

# SQ



# ALLEN & HEATH

# The Sound of Speed



SQ is a next generation digital mixer, powered by Allen & Heath's revolutionary XCVI 96kHz FPGA engine. Created to excel in demanding scenarios such as AV, corporate events, live productions and houses of worship, SQ offers class-leading high-resolution audio fidelity and an ultra-low latency of <math><0.7\text{ms}</math>. The console features exceptional onboard mic preamps, support for zero-latency DEEP plug-ins plus 8 stereo FX engines with dedicated return channels and access to the renowned RackExtra FX library. SQ is a natural choice for in-ear monitor setups, providing 12 stereo mixes (configurable as groups or auxes), whilst Automatic Mic Mixing makes it an excellent choice for conferences, panel talks, broadcast and more.

**Don't get left behind.  
Discover SQ.**

# SQ



Winner - Small Format Console Technology



Winner - Best New Live Sound Product

<b>48</b> INPUT CHANNELS	<b>36</b> BUSSES	<b>12</b> STEREO AUX/GROUP MIXES	<b>8</b> FX ENGINES	<b>3</b> STEREO MATRIX	<b>AES</b> DIGITAL OUT	<b>ME</b> PERSONAL MIXING
<b>SLink</b> REMOTE AUDIO	<b>64x64</b> I/O PORT	<b>32x32</b> USB AUDIO INTERFACE	<b>DAW</b> MIDI CONTROL	<b>SQ-Drive</b> MULTITRACK RECORD/PLAY	<b>CHROMATIC</b> CHANNEL METERING	<b>7"</b> CAPACITIVE TOUCHSCREEN
<b>96</b> kHz	<b>96 bit</b> MIX BUS	<b>&lt;0.7 ms</b> LATENCY	<b>DEEP</b> PROCESSING READY	<b>AMM</b> AUTOMATIC MIC MIXER	<b>SQ 4YOU</b>	<b>SQ MixPad</b>

# The Mixing Experience

We think that you should decide how the mixer operates, not the other way around. That's why we've packed SQ with options that let you design your own workflows. Channels and mixes can be individually dragged and dropped to any strip, with custom naming and colour coding on the displays, so you're in full control of the layout. All models feature assignable SoftKeys and SQ-6 and SQ-7 offer Soft Rotaries with LCD displays, so you get to choose which functions you always have at your fingertips. The 7" capacitive touchscreen and accompanying rotary make navigating and adjusting SQ's parameters fast and natural.

A 'channel to all' mix button instantly accesses all send levels and assignments for the selected channel. Each strip features our patented Chromatic Channel Metering system, giving at-a-glance level indication using variable brightness and colour.



# Flexible Multitrack Recording



The integrated SQ-Drive makes it quick and easy to capture a 96kHz multitrack or stereo recording of the show direct to a USB key or drive.

Also provided is a built-in 32x32 96kHz audio interface for multitrack recording, backing tracks or virtual soundcheck applications. The interface is compatible with both Mac and PC and comes complete with MIDI and DAW control capabilities.

32 channels not enough? Add a Dante or Waves audio networking card for 64x64 channels.

# Powerful Processing

SQ comes equipped with all the processing you need to craft the perfect mix. Every one of the 48 inputs has HPF, a super-fast gate with sidechain and filter, a musical 4-band parametric equaliser, and Peak/RMS compressor for control and shaping of levels and transients. Mixes have both a parametric and 28 band graphic EQ along with compressor as standard, all ready to switch in when required. The XCVI core even allows for every compressor in SQ to have its own parallel path, without phase or coherency worries.

# DEEP Plug-Ins



SQ's DEEP processing architecture allows owners to hand-pick boutique compressor and preamp emulations to suit their style and needs.

DEEP plug-ins can be embedded directly within the mixer's inputs and mix channels, all without adding system latency or setup hassles.

Browse the available DEEP plugins at: [shop.allen-heath.com](http://shop.allen-heath.com).

# RackExtra FX

SQ is armed with 8 stereo FX engines and comes complete with the acclaimed RackExtra library, featuring emulations of legendary classic reverbs, gated reverbs, delays, modulators and more. Every engine has its own dedicated stereo return too, so you don't need to use up any of your 48 input channels.



# Connectivity



## I/O Port

The I/O port accommodates SQ option cards including Dante, Waves, and SLink, enabling applications such as multitrack recording, broadcast feeds and FoH / Monitor splits.

It also future-proofs your SQ mixer against fast-changing AoIP standards.

## USB Interface

A built-in 32x32 interface streams 96kHz multitrack audio to and from the core of the SQ, allowing access to the high quality preamps and processing without adding extra stages of AD/DA conversion. ASIO and Core Audio compliant, and with support for our DAW Control Driver, SQ is able to take on all kinds of recording and playback responsibilities.

## Network

The Ethernet network port enables SQ to send and receive control messages over a network connection. Connect an external router or access point for wired or wireless mixing control via an app, or use MIDI over TCP/IP for automation and system integration.

## SLink

SQ's intelligent SLink port supports multiple protocols allowing you to expand your SQ via our 96kHz and 48kHz remote audio units. It lets you add ME-1 and ME-500 personal mixers directly, or using the ME-U hub. You can even connect directly to another SLink port, a Qu mixer or to a gigaACE option card in a dLive system.

## DX Hub

The DX Hub features four 32x32 channel DX ports for connection of remote DX expanders, and a 128x128 channel gigaACE port for a single connection to the SQ. It is designed to be used remotely like the DX units themselves, and allows you to connect up to eight DX168s. This means you could source your 48 inputs from a selection of up to 128 remote sockets, with just one cable between FoH and stage.



# Remote Audio for SQ

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In addition to their onboard I/O, SQ can be expanded via our family of remote rack and stage box expanders, giving you the flexibility to grow your SQ system and put the I/O right where you need it. Mix up to 48 inputs at once, switch patching instantly and use the tie-line feature to route hundreds of unprocessed signals.

## DX168

96kHz | 16 Mic/Line Ins | 8 Line Outs



## DX164-W

96kHz | 16 Mic/Line Ins | 4 Line Outs



## DT168

96kHz | 16 Mic/Line Ins | 8 Line Outs | Dante



## DT164-W

96kHz | 16 Mic/Line Ins | 4 Line Outs | Dante



## AR2412

48kHz | 24 Mic/Line Ins | 12 Line Outs



## AB168

48kHz | 16 Mic/Line Ins | 8 Line Outs



## AR84

48kHz | 8 Mic/Line Ins | 4 Line Outs



# Application Diagrams

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SQ + AR2412 + AB168 + ME system  
40 remote inputs + 20 remote outputs + ME system



SQ + 2 x DX168  
32 remote inputs + 16 remote outputs



SQ + DX Hub + 8 x DX168  
128 remote inputs + 64 remote outputs



SQ + SQ  
128 channels each way

# Cards

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SQ is the centrepiece of a growing ecosystem of apps, expanders, audio networking, personal mixers and more, allowing you to connect, adapt and expand to your heart's content. It's compatible with leading audio

networking standards too – add an audio networking card such as Dante or Waves to SQ's I/O port and you're ready to integrate with installed systems, provide a digital FoH / Monitor split and more.

## SQ Dante



- 64×64 channel audio and control
- 96kHz or 48kHz operation
- Multichannel recording / playback
- Two ports with redundant and switch modes
- Internal Control Network Bridge
- Locking Ethercon connectors
- Dante Virtual Soundcard ready
- Dante Domain Manager ready
- AES67 compatible

## SQ SLink



- 128×128 channel audio and control
- 96kHz or 48kHz operation
- gigaACE (96kHz), DX (96kHz) and dSnake (48kHz) compatibility
- Intelligent switching between modes
- Independent SRC for use of two different protocols in one system

## SQ Waves



- 64×64 channel audio and control
- 96kHz or 48kHz operation
- Multichannel recording / playback
- Two ports with redundant and switch modes
- Internal Control Network Bridge
- Locking Ethercon connectors
- Integration with a Waves plugin server
- Waves Native Compatible
- SoundGrid Compatible





16 onboard preamps. 17 faders. Rackmountable 19-inch. 8 SoftKeys.

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## All SQ models feature:

- 96kHz XCVI FPGA core
- <0.7ms Latency with all processing enabled
- 48 Input channels
- 12 Stereo mixes + LR
- 3 Stereo Matrix
- Access to DEEP plug-ins
- Automatic Mic Mixing
- 8 Stereo FX engines + dedicated returns
- 7" capacitive touchscreen
- SLink port for remote audio / expansion
- I/O Port for expansion and system compatibility
- 32×32 USB audio interface
- SQ-Drive direct recording to USB
- AES output
- Wireless control
- Chromatic channel metering
- Integrated LED illumination
- Dedicated physical controls
- Channel LCD displays
- 6 Layers of faders

# SQ-6



24 onboard preamps. 25 faders. 16 SoftKeys. 4 Soft Rotaries.

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# SQ-7



32 onboard preamps. 33 faders. 16 SoftKeys. 8 Soft Rotaries.



# SQ



## Accessories

Tablet Shelf - SQ-BRACKETX  
SQ-5 Rack Mounting Kit - SQ-5-RK19X  
SQ-5 Dust Cover - AP11332  
SQ-6 Dust Cover - AP11333  
SQ-7 Dust Cover – AP11334

# **ALLEN & HEATH**

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