MODEL SF-16M

SonaFlex™ SERIES

RESTAURANTS & BARS **HOTELS** **RESIDENCES** **CONFERENCE CENTERS**

SF-16M FEATURES:

- Audio matrix switching, signal processing and amplification in one unified system

- 16 analog RCA inputs combined with two Cat 5 "FlexPort" inputs allow for a total 20 mono/10 stereo inputs

- Optional Cat 5 FlexPort modules accept balanced line/mic, XLR, digital coax/optical and analog RCA audio sources

- 16 amplified outputs can be configured as mono, stereo, or a combination of stereo and mono

- Up to four SF-16M units can be linked together to form a powerful 32 input x 64 output audio matrix

- Class-D amplification provides a conservatively rated 45 watts per channel (all channels driven) or 60 watts (8 channels driven) at 8 Ohms – stable to 2 Ohms

- Linear power supply delivers the warmth and musicality of an analog amplifier, combined with the responsiveness and headroom vital for dynamic music content

- Signal processing tools include hi- and low-shelf filters (Bass/Treble), hi- and low-pass filters, and up to seven bands of parametric equalization per output

- 10 audio overrides (triggered by contact closure, IR, and RS-232 commands) provide a convenient method to switch to alternate audio inputs for appplications such as paging, local source selection, and room combining

- 10 programmable sound scenes (a system-wide snap-shot of all volume and source settings) can be saved and recalled using IR, RS-232 or IP commands

- 10 audio groups allow multiple outputs to be grouped to share volume ramping, muting, and source selection

- Compatible with virtually any control system available using RS-232, Ethernet or IR commands

One System, Many Applications

Whether you install audio systems in commercial facilities or in residential structures, the SF-16M has the features and capabilities to handle just about any application you may encounter. Its flexibility and musical power give the user so much more than traditional audio systems, while giving installers a streamlined installation process.

Flexible Input Options

Most pro and consumer audio sources can be used with the SF-16M via its unique FlexPort™ audio inputs. Up to four FlexPort audio modules can be connected, via Cat-5, to each SF-16M. Module options include balanced line/mic, XLR, digital coax/optical, and analog RCA inputs, accommodating anything from pro audio mixers to Apple TV media players. FlexPort modules include an illuminated button that may be used to trigger audio override at all pre-selected SF-16M outputs.

Mounting options include in-wall, on-wall, or on any flat surface.

Scalable Outputs

Any amplified output of the SF-16M can be assigned as mono or stereo, allowing for 16 mono, 8 stereo, or a mixture of both mono and stereo speaker locations per chassis. The SF-16M can split mono inputs to stereo outputs and combine stereo inputs to mono outputs. Up to four SF-16M units can be linked together to form a powerful 32 input x 64 output system, with shared source signals and optionally shared FlexPort signals.

Pure, Stable and Reliable Power

Using Class-D digital amplification, the SF-16M produces a conservatively rated 45 watts per channel (all channels driven) or 60 watts (8 channels driven) at 8 Ohms *and is stable to 2 Ohms*. The SF-16M is so rock-solid that even a dead short to the outputs won't negatively affect the unit. The SF-16M shuts off the amplifier stage until the short is corrected and then comes back on without a power cycle.
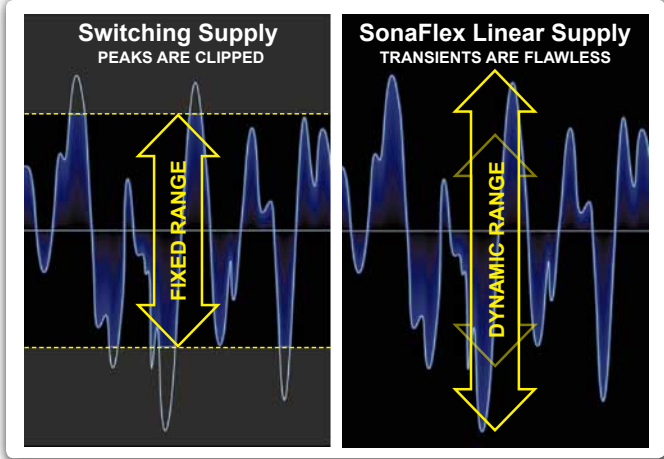
Dynamic Range Extends Response

Quite possibly the most impressive benefit of the SF-16M is its dynamic audio quality. Competing Class-D products use switching power supplies, which are efficient, but have a serious flaw: they can't manage large transient peaks, resulting in audio distortion. The SF-16M hybrid linear supply has the headroom to respond to musical dynamics with extra power, because its analog design allows its floating voltage rail to accommodate quick transient peaks in the music, instead of clipping, like the switching supply does. 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, acurate sound reproduction of the input source material.
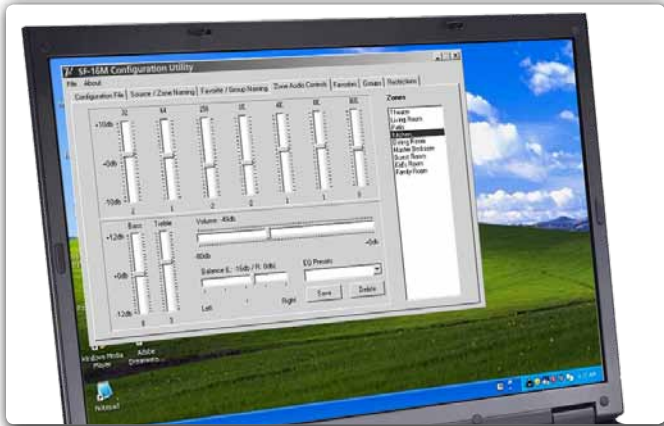
Signal Processing Tools

The SF-16M provides a rich palette of Digital Signal Processing (DSP) tools that allow the installer to custom-tune every sonic environment. For basic installations, use the DSP's bass, treble, balance and loudness controls. For more advanced applications, use hi/low pass filters and up to 7-bands of parametric equalization per output.

Pass-Thru Mode

When you need a great sounding amp to use with an existing audio matrix, the SF-16M still shines, providing 16 RCA inputs and DB-25 source audio loop outputs for system expansion. In addition, the SF-16M's DB-25 input allows for quick connection to Audio Authority audio matrix switchers such as HLX and ADX. 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.

BALANCED AUDIO

XLR / MIC

DIGITAL AUDIO

ANALOG AUDIO
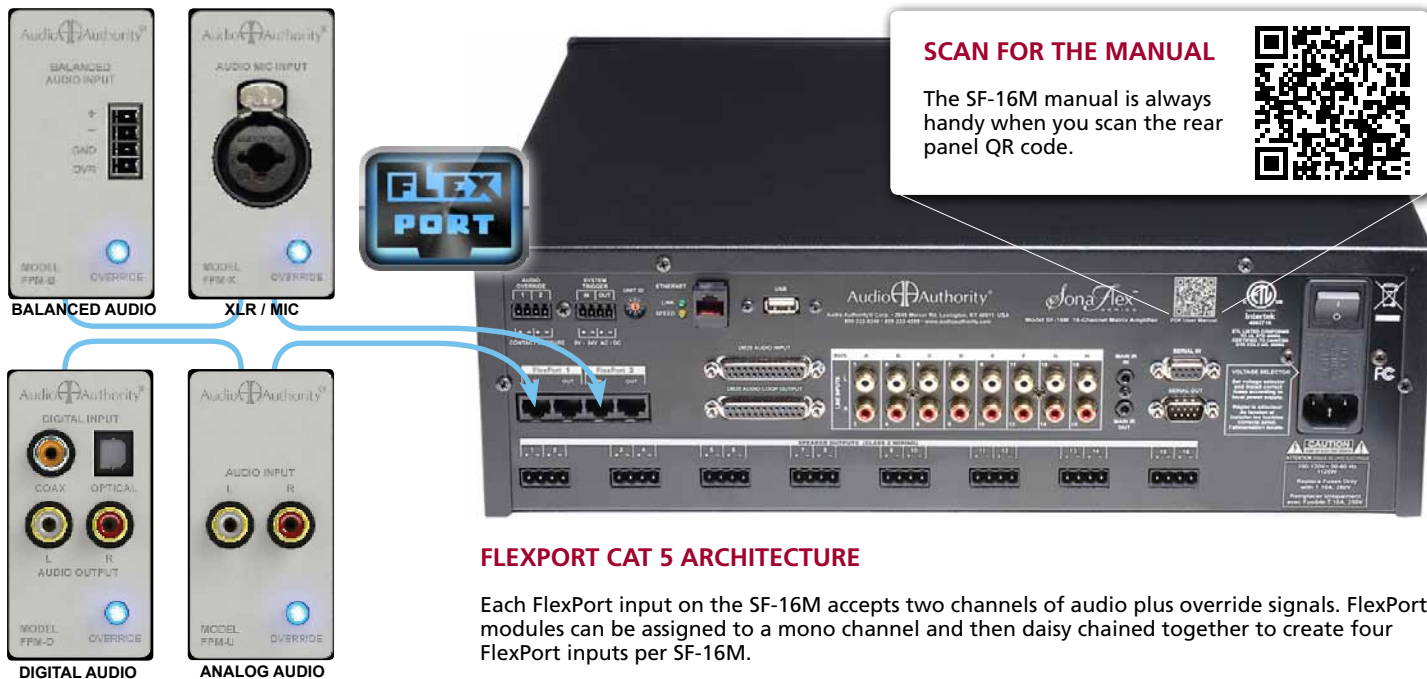
FLEXPORT CAT 5 ARCHITECTURE

Each FlexPort input on the SF-16M accepts two channels of audio plus override signals. FlexPort modules can be assigned to a mono channel and then daisy chained together to create four FlexPort inputs per SF-16M.

Key Benefits for the End User

LOCAL SOURCE SELECTION

Popular audio sources such as iPods, AppleTVs and BluRay players can be located near the listener and connected via Cat 5 to the FlexPort audio inputs. With the push of a button, the user switches to the local audio source and then switches back to the default audio at will. This feature is also ideal for restaurants and clubs with live music where a user needs to override background music with audio from a mixer.

SOUND SCENES

A Sound Scene is a system-wide snap-shot of all volume and source settings. Scenes allow the end-user to easily recall previously captured system settings. It is a perfect way to set the mood for parties, restaurant ambience and other commonly used system settings that need to be recalled with a single button press. Up to 10 Sound Scenes can be stored and recalled per SF-16M. For installations with multiple SF-16Ms linked together, system-wide Sound Scenes can be stored and recalled across all units.

OUTPUT GROUPING

Allows multiple outputs to be grouped together to share volume ramping, muting, source selection and more. Groups are ideal for making large areas a single audio zone or for grouping outputs with hi-pass and low-pass filters (sub/sat combinations) so that they respond together as one zone. Up to 10 groups can be stored per SF-16M.

Commercial Solutions

Restaurants, sports bars, hotels, conference rooms and worship facilities are all great installation opportunities for the SF-16M. Using FlexPort inputs, override triggers and sound scenes, the SF-16M is great solution for facility-wide paging, conference room combining/segmenting, live audio override for restaurants, nightclubs and more. Please visit our website for an extensive list of commercial applications for the SF-16M.

Open Control Architecture

The SF-16M is compatible with virtually any control system available today using RS-232, Ethernet or IR commands. 2-way drivers for many of the top control systems are available for download from our website. In addition, iPad control of the SF-16M is available by downloading control templates based on the Command Fusion control platform.*
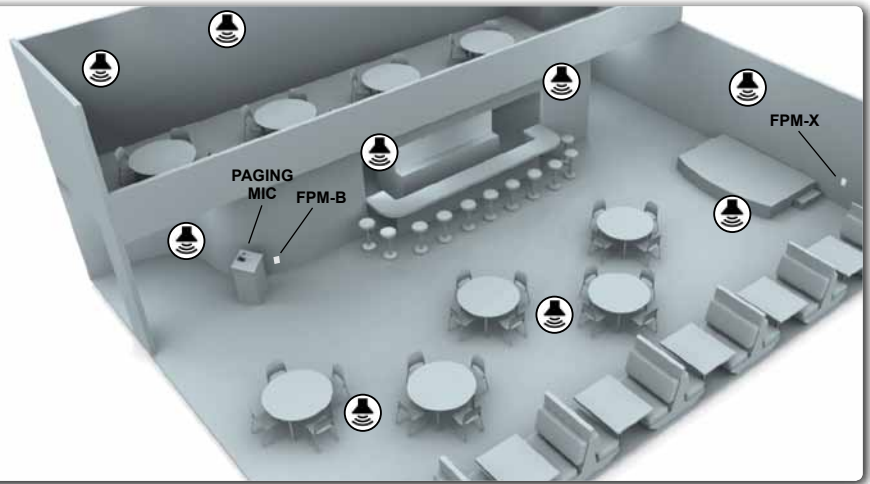
Easy Setup

The SF-16M front panel display provides access to the most common settings required in a typical install. For added security, the front panel can be locked out, preventing tampering with system settings. Advanced setup tasks (input/output naming, group assignments, sound scene setup) can be achieved using the SF-16M PC configuration software, available for download on our website.

*Requires a Command Fusion license for each iPad used. See our website for more details.
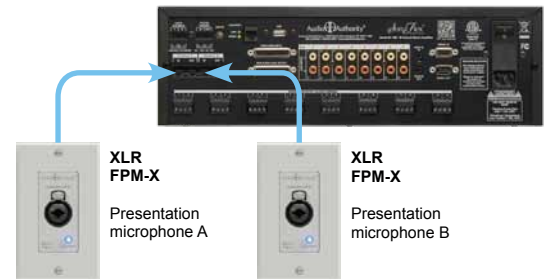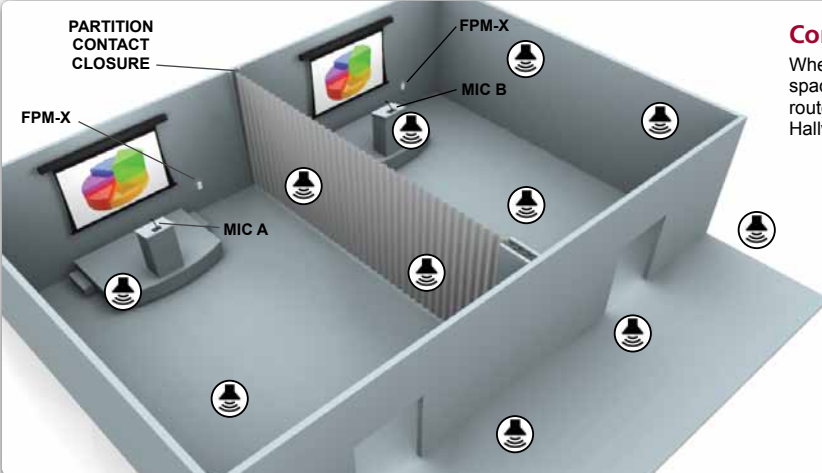
Restaurant Application

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

BALANCED AUDIO FPM-B

Hostess station microphone

XLR COMBO FPM-X

Stage mixer or microphone
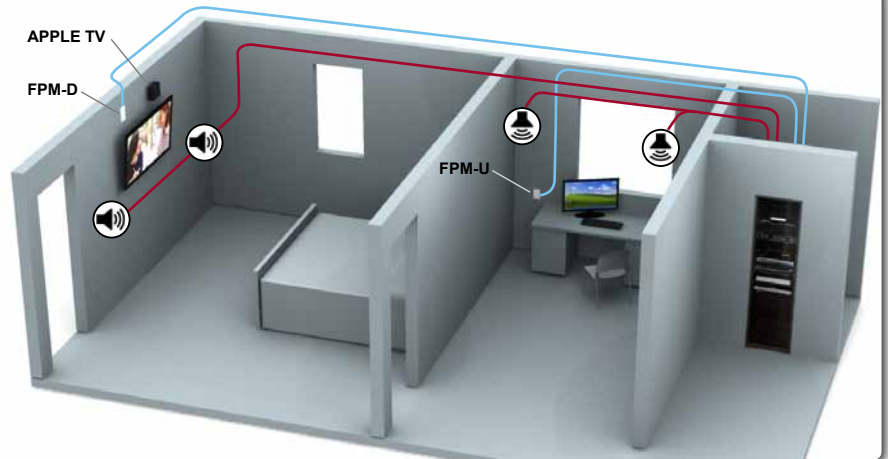
PAGING MIC FPM-B

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

MIC B

FPM-X

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

SF-16M SPECIFICATIONS:

Power Per Channel (All Channels Driven):	45W @ 8 Ohms, 60W @ 4 Ohms
Power Per Channel (8 Channels Driven):	60W @ 8 Ohms, 80W @ 4 Ohms
Frequency Response:	20Hz to 20kHz, +/-1db into 8 Ohms
Full Power Bandwidth:	20Hz to 20kHz
S/N Ratio:	96dB
Channel Separation:	70dB(channel to channel @1kHz)
THD+N:	<0.7% @ full power output
IMD:	<0.5% @ full power output
Input Sensitivity:	0.5Vrms
Input Impedance:	20k Ohms
Audio Clock Frequency:	96KHz
Output Clock Frequency:	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:	Two years, parts and labor