

Control® 24CT MicroPlus

Professional Series – Background Music Ceiling Speaker



Key Features:

- Extremely wide 150° coverage
- Smooth frequency response
- Advanced crossover network provides very even coverage throughout listening area
- Components:
 - 115 mm (4.5 in) woofer, injection molded graphite cone with butyl rubber surround
 - 12 mm (0.5 in) polycarbonate tweeter for extended response
- Control 24CT MicroPlus includes 25W multi-tap transformer for 70V/100V systems
- Shallow 100 mm (4 in) depth
- Packaged with grille, backcan and tile rails for fast installation and easy dealer stocking



Description:

The Control 24CT MicroPlus is a compact in-ceiling speaker, providing full, high quality sound for background music and music-plus-paging systems. These speakers are ideally suited for a wide variety of applications, from restaurants and specialty retail stores to professional offices and airports. Low distortion, a smooth, natural frequency response, and a 25W transformer make the Control 24CT MicroPlus ideal for medium volume business music. Low frequency output can be augmented with the addition of one of the Control Contractor subwoofer models. Similar mid/high frequency voicing to other JBL Control Contractor loudspeakers allows mixing and matching of models within zones without requiring separate equalization.

Installation of the Control 24CT MicroPlus is quick and easy. The loudspeaker is packaged with the backcan, grille, support backing bracket and tile rails. In addition, optional new construction brackets are available. The entire installation can be accomplished without requiring access above the ceiling.

The Control 24CT MicroPlus backcan is made of formed steel and the speaker is suitable for use in air handling spaces per UL2043. An attachment loop is provided on the backcan for cabling. A seismic tab is provided as a secondary support.

The Control 24CT MicroPlus trim and baffle are paintable to match any decor.

Specifications:

System

| | |
|---------------------------------------|---|
| Frequency Range (-10 dB) ¹ | 80 Hz – 25 kHz |
| Nominal Sensitivity ² | 85 dB SPL @ 1 m (3.3 ft) |
| Crossover | 3.5 kHz, 3rd order low-pass plus 3rd order high-pass with conjugate |
| Rated Maximum SPL | 99 dB @ 1 m (3.3 ft), 25W tap |
| Transformer Taps | 70V: 25W, 12W, 6W taps 100V: 25W, 12W taps |

Transducers

| | |
|----------------|--|
| Low Frequency | 115 mm (4.5 in) IMG (injection molded graphite), 24 mm (1 in) voice coil |
| High Frequency | 12 mm (0.5 in) polycarbonate |

Physical

| | |
|------------------------------|--|
| Enclosure | Backcan: Formed steel Baffle/Rim: Medium impact polystyrene, fire rated UL94V-0 Secondary Attachment Point: Included |
| Termination | Screw-down terminals, touch-proof, UL, CE and VDE rated, outside of backcan with conduit cover |
| Safety Agency Rating | Suitable for use in air handling spaces per UL1480, UL2043, NFPA90 & NFPA 70. S7232/UL Listed, Signaling Speaker. Transformer UL registered per UL1876. In accordance with IEC60849/EN60849. |
| Outside Dimensions (H x Dia) | 133 x 195 mm (5.3 x 7.7 in) 105 mm (4.1 in) front of ceiling tile to back of the backcan |
| Cutout Size | 167 mm (6.6 in) |
| Net Weight (each) | 2.5 kg (5.5 lb) |
| Shipping Weight (pair) | 7.6 kg (17 lb) |
| Included Accessories | » C-shaped support backing plate » 2 tile support rails (fits both 2 ft and 600 mm tiles) » Cutout template, cardboard |
| Optional Accessories | » MTC-24TR trim ring for retrofit installations » MTC-24NC optional new construction bracket, flat » MTC-24MR optional mud ring construction bracket |

¹ Half-space (flush mounted in ceiling)

² Half-space (in ceiling), averaged 100 Hz to 10 kHz

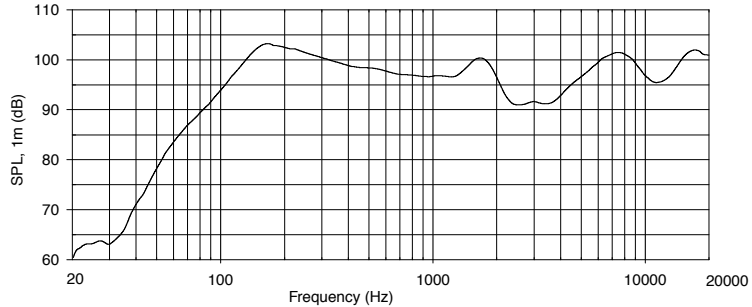
JBL continually engages in research related to product improvement. Changes introduced into existing products without notice are an expression of that philosophy.

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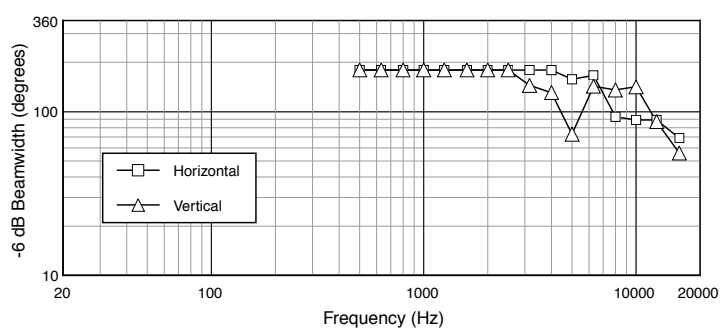


Frequency Response:



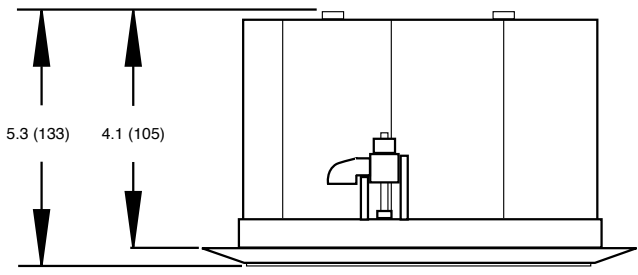
On axis in half-space, 70V input to 25W tap

Beamwidth vs. Frequency:



Mounting Dimensions:

Dimensions in inches (mm)



Horizontal Off Axis Frequency Response:

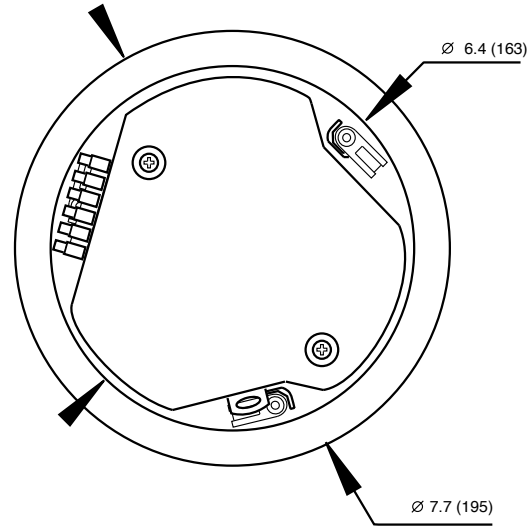
A graph showing off-axis frequency response for horizontal angles. The y-axis is 'Attenuation (dB)' from -30 to 10. The x-axis is 'Frequency (Hz)' from 20 to 20,000. Five curves are shown for 0, 10, 20, 30, and 40 degrees. All curves show a slight dip in response at higher frequencies, with the 40-degree curve showing the most significant attenuation.

Vertical Off Axis Frequency Response (up):

A graph showing off-axis frequency response for vertical angles pointing up. The axes and legend are the same as the horizontal graph. Five curves are shown for 0, 10, 20, 30, and 40 degrees up. The curves show similar trends to the horizontal graph, with increasing attenuation at higher frequencies and larger angles.

Vertical Off Axis Frequency Response (down):

A graph showing off-axis frequency response for vertical angles pointing down. The axes and legend are the same as the horizontal graph. Five curves are shown for 0, 10, 20, 30, and 40 degrees down. The curves show similar trends to the horizontal graph, with increasing attenuation at higher frequencies and larger angles.

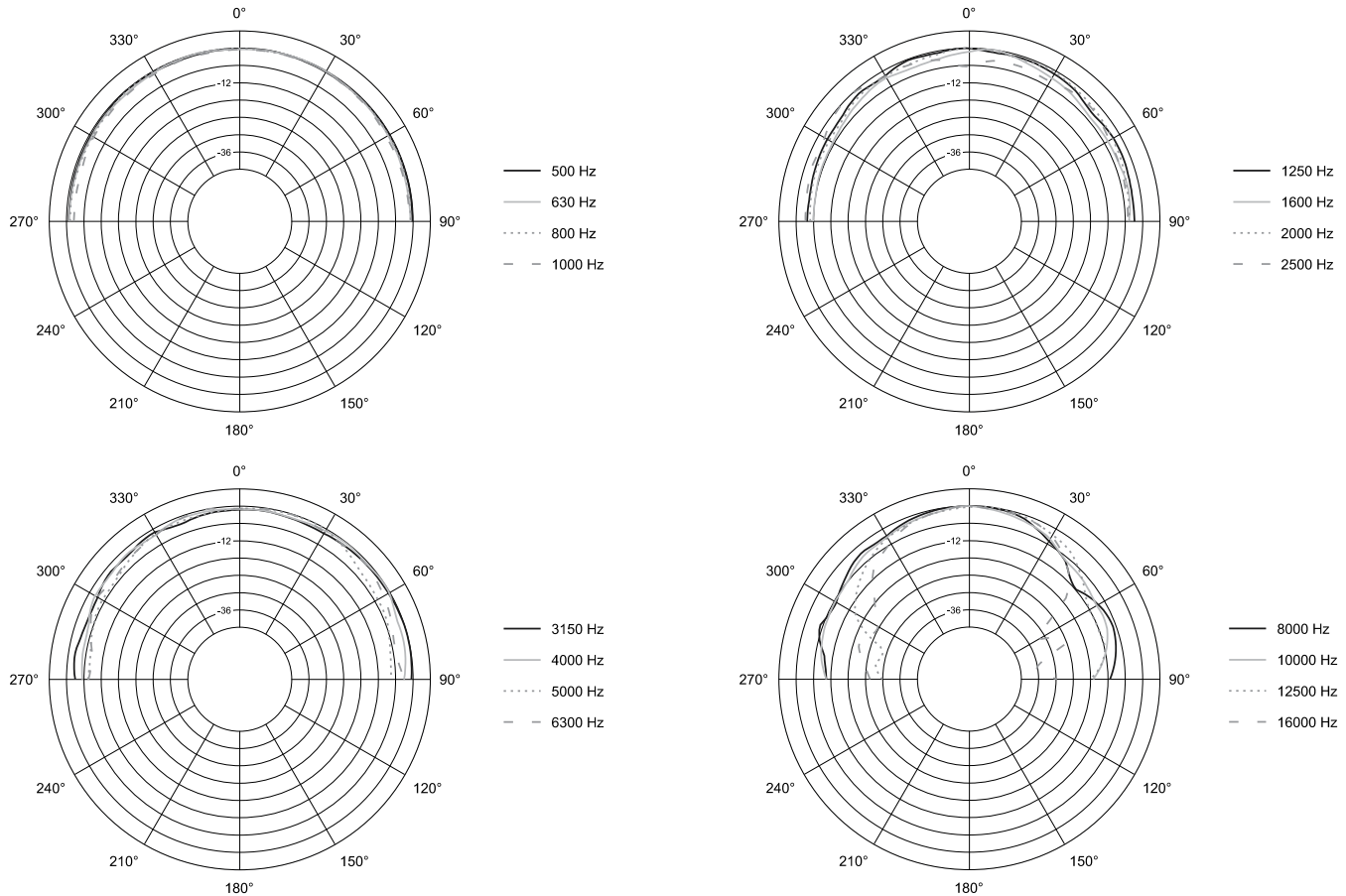


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Horizontal 1/3 Octave Polars:



Architectural Specifications:

The loudspeaker shall be of in-ceiling design, consisting of a 115 mm (4.5 in) low frequency transducer, a 12 mm (0.5 in) tweeter, and frequency dividing network installed in an integral ported enclosure. The low frequency voice coil shall be 24 mm (1 in) in diameter and the cone shall be of lightweight injection molded graphite.

Performance specification of a typical production unit shall be as follows: Measured sensitivity (SPL at 1m [3.3 ft] with 2.83V input, averaged from 100 Hz to 10 kHz) shall be at least 85 dB-SPL. Usable frequency response shall extend from 80 Hz to 25 kHz (10 dB below rated sensitivity) with no external equalization.

The speaker shall have a nominal conical polar coverage pattern of 150 degrees (at -6 dB point), averaged 500 Hz to 10 kHz, and shall hold the same consistent polar coverage pattern when averaged in the intelligibility frequency band from 1 kHz to 4 kHz.

The backcan shall be constructed of formed steel and the baffle of UL94V-0 fire rated medium impact polystyrene. An agency-rated enclosed-terminal wiring block shall be provided on the side of the backcan to allow positive screw-down connection of wiring.

The system shall include a support backing plate to reinforce the ceiling material and tile support rails for use on either 2 ft or 600 mm suspended ceiling tiles, and which can be installed from beneath the ceiling tile.

Overall front face diameter shall not exceed 195 mm (7.7 in) and overall depth from the bottom of the ceiling shall not exceed 105 mm (4.1 in).

The loudspeaker shall be equipped with transformer for use in either 70.7V or 100V distributed-line speaker systems, with taps selectable by connecting the input wire to the selected enclosed wiring block terminal. Taps shall be nominally 25W @ 70V, 12W @ 70V (25W @ 100V), and 6W @ 70V (12W @ 100V).

The loudspeaker shall weigh no more than 2.5 kg (5.5 lb). The loudspeaker shall be the JBL Model Control 24CT MicroPlus.

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Vertical 1/3 Octave Polars:

