

# RoomMatch® Utility RMU105

## ultra-compact foreground/fill loudspeaker



### Key Features

**Award-winning RoomMatch sound** – now in smaller, 2-way, point-source designs for high-level foreground music, under-balcony, zone-fill and vocal-range floor monitor applications

**Bose EMB2 compression driver** – for lower distortion and improved vocal clarity compared to conventional foreground/fill models; also provides consistent mid/high sonic character compared to that of RoomMatch full-range and other RoomMatch Utility models

**Ultra-compact design** – allows use for high-quality background/foreground music and zone-fill applications that require excellent audio, minimal physical size, and high design aesthetics

**100° x 100° constant-directivity high-frequency horn** – gives wide, even coverage, allowing vertical or horizontal mounting with no change in coverage pattern.

**1 x Bose LF5 5.25-inch woofer** – with 1.5-inch long-excursion voice coil extends response to 90 Hz for lowest vocal range

**100 Hz – 16 kHz frequency response and 118 dB maximum peak SPL** – deliver the performance required for most demanding applications in an ultra-compact enclosure design

**Flexible mounting with included U-bracket** – Rear enclosure panel also includes 2 x M6 threaded inserts with 3-inch (75 mm) spacing to accept third-party accessory mounting brackets

### Product Overview

The RoomMatch Utility RMU105 ultra-compact foreground/fill loudspeaker is intended for use in high-quality background/ foreground music and zone-fill applications that require excellent audio, minimal physical size and high design aesthetics. The design features a single Bose® EMB2 compression driver to provide mid/high frequency voicing similar to that of RoomMatch full-range array modules and all RoomMatch Utility models. A single 5.25-inch woofer provides vocal-range output, and a 100° x 100° high-frequency horn provides consistent coverage with either vertical or horizontal mounting.

### Technical Specifications

System Performance		
Frequency Response (+/-3 dB) <sup>1</sup>	100 Hz - 16 kHz	
Frequency Range (-10 dB)	90 Hz - 16 kHz	
Recommended High-Pass Protection Filter	90 Hz with minimum 12-dB / octave filter	
Nominal Coverage Pattern (H x V)	100° x 100° (rotatable high-frequency horn)	
Crossover Type	passive (2.0 kHz crossover frequency)	
	Bose extended-lifecycle test <sup>4</sup>	AES transducer test <sup>6</sup>
Power Handling, long-term continuous	100 W	150 W
Power Handling, Peak	400 W	600 W
Sensitivity (SPL / 1 W @ 1 m) <sup>2</sup>	90 dB	90 dB
Calculated Maximum SPL @ 1 m <sup>3</sup>	110 dB	112 dB
Calculated Maximum SPL @ 1 m, peak <sup>4</sup>	116 dB	118 dB
Transducers		
Low Frequency	1 x Bose LF5 high-excursion 5.25-inch woofer (1.5-inch voice coil)	
High Frequency	1 x Bose EMB2 extended-midband high-frequency compression driver (2-inch voice coil)	
Nominal Impedance	8 Ω	
Physical		
Finish	Two-part spray polyurethane coating, black or white	
Grille	18-gauge (1.2 mm) perforated steel, powder-coated finish, black or white	
Environmental	Indoor use only	
Connectors	2 x Neutrik® NL4 and 1 x barrier strip, wired parallel	
Suspension / Mounting	2 x M8 threaded inserts (1 each side) for U-bracket; 2 x M8 threaded inserts on rear surface (75 mm, 2-bolt pattern)	
Dimensions	6.0" H x 12.0" W x 7.3" D (152 mm x 304 mm x 185 mm)	
Net Weight	12 lbs (5.4 kg) / 15 lbs (6.8 kg) with U-bracket	
Shipping Weight	xx lbs (yy.y kg)	

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## Product Code

Black	638421-0110
White	638421-0210

### Footnotes:

- 1 Frequency response and range measured on-axis with passive crossover in an anechoic environment.
- 2 Sensitivity measured in half-space boundary conditions with passive EQ, referenced to 1W/m.
- 3 Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.
- 4 Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration.
- 5 AES standard 2-hour duration with IEC system noise.

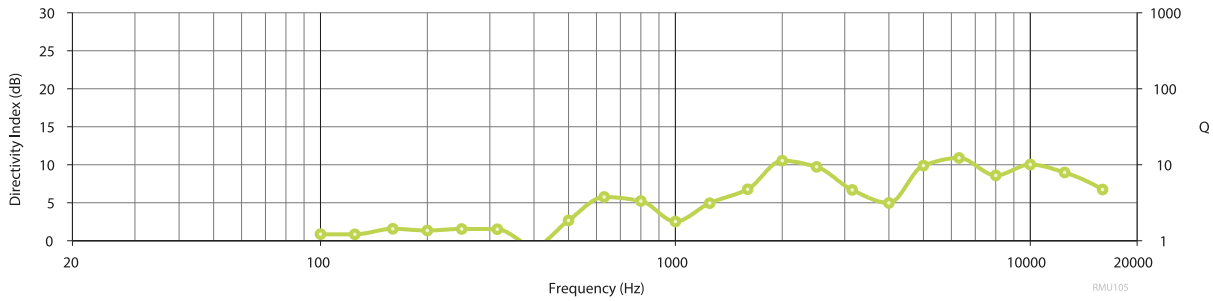
TECHNICAL DATA SHEET

# RoomMatch® Utility RMU105

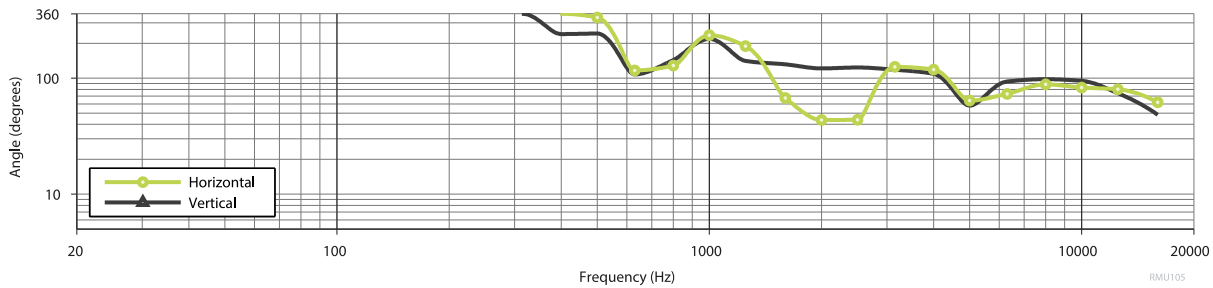
ultra-compact foreground/fill loudspeaker



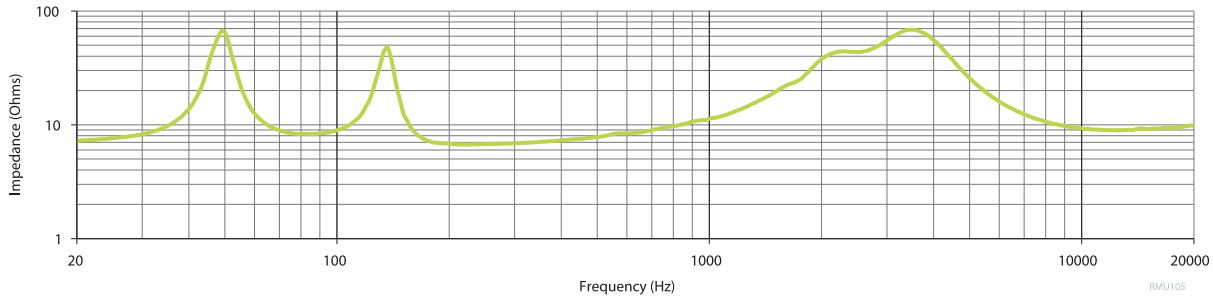
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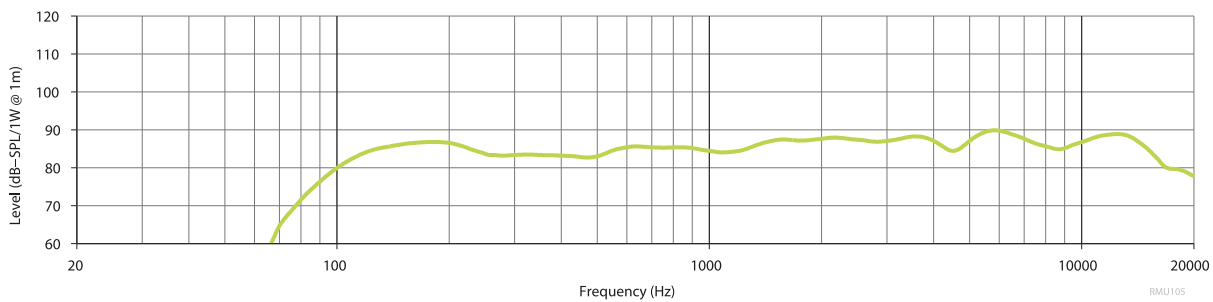
## Beamwidth



## Impedance



## On-Axis Response

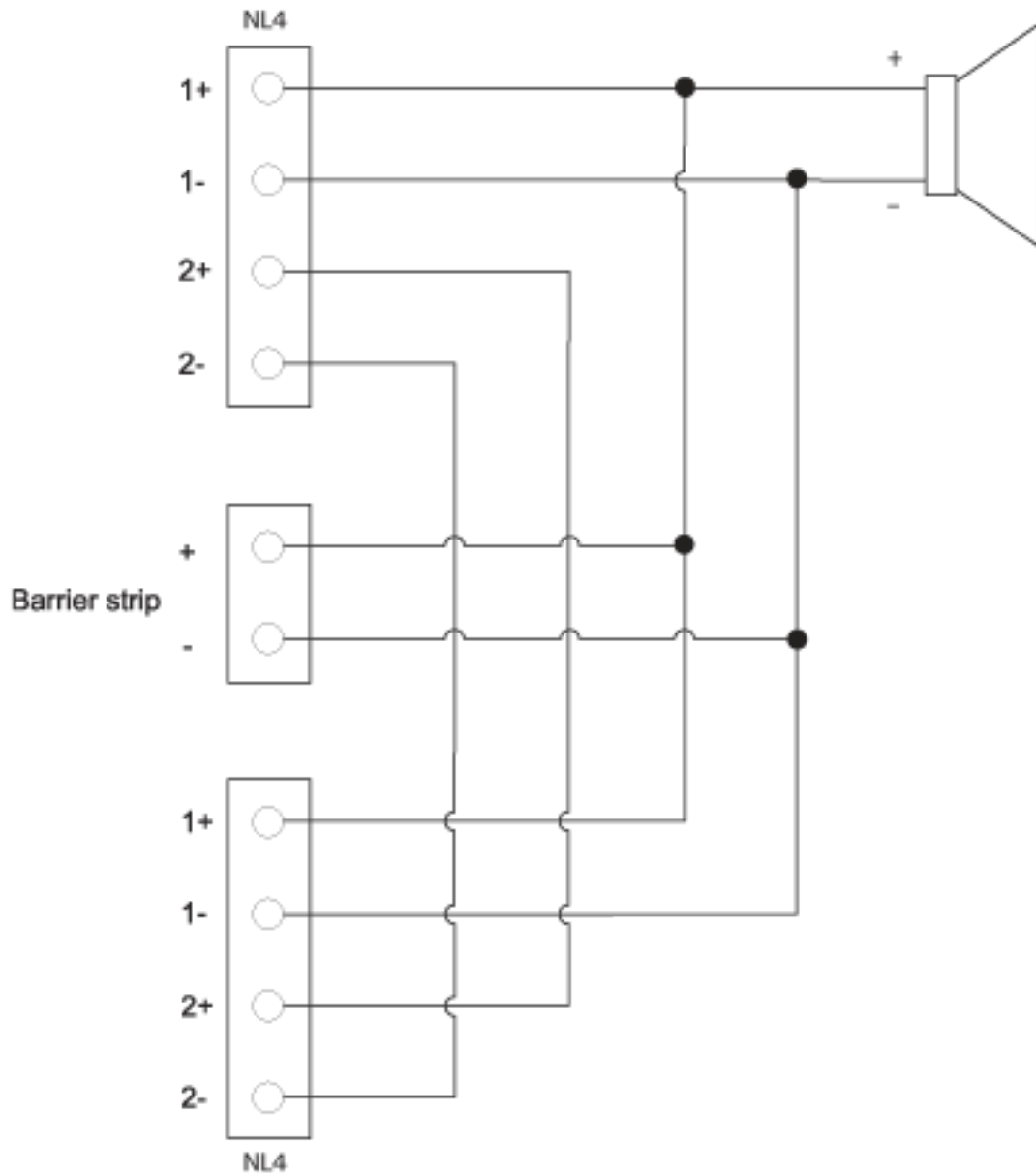


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## Wiring Diagram



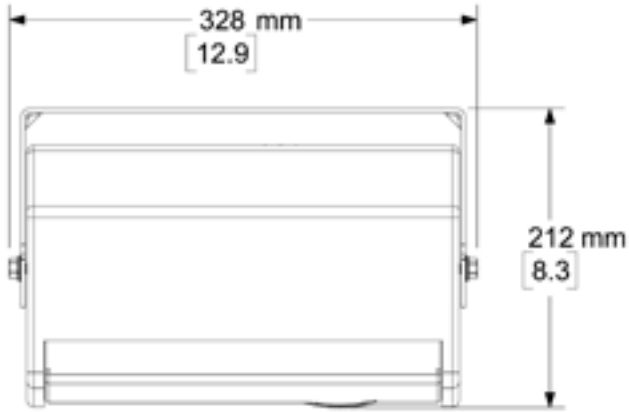
TECHNICAL DATA SHEET

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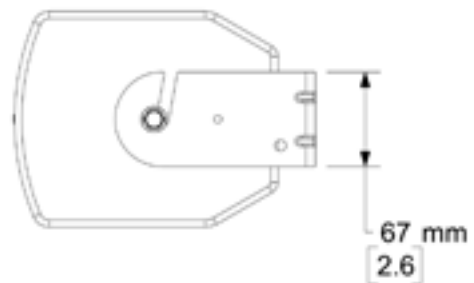
## Mechanical Diagrams



Top View



Front View



Right View

# RoomMatch® Utility RMU105

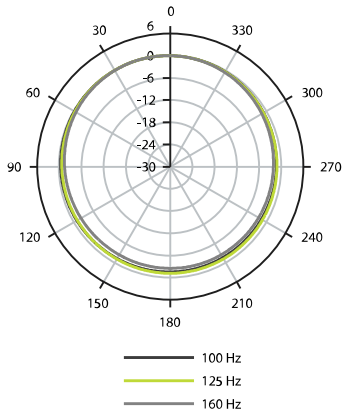
ultra-compact foreground/fill loudspeaker



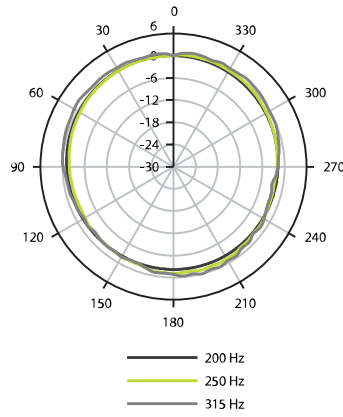
## Horizontal Plots

TECHNICAL DATA SHEET

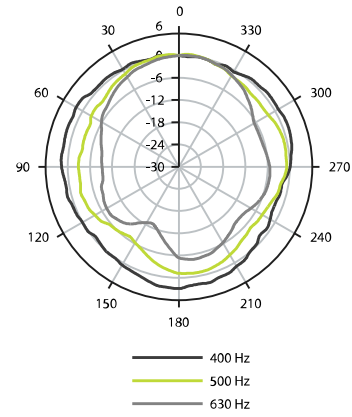
125 Hz Octave Band



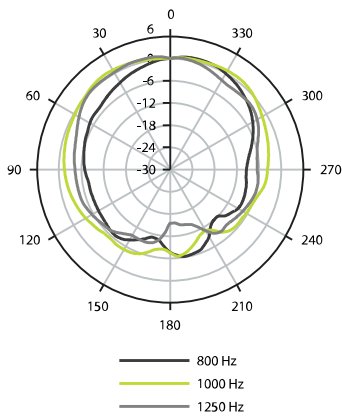
250 Hz Octave Band



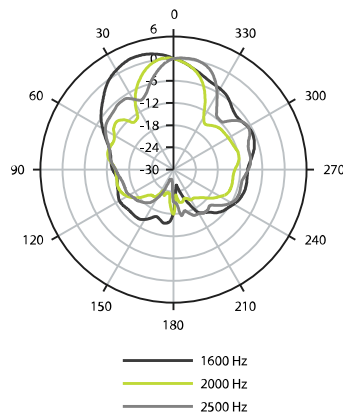
500 Hz Octave Band



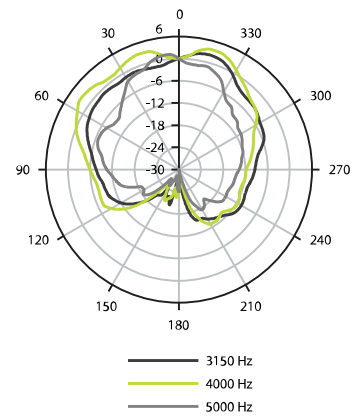
1000 Hz Octave Band



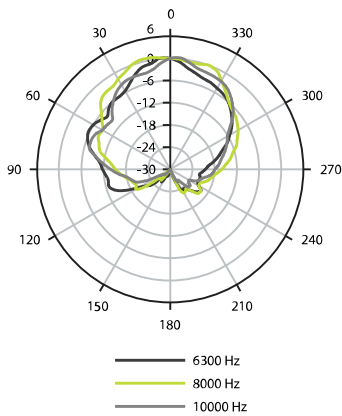
2000 Hz Octave Band



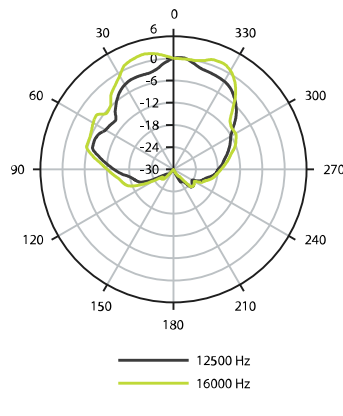
4000 Hz Octave Band



8000 Hz Octave Band



16000 Hz Octave Band



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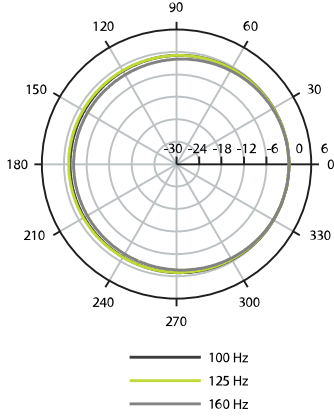
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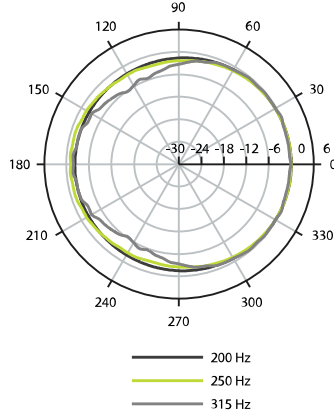
## Vertical Plots

TECHNICAL DATA SHEET

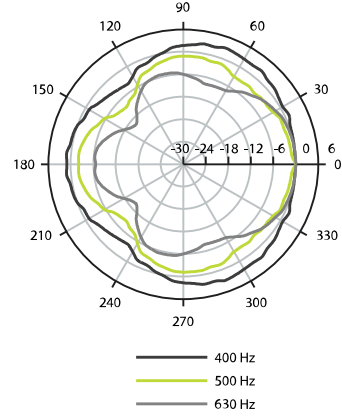
125 Hz Octave Band



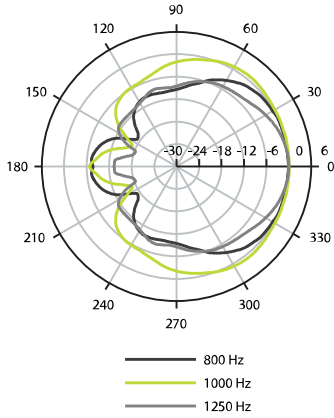
250 Hz Octave Band



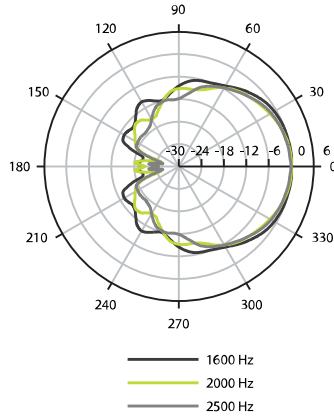
500 Hz Octave Band



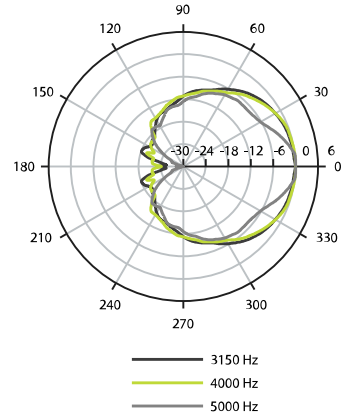
1000 Hz Octave Band



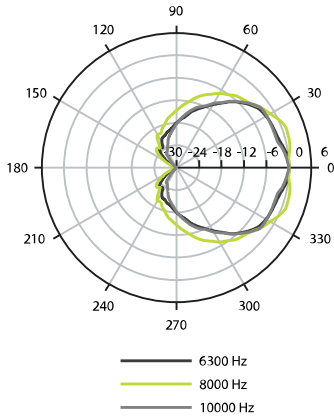
2000 Hz Octave Band



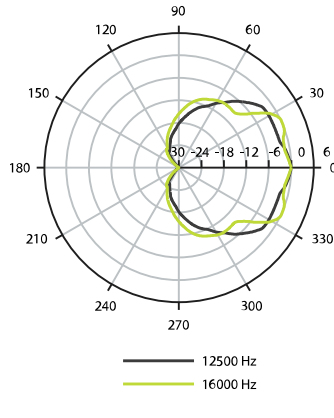
4000 Hz Octave Band



8000 Hz Octave Band



16000 Hz Octave Band



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### Architects' and Engineers' Specifications

The 2-way, vocal-range loudspeaker shall contain a single 2-inch titanium-diaphragm compression driver and a single 5.25-inch cone transducer with 1.5-inch voice coil. The loudspeaker shall contain a passive crossover network with 2000 Hz crossover point that provides consistent coverage and frequency response near crossover region.

The 2-way, vocal-range loudspeaker shall meet the following performance specifications: On-axis system frequency response shall be 100 Hz to 16 kHz (+/- 3 dB) without need for active equalization. The loudspeaker sensitivity shall be 90dB SPL in free field with 1 W input at 1 meter. The long-term power handling rating shall be 150 W (AES test methodology using pink noise, 6 dB crest factor, 2-hour duration). Maximum continuous output shall be 112 dB SPL and the maximum peak output shall be 118 dB SPL, both in free field. The nominal coverage pattern of the high-frequency horn shall be 100° horizontal and 100° vertical to allow consistent coverage with either horizontal or vertical mounting. The loudspeaker enclosure shall be constructed of Baltic birch plywood, protected by a two-part polyurethane coating. The transducers shall be protected by a 1.5-mm perforated steel grille with powder-coated finish. Input connectors shall be two (2) Neutrik® NL4 Speakon® connectors and one barrier strip terminal, wired in parallel. The finish will be available in black or white (paintable). Loudspeaker dimensions shall be 6.0" x 12.0" x 7.3" (152 x 304 x 185 mm) and net weight shall be 12 lb. (5.4 kg). The loudspeaker shall be the Bose RoomMatch Utility RMU105 model.