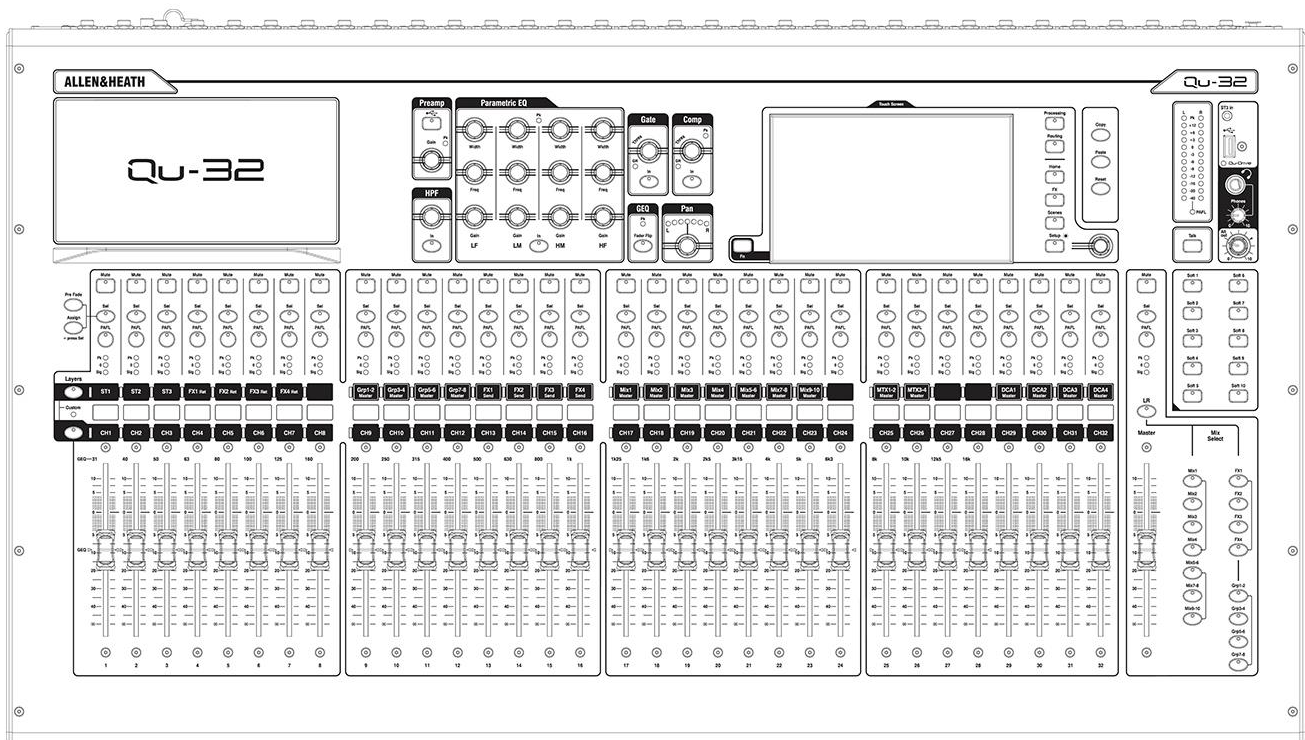
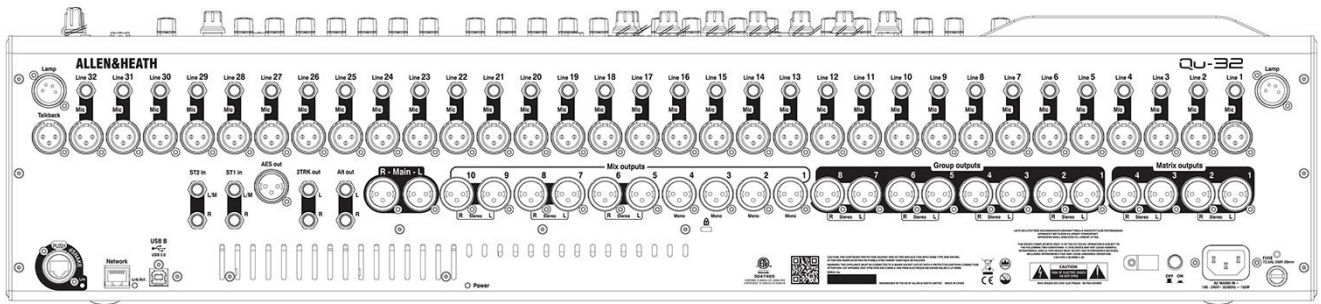


## Technical Datasheet

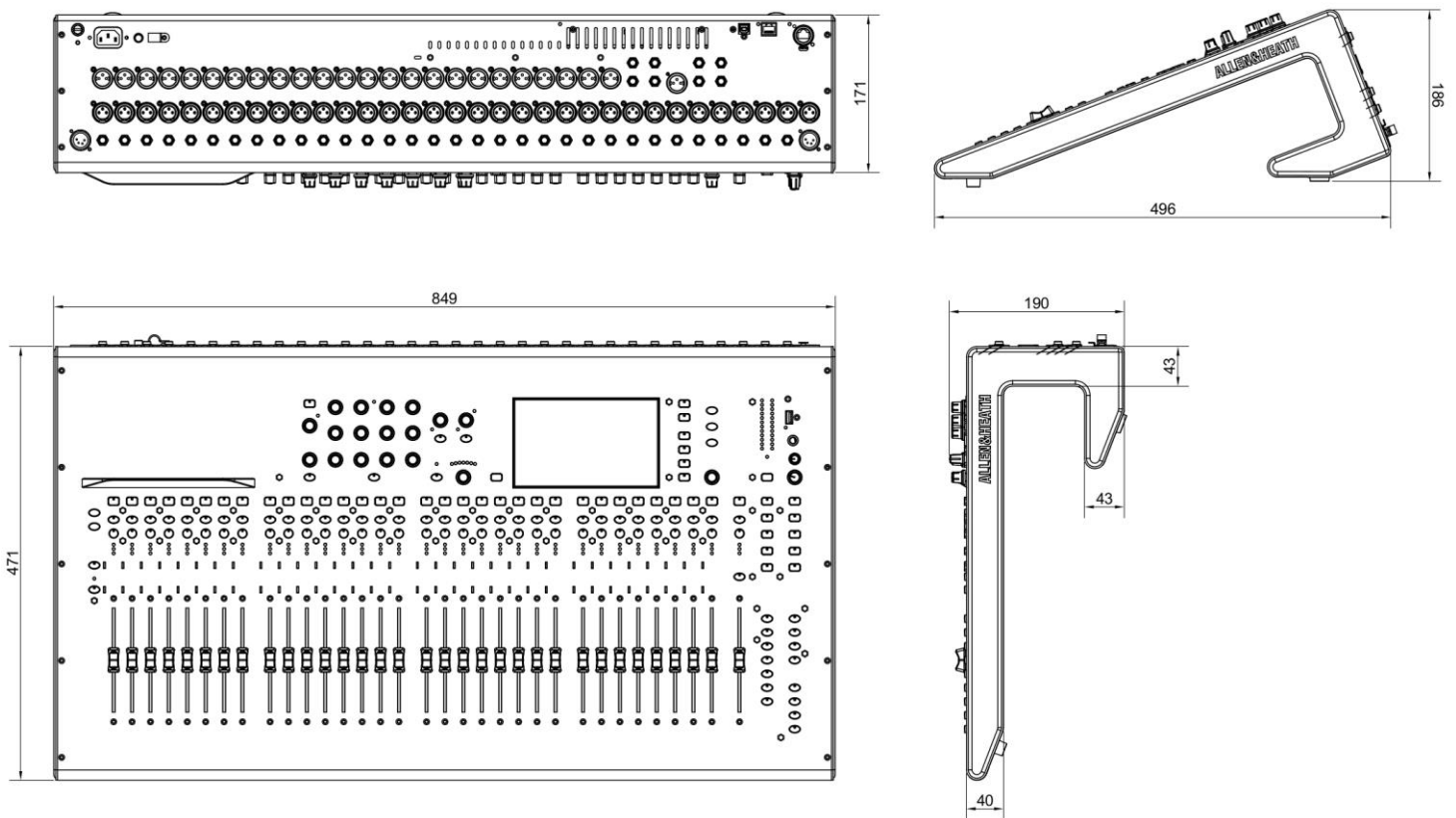
### Overview

- 38 In / 28 Out Digital Mixer
- 7" colour touchscreen'
- 32 Mono Inputs (TRS + XLR)
- 33 Motor Faders
- 3 Stereo Inputs (TRS)
- 4 stereo FX with dedicated Sends and Returns
- 24 Mix Outputs (XLR)
- 4 Stereo Groups
- 2 Stereo Matrix Outs
- 10 SoftKeys
- Extra stereo outputs – AES digital, Alt Out, 2TRK out
- Talkback mic input
- dSNAKE Cat5 snake for remote audio using AR2412, AR84 or AB168
- 4 Mute Groups
- 4 DCA Groups
- AnaLOGIQ™ total recall analogue preamps
- Effects ported from the flagship iLive console
- Dedicated stereo FX return channels
- Master strip for quick access to mix levels and processing
- Input channel linking for stereo sources
- Input processing – Preamp, HPF, Gate, PEQ, Compressor, Delay
- Automatic Mic Mixing
- Output processing – PEQ, Graphic EQ, Compressor, Delay
- 31 Band Real Time Analysis and Spectrogram
- 7" (800x480 pixel) colour touch screen for quick control
- Motorised faders for sends on faders, GEQ fader flip and mix recall
- Quick copy and reset of processing, mixes and scenes
- 100 Scene memories
- Channel Safes, Global and per Scene Recall Filters
- FX, processing and channel User Libraries
- Qu-Drive for stereo and 18-track recording/playback to USB hard drive
- USB streaming to/from an Apple® Mac or Windows™ PC computer
- MIDI DAW Control driver for Mac (converts to HUI or Mackie Control)
- USB transfer of Scenes, Libraries, Shows
- User assignable Custom Layer
- Qu-Pad engineer's mixing wireless remote app for iPad
- Qu-You personal monitoring app for iPhone, iPad, iPod Touch
- Compatible with the Allen & Heath ME personal mixing system
- User Permissions to restrict operator access
- Optimised fan-less airflow design for silent operation





## Dimensions



## A&E Specifications

The mixer shall be a desktop digital mixer with 32 mono and 3 stereo input channels mixing to 24 mix outputs.

The surface shall include 33 moving faders with 3 layers, each layer having dedicated keys and indicators, giving access to input channels, output channel mixes, FX sends, FX returns, Main mix, DCA masters, and a customisable layer giving access to MIDI control as well as user-defined overview of channels.

Each fader strip shall have a dedicated PAFL, Mix, Select, and Mute button with indicators, a 3-LED multi-point meter, and coloured LED indicating fader assignment.

The mixer shall have a physical control per function following the select button for the input and output channels allowing for fast access to all key processing parameters.

The fader and rotary controls shall be of a high contrast colour to the mixer surface for excellent visibility during operation in low light conditions

Ability to assign channel on/off status to the current mix using the channel 'Mix' keys shall be provided.

All processing, Pre/Post fade routing and assignments of signals to mix send, FX send and Audio, DCA and Mute Groups shall be accessed and adjusted via a 7-inch colour touchscreen provided on the mixing surface.

A Channel Ducker shall be provided to reduce the level of selected channels when a designated channel is in use. This channel priority shall be available across all mono and stereo input channels and also channel groups.

An Automatic Mic Mixer shall be provided for automatic level control of up to 16 microphones using a constant gain

## Mixer Specifications

### Inputs

#### Mic/Line Inputs

Input Sensitivity (XLR / TRS)	Balanced, XLR and 1/4" TRS jack, fully recallable
Analogue Gain	-60 to +5dBu / -50 to +15dBu
Maximum Input Level (XLR / TRS)	-5 to +60dB, 1dB steps
Input Impedance (XLR / TRS)	+19dBu / +29dBu
THD+N, Unity gain 0dB	>5k $\Omega$ / >10 k $\Omega$
THD+N, Mid gain +30dB	0.0005% -89 dBu (20-20kHz, Direct Out @0dBu 1kHz)
	0.001% -83dBu (20-20kHz, Direct Out @0dBu 1kHz)

#### Stereo Line Inputs

ST1, ST2 connector	Balanced, 1/4" TRS jack, half normalised
ST3 connector	Unbalanced, stereo 3.5mm Mini Jack
Input Sensitivity (ST1, ST2 / ST3)	Nominal +4dBu / 0dBu
Trim	+/-24dB
Maximum Input Level (ST1,ST2 / ST3)	+22dBu / +18dBu
Input Impedance	>7k $\Omega$

### Outputs

#### Mix1-10 and LR Out

Balanced, XLR

#### Group and Matrix Out

Output Impedance	<75 $\Omega$
Nominal Output	+4dBu = 0dB meter reading
Maximum Output Level	+22dBu
Residual Output Noise	-90 dBu (muted, 20-20kHz)

#### Stereo Alt Out & 2Trk Out

Source (Alt Output / 2Trk Output)	Balanced, 1/4" TRS jack
Output Impedance	Patchable / LR post-fade <75 $\Omega$
Nominal Output	+4dBu = 0dB meter reading
Maximum Output Level	+22dBu
Residual Output Noise	-90 dBu (muted, 20-20kHz)

#### AES Digital Output

2 channel, 48kHz sampling rate, XLR 2.5Vpp balanced terminated 110 $\Omega$

#### dSNAKE

Remote source for CH1-32, ST1, ST2, ST3

#### Inputs

Patchable from Mix1-10, LR, Grp1-8, MTX1-4

#### Outputs

Compatible with AudioRacks AR2412, AR84, AB168  
Compatible with ME personal mixing system

#### System

Dynamic Range	Measured balanced XLR in to XLR out, 0dB gain, 0dBu input 112 dB
Frequency Response	+0/-0.5dB 20Hz to 20kHz
Headroom	+18dB
Internal operating Level	0dBu +18dBu = 0dBFS (+22dBu at XLR output)
dBFS Alignment	0dB meter = -18dBFS (+4dBu at XLR out)
Meter Calibration	-3dBFS (+19dBu at XLR out), multi-point sensing
Meter Peak indication	

### Control

Faders	100mm motorised
Touch Screen	7" TFT, 800x480 resolution
SoftKeys	10
Mute Groups	4
DCA Groups	4
Network	TCP/IP Ethernet for MIDI and iPad app

### Input Processing

#### Source

CH1-32	Local, dSNAKE, or USB
ST1, ST2	Local, dSNAKE, or USB
ST3	Local, dSNAKE, or USB Stereo
USB Global Source	Qu-Drive or USB B Streaming

#### Stereo Linking

Parameters linked	Odd/even input pairs EQ, dynamics, insert, delay, assignments, sends Preamp, polarity, sidechains, fader/mute, pan
Link options	

#### Polarity

Normal/Reverse

#### High Pass Filter

12dB/octave 20Hz – 2kHz

#### Insert

Assign FX1-4 into Input channels

#### Delay

Up to 85ms

#### Gate

Self-key Sidechain

Threshold / Depth

-72dBu to +18dBu / 0 to 60dB

Attack / Hold / Release

50us to 300ms / 10ms to 5s / 10ms to 1s

#### PEQ

4-Band fully parametric, 20-20kHz, +/- 15dB

Band 1

Selectable LF Shelving (Baxandall), Bell  
Bell

Band 2, Band 3

Band 4

Selectable HF Shelving (Baxandall), Bell  
Non-constant Q, variable, 1.5 to 1/9th octave

Bell Width

#### Compressor

Self-key Sidechain

Threshold / Ratio

-46dBu to 18dBu / 1:1 to infinity

Attack / Release

300us – 300ms / 100ms - 2s

Knee

Soft/Hard  
Peak Manual, RMS Manual, SlowOpto, PunchBag

Types

#### Mix Processing Channel Direct Out to USB

Source select (global)

Follow Fader, follow Mute (global options)  
Post-Preamp, Pre-EQ, Post-EQ, Post-Delay

#### Insert

Assign FX into Mix channels

#### Delay

Up to 170ms

Meter Signal indication	-48dBFS (-26dBu at XLR out)	<b>GEQ</b>	Constant 1/3 oct, 28 bands 31Hz-16kHz, +/-12dB Gain
Meter Type	Fast (peak) response		
Sampling Rate	48kHz +/-100PPM	<b>PEQ</b>	4-Band fully parametric, 20-20kHz, +/-15dB
ADC, DAC	24-bit Delta-Sigma	Band 1	Selectable LF Shelving (Baxandall), Bell
Latency	1.2 ms (local XLR in to XLR out)	Band 2, Band 3	Bell
	0.7 ms (local XLR in to AES out)	Band 4	Selectable HF Shelving (Baxandall), Bell
		Bell Width	Non-constant Q, variable, 1.5 to 1/9th octave
Operating Temperature Range	0 deg C to 35 deg C (32 deg F to 95 deg F)	<b>Compressor</b>	Self-key Sidechain
Mains Power	100-240V AC, 50/60Hz	Threshold / Ratio	-46dBu to 18dBu / 1:1 to infinity
Maximum Power Consumption	150W	Attack / Release	300us – 300ms / 100ms - 2s
		Knee	Soft/Hard
		Types	Peak Manual, RMS Manual, SlowOpto, PunchBag
<b>USB Audio</b>			
<b>Qu-Drive</b>	USB A		
Stereo Record	2 channel, WAV, 48kHz, 24-bit, patchable	<b>FX</b>	
Stereo Playback	2 channel, WAV, 44.1 or 48kHz, 16 or 24-bit, to ST3	Internal FX	4x RackFX engine, Send>Return or Inserted
Multitrack Record	18 channel, WAV, 48kHz, 24-bit, patchable		
Multitrack Playback	18 channel, WAV, 48kHz, 24-bit	<b>Audio Tools</b>	
		Types	Reverbs, Delays, Gated Reverb, ADT
<b>USB Audio Streaming</b>	USB B, Core Audio compliant		Chorus, Symphonic Chorus, Phaser, Flanger
Send (upstream)	32 channel, WAV, 48kHz, 24-bit	4 dedicated Stereo FX returns	Fader, Pan, Mute, Routing to Mix/LR, 4-Band PEQ
Return (downstream)	32 channel, WAV, 48kHz, 24-bit		
		<b>PAFL</b>	PFL or stereo in-place AFL, 0 to -24dB
<b>Dimensions &amp; Weights</b>		<b>Talkback</b>	Trim, 85ms Delay
	Width x Depth x Height	<b>Signal Generator</b>	Assignable to any mix, 12dB/oct HPF
Desk mounted	850 x 500 x 186 mm (33.5" x 19.7" x 7.4")	<b>RTA</b>	Assignable to any mix, Sine / White/Pink/Band-pass Noise
Packed in shipping box	1000 x 680 x 350 mm (39.4" x 26.8" x 13.8")		31-Bands 1/3 octave 20-20kHz, follows PAFL source
Unpacked weight	20 kg (44 lbs)		
Packed weight	24 kg (53 lbs)		