



DML500A

High Output
Distributed Mode
Loudspeaker for
Architectural Applications



- High output DML500A (Distributed Mode Loudspeaker) behaves radically different than point-source boxes
- 165° conical dispersion
- Shorter install time; less tuning required regardless of acoustic treatments
- The physics of DMLs result in minimal destructive room interactions, reducing the need for acoustic treatments
- Exceptional intelligibility and feedback resistance
- Significantly reduces echoes in most spaces
- Integrated multi-use VESA hardware

Applications

- Airports and Transit
- Restaurants
- Museums
- Luxury Home Theaters
- High End Retail
- Recording Studios
- Immersive Venues

Innovative design enables the DML500A to solve room problems point-source loudspeakers exacerbate. The loudspeaker's design affords flush mounting in walls and ceilings – and of course it is also VESA mountable. Uncorrelated sound waves provide non-destructive room interactions, delivering exceptionally intelligible, immersive sound in some of the most challenging architectural environments. Nearly doubles traditional cone speaker coverage with wide band, jaw-dropping stereo-stable imaging everywhere throughout the space.

The main acoustical element is constructed of a multilayer honeycomb carbon fiber panel driven by four high power, neodymium motor structures with 32mm copper-clad aluminum voice coils.

The resulting DML500A panel creates non-destructive uncorrelated waves that radiate audio over almost *eight* octaves in a very diffuse manner. These characteristics and superb power handling provide unparalleled sound in both reverberant and well-mannered spaces.

Unmatched off-axis performance comes from a loudspeaker delivering phenomenal 165° coverage.

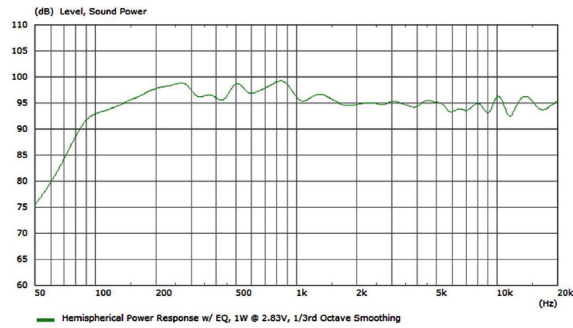
DML500A System	
Frequency Range (-10dB)	75Hz-28kHz
Frequency Response(±6dB)	85Hz-24kHz
Horizontal/Vertical Coverage	165°
System Sensitivity	92dB
Rated Maximum SPL	SPL 123dB
System Nominal Impedance	8 ohms
Power Handling	
Continuous / Program / Peak	200W/300W/600W
Suggested High Pass Filter	90Hz Butterworth 2 nd Order
Drivers	
Flat Panel Transducer	4 x DML Exciter
Voice Coil Diameter	32 mm
Voice Coil Winding Wire	Copper-clad Aluminum
Suspension Design	Standard Spider
Diaphragm Design	
Design Principle	Bending Wave Modal
Radiator Surface Area	400 x 575 mm
Material	Carbon Fiber Honeycomb
Input Connection	Pigtail 18 AWG
Physical	
Outer Dimensions (H x W x D)	23.4 in x 17.2 in x 2.2 in 596 mm x 437 mm x 56 mm
Weight	17 lbs / 7.72 kg
Shipping Dimensions	37 in x 27 in x 8 in 800 mm x 650 mm x 250 mm
Shipping Weight	23 lbs / 10.45 kg

FlatPanel continually engages in research related to product improvement. Specifications are subject to change without notification. DML500A-5/24-A

DML500A High Output Distributed Mode Loudspeaker for Architectural Applications

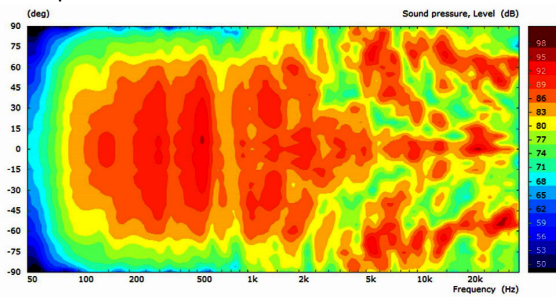


Hemispherical Power Response

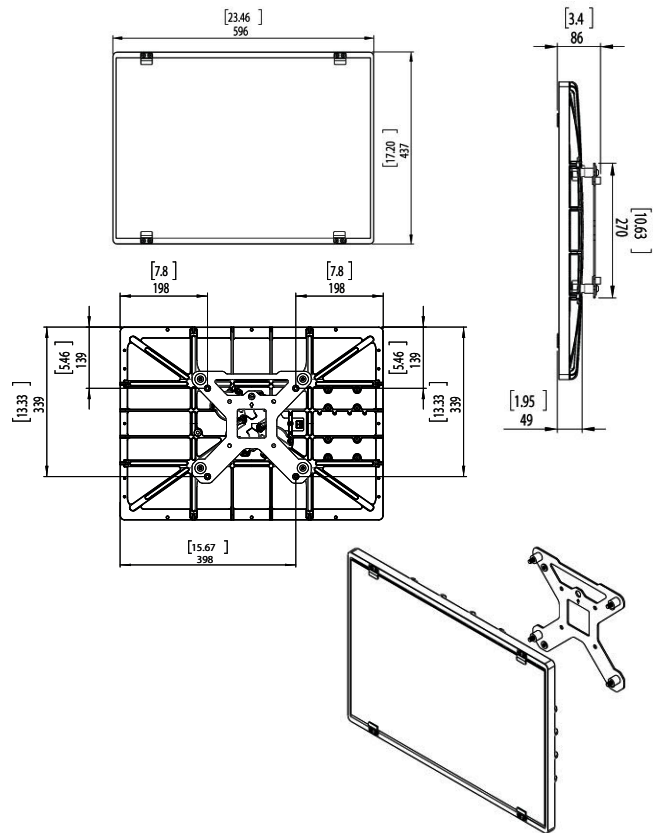
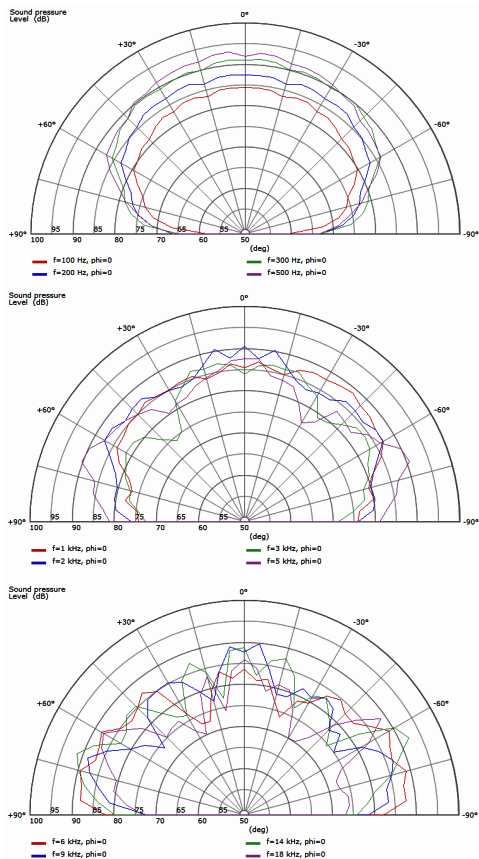


Due to the modal nature of DML loudspeakers, the best way to represent their acoustic characteristics is to measure their power response. Measurements are made at 5° intervals in both the vertical and horizontal axis and averaging a total of 1349 measurements. Please refer to our "Sound Power Response" application notes for further information.

Hemispherical Contour Plot



Polar Plots

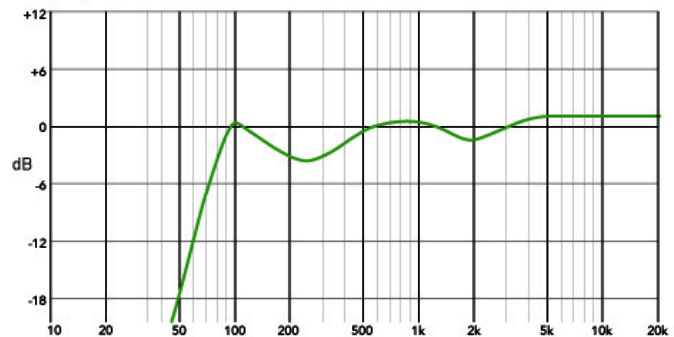


Accessories -

The DML500A comes with an integrated VESA mount with a 200 x 200 mounting pattern suitable for M8 bolts. Please refer to additional installation information regarding additional mounting accessories and hardware.

Recommended Filtering/Crossover: The following are the initial recommended acoustic filters as implemented in all DML acoustic measurements. They also represent an EQ starting point for all field applications.

Frequency Response



High Pass - Butterworth 4th Order (24dB) @ 100Hz
 Peaking Filter - 95Hz / Q of 3 / Gain of 3dB
 Peaking Filter - 265Hz / Q of 0.7 / Gain of -4 dB
 Peaking Filter - 500 Hz / Q of 0.7 / Gain of 2 dB
 HF Shelving Filter - 4000Hz / Q of 1.0 / Gain of 2 dB



350 West Main Street, Unit C
 Los Gatos, CA 95030
 408.457.4371
www.FlatPanelAudio.com