# Amie-Sub Compact Cinema Subwoofer







The linear, self-powered Amie-Sub compact subwoofer offers outstanding sonic characteristics, such as clean, punchy transients and excellent phase coherence with impressive low-frequencies down to 22 Hz in a compact cabinet.

The Amie-Sub was specifically designed to be the perfect companion for Amie precision monitors—creating a complete system by extending the system frequency response down to the lower limit of the audible range with easy integration in multi-channel configurations.

In addition, due its performance and versatility, the Amie-Sub is equally suited to complement other Meyer Sound loudspeakers, such as HMS-5, HMS-10, HMS-12, and HMS-15 in immersive surround applications or across other more general applications with UltraSeries loudspeakers.

Extensive research and measurements resulted in the creation of Amie-Sub integration modules to produce a consistent behavior across multiple configurations and environments.

The optional integration modules enable the Amie-Sub to excel at working in any multichannel configuration, creating a perfectly balanced and easy-to-set-up system with up to 7 Amie precision monitors.

The 2.1 integration module features 2 input channels using XLR connectors, while the 7.1 module features industry standard multi-pin DB-25 and can be used in 5.1 or 7.1 configurations with third-party, high-quality, 8-channel, DB-25-to-XLR cables.

The integration modules feature bass management processing as well as a dedicated phase-matched .1 input for the LFE channel with selectable +10 dB boost to meet a variety of standards.

The Amie-Sub has an operating frequency range of 22–160 Hz and a linear peak SPL of 124.5 dB with crest factor >11.5 dB, measured in half-space at 4 m and referred to 1 m using M-noise.

The Amie-Sub includes a single 15-inch, low distortion, long-excursion cone driver. The bass reflex cabinet employs optimized port design for high efficiency and low port distortion. Its slanted connector panel facilitates flush-mounting the cabinet against wall surfaces, reducing required installation depth to 19 inches including connectors.

The cabinet houses a Class D power amplifier and signal processing includes crossover, driver protection, and frequency and phase correction.

The Intelligent AC<sup>™</sup> power supply provides automatic voltage selection, EMI filtering, soft current turn-on, and surge suppression.

Meyer Sound builds the Amie-Sub cabinet from premium birch plywood coated with a durable, slightly textured finish and includes a stamped-steel grille to protect the drivers. A grille frame with black cloth that mounts on top of the steel grille is optionally available.

The Amie-Sub comes standard with two 3/8-inch by 16 mounting points on each side for use with the optional MUB-Amie-Sub U-bracket for mounting the subwoofer from ceilings.

### FEATURES AND BENEFITS

- Linear frequency, phase and amplitude response with sonic accuracy at any level with high peak power output and excellent transient reproduction
- Extended low frequency range down to 22 Hz
- Extremely low distortion for exceptional low-frequency clarity
- Optional modules allow seamless integration with Amie precision monitors to create bass-managed stereo systems and immersive systems up to 7.1
- Self-powered design simplifies setup and increases reliability
- Integrates with HMS-5, HMS-10, HMS-12 and HMS-15 surround loudspeakers in immersive applications
- Integrates with UltraSeries loudspeakers in general applications.
- Optional U-bracket allows flexibility of mounting in ceilings

#### APPLICATIONS

- Small- to medium-sized mixing or editing rooms
- Stereo and immersive mixing for music, film and video post-production
- Broadcast monitoring
- Music, film and video editing
- · Fixed installations requiring a compact high-power subwoofer
- Any installation requiring a compact a low-distortion, high-power subwoofer that goes down to 22 Hz.
- High-end playback systems

#### ACCESSORIES

**MUB-Amie-Sub U-Bracket:** Enables mounting of an Amie-Sub cabinet on a ceiling; uses side M8 mounting points on the Amie-Sub cabinet.

2.1 Integration Input Module: Enables the Amie-Sub to create a bass-managed stereo system or a 2.1 system with LFE input using XLR connectors.

7.1 Integration Input Module: Enables the Amie-Sub to create a bass-managed system up to 7.1 channels using multi-pin DB-25 female connectors on the panel. Third-party, high-quality, 8-channel DB-25 male connectors to XLR cables are required and not included.

Black Cloth Grille Frame: Grille frame with black cloth that mounts on top of the steel grille is optionally available for applications where this appearance is more desirable.



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2.1 Integration Input Module

7.1 Integration Input Module



MUB-Amie-Sub U-Bracket

**Black Cloth Grille Frame** 

# SPECIFICATIONS

ACOUSTICAL <sup>1</sup>		
Operating Frequency Range <sup>2</sup>	22 Hz – 160 Hz	
Frequency Response <sup>3</sup>	25 Hz – 145 Hz ±4 dB	
Phase Response	33 Hz – 145 Hz ±30°	
Linear Peak SPL <sup>4</sup>	124.5 dB with >11.5 dB crest factor (M-noise), 124.5 dB (Pink noise), 126 dB (B-noise)	
COVERAGE		
	360° (single unit); varies with number of units and configuration	
TRANSDUCERS		
Low Frequency	One 15 inch long-excursion cone driver; 3 $\Omega$ nominal impedance	
AUDIO INPUT		
Туре	Differential, electronically balanced	
Maximum Common Mode Range	±15 V DC, clamped to earth for transient voltage protections	
Input Impedance	10 kΩ differential between Audio(+) and Audio(-)	
Nominal Input Sensitivity	6 dBV (2.0 V rms) continuous is typically the onset of limiting for noise and music	
Input Level	Audio source must be capable of producing of +20 dBV (10 V rms) into 600 $\Omega$ to produce the maximum peak SPL over the operating bandwidth of the loudspeaker.	
XLR Wiring	Pin 1: Chassis/earth through 1 kΩ, 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Audio(+)	
	Case: Earth ground and chassis	
Looping Input Module Connectors	XLR 3-pin female with male loop output	
2.1 Integration, Module Connectors	XLR 3-pin female inputs (channels 1, 2 and LFE)	
2.1 Integration Module Connectors	XLR 3-pin male loop outputs (channels 1 and 2)	
7.1 Integration Module Connectors⁵	DB-25 female connector inputs (channels 1 to 7 and LFE) DB-25 female connector outputs (channels 1 to 7 and LFE + bass management)	
AMPLIFIER		
Туре	2-channel, open-loop, class D	
Total Output Power <sup>6</sup>	1100 W peak	
THD, IM, TIM	< 0.02%	
Cooling	Convection	
AC POWER		
Connector	powerCON 20 input with loop output to feed Amie loudspeakers	
Automatic Voltage Selection	90–265 V AC	
Safety Rated Voltage Range	100–240 V AC, 50–60 Hz	
Turn-on and Turn-off Points	90 V AC turn-on, no turn-off; internal fuse-protection above 265 V AC	
CURRENT DRAW		
Idle Current	0.25 A rms (115 V AC); 0.23 A rms (230 V AC); 0.25 A rms (100 V AC)	
Maximum Long-Term Continuous Current (>10 sec)	1.4 A rms (115 V AC); 0.7 A rms (230 V AC); 1.5 A rms (100 V AC)	
Burst Current (<1 sec) <sup>7</sup>	2.9 A rms (115 V AC); 1.5 A rms (230 V AC); 3.4 A rms (100 V AC)	
Maximum Instantaneous Peak Current	7.4 A peak (115 V AC); 3.7 A peak (230 V AC); 8.5 A peak (100 V AC)	
Inrush Current	<20.0 A peak	

PHYSICAL	
Dimensions	W: 24.00 in (609 mm) x H: 17.5 in (444 mm) x D: 19.00 in (482 mm)
Weight	74 lb (33.5 kg)
Enclosure	Premium multi-ply birch with low-gloss, slightly textured black finish
Protective Grille	Powder-coated, hex-stamped steel with optional black cloth grille that attaches to the steel grille
Rigging	Side nut-plates with 3/8-inch by 16 threads for the optional MUB-Amie-Sub U-bracket

#### NOTES

- 1. Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
- 2. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- 3. Measured in half-space with pink noise at 4 m, 1/3-octave frequency resolution.
- 4. Linear Peak SPL is measured in half-space at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50 °C ambient temperature is <2 dB.

**M-noise** is a full bandwidth, (10 Hz–22.5 kHz) test signal developed by Meyer Sound to better measure the loudspeaker's music performance. It has a constant instantaneous peak level in octave bands, a crest factor that increases with frequency, and a full bandwidth Peak to RMS ratio of 18 dB. The presence of a greater-than (>) symbol with regard to crest factor indicates it may be higher depending on EQ and boundary loading.

Pink noise is a full bandwidth test signal with Peak to RMS ratio of 12.5 dB.

B-noise is a Meyer Sound test signal used to ensure measurements reflect system behavior when reproducing the most common input spectrum, and to verify there is still headroom over pink noise.

- 5. The DB-25 multi-pin connectors are wired to an analog pinout that has become the standard in the audio industry; it is sometimes referred to as the Tascam<sup>®</sup> DTRS pinout.
- 6. Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.
- 7. AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the loudspeaker's voltage to drop below the specified operating range.

## **ARCHITECTURAL SPECIFICATIONS**

The loudspeaker shall be a self-powered, sub-bass system. The transducer shall consist of one 15-inch long excursion cone driver. The loudspeaker shall incorporate a 2-channel, open-loop, class D amplifier.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range shall be 22–160 Hz; frequency response shall be 25–145 Hz  $\pm$ 4 dB; phase response shall be 33–145 Hz  $\pm$ 30°; linear peak SPL shall be 124.5 dB with >11.5 dB crest factor, measured in half-space with M-noise at 4 m referred to 1 m.

The loudspeaker shall be equipped standard with an XLR 3-pin looping input panel. Optionally, the loudspeaker could be equipped with an XLR multiple 3-pin connector integration module to create a 2.1 system or a DB-25 multi-pin connector module to create a 7.1 immersive system. The audio input shall be differential and electronically balanced with 10 k $\Omega$  impedance, and a continuous 6 dBV (2 V rms) input signal shall typically drive the speaker to the onset of limiting for noise and music.

Power requirements for the loudspeaker shall be 100–240 V AC, 50–60 Hz. Maximum long-term continuous current draw for the loudspeaker (> 10 sec) shall be 1.4 A rms (115 V AC); 0.7 A rms (230 V AC); 1.5 A rms (100 V AC). The power supply shall provide automatic voltage selection, EMI filtering, soft current turn-on, and surge suppression.

All components shall be mounted in an acoustically vented, box-shaped enclosure constructed of premium multi-ply birch with a slightly textured black finish. Left and right sides shall incorporate 3/8-inch by 16 threads. The front protective grille shall be powder-coated, hex-stamped steel.

Dimensions for the loudspeaker shall be W: 24.00 in (609 mm) x H: 17.5 in (444 mm) x D: 19.00 in (482 mm) without mounting bracket. Weight shall be 74 lb (33.5 kg).

The loudspeaker shall be the Meyer Sound Amie-Sub.

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