



## M7



HAYWARD, CA (USA) // November 2023 // Magico—the leader in high-performance loudspeaker design and manufacture—is pleased to announce the ground-breaking M7 loudspeaker.

In June of 2020, Magico, LLC introduced the incomparable M9 flagship loudspeaker. The M9 was and continues to be the most advanced and highest-performing loudspeaker in Magico history.

All that was discovered in the extensive research-and-development program undertaken for the M9 has now been distilled into the Magico M7.

The Magico M7 is a four-way, six-driver floorstanding loudspeaker capable of astonishing performance. Featuring the latest Magico drive-unit technology, an organically shaped carbon-fiber-and-aluminum enclosure, and the latest Elliptical Symmetry Crossover, the M7 is a tour de force of advanced loudspeaker engineering.

The M7 was conceived by Founder and CEO Alon Wolf as a more accessible version of the semi-active M9. The Magico engineering team was tasked with creating the all-passive M7, capable of sound quality never before achieved in a speaker of its size. Magico leveraged tools such as a Klippel Near-Field Scanner and a Polytec Laser Doppler vibrometer, among many other advanced tools, along with two decades of design experience creating the industry's most advanced speakers. The result of the M7 development project has stunned Magico engineers. In the final phase of development in the Magico listening room, the M7 proved to be far more than the sum of its considerable bill of materials.



### **State-of-the-art transducers**

All M7 drivers were designed to eliminate music-related distortions in both the frequency and time domains. Their design was optimized using the latest state-of-the-art FEA simulation. Acoustic, mechanical, electromagnetic, and thermal behaviors were examined on a single platform allowing simultaneous optimization of each parameter.

## **The highest expression of our tweeter technology**

The M7 uses the tweeter designed for the M9. This high-frequency 28mm driver utilizes a beryllium diaphragm with optimized geometry. The diaphragm is then diamond coated using a chemical vapor-deposition process to push the beryllium substrate ever closer to the theoretical ideal. Magico engineers created a new neodymium-based motor system that results in the lowest distortion possible, massive dynamic capability, and even greater power handling than previous designs. Lastly, the acoustical performance of the back chamber was improved with careful FEA modeling. The high-frequency detail retrieval of this driver is simply unmatched by any competing design.

## **A most marvelous midrange**

The 5" pure midrange driver in the M7 features a Gen 8 Nano-Tec cone formed of an aluminum-honeycomb core sandwiched with outer and inner layers of graphene-infused carbon fiber. The advanced cone is supported by a newly designed basket assembly and an innovative foam surround, the latter to help achieve ideal cone/surround integration. The result is faster settling time and impressively low distortion. The all-new underhung neodymium-based motor system uses two extra-large magnets to facilitate a super-stabilized magnetic field. A pure copper pole cap minimizes eddy currents and maximizes efficiency. This new development in midrange driver technology sets a new benchmark for measured performance in both the frequency and time domains. This is the highest-performing 5" midrange ever developed.

## **Music lives in the midbass**

The M7's 9" midbass driver uses a newly designed basket assembly along with Magico's Gen 8 Nano-Tec cone, consisting of an aluminum-honeycomb core sandwiched with outer and inner layers of graphene-infused carbon fiber. This drive unit is equipped with a 127mm voice coil and an underhung neodymium-based motor system using dual extra-large magnets. The vented pure titanium voice-coil former enables +/-13mm of stable movement. This high-sensitivity driver is capable of output of 120dB @ 1m in its band pass. By separating the power region from the lower octaves, the M7's midbass section brings music to life in ways unmatched by any other design save for the M9.

## **Bass that moves you**

The M7's new 12" bass driver uses a newly designed basket assembly and a Gen 8 Magico Nano-Tec cone, which includes an aluminum-honeycomb core sandwiched with outer and inner layers of graphene-strengthened carbon fiber. This drive unit has a 127mm voice coil, an underhung neodymium-based motor system using an extra-large magnet, and a top magnet to

get a super-stabilized magnetic field. Parts include a huge copper cap and a vented titanium voice-coil former, contributing to +/-15mm of stable movement at very high sensitivity. A new composite-material spider ensures great heat dissipation with no rocking distortion. This driver is capable of 120dB SPL @ 25Hz measured at 1m.

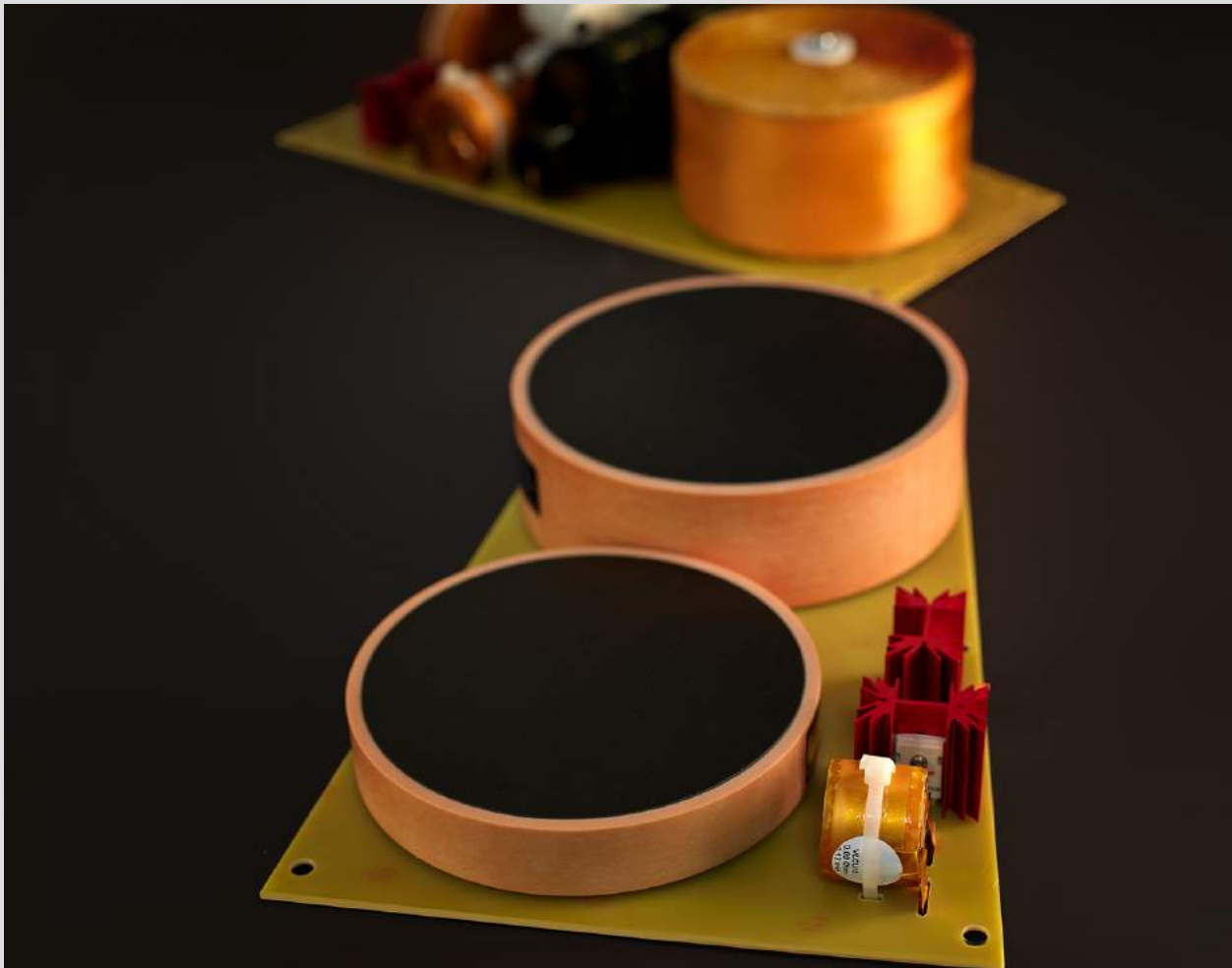


### **Organically shaped enclosure**

Magico's continued research and development in eliminating cabinet vibration and stored energy has realized numerous ground-breaking advancements. The M7's enclosure design is simply not possible using common sheet-stock construction methods. The M7's enclosure begins with a monocoque carbon-fiber shell conceived using Finite Element Analysis (FEA) modeling. A multiply 6061-T6 aluminum front baffle with constrained-layer damping using aerospace composites is affixed to an aluminum rear baffle with front-to-back tensioning rods. The result is a cabinet that produces negligible internal resonances, enabling a minimal amount of damping—again, a design optimized conceptually and then tested until perfected. The baffle shape was refined until almost no diffraction effects were measurable.

The M7's overall structure results in maximum strength on every axis, with extreme stiffness and rigidity along with minimal energy storage. The M7 possesses, essentially, a silent enclosure.





### **Elliptical Symmetry Crossover**

Magico's Elliptical Symmetry Crossover (ESXO) is used in its most advanced and costliest form in the M7. The four-way network contains components from Mundorf of Germany and Duelund Coherent Audio of Denmark—only the finest of their types and values were selected. The M7's ESXO crossover perfectly integrates the six drive units into a virtual point source—the six drivers sounding as one complete whole.

### **Attention to detail**

A bespoke support system developed specifically for the M7 uses MPOD technology in order to provide an absolutely stable footprint while eliminating noise and achieving perfect coupling to the floor. In addition, the M7's support system offers a subtle visual contrast to the carbon-fiber-and-aluminum cabinetry.

Lastly, on the rear of each M7 is a chrome plate with Alon Wolf's signature. This signals Wolf's personal endorsement of every M7 that leaves the Magico factory.



### **M7 enters the pantheon of great Magicos**

Never before has there been an all-passive design capable of such astonishing performance. For those that have been waiting for something truly special, the M7 is here and awaits your audition.

## **M7 Specifications**

Configuration: 4-way, 6-driver design

Tweeter: MBD5D 1.1" (28mm) pure-beryllium, diamond-coated diaphragm

Midrange: MAG5004RTC 5" Gen 8 midrange driver

Midbass: MAG9508HE 9" Gen 8 midbass drivers (2)

Woofers: MAG12008HE 12" Gen 8 bass drivers (2)

Sensitivity: 92dB

Impedance: 4 ohms

Frequency Response: 18Hz—50kHz

Recommended power: 50W—1000W

Dimensions: 65H" (164cm) x 29D" (73cm) x 19.3W" (49cm)

Weight: 526 pounds (239kg)

Note: All features and specifications subject to change.

Ship date: Q1 2024