ShowMatch™ SM10 DeltaQ™ array loudspeaker





Product Overview

Bose Professional ShowMatch™ DeltaQ™ SM10 full-range array modules provide 10° nominal vertical coverage with included field-changeable waveguides offering choice of 70° or 100° horizontal coverage. Replace single waveguide panel to form horizontal asymmetrical patterns. The 2-way module requires external power amplifiers (2- channels) and DSP to provide full-range response from 59 - 18,000 Hz with peak array output up to 145 dB.

Key Features

- DeltaQ™ technology defines the next-generation in loudspeaker array design with selectable coverage patterns that more
 precisely direct sound to audience areas for improved sound quality and vocal clarity with fewer boxes versus line arrays.
- Replaceable waveguides ships with 100° waveguides installed with 70° panels included to allow coverage change. Largest-in-class size provides better coverage and vocal clarity. Change single panel for asymmetrical patterns.
- Compact, portable enclosure Versatile design allows both fixed install and portable applications, from small clubs and houses of worship to the largest performing arts centers and AV productions.
- Tour-sound output level 4x Bose EMB2S compression drivers, improved with more HF output, and 2x 8-inch neodymium high-power woofers allow peak array output up to 145 dB SPL.
- 3-point "quick pin" rigging Fast, easy setup with up to 24 full-range modules and 10:1 design factor.
- Removable side guards provide rigging guard and hand holds for portable applications. Easily removed for permanent installs to reduce width and improve sight lines.

Technical Specifications

SINGLE MODULE PERFORMANCE					
Frequency Response (+ / -3 dB) (1)		69 - 16,000 Hz			
Frequency Range (-10 dB)		59 - 18,000 Hz			
Recommended High-Pass Protection Filter		70 Hz with minimum 12-dB / octave filter			
Nominal Coverage Pattern	10	100° H x 10° V (includes waveguides for 70° H x 10° V)			
Recommended Crossover	750 Hz (acoustic; requires active, 2-way crossover in DSP)				
	Bose extended	Bose extended-lifecycle test (4)		AES transducer test (5)	
	Low Frequency	High Frequency	Low Frequency	High Frequency	
Power Handling, long-term continuous	450 W	100 W	600 W	125 W	
Power Handling, peak	1800 W	400 W	2400 W	500 W	
Sensitivity (SPL/1W @ 1 m) (2)	94 dB	106 dB	94 dB	106 dB	
Calculated Maximum SPL @ 1 m ⁽³⁾	121 dB	126 dB	122 dB	127 dB	
Calculated Maximum SPL @ 1 m, peak	127 dB	132 dB	128 dB	133 dB	

TRANSDUCERS		
Low Frequency	2 x Bose SM8 neodymium 8-inch woofers (3-inch voice coil)	
High Frequency	4 x Bose EMB2S extended-HF neodymium compression driver (2-inch voice coil)	
Nominal Impedance	8 ohms + 6 ohms (LF/HF)	

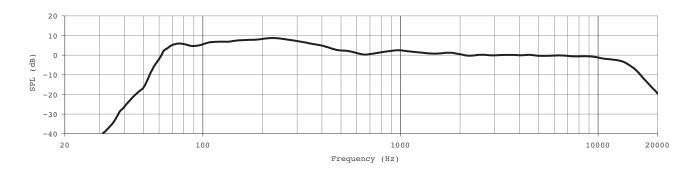
PHYSICAL		
Enclosure Material	Baltic birch plywood	
Finish	Two-part spray polyurethane coating, black	
Grill	16-gauge (1.5 mm) perforated steel, powder-coated finish, black	
Environmental	IPx4	
Connectors	2 x Neutrik® NL4 wired parallel	
Suspension / Mounting	integrated 3-point quick-pin rigging	
Dimensions (H x W x D)	11.1" x31.2" x18.3" (282 x 793 x 465 mm) / W: 29.8" (757 mm) side guards removed	
Net Weight	65.5 lbs (29.7 kg)	
Shipping Weight	75 lbs (34.0 kg)	
Accessories	rigging frames, pullback bar, waveguides, ground stack bracket, short quick pins	

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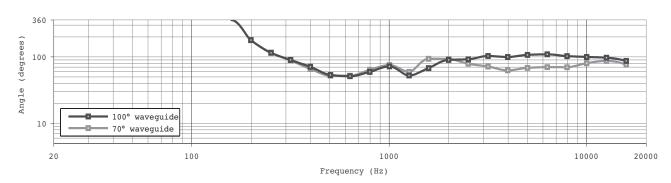
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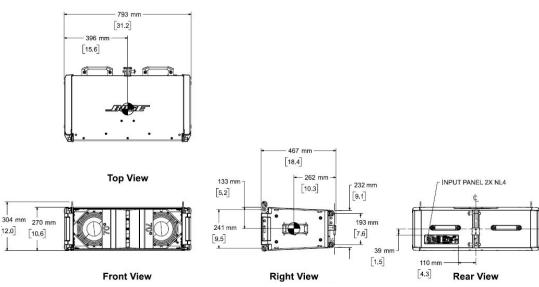
Frequency Response



Beamwidth (Horizontal -6 dB)



Dimensions



- (1) Frequency response and range measured on-axis in an anechoic environment, with recommended bandpass and EQ. (2) Sensitivity measured with indicated boundary conditions, recommended bandpass and 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 IEC268-5, 6-dB crest factor, 500-hour, full-power duration.
- (5) AES standard component power handling test: pink noise 60-18000 Hz bandpass, 6-dB crest factor, 2-hour duration.

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