EdgeMax™ EM180
in-ceiling premium loudspeaker with PhaseGuide® technology

BOSE

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Product Overview

Bose Professional EdgeMax™ in-ceiling premium loudspeakers feature proprietary Bose PhaseGuide® technology with high-frequency compression drivers to create a new category that combines the room-filling coverage patterns typical of larger surface-mount speakers with the architect-preferred aesthetics of in-ceiling models. Designed to mount near wall-ceiling boundaries, EdgeMax™ loudspeakers provide improved audio quality and coverage, while reducing the number of required units, compared to conventional dome-tweeter ceiling speakers.

Key Features

- **PhaseGuide technology** – provides a unique asymmetrical vertical pattern for room-filling coverage when mounting near wall-ceiling boundaries
- **Provides improved room visual appearance** – for demanding interior designs by eliminating center-of-ceiling or wall-mounted loudspeakers, and reducing speaker counts
- **Nominal 180° horizontal coverage** – designed for in-ceiling mounting centered along wall coverage zones
- **High-frequency compression driver** – for best-in-class audio quality with superior frequency response and coverage consistency versus typical dome tweeters
- **8-inch woofer** – with wall-boundary loading provides extended bass impact
- **2-way passive crossover with 70/100V transformer**
- **New auto-hold, spring-loaded mounting arms** – for fast, easy installs
- **Magnetically attached grille** – for quick access to wiring and tap settings
- **45 Hz - 20 kHz Frequency Range** – eliminates need for subwoofers
- **Coverage pattern similar to a surface-mount loudspeaker** – enables stereo designs
- **In compliance with the following safety standards: UL1480A, UL2043**

Technical Specifications

SINGLE MODULE PERFORMANCE		
Frequency Response (-3 dB) [1]	50 – 18,000 Hz	
Frequency Range (-10 dB)	45 – 20,000 Hz	
Nominal Coverage Pattern	180° H x asymmetrical 75° V (0° to 75° referenced to wall)	
	Bose extended-lifecycle test [4]	**AES transducer test [5]**
Power Handling, long-term continuous	125 W	150 W
Power Handling, peak	500 W	600 W
Sensitivity (SPL/ 1W @ 1 m) [2]	93 dB	93 dB
Calculated Maximum SPL @ 1 m [3]	114 dB	115 dB
Calculated Maximum SPL @ 1 m, peak	120 dB	121 dB
Crossover	1.0 kHz (passive 2-way crossover with integrated 70/100V transformer)	
Loudspeaker EQ	Recommended but not required	
Recommended high-pass protection	55 Hz with minimum 12-dB / octave filter	
Overload protection	Resistor-network power reduction with automatic reset	
Transformer taps	70V: 2.5, 5, 10, 20, 40, 80 W, bypass / 100V: 5, 10, 20, 40, 80 W, bypass	

TRANSDUCERS	
Low Frequency	1x 8-inch woofer (1.5-inch voice coil)
High Frequency	1x compression driver (1.3-inch voice coil)
Nominal Impedance	8 ohms (transformer bypass)

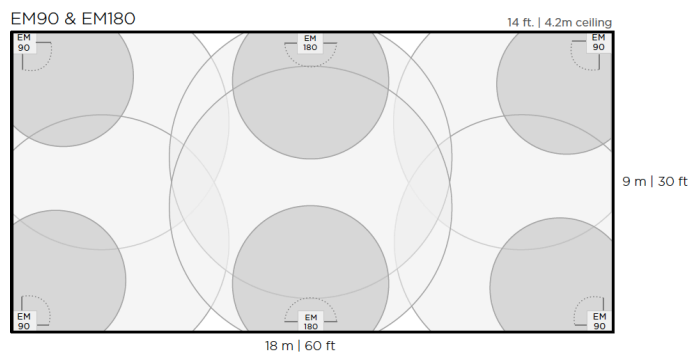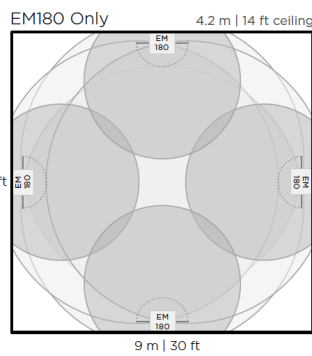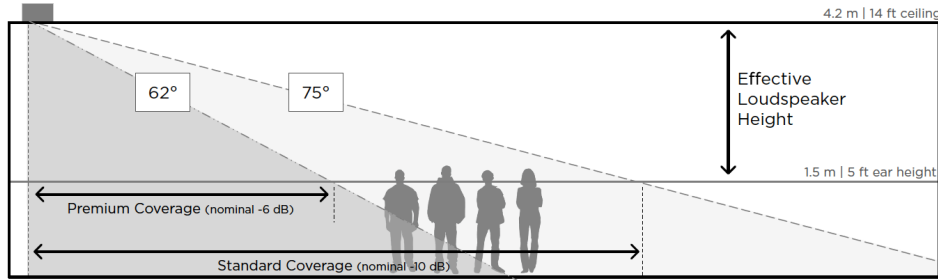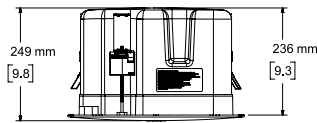| PHYSICAL	
Enclosure Material	Engineered-plastics front baffle with integrated steel formed enclosure
Grille	Micro perforated steel, powder-coated finish, white: RAL 9010, paintable
Environmental	Indoor only; UL-1480A listed, in compliance with UL2043 for plenum-space installation
Connectors	Euro block 6-pin connector with loop-through, front-baffle mounted
Suspension / mounting	Four (4) auto-hold, spring-loaded mounting arms plus four (4) M6 safety cable tabs
Maximum ceiling thickness	80 mm (3.2")
Dimensions (H x W x D)	339 x 339 x 249 mm (13.4" L x 13.4" W x 9.8" D) enclosure
	390 x 390 x 13 mm (15.4" L x 15.4" W x 0.5" D) grille flange, as mounted
Ceiling cutout and clearance	345 x 345mm (13.6" L x 13.6" W) with 236 mm (9.3") mounting depth
Net Weight	10.1 kg (22.2 lbs) with grille
Shipping Weight	12.5 kg (29 lbs)
Accessories	Adjustable Tile Bridge (Included), Black grille, rough-in pan for new construction

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Nominal Coverage and Room Placement

4.2 m | 14 ft ceiling

62° 75°

Effective Loudspeaker Height

1.5 m | 5 ft ear height

Premium Coverage (nominal -6 dB)

Standard Coverage (nominal -10 dB)

EM180 Only — 4.2 m | 14 ft ceiling

9 m | 30 ft

9 m | 30 ft

EM90 & EM180 — 14 ft. | 4.2m ceiling

9 m | 30 ft

18 m | 60 ft

Dimensions

249 mm [9.8] 236 mm [9.3]

Top View

376 mm [14.8]

Ø 22 mm WIRE OPENING [.9]

6-PIN INPUT CONNECTOR

376 mm [14.8]
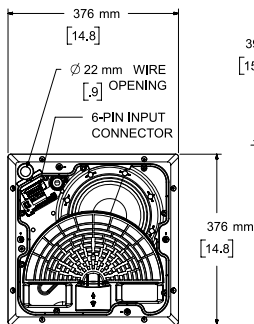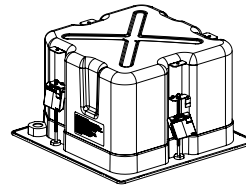
Front View (Grille Removed)

390 mm [15.4]

390 mm [15.4]

Front View

Bottom View

2 - 80mm [0.1 - 3.1] ANCHOR ADJUSTMENT HEIGHT
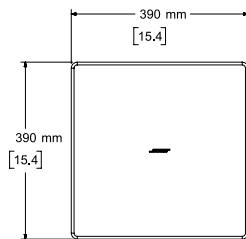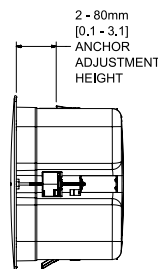
Side View

DIMENSIONS APPLY TO BOTH SIDES

339 mm [13.3]

339 mm [13.3]
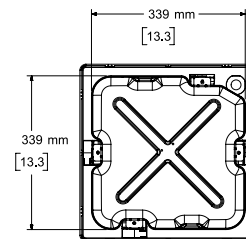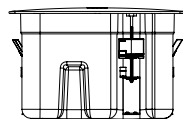
Rear View

NOTES:
1. WEIGHT IS APPROX. 10.1kg [22.2lbs]
2. DIMENSIONS ARE IN MILLIMETERS OVER INCHES

Footnotes
(1) Frequency response and range measured on-axis in quarter-space (corner loaded) environment with recommended Active EQ
(2) Sensitivity measured on-axis in quarter-space (wall loaded) environment with recommended Active EQ
(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