PreSonus®
STUDIOLIVE 24R

26-input, 32-channel Series III stage box and rack mixer

Key Features

- Powered by the new single-core PreSonus FLEX DSP Engine to provide the most processing of any digital mixer in its class
- 40 input-channel digital rack mixer
- 22 mix buses including 6 individually configurable FlexMixes (aux, matrix, or subgroup options)
- 286 simultaneous processors with State Space-Modeled Fat Channel compressor and EQ plug-ins available on every input channel and output bus
- FLEX FX multi-effects processor with 4 slots to load legendary reverb emulations and delays with 4 dedicated effects buses

Applications

- Installed Sound
- Mobile Applications
- Corporate
- Personal Monitoring
- Studio

The digital mixer that defines versatility.

The StudioLive 24R digital mixer is four audio tools in two compact rack spaces. Use it as a standalone digital mixer with UC Surface remote mixing software. Pair it with your StudioLive Series III console mixer to use as a stage box or integrated monitor mixer. Connect it with EarMix 16M monitor mixers for the ultimate personal monitor system. Get professional recording results every time with the continuously bidirectional, 128-channel (64x64) USB audio interface featuring state-space modeled vintage dynamics and EQ plug-ins on every input and bus. Whether used standalone or as part of a complete audio system, no other rackmount digital mixer is as flexible or as powerful.

Inside the StudioLive 24R, the dual-core PreSonus FLEX DSP Engine powers 40 mixing channels, 22 mix buses, and 286 simultaneous processors – including 4 stereo reverberation systems and Fat Channel plug-in models on every input channel and mix bus. Equipped with 24 remotely controlled XMAX mic preamps onboard, simply add an NSB 8.8 stage box and you've got an analog input and output for every channel and bus to create a true 32-channel digital mixer that can comfortably fit in any size rig. Simply connect it to a standard wireless router and control every mix parameter from an iPad®, Android™ tablet, or Windows® Touch computer using UC Surface. UC Surface was designed to make mixing on a touch screen as intuitive as mixing on a control surface, but with the benefit of allowing you to mix front-of-house from anywhere in the venue.

An integrated monitor mixer.

For professional venues and touring acts in need of a dedicated monitor mixer, StudioLive Series III rack mixers provide a dedicated monitor mixer mode when used as a part of a larger StudioLive AVB network. When connected to a StudioLive Series III console mixer,

the StudioLive 24R provides remote inputs and main outputs while simultaneously retaining full control over its FlexMixes so that you can create up to sixteen mono monitor mixes complete with independent gate, compression, EQ, and effects on every channel and bus.

The perfect personal monitoring system.

When combined with up to 16 EarMix 16M personal monitor mixers, the StudioLive 32R is the most powerful personal monitoring hub available. With 16 FlexMix buses that can be configured as aux mixes, subgroups, or matrix mixes, the StudioLive 24R makes it easy to create simplified mixes for some EarMix 16M mixers, while give others on the same network access to all 16 channels. Four dedicated effects buses let you add reverb and delay and let the musicians control the blend from stage. No other personal monitoring system offers so much powerful processing with flexible, easy-to-use routing features.

The digital stage box.

As a digital stage box for StudioLive Series III console mixers, the StudioLive 24R provides 24 remote digitally controlled XMAX preamps that can be gain-staged right from your StudioLive Series III console's Fat Channel. The outputs of the StudioLive 24R automatically mirror the mixes available on your console mixer, making routing fast and easy. Best of all, when you need a rackmount mixer for a small mobile gig, or remote corporate application, simply disable Stage Box mode, and you have a full-featured 32-channel digital mixer that fits into two rackspaces.

A complete networked solution.
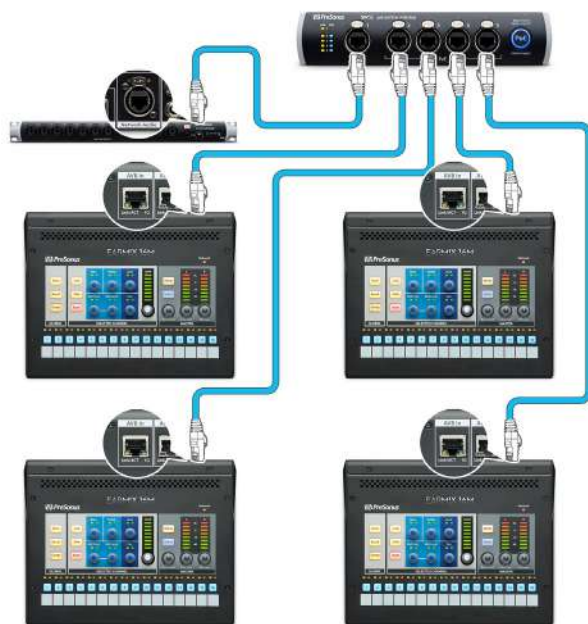
The StudioLive Series III ecosystem of networked products are at the forefront of AVB networking technology. Designed to complement each other, the ecosystem is easily expanded and quickly configured. The StudioLive 24R combines the powerful processing for which StudioLive Series III mixers are known with flexible modes to pair perfectly with console mixers and EarMix 16M personal monitoring mixers. Whether used standalone as a digital mixer and audio interface, or utilized with other StudioLive Series III ecosystem products, the StudioLive 24R combines flexibility with DSP power to become the ultimate compact audio solution.

Optional Accessories (Sold Separately)

The following optional accessories are available:

NSB-series stage boxes. The NSB 8.8 and NSB 16.8 offers 8 or 16 locking combo mic/line inputs with remote-controlled XMAX preamps that include gain compensation for shared input scenarios. Eight outputs employ locking XLR jacks. A built-in 2-port AVB switch lets you daisy-chain multiple units.

EarMix 16M Personal Monitor Mixer. The PreSonus EarMix 16M personal monitor mixer provides 16 input channels over AVB each with 3-band EQ and limiter. Power-over-Ethernet (PoE) allows for easy deployment.

SW5e AVB Switch. PreSonus' SW5E AVB switch supplies five AVB ports with secure locking XLR Ethernet jacks. Four PoE ports provide power for EarMix 16M personal monitor mixer and other PoE devices. Network Link/ Activity indicators help you ensure that network data is flowing properly.

Technical Specifications

MICROPHONE PREAMPLIFIER	
Type	24 XLR Female, balanced (Combo connectors)
Frequency Response to Main Output (at unity gain)	20-20 kHz, ±0.5 dBu
Input Impedance	1 kΩ
THD to Main Output	<0.005%, +4 dBu, 20-20 kHz, unity gain, unwtd
S/N Ratio to Main Output (Ref = +4 dB, 20 kHz BW, unity gain, A-wtd)	94 dB
Common Mode Rejection Ratio (1 kHz at unity gain)	65 dB
Gain Control Range (±1 dB)	0 dB to +60 dB
Maximum Input Level (unity gain)	+12 dBu
Phantom Power (±2 VDC)	48 VDC, switchable per channel

LINE INPUTS	
Type	24 ¼" TRS Female, balanced (Combo connectors), 2 RCA female (unbalanced)
Frequency Response to Main Output (at unity gain)	20-20 kHz, ±0.5 dBu

Input Impedance	10 kΩ
THD to Main Output	<0.005%, +4 dBu, 20-20 kHz, unity gain, unwtd
S/N Ratio to Main Output (Ref = +4 dB, 20 kHz BW, unity gain, A-wtd)	94 dB
Maximum Input Level	+18 dBu

FLEXMIX OUTPUTS	
Type	12 ¼" TRS, balanced
Maximum Output Level	+24 dBu, ±0.5 dBu
Output Impedance	100Ω

MAIN OUTPUTS	
Type	2 XLR Male, balanced (Stereo Left/Right)
Maximum Output Level	Q+24 dBu, ±0.5 dBu
Output Impedance	100Ω

HEADPHONE OUTPUT	
Type	¼" TRS Female, active stereo
Maximum Output	100 mW/ch. @ 60Ω load
Frequency Response	20 Hz – 20 kHz (± 0.5 dB)
THD+N	0.01%, 1 kHz, max gain, 20 Hz BW, unwtd
S/N Ratio	96 dB, 1 kHz, max gain, 20 Hz BW, unwtd

SYSTEM CROSSTALK	
Input to Output	-90 dB (Ref = +4 dBu, 20 Hz-20 kHz, unwtd)
Adjacent Channels	-87 dB (Ref = +4 dBu, 20 Hz-20 kHz, unwtd)

DIGITAL AUDIO AND CONTROL	
ADC Dynamic Range	115 dB (A-wtd, 48 kHz)
DAC Dynamic Range	115 dB (A-wtd, 48 kHz)
USB Recording Port	USB 2.0, Type-B
Bluetooth™ Input	4.1, stereo
AES/EBU Output	XLR Male
Network Control Port	RJ-45
AVB Audio Network Port	Locking XLR Ethernet
Internal Processing	32-bit, floating point
DSP Engine	Quad-core FLEX DSP
Sampling Rate	44.1 and 48 kHz
A/D/A Bit Depth	24
Reference Level for 0 dBFS	+18 dBu
Total System Latency	1.9 ms (local routing, analog in-analog out, all processing active)
Jitter	<20 ps RMS (20 Hz - 20 kHz)
Jitter Attenuation	>60 dB (1 ns in, 1 ps out)

POWER / ENVIRONMENTAL	
Connector	IEC
Input-Voltage Range	90 to 230 VAC (±10%)
Power Requirements (continuous)	85W
Recommended Ambient Operating Temperature	0˚ to 40˚ Celsius / 32˚ to 104˚ Fahrenheit

PHYSICAL	
Height	3.5" (90 mm)
Width	19" (483 mm)
Depth	12" (305 mm)
Weight	10.8 lbs. (4.9 kg)