

SHURE[®]
LEGENDARY
PERFORMANCE™

SCM820 Digital IntelliMix[®] Automatic Mixer

SEAMLESS MIXING. ADVANCED CONTROL.



SCM820

Digital IntelliMix® Automatic Mixer

The SCM820 is the flagship Shure digital automatic mixer for seamless, natural-sounding speech in multiple microphone applications. This innovative 8-channel microphone mixer provides advanced new IntelliMix mixing capabilities along with convenient Ethernet connectivity and versatile configuration options.



IntelliMix® Technology

Preset, manual & custom modes



Digital Feedback Reduction

Two channels of patented Shure DFR



Dual Mixer Operation

One or two independent mixes



Dante™ Digital Audio

Multichannel audio over Ethernet



Remote Control

Convenient browser-based software

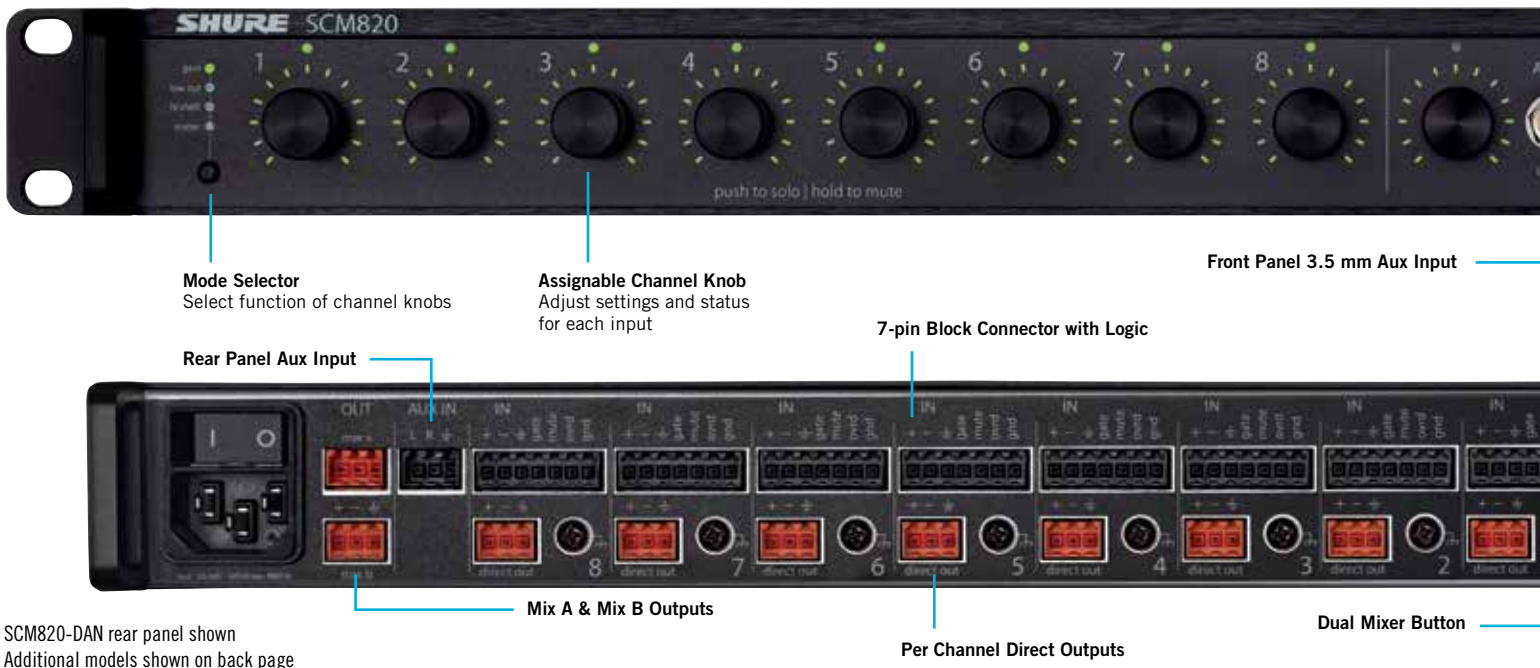


Model Variations

Multiple I/O configurations



More Control. Greater Capacity. One Box.



SCM820-DAN rear panel shown
Additional models shown on back page

Smart, Simple Controls

With an intuitive hardware interface and informative LED metering, the SCM820 packs an extensive range of control and visibility into a single streamlined rack unit.

Channel Control Knobs

Make quick adjustments to gain, low cut and high shelf EQ, and solo/mute functions.

LED Meter Rings

Channel and master meter rings vibrantly display input audio or IntelliMix gain levels.

Dual Mixer Mode

Route two entirely different and independent automixes to mix A and B outputs.

Output Mix Control

Front-panel master gain and limiter control section with output signal meter strip.

Hardware/Software Control

Adjust settings directly on the front and back panels or through the browser-based control software.

Analog & Digital Connections

The SCM820 provides enhanced I/O support to engineers—in both application flexibility and digital connectivity—to make setting up, configuring and managing systems easier and more efficient.

DB25 or Logic-enabled Block Connector Models

Eight channel inputs on the back panel connect to mic or line level audio sources.

Direct Outputs

Per-channel direct outputs allow the SCM820 to be used as an insert processor or for recording.

Dante™ Digital Audio Networking

Dante-equipped models provide multichannel digital audio I/O over Ethernet and enable linking to additional SCM820 units.

Mix A and B Outputs

Connect line or mic level mix outputs to a sound reinforcement system, mixing console or recording device.

Aux Inputs

Route a mono signal straight to the mix outputs from front and back panel auxiliary inputs, bypassing the IntelliMix bus.

¼" (6.5 mm) Stereo Headphone Output

For channel and mix monitoring.

IntelliMix® Technology

Proprietary Automixing Functionality

Noise Adaptive Threshold (NAT)

Continually adjusts the gate threshold for opening a channel.

Number of Open Microphones Attenuation (NOMA)

Determines the ideal gain attenuation for a mix output as additional channels are opened.

Last Mic Lock-On (LMLO)

Keeps the most recently activated microphone open until another microphone is activated.

MaxBus

Ensures that only one channel is opened per sound source, reducing comb filtering for clear, intelligible speech.

IntelliMix® Modes

Tailored Automix Style Presets

Classic

Ideal for noisy environments, such as live sound reinforcement, classic mode uses fast-acting, seamless channel gating and consistent perceived ambient sound levels.

Smooth

Ideal for quiet environments, such as broadcast or recording applications, smooth mode dynamically balances system gain between open and closed channels.

Extreme

A more aggressive form of classic mode, extreme mode is configured to achieve maximum gain before feedback by completely attenuating closed channels.

Manual

Deactivates IntelliMix to allow the SCM820 to operate as a standard mixer.

Custom

Allows customized IntelliMix settings to be saved to a computer and quickly loaded onto the device.

Mix Select Button
Select mix A or B



Audio Output Meters and Limiter LEDs

IntelliMix Mode
Toggle between mixer modes

Dante™ Network Interface Ports



Channel Select
Adjust input level and phantom power

Lockout and Reset

Networked Solutions

Networking options available with the SCM820 enable advanced control and signal routing. Link multiple units together on a network, then control their settings and signal path remotely from a PC or Mac.

Standard Ethernet or Dante Digital Audio

Choose the best networking option for the application.

Dante Upgrade Card

Upgrade standard Ethernet models to add Dante digital audio.



Dante Virtual Soundcard

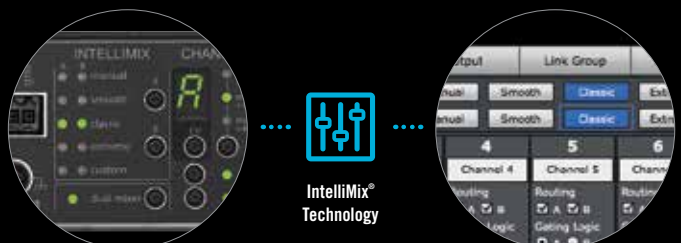
License included with Dante-equipped models and upgrade card allows a computer to connect to a Dante network for use with playback, recording, and internet calling software.

Linking Mixers

Dante-equipped SCM820 mixers can be linked to form large automixes of up to 12 units (96 channels of audio).

Control System Compatible

Connects to AMX and Crestron controllers.



Software and hardware-based control of key system settings

SCM820 Control Software

Remote Set-up and Control

SCM820 Control Software provides convenient management, monitoring, and configuration support for all key system settings. It features a rich, browser-based graphical user interface and is accessible from any networked computer.

Control tabs

Inputs

Manage parameters and monitor audio levels for each input channel

IntelliMix

Configure IntelliMix modes and route channels to mix outputs

DFR (Digital Feedback Reduction)

Adds two channels of adaptive EQ filtering to find and attenuate feedback frequencies

Outputs

Manage parameters and monitor audio levels for each direct output channel and mix outputs

Link Group

Create and manage larger automixes through linking multiple devices

Preferences

Manage global device settings

DFR (Digital Feedback Reduction)

Enhancing the expansive feature set already available through the SCM820 control software, DFR (Digital Feedback Reduction) adds two channels of adaptive EQ filtering to find and attenuate feedback frequencies, noticeably improving gain before feedback in live sound reinforcement systems.

- Two channels of patented Shure Digital Feedback Reduction
- Assignable to input channels and mix outputs
- Automatic feedback detection and filter deployment
- Up to 16 filters per channel
- 25 Hz to 20 KHz bandwidth
- Up to 18 dB gain reduction per filter
- Selectable low/high Q filter width (1/40th or 1/70th octave)



Input Tab



Output Tab

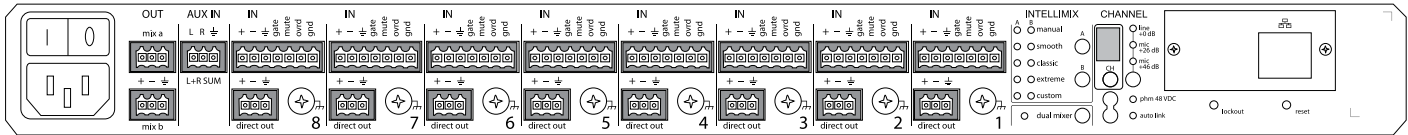


IntelliMix Modes

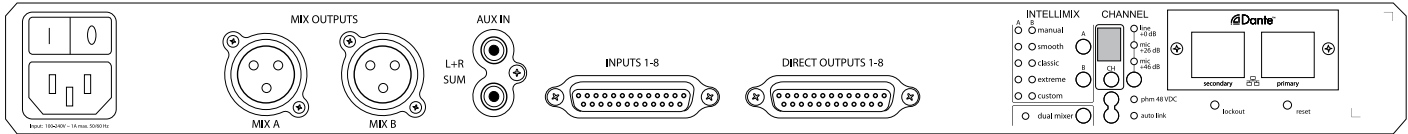


Digital Feedback Reduction

Selected Specifications



SCM820 rear panel



SCM820-DAN-DB25 rear panel

General

Audio Frequency Response	20 Hz to 20 kHz (± 1 dB)
Dynamic Range	Analog-to-Analog: 110 dB
20 Hz to 20 kHz, A-weighted, typical	Analog-to-Dante, Dante-to-Analog: 113 dB
Dimensions	44 mm x 483 mm x 289 mm (1.7 in. x 19.0 in. x 11.4 in.), H x W x D
Weight	5.5 kg (12.0 lbs)
Power Requirements	100 to 240 V AC, 50-60 Hz, 1 A
Operating Temperature Range	-18°C (0°F) to 63°C (145°F)

Analog Connections

Configuration	Channel input, Mix output: Active balanced Aux input: stereo, unbalanced Direct output: Impedance balanced
Clipping level	Channel Inputs: Line (+0): +20 dBV, Mic (+26): -6 dBV, Mic (+46): -26 dBV Aux Input: +10 dBV
Phantom Power	48 V DC, selectable per channel, 14 mA max.
Max Output Level	Line (+0): +20 dBV, Line (-20): 0 dBV, Mic (-46): -26 dBV

Digital Signal Processing

AD/DA Converter	24-bit, 48 kHz, 113 dB dynamic range typical
Latency	Analog to Analog: 0.51 ms Analog to Dante: 0.29 ms
Gain Adjustment Range	Channel Input, Mix Output: -110 dB to +18 dB
Input Processing	Low cut, high shelf
Output Processing	8-band PEQ, limiter
Networking Interface	SCM820: Single Port, 10/100 Mbps Ethernet SCM820-DAN: Dual Port, Gigabit Ethernet, Dante Digital Audio

Available SKUS

SCM820	8 Channel Digital Automatic Mixer, block connectors
SCM820-DAN	8 Channel Digital Automatic Mixer, block connectors, Dante Digital Audio
SCM820-DB25	8 Channel Digital Automatic Mixer, DB25 connectors
SCM820-DAN-DB25	8 Channel Digital Automatic Mixer, DB25 connectors, Dante Digital Audio
A820-NIC-DANTE	Dante Digital Audio Upgrade Card for SCM820 Standard Ethernet Versions
DB25 Accessory Cables	DB25 to 8 XLR Male, DB25 to 8 XLR Female, DB25(x2) to 8 TRS

Dante is a trademark of Audinate Pty Ltd.

Note: All specifications subject to change.

SHURE[®]
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**United States, Canada,
Latin America, Caribbean:**
Shure Incorporated
5800 West Touhy Avenue
Niles, IL 60714-4608 USA

Phone: 847-600-2000
Fax: 847-600-1212 (USA)
Fax: 847-600-6446
Email: info@shure.com

Europe, Middle East, Africa:
Shure Europe GmbH
Jakob-Dieffenbacher-Str. 12,
75031 Eppingen, Germany

Phone: 49-7262-92490
Fax: 49-7262-9249114
Email: info@shure.de

Asia, Pacific:
Shure Asia Limited
22/F, 625 King's Road
North Point, Island East
Hong Kong

Phone: 852-2893-4290
Fax: 852-2893-4055
Email: info@shure.com.hk