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LASSEN™

LASSEN ROUTING SWITCHERS

Lassen HD™ • Lassen SDI™ • Lassen XL™

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Lassen HD™ and Lassen SDI™ Routing Switchers

HD-SDI and SDI Routing Switchers

Lassen 1616DEE

FEATURES

- **Multi-Format Multi-Rate Boards** - Lassen HD routing switchers incorporate multi-format and multi-rate video boards that pass HD-SDI, SDI, DVB-ASI, and MPEG-2 signals
- **Cost-effective SDI Only Models** - Lassen SDI routing switchers pass SDI, DVB-ASI and MPEG-2 signals
- **Compact Form Factor** - Sizes from 8x8 in 2RU to 32x32 in 3RU
- **Digital and Analog Stereo Options** - AES/EBU digital audio or analog stereo audio available
- **IP (Ethernet) Control Via Standard TCP/IP Socket Connection** - Mac or PC
- **RS-232/422 Control** - Standard on all models
- **Comprehensive Line of Remote and Remote-programmable Control Panels** - See the Control Panel and Software section at the end of the brochure for all available options
- **Qwik Adjust Knob™ Rotary Control Interface** - Intuitive user interface with front panel LCD display
- **Use with other Sierra Video Routing Switchers** - Functions as either the master or the slave unit when used with other Sierra Video routing switchers
- **Redundant Power Supply Option**

Lassen 3232HDEE

FITS YOUR DIGITIAL WORKFLOW

Lassen HD and Lassen SDI routing switchers from Sierra Video meet the needs of your HD-SDI and SDI workflow with the ultimate in flexible digital signal routing.

The Lassen HD routing switchers employ true multi-format and multi-rate digital video boards. They are capable of handling standard serial digital video signals including SMPTE 310M, SMPTE 259M, SMPTE 344M, ITU-R BT.601 and DVB-ASI up to 540 Mbps along with HD serial digital video signals conforming to SMPTE 292M (1.485Gbps single link) or SMPTE 372M (2.97Gbps dual link).

Lassen SDI routing switchers are SDI-only routing switchers that provide the flexibility of handling standard serial digital video signals including SMPTE 310M, SMPTE 259M and DVB-ASI. Lassen SDI routing switchers offer additional cost-savings over Lassen HD routing switchers for facilities that only require the routing of Standard Definition SDI signals. Combined with audio, expandability and control options, these routing switchers are true digital performers.

MULTIPLE CONFIGURATIONS FOR MULTIPLE APPLICATIONS

Lassen HD and Lassen SDI routing switchers are compact and economical, perfect both for existing HD facilities and for facilities making the transition to digital or HD. Lassen HD routing switchers are also ideal for rental and staging companies looking to offer full high definition and digital capabilities in a single routing switcher. Any Lassen HD or Lassen SDI routing switcher can be paired with either 2-channel (4-stream) digital audio or analog stereo audio options in the same frame. Starting with 8x8 at 2RU up to 32x32 in 3RU, these digital powerhouses are economical both in size and pricing. This flexibility makes our Lassen products the perfect fit for your evolving digital operations in production, mobile and broadcast applications.

FLEXIBLE CONTROL OPTIONS

The entire Lassen Family of routing switchers has numerous control options available. Each unit comes with a front panel LCD display and Sierra Video Systems' Qwik Adjust Knob™ rotary control interface that makes front panel control a breeze. Each Lassen model also offers IP (Ethernet) control via a standard TCP/IP socket connection and an RS-232/422 serial interface supported by all major third party control systems. Additionally, we offer a comprehensive range of remote control panel options with our SCP Series programmable control panels and our simple XY and single bus remote control panels.

DIGITAL OR ANALOG AUDIO

Lassen HD and Lassen SDI routing switchers populated with AES/EBU digital audio are able to handle all AES standards. Models with analog stereo audio provide audio input level adjustment from +20.5dB to -8dB. They also provide audio output level adjustment from +15dB to -59.5dB along with a mute setting. Lassen XL audio boards have been designed to eliminate the zipper effect associated with digital level controls. Adjusting the input or output audio levels yields only a smooth and pleasant transition.

ROOM FOR EXPANSION

For expanding facilities, our entire Lassen line of routing switchers is designed to connect with other Sierra Video routing switchers. With the advent of the Lassen products, it is now practical to connect our small RS-422 machine control routing switcher to some of our smaller routing switchers. In addition, Lassen routing switchers can perform as either the master or the slave machine in your control system: the routing switcher can be inserted into an existing Sierra Video routing system providing additional format levels, or additional Lassen models can be linked to any Sierra Video SCP Series control panel for ultimate control of any size broadcast system.

FLEXIBLE AND FORWARD-COMPATIBLE

Lassen HD and Lassen SDI routing switchers from Sierra Video offer signal format flexibility for your HD, transition-to-HD, or SDI video application. In addition, they provide the full feature set and complete control options your digital workflow needs in the slim frame size your facility requires.

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Lassen HD Routing Switchers

MODEL	RACK UNIT HEIGHT	FORMAT	INPUTS	OUTPUTS	DESCRIPTION
88HDEE	2RU	HD-SDI/SDI video + AES digital audio	8	8	8 x 8 HD-SDI/SDI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
88HDE	2RU	HD-SDI/SDI video + AES digital audio	8	8	8 x 8 HD-SDI/SDI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
88HDS	2RU	HD-SDI/SDI video + analog stereo audio	8	8	8 x 8 HD-SDI/SDI video + analog stereo audio routing switcher w/ front control
88HD	2RU	HD-SDI /SDI video	8	8	8x8 HD-SDI/SDI video routing switcher w/ front control
1608HDEE	2RU	HD-SDI/SDI video + AES digital audio	16	8	16 x 8 HD-SDI/SDI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
1608HDE	2RU	HD-SDI/SDI video + AES digital audio	16	8	16 x 8 HD-SDI/SDI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
1608HDS	2RU	HD-SDI/SDI video + analog stereo audio	16	8	16 x 8 HD-SDI/SDI video + analog stereo audio routing switcher w/ front control
1608HD	2RU	HD-SDI/SDI video	16	8	16 x 8 HD-SDI/SDI video routing switcher w/ front control
1616HDEE	2RU	HD-SDI/SDI video + AES digital audio	16	16	16 x 16 HD-SDI/SDI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
1616HDE	2RU	HD-SDI/SDI video + AES digital audio	16	16	16 x 16 HD-SDI/SDI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
1616HDS	2RU	HD-SDI/SDI video + analog stereo audio	16	16	16 x 16 HD-SDI/SDI video + analog stereo audio routing switcher w/ front control
1616HD	2RU	HD-SDI/SDI video	16	16	16 x 16 HD-SDI/SDI video routing switcher w/ front control
3216HDEE	3RU	HD-SDI/SDI video + AES digital audio	32	16	32 x 16 HD-SDI/SDI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
3216HDEER	4RU	HD-SDI/SDI video + AES digital audio	32	16	32 x 16 HD-SDI/SDI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3216HDE	3RU	HD-SDI/SDI video + AES digital audio	32	16	32 x 16 HD-SDI/SDI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
3216HDER	4RU	HD-SDI/SDI video + AES digital audio	32	16	32 x 16 HD-SDI/SDI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3216HDS	3RU	HD-SDI/SDI video + analog stereo audio	32	16	32 x 16 HD-SDI/SDI video + analog stereo audio routing switcher w/ front control
3216HDSR	4RU	HD-SDI/SDI video + analog stereo audio	32	16	32 x 16 HD-SDI/SDI video + analog stereo audio routing switcher w/ front control and redundant power supply
3216HD	3RU	HD-SDI/SDI video	32	16	32 x 16 HD-SDI/SDI video routing switcher w/ front control
3216HDR	4RU	HD-SDI/SDI video	32	16	32 x 16 HD-SDI/SDI video routing switcher w/ front control and redundant power supply
3232HDEE	3RU	HD-SDI/SDI video + AES digital audio	32	32	32 x 32 HD-SDI/SDI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
3232HDEER	4RU	HD-SDI/SDI video + AES digital audio	32	32	32 x 32 HD-SDI/SDI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3232HDE	3RU	HD-SDI/SDI video + AES digital audio	32	32	32 x 32 HD-SDI/SDI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
3232HDER	4RU	HD-SDI/SDI video + AES digital audio	32	32	32 x 32 HD-SDI/SDI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3232HDS	3RU	HD-SDI/SDI video + analog stereo audio	32	32	32 x 16 HD-SDI/SDI video + analog stereo audio routing switcher w/ front control
3232HDSR	4RU	HD-SDI/SDI video + analog stereo audio	32	32	32 x 16 HD-SDI/SDI video + analog stereo audio routing switcher w/ front control and redundant power supply
3232HD	3RU	HD-SDI/SDI video	32	32	32 x 32 HD-SDI/SDI video routing switcher w/ front control
3232HDR	4RU	HD-SDI/SDI video	32	32	32 x 32 HD-SDI/SDI video routing switcher w/ front control and redundant power supply

Lassen SDI Routing Switchers

MODEL	RACK UNIT HEIGHT	FORMAT	INPUTS	OUTPUTS	DESCRIPTION
88DEE	2RU	SDI/DVB-ASI video + AES digital audio	8	8	8 x 8 SDI/DVB-ASI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
88DE	2RU	SDI/DVB-ASI video + AES digital audio	8	8	8 x 8 SDI/DVB-ASI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
88DS	2RU	SDI/DVB-ASI video + analog stereo audio	8	8	8 x 8 SDI/DVB-ASI video + analog stereo audio routing switcher w/ front control
88D	2RU	SDI/DVB-ASI video	8	8	8x8 SDI/DVB-ASI video routing switcher w/ front control
1608DEE	2RU	SDI/DVB-ASI video + AES digital audio	16	8	16 x 8 SDI/DVB-ASI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
1608DE	2RU	SDI/DVB-ASI video + AES digital audio	16	8	16 x 8 SDI/DVB-ASI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
1608DS	2RU	SDI/DVB-ASI video + analog stereo audio	16	8	16 x 8 SDI/DVB-ASI video + analog stereo audio routing switcher w/ front control
1608D	2RU	SDI/DVB-ASI video	16	8	16 x 8 SDI/DVB-ASI video routing switcher w/ front control
1616DEE	2RU	SDI/DVB-ASI video + AES digital audio	16	16	16 x 16 SDI/DVB-ASI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
1616DE	2RU	SDI/DVB-ASI video + AES digital audio	16	16	16 x 16 SDI/DVB-ASI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
1616DS	2RU	SDI/DVB-ASI video + analog stereo audio	16	16	16 x 16 SDI/DVB-ASI video + analog stereo audio routing switcher w/ front control
1616D	2RU	SDI/DVB-ASI video	16	16	16 x 16 SDI/DVB-ASI video routing switcher w/ front control
3216DEE	3RU	SDI/DVB-ASI video + AES digital audio	32	16	32 x 16 SDI/DVB-ASI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
3216DEER	4RU	SDI/DVB-ASI video + AES digital audio	32	16	32 x 16 SDI/DVB-ASI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3216DE	3RU	SDI/DVB-ASI video + AES digital audio	32	16	32 x 16 SDI/DVB-ASI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
3216DER	4RU	SDI/DVB-ASI video + AES digital audio	32	16	32 x 16 SDI/DVB-ASI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3216DS	3RU	SDI/DVB-ASI video + analog stereo audio	32	16	32 x 16 SDI/DVB-ASI video + analog stereo audio routing switcher w/ front control
3216DSR	4RU	SDI/DVB-ASI video + analog stereo audio	32	16	32 x 16 SDI/DVB-ASI video + analog stereo audio routing switcher w/ front control and redundant power supply
3216D	3RU	SDI/DVB-ASI video	32	16	32 x 16 SDI/DVB-ASI video routing switcher w/ front control
3216DR	4RU	SDI/DVB-ASI video	32	16	32 x 16 SDI/DVB-ASI video routing switcher w/ front control and redundant power supply
3232DEE	3RU	SDI/DVB-ASI video + AES digital audio	32	32	32 x 32 SDI/DVB-ASI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control
3232DEER	4RU	SDI/DVB-ASI video + AES digital audio	32	32	32 x 32 SDI/DVB-ASI video + 2-streams (balanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3232DE	3RU	SDI/DVB-ASI video + AES digital audio	32	32	32 x 32 SDI/DVB-ASI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control
3232DER	4RU	SDI/DVB-ASI video + AES digital audio	32	32	32 x 32 SDI/DVB-ASI video + 1-stream (unbalanced) AES/EBU digital audio routing switcher w/ front control and redundant power supply
3232DS	3RU	SDI/DVB-ASI video + analog stereo audio	32	32	32 x 16 SDI/DVB-ASI video + analog stereo audio routing switcher w/ front control
3232DSR	4RU	SDI/DVB-ASI video + analog stereo audio	32	32	32 x 16 SDI/DVB-ASI video + analog stereo audio routing switcher w/ front control and redundant power supply
3232D	3RU	SDI/DVB-ASI video	32	32	32 x 32 SDI/DVB-ASI video routing switcher w/ front control
3232DR	4RU	SDI/DVB-ASI video	32	32	32 x 32 SDI/DVB-ASI video routing switcher w/ front control and redundant power supply

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TECHNICAL SPECIFICATIONS

HD-SDI/SDI Multi-Rate Video Boards

DATA RATES	19Mbps – 1.485Gbps
DATA TYPES	SMPTE 372, SMPTE 310M, SMPTE 259M, SMPTE 344M, SMPTE 292M, DVB-ASI, ITU-R BT.601
JITTER	< 0.2UI
INPUT	
Video Level	800mV p-p +/-10%
Impedance	75 Ohm
Return Loss	< - 15dB up to 1.5GHz
Cable Equalization Range	0 - 100 meters for SMPTE 292, Belden 8281 0 - 300 meters for all other standards, Belden 8281
Connector Type	BNC
OUTPUT	
Video Level	800mV p-p +/- 10%
Impedance	75 Ohm
Return Loss	< - 15dB up to 1.5GHz
Rise/Fall Times	< 270 psec
Connector Type	BNC

SDI Video Boards

DATA RATE	19 – 360Mbps
DATA TYPES	SMPTE 310M, SMPTE 259M, DVB-ASI, ITU-R BT.601
JITTER	< 0.2 UI
INPUT	
Video Level	800mV p-p +/-10%
Impedance	75 Ohm
Return Loss	< - 15dB
Cable Equalization Range	0 – 300 meters, Belden 8281
Connector Type	BNC
OUTPUT	
Video Level	800mV p-p +/- 10%
Impedance	75 Ohm
Return Loss	< - 15dB
Rise/Fall Times	400 - 1500 psec
Connector Type	BNC

AES/EBU Digital Audio

	AES3	AES3id
DATA RATES	32kHz - 96kHz	32kHz - 96kHz
JITTER	< 0.025 UI p-p	< 0.025 UI p-p
MAX. DISTANCE	110m	100m
CABLE	STP	Coax
INPUT		
Input Type	Balanced	Unbalanced
Return Loss	> -30dB @ 6MHz	> -30dB @ 6MHz
Connector Type	Terminal Block	BNC
OUTPUT		
Audio Level	3.5V nominal	1V p-p terminated (75 Ohm)
Return Loss	> -30dB @ 6MHz	> -30dB @ 6MHz
Connector Type	Terminal Block	BNC

Analog Stereo Audio

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) < -60dB @ 10KHz (unity gain)
IM & THD (20 to 20KHz)	THD: < 0.025% (20Hz – 20KHz @ +4dBu) (unity gain) IM: < 0.025 SMPTE-DIN @ +4dBu (unity gain) <0.01% CCIF @ +16dBu (unity gain)
INPUT	
Max. Source Level	+24dBu
Impedance	> 20K
Connector Type	5 pin terminal block for balanced or unbalanced operation
OUTPUT	
Max. Source Level	+24dBu balanced +18dBu unbalanced
Impedance	< 50 Ohm
Connector Type	5 pin terminal block for balanced or unbalanced operation

Control

SERIAL	General Purpose 9 pin-D, switchable RS-232 or RS-422 9600, 38400, 115200 baud
PROTOCOL	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

General

RACK UNIT SIZE/FRAME	
8 & 16 Series	2RU
32 Series	3RU
32 Series with redundant power supply	4RU
DIMENSIONS	
8 Series	19"w x 3.5"h x 13.7"d
16 Series	19"w x 3.5"h x 17.7"d
32 Series	19"w x 5.25"h x 18.7"d
32 Series with redundant power supply	19"w x 7"h x 18.7"d
	Mounts in standard 19" rack.
	Depth measurements do not include front panel hardware or rear cabling
Power	90 VAC -> 240 VAC 50/60 HZ (<150 Watts) auto-detecting
Redundant Power Supply	Optional on 32 Series models
Storage Temperature	-40 to +150 degrees F
Operating Temperature	30 degrees to 100 degrees F ambient
Humidity	10% to 90 % non-condensing
Warranty	7 Years

Lassen XL™ Routing Switchers

Compact Composite Video & Stereo Audio Routing Switchers

Lassen 3232VSxl

FEATURES

- **Compact Design** - Space and cost saving compact design with sizes from 12x8 in 2RU to 32x32 in 3RU
- **IP (Ethernet) Control Via Standard TCP/IP Socket Connection** - Mac or PC
- **Enhanced Video Boards** - 300MHz (-3dB)
- **RS-232/422 Control** - Standard on all models
- **Comprehensive Line of Remote and Remote-programmable Control Panels** – See the Control Panel and Software section at the end of the brochure for all the available options
- **Qwik Adjust Knob™ Rotary Control Interface** - Intuitive user interface with front panel LCD display
- **Use with other Sierra Video Routing Switchers** - Functions as either the master or the slave unit when used with other Sierra Video routing switchers
- **Redundant Power Supply Option**

Lassen 1616VSxl

Lassen 3232VSxl

CONVENIENTLY COMPACT AND FEATURE RICH

Lassen XL routing switchers provide all the features required for routing composite video and balanced stereo audio signals in a very compact footprint. They employ Sierra Video's extremely responsive and user intuitive front panel Qwik Adjust Knob rotary control interface and come in configurations ranging from 12x4 to 32x32.

The Lassen XL routing switchers are ideal for live-to-air and post-production facilities, remote trucks, and corporate, scientific, military and educational installations. Lassen XL is the perfect routing switcher for facilities that require full production capabilities in a small production space.

OUTSTANDING ROUTING IN COMPACT SIZES

The Lassen XL routing switchers are up to 50% smaller than their legacy counterparts in the Sierra Classic family - 32 inputs and 32 outputs of video and audio fit into a desirable 3RU frame with BNC video connectors and terminal block audio connectors for easy installation. The 12 Series and 16 Series are a mere 2RU.

FLEXIBLE CONTROL OPTIONS

The entire family of Lassen XL routing switchers has numerous control options available. Each unit comes with a front panel LCD display and Sierra Video's Qwik Adjust Knob™ rotary control interface that makes front panel control a breeze. Each Lassen XL model also offers IP (Ethernet) control via a standard TCP/IP socket connection and an RS-232/422 serial interface supported by all major third party control systems. Additionally, we offer a comprehensive range of remote control panel options with our SCP Series programmable control panels and our simple XY and single bus remote control panels.

BALANCED STEREO AUDIO

Lassen XL routing switchers are equipped with balanced stereo audio and provide audio input level adjustment from +20.5dB to -8dB. They also provide audio output level adjustment from +15dB to -59.5dB along with a mute setting. Lassen XL audio boards have been designed to eliminate the zipper effect associated with digital level controls. Adjusting the input or output audio levels yields only a smooth and pleasant transition.

ROOM FOR EXPANSION

For expanding facilities, our entire Lassen XL line of routing switchers is designed to connect with other Sierra Video routing switcher families. With the advent of the Lassen products, it is now practical to connect our small RS-422 machine control routing switcher to some of our smaller routing switchers. In addition, Lassen routing switchers can perform as either the master or the slave machine in your control system: the routing switcher can be inserted into an existing Sierra Video routing system providing additional format levels, or additional Lassen models can be linked to any Sierra Video SCP Series control panel for ultimate control of any size broadcast system.

SIGNAL ROUTING HAS NEVER BEEN MORE COMPACT OR POWERFUL

The Lassen XL routing switchers from Sierra Video offer compact design, advanced features, and more control options than ever before. They are the ideal choice for demanding broadcast and post-production professionals.

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Lassen XL Routing Switchers

MODEL	RACK UNIT HEIGHT	FORMAT	INPUTS	OUTPUTS	DESCRIPTION
1204Vxl	2RU	Video	12	4	12x4 composite video routing switcher w/ front control
1204VSxl	2RU	Video + Analog Stereo Audio	12	4	12x4 composite video + stereo audio routing switcher w/ front control
1208Vxl	2RU	Video	12	8	12x8 composite video routing switcher w/ front control
1208VSxl	2RU	Video + Audio	12	8	12x8 composite video + stereo audio routing switcher w/ front control
1608Vxl	2RU	Video	16	8	16x8 composite video video routing switcher w/ front control
1608VSxl	2RU	Video + Audio	16	8	16x8 composite video + stereo audio routing switcher w/ front control
1616Vxl	2RU	Video	16	16	16x16 composite video routing switcher w/ front control
1616VSxl	2RU	Video + Audio	16	16	16x16 composite video + stereo audio routing switcher w/ front control
3216Sxl	3RU	Stereo Audio	32	16	32x16 stereo audio routing switcher w/ front control
3216SRxl	4RU	Stereo Audio	32	16	32x16 stereo audio routing switcher w/ front control and redundant power supply
3216Vxl	3RU	Video	32	16	32x16 composite video routing switcher w/ front control
3216VRxl	4RU	Video	32	16	32x16 composite video routing switcher w/ front control and redundant power supply
3216VSxl	3RU	Video + Audio	32	16	32x16 composite video + stereo audio routing switcher w/ front control
3216VSRxl	4RU	Video + Audio	32	16	32x16 composite video + stereo audio routing switcher w/ front control and redundant power supply
3232Sxl	3RU	Stereo Audio	32	32	32 x 32 stereo audio routing switcher w/ front control
3232SRxl	4RU	Stereo Audio	32	32	32 x 32 stereo audio routing switcher w/ front control and redundant power supply
3232Vxl	3RU	Video	32	32	32x32 composite video routing switcher w/ front control
3232VRxl	4RU	Video	32	32	32x32 composite video routing switcher w/ front control and redundant power supply
3232VSxl	3RU	Video + Audio	32	32	32x32 composite video + stereo audio routing switcher w/ front control
3232VSRxl	4RU	Video + Audio	32	32	32x32 composite video + stereo audio routing switcher w/ front control and redundant power supply

TECHNICAL SPECIFICATIONS

Analog Composite Video

VIDEO GAIN	Unity (adjustable per channel +/- 1.5dB)
CROSSTALK	-80dB @ 1MHz -47dB@100MHz
SWITCHING SPEED	Deterministic
INPUT	
Video Level	300mV to 2.5V p-p
Impedance	75 Ohm nominal
Return Loss	< -30dB @ 5MHz
Connector Type	BNC
OUTPUT	
Video Level	300mV to 2.5V p-p
Impedance	75 Ohm nominal
Return Loss	< -30dB @ 5MHz
Connector Type	BNC

Analog Stereo Audio

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) < - 60dB @ 10kHz (unity gain)
IM & THD (20 TO 20KHZ)	THD: < 0.025% (20Hz - 20kHz @ + 4dBu) (unity gain) IM: < 0.025 SMPTE-DIN @ + 4dBu (unity gain) < 0.01% CCIF @ + 16dBu (unity gain)
INPUT	
Max. Source Level	+ 24dBu
Impedance	> 20k
Connector Type	5 pin terminal block for balanced or unbalanced opertaion
OUTPUT	
Max. Source Level	+24dBu balanced +18dBu unbalanced
Impedance	< 50 Ohm
Connector Type	5 pin terminal block for balanced or unbalanced operation

Control

SERIAL	General Purpose 9 pin-D, switchable RS-232 or RS-422 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

General

RACK UNIT SIZE/FRAME	
12 & 16 Series	2RU
32 Series	3RU
32 Series with redundant power supply	4RU
DIMENSIONS	
12 & 16 Series	19"w x 3.5"h x 17.7"d
32 Series	19"w x 5.25"h x 18.7"d
32 Series with redundant power supply	19"w x 7"h x 18.7"d
	Mounts in standard 19" rack
	Depth measurements do not include front panel hardware or rear cabling
Power	90 VAC -> 240 VAC 50/60 HZ (<150 Watts) auto-detecting
Redundant Power Supply	Optional on 32 Series models
Storage Temperature	-40 to +150 degrees F
Operating Temperature	30 degrees to 100 degrees F ambient
Humidity	10% to 90 % non-condensing
Warranty	7 Years

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Software & Control

TyLinx Pro and TyLinx Pro Net Router Control Software

TyLinx Pro Router Control Software offers an intuitive, user-friendly interface for comprehensive routing system control with extensive options for customization. Our standard TyLinx Pro is free for download and provides unique profiles for each user with additional security features for the control system all based on a single host computer. Our TyLinx Pro Net software is a network-enabled version of TyLinx Pro, offering the same robust features with additional administrative and configuration capabilities, and allowing unlimited seats within your network.

TyLinx Pro Features:

- **Compatible with Windows® XP SP2, XP Pro x64 SP1, Windows Server® 2003**
- **Also compatible with Windows Vista® x 86 & x 64 editions**
- **Supports multiple routing switchers**
- **Automatically retrieves source and destination names from the router**
- **Records and stores routing commands for routine routing requirements**
- **Virtual Room Grouping allows each user to create custom views for their individual requirements**
- **Ethernet (IP) or RS-232 serial communication suppliers**

Free download available at http://tylinxpro.sierravideo.com

TyLinx Pro Net Features:

- **Network-enabled with unlimited seats**
- **Provides complete administrative, configuration, and control functions**
- **Shared/savable database for off-site data storage**
- **Windows & Mac OS® compatible**
- **Supports multiple routing switchers**
- **Provides all features of TyLinx Pro standard edition, including retrieval of source and destination names, recorded/stored routing commands, and Virtual Room Grouping**
- **Ethernet (IP) or RS-232 serial communication**

With TyLinx Pro Net, an unlimited number of users on PCs or Macs can connect to and control the routing system's configuration, control panels, and user profiles, manage alarms or GPIs over the network.

Remote Control Panels

SCW-116

SCP-20

SCP-240

The SCP Series of programmable control panels features tremendous flexibility in external routing switcher control. The series has an onboard microprocessor which is combined with an effective 1²C-bus architecture to provide customers with a multitude of button configurations resulting in the most powerful user-definable line of control panels the industry has to offer. SCP Series panels are programmed using our own TyLinx Pro Router Control Software and they provide error-free serial communication with our routing switchers.

Sierra Video also offers a complete array of convenient and simple Single-Bus, Button Per Source and XY panel for all our product families.

Sierra Video Systems Control Panels and Accessories

MODEL	PART NUMBER	SIZE	DESCRIPTION
CONTROL PANELS			
SCP-20	804020	Desktop	Programmable Desktop Control Panel
SCP-112	804112	1RU	Basic Programmable Control Panel
SCP-132	804132	1RU	Programmable Push Button w/ Rotary Control Panel
SCP-150	804150	1RU	Programmable Push Button Control Panel
SCP-224	804224	2RU	Advanced Programmable Control Panel
SCP-240	804240	2RU	Multi-Bus/Multi-Level Programmable Control Panel
SCP-464	804464	4RU	Fully programmable 128 XY button panel
SCW-116	804116	1RU	Single gang Wall Plate Remote Control Panel
SINGLE BUS	804047	1RU	16 x 1 Single Bus LED Remote Control Panel
XY	804048	1RU	16 x 16 XY LED Remote Control Panel
XY	804148	2RU	16 x 16 XY LED Remote Control Panel
SINGLE BUS	804014	1RU	32 x 1 Single Bus LED Remote Control Panel
SINGLE BUS	804348	2RU	32 x 1 Single Bus LED Remote Control Panel
XY	804015	2RU	32 x 32 XY LED Remote Control Panel
SINGLE BUS	804084	2RU	48 x 1 Single Bus LED Remote Control Panel
XY	804085	3RU	48 x 48 XY LED Remote Control Panel
SINGLE BUS	804715	2RU	64 x 1 Single Bus LED Remote Control Panel
CONTROL SOFTWARE			
TyLinx Pro	908340	N/A	TyLinx Pro Router Control Software
TyLinx Pro Net	908350	N/A	TyLinx Pro Net Network-Enabled Router Control Software
ACCESSORIES			
CABLES	AC20103	1m	Control Panel Cable, shielded pair
CABLES	AC20303	3m	Control Panel Cable, shielded pair
CABLES	AC21503	15m	Control Panel Cable, shielded pair
CONNECTORS	AC70001	N/A	Connector kit, 2 ea. mini-XLR (Switchcraft TA3F or equal)
CONNECTORS	AC70002	N/A	Connector kit, 10 ea. mini-XLR (Switchcraft TA3F or equal)
CONNECTORS	AC70003	N/A	Cable kit, 10 ea. mini-XLR connectors w/150m. shielded pair

Reliable Products, Expert Support

For over 25 years, Sierra Video has been assisting customers and providing solutions for almost any signal routing application imaginable. Our outstanding Customer Service and Technical Support teams are industry experts, skilled at answering your questions and optimizing your systems. Call direct during business hours and speak with a Technical Support Engineer, or take advantage of our After-Hours Technical Service: check our website for details. Technical manuals and online help are also available 24-hours a day at www.sierravideo.com.

Whether you need immediate on-site guidance or have repair questions, contact the best real-time customer service in the business. You can reach our Customer Service Department from 8 A.M. to 5 P.M. Pacific, Monday through Friday, or access 24-hour online support: www.sierravideo.com.

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! Sierra Video 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.

Trade In – Trade Up™ Routing Switcher Exchange Program

With Sierra Video, you can maximize the impact of your investment by adding or exchanging systems as your needs grow. Most of our routing systems are designed to expand with you, using flexible plug-in modules or easy factory modifications. With these, you may choose from a variety of frames and modular combinations that meet your needs. However, if your system is a single frame all-in-one solution, simply send it back and we will either modify it by adding new modules or you can opt to trade it in for a new, larger system using our unique Trade In – Trade Up Routing Switcher Exchange Program. The Trade In – Trade Up Routing Switcher Exchange Program allows a generous credit for a customer's entire system when it is traded in for a larger Sierra Video routing switcher.

Let us know what your needs are and we will make every effort to accommodate you.

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