB-ASI & ITU-R BT.601
- Jitter - < 0.2UI.

### Stereo Audio Features

- Audio Type - Balanced or un-balanced analog stereo on terminal blocks.
- Input (Level) Adjustment Capability (-8dB to +20.5dB) - Each input via RS-232, front panel, or TyLinx Pro™ software.
- Output (Volume) Adjustment Capability (Mute, -59.5dB to +15dB) - Each input via RS-232, front panel, or TyLinx Pro™ Software.
- No Zipper Effect - Lassen routing switchers use zero-crossover chip technology that eliminates the annoying “zipper sound effect” associated with digital volume controls.
- Audio Mute Capability.
- Crosstalk - 80dB @ 1kHz & 70dB @ 20kHz.
- S/N (20 - 20kHz) - > 90dB.

### Digital Audio Features

- Standards - AES-3 & AES-3id.
- Jitter - 0.25UI p-p.

### Control Features

- Local Front Panel Control With 80 Character LCD Readout.
- RS-232, RS-485, RS-422 & Ethernet.
- Optional Remote Control Panels - Via RS-485.
- Supports TCP/IP Protocol - Rear Panel RJ-45 connector.
- WEB Browser Control.
- TyLinx Pro Router Control Software.
- MediaNav™ Network-Enabled Router Control Software via 1RU Mediator - Optional.

### Other Features

- Optional Control Panels. - Programmable, single bus and XY.
- Redundant Power Option - On selected 32 series models.
- UL & CE Approvals.

### Composite Video Features

- High Bandwidth - 100MHz (-3dB) fully loaded.
- Very Low Crosstalk - -80dB @ 1MHz -47dB @ 100MHz.
- Qwik Adjust Knob™ Rotary Control interface - This user intuitive knob along with the 80 character LCD display provides quick and convenient setup, adjustment and signal switching.
- Video Mute Capability.
- Genlock Input - Looping internal sync input for vertical interval switching.
- Output Disconnect.

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### TECHNICAL SPECIFICATIONS

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#### HD-SDI Video

Max. Data Rate	1.485Gbps
Data Types	SMPTE 372M, SMPTE 344M, SMPTE 310M, SMPTE 292M, SMPTE 259, DVB-ASI, ITU-R BT.601
Jitter	<0.2 UI
Video Level	800mVpp +/-10%
Impedance	75Ω
Return Loss	<-15dB up to 1.5GHz
Cable Equalizing Range	0 - 100m for SMPTE 292, Belden 8281 0 - 300m for all other standards, Belden 8281
Connector Type	BNC
Video Level	800mVpp +/-10%
Impedance	75Ω
Return Loss	<-15dB up to 1.5GHz
Rise/Fall Times	<270psec
Connector Type	BNC

#### SDI Video

Data Rates	19 - 360Mbps
Data Types	SMPTE 310M, SMPTE 259M, DVB-ASI, ITU-R BT.601
Jitter	<0.2UI
Video Level	800mVpp +/-10%
Impedance	75Ω
Return Loss	<-15dB
Cable Equalizing Range	0 - 300m, Belden 8281
Connector Type	BNC
Video Level	800mV p-p +/- 10%
Impedance	75Ω
Return Loss	<-15dB
Rise/Fall Times	400 - 1500psec

### CONFIGURATIONS

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Model	Description
<b>Analog</b>	
1616S-XL	16x16 Balanced Audio Matrix Switcher. 2RU.
3232S-XL	32x32 Balanced Audio Matrix Switcher. 3RU.
3232SR-XL	32x32 Balanced Audio Matrix Switcher. Redundant Power Supply. 4RU.
<b>Digital</b>	
1616EE-XL	16x16 2 Channels Balanced AES/EBU Matrix Switcher. 2RU.
3232EE-XL	32x32 2 Channels Balanced AES/EBU Matrix Switcher. 3RU.
3232EER-XL	32x32 2 Channels Balanced AES/EBU Matrix Switcher. Redundant Power Supply. 4RU.

## Lassen XL 16x16 & 32x32 Analog & Digital Audio Router Family

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### SDI Video

Connector Type BNC

### Stereo Audio

Input Adjust Ranges +20.5dB to -8dB  
 Output 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 (20Hz to 20kHz unweighted) (unity gain)  
 Crosstalk (all inputs hostile) <-80dB @ 1kHz (unity gain) <-60dB @ 10kHz (unity gain)  
 IM & THD (20 to 20kHz) THD: <0.025% (20Hz to 20kHz @ +4dBu) (unity gain) IM: <0.025% SMPTE-DIN @ +4dBu (unity gain) <0.01% CCIF @ +16dBu (unity gain)  
 Max. Source Level +24dBu  
 Impedance >20k $\Omega$   
 Connector Type 5-pin terminal block for balanced or unbalanced operation  
 Max. Source Level +24dBu balanced +18dBu unbalanced  
 Impedance <50 $\Omega$   
 Connector Type 5-pin terminal block for balanced or unbalanced operation

### AES-3 Digital Audio

Data Rates 32kHz - 96kHz  
 Jitter <0.25 UI p-p  
 Max Distance 100m  
 Cable STP  
 Return Loss <-30dB @ 6MHz  
 Minimum Input 200mV p-p  
 Connector Type Terminal block  
 Audio Level 3.5V nominal  
 Return Loss <-30dB @ 6MHz  
 Connector Type Terminal block

### AES-3id Digital Audio

Data Rates 32kHz - 96kHz  
 Jitter <0.025 UI p-p  
 Max Distance 100m  
 Cable BNC  
 Audio Level 1V p-p for 75 $\Omega$  systems  
 Return Loss <-30dB @ 6MHz  
 Minimum Input 1V p-p  
 Connector Type BNC  
 Audio Level 1V p-p for 75 $\Omega$  systems  
 Return Loss <-30dB @ 5MHz <-30dB @ 5MHz  
 Connector Type BNC

### Control Features

Control Panels Supports SCP programmable control panels, XY & single bus control panels  
 Serial General purpose 9-pin D-sub connector Switchable RS-232 or RS-422 9600, 38400, 115200 baud  
 Serial Protocols SVS host, simple Kramer, and select others