# The M6 monitor

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The M6 is a 2-way high performance stage monitor employing an integrated 12" LF and 1.3" exit horn loaded HF coaxial driver design that utilizes neodymium magnets. The constant directivity dispersion of 50° x 80° (h x v), which this unique horn provides, delivers an accurately defined coverage area on stage. The M6 can also be operated in 2-Way Active mode.

When the cabinet is used in an upright position the M6 serves as a powerful PA loudspeaker with a 80° x 50° dispersion suitable for a variety of applications. For dedicated installation applications the dispersion characteristics of the M6 driver assembly can be rotated in 45° increments.

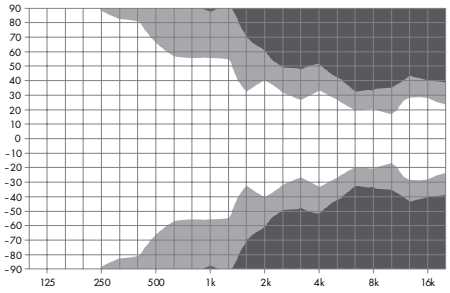
The M6 cabinet is constructed from marine plywood, which incorporates the handles, has an impact resistant paint finish, M10 threaded inserts and a socket to accept loudspeaker stands. The front of the loudspeaker cabinet is protected by a rigid metal grill backed with an acoustically transparent foam. Two runners recessed in the bottom panel protect the cabinet from scratching and prevents movement. Mounted on the rear panel are two EP5 or NL4 connectors wired in parallel.

### System data

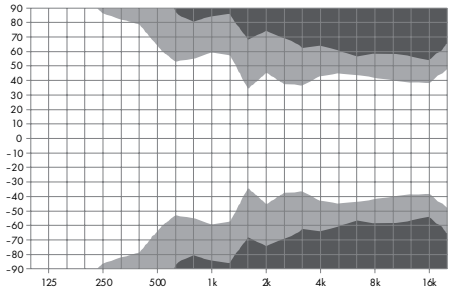
Frequency response (–5 dB).....65 Hz - 17 kHz
Max. sound pressure (1 m, free field)[1].....
with D6 (passive mode).....132 dB
with D12 (passive mode).....135 dB
with D12 (active mode).....138 dB
Input level (100 dB SPL/1 m) passive/active.....–22 dBu/–22 dBu
Passive mode.....LF: –/HF: +
Active mode.....LF: –/HF: –

### Loudspeaker data

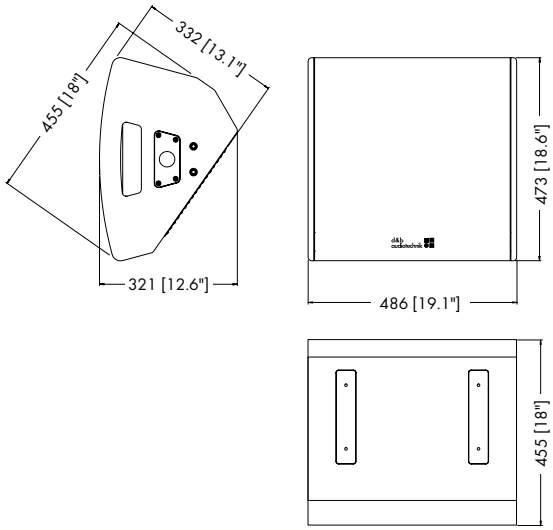
Nominal impedance.....8 ohms
Power handling capacity (RMS/peak 10 ms).....400/1600 W
Nominal dispersion angle (h x v).....50° x 80°
Components.....12" driver with neodymium magnet
.....coaxial 1.3" exit compression driver with 3" coil and CD horn
.....passive crossover network
Connections.....2 x EP5, optional 2 x NL4
Pin assignments.....EP5: 1: LF+/2: LF–/3: HF+/4: HF–
.....NL4: 1+: LF+/1–: LF–/2+: HF+/2–: HF–
Weight.....16 kg (35 lb)




**M6 horizontal dispersion characteristics[2]**




**M6 vertical dispersion characteristics[2]**

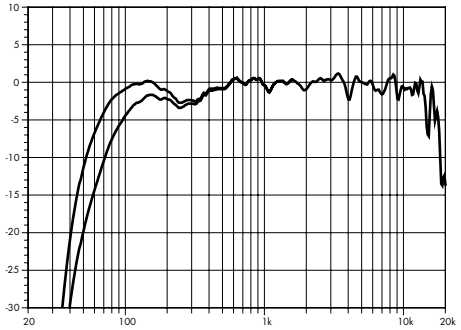



**M6 cabinet dimensions in mm (inches)**

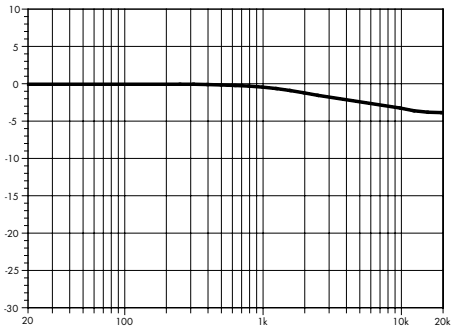
[1] Broadband measurement, pink noise, crest factor 4, peak measurement, linear weighting

[2] Dispersion angle vs frequency plotted using lines of equal sound pressure (isobars) at –6 dB and –12 dB

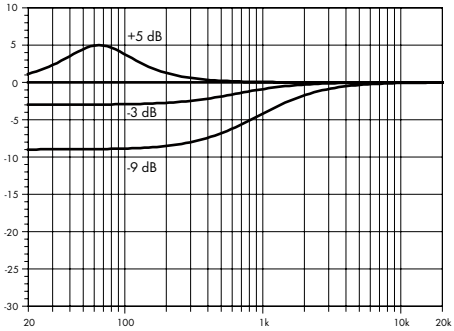
# The D6 and D12 configurations




**M6 frequency response, standard and CUT modes (floor coupling)**




**Frequency response correction of HFA circuit**




**Frequency response correction of CPL circuit**

**M6 with D6 and D12**

The D6 and D12 dual channel amplifiers allow the M6 cabinet to be driven in a passive mode, whilst the D12 also allows the 2-Way Active mode.

Selecting passive mode with the M6 configuration enables up to two M6 cabinets to be driven by the respective channel. In applications with low continuous levels and low ambient temperatures up to three loudspeakers per D12 channel may be connected.

Selecting the 2-Way Active mode in the D12 amplifier with the M6 configuration uses both channels to drive up to two M6 cabinets actively.

For acoustic adjustment the functions CUT, HFA and CPL can be selected.

Set to CUT, the M6 low frequency level is reduced. The M6 is now configured for use with the d&b active subwoofers.

If the HFA (High Frequency Attenuation) circuit is selected the HF response of the M6 is rolled off. The HFA provides a natural, balanced frequency response when a unit is placed close to listeners in near field or delay use. HFA begins gradually at 1 kHz, dropping by approximately 3 dB at 10 kHz. This roll off mimics the decline in frequency response experienced when listening to a system from a distance in a typically reverberant room or auditorium.

The CPL (Coupling) circuit compensates for coupling effects between the cabinets when building closely coupled arrays. CPL begins gradually at 1 kHz, with maximum attenuation below 400 Hz, providing a balanced frequency response when the M6 cabinet is used in arrays of two or more. The function of the CPL circuit in these amplifiers is shown in the diagram opposite and can be set in dB attenuation values between –9 and 0. A positive CPL value (0 to +5 dB) creates an adjustable low frequency boost and can be set when the M6 is used as a full range PA loudspeaker.