

mi  
family



# MICA

Compact High-Power  
Curvilinear Array Loudspeaker





# MICA

## Compact high-power curvilinear array loudspeaker

The MICA compact high-powered curvilinear array loudspeaker is the newest and smallest member of the acclaimed MILO family of loudspeakers. MICA brings the very high output and smooth, extended high-frequency response that is the MILO family's sonic signature to a smaller package with broad 100-degree horizontal coverage. This makes MICA ideal for applications that do not require quite as much power and throw distance as MILO or where weight and size are a concern. MICA is suited to a wide variety of applications such as touring, rental, and fixed installation, and its sonic compatibility with MILO makes it an excellent component in a MILO family system.



power



size



precision

MICA offers all of the benefits of Meyer Sound's 25 years of manufacturing controller-assisted loudspeakers and 10 years making self-powered systems, including carrying integral amplification, complex crossover, driver protection and frequency and phase correction circuitry onboard. MICA's components are all newly designed specifically for



it and manufactured at Meyer Sound's Berkeley factory to meet stringent performance specifications and rigorous quality controls. As with all Meyer Sound systems, MICA exhibits flat frequency and phase response across its wide operating range of 60 Hz to 18 kHz.

MICA is built for touring, with its new QuickFly rigging featuring captive GuideALinks and a built-in "balcony bar" capability, as well as dimensions that provide an efficient truck pack.

With a peak output of 138 dB SPL, MICA sets a new standard for power-to-size ratio and raises the bar for performance in a compact curvilinear array system, whether it is on the road or fixed in one place.

## FEATURES & BENEFITS

- Very high power-to-size ratio
- Exceptional fidelity and transient response for intelligibility and high-impact
- Seamless integration with MILO
- Wide and even horizontal coverage pattern
- QuickFly rigging system with new captive GuideALinks simplifies use in flown or groundstacked arrays

## APPLICATIONS

- Performing arts centers, theatres, churches, and other fixed installations
- Touring sound reinforcement for mid-sized venues
- Sidefill hangs with MILO in large venues

*“With the success of MILO, we started hearing from customers who wanted MILO’s performance in a format appropriate for smaller venues. MICA brings the exceptional fidelity and high power-to-size ratio of MILO to that range of applications, as well as smoothly integrating with MILO in larger systems.”*

– John Meyer



## **ALL NEW COMPONENTS: THE HEART OF THE SYSTEM**

MICA is a three-way system whose primary components were designed from scratch, building on everything Meyer Sound has learned to date about making loudspeaker drivers and electronics.

### **Low/Mid-Frequency Section**

MICA covers low and mid frequencies with two high-power, neodymium magnet 10-inch cone drivers with 2-inch voice coils, each housed in its own vented enclosure within the loudspeaker. The two drivers operate in a two-way configuration: both work in parallel at lower frequencies to take advantage of their combined acoustic output, while one rolls off before the crossover frequency to maintain optimal polar and frequency response.



*MICA's 100-degree constant-directivity horn*

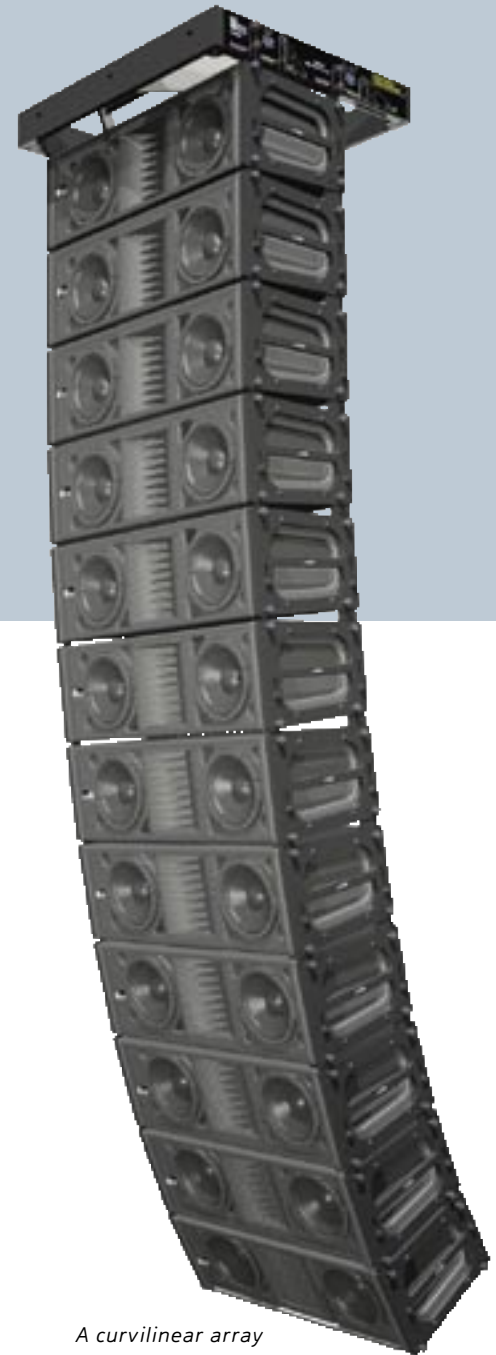


*Two compression drivers mount on a patented REM coupled to MICA's horn*

## High-Frequency Section

MICA is designed to produce the smooth, undistorted high-frequency sound for which the MILO family is renowned. The high-frequency section located at the center between the two cone drivers consists of two neodymium-magnet compression drivers with 3-inch diaphragms and 1.2-inch exits. These drivers are seamlessly combined through a patented Meyer Sound REM (ribbon emulation manifold) coupled to a 100-degree horizontal constant-directivity horn. The horn's controlled, very narrow vertical dispersion is ideally suited for use in curvilinear arrays, allowing minimal destructive interaction in the high frequencies between adjacent enclosures. REM produces a smoothly controlled wave front with low distortion and the very high output generated by compression drivers.

The drivers, horn and REM are all next-generation designs created expressly for MICA.



*A curvilinear array of 12 MICA cabinets*

## Making Sense of MICA's Power

In order to provide truly useful information to users, Meyer Sound has, with MICA, initiated a new specification for amplifier power ratings. The Technical Note *Making Sense of Amplifier Power Ratings*, available from the Meyer Sound Web site, explains why these new ratings are meaningful, as well as giving valuable background that will help readers better understand amplifier specifications and performance.

## THE SELF-POWERED ADVANTAGE

MICA's considerable output is driven by a powerful four-channel class AB/H amplifier that produces 3,020 watts of total output power (6,000 watts peak). The field-replaceable amplifier/processing electronics module includes TruPower limiting to extend the life of the drivers and hold long-term power compression to less than 1 dB, and incorporates Meyer Sound's Intelligent AC power supply, which automatically adjusts for any line voltage worldwide and provides both soft turn-on and transient protection.



*MICA's powerful four-channel amplifier*

As a Meyer Sound self-powered system, each MICA contains all of its amplification and processing within the loudspeaker cabinet, providing greater performance, lower cost and more convenience. Greater performance because all of the electronics and the drivers are designed as an integrated system from the beginning, eliminating the need for the compromises that come with accommodating unknown amplifiers or loads in passive systems, as well as ensuring that each cabinet performs identically to every other. This is critical in line array applications, where performance differences compromise coupling between cabinets, which is the basis of line array theory. Finally, cable runs are reduced to a matter of inches; signal loss from long cable runs are a thing of the past.

Lower cost comes from no longer having to buy, outfit and haul amplifier racks on tour, or build air-conditioned rooms in fixed installations. The space saved also translates into money. Also gone is the need to buy, carry and run lengths of loudspeaker cables.

Convenience comes from doing away with involved calibration of gain and crossover settings, while simplifying setup and modifications like adding more cabinets or reconfiguring zones. Load-in, load-out and flying loudspeakers is a snap.

## QUICKFLY RIGGING

Meyer Sound's QuickFly rigging is the subject of multiple patents and broke new ground in providing rigid rigging that allowed arrays to travel fully rigged and virtually eliminated the need for pullback cables.

In addition to its all-new loudspeaker components and power amplifier, MICA also features a brand new design for its QuickFly rigging. The new rigging features captive GuideALinks that make rigging arrays both simpler and safer. With MICA's QuickFly rigging, it is never necessary to put hands between cabinets while pinning links.

The front links also feature an integral "balcony bar" setting, allowing a wide splay angle to be introduced into an array, making it easy to minimize reflections off of balconies and other architectural obstacles.



*The MCF-MICA caster frame allows up to four MICA cabinets to be transported fully rigged.*

The MG-MICA top grid can hold up to 22 MICA cabinets with a 7:1 load safety ratio for large MICA arrays, while the MTF-MILO/MICA transition grid facilitates using MICA as downfill for a MILO main array. The MCF-MICA caster frame allows up to four MICA cabinets to be transported fully rigged, and is dimensioned to provide tight packing in both U.S. and European trucks. To make MICA entirely road-ready, durable nylon covers for up to four cabinets are also available.



*Newly designed QuickFly rigging features captive GuideALinks for easier and safer setup.*



*MG-MICA top grid can hold up to 22 MICA cabinets with a 7:1 load safety ratio.*

## ALONE OR WITH FAMILY, MICA DOES THE JOB

MICA's compact profile and high output make it extremely versatile. On its own, MICA is perfect for tours or rental systems working in mid-sized venues. Performing arts centers, theatres, churches and other locations that require a powerful system but do not have the scale of large-scale installations such as arenas and stadiums will also find MICA to be an ideal solution. Where size or weight limits are an issue, MICA presents an elegant answer.

MICA has been designed to be fully compatible with other MILO family loudspeakers and integrates seamlessly into systems built from them. Where main arrays are built from MILO, MILO 120 or MILO 60 loudspeakers, MICA is the best choice for sidefill arrays. MICA can also be used as an alternate downfill in situations where the wider vertical and horizontal coverage of MILO 120 is not needed. In fact, tours playing in a variety of venues can use MICA for sidefill in larger houses and as the main arrays in medium to smaller ones.

The "balcony bar" setting in the MICA QuickFly rigging makes it easy to avoid bouncing sound off of architectural obstructions. The RMS remote monitoring system, included as standard, makes it easy to watch critical performance parameters.

## SUBWOOFER INTEGRATION

MICA's prodigious output calls for equally powerful support for the low frequencies. The 700-HP ultrahigh-power subwoofer supplies this support in abundance, boasting an operating frequency range of 28 Hz to 150 Hz and a maximum peak output of 139 dB SPL. The 700-HP can be groundstacked or flown in its own array with its optional QuickFly rigging. It can even be configured into a horizontal line array to provide even low-frequency coverage over a large area.

For applications where it is desirable to fly a subwoofer as part of a MICA array, the new 600-HP offers extremely high output in a form factor compatible with MICA. The 600-HP's optional QuickFly rigging components provide seamless integration with MICA cabinets, as well as the MG-MICA multi-purpose grid and the MCF-MICA caster frame.



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Three MILO 60, six MILO, one MILO 120-I, and one MILO 120



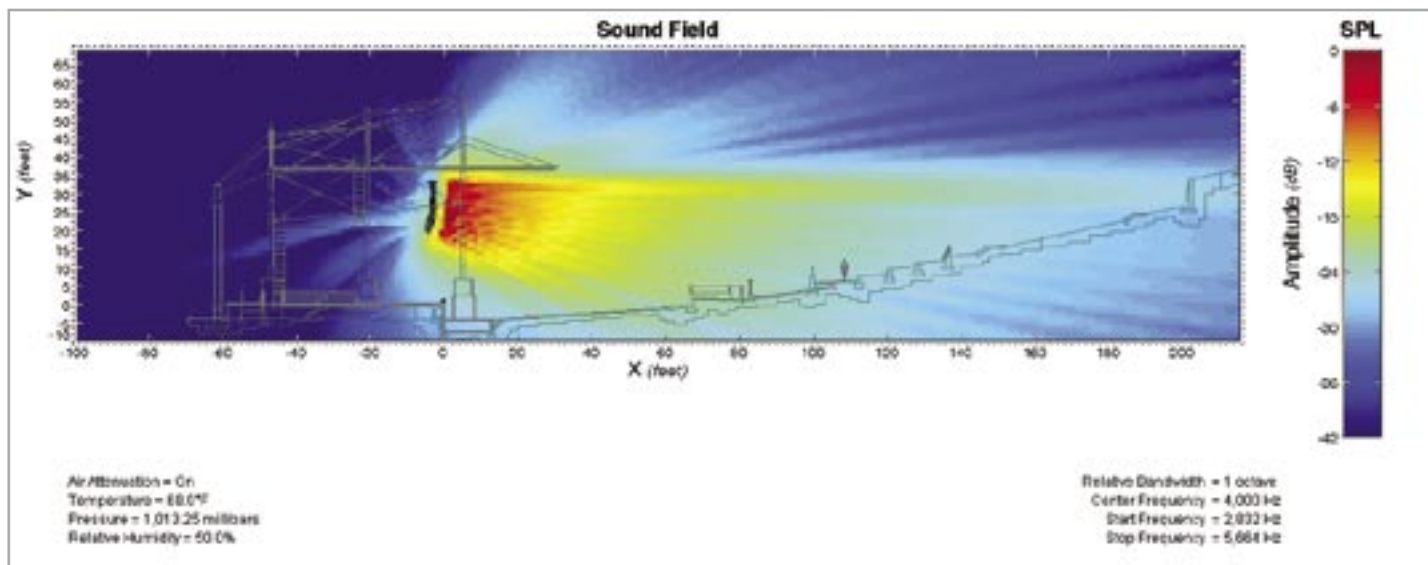
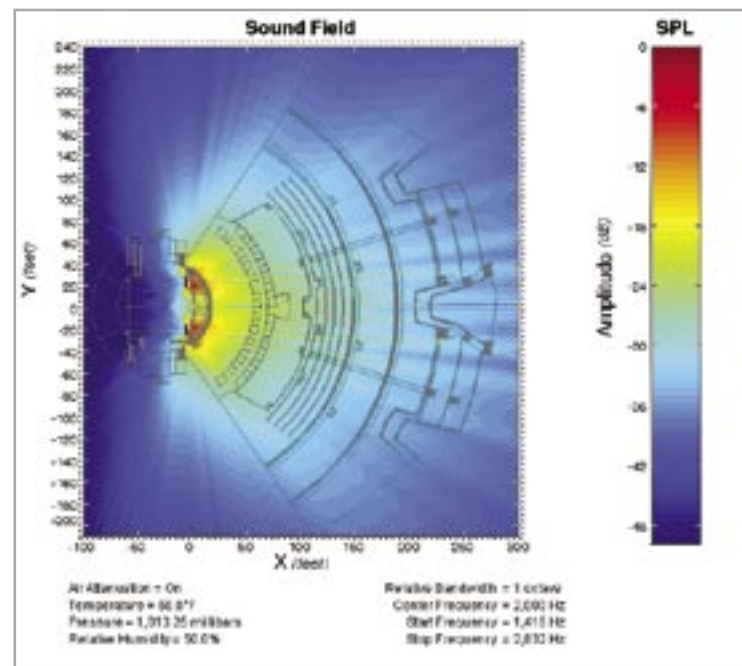
700-HP ultrahigh-power subwoofer

## MICA AND MAPP ONLINE

Meyer Sound knows that building the world's best loudspeakers is only part of the job; ensuring they are well used is the other part. Good tools can make all the difference in achieving optimal loudspeaker use. Meyer Sound MAPP Online acoustical prediction software, available free from Meyer Sound, gives users accurate predictions of how Meyer Sound loudspeakers will work in use in a given venue. MAPP Online lets users view coverage, and, using the included Virtual SIM feature, SPL and frequency response at any spot in the venue. MAPP Online also integrates a comprehensive rigging calculator.

Running under the Macintosh or Windows operating system, MAPP Online's powerful features makes it easy to design MICA arrays by themselves or complete systems incorporating MICA. Propose a loudspeaker configuration and graphically view the resulting coverage within seconds with confidence that reality will closely match the prediction.

*A MAPP Online soundfield plot of a system with a MILO main array and a MICA sidefill array (splayed 40 degrees from the main array) on each side of the venue.*



*A MAPP Online soundfield plot of a MICA array.*

## MILO FAMILY

Since the 2003 introduction of the MILO high-power curvilinear array loudspeaker, it has become the “gold standard” for touring and installed line array systems. With the widespread acceptance of MILO, users started asking for those same qualities in products optimized for synergistic functions, and Meyer Sound responded by releasing the MILO 120, whose 120-degree horizontal and 20-degree vertical coverage



MILO

angles make it the ideal downfill loudspeaker in a MILO family array, the MILO 60, with its narrow 60-degree horizontal coverage angle for situations where tight directivity control is crucial, and now MICA, for applications that don't quite need MILO's extraordinary power and throw.

Compatible in terms of sound, power and rigging, MILO family loudspeakers seamlessly integrate in virtually any combination, representing a complete solution for fixed installations of any size, and total flexibility for touring or rental applications, where every show may demand a different system configuration that, nonetheless,



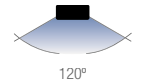
MICA

must setup and sound the same as the show before.

With four distinct variations on a successful theme, the MILO family offers a comprehensive solution that allows every audience member to enjoy the power and transparency of MILO in venues of any size.



MILO 120



MILO 60

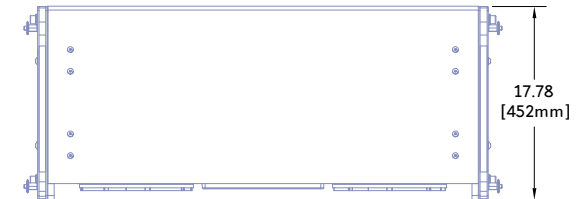
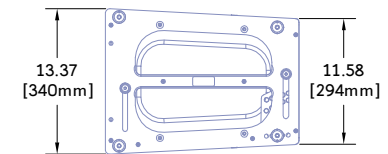
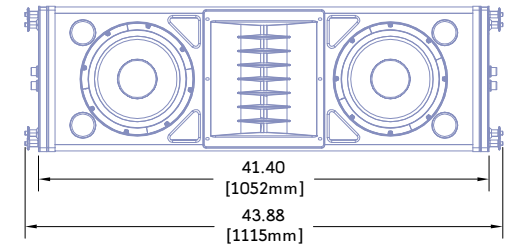


*“The MILO family represents the combination of all of Meyer Sound’s years of experience making low-distortion, self-powered loudspeakers with the knowledge we’ve gained from our curvilinear array systems. The market is looking for high power, clarity of sound and well-engineered packaging, and all of the MILO family loudspeakers deliver those things.”*

*– John Meyer*

# MICA SPECIFICATIONS

<b>ACOUSTICAL</b>		
Operating Frequency Range <sup>1</sup>	60 Hz – 18 kHz	
Frequency Response <sup>2</sup>	75 Hz – 17 kHz ±4 dB	
Maximum Peak SPL <sup>3</sup>	138 dB	
<b>COVERAGE</b>		
Horizontal	100°	
Vertical	Varies, depending on array length and configuration	
<b>TRANSDUCERS</b>		
Low/Low-Mid Frequency	Two high-power 10" cone drivers with neodymium magnets Nominal impedance: 4 Ω Voice coil size: 2" Power handling capability: 1200 W (AES) <sup>4</sup> ; 1800 W peak <sup>5</sup>	
High Frequency <sup>6</sup>	Two 3" compression drivers Nominal impedance: 8 Ω Voice coil size: 3" Diaphragm size: 3" Exit size: 1.2" Power handling capability: 360 W (AES) <sup>4</sup> ; 720 W peak <sup>5</sup>	
<b>AUDIO INPUT</b>		
Connector	Female XLR input with male XLR loop output or VEAM all-in-one connector (integrates AC, audio, and network)	
<b>AMPLIFIER</b>		
Type	Four-channel complementary MOSFET output stages (class AB/H)	
Output Power <sup>7</sup>	3020 W (four channels; 2 x 950 W, 2 x 560 W)	
Total Output <sup>8</sup>	6000 W peak	
<b>AC POWER</b>		
Connector	250 V AC NEMA L6-20 twistlock, IEC-309 male, PowerCon, or VEAM	
Automatic Voltage Selection	Automatic, two ranges, each with high-low voltage tap (uninterrupted)	
Turn-on and Turn-off Points	85 V AC – 134 V AC; 165 V AC – 264 V AC	
Max Long-Term Continuous Current (>10 sec) <sup>9</sup>	8.7 A rms (115 V AC); 4.3 A rms (230 V AC); 10.0 A rms (100 V AC)	
<b>RMS NETWORK</b>		
	Equipped with two-conductor twisted-pair network, reporting all operating parameters of amplifiers to system operator's host computer	
<b>PHYSICAL</b>		
Dimensions	41.40 w x 13.37 h x 17.78 d (1052 mm x 340 mm x 452 mm)	
Weight	150 lbs (68.04 kg)	
Enclosure	Premium birch plywood	
Finish	Black textured	
Protective Grille	Powder-coated, hex-stamped steel, black mesh	
Rigging	QuickFly rigging with four captive AlignaLinks in the bottom corners of two aluminum and steel end frames, secured with quick-release pins	



1. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
2. Free field, measured with 1/3-octave frequency resolution at 4 meters.
3. Measured with music referred to 1 meter.
4. Power handling is measured under AES standard conditions: both transducers driven continuously for two hours with band-limited noise signal having a 6 dB peak-average ratio.
5. Peak power handling is measured with both transducers driven for 100 milliseconds with pink noise signal having a 12 dB peak-average ratio.
6. The two drivers are coupled to a 100-degree-horizontal constant-directivity horn through a proprietary acoustical combining manifold (REM).
7. Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage that the amplifier will produce for at least 0.5 seconds into the nominal load impedance.
8. Peak power based on the maximum unclipped peak voltage that the amplifier will produce for at least 100 milliseconds into the nominal load impedance.
9. AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not drop voltage below specified operating range at the speaker.



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