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QSCControl.net, QSC’s next generation network audio system, achieves the seamless integration of the company’s signal transport, control, processing, and monitoring technologies. QSCControl.net brings together QSC’s digital, power amplification and loudspeaker products into a unified system that enables the user to administrate it all via a fully integrated graphical user interface. The new generation RAVE devices are designed to operate under the company’s QSCControl.net platform.

RAVE 520uz

The RAVE platform meets the processing and signal transport needs of audio systems over an Ethernet network. The RAVE 520uz units combine two distinct QSC technologies within a single hardware unit. Configurable DSP, and CobraNet™ audio transport are seamlessly integrated into one powerful single RU package.

Through QSCControl.net, QSC’s BASIS™ and next-generation RAVE and DSP products can be networked together and controlled from a single software interface. In addition, multiple networked computers can be set up to control and monitor all of the units simultaneously.

Fixed Latency DSP

Users of most other configurable DSP systems are familiar with a variable latency inherent in the processing configuration. Add more processing blocks and you also add delay, whether you want it or not. QSC’s DSP engine is unique in having a short and fixed processing latency through the DSP subsystem. QSC’s fixed latency DSP is a configurable DSP that stays fast and predictable from one configuration to the next.

For more information, visit www.qscontrol.net

### Features

- Configurable DSP functions and signal paths
- Fixed latency DSP engine
- Ethernet controllable
- CobraNet audio transport with new intuitive GUI
- Two Ethernet ports – CobraNet and control can be run over a single cable or be divided between the two ports. The CobraNet port is 100Base-T. The control port is 10Base-T
- Each unit can store eight design configurations that can be changed on the fly
- Snapshots can recall config or block and/or parameter settings
- THX™ approved for professional cinema applications

### DSP functions include, but are not limited to:

- Matrix mixer – any size, up to 24 x 24
- Automixers – gain sharing
- Routers – any size, up to 24 x 24
- Gain controls – any channel count, up to 24
- Graphic equalizers
- Filters – high-pass, low-pass, all-pass, shelf, parametric, parametric shelf, Butterworth high and low-pass, Linkwitz-Riley high and low-pass, Bessel-Thomson high and low-pass
- Crossovers – Linkwitz-Riley, Butterworth, Bessel-Thomson in-phase, Bessel-Thomson symmetrical, 2-way, 3-way, and 4-way general purpose adjustable
- Compressors, peak limiters, AGCs, gates, dynamics processor
- Duckers – up to 8 channels, up to 60 seconds fade in and fade out times, priority mix
- Pink noise, white noise, sine generators
- Delays
- Macros – user-definable custom blocks with password protection

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### Performance

**Dynamic Range** (AES-17, -60 dB method, all sensitivities)

- Unweighted: > 110 dB
- A weighted: > 115 dB

**Distortion** (20 Hz – 20 kHz, all sensitivities)

- Gain = 0 – 30 dB: < 0.008% THD+N
- Gain > 30 dB: < 0.05% THD+N

**Crosstalk** (20 Hz – 20 kHz)

- Inter-channel (maximum): > 75 dB
- Inter-channel (typical): > 85 dB
- Intra-channel (maximum): > 100 dB
- Intra-channel (typical): > 90 dB

**Frequency Response**

- 20 Hz – 20 kHz (maximum): +/- 0.5 dB
- 20 Hz – 20 kHz (typical): +/- 0.2 dB

**Audio Converters**

- 24 bit, 48 kHz

**Mute**

- Infinite attenuation

**Delay**

- RAVE to Network: Standard CobraNet™ latency 7.104 ms, Low latency 4.438 ms

**Inputs/Outputs**

**Program Inputs**

- Connector type: 3-pin “Phoenix style” (a.k.a. “Euro style”) detachable terminal blocks
- Type: Electrically balanced
- Grounding: All shield terminals connected to chassis
- Pinout: 1+: 2- / 3: Chassis Ground
- Common-mode Rejection: Balanced: 6k81 / Unbalanced: 13k6
- E.I.N. (maximum): 20 Hz – 20 kHz: > 54 dB / 20 Hz – 20 kHz (typical): > 60 dB
- Input Impedance (nominal, Ω): Balanced: 6k81 / Unbalanced: 13k6
- Input Sensitivities (variable): Vrms: 0.9 mV to 15.46 V / dBu: -62.2 to +26 / dBV: -64.4 to +23.7
- Phantom Power (per IEC 1938 [1996]): +48 V (software selectable)

**Relay Outputs**

- Connector Type: 3-pin “Phoenix style” (a.k.a. “Euro style”) detachable terminal blocks
- Configuration: Electromechanical relay
- Pinout: 1: NC / 2: NO / 3: COM
- Switching Capacity (nominal): 1 A, 30 VDC

**Logic Outputs**

- Connector Type: 2-pin “Phoenix style” (a.k.a. “Euro style”) detachable terminal blocks
- Configuration: Single-ended, TTL compatible
- Pinout: 1: + (Signal) / 2: - (Chassis Ground)

**Omni Inputs**

- Connector Type: 2-pin “Phoenix style” (a.k.a. “Euro style”) detachable terminal blocks
- Configuration: Single-ended, ground referenced
- Pinout: Normal Operating Range: Reads signals between 0-5 V nominally
- Potentiometer Operation (Ω): Use 10k for full range
- Voltage Tolerance: +/- 0.5 V with 10k (for passive resistive controls)
- Current Output (Ω): 0.5 mA with 10k

**RS-232 Port**

- Female DB9 connector (setup and diagnostics purposes only)

**QSControl Port**

- Neutrik Ethercon RJ45 ruggedized data connector

**CobraNet Port**

- Neutrik Ethercon RJ45 ruggedized data connector

**Indicators**

- QSControl Status: Yellow Link, Tx, Rx, front panel / Green Link, Tx, Rx, rear panel
- CobraNet Status: Yellow Link, Tx, Rx, front and rear panel
- Power: Blue, front panel
- Diagnostic: Red, front panel
- LCD Data Display: 2 line x 16 character, backlit, front panel
- Signal Presence: Tri-state (red, green, yellow), front panel

Specifications subject to change without notice.