

# Aquilon C+

## Ref. AQL-C+



Fully modular and scalable 4K/8K multi-screen presentation system and videowall processor with up to 24x 4K60p inputs, 20x 4K60p outputs and 24x 4K60p layers



### Outstanding Performances

Like all the products of the **LivePremier™** series, **Aquilon C+** offers 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. Totally configurable, **Aquilon C+** can be tailored to suit any application, including large scale auditoriums, conference rooms, staging live events, houses of worships, corporate lobbies and sports venues. Thanks to its future-proof hardware architecture, **Aquilon C+** is ready to meet the evolving needs of your customers, such as 8K, higher framerates and more...

### Industrial Grade Reliability

**Aquilon C+** 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 hot swappable power supplies and smart thermal management, **Aquilon C+** delivers uninterrupted 24/7 performance and peace of mind!

### Flexible System Configuration

**Aquilon C+**'s modular design allows you to configure the system to accommodate a variety of connectivity arrangements and your match source and display requirements. In its largest configuration, **Aquilon C+** features up to 24x 4K60p seamless inputs and up to 20x 4K60p outputs, configurable as single screens, edge-blended widescreens or scaled auxiliary outputs, 2 dedicated Multiviewer outputs, up to 24x 4K or 48x HD freely assignable layers, as well as powerful features that will allow you to handle any creative display configuration, such as a custom output formats, output rotation, AOI, bezel compensation and pixel pitch management.

### Smart Functionalities

**Aquilon C+** 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... **Aquilon C+** also allows to remove external audio de-embedding boxes: 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 C+ 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 cards: HDMI2.0, DP1.2, 12G-SDI
  - ▶ True 4K/8K processing (10 and 12-bit 4:4:4)
  - ▶ Up to 24x 4K60p or 48x DL/2K60p split 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 to support to 8K, 120 fps...

Aquilon Models	RS1	RS2	RS3	RS4	C	C+
4K60p inputs	16	16	24	24	up to 16	up to 24
4K60p outputs	8	12	12	16	up to 16	up to 20
Max 4K60p split layers	8	16	16	24	up to 16	up to 24
Max DL/2K60p split layers	16	32	32	48	up to 32	up to 48
Simul. 4K still image channels	12	12	24	24	up to 12	up to 24
Build-to-Order (BTO)					✓	✓
Rack units	4	4	5	5	4	5

## Key Features

Based on LivePremier™ platform

Highly ruggedized chassis with cleanable air filter

Hot-swappable redundant power supplies

Up to 24x seamless 4K60p inputs and up to 20x 4K60p outputs

True 4K60p 4:4:4 performance on every I/O channel

Field-installable input & output cards to accommodate a variety of connectivity arrangements

Full set of input & output cards available: HDMI2.0, DP1.2, 12G-SDI

Support 4K60p input and output as single, double or quad plugs

Up to 120 Megapixels throughput at 10-bit 4:4:4 on Program, without restricting Preview or Multiviewer

Up to 12x 4K60p or 24x Dual/2K60p mixing layers (up to 24x 4K60p or 48x Dual/2K60p split layers)

Up to 24x 4K or 48x 2K concurrent still images

Unscaled seamless background mixer on each output (using instantaneous still images or live sources)

Flexible layer management

Seamless crossfade on all mixing layers, on all sources

Scaled 4K60p AUX feature for all non-PGM outputs

Ultra-low latency 10 and 12-bit processing

Ability to place the outputs anywhere on an almost limitless video canvas space for special LED wall applications

Advanced pixel pitch management for LED wall applications

2x configurable 4K Multiviewer outputs with 24x resizable widgets on each, including clocks, countdown and timers

HDR compliant with HDR10 and HLG

Native Dante™ audio networking hardware and support (64x64)

Rotation capability on each output; manage portrait displays

Independent output rates

Frame-lock or internal sync. generator

Web RCS: highly intuitive, lightning fast web-based user interface based on HTML5

Live video thumbnails shown on GUI

Multi operator real-time collaboration

Password protection and user privileges

Easily create and recall preset looks on all your screens and auxiliary outputs

Custom output formats for non-standard display applications

Area of Interest feature to customize active areas of outputs

Still images support variable alpha-channels for transparent background on logos

Cut and Fill (using two sources or a source and a still image)

Fully functional simulator for offline configuration and practice

EDID management on every input and output

Compliant with HDCP 2.2 and 1.4

Future proof modular design to support to 8K and HFR

Quiet: 49dB average noise at 1m when ambient temperature is less than 32°C/90°F

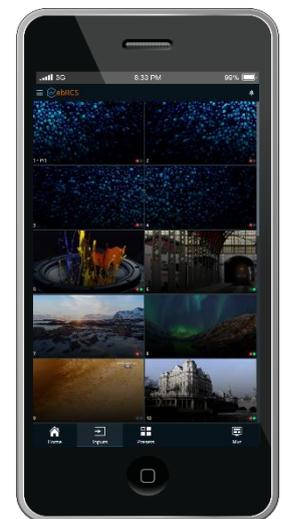
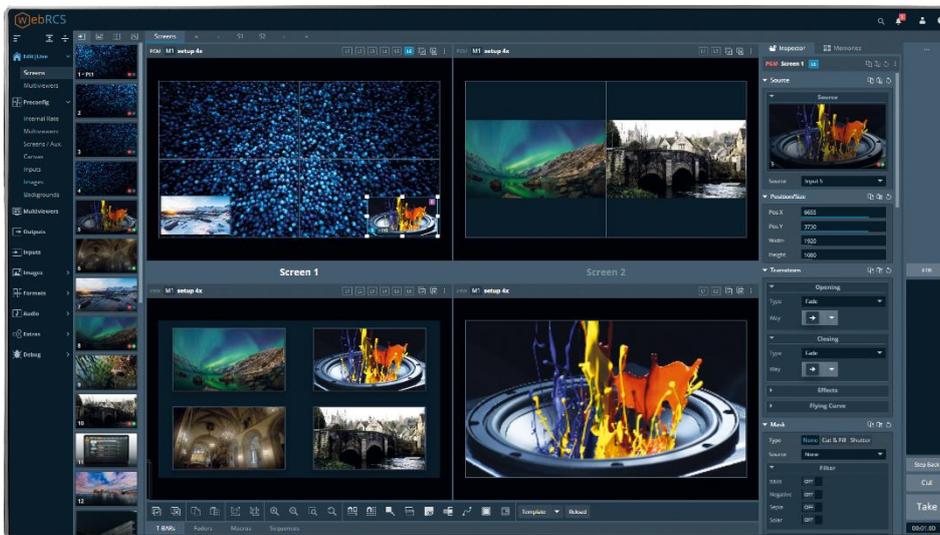
Remote services and maintenance

Backup and restore functions

## Web RCS: Unrivalled Ease of Use

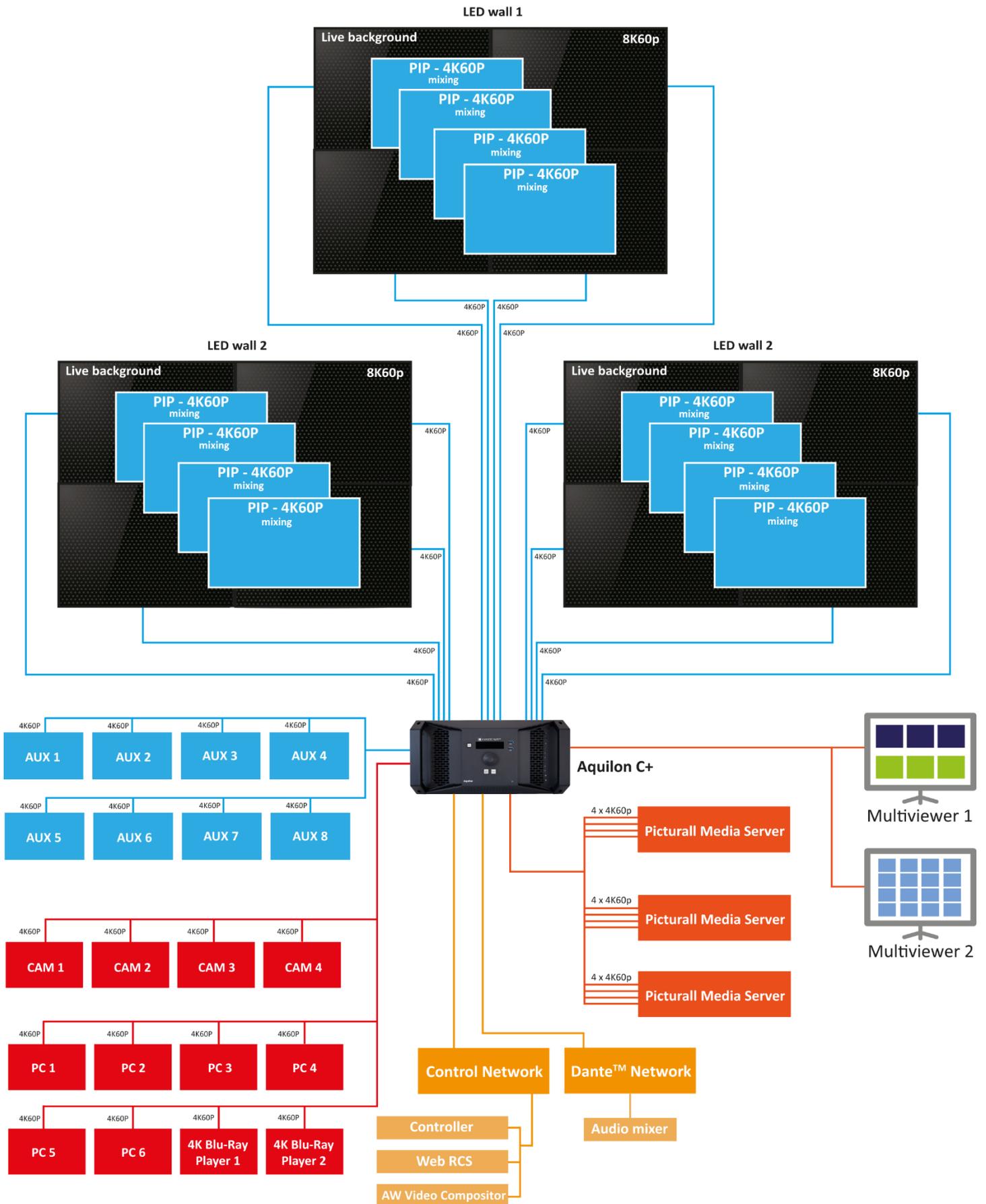
For the best ease of setup and to ensure flawless control of multi-screen presentations, the **LivePremier™** series features a totally new, cutting-edge HTML5-based user interface, the **Web RCS**, compatible with any device or platform including iOS and Android devices.

Conceived to greatly increase productivity and reduce learning curve, the **Web RCS** offers dozens of unique features that simplify configuring and operating, such as live program/preview workspaces with high-resolution dynamic thumbnails of connected sources, multi-operator collaboration with password protection and user privileges, walkthrough guides, keyword search, multi-language support 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 drive 3x 8K60p LED walls and 8x 4K60p AUX outputs



## Technical Specifications

### INPUTS

8, 16 or 24 seamless 4K60p inputs via 2, 4 or 6 field swappable input connector cards - 3 models available:

4x HDMI 2.0 connectors, each supporting up to 4K60p 8-bit 4:4:4 or 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 up to 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

Support 4K60p input as single, double or quad plugs

Support custom input formats such as 8192x1080@60p or 1080x8192@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 or 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 up to 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

Support 4K60p output as single, double or quad plugs

Support custom output formats such as 8192x1080@60p or 1080x8192@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 to 2x 4K30p or up to 2x 2560x1440@60p or 1x 4K60p

24 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 4K60p or 8x Dual/2K60p mixing layers (doubled if split layers)

Layer source can be a live input, a still image or a screen

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)

Ability to place the outputs anywhere on an almost limitless video canvas space for special LED wall applications

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)

### AUDIO

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

De-embed audio from sources and route directly to Dante™ network

Re-embed audio from external audio processor for sending to display

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

Compatible with HDCP 1.4 and 2.2

### TRANSITIONS & EFFECTS

True A/B Mix

Misc. layer border effects/colors and separate shadow

Transitions: Cut, Fade, Slide, Wipe, Circle, Stretch, Depth, Flying layer

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 2 still image processing cards, each supporting 12x 4K or 24x 2K concurrent still images

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 intuitive web-based user interface

Shot Box<sup>2</sup>/Control Box<sup>2</sup>: Cost effective control solutions

New controller (end 2019)

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 & practice (end 2019)

### EXPANDABILITY

Expansion via simple linking possible (future hardware upgrade)

#### Dimension (in Rack Units - RU)

▶ 5RU

#### Dimensions (without rack ears & rack mount)

▶ W 17.28" x H 8.7" x D 28.03"

▶ L 439.8 mm x H 221.2 mm x P 712.5 mm

#### Dimensions (with handles)

▶ W 18.89" x H 8.7" x D 28.03"

▶ L 482.4 mm x H 221.2 mm x P 712,5 mm

#### Weight fully loaded (without accessories)

▶ 38 kg / 83.77 lbs

#### Operating conditions

▶ Temperature: 0 to 40°C (32 to 104°F)

▶ Humidity: 10% to 80%, non-condensing

#### Warranty

3-year warranty on parts and labor back to factory

#### Safety Compliance

▶ IEC/UL/EN 62368-1, CSA22.2 #62368-1

#### Supplied with

▶ 3x Power supply cord  
▶ 1x Web-based Remote Control Software  
▶ 1x Rackmount kit  
▶ 1x Ethernet cross cable  
▶ 3x MCO 5 pin connectors  
▶ 1x User manual (PDF)\*  
▶ 1x Quick start guide including safety instructions\*

 Specifications subject to change without prior notice

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