RoomMatch® Utility Small-Format Loudspeakers

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

BOSE® PROFESSIONAL
PRO.BOSE.COM

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, by using the same Bose EMB2 compression driver for 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

1.0" dome tweeter

1.0" compression driver

1.5" compression driver

vs.

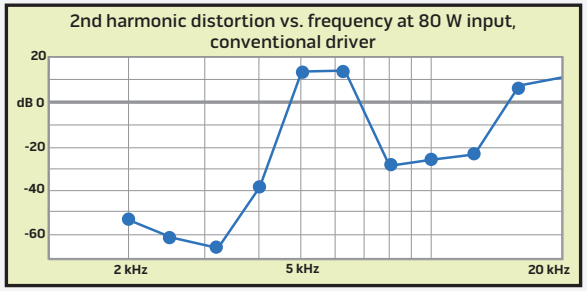
All RoomMatch Utility loudspeakers use Bose EMB2 compression drivers

Bose EMB2 compression driver

2-inch diaphram

patented phase plug

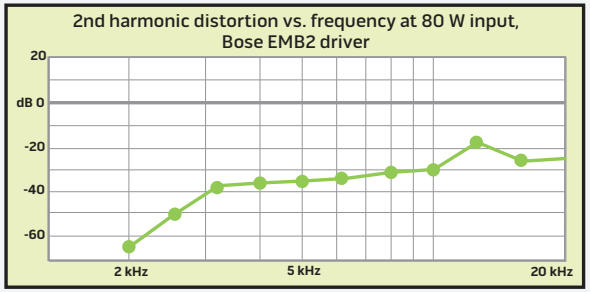
Conventional 1-inch diaphragm HF drivers have increased distortion at high SPL



→ RESULT: Degraded sound quality and vocal clarity at higher foreground-music levels

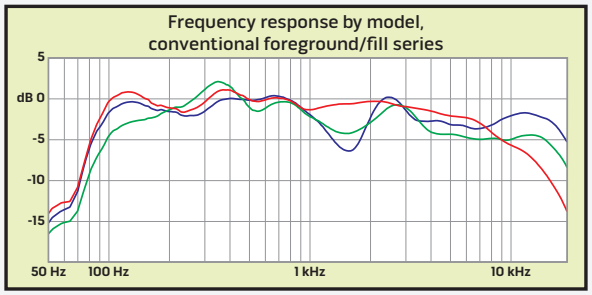
1

EMB2 drivers reduce distortion compared to 1-inch drivers at high SPL



→ RESULT: Excellent sound quality and vocal clarity at higher foreground-music levels

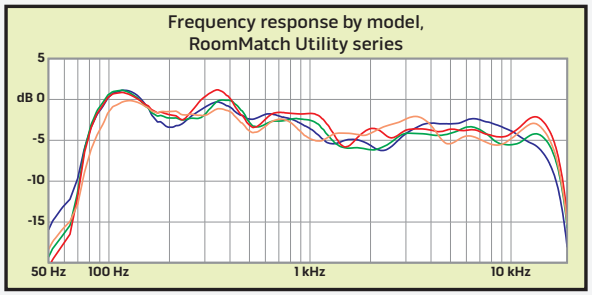
Different HF drivers cause frequency response to vary by model in conventional designs



→ RESULT: Difficult to EQ consistent sound quality in systems with different fill sizes

2

EMB2 drivers deliver consistent sound quality across RoomMatch Utility models



→ RESULT: Easy to EQ consistent sound in systems with different RoomMatch Utility models

Series overview by model

RMU208

The RMU208 is the highest output model of the RoomMatch Utility series and is intended for use in high-quality foreground music, under-balcony and zone fill applications. Additionally, the multi-angle enclosure allows use in vocal-range floor monitor applications.

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

Highlighted Application

Small Dance Club

RMU206

The RMU206 is optimized for under-balcony fill applications with a unique angled baffle enclosure design to minimize 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
- 122 dB maximum peak SPL

Highlighted Application

House of Worship Under-Balcony Fill

RMU108

The RMU108 is the most versatile RoomMatch Utility model with a blend of compact size, excellent sound quality and flexible mounting options. The RMU108 is 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
- 121 dB maximum peak SPL

Highlighted Application

Sports Bar

RMU105

The RMU105 is the most compact model and is intended for use in high-quality background music and zone-fill applications that require excellent audio, minimal physical size and high design aesthetics. The RMU105 is 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

Highlighted Application

Retail

RoomMatch® Utility specification summary

	RoomMatch® RM9060	RoomMatch Utility Series				FreeSpace® DS 100SE
		RMU208	RMU206	RMU108	RMU105	
						
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, Horizontal	90°	90° (rotatable)	120° (rotatable)	90° (rotatable)	100°	180°
Coverage Pattern, Vertical	60°	60° (rotatable)	60° (rotatable)	60° (rotatable)	100°	75°
Long-Term Power Handling (2)	500 + 150 W	400 W	250 W	250 W	150 W	100 W
Calculated Maximum SPL @ 1 m, peak (3)	127 / 134 dB (LF/HF)	127 dB	122 dB	121 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	1 x Bose EMB2 compression driver	1 x Bose EMB2 compression driver	1 x Bose EMB2 compression driver	2 x 2.25" cone drivers
Nominal Impedance	4 + 8 ohms (LF/HF)	8 ohms (70-V/100-V optional)	8 ohms (70-V/100-V optional)	8 ohms (70-V/100-V optional)	8 ohms (70-V/100-V optional)	8 ohms + 70V/100V taps
Physical						
Dimensions (H x W x D), inches	27.5" x 39.1" x 23.6"	9.3" x 27.0" x 10.5"	7.0" x 19.0" x 9.0"	9.3" x 18.5" x 10.5"	6.0" x 12.0" x 7.5"	7.0" x 15.0" x 8.5"
Dimensions (H x W x D), mm	700 x 993 x 598 mm	236 x 686 x 267 mm	178 x 483 x 229 mm	236 x 470 x 267 mm	152 x 305 x 191 mm	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	black or white	black or white	black or white	black or white
Environmental Rating	Indoor	Indoor	Indoor	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-lifecycle test for RoomMatch and DS models.
3. Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.

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

Optional accessories

Recommended Subwoofer Specification Summary

	RMS215	MB24	MB12	MB4
				
System Performance				
Frequency Range (-10 dB) (1)	40 – 280 Hz	36 – 290 Hz	36 – 290 Hz	35 – 350 Hz
Long-Term Power Handling (2)	500 + 500 W	800 W	400 W	200 W
Calculated Maximum SPL @ 1 m, peak (3)	139 dB	135 dB	129 dB	122 dB
Transducers				
Low Frequency	2 x Bose LF15 15-inch woofers	2 x Bose 12-inch woofers	1 x Bose 12-inch woofer	4 x Bose 5.25-inch woofers
Nominal Impedance	8 + 8 Ω	4 Ω	8 Ω	8 Ω
Physical				
Dimensions (H x W x D), inches	17.6" x 37.1" x 21.5"	28.1" x 20.0" x 25.4"	14.7" x 20.0" x 25.4"	26.7" x 10.2" x 18.2"
Dimensions (H x W x D), mm	446 mm x 942 mm x 546 mm	713 mm x 508 mm x 646 mm	374 mm x 508 mm x 646 mm	(678 mm x 260 mm x 463 mm)
Net Weight	132 lbs (59.9 kg)	142 lbs (64.4 kg)	78 lbs (35.4 kg)	45 lb (20 kg)
Finish Color	black, paintable	black or white	black or white	black or white
Environmental Rating	Indoor	Indoor / Outdoor (WR models)	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-lifecycle test.
3. Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression, ground-stack boundary loading.

70V/100V Transformer Kits

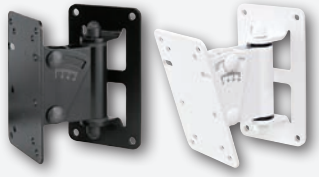
70V/100V transformer kits are available in 100-watt and 40-watt versions. Both versions will fit all RoomMatch Utility models, after removing the standard input-connector panel.

RMUXF100
100-watt transformer kit

RMUXF40
40-watt transformer kit

Pan-and-Tilt Brackets

A pan-and-tilt bracket is available that allows both pitch and yaw adjustment. The bracket fits the 4x M8 threaded inserts (127 x 70 mm) on the rear panel of RMU208, RMU206, and RMU108 models, as well as the 2x M6 threaded inserts (70 mm spacing) on the rear panel of the RMU105 model.



Available in black or white

Stand Mounts (RMU108 Only)

The RMU108 model contains 2x M8 threaded inserts (70 mm spacing) on the bottom surface of the enclosure when vertically oriented.

The 2x M8 spacing 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
- 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

PowerMatch Specifications

	PM8500	PM8250	PM4500	PM4250
Amplifier Performance				
Output Channels (1)	8 channels	8 channels	4 channels	4 channels
Total Power	4000 W	2000 W	2000 W	1000 W
Mono Mode output power	500 W (4 Ω) 300 W (8 Ω)	250 W (4 Ω, 8 Ω)	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)	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)	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)	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	20 Hz - 20 kHz	20 Hz - 20 kHz	20 Hz - 20 kHz
Signal-to-noise ratio, analog (below rated power)	> 102 dBA	> 99 dBA	> 102 dBA	> 99 dBA
THD for power rating, typical (at 1 W, 20 to 20 kHz)	< 0.4%	< 0.4%	< 0.4%	< 0.4%
Loudspeaker DSP Functions	EQ, X/O, delay, limiter	EQ, X/O, delay, limiter	EQ, X/O, delay, limiter	EQ, X/O, delay, limiter
Digital audio input card options	Dante, CobraNet, ESPLink, AES3	Dante, CobraNet, ESPLink, AES3	Dante, CobraNet, ESPLink, AES3	Dante, CobraNet, ESPLink, AES3
Physical				
Dimensions (H x W x D), inches	3.5" x 19.0" x 20.7"	3.5" x 19.0" x 20.7"	3.5" x 19.0" x 20.7"	3.5" x 19.0" x 20.7"
Dimensions (H x W x D), mm	88 x 483 x 525 mm	88 x 483 x 525 mm	88 x 483 x 525 mm	88 x 483 x 525 mm
Net Weight	28.4 lb (12.9 kg)	28.3 lb (12.8 kg)	24.4 lb (11.1 kg)	24.4 lb (11.1 kg)

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

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 three 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.

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 that 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