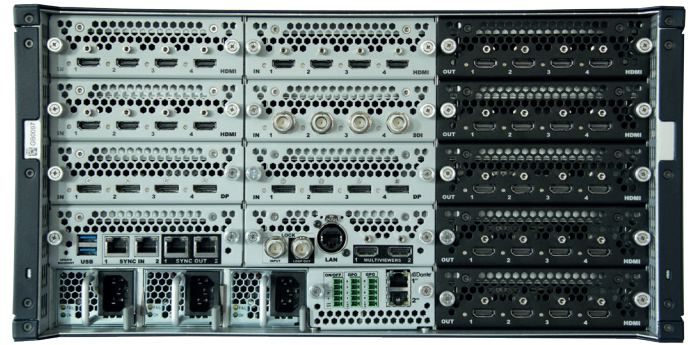# LivePremier™ series
Aquilon RS alpha, RS1, RS2, RS3 and RS4
Aquilon C and C+

ANALOG WAY®
Pioneer in Analog, Leader in Digital

Fully scalable and modular 4K/8K multi-screen presentation systems and videowall processors, delivering uncompromising presentation experiences to high-end staging and premium system integration

Outstanding Performances

The **LivePremier™ series** of products offers versatile digital connectivity, unmatched real-time 10/12-bit 4:4:4 video processing power, best-in-class image quality and pure 4K60p on each input and output with ultra-low latency. The range is comprised of four different systems (**Aquilon RS alpha, RS1, RS2, RS3 and RS4**) as well as two fully scalable and modular models (**Aquilon C and C+**) that can be tailored to suit any application. Thanks to its future-proof hardware architecture, the **LivePremier™ series** of products is ready to meet the evolving needs of your customers, such as 8K, higher framerates and more…

Industrial Grade Reliability

The **LivePremier™** platform was specifically engineered to perform to the highest standards in mission-critical applications and road-hardened to survive frequent shipping and tough live events. By combining a heavy-duty modular design, the highest quality components selected for their proven reliability, and features such as redundant swappable power supplies and smart thermal management, the **LivePremier™ series** delivers uninterrupted 24/7 performance and peace of mind!

Versatile for the Highest Flexibility of Configurations

The modular design of the **LivePremier™ series** allows you to easily swap I/O connector cards to accommodate a variety of connectivity arrangements and match source and display requirements. Per chassis, the **LivePremier™ series** features up to 24 inputs and 20 outputs configurable as single screens, edge-blended widescreens or scaled auxiliary outputs, 2 dedicated Multiviewer outputs and up to 12x 4K or 24x HD freely assignable mixing layers. The **LivePremier™ series** also offers powerful features that will allow you to handle any creative display configuration, such as a custom output formats, output rotation, AOI and bezel compensation …

Smart Functionalities

The **LivePremier™ series** of products features state-of-the-art real time processing features that will help you to unleash all your creative potential and produce flawless, stunning live presentations: true seamless switching, flying layer movement, advanced cut and fill, cutting edge keying engine… It also allows to remove external audio de-embedding boxes: in just a few easy clicks, audio can be de-embedded from video sources, routed directly using onboard Dante™ card and re-embedded from external audio processor for sending to display, recording device, or streaming.

Best User Experience

Entirely re-imagined, the new web-based user interface is intuitive, simple, state-of-the-art and offers dozens of features you will love instantly and that make configuration and control a breeze.

up to 24 inputs	up to 20 outputs	4K60 4:4:4 10-12 bit	2 multi-viewers	HDR compliant	Dante™	HDMI 2.0	DP 1.2	12G-SDI	HDCP 2.2

Aquilon at a glance

- Industrial grade reliability
- Fully modular and scalable architecture
- Up to 24x seamless 4K60p inputs and 20x 4K60p active outputs
- Full set of field-swappable I/O connector cards: HDMI2.0, DP1.2, 12G-SDI, 12G-SFP
- True 4K/8K processing (10 and 12-bit 4:4:4)
- Up to 12x 4K or 24x DL/2K mixing layers (+ live backgrounds)
- HDR compliant with HDR10 and HLG
- Highly intuitive web-based GUI with live source thumbnails
- Native DANTE™ audio networking hardware and support
- Future proof design

Aquilon models	RS alpha	RS1	RS2	RS3	RS4	C	C+
4K60p inputs	8	16	16	24	24	up to 16	up to 24
4K60p outputs	4	8	12	12	16	up to 16	up to 20
Max 4K mixing layers	4	8	8	8	12	up to 8	up to 12
Max DL/2K mixing layers	8	8	16	16	24	up to 16	up to 24
Simul. 4K still image channels	12	12	12	24	24	up to 12	up to 24
Build-to-Order (BTO)						✓	✓
Rack units	4	4	4	5	5	4	5

Key Features

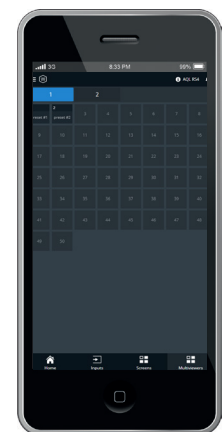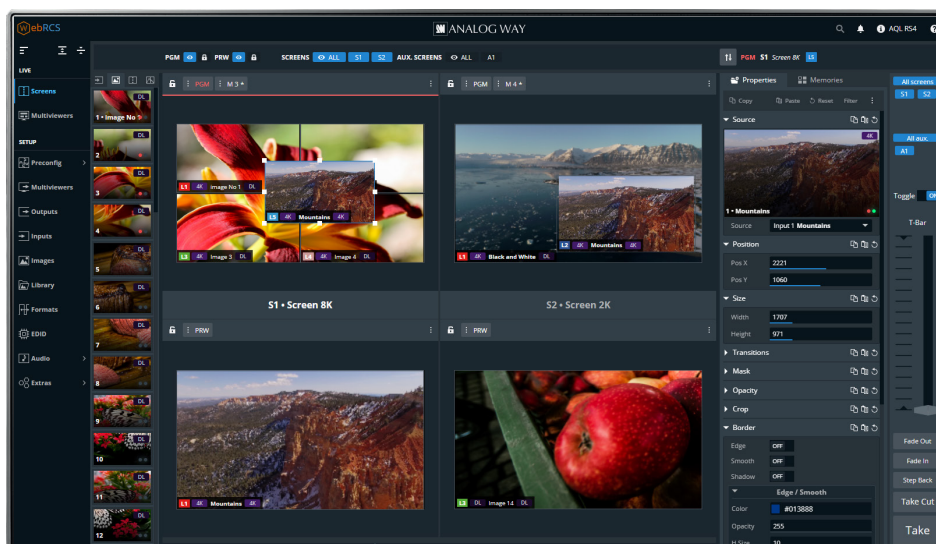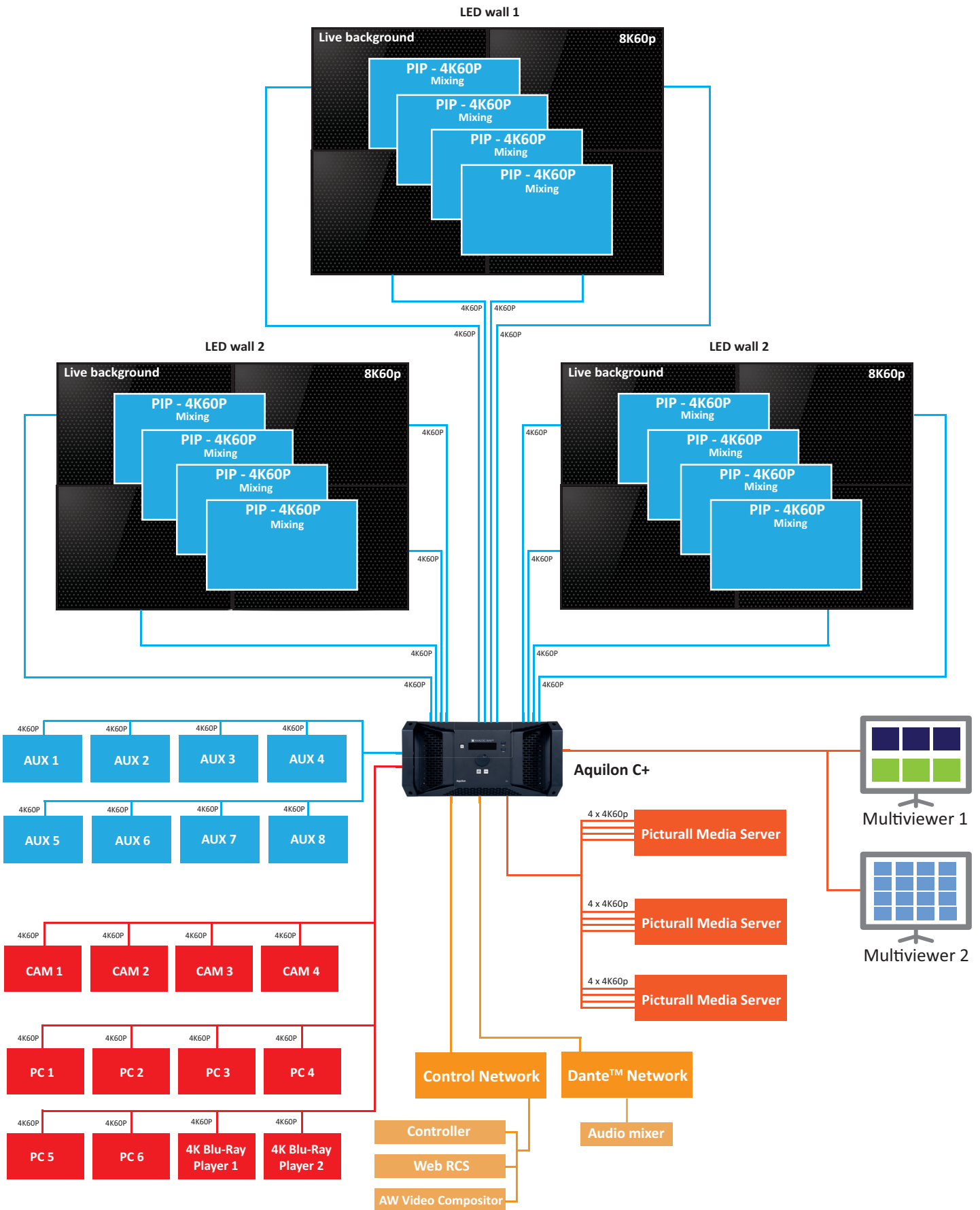|	
Based on **LivePremier™** platform	HDR compliant with HDR10 and HLG
Highly ruggedized chassis with cleanable air filter	Native Dante™ audio networking hardware and support (64x64)
Swappable redundant power supplies	Manage portrait displays
Up to 24 seamless inputs and up to 20 active outputs per chassis	Independent output rates
True 4K60p 10-bit 4:4:4 performance on every I/O channel	Framelock or internal sync. generator
Field-swappable input & output connector cards to accommodate a variety of connectivity arrangements	**Web RCS:** Highly intuitive, lightning fast web-based user interface based on HTML5
Full set of input & output connector cards available: HDMI2.0, DP1.2, 12G-SDI and 12G-SFP	Live video thumbnails shown on GUI
Support 4K60p input and output as single, double or quad plugs	Multi operator real-time collaboration
	Password protection and user privileges
Up to 120 Megapixels throughput at 10-bit 4:4:4 @60Hz on Program, **without** restricting Preview or Multiviewer	Easily create and recall preset looks on all your screens and auxiliary outputs
Up to 12x 4K or 24x Dual/2K mixing layers per system (up to 24x 4K or 48x Dual/2K split layers), depending on the scaler-mode and screen setup	Custom output formats for non-standard display applications
	Area of Interest feature to customize active areas of outputs
Up to 24x 4K or 48x 2K concurrent still images	Still images support variable alpha-channels for transparent background on logos
Unscaled seamless background mixer on each output (using instantaneous still images or live sources)	Cut and Fill (using two sources or a source and a still image)
Flexible layer management	Fully functional simulator for offline configuration and practice
Seamless crossfade on all mixing layers, on all sources	EDID management on every input and output
Scaled 4k60p AUX feature for all non-PGM outputs	Compatible with HDCP 1.4 and HDCP 2.2
Ultra-low latency 10 and 12-bit processing	Future-proof modular design
Ability to place the program outputs anywhere on an almost limitless video canvas space	Quiet: 49dB average noise at 1m when ambient temperature is less than 32°C/90°F
Advanced pixel pitch management for LED wall applications	Remote services and maintenance
2x configurable 4K Multiviewer outputs with up to 64 resizable widgets on each, including clocks, countdown and timers	Backup and restore functions

Web RCS: Unrivaled Ease of Use

The **LivePremier™ series** features an elegant and easy-to-learn web-based embedded application, the **Web RCS**, designed to allow for the best ease of setup and to ensure flawless control of multi-screen presentations. The **Web RCS** uses modern web technologies compatible with any device or platform including iOS and Android devices, and has been designed to offer operators responsive and highly interactive, immersive experiences literally at their fingertips.

Conceived to greatly increase productivity and reduce learning curve, the **Web RCS** offers dozens of unique features that simplify configuring and operating such as high-quality live thumbnails of the connected sources, multi-operator collaboration with password protection and user privileges, multi-language support, walkthrough guides, keyword search and much more…

The **Web RCS** is compatible with any device or platform, including iOS and Android devices

A single fully loaded Aquilon C+ can easily drive three 8K60p LED walls and eight 4K60p AUX outputs

LED wall 1

Live background
8K60p

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

4K60P 4K60P

4K60P 4K60P

LED wall 2

Live background
8K60p

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

LED wall 2

Live background
8K60p

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

PIP - 4K60P
Mixing

4K60P

4K60P

4K60P

4K60P

4K60P

4K60P

4K60P

4K60P

4K60P	4K60P	4K60P	4K60P
AUX 1	AUX 2	AUX 3	AUX 4
4K60P	4K60P	4K60P	4K60P
AUX 5	AUX 6	AUX 7	AUX 8

4K60P	4K60P	4K60P	4K60P
CAM 1	CAM 2	CAM 3	CAM 4

4K60P	4K60P	4K60P	4K60P
PC 1	PC 2	PC 3	PC 4

4K60P	4K60P	4K60P	4K60P
PC 5	PC 6	4K Blu-Ray Player 1	4K Blu-Ray Player 2

Aquilon C+

4 x 4K60p
Picturall Media Server

4 x 4K60p
Picturall Media Server

4 x 4K60p
Picturall Media Server

Control Network

Dante™ Network

Controller

Web RCS

AW Video Compositor

Audio mixer

Multiviewer 1

Multiviewer 2

Technical Specifications

INPUTS

8, 16 or 24 seamless 4K60p inputs via 2, 4 or 6 field swappable input connector cards - **4 models available**:

- 4x HDMI 2.0 connectors, each supporting up to 4K60p 8-bit 4:4:4, up to 4K60p 12-bit 4:2:2 or up to 4K30p 12-bit 4:4:4
- 4x DisplayPort 1.2 connectors, each supporting up to 4K60p 10-bit 4:4:4 or 4K60p 12-bit 4:2:2
- 4x 12G-SDI connectors, each supporting up to 4K60p 10-bit 4:2:2 - also compatible with 3G-SDI and 6G-SDI
- 4x 12G-SFP connectors, each supporting up to 4K60p 10-bit 4:2:2. Compatible with non-MSA SFP receivers

Support 4K60p input as single, double or quad plugs

Support custom input formats such as 8192×1080@60p or 1080×8192@60p (aka "8k x 1k") on a single connector

Connector status LEDs for easy troubleshooting

OUTPUTS

Up to 20 active 4K60p outputs via 5 field swappable output connector cards - **3 models available**:

- 4x HDMI 2.0 connectors, each supporting up to 4K60p 8-bit 4:4:4, up to 4K60p 12-bit 4:2:2 or up to 4K30p 12-bit 4:4:4
- 4x DisplayPort 1.2 connectors, each supporting up to 4K60p 10-bit 4:4:4 or 4K60p 12-bit 4:2:2
- 4x 12G-SDI connectors, each supporting up to 4K60p 10-bit 4:2:2 - also compatible with 3G-SDI and 6G-SDI
- 4x 12G-SFP connectors, each supporting up to 4K60p 10-bit 4:2:2. Compatible with non-MSA SFP transceivers

Support 4K60p output as single, double or quad plugs

Support custom output formats such as 8192×1080@60p or 1080×8192@60p (aka "8k x 1k") on a single connector

Connector status LEDs for easy troubleshooting

MULTIVIEWER OUTPUTS

2 dedicated HDMI 2.0 outputs configurable as up 2x 4K30p or up to 2x 2560x1440@60p or 1x 4K60p

Up to 64 resizable widgets on each output

Customizable layouts with 50 memories

Monitor inputs and screens (Program and Preview)

Built-in clocks, countdown and timers

LAYERS & BACKGROUND

Supports mixing layers (true seamless transitions) and split layers (cut transitions)

Up to 3 video processing cards, each supporting 4x 4K or 8x Dual/2K mixing layers (doubled if split layers) depending on the scaler-mode and screen setup

Layer source can be a live input, a still image (or a screen for split layers)

Each output has an unscaled background mixer supporting seamless transitions - background source can be a still image or a live source

SCREENS

Outputs configurable as single screens or edge-blended widescreens

Up to 20x Dual/2K60p program outputs or up to 12x 4K60p program outputs (depending on the number of video processing cards and output cards installed)

Flexible layer management: each screen gets dedicated layers of various sizes (2K, 4K, ...) using common-pool layer resources

1000 user definable screen presets and 500 master presets

SCALED AUX OUTPUTS

Any unused output configurable as a scaled auxiliary output

Up to 20x 4K60p scaled auxiliary outputs (depending on the number of output cards installed)

Can display any input or screen (1:1 or scaled)

HDCP

Compliant with HDCP 1.4 and HDCP 2.2

AUDIO

Audio embedding/de-embedding on every input & output (raw audio)

De-embed audio from sources and route directly using onboard Dante™ card

Re-embed audio from external audio processor for sending to display, streaming or recording device

64x64 Dante™ channels @48 kHz or 32x32 Dante™ channels @96 kHz

Dual redundancy Ethernet ports - AES67 support

PROCESSING

Based on Analog Way exclusive 5th generation scaling engine

Extremely low latency, as low as 1 frame in proper configuration

Motion compensation deinterlacing

BT.601; BT.709; BT.2020; BT.2100 color spaces

Advanced pixel pitch management & bezel compensation

HDR compliant with HDR10 and HLG

TRANSITIONS & EFFECTS

True A/B Mix

Misc. layer border effects/colors and separate shadow

Transitions: Cut, Fade, Slide, Wipe, Circle, Stretch, Depth, Flying layer movement with programmable paths

Layer effects: Background Cut, Transparency, Luma/Chroma Key, DSK, H&V Flip, Cut and Fill

Colors effects: B&W, Negative, Sepia and Solarize

STILL IMAGES

Up to 24x 4K or 48x 2K concurrent still images (depending on the number of still image processing cards installed)

Still images fully resizable - support alpha-channel

Still image library with 100 memories

Multi-file download/upload via Web RCS - Capture from live inputs

CONTROL

Web RCS: On-board highly intuitive drag and drop HTML5-based interface

Shot Box[2]/Control Box[2]: Cost effective control solutions

New RC400T controller

Simple REST API (HTTP & TCP) and advanced TCP protocol based on JSON

AMX/Crestron drivers

AW VideoCompositor: Premium drag & drop Crestron® GUI

OTHER FEATURES

Tally/GPI-O

Dedicated BNC with loop out for Framelock, blackburst and tri-level sync

Fully functional simulator for offline configuration and practice

EXPANDABILITY

Expansion via simple linking possible (future hardware upgrade)

ⓘ *Specifications subject to change without prior notice*

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