



# Aquilon RS3

LivePremier Series



## #AQL-RS3

Aquilon RS3 is a mission-critical 4K/8K multi-screen presentation system and videowall processor with 24 inputs and 12 outputs, delivering uncompromising presentation experiences to high-end staging and premium system integration. Aquilon RS3 combines industrial grade reliability, unrivaled ease-of-use, versatile 4K 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.

### 24 Seamless Inputs

24 seamless 4K60p inputs via 6 pre-installed input connector cards:

- 12x HDMI 2.0 (18 Gbps bandwidth allowing 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)
- 8x DisplayPort 1.2 (21.6Gbps bandwidth allowing up to 4K60p 10-bit 4:4:4 or up to 4K60p 12-bit 4:2:2)
- 4x 12G-SDI (up to 4K60p 10-bit 4:2:2) – also compatible with 3G-SDI and 6G-SDI

All input connector cards can be field-replaced to accommodate a variety of connectivity arrangements – 3 different input connector cards featuring HDMI2.0, DP1.2 or 12G-SDI

Supports 4K60p input as single, double or quad plugs (end 2019)

Supports input formats such as 8192x1080@60p or 1080x8192@60p (aka “8k x 1k”) on a single connector

Connector status LEDs for easy troubleshooting



## **12 Active Outputs**

12 active 4K60p outputs via 3 pre-installed output connector cards:  
12x HDMI 2.0 (18 Gbps bandwidth allowing 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)  
All output connector cards can be field-replaced to accommodate a variety of connectivity arrangements – 3 different output connector cards featuring HDMI2.0, DP1.2 or 12G-SDI  
Supports 4K60p output as single, double or quad plugs  
Supports custom output formats such as 8192x1080@60p or 1080x8192@60p (aka “8k x 1k”) on a single connector  
Connector status LEDs for easy troubleshooting

## **2 Dedicated 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, still images and screens (Program and Preview)  
Built-in clocks, countdown and timers

## **Native Dante Audio networking**

Audio de-embedding/embedding on every input & output (raw audio)  
De-embedded audio channels can be routed directly to the Dante? network using onboard Dante card  
Audio channels from external Dante audio processor can be re-embedded 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

## **Flexible Screens and Layers Management**

Outputs configurable as single screens or edge-blended widescreens  
Up to 12x Dual/2K60p program outputs or up to 8x 4K60p program outputs  
Flexible layer management: each screen gets dedicated layers of various sizes (2K, 4K ?) using common-pool layer resources  
Any unused output configurable as a scaled auxiliary 4K60p output to display any input or screen (1:1 or scaled)  
1000 user definable screen presets and 500 master presets to easily recall looks on all the screens and auxiliary outputs



### **Up to 16x 4K60p Layers**

Supports mixing layers (true seamless transitions) and split layers (cut transitions)  
Up to 8x 4K60p or 16x Dual/2K60p mixing layers (16x 4K60p or 32x Dual/2K60p split layers)  
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 still image or live source

### **Ultra-low latency 10 and 12-bit processing**

Based on Analog Way exclusive 5th generation scaling engine  
Extremely low latency, as low as 1 frame in proper configuration  
80 Megapixels throughput at 10 bits 4:4:4 @60Hz on Program, without restricting Preview or Multiviewer  
HDR compliant with HDR10 and HLG (end 2019)  
Advanced motion compensation deinterlacing  
BT.601; BT.709; BT.2020; BT.2100 color spaces  
Compatible avec HDCP 1.4 – Compatible avec HDCP 2.2 (fin 2019)

### **Creative Display Configurations**

Supports any combination of single-screen or widescreen applications  
Ability to place the program outputs anywhere on an almost limitless video canvas space for special LED wall applications  
Custom output formats for non-standard display applications  
Independent resolution and rate on all outputs  
Rotation capability in increments of 90°  
Area of Interest option to customize active areas of outputs  
Advanced pixel pitch management & bezel compensation

### **Advanced Video 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

### **24 Concurrent 4K Still Images**

24x 4K or 48x 2K concurrent still images – fully



resizable  
Still images support alpha-channel  
Still image library with 100 memories  
Multi-file download/upload via Web RCS  
Capture from live inputs

#### **Simple Setup and Advanced Control**

Web RCS: embedded intuitive drag and drop  
HTML5-based interface  
Live video thumbnails shown on GUI  
Multi operator real-time collaboration  
Multi-language support  
AW VideoCompositor: Premium drag & drop Crestron  
GUI  
Shot Box2/Control Box2: Cost effective control solutions  
Simple REST API (HTTP & TCP) and advanced TCP  
protocol based on JSON  
AMX/Crestron drivers  
New controller (end 2019)

#### **Other Features**

Highly ruggedized chassis with cleanable air filter  
Hot-swappable redundant power supplies  
Quiet: 49dB average noise at 1m when ambient  
temperature is less than 32°C/90°F  
Dedicated BNC with loop out for Framelock, blackburst  
and tri-level sync  
EDID management on every input and output  
Backup and restore functions  
Tally/GPI-O  
Fully functional simulator for offline configuration and  
practice (end 2019)  
Expansion via simple linking possible (future hardware  
upgrade)