

# Product Spec Sheet from Rentex

## Allen & Heath Qu-24C 30-In/24-Out Digital Mixer

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Rentex Product No. MXR2405



|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Mic/Line Inputs</b>           | 24x Balanced combo XLR/TRS jacks, fully recallable<br><b>Input Sensitivity:</b> -60 to +10 dBu (XLR), -50 to +20 dBu (TRS)<br><b>Analog Gain:</b> -10 to +60 dB, 1 dB steps<br><b>Maximum Input Level:</b> +19 dBu (XLR), +29 dBu (TRS)<br><b>Input Impedance:</b> >5 kOhms (XLR), >10 kOhms (TRS)<br><b>THD+N, Unity Gain 0 dB:</b> 0.0005%, -89 dBu (20 Hz to 20 kHz, direct out @ 0 dBu, 1 kHz)<br><b>THD+N, Mid Gain +30 dB:</b> 0.001%, -83 dBu (20 Hz to 20 kHz, direct out @ 0 dBu, 1 kHz) |
| <b>Stereo Line Inputs</b>        | <b>ST1, ST2 Connector:</b> Balanced, 1/4" (6.3 mm) TRS Jack, half-normalled<br><b>ST3 Connector:</b> Unbalanced 1/8" (3.5 mm) mini jack<br><b>Input Sensitivity (ST1, ST2, ST3):</b> +4 dBu/0 dBu, nominal<br><b>Trim:</b> +/-24 dB<br><b>Maximum Input Level (ST1, ST2, ST3):</b> +22 dBu/+18 dBu<br><b>Input Impedance:</b> >7 kOhms                                                                                                                                                            |
| <b>Line Outputs</b>              | <b>Mix 1 to 10, GRP 1 to 4, MTX 1 to 4, LR Out:</b> Balanced XLR<br><b>Output Impedance:</b> <75 Ohms<br><b>Nominal Output:</b> +4 dBu = 0 dB meter reading<br><b>Maximum Output Level:</b> +22 dBu<br><b>Residual Output Noise:</b> -90 C31 dBu (muted, 20 Hz to 20 kHz)                                                                                                                                                                                                                         |
| <b>Stereo Output</b>             | <b>Alt Output &amp; 2 Trk Output:</b> Balanced 1/4" (6.3 mm) TRS jacks<br><b>Source (Alt Output/2 Trk Output):</b> Patchable/LR post fade<br><b>Output Impedance:</b> <75 Ohms<br><b>Nominal Output:</b> +4 dBu = 0 dB meter reading<br><b>Maximum Output Level:</b> +22 dBu<br><b>Residual Output Noise:</b> -91 dBu (muted, 20 Hz to 20 kHz)                                                                                                                                                    |
| <b>AES Digital Audio Outputs</b> | 2-channel; 48 kHz sampling rate; XLR Out;<br>2.5 Vpp balanced terminated 110 Ohms                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>dSNAKE Inputs</b>             | Remote source for Channels 1 to 24, ST1, ST2, ST3                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>dSNAKE Outputs</b>            | Remote outputs for Mix 1 to 10, LR; Compatible w/AudioRacks AR2412, AR84; Compatible with ME personal mixing system                                                                                                                                                                                                                                                                                                                                                                               |

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| <b>System</b>                |                                                                                                                                                                                                                                                                           |
| <b>Dynamic Range</b>         | 112 dB                                                                                                                                                                                                                                                                    |
| <b>Frequency Response</b>    | 20 Hz to 20 kHz (+0/-0.5 dB)                                                                                                                                                                                                                                              |
| <b>Headroom</b>              | +18 dB                                                                                                                                                                                                                                                                    |
| <b>Operating Level</b>       | Internal Operating Level: 0 dBu                                                                                                                                                                                                                                           |
| <b>Alignment</b>             | dBFS: +18 dBu = 0 dBFS (+22 dBu @ XLR output)                                                                                                                                                                                                                             |
| <b>Calibration</b>           | 0 dB meter = -18 dBFS (+4 dBu @ XLR output)                                                                                                                                                                                                                               |
| <b>Indicators</b>            | <b>Meter Peak Indication:</b> -3 dBFS (+19 dBu @ XLR out), multi-point sensing<br><b>Meter Signal Indication:</b> -48 dBFS (-26 dBu @ XLR out)<br><b>Meter Type:</b> Fast (peak) response                                                                                 |
| <b>Sampling Rate</b>         | 48 kHz +/-100 PPM                                                                                                                                                                                                                                                         |
| <b>Converters</b>            | 24-bit Delta-Sigma                                                                                                                                                                                                                                                        |
| <b>Latency</b>               | 1.2 ms (local XLR in to XLR out); 0.7 ms (local XLR in to AES out)                                                                                                                                                                                                        |
| <b>Operating Temperature</b> | 32° to 95°F (0° to 35°C)                                                                                                                                                                                                                                                  |
| <b>Power</b>                 | Mains Power: 100-240 V AC, 50/60 Hz, 120 W maximum                                                                                                                                                                                                                        |
| <b>Input Processing</b>      |                                                                                                                                                                                                                                                                           |
| <b>Source</b>                | <b>Channels 1 to 24:</b> Local, dSNAKE, or USB;<br><b>ST1, ST2, ST3:</b> Local, dSNAKE, or USB                                                                                                                                                                            |
| <b>Stereo Linking</b>        | <b>Odd/even input pairs</b><br><b>Parameters Linked:</b> EQ, dynamics, insert, delay, assignments, sends<br><b>Link Options:</b> Preamp, polarity, sidechains, fader, mute, pan                                                                                           |
| <b>Polarity</b>              | Normal & reverse                                                                                                                                                                                                                                                          |
| <b>HPF</b>                   | 12 dB/octave, 20 Hz to 20 kHz                                                                                                                                                                                                                                             |
| <b>Insert</b>                | Assign FX to input channels                                                                                                                                                                                                                                               |
| <b>Delay</b>                 | Up to 85 ms                                                                                                                                                                                                                                                               |
| <b>Gate</b>                  | Self-key sidechain<br><b>Threshold:</b> -72 dBu to +18 dBu/<br><b>Depth:</b> 0 to 60 dB<br><b>Attack:</b> 50 µs to 300 ms<br><b>Hold:</b> 10 ms to 5 s<br><b>Release:</b> 10 ms to 1 s                                                                                    |
| <b>Equalizer</b>             | 4-band fully parametric, 20 Hz to 20 kHz, +/-15 dB<br><b>Band 1:</b> Selectable LF shelving (Baxandall), bell<br><b>Band 2 &amp; 3:</b> Bell<br><b>Band 4:</b> Selectable HF shelving (Baxandall), bell<br><b>Bell Width:</b> Non-constant Q, variable, 1.5 to 1/9 octave |
| <b>Compressor</b>            | Self-key sidechain<br><b>Threshold:</b> -46 to 18 dBu<br><b>Ratio:</b> 1:1 to infinity<br><b>Attack:</b> 300 µs to 300 ms<br><b>Release:</b> 100 ms to 1 s<br><b>Knee:</b> Soft or Hard<br><b>Types:</b> Peak manual, RMS manual, SlowOpto, PunchBag                      |
| <b>Output</b>                | <b>Channel Direct Out to USB:</b> Follow fader, follow mute (global options)<br><b>Source Select (Global):</b> Post-preamp, pre-EQ, post-EQ, post-delay                                                                                                                   |

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| <b>Controls</b>           |                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Faders</b>             | 4" (100 mm), motorized                                                                                                                                                                                                                                                                                                                                                              |
| <b>Touchscreen</b>        | 5" TFT, 800 x 480 resolution                                                                                                                                                                                                                                                                                                                                                        |
| <b>Softkeys</b>           | 10                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Mute Groups</b>        | 4                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Network</b>            | TCP/IP Ethernet for MIDI commands and iPad app                                                                                                                                                                                                                                                                                                                                      |
| <b>Mix Processing</b>     |                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Insert</b>             | Assign FX into Mix channels                                                                                                                                                                                                                                                                                                                                                         |
| <b>Delay</b>              | Up to 170 ms                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Equalizer</b>          | <b>Graphic EQ:</b> Constant 1/3 octave, 28 bands from 31 Hz to 16 kHz, +/-15 dB<br><b>Parametric EQ:</b> 4-band fully parametric, 20 Hz to 20 kHz, +/- 15 dB<br><b>Band 1:</b> Selectable LF shelving (Baxandall), bell<br><b>Band 2 &amp; 3:</b> Bell<br><b>Band 4:</b> Selectable HF shelving (Baxandall), bell<br><b>Bell Width:</b> Non-constant Q, variable, 1.5 to 1/9 octave |
| <b>Compressor</b>         | Self-key sidechain<br><b>Threshold:</b> -46 to 18 dBu<br><b>Ratio:</b> 1:1 to infinity<br><b>Attack:</b> 300 µs to 300 ms<br><b>Release:</b> 100 ms to 1 s<br><b>Knee:</b> Soft or Hard<br><b>Types:</b> Peak manual, RMS manual, SlowOpto, PunchBag                                                                                                                                |
| <b>Effects</b>            | <b>Internal FX:</b> 4x RackFX engines, Send>Return or Inserted<br><b>Types:</b> Reverbs, delays, gated reverbs, ADT, chorus, symphonic chorus, phaser, flanger;<br><b>4x Dedicated Stereo FX Returns:</b> Fader, mute, routing to Mix/LR, 4-band PEQ                                                                                                                                |
| <b>Audio Tools</b>        |                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>PAFL</b>               | PFL or stereo in-place AFL; 0 to -24 dB trim; 85 ms delay                                                                                                                                                                                                                                                                                                                           |
| <b>Talkback</b>           | Assignable to any mix; 12 dB/octave HPF                                                                                                                                                                                                                                                                                                                                             |
| <b>Power</b>              | Assignable to any mix; Sine, white, pink, bandpass noise                                                                                                                                                                                                                                                                                                                            |
| <b>RTA</b>                | 31-bands, 1/3 octave 20 Hz to 20 kHz; Follows PAFL source                                                                                                                                                                                                                                                                                                                           |
| <b>General</b>            |                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Dimensions (WxDxH)</b> | Desk-Mounted: 24.9 x 19.7 x 7.4" (632 x 500 x 186 mm)                                                                                                                                                                                                                                                                                                                               |
| <b>Weight</b>             | 31 lbs (14 g)                                                                                                                                                                                                                                                                                                                                                                       |