

# MS28 Compact, Two-Way Full Range Loudspeaker System For Permanent Installation

## Marquis Series

### Key Features:

- ▶ 2 x 8" LF transducers
- ▶ 85 x 85° OASR™ (Optimized Aperture Symmetrical Radiator)
- ▶ 1" exit titanium diaphragm compression driver
- ▶ Ultra low profile enclosure
- ▶ DuraFlex finish, tough, weather-resistant and paintable
- ▶ 2 Suspension points (M10 Thread), yoke bracket
- ▶ Omni Mount location, MTC-103
- ▶ Dual Neutrik Speakon connectors



The model MS28 is a full range system designed to provide extended bandwidth and maximum SPL in a single system package and yet be visually unobtrusive. The enclosure design allows for installation very close to walls and ceilings, thus making it the ideal choice for under balcony, column and wall mounting. With nominal 85° coverage pattern, natural sonic voicing and enclosure versatility, the MS28 excels at “in-fill” applications requiring a higher continuous SPL.

The OASR (Optimized Aperture Symmetrical Radiator) is a new design in pattern control. It provides enhanced dispersion control in all axis, while maintaining the principle of Optimized Aperture, low distortion and clear transient highs. JBL transducers combined with an optimized passive network, incorporating SonicGuard™, provide reliable performance associated with JBL loudspeaker systems.

The enclosure has been design to work in the vertical plane as well as the horizontal. Mounting points are provided on the end panels to support a wall mount bracket. The enclosure also provides points at which to attach an Omni Mount type bracket (MTC-103).

The rugged plywood construction of the enclosure, along with a textured DuraFlex finish and a heavy duty zinc treated steel, foam-backed grille and treated cones enable this Marquis Series enclosure to meet with environmental test specifications.

Designed for permanent installation, the MS28 is part of the Marquis Series, a complete range of installation loudspeaker systems.

### Preliminary Specifications:

#### System:

Freq. Range (-10 dB):	40 Hz - 20 kHz
Freq. Response (-3 dB):	60 Hz - 19 kHz
Horz. Coverage Angle (-6 dB):	100° averaged 500 Hz to 16 kHz
Vert. Coverage Angle (-6 dB):	80° averaged 500 Hz to 16 kHz
Directivity Factor (Q):	10.3 averaged 500 Hz to 16 kHz
Directivity Index (DI):	10.1 dB averaged 500 Hz to 16 kHz
System Sensitivity <sup>1</sup> :	93 dB, 1 W @ 1 m (3.3 ft)
Rated Maximum SPL:	122 dB, @ 1 m (3.3 ft)
System Nominal Impedance:	16 Ohms
System Input Power Rating <sup>2</sup> :	200 W, IEC; 800 W Peak
Recommended Amplifier <sup>3</sup> :	300 W
Crossover:	2.8 kHz

#### Transducers:

Low-Frequency:	2 x 508G-3S, 200 mm (8 in) dia.
High-Frequency:	OASR with 2412H, 25 mm (1 in) exit, titanium diaphragm, compression driver

#### Physical:

Enclosure:	Asymmetrical 15° sides, plywood
Environmental Specifications:	Mil-Std 810, IPX4 per IEC 529
Suspension Attachment:	2 points; accepts M10 threaded hardware, yoke bracket, MTC-103 (Omni Mount 100 Series)
Finish:	Black DuraFlex coating
Grille:	Black powder coated zinc treated 18 gauge perforated steel grille with foam backing
Input Connectors:	2 x NL4 Neutrik Speakon connectors
Dimensions:	676 mm x 295 mm x 324 mm (26.6 in x 11.6 in x 12.75 in)
Net Weight:	12.7 kg (28 lbs.)

<sup>1</sup>Measured on-axis in the far field with 1 watt (4.0 V RMS @ 16 ohms) input and referenced to 1 meter distance using the inverse square law. Listed sound pressure represents an average from 300 Hz to 16 kHz.

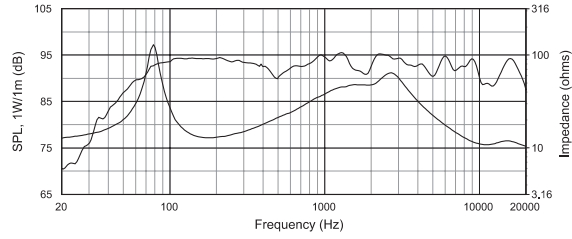
<sup>2</sup>IEC Spectrum for 2 hours with +6 dB crest factor.

<sup>3</sup>Recommended Amplifier is a power capability value that should be taken as a guide.

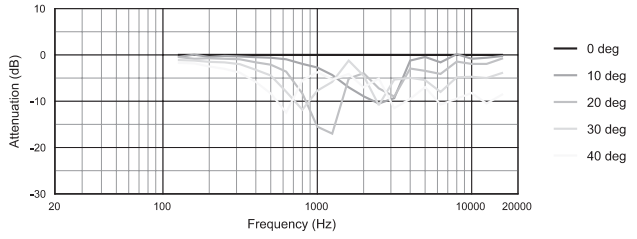
JBL continually engages in research related to product improvement. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

# MS28 2 way System

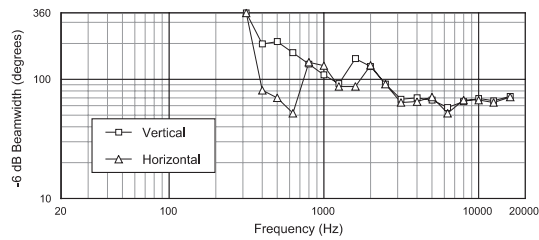
Frequency response is measured on-axis at a distance referenced to 1 meter at 1 watt using a recommended controller, shown as a half-space ( $2\pi$ ) environment.



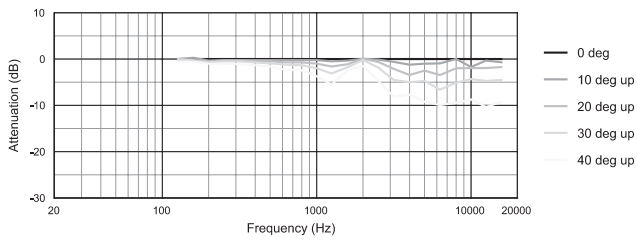
### Vertical Off-Axis Frequency Response



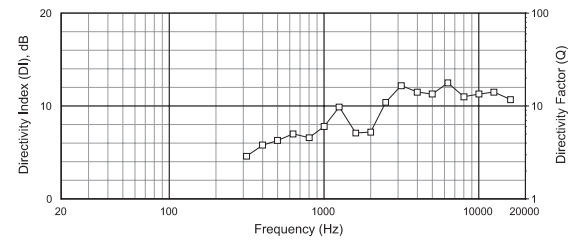
### Beamwidth vs. Frequency



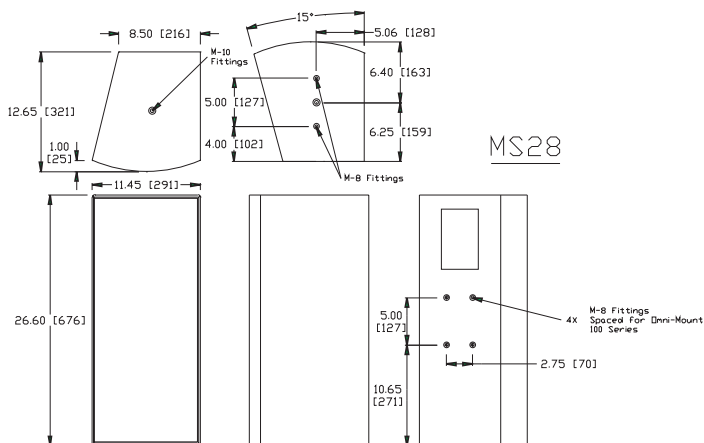
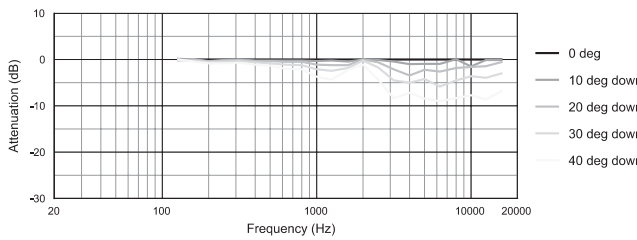
### Horizontal Off-Axis Frequency Response (up)



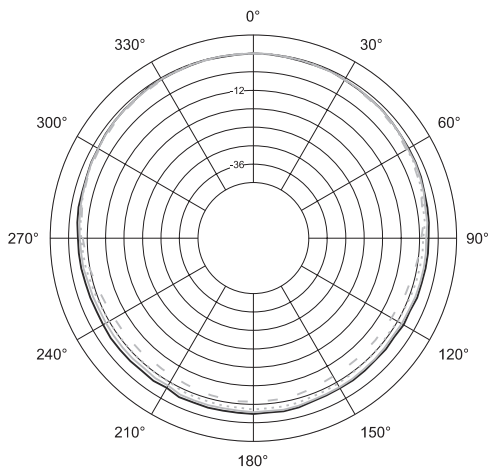
### Directivity vs. Frequency



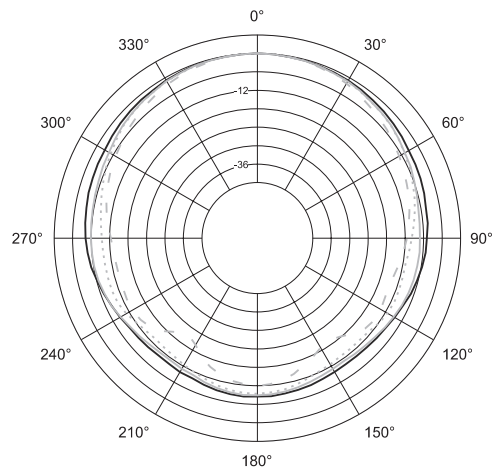
### Horizontal Off-Axis Frequency Response (down)



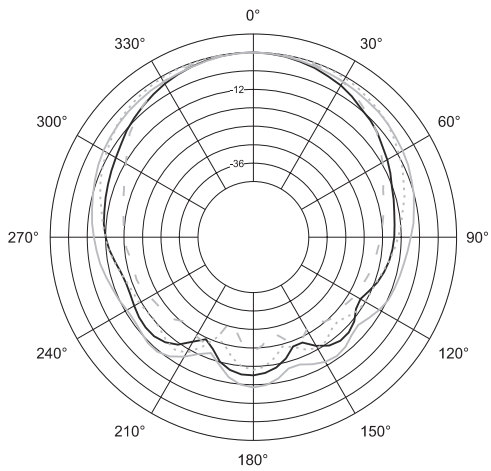
## Horizontal 1/3 Octave Polars



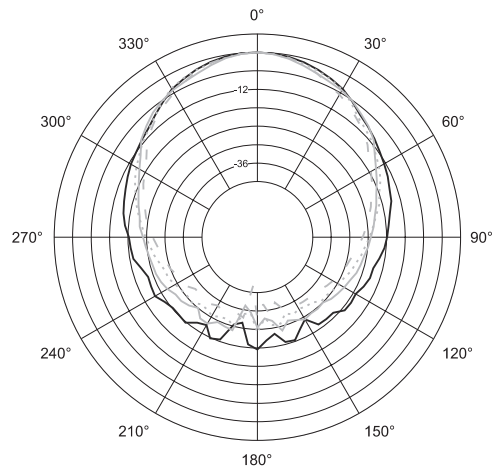
— 200Hz  
— 250Hz  
- - - 315Hz  
- - - 400Hz



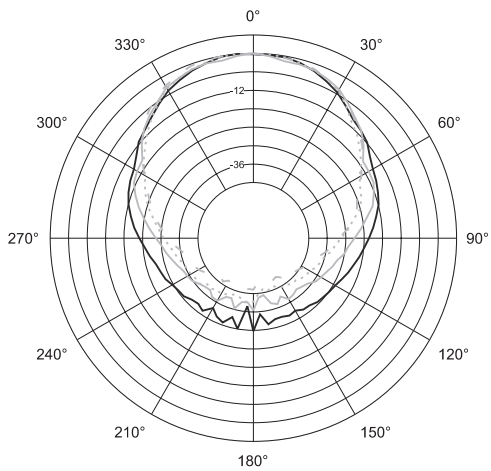
— 500Hz  
— 630Hz  
- - - 800Hz  
- - - 1kHz



— 1.25kHz  
— 1.6kHz  
- - - 2kHz  
- - - 2.5kHz



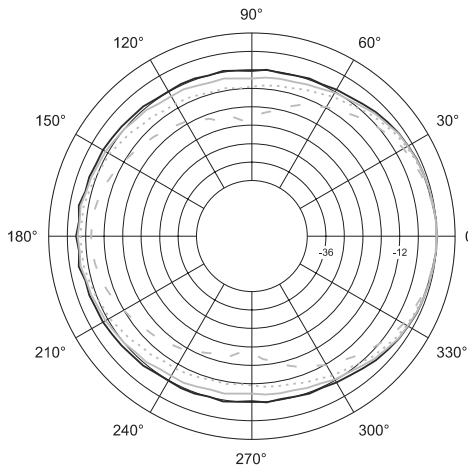
— 3.15kHz  
— 4kHz  
- - - 5kHz  
- - - 6.3kHz



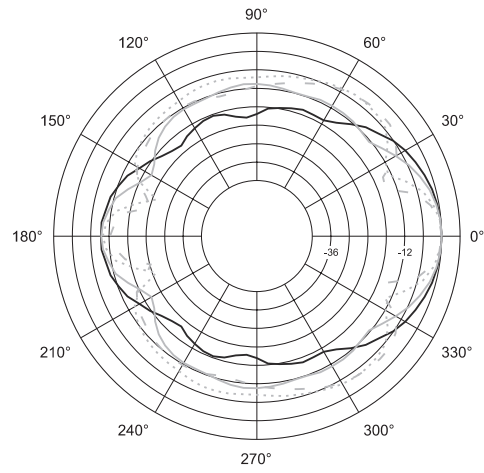
— 8kHz  
— 10kHz  
- - - 12.5kHz  
- - - 16kHz

# ► MS28 2 way System

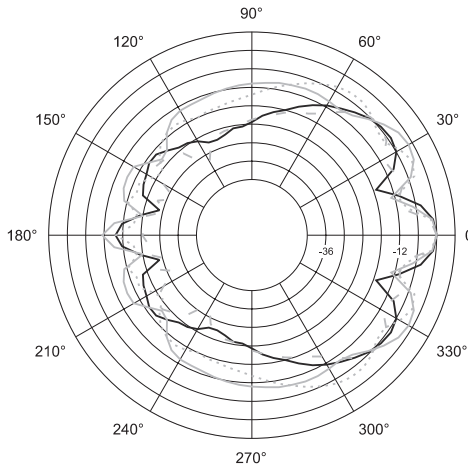
## Vertical 1/3 Octave Polars



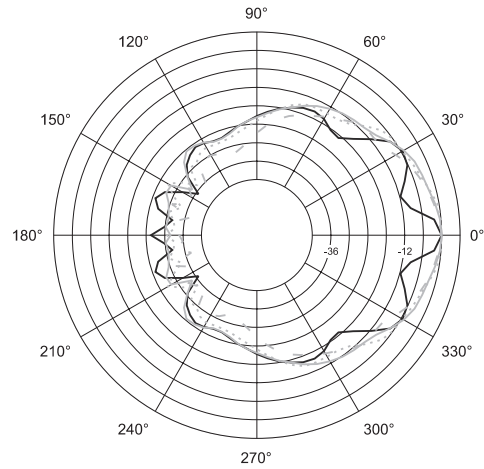
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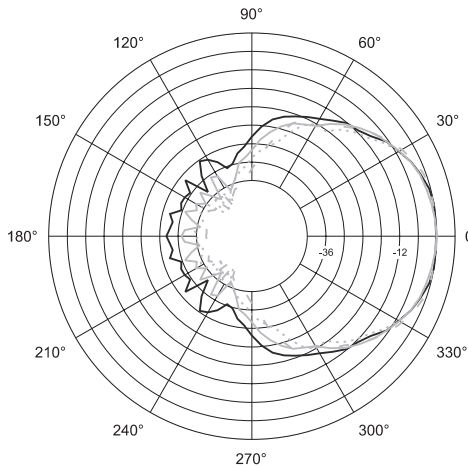
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JBL Professional  
 8500 Balboa Boulevard, P.O. Box 2200  
 Northridge, California 91329 U.S.A.

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