

CM52-BGM

5.25" COAXIAL IN-
CEILING
BACKGROUND MUSIC
SPEAKER

SOUNDTUBE
ENTERTAINMENT



Specifications: CM52-BGM

Mounting hardware included

System Type	5" Coax, in-ceiling, ported (20 Watt transformer for 25/70.7/100 Volt or voice coil direct)
Nominal Impedance	16 ohm
Sensitivity dB @ 2.83V/1M	80.4dB
Sensitivity dB @ 1W/1M (2)	83.5dB
Frequency Response (± 3 dB)	67 Hz - 20 kHz
Frequency Response (± 10 dB)	65 Hz - 22 kHz
Max. Program Power	40w
Max. Continuous Power RMS	20w
Max. Power SPL @ 1 M	96.5dB
Max. SPL @ 3dB distortion	20w
Tap Selector	6 Position rotary switch with transformer bypass
70.7 Volt Transformer Taps	20w / 96.5dB
100 Volt Transformer Taps (dB)	20w / 96.5dB
25 Volt Transformer Taps (dB)	2.5w / 87.5dB
Colors	Black or white
Inputs	4 position ceramic terminal connector
Backcan Diameter	245.6 mm / 9.66 in
Backcan Height	146.1 mm / 5.75 in
Visible Diameter	298.5 mm / 11.75 in
Visible Height	8.6 mm / 0.33 in
Mounting Hole Diameter	266.7 mm / 10.50 in
Weight	3.6 kg / 7.93 lb
Shipping Weight	4.1 kg / 9.03 lb
Accessories Optional	AC-CMEZ/8-PCB
Packaging	1 per box
Regulatory - UL	Approved 1480 & 2043
Regulatory - CE	Approved
Regulatory - RoHS	approved
Regulatory - IP	not planned
Regulatory - CCC	approved

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Key Features

- One 5.25 inch (134 mm) polypropylene woofer with rubber surround and one 0.75 inch (19 mm) silk dome tweeter.
- BroadBeam Ring™ technology for midrange clarity and ultra wide off axis performance
- Easy-access six-position tap switch for 25/70.7/100-volt and transformer bypass settings allows for easy ordering, stocking and installation.
- Tuned port on baffle for added musicality and bass response down to 65 Hz (-10 dB).
- Reduced amplification costs and maximum efficiency of 87.5 dB sensitivity, 16 ohm impedance.
- Incorporates a painted steel grille for lasting durability.
- Adaptable to material thicknesses ranging from 0.035 in. (0.9 mm) to 1.6 in. (40.6 mm).
- UL 1480 and 2043 approved.
- High-quality black or white painted finish. Custom colors available.
- Included accessories: Color-coded (green) tile bridge, UL listed conduit clamp, paint shield.
- Optional accessories: Color-coded (green) pre-construction bracket (AC-CM6/8-PCB).

Description

One 5.25 inch (134 mm) polypropylene woofer with rubber surround and one 0.75 inch (19 mm) silk dome tweeter. BeamRing™ technology for mid-range clarity and smooth off axis performance. Easy-access six-position tap switch for 25/70.7/100-volt and transformer bypass settings allows for easy ordering, stocking and installation. Tuned port on baffle for added musicality and bass response down to 65 Hz (-10 dB). Reduced amplification costs and maximum efficiency of 84.5 dB sensitivity, 16 ohm impedance. Incorporates a painted steel grille for lasting durability. Adaptable to material thicknesses ranging from 0.035 in. (0.9 mm) to 1.6 in. (40.6 mm). UL 1480 and 2043 listed. Included accessories: Color-coded (orange) tile bridge, UL listed conduit clamp, paint shield.

Applications

Developed specifically for paging and background music applications where cost, quality and fit are paramount, the CM52-BGM is ideal for hotels, education, hospitals, retail stores, restaurants, airports, churches or boardrooms. Indeed, the entire CM-BGM series is engineered for installations where high-efficiency, added bass response and rapid installation are critical attributes. For applications requiring additional bass response, SoundTube's CM1001d subwoofer provides true low-end response down to 50 Hz.

Patented SoundTube Technologies

SoundTube and MSE Audio Group constantly develop new technologies that enhance audio product performance. SoundTube innovations are protected by multiple U.S. and international patents, which explicitly cover SoundTube dispersion, enclosure and dome technologies. MSE Audio Group actively defends its patents in order to protect SoundTube resellers and end users.

Technical Data and Specification Tools

Technical Data

SoundTube Entertainment strives to provide complete and effective technical information and data to dealers, engineers and designers. All data are available from SoundTube Entertainment or at www.soundtube.com. Technical data and downloads include: EASE™ data - 3-D polar plots. EASE™ Address - 2-D modeling for distributed systems Autodesk® Revit® software Tech Sheets - Technical information and architectural specs for system engineers SoundTubeSPEC™ - Proprietary

speaker placement software

Data Acquisition and Verification

All data for SoundTube speakers are independently collected from and verified by NWA Labs (www.nwaalabs.com) using their proprietary MACH testing system. All data are collected and analyzed according to ASTM, ISO and AES standards using EASRA, TEF and MLSSA. Full balloon data including both phase and magnitude are compiled into a variety of formats including EASE 4.x, GLL and CLF.

Architectural Specifications

The loudspeaker shall consist of one 134 mm (5.25 in.) low-frequency transducer and one 19 mm (0.75 in.) high-frequency transducer with a frequency-dividing network installed in a sealed enclosure. The low-frequency voice coil diameter shall be 12.7 mm (0.5 in.). The low-frequency transducer shall have a polypropylene cone material with a rubber surround. The high-frequency transducer shall be constructed of silk material using a balanced-dome configuration. Performance specifications of a typical production unit shall be as follows: Useable frequency range shall extend from 65 Hz - 22 kHz (-10 dB). The loudspeaker shall be available with selectable 25/70.7/100-volt and transformer bypass tap switch. The frequency dividing network shall have a crossover frequency of 5.0 kHz. Rated power capacity of the components and network shall be at least 20 watts continuous RMS and conform to EIA-426-B testing. Maximum continuous output at 1 meter shall be at least 100.5 dB. The backcan shall be constructed of galvanized steel with an ABS plastic baffle. The grille shall be constructed of painted steel. Shipped complete with UL-listed flex conduit connector, color coded tile bridge (to match color-coded backcan), grille, and paint shield, the integrated in-ceiling speaker is engineered for high performance and rapid installation in plenum spaces. The unit incorporates three additional attachment points for added security, or where required by code. Installation for the speaker shall be by two-screw blind-mount constant-tension fixed-wing assembly and shall attach to ceiling thicknesses ranging from 0.035 inches to 1.6 inches. The external wiring shall be via 4-position ceramic terminal strip, accepting up to 8 gauge wire. The maximum backcan dimension shall be no more than 146.1 mm (5.75 in.) in height by 245.6 mm (9.67 in.) in diameter. The maximum visible dimensions shall be no more than 8.4 mm (0.33 in.) in height by 298.5 mm (11.75 in.) in diameter. The unit is factory preset to the 20-watt setting in the 70.7-volt operating mode, with a tap switch located on the front baffle. The system shall be the SoundTube CM52-BGM for both low- and high impedance applications.

SoundTube

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<http://soundtube.mseaudio.com>
All SoundTube products come with a 5-year limited warranty.

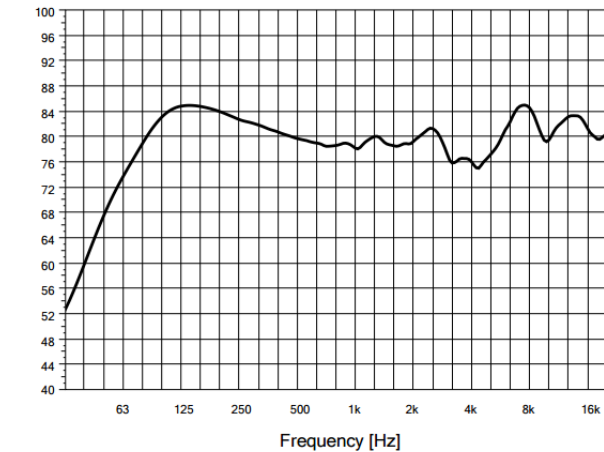
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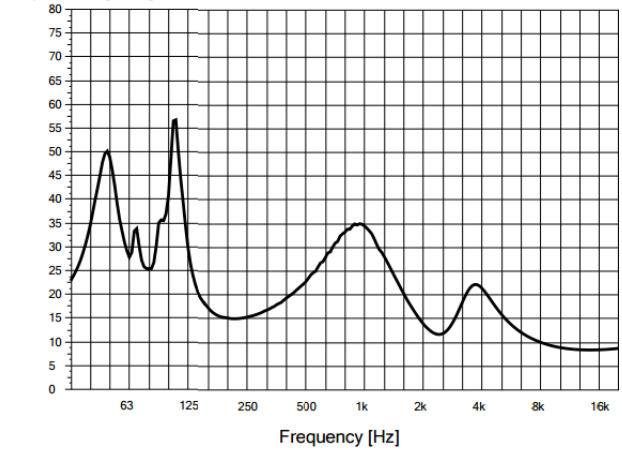
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Graphs and Plots

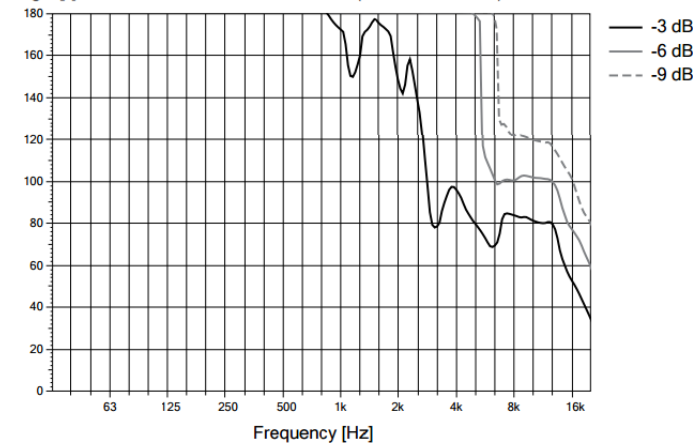
Frequency Response
Level [dB SPL]



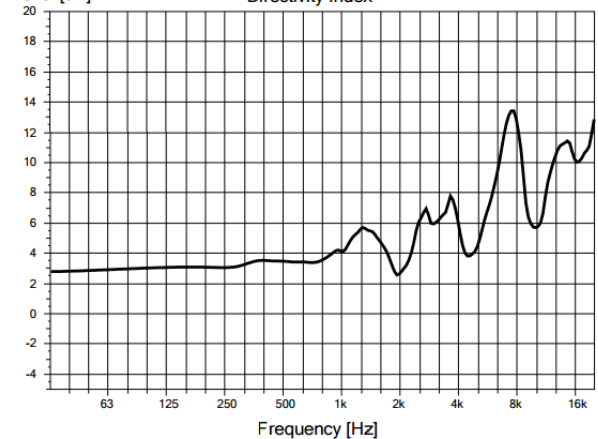
Phase/Impedance Response
Impedance [Ohm]



Vertical Beamwidth
Angle [°]
Minimum H/V Beam Width (1/1-oct smoothed)



Directivity Index (DI)
Level [dB]

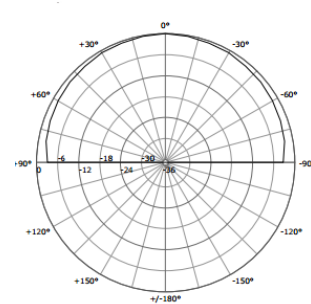
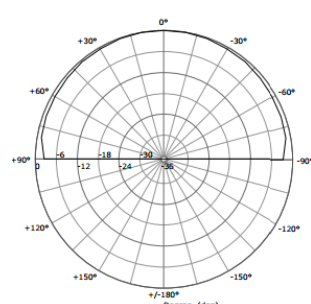
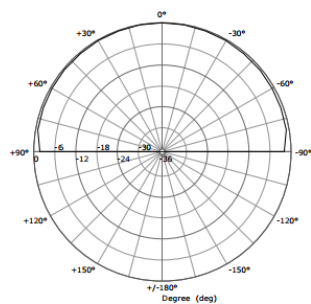
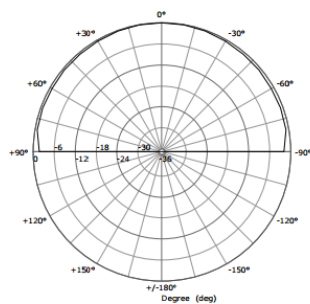


125 Hz

250 Hz

500 Hz

500 Hz



2,000 Hz

4,000 Hz

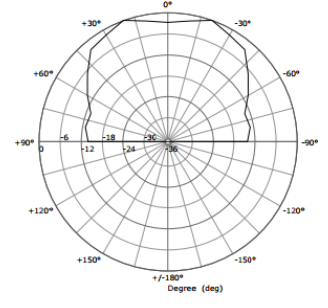
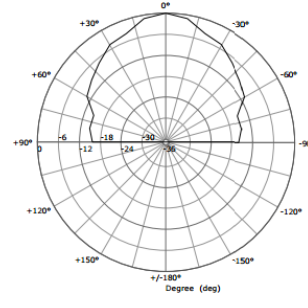
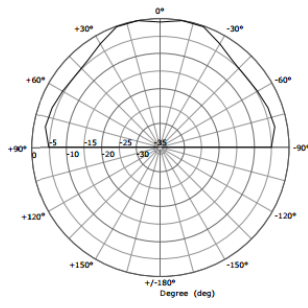
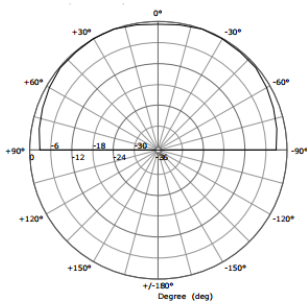
8,000 Hz

8,000 Hz

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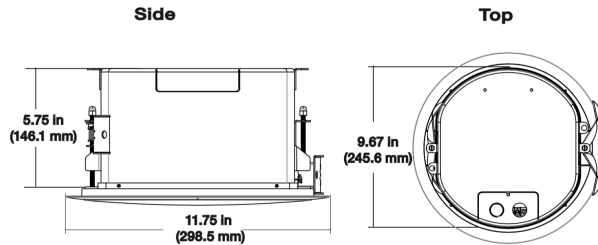


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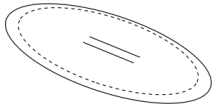
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Mechanical Drawings



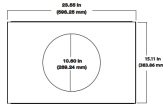
Included Accessories

**UL-Listed Flex Conduit
Clamp**



Paint Mask

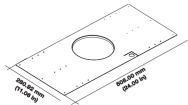
Paint Shield



Tile Bridge

Wire Nuts

Optional Accessories



AC-CMEZ/8-PCB