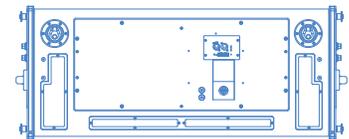
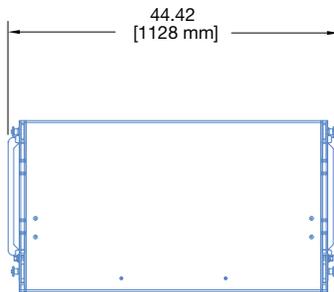
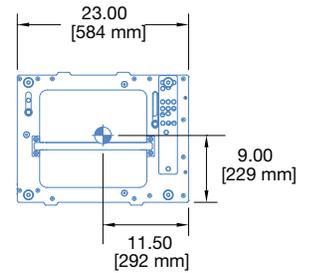
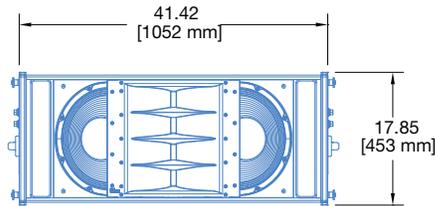


LEO-M™ Advanced Linear Array Loudspeaker



Sonic linearity at any output level defines the LEO®-M advanced linear array loudspeaker. Conceived for long-throw applications, with exceptional headroom, extremely low distortion, and optimized rigging options, LEO-M forms the nucleus of Meyer Sound’s next-generation LEO array systems. Pair LEO arrays with Meyer Sound’s 1100-LFC low-frequency control element for bass reproduction, and the LYON® linear line array loudspeaker for downfill. Drive entire systems with Meyer Sound’s Galileo® GALAXY Network Platform, which provides 24 bit, 96 kHz audio, matrix routing, alignment, and processing for array components.

To guarantee optimum system performance, design LEO array systems with Meyer Sound’s MAPP™ System Design Tool. This intuitive, cross-platform application accurately predicts coverage patterns, frequency and impulse responses, and linear peak SPL for LEO array systems, ensuring that systems deliver the required SPL and ideal coverage for the intended audience areas.

LEO-M’s high-frequency section comprises two proprietary compression drivers coupled to a constant-directivity horn through a patented REM® manifold. The manifold’s smooth radiating characteristics afford tight vertical coverage. The low-frequency section includes two long-excursion cone drivers, also proprietary, capable of withstanding high continuous output levels. Precise phase and magnitude alignment between low- and high-frequency drivers yields consistent and well-behaved system responses.

The unit’s power amplifier operates at nominal voltages from

208–235 V AC at 50–60 Hz. TruPower® limiting ensures maximum driver protection, minimizing power compression while yielding high constant output under high continuous and peak power conditions. A single field-replaceable module located on the rear of the cabinet contains the amplifier, control electronics, and power supply.

Meyer Sound’s RMS™ remote monitoring system comes standard with all LEO-M loudspeakers and provides comprehensive monitoring of system parameters on a Mac® or Windows®-based computer. Convenient XLR 5-pin connectors allow the use of composite cables carrying both RMS and balanced audio.

LEO-M offers intuitive rigging with captive GuideALinks™ that users can set to the desired splay angles while cabinets rest in caster frames. The MTG-LEO-M top grid flies arrays of up to 22 LEO-Ms at a 5:1 safety factor (with some restrictions). Fly LYONs below LEO-M arrays for downfill with available optional transition frames. Securely transport stacks of up to four LEO-Ms with the optional MCF-LEO-M caster frame; Protect the cabinets during transport with optional durable nylon covers that accommodate stacks of two, three, or four units.

Meyer Sound builds the vented LEO-M cabinet with premium multi-ply birch and coats it with a slightly textured black finish. A powder-coated, hex-stamped steel grille with acoustical black mesh protects the unit’s drivers. The weather-protected cabinet and included collapsible rain hood that shields user panel connectors from water intrusion accommodate a variety of applications.

## FEATURES AND BENEFITS

- Optimized line arrays with controlled directivity for even coverage and consistent responses over long throws
- High peak power output with exceptional linearity and transient reproduction at extreme levels
- Self-powered design for simplified setup and increased reliability
- Optimized rigging that allows splay angles to be set while stacks rest in caster frames
- Seamless integration with LYON line array loudspeakers and the 1100-LFC and VLFC low frequency control elements

## APPLICATIONS

- Stadiums
- Arenas
- Touring sound reinforcement
- Large-scale public events

## ACCESSORIES AND ASSOCIATED PRODUCTS

**MTG-LEO-M Top Grid:** With some restrictions, flies up to 22 LEO-Ms at a 5:1 safety factor and BGV C1; accommodates a variety of pickup configurations with six pickup points; includes attachment points to accommodate brackets and adapters for lasers and inclinometers. Always use MAPP to verify rigging load ratings. Optional **MTG-LEO Groundstack Grid Link Kit** available to enable using the grid as a base by flipping it upside-down (4 links in kit).

**MVP Motor Vee Plate:** Attaches to MTG-LEO-M (and all other LEO family grids) and fine tunes horizontal aim of LEO arrays.

**RPP-LEO-M Rear Pull-up Plate:** Helps assemble large arrays with wide splay angles by providing pull-up (with a motor) to expand the array's splay angles during installation, so that it is easier to insert the blue locking pins.

**MTF-LEO-M/LYON Transition Frame:** With some restrictions, flies up to 9 LYONs at a 5:1 safety factor and BGV C1 below LEO-M arrays for downfill; includes rear attachment points for pull-back.

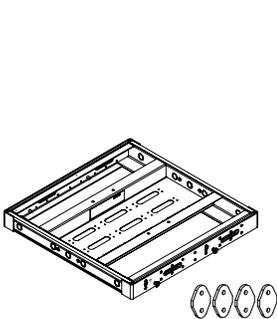
**PBF-LEO-M Pull-back Frame:** Attaches to the bottom cabinet of LEO-M arrays and provides pull-back for extreme array downtilt.

**MDM-5000 Distribution Module:** Offers convenient power distribution and flexible routing of audio, AC power, and RMS to loudspeaker arrays.

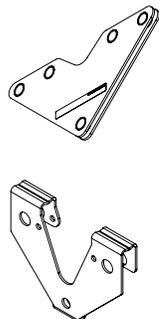
**MCF-LEO-M Caster Frame:** Safely transports up to four LEO-M cabinets, making it easy to assemble and disassemble arrays in blocks. Durable nylon covers for stacks of 2, 3 and 4 units are also available to ensure the LEO-M is completely road ready.

**Galileo GALAXY Network Platform:** The Galileo GALAXY Network Platform provides state-of-the-art audio control technology for loudspeaker systems with multiple zones. With immaculate sonic performance, it provides a powerful tool set for corrective room equalization and creative fine-tuning for a full range of applications.

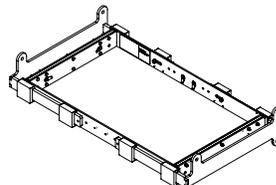
**GEB-LEO Grid Extender Bar:** Attaches to the MTG-LEO Top Grid and by extending the pick-up points, it provides a few extra degrees of downtilt or uptilt without requiring extra motors or rigging points when rigging LEO-M arrays. For more severe downtilt, the pull-back frame is the best solution.



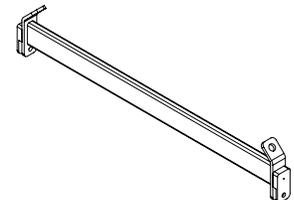
MTG-LEO-M Top Grid and optional Groundstack Grid Link Kit



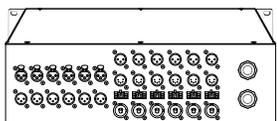
MVP Motor Vee Plate (top)  
RPP-LEO-M Rear Pull-up Plate



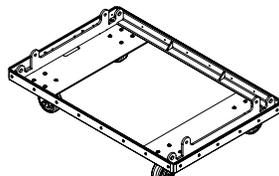
MTF-LEO-M/LYON Transition Frame



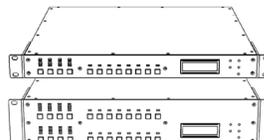
PBF-LEO-M Pull-back Frame



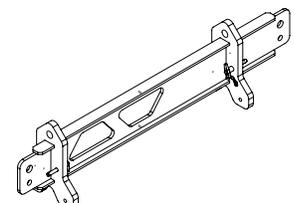
MDM-5000 Power and Signal Distribution Module



MCF-LEO-M Caster Frame



Galileo GALAXY Network Platform



GEB-LEO Grid Extender Bar

## SPECIFICATIONS

ACOUSTICAL <sup>1</sup>	
Operating Frequency Range <sup>2</sup>	55 Hz – 16 kHz
Phase Response	375 Hz – 14 kHz ±30°
Maximum SPL <sup>3</sup>	155 dB
Linear Peak SPL <sup>4</sup>	149.5 dB with 20 dB crest factor (M-noise), 142.5 dB (Pink noise), 144 dB (B-noise)
COVERAGE	
Horizontal Coverage	75°
Vertical Coverage	Varies, depending on the array length and configuration
TRANSDUCERS	
Low Frequency	Two 15-inch long-excursion cone drivers; 4 Ω nominal impedance
High Frequency	Two 4-inch diaphragm compression drivers coupled to a constant-directivity horn through a patented REM manifold; 12 Ω nominal impedance
AUDIO INPUT	
Type	Differential, electronically balanced
Maximum Common Mode Range	±15 V DC, clamped to earth for voltage transient protection
Connectors	XLR 5-pin female input with male loop output
Input Impedance	10 kΩ differential between pins 2 and 3
Wiring	Pin 1: Chassis/earth through 1 kΩ, 1000 pF, 15 V clamped network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal - Pin 4: RMS Pin 5: RMS Case: Earth ground and chassis
Nominal Input Sensitivity	0 dBV (1 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 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker
AMPLIFIERS	
Type	3-channel complementary MOSFET output stages (class AB/H bridged)
Total Output Power <sup>5</sup>	9900 W Peak
THD, IM, TIM	< 0.02%
Cooling	Two ultra high-speed primary fans, two ultra high-speed reserve fans
AC POWER	
Connector	powerCON 32
Automatic Voltage Selection	208–235 V AC, 50–60 Hz
Safety Rated Voltage Range	208–235 V AC, 50–60 Hz
Turn-on and Turn-off Points	Turn-on: 165 V AC; Turn-off: 264 V AC
CURRENT DRAW	
Idle Current	0.6 A rms (230 V AC)
Max Long-Term Continuous Current (>10 sec)	6.0 A rms (230 V AC)
Burst Current (<1 sec) <sup>6</sup>	8.0 A rms (230 V AC)
Maximum Instantaneous Peak Current	24 A peak (230 V AC)
Inrush Current	< 15 A peak

## SPECIFICATIONS, CONT'D.

RMS NETWORK	
	Equipped with two-conductor, twisted-pair network; reports all amplifier operating parameters to host computers
PHYSICAL	
Dimensions	W: 44.42 in (1128 mm) x H: 17.85 in (453 mm) x D: 23.00 in (584 mm)
Weight	265 lb (120.2 kg)
Enclosure	Premium multi-ply birch, slightly textured black finish
Protective Grille	Powder coated, hex-stamped steel with acoustical black mesh
Rigging	End frames with captive GuideALinks secured with 0.5-inch x 1.125-inch quick-release pins that allow 0.5°–5° splay angles; detachable handles

## NOTES

- Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Maximum SPL** is the peak measured in free-field at 4 m referred to 1 m using noise.
- Linear Peak SPL** is measured in free-field at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50-degree C ambient temperature is <2 dB.  
**M-noise** is a full bandwidth, (10Hz–22.5kHz) 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.  
**Pinknoise** 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.
- Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.
- 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, linear, low-distortion, line array loudspeaker. Its transducers shall include two 4-inch diaphragm compression drivers coupled to a constant-directivity horn through a patented REM manifold, and two 15-inch, long-excursion cone drivers.

The loudspeaker shall incorporate internal processing and a 3-channel class AB/H bridged amplifier with complementary MOSFET output stages. Protection circuits shall include TruPower limiting. The audio input shall be electronically balanced with a 10 kΩ impedance and accept a nominal 0 dBV (1.0 V rms) signal (+20 dBV to produce maximum peak SPL). Audio connectors shall be XLR 5-pin, female and male, accommodating both balanced audio and RMS. Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range shall be 55 Hz to 16 kHz; phase response shall be 375 Hz to 14 kHz ±30 degrees; maximum SPL for LEO-M shall be 155 dB, measured in free-field at 4 m referred to 1 m using noise; linear peak SPL shall be 149.5 dB with 20 dB crest factor, measured free-field

with M-noise at 4 m referred to 1 m.

The internal power supply shall perform EMI filtering, soft current turn-on, and surge suppression. Power requirements shall be nominal 230 V AC line current at 50–60 Hz. UL and CE operating voltage range shall be 208–235 V AC at 50–60 Hz. Current draw during burst (< 1 sec) shall be 8 A rms at 230 V AC. Current inrush during soft turn-on shall not exceed 15 A at 230 V AC. The AC power connector shall be a powerCON 32. The loudspeaker shall include an RMS remote monitoring system module.

Components shall be mounted in an optimally tuned, vented enclosure constructed of premium multi-ply birch and coated with a slightly textured black finish. The protective grille shall be powder-coated, hex-stamped steel with acoustical black mesh. Dimensions shall be 44.42 in (1128 mm) wide x 17.85 in (453 mm) high x 23.00 in (584 mm) deep. Weight shall be 265 lb (120.2 kg).

The loudspeaker shall be the Meyer Sound LEO-M.