

# MORE **POWERFUL** AMPLIFICATION

800 W Class-D with SMPS
24-bit/48kHz DSP
User & Factory Presets
LCD Signal Status Monitoring
Filter, Delay and Gain Control



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#### M-Line PRO brochure v. 01/2

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S e AUDIOTECHNIK

SUPAUDIOTECHNIK



# M-LINE MULTIFUNCTIONAL MASTERPIECES

# M-LINE family SMALL SIZE PLUS PLUG & PLAY

The **M**-Line consists of self-powered modular PA systems suitable for in and outdoor audiences ranging from small crowds to a few thousand people. When extremely natural sound matters and/ or space for placing is scarce, you will benefit from the solutions offered by this flexible, compact and sophisticated product line.

#### PLUG & PLAY

Available in BLACK

Easy-to-handle controls, tailor-made amplifiers with ready-to-go DSP settings allow for super fast setup times with amazing results. All amplifiers are combined with rock-solid DSP filtering and limiting, providing outstanding audio quality, whilst ensuring worry-free driver protection. Every product is available in both black and white polyurea coated finishes.

Every component is exclusively designed and made by **SE AUDIOTECHNIK**<sup>°</sup>.

The variety of accessories allows you to operate and scale the system according to the application with minimum effort and resources needed.

S15 PRO NEW S12 PRO M-F3A FS M-F3A PRO

### M-F3A PRO

### THE NEXT STEP IN COMPACT LINE ARRAY SYSTEMS

M-F3A PRO is an ultra-compact active line array system which offers crystal-clear sound reproduction with punchy mids and studio-quality highs, due to its hornless design.

The unique PA sound is achieved by incorporating 8 highefficiency 2.8" neodymium mid-frequency drivers, and 7 pieces of 1" direct radiation dome tweeters into each unit. All these drivers have been designed for high efficiency and extended LF bandwidth. In result, it helps to lower the cut-off frequency in the low-mid band, which makes the vocals sound exceptionally rich and natural.

All drivers are mounted on an A4 paper-sized front surface. Each unit reaches up to 129 dB peak SPL and weighs only 8.3 kg, including amplification and DSP. The M-F3A PRO's distinct sound is achieved by a 2-channel 600 W class-D power amplifier.

Two controls, the Level and the Line Unit selection, offer precise adjustment of the key system parameters, such as attenuation and system voicing, depending on the unit count in the array.





# M-F3A FS

### THE LONG AWAITED BASS EXTENSION

The M-F3A FS is the flyable bass extension module for the M-F3A PRO line array systems. It employs two specially designed 6" x 9" woofers that in addition to high SPL, offer a slim and discreet design. The height is twice the size of one M-F3A PRO unit, complementing the system in every way.

The unit contains a newly designed 800 W Class-D power amplifier and is equipped with 24-bit/48 kHz DSP. By using the LCD screen and rotary encoder, users can control various system parameters such as delay, EQ, filters and more.

User configurations can then be saved as user presets. In addition, the built-in factory presets reduce setup times for existing M-Line systems in various configurations. For example, when flown with M-F3A PRO, the unit can deliver rich bass to manage applications where no space for ground subs is available.

Improved rigging capabilities and the newly-designed extended bumper frame gives additional flexibility to integrate this adaptable subwoofer into M-Line systems.



# **S12** PRO

### A COMPACT AND FUNCTIONAL GROUND SUPPORT FOR THE M-LINE

The S12 PRO is a compact active subwoofer designed especially for the M-Line systems. It is composed by a single 12" driver in a bass-reflex configuration, powered by an 800 W Class-D amplifier. Its efficient design and compact size guarantees flexible placement in all kinds of environments. In addition, a two-point SE stacking system allows for safe and easy stacking.

The unit contains a newly designed 800 W Class-D power amplifier and is equipped with 24-bit/48 kHz DSP. By using the LCD screen and rotary encoder, users can control various system parameters such as delay, EQ, filters and more.

The built-in factory presets reduce setup times for existing M-Line systems in various configurations. This makes easy the setup of end-fire or cardioid arrays, by simply choosing one of the dedicated factory presets. Furthermore, custom configurations can be saved as user presets.

### **S15** PRO

### A LOUDER AND RELIABLE GROUND SUPPORT FOR THE M-LINE

The S15 PRO is the bigger and louder brother of S12 PRO. It is composed by a single 15" driver in a bass-reflex configuration, powered by an 800 W Class-D amplifier. Its efficient design and compact size guarantees flexible placement in all kinds of environments. In addition, a two-point SE stacking system allows for safe and easy stacking.

The unit contains a newly designed 800 W Class-D power amplifier and is equipped with 24-bit/48 kHz DSP. By using the LCD screen and rotary encoder, users can control various system parameters such as delay, EQ, filters and more.

The built-in factory presets reduce setup times for existing M-Line systems in various configurations. This makes easy the setup of subwoofer arrays, by simply choosing one of the dedicated factory presets. Furthermore, custom configurations can be saved as user presets.





### **SPECIFICATIONS**

	M-F3A PRO	M-F3A FS	S12 PRO	S15 PRO
ELECTRO-ACOUSTICAL				
Frequency range (-6 dB)	110 Hz-18 kHz	53 Hz	40 Hz	40 Hz
Maximum Peak SPL *	129 dB	127 dB	133 dB	136 dB
Coverage (H x V)	120° - 16°	Omnidirectional	Omnidirectional	Omnidirectional
Enclosure	Vented box	Vented box	Vented box	Vented box
Transducers	MF: 8 x 2.8" drivers with neodymium magnet and cooling module, 0.75" voice coil HF: 7 x 1" dome tweeters with neodymium magnet and cooling module, 1" voice coil	2 x 6" by 9" drivers	1 x 12" driver with ferrite magnet and 3" voice coil	1 x 15" driver with ferrite magnet and 3" voice coil
AMPLIFICATION				
Connectors	Input signal: balanced XLR 3-pin female Link output: balanced XLR 3-pin male Power input: powerCON® 20A Power link output: powerCON® 20A	Input signal: balanced XLR 3-pin female Link output: balanced XLR 3-pin male Power input: powerCON® 20A Power link output: powerCON® 20A	Input signal: balanced XLR 3-pin female Link output: balanced XLR 3-pin male Power input: powerCON® 20A Power link output: powerCON® 20A	Input signal: balanced XLR 3-pin female Link output: balanced XLR 3-pin male Power input: powerCON® 20A Power link output: powerCON® 20/
Input sensitivity	0 dBu	0 dBu	0 dBu	0 dBu
Туре	2 channel, class-D with SMPS	2 channel, class-D with SMPS	2 channel, class-D with SMPS	2 channel, class-D with SMPS
Total power	600 W			
Power	MF: 300 W / HF: 300 W	800 W	800 W	800 W
Protection	Short circuit, overheating, overcurrent	Short circuit, overheating, overcurrent	Short circuit, overheating, overcurrent	Short circuit, overheating, overcurrent
Cooling	12 cm x 12 cm heat sink	16 cm x 23 cm heat sink	16 cm x 23 cm heat sink	16 cm x 23 cm heat sink
DSP	48 kHz/24-bit with extended dynamics Processing latency: 1.1 ms	48 kHz/24-bit with extended dynamics Processing latency: 1.1 ms	48 kHz/24-bit with extended dynamics Processing latency: 1.1 ms	48 kHz/24-bit with extended dynamics Processing latency: 1.1 ms
Processing	EQ, multi-band limiting	Factory and user presets, EQ, delay, phase inversion	Factory and user presets, EQ, delay, phase inversion	Factory and user presets, EQ, delay, phase inversion
Control	Power: ON/OFF switch Level: 8-position rotary knob (-50, -20, -10, -6, -3, -2, -1, 0) Line units: 8-position rotary knob (1 - 8+)	Power: ON/OFF switch DSP: display with digital encoder	Power: ON/OFF switch DSP: display with digital encoder	Power: ON/OFF switch DSP: display with digital encoder
MECHANICAL				
Splay angles	0°, 1°, 2°, 3°, 4°, 6°, 8°	0°, 1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°		
Rigging	3-point rigging with 6 mm SE AUDIOTECHNIK® locking pins	Four-point rigging system with SE Audiotechnik <sup>®</sup> 6 mm locking pins		
Stacking			Two-point SE AUDIOTECHNIK® stacking system	Two-point SE AUDIOTECHNIK® stacking system
Cabinet	12 mm plywood, black or white polyurea coating	15 mm plywood, black or white polyurea coating	15 mm plywood, black or white polyurea coating	15 mm plywood, black or white polyurea coating
Dimensions [H x W x D] (Including rigging)	317 x 265 x 359 mm	651 x 265 x 430 mm	507 x 385 x 495 mm	586 x 460 x 520 mm
Weight	8.3 kg	23 kg	23 kg	32 kg
Hardware	Rear handle in 12 mm plywood, plus two side grips, embedded in cabinet	Top grip embedded in cabinet	Two side grips embedded in cabinet, 4 rubber feet and top slots for stacking, M20 pole thread	Two side grips embedded in cabinet, 4 rubber feet and top slots for stacking, M20 pole thread

\* Measured with 12 dB Crest factor Pink Noise, whole space

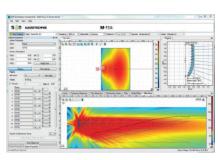
### EASE<sup>®</sup> & EASE<sup>®</sup> FOCUS 3

### PROFESSIONAL SIMULATION DATA AVAILABLE

EASE® \*.GLL files are available for all system components, including: M-F3A PRO, S 12 PRO and M-F3A FS.

EASE® is an industry standard acoustic simulation software for a wide range of applications and venues, especially for installations in houses of worship, stadiums, performance centers, PA and others.

EASE® Focus 3 is an acoustic prediction software well suited for live sound requirements. Audience coverage, sound pressure levels, rigging and other parameters can be simulated for several M-Line products to ensure optimal systems design and faster setup times.



Focus 3 can be downloaded free of charge on the AFMG website: http://focus.afmg.eu

The M-F3A PRO \*.GLL files are available both from the AFMG Focus and our SE AUDIOTECHNIK® website.

# **ACCESSORIES**





M-F3A BF Bumper Frame



M-F3A FS FB



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M-F3A FC light Case

(for 4 pcs.)



M-F3A PRO SFi 15 Ground stacking frame

M-F3A SFi S12

Ground Stacking



Amplifier rain cover Detachable rain cover for S12 PRO and M-F3A FS

M-F3A FA34 3 to 4 point adapter

SPS 20 M20 Pole support

M-F3A PRO XBF nded bumpe frame for M-F3A FS and M-F3A PRO



M-F3A SUB FC Subwoofer Flight Case (for 2 pcs.)

- S 12 PRO PC Padded cover - S 15 PRO PC Padded cover
- M-F3A CB Carry bag

- **S 15 PRO FC** flight case (for 2 pcs.)

# **APPLICATION EXAMPLES**

### MICRO SYSTEM

For audiences of **up to 300** 

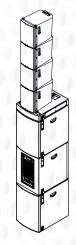
- 2 x M-F3A PRO Line array units
- 1× **M-F3A** U-Bracket
- 1 x **S12 PRO**



- For audiences of **up to 600**
- 4 x M-F3A PRO Line array units
- 1 x M-F3A FS Stacking Frame
- 3x **S12 PRO** Subwoofe



Short-throw setup Applications: presentation events public speech, small venues, cafes, bars, stage fills



Short- to medium-throw setup Applications: stage fills, mid-sized touring, clubs, outdoor stages, concert venues

### INTRODUCTION SYSTEM

For audiences of up to 1600

- 1x M-F3A BF Bumper Frame
- 8x M-F3A PRO Line array units 6 x **S12 PRO**





Medium-throw setup Applications: touring, live concerts. small festivals, multipurpose halls, \*\*\*\*\*\*\*\*\*\*\*\*\*\*