Avid VENUE | S6L System

The Avid VENUE | S6L live digital audio mixing system shall be comprised of the following networked components: a digital mixing control surface containing mix position analog inputs and outputs, synchronization and control I/O, and connections for interfacing directly with a Pro Tools system or other recording and distribution systems; a local mix position rack containing host processing, synchronization and control I/O, optional mix position analog and digital inputs and outputs; and up to six remote stage boxes containing analog and digital I/O.

Control Surfaces

S6L-48D

System parameters shall be controllable from the control surface, on-screen from a connected video monitor, or from a remote computer or other mobile device using a wired or wireless Ethernet connection.

The surface shall provide 48 bankable channel strips for control of input channels, FX returns, and output channels. Each channel strip shall have a touch-sensitive fader, a multi-purpose channel display, solo, mute, attention and select controls. Two additional 60 mm faders are provided for user-assignable control of inputs, mains, monitors, or other buses.

A section or sections dedicated to control of all parameters associated with the currently selected channel shall be provided. The operator is given the ability to define a subset of parameters for quick access aiding navigation.

The control surface shall provide 48 user-defined fader layouts that can be customized by the operator.

The control surface (or accompanying I/O unit at the mix position) shall also provide eight XLR analog mic/line inputs with mic preamps, eight XLR analog outputs, two 1/4-inch TRS line outputs, and eight channels of AES/EBU digital IO, along with other I/O including USB, MIDI, GPI, and footswitch connectors.

Dimensions shall be 91 mm/3.6 inches (H front), 388 mm/15.3 inches (H rear), 1934 mm/76.1 inches (W), and 787 mm/31 inches (D). The weight shall be 108 kg/238 lbs.

S6L-32D

System parameters shall be controllable from the control surface, on-screen from a connected video monitor, or from a remote computer or other mobile device using a wired or wireless Ethernet connection.

The surface shall provide 32 bankable channel strips for control of input channels, FX returns, and output channels. Each channel strip shall have a touch-sensitive fader, a multi-purpose channel display, solo, mute, attention and select controls. Two additional 60mm faders are provided for user-assignable control of inputs, mains, monitors, or other buses.

A section or sections dedicated to control of all parameters associated with the currently selected channel shall be provided. The operator is given the ability to define a subset of parameters for quick access aiding navigation.

The control surface shall provide 48 user-defined fader layouts that can be customized by the operator.

The control surface (or accompanying I/O unit at the mix position) shall also provide eight XLR analog mic/line inputs with mic preamps, eight XLR analog outputs, two 1/4-inch TRS line outputs, and eight channels of AES/EBU digital IO, along with other I/O including USB, MIDI, GPI, and footswitch connectors.

Dimensions shall be 91 mm/3.6 inches (H front), 388 mm/15.3 inches (H rear), 1304 mm/51.5 inches (W), and 787 mm/31 inches (D). The weight shall be 70 kg/155 lbs.

S6L-24D

System parameters shall be controllable from the control surface, on-screen from a connected video monitor, or from a remote computer or other mobile device using a wired or wireless Ethernet connection.

The surface shall provide 24 bankable channel strips for control of input channels, FX returns, and output channels. Each channel strip shall have a touch-sensitive fader, a multi-purpose channel display, solo, mute, attention and select controls. Two additional 60mm faders are provided for user-assignable control of inputs, mains, monitors, or other buses.

A section or sections dedicated to control of all parameters associated with the currently selected channel shall be provided. The operator is given the ability to define a subset of parameters for quick access aiding navigation.

The control surface shall provide 48 user-defined fader layouts that can be customized by the operator.

The control surface (or accompanying I/O unit at the mix position) shall also provide eight XLR analog mic/line inputs with mic preamps, eight XLR analog outputs, two 1/4-inch TRS line outputs, and eight channels of AES/EBU digital IO, along with other I/O including USB, MIDI, GPI, and footswitch connectors.

Dimensions shall be 91 mm/3.6 inches (H front), 388 mm/15.3 inches (H rear), 989 mm/36.9 inches (W), and 787 mm/31 inches (D). The weight shall be 54 kg/119 lbs.

S6L-24C

System parameters shall be controllable from the control surface, on-screen from a connected video monitor, or from a remote computer or other mobile device using a wired or wireless Ethernet connection.

The surface shall provide 24 bankable channel strips for control of input channels, FX returns, and output channels. Each channel strip shall have a touch-sensitive fader, a multi-purpose channel display, solo, mute, attention and select controls. Two additional 60mm faders are provided for user-assignable control of inputs, mains, monitors, or other buses.

A section or sections dedicated to control of all parameters associated with the currently selected channel shall be provided. The operator is given the ability to define a subset of parameters for quick access aiding navigation.

The control surface shall provide 48 user-defined fader layouts that can be customized by the operator.

The control surface (or accompanying I/O unit at the mix position) shall also provide eight XLR analog mic/line inputs with mic preamps, eight XLR analog outputs, two 1/4-inch TRS line outputs, and eight channels of AES/EBU digital IO, along with other I/O including USB, MIDI, GPI, footswitch, and light connectors.

Dimensions shall be 91 mm/3.6 inches (H front), 205 mm/8 inches (H rear), 989 mm/36.9 inches (W), and 787 mm/31 inches (D). The weight shall be 38 kg/84 lbs.

S6L-16C

System parameters shall be controllable from the control surface, on-screen from a connected video monitor, or from a remote computer or other mobile device using a wired or wireless Ethernet connection.

The surface shall provide 16 bankable channel strips for control of input channels, FX returns, and output channels. Each channel strip shall have a touch-sensitive fader, a multi-purpose channel display, solo, mute, attention and select controls. Two additional 60mm faders are provided for user-assignable control of inputs, mains, monitors, or other buses.

A section or sections dedicated to control of all parameters associated with the currently selected channel shall be provided. The operator is given the ability to define a subset of parameters for quick access aiding navigation.

The control surface shall provide 48 user-defined fader layouts that can be customized by the operator.

The control surface (or accompanying I/O unit at the mix position) shall also provide one XLR analog mic/line input with mic preamp, two XLR analog outputs, and one 1/4-inch TRS line output, along with other I/O including USB, MIDI, GPI, footswitch, and light connectors. Each optional accompanying Local 16 I/O unit at the mix position (up to a maximum of two units) shall provide eight XLR analog mic/line inputs with mic preamps, eight XLR analog outputs, and eight channels of AES/EBU digital IO.

Dimensions shall be 91 mm/3.6 inches (H front), 205 mm/8 inches (H rear), 671 mm/26.4 inches (W), and 787 mm/31 inches (D). The weight shall be 32 kg/70.5 lbs.

Audio Engines

E6L-192

A separate rack-mountable (5U) engine shall house the main CPU and hard-drive, as well as DSP for mixing and plug-in processing. Other connections such as word clock I/O ports and USB ports shall also be provided.

The engine shall support up to 192 input processing channels and up to 96 + LCR Mix Buses. Up to 4 HDX-192 DSP Cards can be installed for additional plug-in processing.

It shall be possible to add expansion inputs and outputs to the engine in the form of optional MADI-192 MADI Option cards or WSG-HD Waves SoundGrid Option cards (for integration with Waves SoundGrid).

It shall be possible to patch control surface and engine audio I/O (if any) to any system input and output channels. It shall also be possible to insert external hardware onto system input and output channels using control surface and engine audio I/O (if any).

Dimensions shall be 218.7 mm/8.6 inches (H), 483 mm/19 inches (W), and 537 mm/21.2 inches (D)*. The weight shall be 33.5 kg/74 lbs.

**Depth listed is with front Bezel installed. Depth without front Bezel: 497 mm/19.6 inches.*

E6L-144

A separate rack-mountable (5U) engine shall house the main CPU and hard-drive, as well as DSP for mixing and plug-in processing. Other connections such as word clock I/O ports and USB ports shall also be provided.

The engine shall support up to 144 input processing channels and up to 64 + LCR Mix Buses. Up to 2 HDX-192 DSP Cards can be installed for additional plug-in processing.

It shall be possible to add expansion inputs and outputs to the engine in the form of optional MADI-192 MADI Option cards or WSG-HD Waves SoundGrid Option cards (for integration with Waves SoundGrid).

It shall be possible to patch control surface and engine audio I/O (if any) to any system input and output channels. It shall also be possible to insert external hardware onto system input and output channels using control surface and engine audio I/O (if any).

Dimensions shall be 218.7 mm/8.6 inches (H), 483 mm/19 inches (W), and 537 mm/21.2 inches (D)*. The weight shall be 33.5 kg/74 lbs.

**Depth listed is with front Bezel installed. Depth without front Bezel: 497 mm/19.6 inches.*

E6L-112

A separate rack-mountable (5U) engine shall house the main CPU and hard-drive, as well as DSP for mixing and plug-in processing. Other connections such as word clock I/O ports and USB ports shall also be provided.

The engine shall support up to 112 input processing channels and up to 48 + LCR Mix Buses. Up to 2 HDX-192 DSP Cards can be installed for additional plug-in processing.

It shall be possible to add expansion inputs and outputs to the engine in the form of optional MADI-192 MADI Option cards or WSG-HD cards (for integration with Waves SoundGrid).

It shall be possible to patch control surface and engine audio I/O (if any) to any system input and output channels. It shall also be possible to insert external hardware onto system input and output channels using control surface and engine audio I/O (if any).

Dimensions shall be 218.7 mm/8.6 inches (H), 483 mm/19 inches (W), and 537 mm/21.2 inches (D)*. The weight shall be 33.5 kg/74 lbs.

**Depth listed is with front Bezel installed. Depth without front Bezel: 497 mm/19.6 inches.*

Remote Networked Stage I/O

The remote stage boxes shall provide the following amounts of XLR analog mic/line inputs with mic preamps and individually selectable phantom power remotely controlled from the control surface or system software, all freely patchable to system input and output channels. Connections to and from the remote Stage boxes shall be made using Cat 5e (or better) Ethernet cable or fiber-optic cables (when available) for primary and redundant audio snake connections.

Stage 64

48 XLR analog mic/line inputs, 8 XLR analog line-level outputs, 64 MADI output channels (input splits). Expandable up to 64 analog or digital inputs and up to 32 analog or digital outputs. Supports copper or fiber-optic connections. Dimensions shall be 444.5 mm/17.5 inches (H), 483 mm/19 inches (W)*, and 309.8 mm/12.2 inches (D)*. The weight shall be 20.8 kg/46 lbs (empty) / 31.2 kg/69 lbs (full). 10U.

**Width listed is with rack ears installed. Width without rack ears: 430.9 mm/17 inches.*

Stage 32

24 XLR analog mic/line inputs, 8 XLR analog line-level outputs, 32 MADI output channels (input splits). Expandable up to 32 analog or digital inputs or up to 32 analog or digital outputs. Supports copper or fiber-optic connections. Dimensions shall be 221 mm/8.7 inches (H), 483 mm/19 inches (W)*, and 309.8 mm/12.2 inches (D). The weight shall be 22 kg/49 lbs (full). 5U.

**Width listed is with rack ears installed. Width without rack ears: 430.9 mm/17 inches.*

Stage 16

16 XLR analog mic/line inputs, 8 XLR analog line-level outputs, and two stereo AES digital outputs, all freely patchable to system input and output channels. Supports copper connections only. Dimensions shall be 175.2 mm/6.9 inches (H), 483 mm/19 inches (W), and 309.8 mm/12.2 inches (D)*. The weight shall be 9.5 kg/21 lbs. 4U.

**Width listed is with rack ears installed. Width when rack ears are configured as handles: 396 mm/15.6 inches. Depth when rack ears are configured as handles: 249 mm/9.8 inches.*

Local 16

8 XLR analog mic/line inputs, 8 XLR analog line-level outputs, 4 stereo AES digital in inputs and 4 stereo AES digital outputs, all freely patchable to system input and output channels. Supports copper or fiber-optic connections. Dimensions shall be 132 mm/5.2 inches (H), 483 mm/19 inches (W)*, and 278 mm/11 inches (D). The weight shall be 9.5 kg/21 lbs. 3U.

**Width listed is with rack ears installed. Width without rack ears: 430.9 mm/17 inches.*

Power & Noise Specifications

The power connections for all components shall be auto-voltage selecting (100V to 240V nominal, 90–260V maximal, 50–60 Hz).

The control surface, engine, and I/O units shall conform to the NC-20 noise criterion.

The system shall conform to the latest EU RoHS hazardous substances and WEEE directives. The digital mixing system shall be the Avid VENUE | S6L.

Cabling & Connectivity

All connections between components shall be made using either copper or fiber-optic audio network cables. Cable types shall be able to be mixed within a system. For example, it shall be possible to connect the S6L control surface to the local E6L engine using supported copper cables, then connect to a Stage 64, Stage 32, or Stage 16 I/O rack using fiber. However, only one cable type (copper or fiber-optic) can be used per audio network port.

Copper Shielded Cat 5e (350 MHz) or better Ethernet cable with Neutrik etherCON connectors are required, supporting a distance of up to 100 meters per connection.

Fiber-Optic Single-mode fiber (SMF) or multi-mode fiber (MMF) cables are supported to make audio network connections between components, as follows:

SMF Requires single-mode 9/125 OS1 or OS2 cables with duplex LC connectors and two qualified single-mode SFP transceivers per connection, supporting distances of up to 10 kilometers

MMF Requires multi-mode 50/125 OM2 or better cables with duplex LC connectors and two qualified multi-mode SFP transceiver modules per connection, supporting distances of up to 500 meters.

Integrated Plug-In Effects Processing

It shall be possible to install and run Pro Tools-compatible plug-ins (from Avid and from a variety of third-party vendors) directly on the live audio mixing system, without the need for additional interfaces or cabling. It shall be possible to insert these plug-ins on any system input or output channel, control plug-in parameters directly from the control surface and software, and save/store plug-in settings for recall by snapshots and system Show files.

It shall also be possible to install the optional Avid WSG-HD Waves SoundGrid Option Card to connect the system to a compatible Waves SoundGrid server. The live audio mixing system shall provide the capability to insert supported Waves SoundGrid plug-ins on any system input or output channel, control plug-in parameters directly from the control surface and software, and save/store plug-in settings for recall by snapshots and system Show files.

Pro Tools Interfacing

The live audio mixing system shall provide direct connections to a Pro Tools system or other Apple Core Audio-compatible Digital Audio Workstation via a single CAT 5e Ethernet cable. It shall be possible to capture unprocessed input channel mic preamp signals and a selection of user-assignable channels to Pro Tools or other DAWs. It shall also be possible to connect up to two Pro Tools systems for redundant recording.

It shall also be possible to play back audio from Pro Tools or other DAWs, enabling tasks such as virtual sound checks. Route audio signals recorded at a previous performance from Pro Tools directly to the system's stage input channels. Then, during playback, make adjustments to the mix on the control surface. Any changes made—including gain control, snapshot data and plug-in settings—shall carry over when switching back to the system's stage inputs.

The live mixing system and Pro Tools (only) shall be integrated so that metadata such as channel names and automation data can pass between the console and a connected Pro Tools system, facilitating live recording and playback tasks. It shall also be possible to control the Pro Tools transport from the control surface or other control devices.

Automation & Filing

The system shall be able to store and recall a wide range of mixing parameters, including console, plug-in, and tempo settings. It shall also be possible to automate mixing tasks such as complex scene changes with the press of an on-board button, a connected footswitch, GPI input, or other controller movement.

All system settings shall be transferable to removable media such as a USB flash drive for backup and archiving. It shall be possible to transfer these settings to any system running the same system software.

Audio Processing, Mixing and Routing

The system shall provide up to 192 input processing channels. Each input channel shall have a 4-band parametric EQ, high-pass filter, low-pass filter, compressor/limiter, expander/gate, direct output, polarity reverse, and 4 plug-in insert slots. It shall be possible to patch any system hardware input to any input processing channel, and to reorder input channels at will without changing the I/O patch.

The system shall provide up to 96 output busses, three main output busses (configurable as L-R+M or L-C-R), and up to 24 mono stereo-linkable Matrix outputs. Each output bus and matrix output shall have a 7-band parametric EQ, compressor/limiter, direct output, and 4 plug-in insert slots. 32 graphic EQs shall be available to insert on any output bus or matrix mixer. The system shall also provide up to 48 VCAs.

It shall be possible to patch control surface and engine audio I/O (if any) to any system input and output channels. It shall also be possible to insert external hardware onto system input and output channels using control surface and engine audio I/O (if any).