

Mix Rack

Integrated audio I/O and DSP processing

Features

- Durable 11-space steel rack houses local and remote I/O, computer control (Windows XPe platform), and processing cards
- Includes D-Show software, the industry's easiest yet most comprehensive graphical user interface, for system control and show file portability
- 48 high-quality, fully recallable, analog XLR mic/line inputs (max capacity); 16 analog XLR line outputs (expandable to 32)
- Supports up to three DSP Mix Engine Cards (comes standard with two), allowing up to 48 input and 16 stereo effects return channels (80 processing channels) to be mixed using D-Show or D-Show Profile, with ample headroom for TDM plug-in processing
- 8 analog TRS line inputs and 8 outputs
- Dedicated analog and digital 2-track connections, 1x1 MIDI I/O, Word Clock I/O, intercom and talkback facilities, and outputs for near-field speaker monitoring
- Includes ECx Ethernet Option interface for remote control of the system via a wired or wireless laptop or computer
- Supports optional cards for A-Net® connectivity, expanded analog or AES digital output, Pro Tools integration, and more
- Includes the VENUEPack 3.0 plug-in bundle, which offers some of the most coveted processing in the industry

Digidesign® VENUE is a state-of-the-art live sound production environment comprised of high-quality components that work together as one system to deliver studio-grade sound and processing, powerful performance, unprecedented reliability, and complete ease of use, with maximum flexibility. Mix Rack is the key component to the most affordable VENUE system. As an alternative to employing a local FOH Rack and remote Stage Rack in a system, the 11-space Mix Rack combines all stage and local I/O, computer control, and processing power into a single compact enclosure. It's compatible with D-Show® and D-Show Profile™ control surfaces, offers expandable DSP for optimal TDM plug-in processing, employs D-Show® control software, and enables full Pro Tools® integration with either the HDx or FWx interface option card.

Compact Design

Designed with small- to mid-sized venues, houses of worship, regional sound reinforcement companies, and corporate A/V events in mind, Mix Rack provides the hallmarks of a VENUE system—high-quality sound and unparalleled flexibility—in a compact footprint. For larger touring operations, Mix Rack complements your existing VENUE inventory, allowing you to scale a system for any size event. Since it fulfills the functionality of the usual two-component I/O and processing system, Mix Rack fits nicely into venues where stage real estate is at a premium. It can also easily replace an analog console; simply drop Mix Rack right into the existing analog snake system.

Integrated I/O, Computer, and DSP Processing

Mix Rack offers integrated and expandable I/O, computer control, and DSP processing in one rack (an analog snake is required to interface with Mix Rack). It features an embedded Windows XPe computer platform running D-Show software as the central point of control for the entire VENUE system. Mix Rack comes standard with two DSP Mix Engine Cards (expandable to three for additional TDM plug-in processing), 48 mic/line inputs, and 16 outputs (expandable to 32). It also includes a host of local I/O, including MIDI I/O, ancillary I/O, and a COM input that can handle either microphone or intercom inputs, at no expense to mic/line input or output counts.

One Software Platform—Total File Portability

All VENUE components operate under one common software platform—D-Show software, the industry's easiest yet most comprehensive control software. D-Show software sets new standards in operational efficiency and workflow, giving you instant access to and full control over any function of the system. Just a simple button push on the control surface or click from the screen gives you access to inputs, outputs, show files, snapshots, patchbays, plug-ins, and more. And because all VENUE systems share this same software platform, you can create and load show files for use on any VENUE control surface; no need to learn new software or build new show files if you switch VENUE control surfaces or re-scale your system.

For more information, visit your local VENUE dealer or www.digidesign.com/venue.



Mix Rack

Mix Rack Options

Mix Rack has a number of options available to meet your interface and processing needs.

DSP Mix Engine Card—This 9-chip DSP card provides additional processing power to Mix Rack. The Mix Rack base configuration comes with two DSP Mix Engine Cards, but you can install up to three cards for increased mixer and plug-in processing.

FWx Option Card—Provides direct Pro Tools LE® integration for up to 18 channels of high-quality 24-bit/48 kHz recording and playback—no Pro Tools LE hardware required. The card connects your VENUE system, via FireWire, to a compatible Windows- or Mac®-based computer running Pro Tools LE software.

HDx Option Card—Provides direct Pro Tools|HD® integration for up to 64 channels of 24-bit/48 kHz recording and playback—no Pro Tools|HD audio interface required. The card connects your VENUE system, via DigiLink™, to a compatible Windows- or Mac-based computer housing Pro Tools|HD Core and/or Accel cards and Pro Tools HD software.

A116 Analog Input Card—Provides 16 channels of software-controlled, fully recallable analog mic/line inputs via 16 balanced XLR connections, with 48V of phantom power per input. Mix Rack comes standard with the full complement of three A116 cards for a total of 48 analog mic/line input channels.

AO16 Analog Output Card—Provides 16 channels of analog line-level output via balanced XLR connectors. Mix Rack comes with one AO16 card in the base configuration; you can install up to two output cards of the same type—or mix and match—for a total of 32 output channels.

XO16 Analog/Digital Output Card—Provides eight channels of digital output as AES/EBU pairs via four XLR connections, plus eight channels of analog line-level output via eight balanced XLR connections. You can install up to two output cards of the same type—or mix and match—for a total of 32 output channels.

AT16 A-Net Output Card—Provides 16 discrete audio channel streams for A-Net integration, enabling personal monitoring via Aviom® networks and Pro16™ Series mixers. The card transmits up to 16 channels of 24-bit/48 kHz audio to an unlimited number of Pro16 Series devices, providing you with integrated software control of all A-Net parameters.

Mix Rack Specifications

Dimensions (H x W x D)	19.25 x 19 x 18 inches (489 x 482 x 457 mm)
Rack Spaces	11U
Weight	100 lbs (45.4 kg)
Power Requirements	AC 100–240V, 50–60 Hz, 360 W

Mix Rack I/O

Mic Preamps	48 recallable mic preamps
Audio Outputs	16 outputs, expandable to 32 via analog, digital, or A-Net options
Ancillary I/O	<ul style="list-style-type: none"> • 8 TRS line inputs and outputs • Analog and digital 2-track inputs and outputs • Local monitor outputs • Com/Aux input (XLR/TRS) • MIDI input and output • Word Clock input and output
Pro Tools Interface	Optional HDx card for Pro Tools HD (64 tracks) or FWx card for Pro Tools LE (18 tracks) recording/playback
Remote Control	ECx Ethernet port

Mix Rack Processing

Audio Processing Channels	48 input channels, 16 stereo effects returns (80 channels total)
Internal Processing	Up to 48-bit, fixed point, 288 dB internal dynamic range
Internal Sample Rate	48 kHz
External Sample Rate	48 kHz +/-10 ppm (Word Clock input)
Processing Delay	Less than 2.3 ms (48 channels, stage input through L-R bus to stage output)

Mix Rack Audio Performance

THD+N	0.003% minimum gain, -1 dBFS output, 20 Hz - 20 kHz
Frequency Response	+/-0.2 dB 20 Hz - 20 kHz, relative to 1 kHz
Dynamic Range	110 dB analog in to analog out, +24 dBu, A-weighted, 20 Hz - 20 kHz
Crosstalk	-100 dB adjacent inputs to L-R bus @ 1 kHz
Equivalent Input Noise (EIN)	-126 dBu maximum gain, 150 Ohm source, 20 Hz - 20 kHz, unweighted
Residual Output Noise	-90 dBu, 20 Hz - 20 kHz



Mix Rack front panel



Mix Rack back panel

