

FlatPanel Audio

DML500A

High output Distributed Mode Loudspeaker (DML) for architectural applications

Designed for architects, the thin design of the DML500A affords flush mounting in walls and ceilings.

System integrators are specifying this radically different technology to solve room problems old-school loudspeakers worsen.

How different? The DML500A eschews pumping focused air pressure waves traditional loudspeakers employ to create ear-fatiguing sound. Instead, non-destructive waves emerge wide and diffuse to more gently bathe the ear in pleasing, super-intelligible sound over almost eight octaves.

Especially noticeable in highly reverberant spaces, DML sound waves provide non-destructive room interactions, so free of room echo and comb filtering that one customer referred to the intelligibility improvement over their old church system as "mind boggling."

Floor-to-balcony, stereo-stable imaging in every seat is another performance "wow," making DML500A the top choice for immersive audio.

Superb power handling plus 165° conical coverage allowed an American airport to replace 104 traditional speakers with six DML500A flat panels.

Unmatched placement flexibility also optimizes aesthetic choices and quicker installations.

Rugged construction includes a powder coated die cast aluminum enclosure with multiple VESA mounting points.

A is for Architect

Airports and transit
Restaurants

Luxury home theaters
High end retail

Immersive venues
Museums



DML500A specifications

Frequency range (-10dB) 75Hz-20kHz

Frequency response (± 6 dB) 85Hz-20kHz

Horizontal/vertical coverage 165°

System sensitivity 92 dB

Rated maximum SPL SPL 123 dB

System nominal impedance 8 ohms

Power handling

Continuous / program / peak 200W/300W/600W

Suggested high pass filter 90Hz Butterworth 2nd order

Drivers

FlatPanel 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 14 AWG

Physical

Outer dimensions (H x W x D) 17.2 in x 23.4 in x 2.2 in
437 mm x 596 mm x 56 mm

Weight 17 lbs / 7.72 kg

Shipping dimensions 37 in x 27 in x 8 in
650 mm x 800 mm x 250 mm

Shipping weight 23 lbs / 10.45 kg

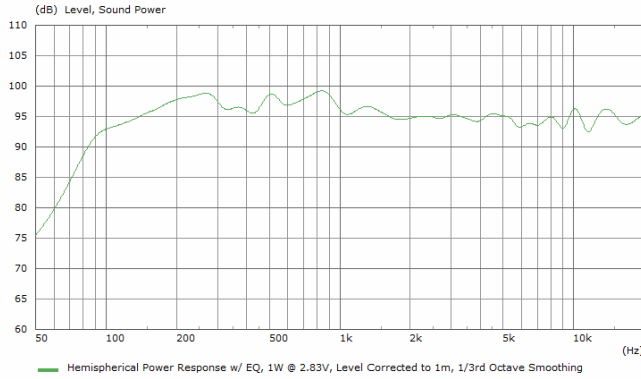


FlatPanel Audio continually engages in research related to product improvement. Specifications are subject to change without notification.

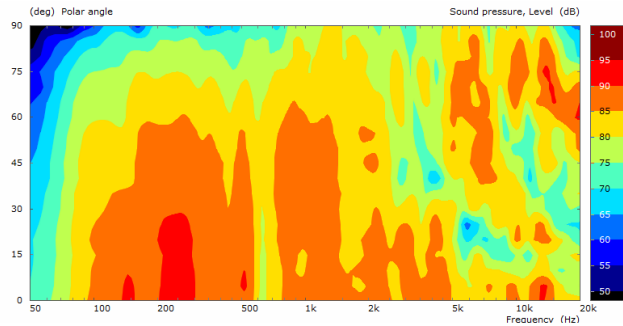
FlatPanel Audio DML500A

Hemispherical power response

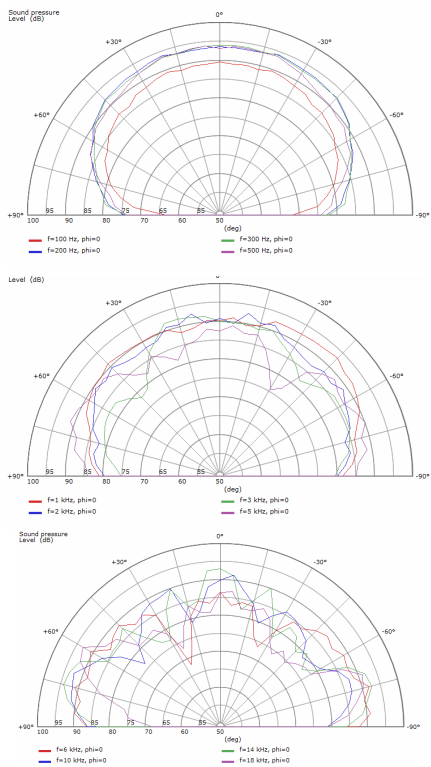
Due to the modal nature of DML loudspeakers, the best way to represent their acoustic characteristics is to measure their power response. Measurements are made at 5° intervals in both the vertical and horizontal axes, and averaging a total of 1349 measurements.



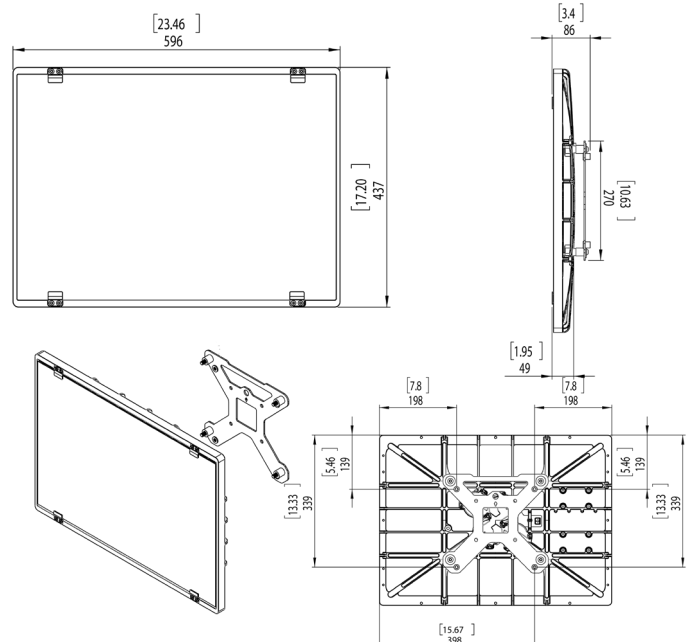
Hemispherical contour plot



Polar plots



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Accessories

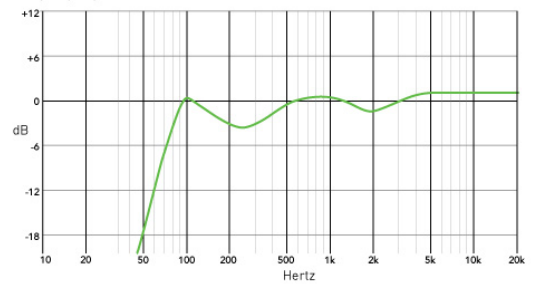
The DML500A includes an integrated VESA mount with a 200 x200 mounting pattern suitable for M8 bolts. More information about mounting accessories and hardware is provided in the installation documentation.

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.

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

Frequency response



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