



Aquilon RS1

LivePremier Series



#AQL-RS1

Aquilon RS1 is a mission-critical 4K/8K multi-screen presentation system and videowall processor with 16 inputs and 8 outputs, delivering uncompromising presentation experiences to high-end staging and premium system integration. Aquilon RS1 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.

16 Seamless Inputs

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

- 8 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)
- 4x 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



8 Active Outputs

8 active 4K60p outputs via 2 pre-installed output connector cards:

8x 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 8x Dual/2K60p program outputs or up to 4x 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 8x 4K60p Layers

Supports mixing layers (true seamless transitions) and split layers (cut transitions)
Up to 4x 4K60p or 8x Dual/2K60p mixing layers (8x 4K60p or 16x 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
40 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 with HDCP 1.4. Compatible with HDCP 2.2 (end 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

12 Concurrent 4K Still Images

12x 4K or 24x 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)