RoomMatch® Utility Small-Format Loudspeakers

Award-winning RoomMatch sound for zone-fill/foreground music applications

BOSE

RoomMatch® Utility small-format point-source loudspeakers – RoomMatch sound quality now in foreground/fill sizes

Bose® RoomMatch Utility loudspeakers bring the award-winning sound quality of RoomMatch arrays to smaller, 2-way, point-source designs. The same Bose EMB2 compression driver is used to create consistent mid/high sonic character. RoomMatch Utility loudspeakers are intended for high-quality foreground music, under-balcony, zone-fill and vocal-range floor monitor applications. All models feature high-quality plywood construction suitable for the highest aesthetic requirements, and install easily with either horizontal or vertical mounting.

Conventional foreground/fill loudspeakers vary HF drivers within series	vs.	All RoomMatch Utility loudspeakers use Bose EMB2 compression drivers

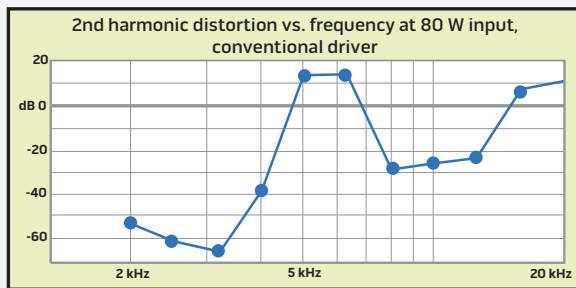| 1.0" dome tweeter	1.0" compression driver	1.5" compression driver		Bose EMB2 compression driver	2.0" diaphragm	patented phase plug
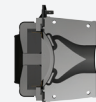
Conventional 1-inch diaphragm HF drivers have increased distortion at high SPL	**1**	EMB2 drivers reduce distortion compared to 1-inch drivers at high SPL

2nd harmonic distortion vs. frequency at 80 W input, conventional driver

2nd harmonic distortion vs. frequency at 80 W input, Bose EMB2 driver

➜ **RESULT:** Degraded sound quality and vocal clarity at higher foreground-music levels
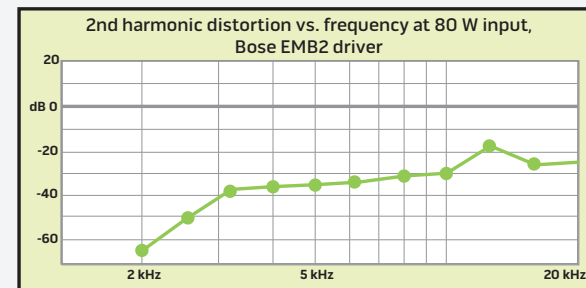
➜ **RESULT:** Excellent sound quality and vocal clarity at higher foreground-music levels

Different HF drivers cause frequency response to vary by model in conventional designs	**2**	EMB2 drivers deliver consistent sound quality across RoomMatch Utility models

Frequency response by model, conventional foreground/fill series

Frequency response by model, RoomMatch Utility series
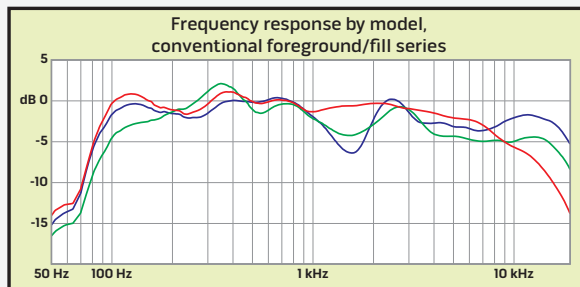
➜ **RESULT:** Difficult to EQ consistent sound quality in systems with different fill sizes
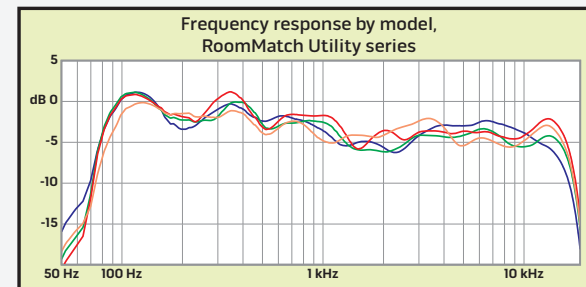
➜ **RESULT:** Easy to EQ consistent sound in systems with different RoomMatch Utility models

Series overview by model

RMU208

The highest output model, intended for use in high-quality foreground music, under-balcony and zone fill applications. The multi-angle enclosure also allows use in vocal-range floor monitor applications.

- 2 x 8-inch woofers
- 70 Hz low-frequency range
- 90° x 60° coverage pattern
- 128 dB maximum peak SPL

Small Dance Club

RMU206

A unique angled baffle enclosure design minimizes the projected height for typical under-balcony and low-ceiling zone-fill applications.

- 2 x 6.5-inch woofers
- 80 Hz low-frequency range
- 120° x 60° coverage pattern
- 123 dB maximum peak SPL

House of Worship Under-Balcony Fill

RMU108

The most versatile model with a blend of compact size, excellent sound quality and flexible mounting options. Similar to the RMU208, but with a single woofer sharing the multi-angle enclosure profile and high-frequency waveguide.

- 1 x 8-inch woofer
- 80 Hz low-frequency range
- 90° x 60° coverage pattern
- 123 dB maximum peak SPL

Sports Bar

RMU105

The most compact model, intended for use in high-quality background music and zone-fill applications that require excellent audio, minimal physical size and high design aesthetics. One of the smallest loudspeakers to use a compression driver, rather than dome tweeter, for exceptional output-to-size ratio.

- 1 x 5.25-inch woofer
- 90 Hz low-frequency range
- 100° x 100° coverage pattern
- 118 dB maximum peak SPL

Retail

RoomMatch® Utility specification summary

	RoomMatch	RoomMatch Utility Series*				FreeSpace®
	RM9060	RMU208	RMU206	RMU108	RMU105	DS 100SE

System Performance						
Frequency Response (+/-3 dB) [1]	60 – 16 kHz	80 – 16 kHz	90 – 16 kHz	90 – 16 kHz	100 – 16 kHz	75 – 18 kHz
Frequency Range (-10 dB)	55 – 16 kHz	70 – 16 kHz	80 – 16 kHz	80 – 16 kHz	90 – 16 kHz	60 – 20 kHz
Coverage Pattern	90° x 60°	90° x 60° (rotatable)	120° x 60° (rotatable)	90° x 60° (rotatable)	100° x 100°	180° x 75° (rotatable)
Long-Term Power Handling [2]	500 + 150 W	400 W	300 W	250 W	150 W	100 W
Calculated Maximum SPL @ 1 m, peak [3]	127/134 dB (LF/HF)	128 dB	123 dB	123 dB	118 dB	111 dB
Transducers						
Low Frequency	2 x Bose® 10-inch woofer	2 x Bose 8-inch woofer	2 x Bose 6.5-inch woofer	1 x Bose 8-inch woofer	1 x Bose 5.25-inch woofer	1 x Bose 5.25-inch woofer
High Frequency	6 x Bose EMB2 compression drivers	1 x Bose EMB2 compression driver				2 x 2.25" cone drivers
Nominal Impedance	4 Ω + 8 Ω (LF/HF)	8 Ω (70/100V optional)				8 Ω + 70/100V taps
Physical						
Dimensions (H x W x D), inches (mm)	27.5" x 39.1" x 23.6" (700 x 993 x 598 mm)	9.3" x 27.0" x 10.5" (236 x 686 x 267 mm)	7.5" x 21.8" x 9.5" (191 x 552 x 241 mm)	9.3" x 18.5" x 10.5" (236 x 470 x 267 mm)	6.0" x 12.0" x 7.3" (152 x 304 x 185 mm)	7.0" x 15.0" x 8.5" (178 x 381 x 216 mm)
Net Weight	125 lbs (56.7 kg)	37 lbs (16.8 kg)	25 lbs (11.3 kg)	21 lbs (9.5 kg)	12 lbs (5.4 kg)	14 lbs (6.4 kg) integral bracket
Net Weight with U-Bracket	140 lbs (63.5 kg) RMBRKT bracket	43 lbs (19.5 kg)	29 lbs (13.2 kg)	26 lbs (11.8 kg)	15 lbs (6.8 kg)	14 lbs (6.4 kg) integral bracket
Finish Color	Black, paintable	Black or White, paintable				Black or White, paintable
Environmental Rating	Indoor	Indoor				Outdoor (IEC 529 IP55)

Notes:

1. Frequency response and range measured on-axis, in an anechoic environment, with recommend high-pass filters, passive crossover for RMU and recommended equalization for RM and DS models.
2. Power handling using AES standard 2-hour duration with IEC system noise for RoomMatch Utility models and Bose 500-hour extended-life cycle test for RoomMatch and DS models.
3. Maximum SPL calculated from sensitivity (acoustic half-space for RMU) and power handling specifications, exclusive of power compression.

For additional specifications and application information, please visit pro.Bose.com.
Specifications subject to change without notice.

Optional accessories

Recommended Subwoofer Specification Summary

	RMS218	RMS215	MB24	MB12	MB4
System Performance					
Frequency Range (-10 dB) [1]	25 – 250 Hz	40 – 280 Hz	36 – 290 Hz	36 – 290 Hz	35 – 350 Hz
Long-Term Power Handling [2]	750 + 750 W	500 + 500 W	800 W	400 W	200 W
Calculated Maximum SPL @ 1 m, peak [3]	140 dB	139 dB	135 dB	129 dB	122 dB
Transducers					
Low Frequency	2 x Bose® 18-inch woofers	2 x Bose 15-inch woofers	2 x Bose 12-inch woofers	1 x Bose 12-inch woofer	4 x Bose 5.25-inch woofers
Nominal Impedance	4 Ω + 4 Ω	8 Ω + 8 Ω	8 Ω + 8 Ω	8 Ω	
Physical					
Dimensions (H x W x D), inches (mm)	21.0" x 37.0" x 41.5" (534 x 940 x 1055 mm)	17.6" x 37.1" x 21.5" (446 x 942 x 546 mm)	28.1" x 20.0" x 25.4" (713 x 508 x 646 mm)	14.7" x 20.0" x 25.4" (374 x 508 x 646 mm)	26.7" x 10.2" x 18.2" (678 x 260 x 463 mm)
Net Weight	203 lbs (92.1 kg)	132 lbs (59.9 kg)	142 lbs (64.4 kg)	78 lbs (35.4 kg)	45 lbs (20 kg)
Finish Color	Black, paintable		Black or White, paintable		
Environmental Rating	Indoor		Indoor/Outdoor (WR models)		Indoor

Notes:

1. Frequency response and range measured on-axis, in an anechoic environment, with recommended high-pass filters.
2. Power handling using Bose 500-hour extended-life cycle test.
3. Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression, ground-stack boundary loading.

70/100V Transformer Kits

Available in 100-watt and 40-watt versions. Both will fit all RoomMatch Utility models after removing the standard input-connector panel.

RMUXF100
100-watt transformer kit

RMUXF40
40-watt transformer kit
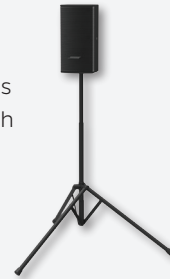
Pan-and-Tilt Brackets

Allows both pitch and yaw adjustment. Fits all RoomMatch Utility models.

Available in Black or White

Stand Mounts (RMU108 Only)

Contains 2 x M8 threaded inserts (70 mm spacing) on the bottom surface when vertically oriented. Fits widely available stand adapters, such as those included with the Bose SS-10 or ES-10 loudspeaker stands.

PowerMatch® configurable power amplifiers

- Optimal amplification and loudspeaker DSP for RoomMatch® Utility loudspeakers
- Proprietary DFL™ (dual-feedback loop) system helps deliver class-leading audio quality, configurability, efficiency and reliability
- Four models with Class-D amplification up to 4000 watts rated power
- QuadBridge™ channel pairing technology allows 2 or 4 channels to be combined for multiple power levels
- Configure from front-panel interface or ControlSpace® Designer™ software using USB or Ethernet port (network models only)
- Onboard DSP provides loudspeaker processing with presets for all Bose® professional loudspeakers
- Optional Dante,™ CobraNet®, ESPLink or AES3 digital audio input cards

ControlSpace® engineered sound processors

ControlSpace ESP engineered sound processors offer advanced signal processing that meets today's strict requirements for low-latency, high-quality digital conversion, and low-noise/high dynamic range audio applications. With the option of choosing between four fixed-I/O models or one flexible card-frame model that can be customized with up to 64 analog or digital audio channels, ControlSpace ESP processors provide a solution for nearly any project.

Bose® ESP products offer multiple network audio options with Dante and CobraNet (CobraNet for ControlSpace ESP-00 II only) expansion cards for routing audio between Bose ESP processors, PowerMatch amplifiers and third-party products. ESPLink connectivity, available across all ESP processor models, provides a convenient 8-channel bus for distributing digital audio to same-rack PowerMatch amplifiers.

ControlSpace Designer™ software makes it easy to design, configure and control a complete system comprised of Bose Engineered Sound processors, PowerMatch amplifiers and a variety of Bose user controls, using an intuitive drag-and-drop interface.

PowerMatch Specifications	PM8500	PM4500	PM8250	PM4250
Amplifier Performance				
Output Channels [1]	8 channels	4 channels	8 channels	4 channels
Total Power	4000 W	2000 W		1000 W
Mono Mode Output Power	500 W (4 Ω), 300 W (8 Ω)		250 W (4 Ω, 8 Ω)	
V-Bridge Mode Output Power	1000 W (4 Ω, 8 Ω, 100 V), 800 W (70 V)		500 W (4 Ω, 8 Ω, 100 V), 400 W (70 V)	
I-Share Mode Output Power	1000 W (2 Ω)		500 W (2 Ω)	
Quad Mode Output Power	2000 W (4 Ω, 100 V), 1600 W (70 V)		1000 W (4 Ω, 100 V), 800 W (70 V)	
Audio Performance				
Frequency Response (+/- 0.5 dB)	20 Hz - 20 kHz			
Signal-To-Noise Ratio, Analog (Below Rated Power)	> 102dBA		> 99 dBA	
THD For Power Rating, Typical (At 1 W, 20 to 20 kHz)	< 0.4%			
Loudspeaker DSP Functions	EQ, X/O, delay, limiter			
Digital Audio Input Card Options	Dante, CobraNet, ESPLink, AES3			
Physical				
Dimensions (H x W x D), inches (mm)	3.5" x 19.0" x 20.7" (88 x 483 x 525 mm)	3.5" x 19.0" x 20.7" (88 x 483 x 525 mm)	3.5" x 19.0" x 20.7" (88 x 483 x 525 mm)	3.5" x 19.0" x 20.7" (88 x 483 x 525 mm)
Net Weight	28.4 lbs (12.9 kg)	24.4 lbs (11.1 kg)	28.3 lbs (12.8 kg)	24.4 lbs (11.1 kg)

Notes:

1. Output power is measured per channel, all channels driven, using test signals at 1 kHz.

About Bose Professional

Professional sound systems demand an uncommon expertise and specialized products. Bose Professional is a dedicated group of engineers, product managers, technical support specialists and customer service teams who are focused on the professional audio markets. For more than three decades, the Professional Division has developed innovative loudspeakers, electronics and software to meet the needs of demanding professional applications.

Bose Professional products are sold only through authorized pro-audio dealers, AV-system integrators and distributors. We provide substantial support for our distribution network, including product technical information, system design support and after-sale support. Bose® sound is found throughout the world in performing arts centers, theaters, houses of worship, stadiums, restaurants, retail stores, corporate buildings and hospitality establishments.

About Bose Corporation

Bose Corporation was founded in 1964 by Dr. Amar G. Bose, professor at the Massachusetts Institute of Technology. Today, the company is primarily known for its research in acoustics, which has produced inventions that have improved the performance of:

- Loudspeakers
- Home entertainment systems
- Automotive music systems designed for the interior acoustics of each car model (first introduced by Bose)
- Noise reducing headsets for pilots and the public (first introduced by Bose)
- Sound in public spaces
- The production of sound for musicians requiring electronic amplification of their instruments
- Materials testing and durability simulation instruments for biomedical applications
- Driver suspension systems for heavy-duty trucks

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CobraNet® is a registered trademark of Cirrus Logic, Inc.

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Better sound through research