Audio**AA**Authority®

Sona*Flex*™
S E R I E S

SF-16M
Digital Matrix Amplifier

More Musicality...Less Complexity

BARS & CLUBS   **RESTAURANTS**   **MEETING ROOMS**   **HOMES**

Warmth and musicality make SonaFlex the best choice when ordinary sound systems just won't do. Its streamlined installation process and rock-solid performance make it ideal to integrate with a third party automation system, or to use as a stand-alone audio system in homes, restaurants, clubs, and conference centers.

FEATURES:

- Audio matrix switching, signal processing and amplification in one system
- Easy setup using front panel controls, Windows® or Mac OSX Setup Utility
- Compatible with virtually any control system using Ethernet, serial, or IR commands
- Class-D amplification provides 50 watts per channel, all channels driven at 8 Ohms
- 16 analog RCA inputs combined with two Cat 5 "FlexPort" inputs = 20 mono/10 stereo inputs
- Optional Cat 5 FlexPort transmitters microphones, mixers, personal audio players, and digital sources
- 16 amplified outputs can be configured as mono, stereo, or a combination of stereo and mono
- Four SF-16M amps may be linked to function as a 64 output audio matrix, all sharing the 16 input channels
- DSP filters include hi- and low-shelf (Bass/Treble), hi- and low-pass, and parametric EQ, per output
- Output groups, sound scene presets, and audio overrides provide custom functionality
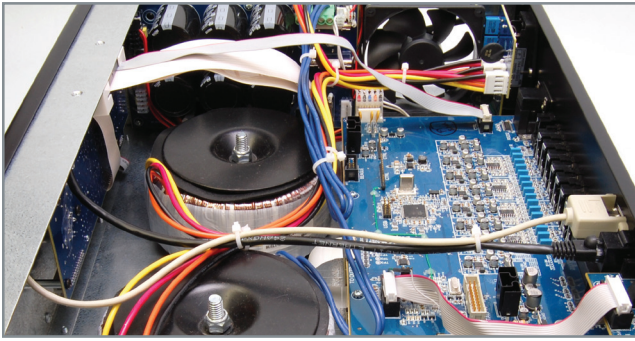
Flexible Input Options

Any SonaFlex input can be mono or stereo, and with FlexPort™ audio transmitter wallplates, you can remotely connect sources like microphones, digital audio players, and mixers to the SF-16M, via Cat 5.

Up to four FlexPort audio transmitters can be connected to each SF-16M. FlexPort modules sport an illuminated button that may be used to trigger a local source to play on selected SF-16M speaker outputs.
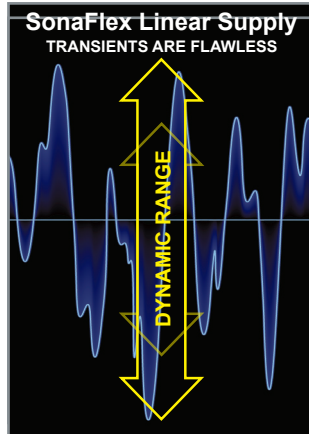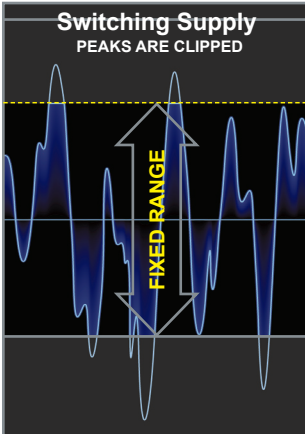
Scalable Outputs

Each SF-16M can have a mixture of both mono and stereo speaker outputs. Mono inputs are digitally split for stereo outputs and stereo inputs are digitally summed for each mono output. Up to four SF-16M units can be linked together to form a powerful 64 output system, with shared source signals and shared FlexPort signals.

Pure, Stable, and Reliable Power

Using Class-D digital amplification, the SF-16M produces a conservatively rated 50 watts per channel, all channels driven, at 8 Ohms; stable at 4 Ohms. The SF-16M is so rock-solid that even if the output leads are shorted during installation, it safely shuts off the amplifier stage until the short is corrected, and then comes back on without a power cycle!
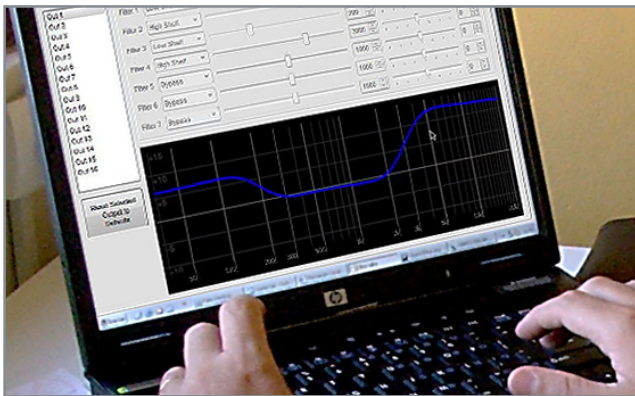
Floating Voltage Rail Extends Dynamic Range

Quite possibly the most impressive benefit of the SF-16M is its dynamic audio quality. Competing Class-D products that use switching power supplies, can't manage large transient peaks. A switching supply has a fixed voltage rail, so it clips transients, resulting in audible distortion. The SF-16M hybrid linear supply has the headroom to respond to musical dynamics, because its analog design allows its voltage rail to float, so it can respond to quick transient peaks in the music with extra power. The result is vibrant, accurate sound reproduction that your clients will enjoy and value.

Quality Front-End Components

The SF-16M features 24-Bit, 96-kHz Burr-Brown A/D conversion with 64-times oversampling, resulting in natural, accurate sound reproduction of the input source material.

Signal Processing Tools

The SF-16M provides a rich palette of Digital Signal Processing (DSP) tools that allow the installer to custom-tune every output for a specific sonic environment. For basic installations, use the bass, treble, balance, and loudness controls. For more advanced applications, use filters like hi-pass and low-pass or up to seven bands of parametric equalization per output. You can also combine other filters with parametric EQ to create precision settings for each output.

Multi-Channel Quick Connect

The SF-16M's DB-25 input allows quick connections when linking multiple amplifiers together, or for use with Audio Authority HLX and ADX audio matrix switchers. The built-in FlexPort audio inputs can still be used in pass-thru mode to override any on-board RCA audio input, enabling features such as local source selection, paging override, doorbell override, and room combining.

Using Front Panel Controls

Easy Front Panel Setup

The SF-16M front panel display provides access to the most common settings required in a basic install. We've made it easy to operate stand alone installations from the front panel menu without third party control systems using multi-output Zones.

Open Control Architecture

The SF-16M is compatible with virtually any control system using RS-232, Ethernet or IR commands. All the commands and IR codes are available on our website. Free drivers are available for download from www.audioauthority.com/sonaflex.

Easy Wiring

Install speakers while the amp is playing! Don't worry, if there is a short, the amp shuts that channel down until the short is cleared. You can install up to two 8 Ohm speakers in parallel on each of the 16 speaker outputs. Source inputs may be mono or stereo, including FlexPort inputs. FlexPorts are wired using standard Cat 5/6/7 cable with RJ-45 plugs.

OVERRIDE TERMINALS

Two contact closures are available to trigger overrides.

SYSTEM TRIGGER

Terminals for a power-saving device to turn power on and off.

ETHERNET CONTROL

Robust IP connection for third-party control systems includes rock-solid firmware and sturdy jack hardware.

IR CONTROL

Use front panel or rear panel IR control. Either one may be disabled using the Setup Utility.

USB FOR UPDATES

Update firmware or load a system setup file via USB flash drive.

RS-232 SERIAL

Serial control systems are compatible via RS-232 commands.

FlexPort TRANSMITTERS

Four different models offer compatability with a variety of source devices.

SOURCE INPUTS

Connect RCAs, or if you are using multiple SF-16M amps together, use the DB-25 cable.

SPEAKER TERMINALS

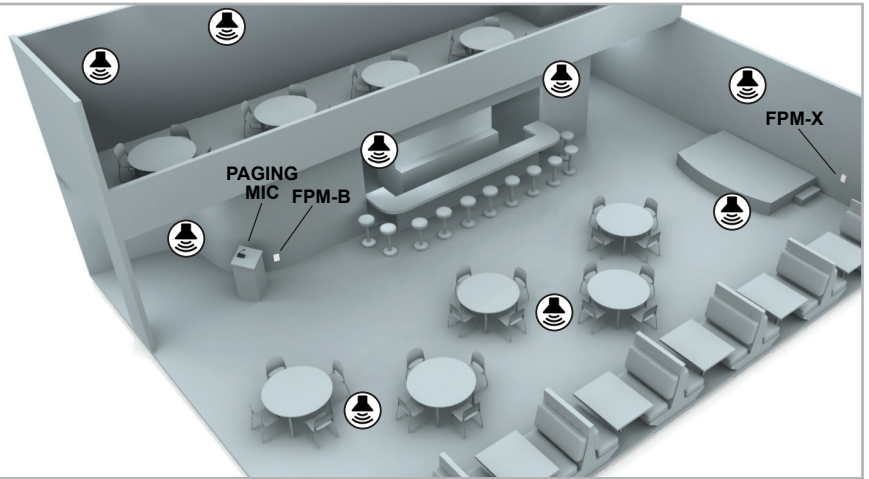Short-protected terminals allow installation while the amp is playing.

TECH TIPS

Got a question? Scan the QR code to download the technical documents, drivers, or software you need.
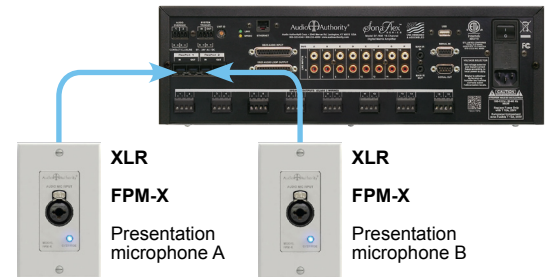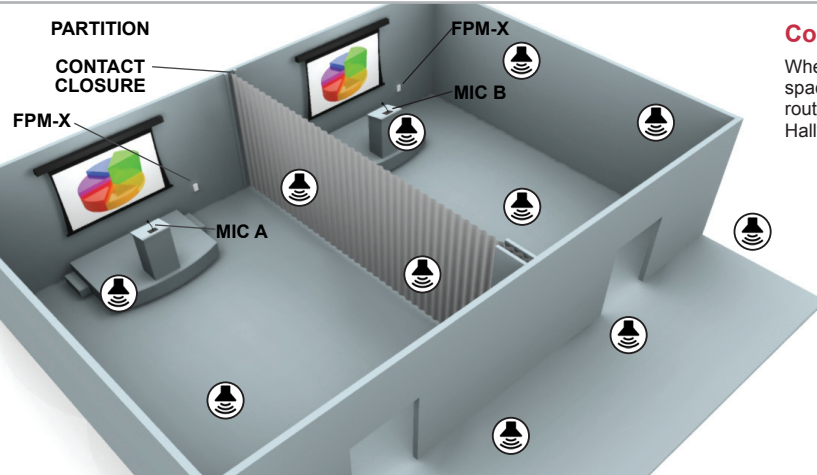
Restaurant Application

The FPM-X provides a connection for a mixer at the stage. When activated, it overrides the background music source everywhere except the rest rooms and waiting area. The hostess paging mic utilizes the FPM-B trigger to remotely override audio in all areas.

BALANCED AUDIO

FPM-B

Hostess microphone

XLR COMBO

FPM-X

Stage mixer

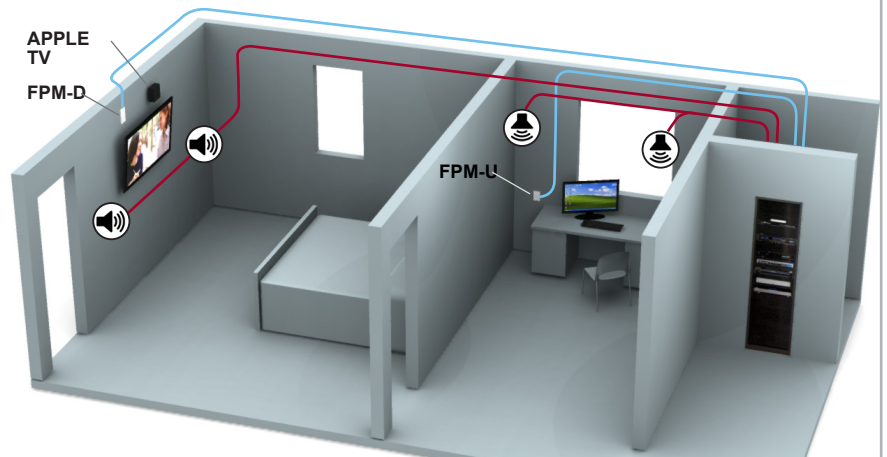**PAGING MIC** **FPM-B**

FPM-X

Conference Center Application

When the partition is open, Mic A is heard in the combined conference space. An override, triggered by the partition contact closure, automatically routes the appropriate microphone audio to speakers in each room. Hallways and other areas continue to hear the background music source.

PARTITION

CONTACT CLOSURE

FPM-X

FPM-X

MIC B

MIC A

XLR

FPM-X

Presentation microphone A

XLR

FPM-X

Presentation microphone B

Multi-Room Audio Application

The FlexPort FPM-U and FPM-D modules accept analog or digital inputs for sources located in the zones. An Apple TV located behind a display can send audio to the local in-wall speakers, or to every speaker on the premises.

ANALOG AUDIO

FPM-U

Computer or iPod

DIGITAL AUDIO

FPM-D

Apple TV or media player

APPLE TV

FPM-D

FPM-U

SPECIFICATIONS

Power Per Channel (All Channels Driven): . . . . 50W @ 8 Ohms
Frequency Response: . . . . 20Hz to 20kHz, +/- 0.55 dB into 8 Ohms
Full Power Bandwidth: . . . . 20Hz to 20kHz
S/N Ratio: 96dB
Channel Separation: . . . . 70dB (channel to channel @1kHz)
THD+N: . . . . <0.3% @ full power output
IMD: . . . . <0.5% @ full power output
Input Sensitivity: 0.5Vrms
Input Impedance:. . . . . 20k Ohms
Audio Clock / Output Clock Frequencies: . . . . 96KHz / 385KHz

Output Protection: . . . . Short Circuit, Over-Temperature, Overload
Line Voltage & Frequency: 100-120VAC 50-60Hz
Power Consumption: . . . . 1125W continuous, 1280W for 2 minutes
AC Power Requirements: 1200W
Maximum Current Draw: . . . . 10A RMS
Heat Output: . . . . 38/68 BTU/hr
Dimensions (H x W x D): . . . . 5.22" x 16.60" x 14"
Net Weight / Shipping Weight: . . . . 41 lb. / 49 lb.
Approvals. . . . . FCC, ETL
Warranty:. . . . . Three years, parts and labor