QSC's new generation network audio system, BASIS 722az, 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 BASIS devices are designed to operate under the company's QSCControl.net platform.

**BASIS 722az**

The BASIS platform meets the control, monitoring and processing needs of amplification and loudspeaker systems over an Ethernet network. The BASIS 722az units combine two distinct QSC technologies within a single hardware unit. Amplifier and loudspeaker control, monitoring and protection, and configurable DSP 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. When the A/D and D/A converters are included, the total analog-to-analog latency of a single unit is a negligible 2.354 milliseconds. QSC's fixed latency DSP is configurable DSP that stays fast and predictable from one configuration to the next.

**INPUTS**<br>**DSP**<br>**OUTPUTS**

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>DSP</th>
<th>OUTPUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog</td>
<td>8 line level</td>
<td>DataPort</td>
</tr>
</tbody>
</table>

**Features**

- Amplifier and loudspeaker control, monitoring and protection
- Configurable DSP functions and signal paths
- Fixed latency DSP engine
- Ethernet controllable
- Each unit can store eight design configurations that can be changed on the fly
- Snapshots can recall config or block and/or parameter settings
- 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, AGC's, 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
- Delays
- Macros – user-definable custom blocks

For more information, log onto www.qscontrol.net
## Dynamic range (AES-17, -60 dB method, all sensitivities)

<table>
<thead>
<tr>
<th></th>
<th>IN</th>
<th>OUT</th>
<th>THRU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unweighted</td>
<td>&gt; 115 dB</td>
<td>&gt; 112 dB</td>
<td>&gt; 110 dB</td>
</tr>
<tr>
<td>A weighted</td>
<td>&gt; 118 dB</td>
<td>&gt; 115 dB</td>
<td>&gt; 113 dB</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>IN (%)</th>
<th>OUT (%)</th>
<th>THRU (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4 dBu (max)</td>
<td>&lt;0.009% THD+N</td>
<td>&lt;0.009% THD+N</td>
<td>&lt;0.009% THD+N</td>
</tr>
<tr>
<td>2 dB below clip (max)</td>
<td>&lt;0.009% THD+N</td>
<td>&lt;0.009% THD+N</td>
<td>&lt;0.009% THD+N</td>
</tr>
</tbody>
</table>

## Crosstalk (20 Hz – 20 kHz)

<table>
<thead>
<tr>
<th></th>
<th>IN (%)</th>
<th>OUT (%)</th>
<th>THRU (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-channel (max)</td>
<td>&gt; 75 dB</td>
<td>&gt; 90 dB</td>
<td>&gt; 85 dB</td>
</tr>
<tr>
<td>Inter-channel (typ)</td>
<td>&gt; 100 dB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Frequency response

<table>
<thead>
<tr>
<th></th>
<th>IN (%)</th>
<th>OUT (%)</th>
<th>THRU (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Hz – 20 kHz (max)</td>
<td>+/- 0.5 dB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Hz – 20 kHz (typ)</td>
<td>+/- 0.2 dB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Audio converters

- 24 bit, 48 kHz, in and out
- Infinite attenuation

## Control inputs / outputs

### Inputs / Outputs

- 8 program inputs:
  - 3-pin “phoenix style” (a.k.a. “euro style”) detachable terminal blocks
  - All shield terminals connected to chassis
  - Balanced: 10k ohms
  - Unbalanced: 10k ohms
  - 20 Hz – 20 kHz (min.): > 54 dB
  - 20 Hz – 20 kHz (typ.): > 60 dB
- Input sensitivities (variable):
  - Vrms: 1.5, 3, 9, 18
  - dBU: 5.7, 11.8, 21.3, 27.3
  - dBV: 3.5, 9.5, 19.1, 25.1
- 8 program outputs:
  - 4 HD-15 DataPort connections
  - QSC DataPort cable, QSC p-n GPC-x (’x’ designates cable length in feet)
  - 1, 2, 3, 4, 5, 6, 10, and 20 ft., custom lengths available
  - 328 ft. (100 m) using QSC DP cable only. Non QSC cable limited to 6 ft. (audio only)

### Control room foldback monitoring

- 5-pin “phoenix style” (a.k.a. “euro style”) detachable terminal blocks
- Unity gain connection, relay bypass
- +21 dBu
- 10k ohms
- > 54 dB

### Monitor

- Monitor input:
  - Monitor signal (unit off): Unity gain connection, relay bypass
  - Maximum level: > 90 dB
  - Impedance (nominal): 10k ohms
  - CMRR, 20 Hz – 20 kHz: > 54 dB
  - Monitor output:
    - Frequency response: +/- 0.5 dB
    - Distortion (20 Hz – 20 kHz): < 0.05% @ +4 dBu
    - Noise floor: > 90 dB
    - Output impedance (nom): 100 ohms
    - Output load (min): 600 ohms
- Monitor level:
  - Control range (nom): 0 dB to -95.5 dB in 0.5 dB steps

### Relay outputs

- 2 discrete floating relay switch outputs
- 3-pin “phoenix style” (a.k.a. “euro style”) detachable terminal blocks
- Electromechanical relay
- 1 NC, 2 NO, 3 COM
- 1A 30 VDC
- Logic outputs
  - 4 discrete outputs
  - 2-pin “phoenix style” (a.k.a. “euro style”) detachable terminal blocks
    - Single-ended, TTL compatible
    - 1: (Signal) 2: (CHASSIS GND)
  - 6 discrete inputs for TTL logic, voltage control or passive resistance
    - 2-pin “phoenix style” (a.k.a. “euro style”) detachable terminal blocks
    - Single-ended, ground referenced
    - 1: (Signal) 2: (CHASSIS GND)
    - Reads signals between 0-5 V nominally
    - Use 10k ohms for full range
    - +/- 48 V
- Omni inputs
  - 6 discrete inputs for TTL logic, voltage control or passive resistance
    - 2-pin “phoenix style” (a.k.a. “euro style”) detachable terminal blocks
    - Single-ended, ground referenced
    - 1: (Signal) 2: (CHASSIS GND)
    - Reads signals between 0-5 V nominally
    - Use 10k ohms for full range
    - +/- 48 V
  - 0.5 mA with 10k pot (for passive resistive controls)
  - Female DB9 connector
  - Neutrik Ethercon RJ45 ruggedized data connector

### RS-232 port

- QSCControl port
- Indicators
  - QSCControl status
    - Power
    - Diagnostic
    - DataPort status (port)
    - LCD data display
  - Yellow Link, Tx, Rx, front panel
  - Green Link, Tx, Rx, rear panel
  - Blue, front panel
  - Red, front panel
  - Tri-state (red, green, yellow), front panel
  - 2 x 16 character, backlit, front panel

Specifications are subject to change without notice.