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DATASHEET

Sirius Compact Routers
12G SDI Compact Video Routers
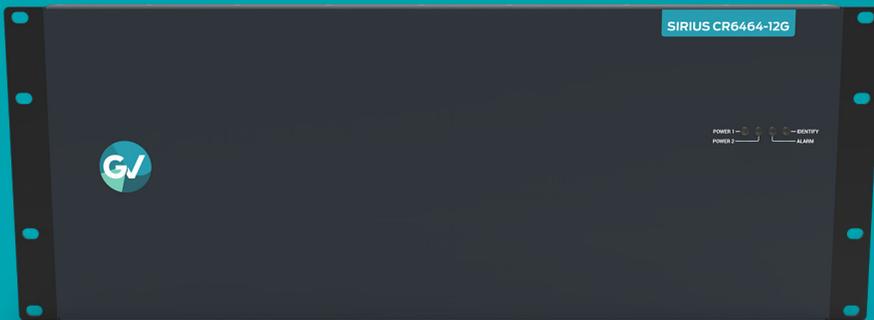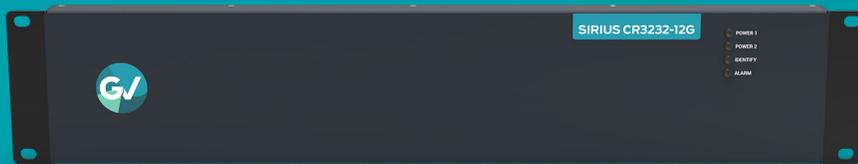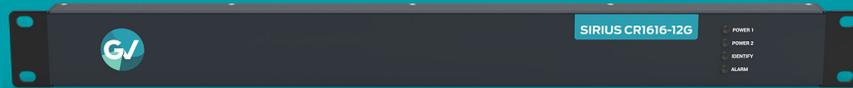
SIRIUS COMPACT ROUTERS

12G SDI Compact Video Routers

12G video routing for advanced formats and simplified workflows.

The Grass Valley Sirius Compact range is ideally suited to utility routing applications with the ability to route all SDI video formats, including 12G/3G/HD/SD, in matrix sizes from 16x16 to 64x64. These compact routers are controllable from the Sirius Compact Panels, as well as by GV Orbit and the NV9000 control system.

Key Features

Extremely small form factor
- Ultra thin, saves rack space
- 1 RU, 2 RU and 4 RU sizes
- Lightweight design
- Non-square router configurations for monitoring applications

Formats
- Future-proof 12G/3G/HD/SD
- DVB-ASI compliant

Robust design
- Robust design for rugged conditions
- Highly reliable power supply over 500,000 hours MTBF
- Optional redundant power supply available
- Range operates with the entire Sirius router range

Powerful configuration tools
- USB port for configuring IP addresses via AJA's free eMini-Setup software

Multiple control capabilities
- Ethernet and serial control
- Up to 8 salvos can be configured and saved in each router
- Standalone and networked control panels
- Graphical User Interface (GUI) panels from GV Orbit or NV9000

Ordering

SCR 1616-12G
Sirius Compact Router

16x16 Single Link 12 Gb/s UHD Serial Digital Video Router, 1 RU, 1 power supply provided, redundant is optional

SCR 3232-12G
Sirius Compact Router

32x32 Single Link 12 Gb/s UHD Serial Digital Video Router, 2 RU, 1 power supply provided, redundant is optional

SCR 6464-12G
Sirius Compact Router

64x64 Single Link 12 Gb/s UHD Serial Digital Video Router, 4 RU, 1 power supply provided, redundant is optional

SCP1
Sirius Compact Panel

1 RU Hardware Control Panel for Sirius Compact routers

SCP2
Sirius Compact Panel

2 RU Hardware Control Panel for Sirius Compact routers

SCRPS2A
Sirius CR6464-12G +12 VDC power supply, for redundant operation or spare

CRPS1
Redundant power supply for Compact Routers – to be used as the redundant or spare supply for the SCR 1616-12 and the SCR 3232-12G compact routers.

SCR 1616-12G
Sirius Compact Router

SCR 1616-12G offers increased capacity for larger configurations while maintaining a compact 1 RU profile with support for 1.5G-SDI/3G-SDI/6G-SDI/12G-SDI with 16x 12G-SDI inputs and 16x 12G-SDI outputs.

Sirius 12G SDI routers support large format resolutions, high frame rate (HFR) and deep color formats, while reducing cable runs when transporting 4K UHD over SDI. The routers offer network-based and/or physical control, with a new USB port for configuring IP addresses via AJA's eMini-Setup software. SCR 1616-12G is the ideal choice for any situation where a balance of size and capacity are critical such as mid-sized post facilities and mobile trucks.

SCR 1616-12G Sirius Compact Router Rear

RS-422

RS-422 remote control via 9-pin D-connector with basic support for Grass Valley Native Protocol support

LAN Connection

RJ-45 10/100/1000 LAN Connector – internal web server, Bonjour support

USB Connection

USB port to easily configure the router IP address and simplify network configurations

Fully Redundant AC Power Supplies

Two independent 12 VDC inputs provide safe operations. Power status can be checked from a LAN-attached browser

Reference Input with Loop-through

The reference input synchronizes the router switching point per SMPTE specifications. The reference iunout supports blackburst for SD and tri-level sync for HD

SD-SDI/HD/3G/6G/12G Inputs and Outputs

SMPTE ST 259/292/424/2081/2082

Specifications

Video Format

270 Mb/s, 1.5 Gb/s, 3 Gb/s, 6 Gb/s, 12 Gb/s SDI
270 Mb/s DVB-ASI
Format agnostic, 270 Mb/s – 12 Gb/s

Video Input Digital

12G-SDI inputs
16x 12G-SDI BNC, SMPTE ST 259/292/424/2081/2082

Video Output Digital

12G-SDI outputs
16x 12G-SDI BNC, SMPTE ST 259/292/424/2081/2082
Noninverting

Ancillary Data

Passes all SDI embedded ancillary data including audio

Salvo

Up to 8 salvos can be configured and saved in each Sirius router

Cable Equalization (Belden 1694A)

– 12 Gb/s, up to 55m
– 6 Gb/s, up to 110m
– 3 Gb/s, up to 185m
– 1.5 Gb/s, up to 210m
– 270 Mb/s, up to 405m
– Automatic operation

Reclocking

270 Mb/s, 1.483 Gb/s, 1.485 Gb/s, 2.967 Gb/s, 2.970 Gb/s, 5.934 Gb/s, 5.940 Gb/s, 11.868 Gb/s, 11.880 Gb/s – Auto Select
All other rates are passed through and not reclocked

Switching Modes

Single, Dual, and Quad link modes
Switches in vertical blanking per SMPTE RP 168

Control Panel Compatibility

SCP1 – 1 RU X-Y Ethernet control panel
SCP2 – 2 RU X-Y Ethernet control panel

Reference Input

External, 2x BNC
Looping, nonterminating
Blackburst or tri-level sync

Network Interface

1x RJ-45, 10/100/1000 Ethernet
Supports Sirius Ethernet control panels, direct connect or networked
Basic support for Grass Valley Native Protocol
Embedded web server for remote control

USB Interface

1x Mini-USB for IP configuration using eMini-Setup

Serial Interface

1x DB-9 Female, RS-422
Basic support for Grass Valley Native Protocol
9-pin D-connector pinout is as follows:

1	GND
2	TX-
3	RX+
4	GND
5	No Connection
6	GND
7	TX+
8	RX-
9	GND
Shell	GND

Dimensions (WxDxH)

1 RU – 441.96 x 39.12 x 44.45 mm (17.4 x 1.54 x 1.75 in.)

Weight

0.7 kg (1.4 lbs.)

Power

10-14 VDC regulated, 16W typ, 18W max, power supply required, included with purchase
AC adapter: 100-240 VAC, 50/60 Hz, universal input

Environmental

Safe operating temperature: 0 to 40°C (32 to 104°F)
Safe storage temperature (Power OFF): -40 to 60°C (-40 to 140°F)
Operating relative humidity: 10-90% noncondensing
**Operating altitude:** <3,000m (<10,000 ft.)

SCR 3232-12G
Sirius Compact Router

SCR 3232-12G offers increased capacity for larger configurations while maintaining a compact 2 RU profile with support for 1.5G-SDI/3G-SDI/6G-SDI/12G-SDI with 32x 12G-SDI inputs and 32x 12G-SDI outputs.

Sirius 12G-SDI routers support large format resolutions, high frame rate (HFR) and deep color formats, while reducing cable runs when transporting 4K UHD over SDI. The routers offer network-based and/or physical control with a new USB port for configuring IP addresses via AJA's eMini-Setup software.

SCR 3232-12G is the ideal choice for any situation where a balance of size and capacity are critical such as mid-sized post facilities and mobile trucks.

SCR 3232-12G Sirius Compact Router Rear

RS-422
RS-422 remote control via 9-pin D-connector with basic support for Grass Valley Native Protocol support

LAN Connection
RJ-45 10/100/1000 LAN Connector – internal web server, Bonjour support

USB Connection
USB port to easily configure the router IP address and simplify network configurations

Fully Redundant AC Power Supplies
Two independent 12 VDC inputs provide safe operations. Power status can be checked from a LAN-attached browser

Reference Input with Loop-through
The reference input synchronizes the router switching point per SMPTE specifications. The reference iunout supports blackburst for SD and tri-level sync for HD

SD-SDI/HD/3G/6G/12G Inputs and Outputs
SMPTE ST 259/292/424/2081/2082

Specifications

Video Format

270 Mb/s, 1.5 Gb/s, 3 Gb/s, 6 Gb/s, 12 Gb/s SDI

270 Mb/s DVB-ASI

Format agnostic, 270 Mb/s – 12 Gb/s

Video Input Digital

12G-SDI inputs

32x 12G-SDI BNC, SMPTE ST 259/292/424/2081/2082

Video Output Digital

12G-SDI outputs

32x 12G-SDI BNC, SMPTE ST 259/292/424/2081/2082

Noninverting

Ancillary Data

Passes all SDI embedded ancillary data including audio

Salvo

Up to 8 salvos can be configured and saved in each Sirius router

Cable Equalization (Belden 1694A)

– 12 Gb/s, up to 50m

– 6 Gb/s, up to 100m

– 3 Gb/s, up to 170m

– 1.5 Gb/s, up to 200m

– 270 Mb/s, up to 390m

– Automatic operation

Reclocking

270 Mb/s, 1.483 Gb/s, 1.485 Gb/s, 2.967 Gb/s, 2.970 Gb/s, 5.934 Gb/s, 5.940 Gb/s, 11.868 Gb/s, 11.880 Gb/s – Auto Select

All other rates are passed through and not reclocked

Switching Modes

Single, Dual, and Quad link modes

Switches in vertical blanking per SMPTE RP 168

Control Panel Compatibility

SCP1 – 1 RU X-Y Ethernet control panel

SCP2 – 2 RU X-Y Ethernet control panel

Reference Input

External, 2x BNC

Looping, nonterminating

Blackburst or tri-level sync

Network Interface

1x RJ-45, 10/100/1000 Ethernet

Supports Sirius Ethernet control panels, direct connect or networked

Basic support for Grass Valley Native Protocol

Embedded web server for remote control

USB Interface

1x Mini-USB for IP configuration using eMini-Setup

Serial Interface

1x DB-9 Female, RS-422

Basic support for Grass Valley Native Protocol

9-pin D-connector pinout is as follows:

1	GND
2	TX-
3	RX+
4	GND
5	No Connection
6	GND
7	TX+
8	RX-
9	GND
Shell	GND

Weight

4.6 lb (2.1 kg)

Dimensions (WxDxH)

2 RU – 441.96 x 39.12 x 88.9 mm (17.4 x 1.54 x 3.50 in.)

Power

10-14 VDC regulated, 24W typ, 25.2W max, power supply required, included with purchase

AC adapter: 100-240VAC, 50/60 Hz, universal input

Environmental

Safe operating temperature: 0 to 40°C (32 to 104°F)

Safe storage temperature (Power OFF): -40 to 60°C (-40 to 140°F)

Operating relative humidity: 10-90% noncondensing

Operating altitude: <3,000m (<10,000 ft.)

SCR 6464-12G
Sirius Compact Router

SCR 6464-12G offers increased capacity for larger configurations while maintaining a compact 4 RU profile with support for 1.5G-SDI/3G-SDI/6G-SDI/12G-SDI/with 64x 12G-SDI inputs and 64x 12G-SDI outputs.

Sirius 12G-SDI routers support large format resolutions, high frame rate (HFR) and deep color formats while reducing cable runs when transporting 4K UHD over a single SDI link. Multilink gang control also offers routing of up to 8K resolutions. The router offers network-based and physical control with a USB port for configuring IP addresses via AJA's free eMini-Setup software.

SCR 6464-12G is the ideal choice for any situation where a balance of size, performance and capacity are critical such as post facilities and mobile trucks.

SCR 6464-12G Sirius Compact Router Rear

Fully Redundant AC Power Supplies

Two independent 12 VDC inputs provide safe operations. Power status can be checked from a LAN-attached browser

Reference Input with Loop-through

The reference input synchronizes the router switching point per SMPTE specifications. The reference iunout supports blackburst for SD and tri-level sync for HD

LAN Connection

RJ-45 10/100/1000 LAN Connector – internal web server, Bonjour support
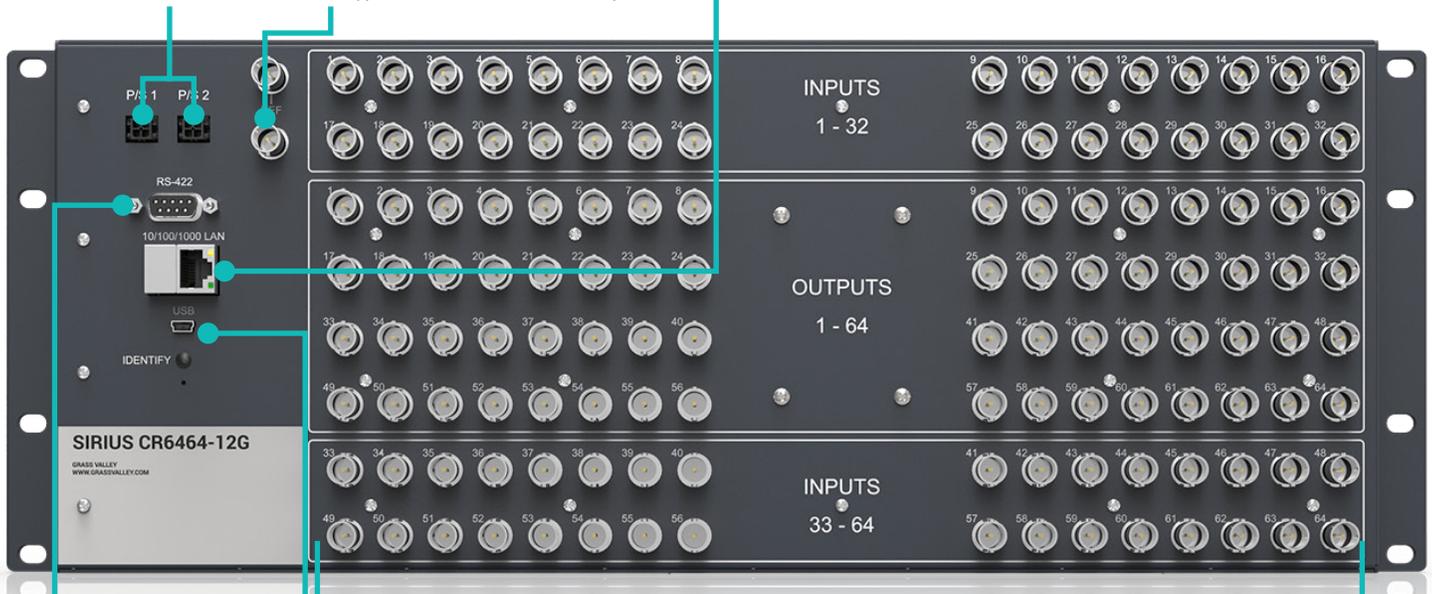
RS-422

RS-422 remote control via 9-pin D-connector with basic support for Grass Valley Native Protocol support

USB Connection

USB port to easily configure the router IP address and simplify network configurations

SD-SDI/HD/3G/6G/12G Inputs and Outputs

SMPTE ST 259/292/424/2081/2082

Specifications

Video Format
270 Mb/s, 1.5 Gb/s, 3 Gb/s, 6 Gb/s, 12 Gb/s SDI
270 Mb/s DVB-ASI
Format agnostic, 270 Mb/s – 12 Gb/s

Video Input Digital
12G-SDI inputs
64x 12G-SDI BNC, SMPTE ST 259/292/424/2081/2082

Video Output Digital
12G-SDI outputs
64x 12G-SDI BNC, SMPTE ST 259/292/424/2081/2082
Noninverting

Ancillary Data
Passes all SDI embedded ancillary data including audio

Salvo
Up to 8 salvos can be configured and saved in each Sirius router

Cable Equalization (Belden 1694A)
– 12 Gb/s, up to 50m
– 6 Gb/s, up to 90m
– 3 Gb/s, up to 180m
– 1.5 Gb/s, up to 210m
– 270 Mb/s, up to 390m
– Automatic operation

Reclocking
270 Mb/s, 1.483 Gb/s, 1.485 Gb/s, 2.967 Gb/s, 2.970 Gb/s, 5.934 Gb/s, 5.940 Gb/s, 11.868 Gb/s, 11.880 Gb/s – Auto Select
All other rates are passed through and not reclocked

Switching Modes
Single, Dual, and Quad link modes
Switches in vertical blanking per SMPTE RP 168

Control Panel Compatibility
SCP1 (first 32 I/O in Normal, all I/O in Dual or Quad mode) – 1 RU X-Y Ethernet control panel
SCP2 (Single, Dual or Quad mode) – 2 RU X-Y Ethernet control panel

Reference Input
External, 2x BNC
Looping, nonterminating
Blackburst or tri-level sync

Network Interface
1x RJ-45, 10/100/1000 Ethernet
Supports Sirius Ethernet control panels, direct connect or networked
Basic support for Grass Valley Native Protocol
Embedded web server for remote

USB Interface
1x Mini-USB for IP configuration using eMini-Setup

Serial Interface
1x DB-9 Female, RS-422
Basic support for Grass Valley Native Protocol
9-pin D-connector pinout is as follows:

1	GND
2	TX-
3	RX+
4	GND
5	No Connection
6	GND
7	TX+
8	RX-
9	GND
Shell	GND

Dimensions (WxDxH)
4 RU – 441.96 x 39.37 x 177.8 mm (17.4 x 1.55 x 7.00 in.)

Weight
4.2 kg (9.2 lbs.)

Power
10-14 VDC regulated, power supply required, included with purchase
AC adapter: 100-240 VAC, 50/60 Hz, universal input

Environmental
Safe operating temperature: 0 to 40°C (32 to 104°F)
Safe storage temperature (Power OFF): -40 to 60°C (-40 to 140°F)
Operating relative humidity: 10-90% noncondensing
Operating altitude: <3,000m (<10,000 ft.)

SCP2
Sirius Compact Panel

2 RU Hardware Control Panel for Sirius Compact Routers

SCP2 is a 2 RU control panel that can be used in standalone or networked configurations suitable for all Sirius routers including the SCR 6464-12G. Connecting via Ethernet to the same network as Sirius routers, SCP2 enables full control from any location without the need for a computer. Up to four Sirius routers can be controlled from a single control panel. Supports ganged dual and quad port routing, allowing users to group together multiple inputs and outputs for Dual Link, 4K and UHD workflows. In addition to HD and SD, every Sirius can route two or four grouped 3G-SDI connections, supporting uncompressed or RAW 4K and UHD signals.

Specifications

User Interface
80 buttons with removable overcap for lens chips
Includes factory installed lens chip set
High and low button tally indication, configurable brightness
Controls up to four Sirius routers
Panel lock feature
Destination lock feature

Router Support
SCR 1616-12G
SCR 3232-12G
SCR 6464-12G

Salvo
8 salvos buttons can be enabled to trigger a Sirius router's configured salvos

Network Interface
1x RJ-45, 10/100/1000 Ethernet
Embedded web server for remote control

USB Interface
1x Mini-USB for IP configuration using eMini-Setup

Dimensions (WxDxH)
2 RU – 441.96 x 33.02 x 88.9 mm (17.4 x 1.3 x 3.5 in.)

Weight
1.0 kg (2.1 lbs.)

Power
10-14 VDC regulated, 4W typical, 9.6W max, power supply required, included with purchase
AC adapter: 100-240 VAC, 50/60 Hz, universal input

Environmental
Safe operating temperature: 0 to 40°C (32 to 104°F)
Safe storage temperature (Power OFF): -40 to 60°C (-40 to 140°F)
Operating relative humidity: 10-90% noncondensing
Operating altitude: <3,000m (<10,000 ft.)

LAN Connection

Fully redundant AC power supplies

IDENTIFY

SIRIUS CP2
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10/100/1000 LAN

P/S 2

USB Connection
USB port to easily configure the router IP address and simplify network configurations

SCP1
Sirius Compact Panel

1 RU Hardware Control Panel for Sirius Compact Routers

SCP1 is an optional 1 RU control panel that can be used in standalone or networked configurations, suitable for all Sirius routers except the SCR 6464-12G. (For SCR 6464-12G, please see the SCP2.) Connecting via Ethernet to the same network as Sirius routers, SCP1 enables full control from any location without the need for a computer. Up to four Sirius routers can be controlled from a single control panel. Supports ganged dual and quad port routing, allowing users to group together multiple inputs and outputs for Dual Link, 4K and UHD workflows. In addition to SD and HD, every Sirius panel can route two or four grouped 3G SDI connections, supporting uncompressed or RAW 4K and UHD signals.

Specifications

User Interface
40 buttons with removable overcap for lens chips
Includes factory installed lens chip set
High and low button tally indication, configurable brightness
Controls up to four Sirius routers
Panel lock feature
Destination lock feature

Router Support
SCR 1616-12G
SCR 3232-12G

Network Interface
1x RJ-45, 10/100/1000 Ethernet
Embedded web server for remote control

USB Interface
1x Mini-USB for IP configuration using eMini-Setup

Dimensions (WxDxG)
1 RU – 441.96 x 33.02 x 44.45 mm (17.4 x 1.3 x 1.75 in.)

Weight
0.6 kg (1.2 lbs.)

Power
10-14 VDC regulated, 2.5W typical, 6W max, power supply required, included with purchase
AC adapter: 100-240 VAC, 50/60 Hz, universal input

Environmental
Safe operating temperature: 0 to 40°C (32 to 104°F)
Safe storage temperature (Power OFF): -40 to 60°C (-40 to 140°F)
Operating relative humidity: 10-90% noncondensing
Operating altitude: <3,000m (<10,000 ft.)

LAN Connection

Fully redundant AC power supplies

USB Connection
USB port to easily configure the router IP address and simplify network configurations

DS-PUB-3-1006A-EN

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