

Lassen 16x16 HD-SDI Router Family

16x16 HD-SDI Matrix Switchers



16x16 HD-SDI Matrix Switchers with 3 Configurations

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

Model	Description
1616HD-XL	16x16 HD-SDI Matrix Switcher. 2RU.
1616HDS-XL	16x16 HD-SDI Matrix Switcher. Balanced Stereo Audio. 2RU.
1616HDEE-XL	16x16 HD-SDI Matrix Switcher. 2 Channels AES/EBU Audio. 2RU.

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TECHNICAL SPECIFICATIONS

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 Ω
Connector Type 5-pin terminal block for balanced or unbalanced operation
Max. Source Level +24dBu balanced +18dBu unbalanced
Impedance <50 Ω
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 Ω systems
Return Loss <-30dB @ 6MHz
Minimum Input 1V p-p
Connector Type BNC
Audio Level 1V p-p for 75 Ω 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
RS-485 Mini-XLR for optional control panels
Ethernet 10/100 Base-T, full-duplex RJ-45 connector