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4K ULTRAHD

VikinX Sublime X²

SLX2-3GHD3232-CP

Redundant multi-function compact router

Nevion's innovative Sublime X2 is a router that punches above its weight.
With its management, cross point and power redundancy, it features the reliability of large modular routers. A multi-core signal processing farm makes it a hybrid router. Its compact form factor makes it ideal for applications where size really matters. And its clever design, brings cost savings to its users.

SLX2-3GHD3232-CP is an ultra thin 32x32 router in 2RU supporting redundant cross-point, redundant controller and a quad-core processing module. Each processing core supports clean switching and audio embedding/de-embedding making it well suited for OB and play out applications. The signal processor also offers future proofing by enabling feature upgrades through a software based processing platform.
The SLX2-3GHD3232-CP features a routing level for the de-embedded and embedded audio. An optional AES extension, providing 32 AES I/O ports and scaling the routing level to a 64x64 AES router, makes the router the ideal choice for in-studio routing.

The embedded system controllers provide a powerful web interface for control and management, SNMP support and support for multiple control panels enabling multi user control. Support for external router and 3rd party interfaces makes Sublime X2 central to any routing system.

Applications

- Outside broadcast
- Studio infrastructure
- Signal processing
- Contribution routing
- Play-out routing

Key features

- 32x32 3G/HD/SD-SDI router in 2RU
- 32 configurable AES I/O ports
- DVB-ASI compliant
- Redundant replaceable cross point module
- Redundant replaceable controllers
- Redundant power
- Redundant Ethernet connection
- Multi-core video and audio processing including — clean switch, audio embedding and AES routing
- Web interface and SNMP for control and monitoring
- Support for all Nevion control panels on IP
- Extensive 3rd party protocol support including — Leitch pass-thru, Triton, Pro-Bel, GVG native

Product description

The Sublime X2 SLX2-3GHD3232-CP is a video router whose capabilities can be expanded through add-on boards and software licenses.

Base unit

The base unit is a 32x32 3G-SDI compatible video router with a touch sensitive control panel and a display in front. It is compliant with DVB-ASI as well as AES-3id. The unit also includes a system controller that can be replaced from the front. The system controller provides the unit with an IP connection and a serial port connection.

Redundant cross point

A replaceable redundant cross point can be added as an option to the router. This cross point acts as the main cross point, leaving the other cross point in a cold running sleep mode. In case of a cross point failure, the router is switched to its back-up cross point . The main cross point can be replaced during a service window while the router is powered off. The cross point board is reached from the front of the router.

Redundant controller

The router can be expanded with an additional redundant controller, that is replaceable. This controller gives a second IP connection enabling management network redundancy. It also provides a second serial port, that can be set up independently to the other serial port.

System control

The unit holds a system controller that provides web interface and SNMP support, and allows control from external Nevion control panels via IP connection. The controller supports functions known from Multicon system controller including levels, virtual router, categories, salvos and mnemonics. The controller provides a serial connection that allows control of one Flashlink frame, or connections to other serial protocols.

Web interface

The unit provides web interface for levels, virtual router and salvos control, as well as in-depth monitoring and configuration of the physical parameters of the router. List and matrix views are provided with the ability to directly edit names and description and lock or protect outputs making the web control well suited as master control panel.

List View

Configuration View

System controller expansions

Licensing enables control of other routers and devices as well as providing northbound and southbound interfaces for a variety of 3rd party protocols, both IP based and serial based. The list of protocols include Leitch, GVG/Thompson and Pro-Bel as well as SDK interface for other plug-in developments.

Video and audio processing

The router expansion also includes a quad-core signal processor with an AES interface board providing 32 direction configured AES ports. Each processing core can access any video input and output, and are featured with a clean-switch function and audio embedder/ de-embedder function. The audio from the embedders/ de-embedders as well as the AES interface board are entering an audio matrix, giving the router an audio router function presented as an audio level. Development will continue to bring forward new functions to the processing module. These functions will be available through software licensing.

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SLX2-3GHD3232-CP

General

Power 12VDC	60W max, typical 25W (basic configuration)
Control and monitoring	SNMP, web interface, front control panel with display
Temperature range	0 to +40C

Supported standards

SD-SDI, 270Mbps	SMPTE259M
HD-SDI, 1485Mbps	SMPTE292M
3G-SDI, 2970Mbps	SMPTE424, SMPTE425A, SMPTE425B
DVB-ASI	EN50083-9
AES	AES3-1996
Video switch point	SMPTE-RP168
Black burst and Trilevel	SMPTE170m, ITU-R BT.1700, ITU-R BT.709-5

Electrical video inputs

No of inputs	32
Connector	HD-BNC or DIN1.0/2.3
Impedance	75 Ohm
Return loss	>15dB (5MHz - 1.5GHz) >10dB (1.5MHz - 2.97GHz)
Cable equalization	Automatic >120m 3G-SDI with Belden 1694A typical >180m HD-SDI with Belden 1694A typical >400m SD-SDI with Belden 8281 typical

Electrical video outputs

No of inputs	32
Connector	HD-BNC or DIN1.0/2.3
Impedance	75 Ohm
Return loss	>15dB (5MHz - 1.5GHz) >10dB (1.5MHz - 2.97GHz)
Signal level	800mVp-p +/-10%
Signal polarity	Non-inverting

AES I/O ports (optional)

No of ports	32, direction configured through web interface
Connector	25pin SUB-D female
Impedance	110 Ohm transformer balanced
Audio data rate	24 bit 48kHz synchronous to sync input

Sync input

No of inputs	1 + passive loop
Connector	HD-BNC or DIN1.0/2.3
Impedance	75 Ohm
Return loss	>35dB @ <10MHz >30dB @ <30MHz

Processing (Optional)

No of processing cores	4
Core functions	Clean-switch ensuring error free outputsEmbedding/De-embedding of up to 8 channels Audio router level
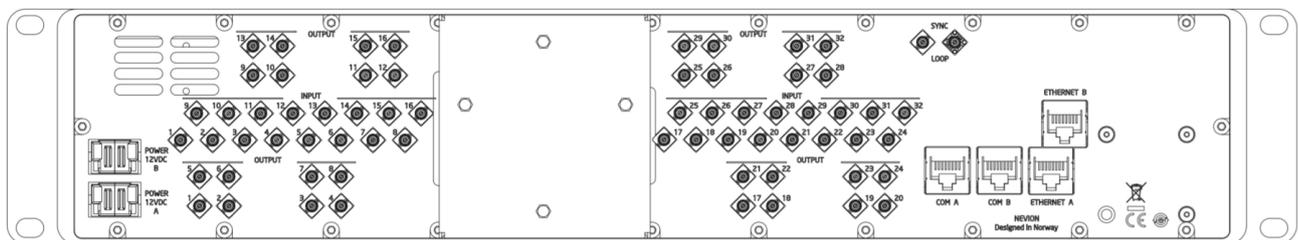
SLX2-3GHD3232-CP Backplane

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Ordering options

SLX2-3GHD3232-CP-DIN
2RU 32x32 3G-SDI compatible compact router with DIN1.0/23 connectors, built-in controller with WEB interface, SNMP support and support for Nevion control panels. The router also features options for redundant controller, redundant cross point and audio/video processing modules. Single PSU included.

SLX2-3GHD3232-CP-HDBNC
2RU 32x32 3G-SDI compatible compact router with HD-BNC connectors, built-in controller with WEB interface, SNMP support and support for Nevion control panels. The router also features options for redundant controller, redundant cross point and audio/video processing modules. Single PSU included.

SLX2-HW-RX32
Hardware option for redundant cross point to 32x32 Sublime X2 routers.

SLX2-HW-VPROC4
Hardware option for quad core processing board to Sublime X2 routers. HW only, processing features licensed separately.

SLX2-HW-AVPROC4
Hardware option for quad core processing board with 32 balanced AES I/O ports to Sublime X2 routers. HW only, processing features licensed separately.

SLX2-HW-RC
Hardware option for redundant controller to Sublime X2.

SLX2-PWR-80
80W power supply for the following Sublime X2 routers: SLX2-3GHD3232-CP-DIN, SLX2-3GHD3232-CP-HDBNC, SLX2-3GHD6464-CP-DIN, SLX2-3GHD6464-CP-HDBNC

SLX2-SW-4K-ROUTE
Software option enabling quad stream 4K routing thru an additional video level in the router. Both quad stream and single stream routings can be done simultaneously. The software is applicable for both 32x32 and 64x64 Sublime X2 routers..

SLX2-SW-ADD4PROC
Software license expanding a Sublime X2 processing module with 4 processing cores. Requires SLX2-HW-PROC4 or SLX2-HW-AVPROC4

SLX2-SW-3PP
Software option for third-party protocols; Leitch Pass-through, Probel SW-P-02 and GVG Native. SLX2-SW-VX-WCTRL required.

SLX2-SW-CQ1
Software license for single clean-switch core. The license provides one channel of error-free switching of line synchronous 3G/HD/SD-SDI. SLX2 HW VPROC# or SLX2 HW AVPROC# required. License key locked to physical MAC address.

SLX2-SW-EMB1
Software license for single embedder core for Sublime X2. This license enables one 3G/HD/SD-SDI channel of de-embedding and embedding of 8 AES channels. SLX2-HW-VPROC# or SLX2-HW-AVPROC# required. License key locked to physical MAC address.

SLX2-SW-VX-WCTRL
Software license that enables the built-in controller to see other routers, and share its configuration with external Multicon system controllers. License key locked to physical MAC address.

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