Rainier SUMMIT

4K-Compatible Multiviewer with Router

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4K-Compatible Multiviewer with Integrated Router

—— Up to 24 SDI (3G/HD/SD) / CVBS (NTSC/PAL) inputs per chassis

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Rainier Summit Feature Highlights

4K UHD multiviewer offers Ultra HD (3840x2160@30) video clarity and sharpness for a wide range of AV installations and monitoring applications.

Modular card-based enclosure with up to 6 hot-swappable multiviewer cards in a 2RU chassis (Summit-2); the 1RU standalone model (Summit-S) is available for small-scale monitoring demands.

Mix-and-match of SDI (3G Level A&B/HD/SD) and CVBS source signals with an extensive range of resolutions up to 1080p60 (auto-sensed at inputs).

Integrated router enables any-to-any signal routing and repetition across multiple windows/displays; no external upstream router is required.

Internal cascade architecture allows grouping of individual multiviewer cards and displays up to 24 sources over a single monitor output (or duplicated without needs for external DA cabling).

Scalable configurations expand multiviewing beyond a single chassis; cascading up to 25 cards from multiple Rainier Summit facilitates monitoring of 100 sources on one screen.

Separate HDMI & SDI outputs feature independently configured multiview videos; each source signal can be routed to any or multiple SDI outputs.

Intuitive control via Avitech's Phoenix-Q software; dynamic video/graphic sizing, positioning, and display cascading by simple drag-and-drop on the software GUI.

Genlock support synchronizes all multiviewer outputs (of one or multiple Rainier Summit) to the external sync reference.
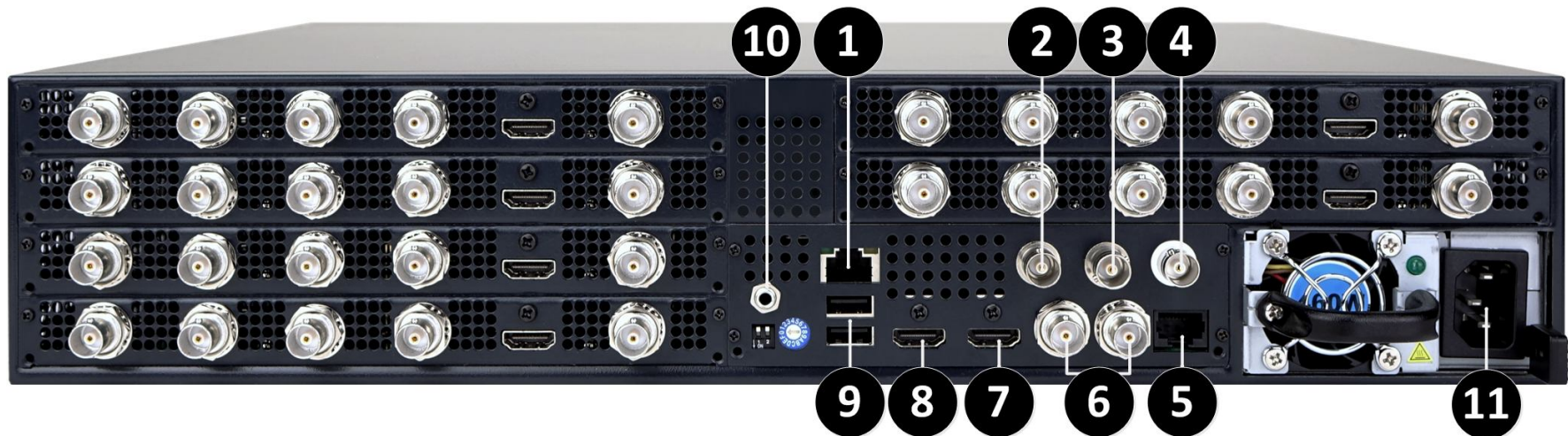
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Rainier Summit (Summit-2) Overview – Multiviewer Card

Fully loaded Rainier Summit-2 accommodates 6 multiviewer cards and 1 Control Board

1 BNC connectors for SDI (3G Level A&B/HD/SD) / CVBS (NTSC/PAL) video source signals
-Supports up to 16-channel embedded audio, with 8 channels selectable for on-screen monitoring

2 HDMI output port for HDMI or DVI multiview monitoring (resolution up to 4K30 UHD)
-Supports 8-channel embedded audio (for HDMI output)

3 BNC connector for SDI output
-Supports up to 16-channel embedded audio
-Independently configured multiview video with resolution up to 1080p60
-Routed output for any of the source signals

Rainier Summit (Summit-2) Overview – Control Board & PSU

1. Ethernet (IP) port for multiview layout control, preset save & recall, and system configuration via Windows-based Phoenix-Q software

2. BNC connector for external Linear Time Code (LTC3) or Vertical Interval Time Code (VITC) input

3. BNC connector for Genlock signal output

4. BNC connector for Genlock source input

5. RJ-50 port for external Linear Time Code inputs (LTC1 & LTC2) and communication via RS-232 interface

6. BNC connectors for externally cascaded SDI input signals from the upstream Rainier Summit (cascade input 1 & 2)

7. HDMI input port for externally cascaded HDMI input signal from the upstream Rainier Summit (future option)

8. HDMI output port for in-system GUI display (future option)

9. USB-A ports for in-system GUI's mouse & keyboard control (future option)

10. Audio signal output (stereo) for headphone or external speaker connection

11. 100-240V AC power supply (Max. 460 Watt)

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Rainier Summit (Summit-S) Overview

1. BNC connectors for SDI (3G/HD/SD) / CVBS (NTSC/PAL) video source signals
   -Supports up to 16-channel embedded audio, with 8 channels selectable for on-screen monitoring

2. HDMI output port for HDMI or DVI multiview monitoring (resolution up to 4K30 UHD)
   -Supports 8-channel embedded audio (for HDMI output)

3. BNC connector for SDI multiview output (resolution up to 1080p60)
   -Supports up to 16-channel embedded audio

4. Ethernet (IP) port for multiview layout control, preset save & recall, and system
   configuration via Windows-based Phoenix-Q software

5. 100-240V AC power supply (Max. 50 Watt)

4K Ultra HD Multiviewer

The Rainier Summit takes various combinations of inputs and offers pristine multiview with Ultra HD (3840x2160@30) clarity. It manages with flexible layout and an abundance of on-screen graphics, text, and alarms with equivalent 4K sharpness. Easily configured via the control software, Rainier Summit is ideal for various production, studio monitoring, and command-and-control operations.

4K UHD multiview

Rainier Summit (2RU)

Control of Rainier Summit via Phoenix-Q software

1080p multiview & any source signal routed output

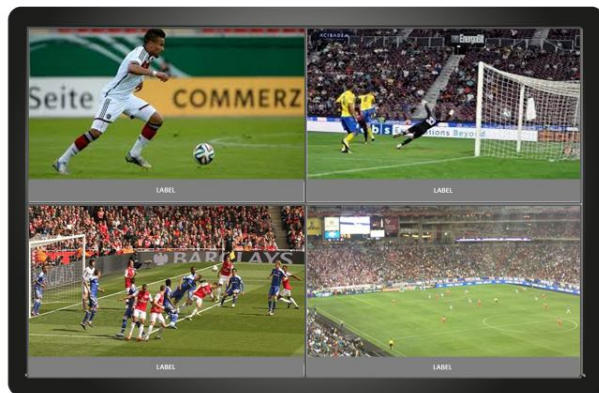AVITECH

Router-Integrated Flexibility

Built-in router enables routing of any source signal across multiple displays (unlimited signal repetition across both HDMI and SDI outputs). Requiring no external routers or switchers, the Rainier Summit delivers a single multiviewing solution that ensures optimized monitoring flexibility and simple system installation.

Router integration enables displaying any source signal on any output monitor (HDMI & SDI) with unlimited signal repetition

Independent HDMI & SDI Routing

Each card features independently configured HDMI and SDI multiview outputs (with resolutions up to 4K30 and 1080p60 respectively). Moreover, any source signal can be directly routed to SDI outputs for local/remote preview or production usage. Affording more than simple mirrored-output solution, the Rainier Summit is dedicated to both high-end multiview monitoring and flexible signal routing/distribution throughout the facility.

HDMI output displays multiview video with full range of resolutions up to 4K30
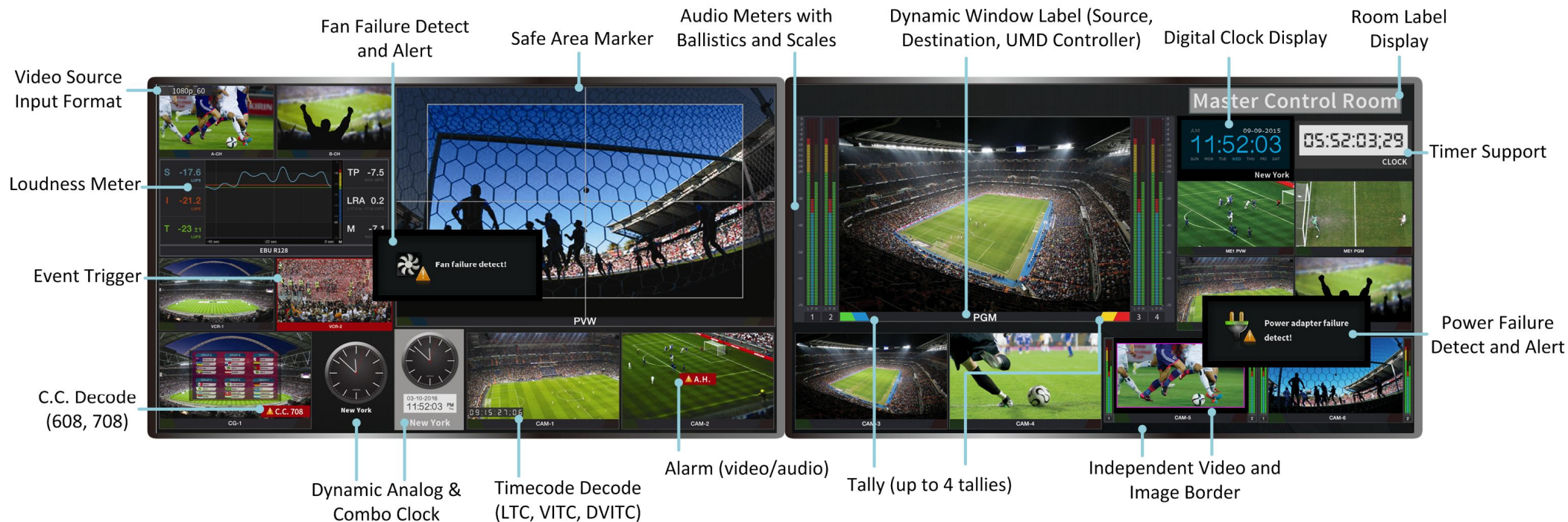
Independent of the HDMI output, SDI output displays multiview video up to 1080p60; or routed output for any source signal
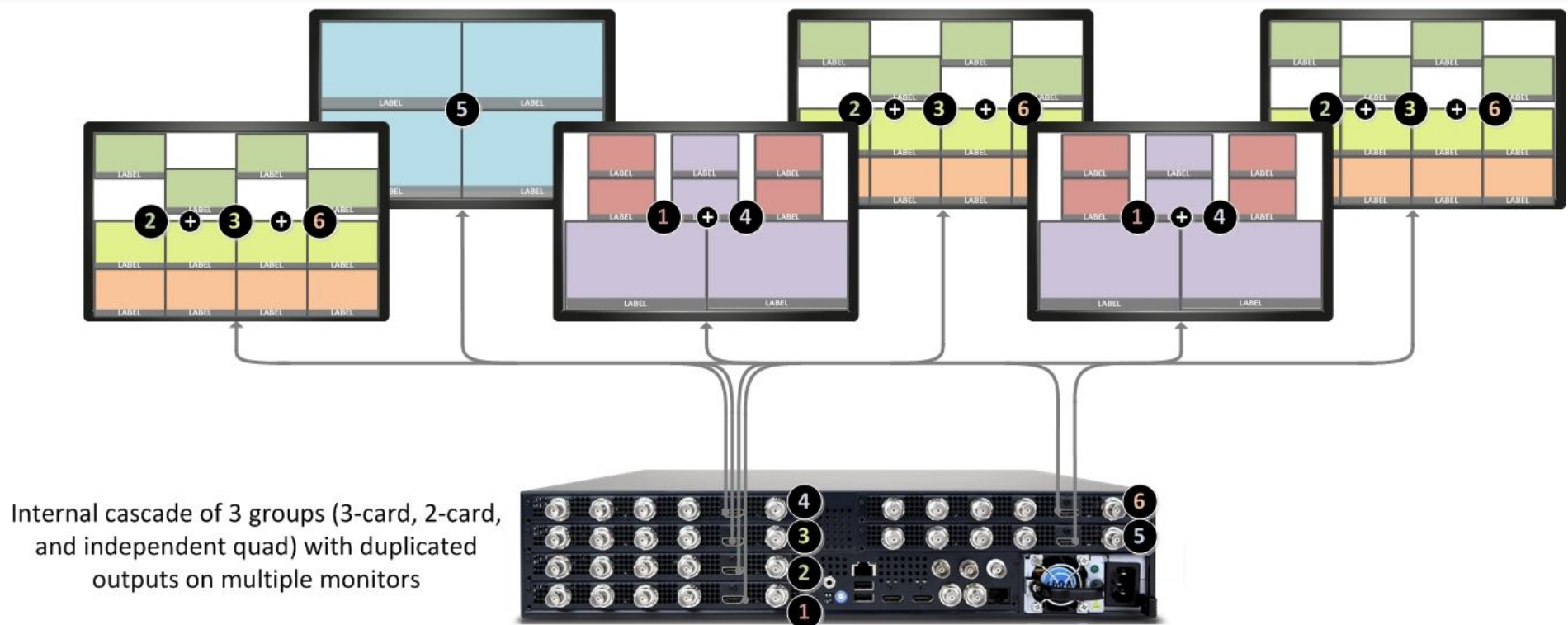
Feature-Rich On-Screen Display

Incorporating a dedicated graphic engine, the Rainier Summit improves on the rest of Rainier multiviewers by offering enhanced on-screen displays. Featuring industry-standard on-screen elements facilitating video & audio monitoring, metadata reporting, as well as instant alarms for signal anomalies and power & fan failure, Rainier Summit delivers critical information through visuals that is essential for any production/broadcasting operations.
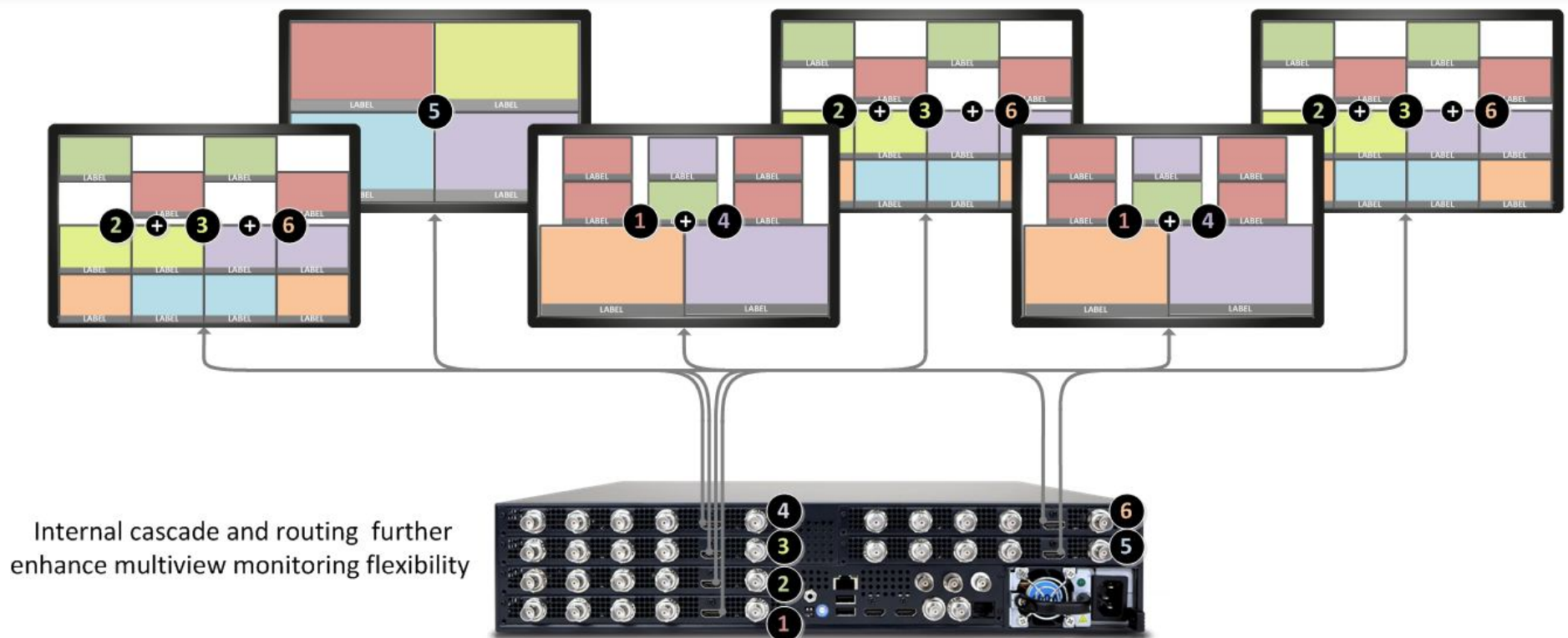
Internal Cascade Configuration

The Rainier Summit's internal cascading architecture manages grouping of individual cards to expand multiviewing capability. By simple drag-and-drop on the software GUI, user can combine all the sources from cascaded cards and monitor through any respective outputs. Cascading all 6 cards enables monitoring of up to 24 sources on a single screen, or duplicated on up to 12 screens (6 HDMI and 6 SDI) without needs for additional distribution cabling.

Internal cascade of 3 groups (3-card, 2-card, and independent quad) with duplicated outputs on multiple monitors

Internal Cascade Configuration with Built-in Router

Internal multiple path cascading coupled with integrated routing control further enhances multiviewing flexibility. User can monitor any combination of sources, from 4 up to 24 on the same screen regardless of which input port or multiviewer card each source enters.

Internal cascade and routing further
enhance multiview monitoring flexibility

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External Cascade Configuration

Scalable architecture allows multiviewer cards from different Rainier Summit to be externally cascaded (daisy-chained). Connecting two Rainier Summit via SDI cabling adds sources from the first unit (Unit ID: 1) to the second one (Unit ID: 2). Two Rainier Summit with up to 12 cards cascaded facilitate monitoring a total of 48 sources on a screen.

Cascade 2 units via either **SDI** or **HDMI** (future option) Cascade In
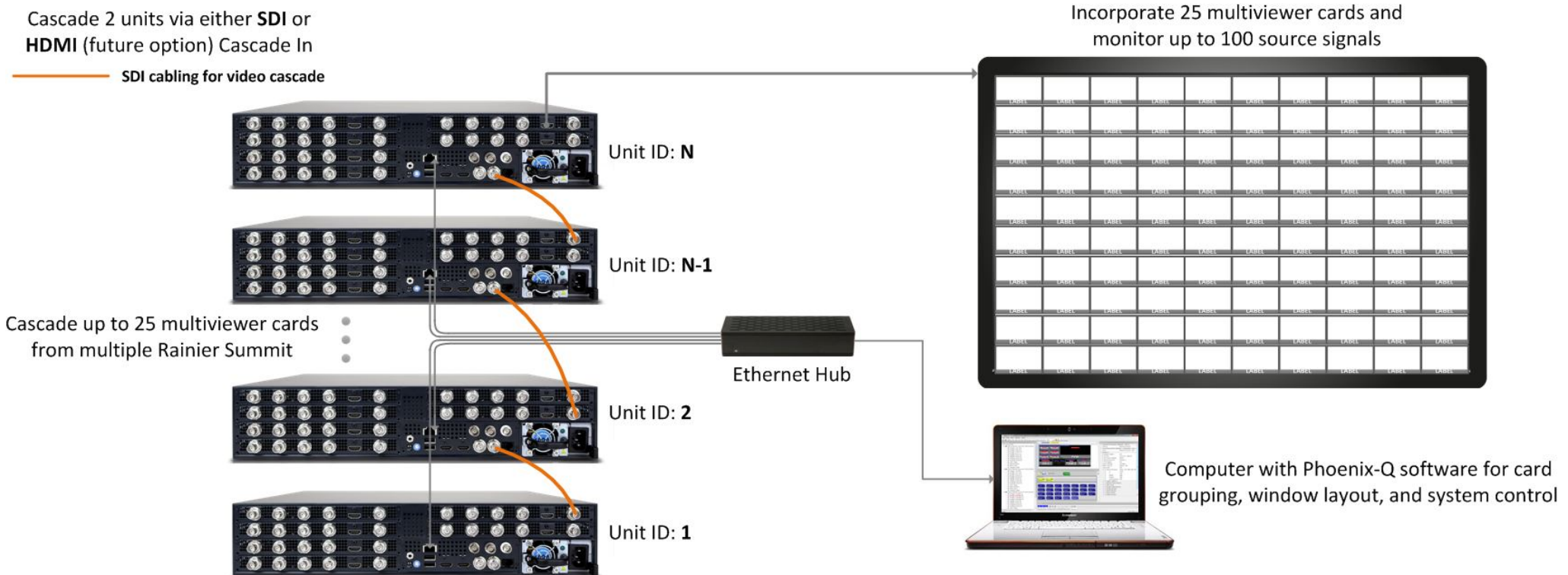
SDI cabling for video cascade

Unit ID: 2

Unit ID: 1

Monitor up to 48 source signals
(Unit ID: 1 + 2)

External Cascade Configuration

Utilizing external cascade enables user to group 25 multiviewer cards from different Rainier Summit and monitor up to 100 sources on a single screen (multiple screens when duplicated). This future-proofing system expansion dynamically addresses the changing monitoring requirements and minimizes the need to replace the existing systems. All cascaded units can be managed and controlled as a single integrated multiviewer via one instance of Phoenix-Q software.

Cascade 2 units via either **SDI** or **HDMI** (future option) Cascade In

─── SDI cabling for video cascade

Unit ID: **N**

Unit ID: **N-1**

Cascade up to 25 multiviewer cards from multiple Rainier Summit

Unit ID: **2**

Unit ID: **1**

Ethernet Hub

Incorporate 25 multiviewer cards and monitor up to 100 source signals

Computer with Phoenix-Q software for card grouping, window layout, and system control

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Standalone Rainier Summit-S

Retaining 4K30 UHD multiview video quality as the modular 2RU model, the Rainier Summit-S supports mix-and-match of 4 multi-rate SDI/CVBS inputs and both HDMI & SDI outputs. A compact and standalone multiviewer, Rainier Summit-S aims for small-scale monitoring applications with quality and efficient space-usage at a premium.

Rainier Series Available Feature Comparison

Rainier	Essentials	3G	3G Plus	Summit (-2/-S)
Rack Space	1 RU	1 RU	1 RU	2 RU / 1 RU
Modular Card-Based	✖	✖	✔	✔ (2 RU only)
Card Slots Per Chassis	–	–	4	6 (2 RU only)
Hot-Swappable Cards	–	–	✖	✔
Input				
Max. Inputs for Multiview (per Chassis)	4	8	16	24
3G/HD/SD-SDI	Up to HD	✔ (3G Level A)	✔ (3G Level A)	✔ (3G Level A/B)
CVBS (NTSC/PAL)	✔	✔	✔	✔
HDMI	✖	✔ (for background)	✔ *	✖
DVI/VGA/YPbPr	✔ (for background)		✔ *	✖
Output				
Max. Outputs per Chassis	1 (DVI)	4 (2 DVI plus 2 SDI)	8 (4 HDMI plus 4 SDI)	12 (6 HDMI plus 6 SDI)
Max. Output Resolution (HDMI/DVI)	1920 x 1200@50/60	1920 x 1200@50/60	1920 x 1200@50/60	3840 x 2160@30
Output Resolution (SDI)	–	1080p / 720p@50/60	1080p / 720p@50/60	1080p / 1080i @50/59.94/60
Available Features				
Built-In Router	✖	✔ (optional)	✖	✔
Any (Input) to Any (Window)	✔	✔ (with built-in router only)	✖	✔
Signal Repetition on Multiple Windows	✔	✔ (with built-in router only)	✖	✔
Duplicated Multiview Output	–	✖	✔	✔
Independent SDI Multiview Output	–	✖	✖	✔
SDI Loop Output	–	✔ (optional)	✖	✔ (2 RU only)
User-Defined Preset (Max)	26	26	14 (per card)	50
Preset Briefing/Cycling	✔	✔	✔	✔
System Configuration	Software	Software	Software	Software / In-System GUI (future)
Embedded Audio I/O	✔	✔	✔	
On-screen Loudness Monitoring	✖	✖	✖	✔ (optional)
Redundant Power	✖	✔ (optional)	✔ (optional)	✔ (optional)
Genlock Support	✖	✖	✖	✔
No Single Point of Failure Operation	✔	✔	✖	✔
Integration with Third-party Router/Switcher	✖	✔	✔	✔

* Requires installing Titan 9000's 4H and 2H2U modular cards.

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