

# IPD-CM82-BGM

8.0" COAXIAL  
IN-CEILING  
BACKGROUND  
MUSIC  
SPEAKER

**SOUNDTUBE**  
ENTERTAINMENT



## Specifications: IPD-CM82-BGM

## Mounting hardware included

Frequency Response ( $\pm 3$ dB)	70 Hz - 18 kHz
Frequency Response ( $\pm 10$ dB)	55 Hz - 22 kHz
Max. Power SPL @ 1 M	103.0 dB
Directivity Factor (Q) (Averaged 100Hz - 10kHz, @ 2kHz)	5.4 (averaged 100 Hz - 10 kHz) ; 7.2 (2 kHz)
Directivity Index (DI) dB (Averaged 100Hz - 10kHz, @ 2kHz)	5.5 dB (averaged 100 Hz - 10 kHz) ; 8.6 dB (2 kHz)
Transducer - Low Frequency Driver	8" Polypropylene Cone w/ Butyl Rubber Surround
Transducer - High Frequency Driver	1" Silk Dome
Network Type: Low Pass	12 dB per octave, 2nd order
Network Type: High Pass	12 dB per octave, 2nd order
Angle	39
Coverage Angle (-6 dB @ 2 kHz)	39
Certifications	UL 2043; UL 60065
Total Bi-Amp Power	40 W
Colors	White / Custom
Connections	RJ45 ethernet connector
Inputs	RJ45 Ethernet port
Backcan Diameter	245.6 mm / 9.67 in
Backcan Height	203.2 mm / 8.0 in.
Visible Diameter	298.5 mm / 11.75 in
Visible Height	8.6 mm / 0.34 in
Mounting Hole Diameter	266.7 mm / 10.5 in
Weight	4.1 kg / 9.0 lbs.
Shipping Weight	4.5 kg / 10.0 lbs.
Accessories Optional	AC-CM6-8EZ-PCB
Regulatory - UL	UL60065; UL2043
Regulatory - CE	approved
Regulatory - RoHS	approved

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## Description

Dante®-addressable coaxial in-ceiling speaker incorporating one 8.0 inch (203 mm) polypropylene woofer with rubber surround and one 1.0 inch (25.4 mm) silk dome tweeter. BroadBeam Ring™ technology and a tuned port on the baffle provide smooth off-axis performance, mid-range clarity and bass response to 55 Hz (-10 dB). Low latency digital audio, power, and control are delivered to the speaker via standard category cable; connection is made on the other end to the STNet-Switch or other PoE / PoE+ switch. May also be powered via a 24V DC barrel connector for non-PoE installations. Configuration and zoning of the speaker are accomplished via software. Mounting hardware is included and features SoundTube's SpeedWing™ constant-tension fixed-wing mounting system, which accommodates material thicknesses ranging from 0.035 in (0.9 mm) to 2.38 in (60.4 mm). UL 60065 and 2043 listed. Included accessories: Color-coded (green) tile bridge, UL listed conduit clamp and paint shield.

## Applications

SoundTube Entertainment and the MSE Audio Group constantly develop new technologies which enhance audio product performance. SoundTube Entertainment innovations are

protected by multiple U.S. and international patents, which explicitly cover SoundTube dome, enclosure and dispersion technologies. The MSE Audio Group actively defends its patents in order to protect SoundTube resellers and endusers.

## 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](http://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 NWAALabs ([www.nwaalabs.com](http://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.

## Preliminary Technical Information

- IP addressable, self powered (PoE) speaker.
- Dante™ I/O for interconnectivity with Danteenabled audio systems.
- One 8.0 inch (203 mm) polypropylene woofer with butyl rubber surround and one 1.0 inch (25 mm) silk dome tweeter.
- BroadBeam Ring™ technology for mid-range clarity and ultra wide off axis performance.
- Fast connection of power, audio and control functions via

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## 8.0" COAXIAL IN-CEILING BACKGROUND MUSIC SPEAKER



one CAT5 or CAT6 cable.

- 40 watts PoE provided by SoundTube STNet-Switch; also works with Standard PoE plus and PoE switches.
- Provides report-back on any problems via SoundTube software.
- Tuned port on baffle for added musicality and bass response down to 55 Hz (-10 dB).
- Incorporates a painted steel grille for lasting durability.
- SpeedWing™ clamping system is adaptable to material thicknesses ranging from 0.035 in. (0.9 mm) to 2.5 in. (63.5 mm).
- UL 60065 and 2043 listed.
- High-quality white painted finish. Custom colors available.
- Included accessories: Tile bridge, UL listed 0.5-inch conduit clamp, paint shield.
- Optional accessories: Color-coded (green) pre-construction bracket (AC-CM6-8EZPCB).

## Architectural Specifications

The loudspeaker shall consist of one 203 mm (8.0 in.) low-frequency transducer and one 25 mm (1.0 in.) high-frequency transducer with a frequency-dividing network installed in a ported enclosure. The low-frequency voice coil diameter shall be 25.4 mm (1.0 in.). The low-frequency transducer shall have a polypropylene cone material with a butyl 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: Usable frequency range shall extend from 55 Hz - 22 kHz (-10 dB). The frequency dividing network shall have a crossover frequency of 3 kHz. The unit shall accept 40 watts PoE in addition to PoE plus and standard PoE, as well as the audio signal from a provided network switch, and shall be configurable via software.

Maximum continuous output at 1 meter with a 40 watt input shall be 103 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 shall be 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 in. (0.9 mm) to 2.5 in. (63.5 mm). The external wiring shall be via RJ45 ethernet port, accepting standard CAT5 or CAT6 ethernet cable. The maximum backcan dimension shall be no more than

203.2 mm (8.0 in.) in height by 245.6 mm (9.67 in.) in diameter. The maximum visible dimensions shall be no more than 8.6 mm (0.34 in.) in height by 298.5 mm (11.75 in.) in diameter. The system shall be the SoundTube IPD-CM82-BGM for Dante™ applications.

## SoundTube

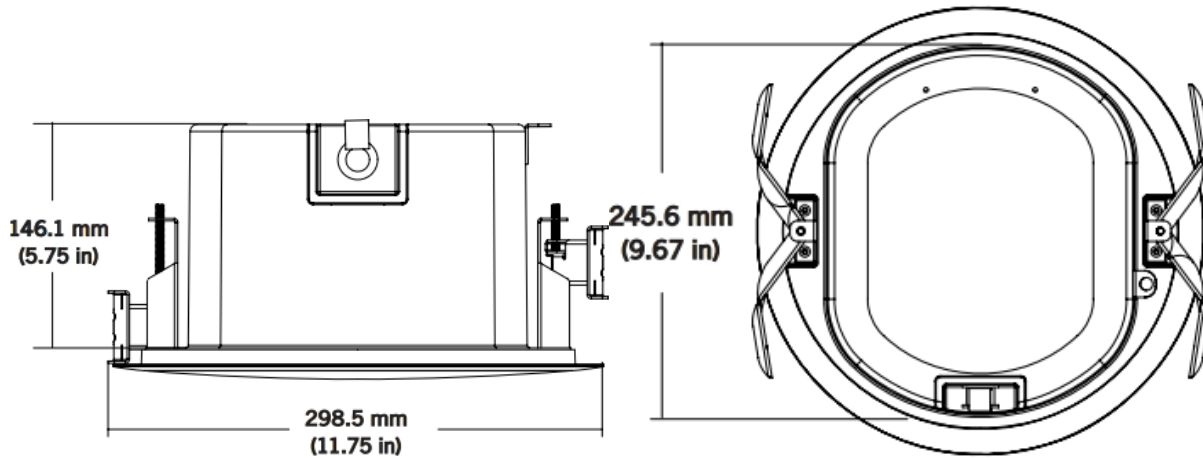
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Phone 9136635600  
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<https://soundtube.mseaudio.com>  
All SoundTube products come with a 5-year limited warranty.

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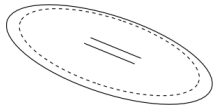
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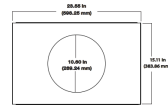
## Mechanical Drawings



## Included Accessories

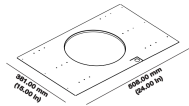


Paint Mask



Tile Bridge

## Optional Accessories



AC-CM6-8EZ-PCB