

RoomMatch® RMS218

VLF-subwoofer module loudspeaker



Key Features

Very-low-frequency subwoofer - with 30 Hz rated response (-3 dB) and 25 Hz usable response (-10 dB) for the most demanding electronic music and sound-effect program material

Dual Bose LF18 woofers 18-inch, high-excursion, 4.5-inch voice coil, neodymium-magnet transducers provide maximum performance

142 dB peak sound levels - provide balanced subwoofer performance with the largest RoomMatch array systems

V-baffle design - provides increased acoustic loading and lowers port airflow turbulence to improve sound quality, while minimizing enclosure width to allow integration with all RoomMatch modules

Recommended Bose PowerMatch® PM8500 power amplifier - provides optimal power and loudspeaker DSP



TECHNICAL DATA SHEET

Product Overview

The RoomMatch® RMS218 VLF-subwoofer is designed primarily to extend the low-frequency response of Bose® RoomMatch arrays down to 25 Hz. It features dual Bose LF18 18-inch high-excursion woofers, and a V-baffle design that reduces distortion while minimizing enclosure width. The durable Baltic birch enclosure with 2-part polyurethane coating integrates with all RoomMatch modules for reliable ground-stack applications. Use the RMS218 VLF-subwoofer with RMS215 subwoofer and full-range modules to create RoomMatch 4-way systems.

Technical Specifications

Single Module Performance				
Frequency Response (+/-3 dB) ¹	30 Hz - 200 Hz			
Frequency Range (-10 dB)	25 Hz - 250 Hz			
Nominal Coverage Pattern (H x V)	Omni-directional below 100 Hz			
Recommended High-Pass Protection Filter	25 Hz with minimum 12-dB / octave filter			
Recommended Crossover Frequency	60 - 100 Hz (active, external DSP)			
Power Handling, long-term continuous	Bose extended-lifecycle test (4)		AES component test (5)	
	1500 W (750 W per woofer)		2500 W (1250 W per woofer)	
Power Handling, Peak	6000 W (3000 W per woofer)		10000 W (5000 W per woofer)	
Sensitivity (SPL / 1 W @ 1 m) ²	Array Position (free field) 4	Ground Stack (half space) 4	Array Position (free field) 5	Ground Stack (half space) 5
	96 dB	102 dB	96 dB	102 dB
	Calculated Maximum SPL @ 1 m ³	128 dB	134 dB	136 dB
	Calculated Maximum SPL @ 1 m, peak	134 dB	140 dB	136 dB
Transducers				
Low Frequency	2 x Bose® LF18: 18-inch woofer with neodymium magnet, 4.5-inch voice coil with ventilated gap and demodulation ring			
Nominal Impedance	2 x 4 Ω (discrete connection per woofer)			
Physical				
Enclosure	13-ply Baltic birch plywood			
Finish	Two-part spray polyurethane coating, black			
Grille	18-gauge (1.2 mm) perforated steel, powder-coated finish, black			
Environmental	Indoor use only			
Connectors	2 x Neutrik® NL4 wired parallel			
Suspension / Mounting	24 x M10 threaded inserts (6 each top, bottom and sides) optional RMSFLY218 kit for RoomMatch Array integration			
Dimensions	21" x 37" x 41.5" (534 mm x 940 mm x 1055 mm)			
Net Weight	203 lbs (92.1 kg) / 248 lbs (112.5 kg) with fly kit			
Accessories	RMSFLY218 side-plate rigging kit			
Shipping Weight	229 lbs (103.9 kg)			
Product Code				
Black	344055-0110			

Footnotes:

- 1 Frequency response and range measured on-axis in an anechoic environment, with recommended bandpass filter.
- 2 Sensitivity measured with indicated boundary conditions, averaged 20 - 200 Hz, referenced to 1W/m.
- 3 Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.

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4 Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration.
5 AES standard component power handling test: pink noise in 25-250 bandpass, 6-dB crest factor, 2-hour duration.

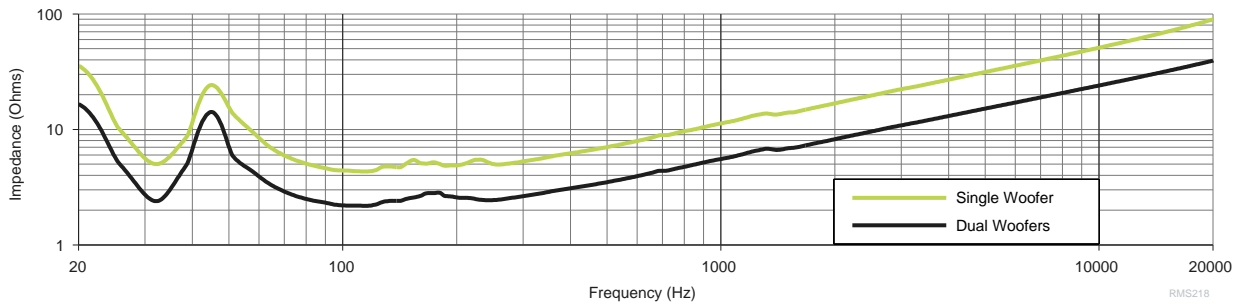
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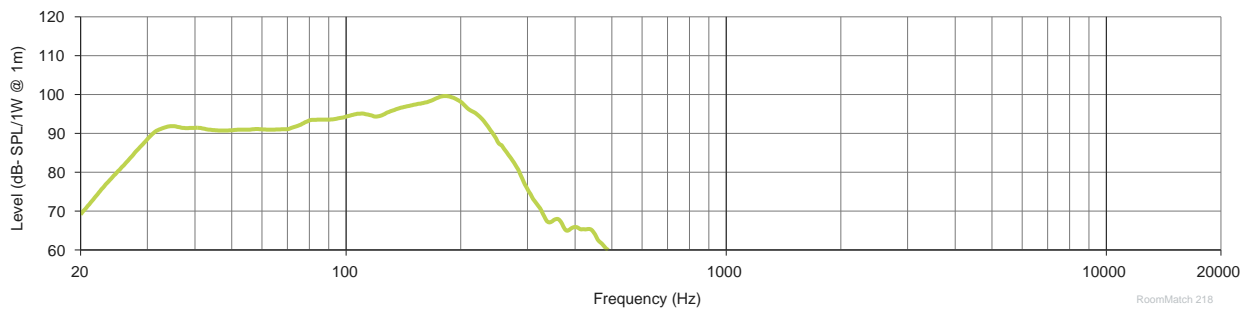
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Impedance



On-Axis Response

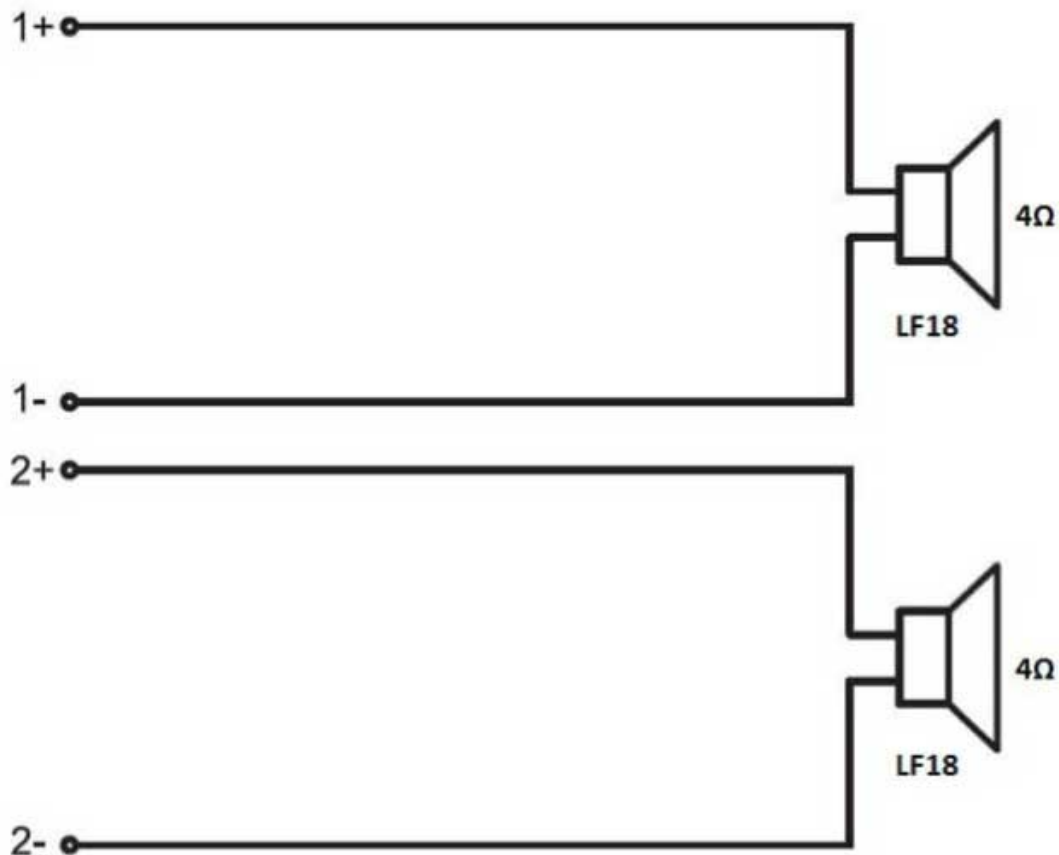


RoomMatch® RMS218

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Wiring Diagram



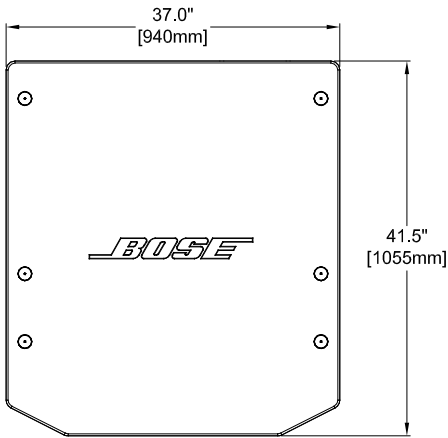
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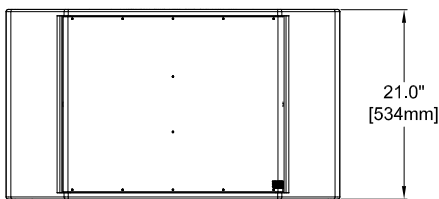
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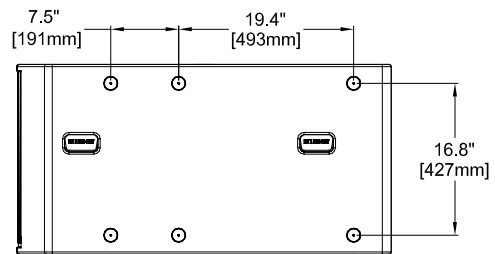
Mechanical Diagrams



Top View



Front View



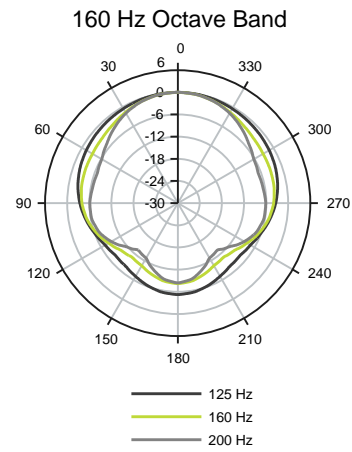
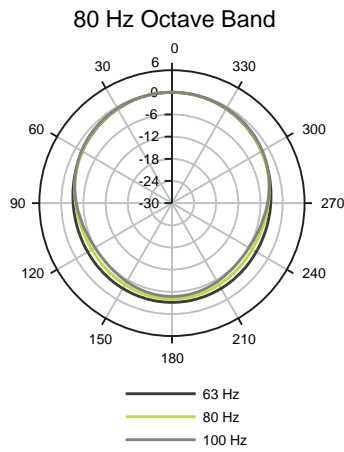
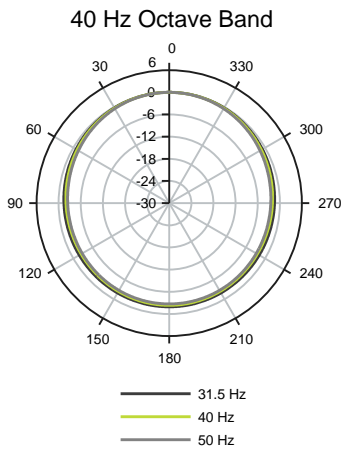
Right View

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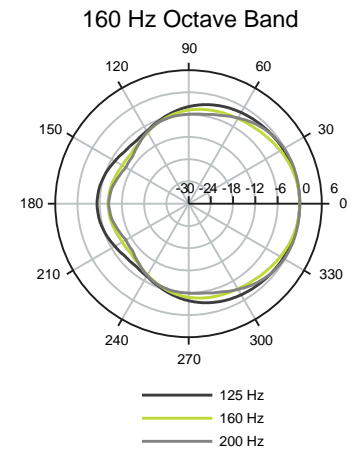
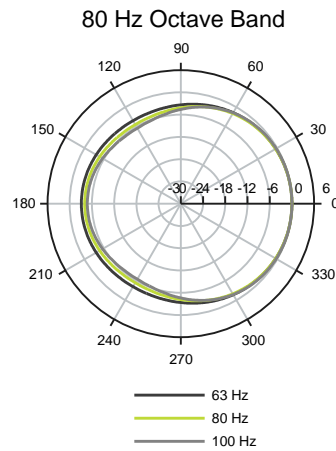
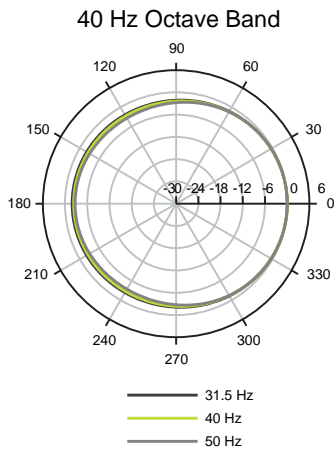
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Horizontal Plots



Vertical Plots



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Architects' and Engineers' Specifications

The subwoofer array module loudspeaker shall contain two (2) 18-inch high-excursion cone transducers with 4.5-inch voice coils. The low-frequency drivers shall be loaded into a V-baffle design enclosure with large center port.

The array module subwoofer shall meet the following performance specifications: On-axis system frequency response shall be 25 Hz to 250 Hz (-10 dB). The module sensitivity shall be 96 dB SPL in free field and 102 dB SPL in half-space loading with 1 W input. Maximum continuous output shall be 130 dB SPL in free field and 136 dB SPL in half space loading. Maximum peak output shall be 136 dB SPL in free field and 142 dB SPL in half space loading. Each 18-inch transducer shall have a long-term power handling rating of 750 W (using IEC 268-5 pink noise, 6-dB crest factor, for 500 hours, with recommended EQ) and a nominal input impedance of 4 ohms.

The subwoofer module loudspeaker enclosure shall be constructed of 13-ply Baltic birch plywood, protected by a two-part polyurethane coating. The transducers shall be protected by an 18-gauge (1.2 mm) perforated steel grille with powder coated finish. Input connectors shall be two (2) parallel-wired Neutrik® NL4 Speakon® connectors, which shall be wired to provide discrete amplifier channel drive to each transducer. The finish will be black (paintable).

Loudspeaker dimensions shall be 21.0 x 37.0 x 41.5 in (534 x 940 x 1055 mm) and net weight shall be 203 lbs. (92.1 kg). An optional accessory side-plate rigging kit (RMSFLY) is available to facilitate integrating the RMS218 subwoofer with full-range modules. The net weight of the subwoofer module increases to 248 lbs. (112.5 kg) when the RMSFLY kit is installed.

The subwoofer array module loudspeaker shall be the Bose® RoomMatch® RMS218.

Additional Notes

- **Environment:** Measured at 10 m. Responses are timewindowed and processed to eliminate room effects, approximating an anechoic environment
- **On-Axis Response:** 1/10 octave band smoothed response with recommended active EQ
- **Horizontal/Vertical Plots:** 1/3 octave band smoothed polar responses with recommended active EQ applied to the module