CM800i

CM800i

Specifications: CM800i	Mounting hardware included
Nominal Impedance	8 ohm
Impedance (min)	5.3 ohm
Sensitivity dB @ 2.83V/1M	90.0dB
Sensitivity dB @ 1W/1M (2)	90.0dB
Frequency Response (± 3 dB)	97 Hz - 22 kHz
Frequency Response (±10 dB)	71 Hz - 22 kHz
Max. Program Power	250W
Max. Continuous Power RMS	125W
Max. Power SPL @ 1 M	111.0dB
Directivity Factor (Q) (Averaged 100Hz - 10kHz, @ 2kHz)	3.8 (Average 100 Hz - 10 kHz) 4 (2 kHz)
Directivity Index (DI) dB (Averaged 100Hz - 10kHz, @ 2kHz)	6.0dB (Average 100 Hz - 10 kHz) 4.0dB (2 kHz)
Tap Selector	6 Position rotary switch with transformer bypass
70.7 Volt Transformer Taps	66w / 108.0dB
100 Volt Transformer Taps (dB)	66w / 108.0dB
25 Volt Transformer Taps (dB)	9w / 99.5dB
Transformer Options	25 / 70.7 / 100 Volt 8 Ohm direct
Transducer - Low Frequency Driver	8" Polypropylene Cone w/ Butyl Rubber Surround
Transducer - High Frequency Driver	1" Convex Titanium Tweeter w/ Waveguide
Network Type: Low Pass	12dB per octave, 2nd order
Network Type: High Pass	12dB per octave, 2nd order
Angle	140
Coverage Angle (-6 dB @ 2 kHz)	140
Colors	Black or white
Inputs	4 Pin, 5.08 mm Euroblock for individual or daisy chain connection
Backcan Diameter	296.7 mm / 11.7 in
Backcan Height	201.7 mm / 7.9 in
Visible Diameter	374.9 mm / 14.8 in
Visible Height	27.4 mm / 1.1 in
Mounting Hole Diameter	323.9 mm / 12.8 in
Weight	5.7 kg / 12.6 lb

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Specifications: CM800i	Mounting hardware included
Shipping Weight	17.7 kg / 39.0 lb
Accessories Included	Conduit Plate,Euroblock Connector,Installation Aid,Tile Bridge (AC-CM8-TB),Paint Mask
Packaging	2 per box
Regulatory - UL	Approved UL1480A & UL2043
Regulatory - CE	Approved
Regulatory - RoHS	approved
Regulatory - IP	not planned

CM800i

Key Features

• Patented BroadBeam® waveguide technology delivers a consistent BroadBeam™ dispersion pattern for maximum coverage area per speaker (2 to 10 kHz, independently verified).
• One 8.0 inch (203 mm) polypropylene woofer and one 1.0 inch (25 mm) convex titanium tweeter with FerroFluid cooling mounted to a proprietary cast-aluminum baffle and heat sink.
• Rapid-installation, blind-mount, fixedwing mounting mechanism with constant-tension design affixing to ceiling thicknesses ranging from 0.25 inch (6.4 mm) to 1.91 inch (48.5 mm).
• Easy-access six-position selectable tap switch for 25-, 70.7- and 100-volt applications with transformer bypass position.
• Separate tool-free magnetic grille and bezel assembly with integrated safety cable for ease of install and in-field painting.
• Steel grille with protective powder-coated finish for lasting durability.
• An average sensitivity of 90 dB offers high-output capabilities and reduced amplification costs.
• UL 1480 (UEAY) and 2043 approved.
• High-quality black or white paint finish. Custom paint colors optional.
• Included accessories: Tile bridge, conduit plate, Euroblock connector and paint mask.
• Optional accessories: Color-coded (purple) pre-construction bracket (AC-CM8-PCB) and junction box (AC-CMi-JBOX).

Description

Patented BroadBeam® waveguide technology delivers a consistent dispersion pattern for maximum coverage area per speaker. One 8.0 inch polypropylene woofer and one 1.0 inch convex titanium tweeter with FerroFluid cooling mounted to a proprietary cast-aluminum baffle and heat sink. Rapid-installation, blind-mount, fixed-wing mounting mechanism with constant-tension design affixing to ceiling thicknesses ranging from 0.25 inch (6.4 mm) to 1.91 inch (48.5 mm). Easy-access six-position selectable tap switch for 25-, 70.7- and 100-volt applications with transformer bypass position. Separate tool-free magnetic grille and bezel assembly with integrated safety cable for ease of install and in-field painting. Steel grille with protective powder-coated finish for lasting durability. An average sensitivity of 90 dB offers high-output capabilities and reduced amplification costs. UL 1480 (UEAY) and 2043 approved. Included accessories: Tile bridge, conduit plate, Euroblock connector and paint mask.

Applications

Designed for in-ceiling background to foreground SPL applications, the CM800i delivers a broad dispersion pattern, true low-end response and high sensitivity. The CM800i is ideal for nightclubs, bars, fitness centers, hotel, airports, convention centers, casinos, corporate venues, churches and other in-ceiling applications requiring background to foreground SPL. For applications where additional bass is required, SoundTube's CM1001d-T 10-inch subwoofer provides low-end response down to 41 Hz

BroadBeam® Wide Dispersion Technology

SoundTube's proprietary BroadBeam® technology incorporates a high-frequency waveguide mated to a 1-inch convex aluminum tweeter. The BroadBeam® high-frequency waveguide delivers a consistent dispersion pattern across the upper registers of the frequency spectrum (2 to 10 kHz, independently verified). The result is an audio system requiring fewer speakers with higher intelligibility, offering reduced power needs, shorter installation time and cost savings on shipping and labor.

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 NWAA 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 a 203 mm (8.0 in.) low-frequency transducer and a 25 mm (1.0 in.) high-frequency transducer with a crossover network installed in the ported enclosure. The low-frequency voice coil diameter shall be 30.4 mm (1.2 in.). Performance specifications of a typical production unit shall be as follows: Useable frequency response shall extend from 71 Hz – 22 kHz (-10 dB, half space). Measured sensitivity (2.83-volt input, 1 meter) shall be at least 90 dB. The speaker shall have a nominal impedance of 8 ohms. The speaker shall be available for 25-, 70.7- and 100-volt modes and shall include a six-position tap switch with a transformer bypass position. The frequency-dividing network shall have a crossover frequency of 3 kHz with slopes of 12 dB per octave (2nd order) for both low- and high-pass filters. Rated power capacity shall be at least 125 watts continuous (RMS) and conform to EIA- 426-B testing. Maximum continuous output at 1 meter shall be 111.0 dB. Installation for the speaker shall be by two-screw, blind-mount, constant-tension winged assembly and shall attach to ceiling thicknesses ranging from 6.4 mm (0.25 in.) to 48.5 mm (1.91 in.). The fixed-wing assembly shall be constructed of steel material. A secondary attachment point has been included on the back of the unit. The external wiring input connector shall be a four-pin, 5.08 mm Euroblock for 8 ohm or distributed systems and shall accept from 10 – 22-gauge wire. The maximum backcan dimensions shall be no more than 201.7 mm (7.94 in.) in height by 296.7 mm (11.68 in.) in diameter. The maximum visible dimensions shall be no more than 27.5 mm (1.08 in.) in height by 375 mm (14.76 in.) in diameter. The backcan shall be constructed of aluminum. The system shall include a 21-gauge galvanized steel support backing plate (tile bridge) to reinforce the ceiling material and tile support rails. The maximum tile bridge dimensions shall be no more than 600.1 mm (23.62 in.) in length by 428.2 mm (16.86 in.) in width and 10.4 mm (0.41 in.) in height with 325.1 mm (12.80 in.) cutout for speaker mounting. The grille shall be constructed of powder-coated steel with an ABS baffle for lasting performance. The affixed grille and bezel shall be mounted to the speaker enclosure (backcan) via magnetic strip and included safety leash. Also included is a paint mask/installation aid for in-field painting (also serves as a handhold during mounting). The unit has an optional pre-construction bracket (AC-CM8-PCB) that shall be compatible with an optional junction box (AC-CMi-JBOX). A 2-foot, 18-gauge wire whip and Euroblock connector shall be included with the junction box. The maximum dimensions of the pre-construction bracket shall be no more than 635 mm (25.0 in.) in length by 457.2mm (18.0 in.) in width and 127 mm (5.0 in.) in height (includes affixed junction box) with a 326.1 mm (12.85 in.) cutout for speaker mounting. The system shall be the SoundTube CM800i for both low- and high-impedance applications.

SoundTube

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All SoundTube products come with a 5-year limited warranty.

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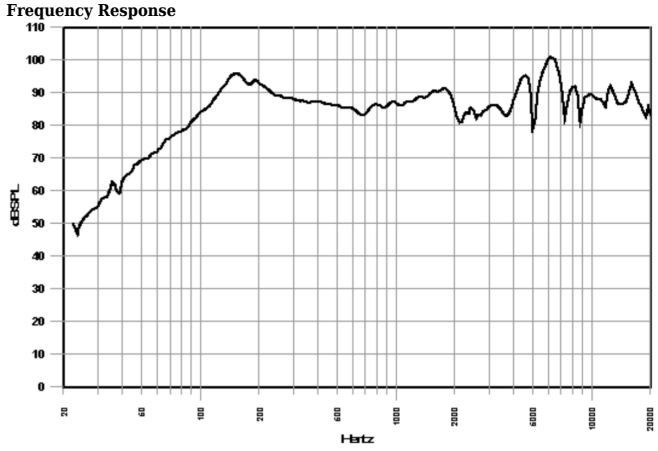
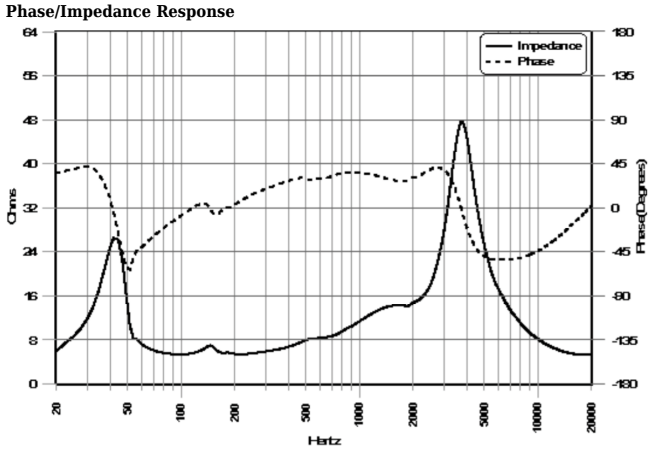
Graphs and Plots

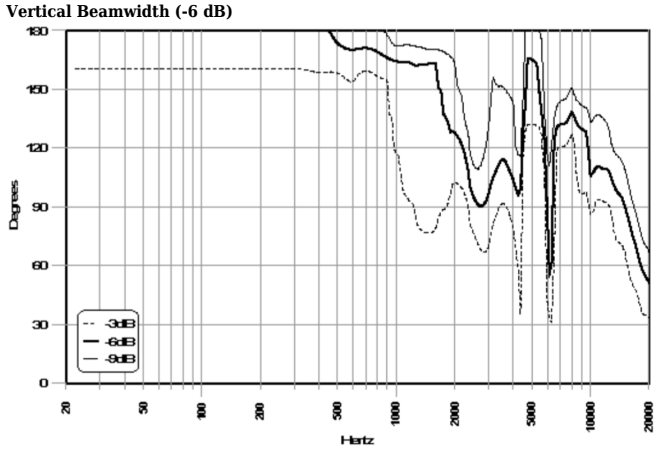
Frequency Response



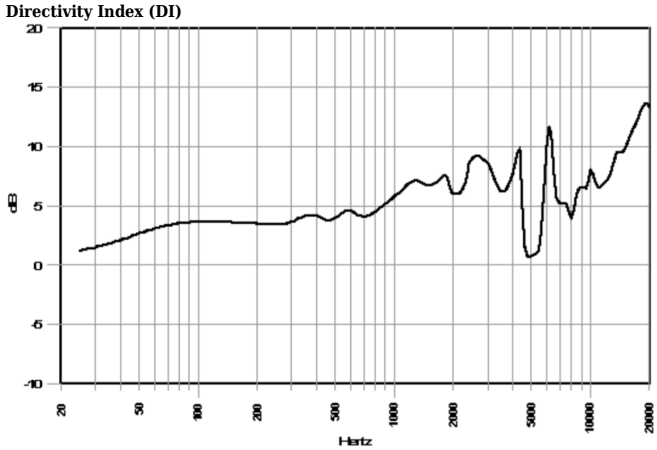
Phase/Impedance Response



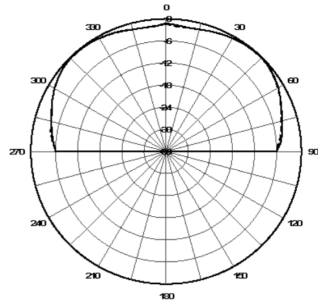
Vertical Beamwidth (-6 dB)



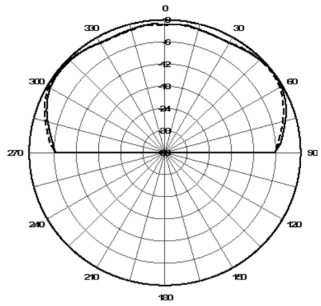
Directivity Index (DI)



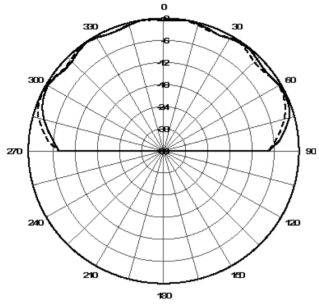
125 Hz



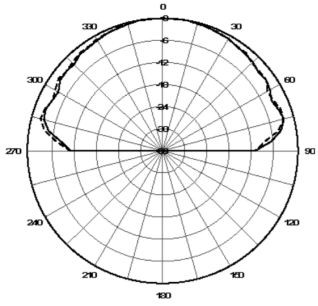
250 Hz



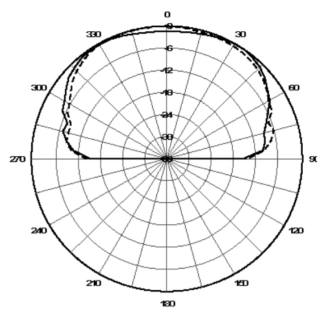
500 Hz



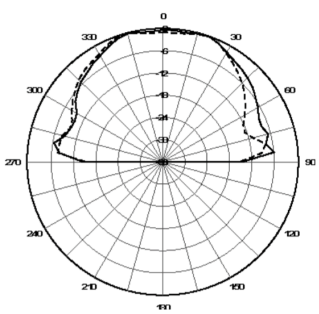
500 Hz



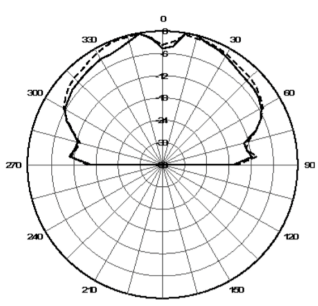
2000 Hz



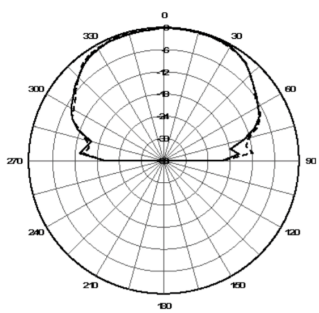
4000 Hz



8000 Hz



8000 Hz



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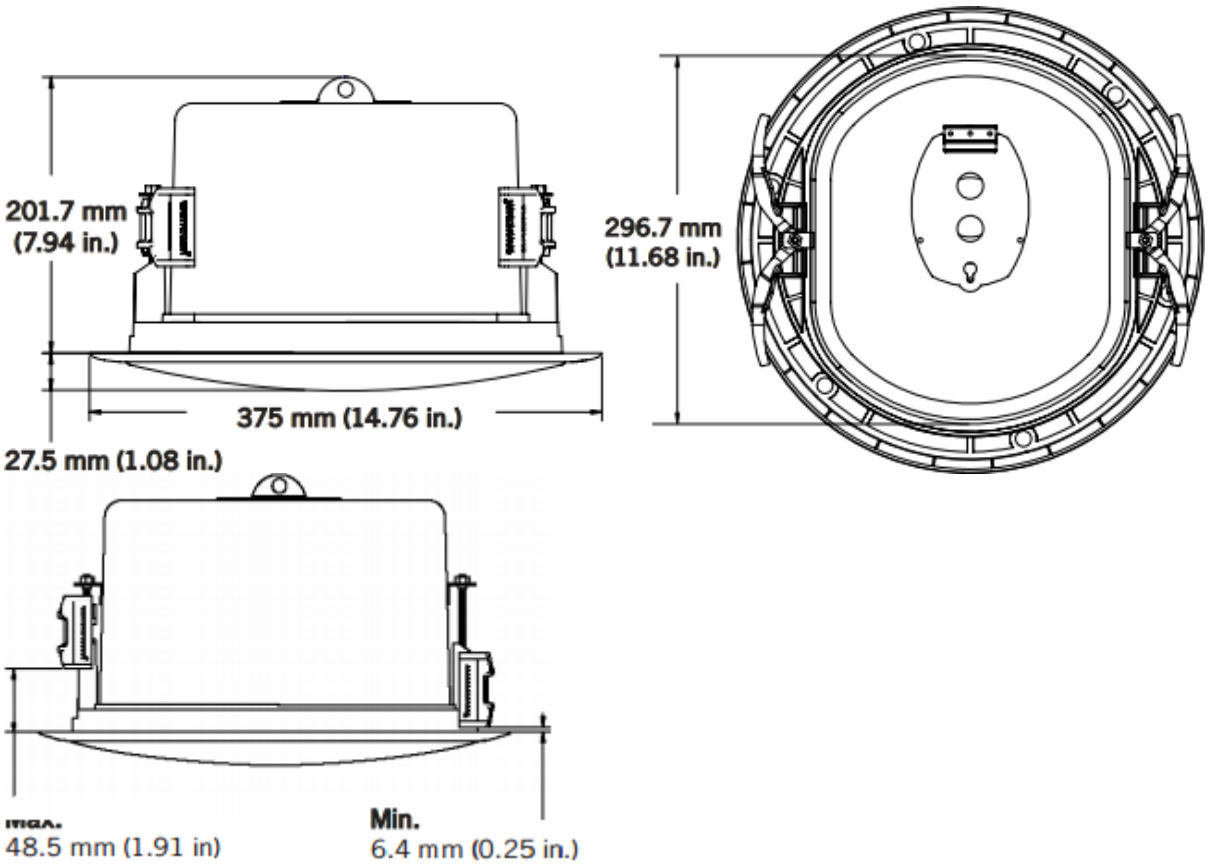
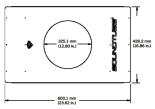
Mechanical Drawings



Included Accessories

Conduit Plate



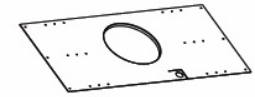
Tile Bridge (AC-CM8-TB)

Euroblock Connector

Paint Mask

Installation Aid

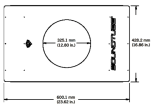
Optional Accessories



Pre-Construction Bracket (AC-CM8-PCB)

Low-Profile Flangeless Grille (GRL-6/8-FLG-BK/WH)

Junction Box (AC-CMi-JBOX)



Tile Bridge (AC-CM8-TB)