



DML500

High Output
Distributed Mode
Loudspeaker

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

Applications

- Churches
- Educational Facilities and Gymnasiums
- Airports and Transit
- Performing Arts Centers
- Government Facilities
- Portable Audio Systems
- Immersive Venues

Innovative design enables the DML500 to solve room problems point-source loudspeakers exacerbate.

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, stereo-stable imaging throughout.

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 DML panel employs uncorrelated waves to radiate sound over almost *eight octaves* in a very diffuse manner. These characteristics provide unparalleled audio performance in both reverberant, or well-mannered spaces.

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

Additionally, the DML500 exhibits superb power handling, which is the sum of the total radiated acoustic output of a loudspeaker as measured in a sphere around the speaker at incremental intervals on- and off-axis in the far (reverberant) field.

Rugged physical construction includes a powder coated die cast aluminum enclosure with multiple mounting points, and a flexible mounting bracket with standard VESA attachment points.



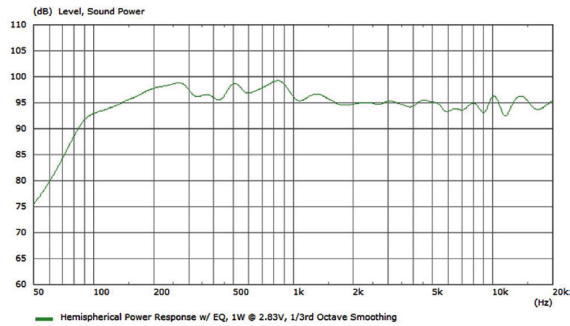
DML500 System	
Frequency Range (-10dB)	75Hz-20kHz
Frequency Response(±6dB)	85Hz-20kHz
Horizontal/Vertical Coverage	165°
System Sensitivity	92dB
Rated Maximum SPL	SPL 123dB
System Nominal Impedance	8 ohms
Power Handling	
Continuous / Program / Peak	200W/300W/600W
Suggested High Pass Filter	100Hz Butterworth 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 mm x 575 mm
Material	Carbon Fiber Honeycomb
Input Connectors	Neutrik Speakon® NL4 +1/-1 Input, +2 /-2 Loop out
Physical	
Outer Dimensions (H x W x D)	35.5 in x 21.6 in x 3.5 in 902mm x 533.4mm x 89mm
Outer Frame	4 x MB 15.5 in x 19.13 in 395 mm x 486.5 mm
Rear Grille	4 x MB 9.13 in x 7.95 in 292 mm x 202 mm
Weight	44 lbs / 20.3 kg
Shipping Dimensions	37 in x 27 in x 8 in 840 mm x 686 mm x 203.2
Shipping Weight	51 lbs / 23.2 kg

FlatPanel continually engages in research related to product improvement. Specifications are subject to change without notification. DML500-5/24-D

DML500 High Output Distributed Mode Loudspeaker

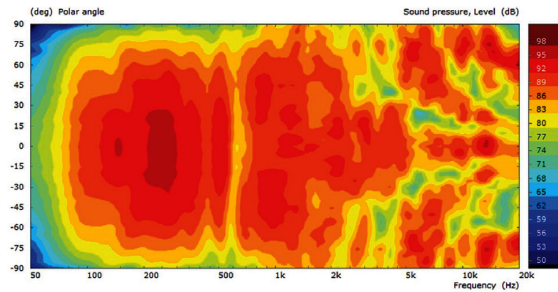


Hemispherical Power Response

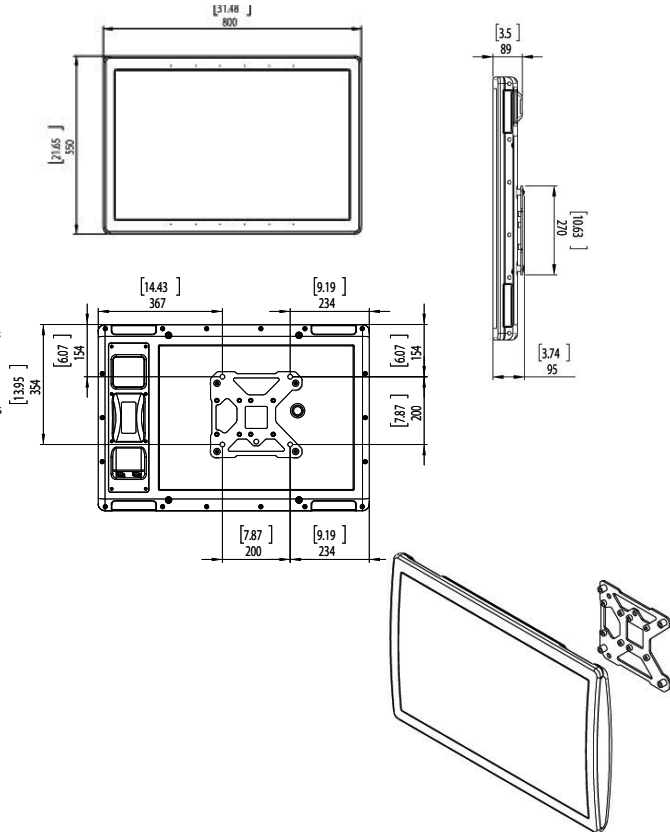
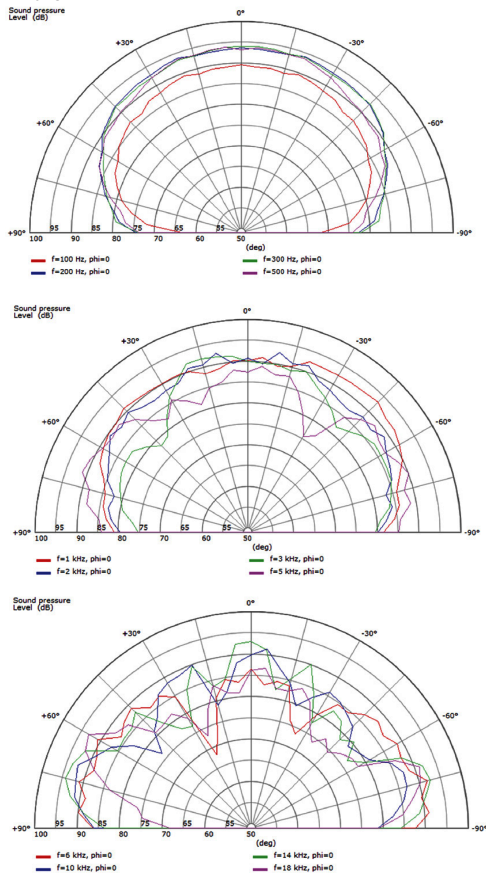


Due to the modal nature of DML loudspeakers, the best way to represent their acoustic characteristics is to measure their power response. Measurements are made at 5° intervals in both the vertical and horizontal axis and averaging a total of 1349 measurements. Please refer to our "Sound Power Response"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

Hemispherical Contour Plot



Polar Plots

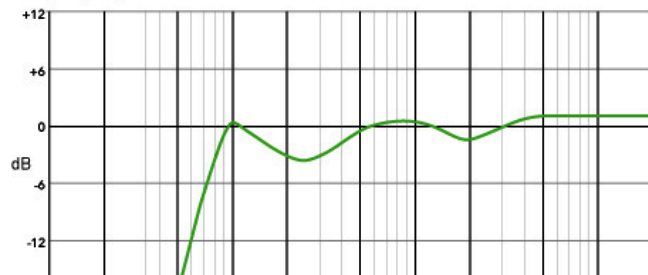


Accessories -

The DML500 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] @ 90Hz
- Peaking Filter - 95Hz / Q of 3 / Gain of 3dB
- Peaking Filter - 265Hz / Q of 0.7 / Gain of -4 dB
- High Shelving Filter - 400 Hz / Q of 0.5 / Gain of 2dB
- Peaking Filter - 2800Hz / Q of 0.9 / Gain of -3 dB



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