

# MS105 Two-Way Full Range Loudspeaker System For Permanent Installation

## Marquis Series

### Key Features:

- ▶ 15" LF transducer
- ▶ 85 x 85° OASR™ (Optimized Aperture Symmetrical Radiator)
- ▶ 1" exit titanium diaphragm compression driver
- ▶ Optimized trapezoidal enclosure design
- ▶ DuraFlex finish, tough, weather-resistant and paintable
- ▶ 12 Suspension points (M10 Thread) with Eye bolt suspension kit
- ▶ Dual Neutrik Speakon connectors
- ▶ Hand Locations
- ▶ Overload Protected



The model MS105 is a full range loudspeaker providing extended bandwidth, high SPL capability and self-protection in a compact enclosure. With nominal 85 degree coverage pattern, systems can be splayed together for additional coverage breadth. The OASR (Optimized Aperture Symmetrical Radiator) provides enhanced dispersion control in both planes, 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 in demanding applications.

The optimized trapezoidal enclosure, in conjunction with the OASR, enables this system to be used individually or together with another for a tight compact array.

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 MS105 is part of the Marquis Series, a complete range of installation loudspeaker systems.

### Preliminary Specifications:

#### System:

Freq. Range (-10 dB):	45 Hz - 18 kHz
Freq. Response (-3 dB):	75 Hz - 14 kHz
Horz. Coverage Angle (-6 dB):	85° averaged 500 Hz to 16 kHz
Vert. Coverage Angle (-6 dB):	85° averaged 500 Hz to 16 kHz
Directivity Factor (Q):	12.2 averaged 500 Hz to 16 kHz
Directivity Index (DI):	10.9 dB averaged 500 Hz to 16 kHz
System Sensitivity <sup>1</sup> :	99 dB, 1 W @ 1 m (3.3 ft)
Rated Maximum SPL:	129 dB, @ 1 m (3.3 ft)
System Nominal Impedance:	8 Ohms
System Input Power Rating <sup>2</sup> :	225 W, IEC; 900 W Peak
Recommended Amplifier <sup>3</sup> :	300 W
Crossover:	2.1 kHz

#### Transducers:

Low-Frequency:	380 mm (15 in) dia.
High-Frequency:	OASR with 2412H, 25 mm (1 in) exit, titanium diaphragm, compression driver

#### Physical:

Enclosure:	Trapezoidal 15° side angles, plywood
Environmental Specifications:	Mil-Std 810, IPX4 per IEC 529
Suspension Attachment:	12 points; accepts M10 threaded hardware
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:	661 mm x 467 mm x 413 mm (26.0 in x 18.38 in x 16.25 in)
Net Weight:	23.6 kg (52 lbs.)

<sup>1</sup>Measured on-axis in the far field with 1 watt (2.83 V RMS @ 8 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.

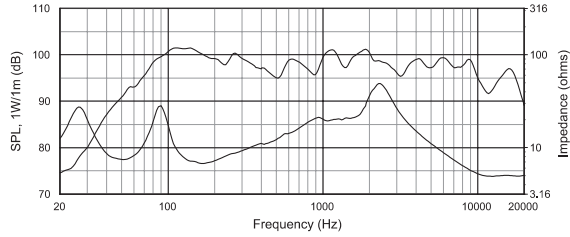
<sup>2</sup>IEC Spectrum for 2 hours with +6 dB crest factor.

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

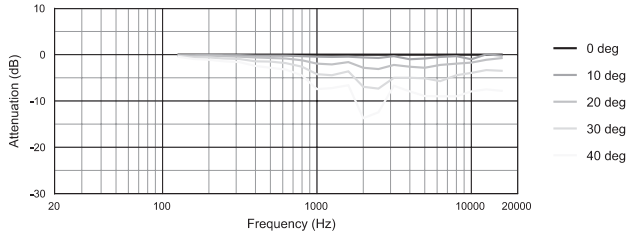
JBL continually engages in research related to product improvement. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published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

# MS105 2 way System

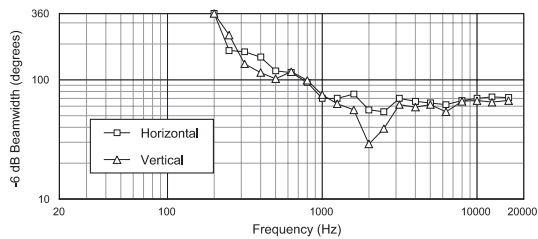
Frequency response is measured on-axis at a distance referenced to 1 meter at 1 watt using a recommended controller, shown as a half-space ( $2\pi$ ) environment.



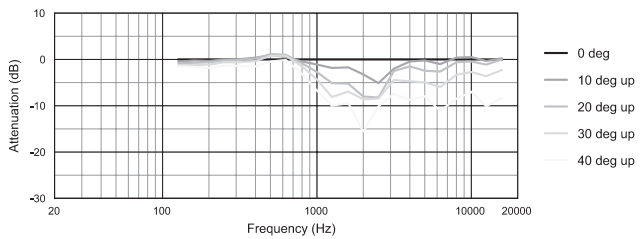
### Horizontal Off-Axis Frequency Response



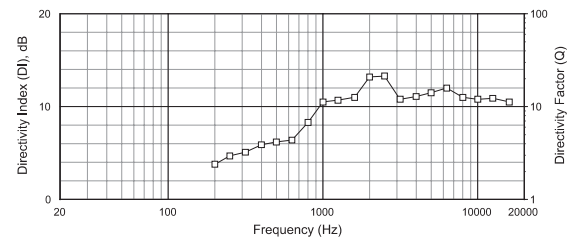
### Beamwidth vs. Frequency



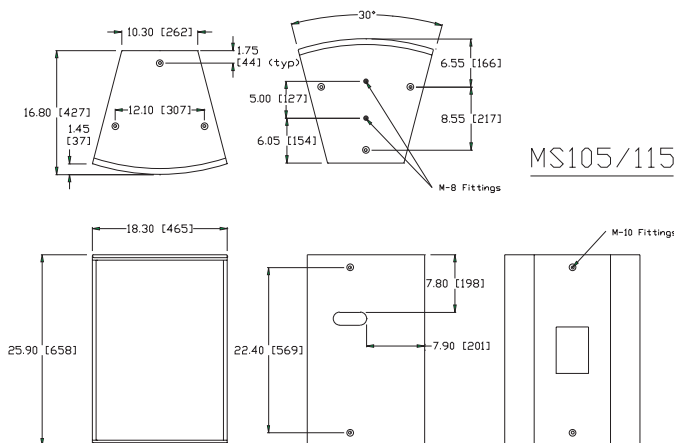
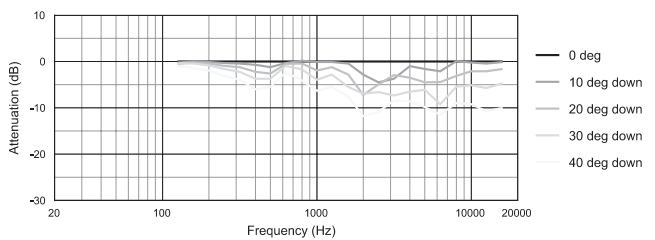
### Vertical Off-Axis Frequency Response (up)



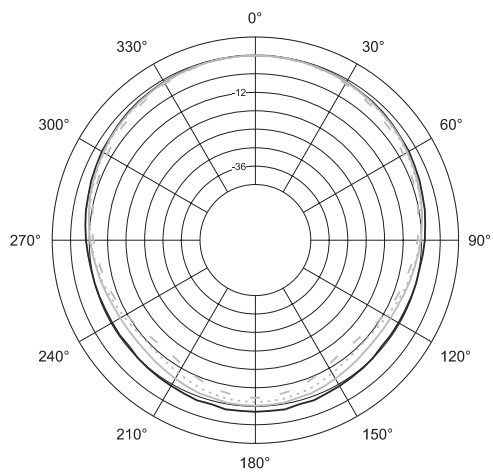
### Directivity vs. Frequency



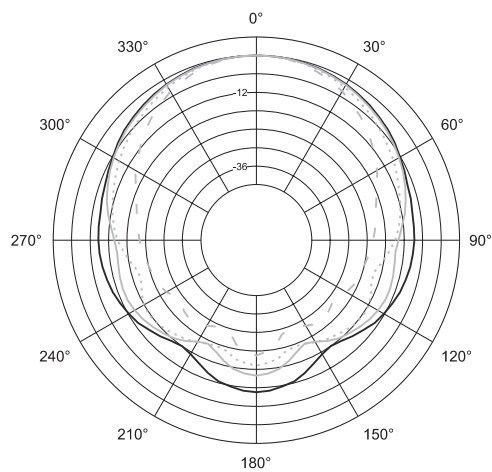
### Vertical Off-Axis Frequency Response (down)



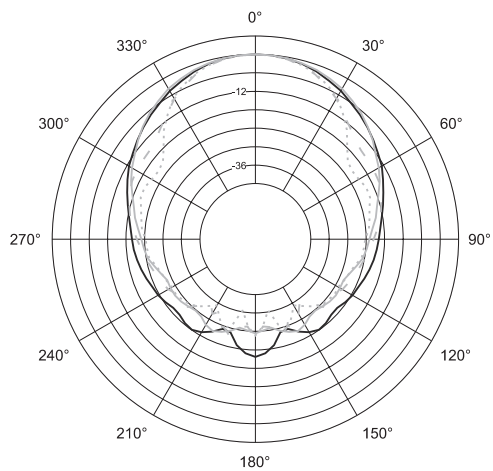
### Horizontal 1/3 Octave Polars



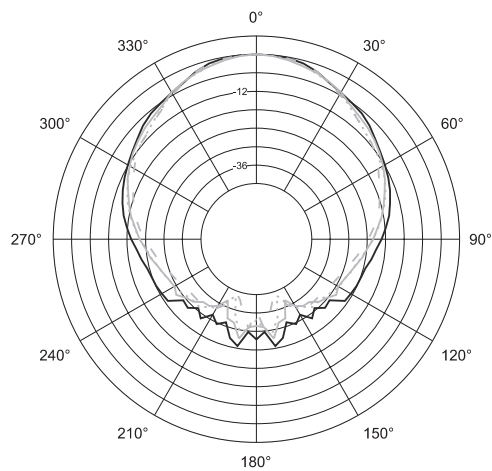
- 200Hz
- 250Hz
- 315Hz
- - 400Hz



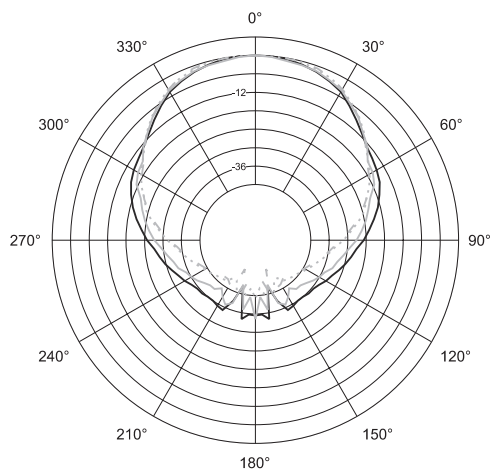
- 500Hz
- 630Hz
- 800Hz
- - 1kHz



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



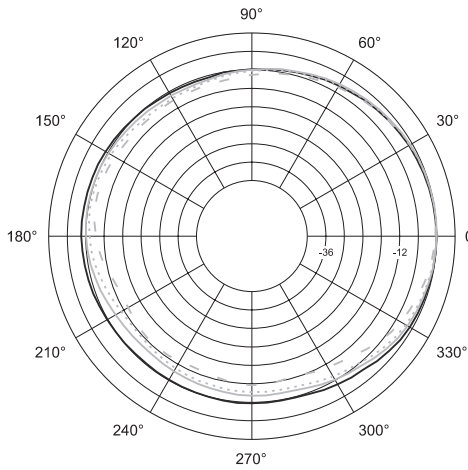
- 3.15kHz
- 4kHz
- 5kHz
- - 6.3kHz



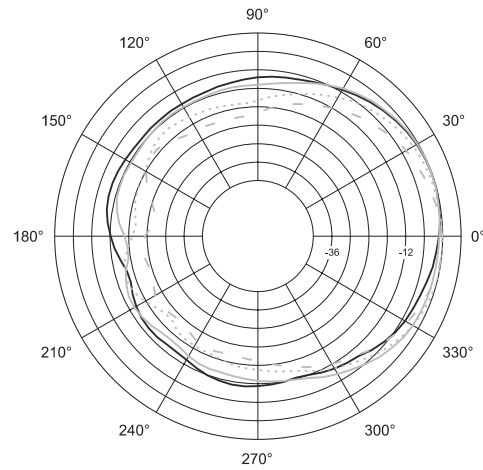
- 8kHz
- 10kHz
- 12.5kHz
- - 16kHz

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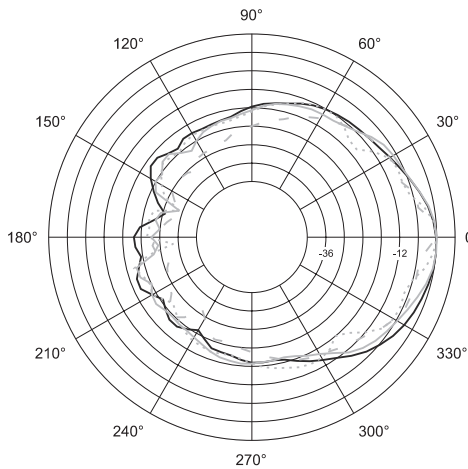
## Vertical 1/3 Octave Polars



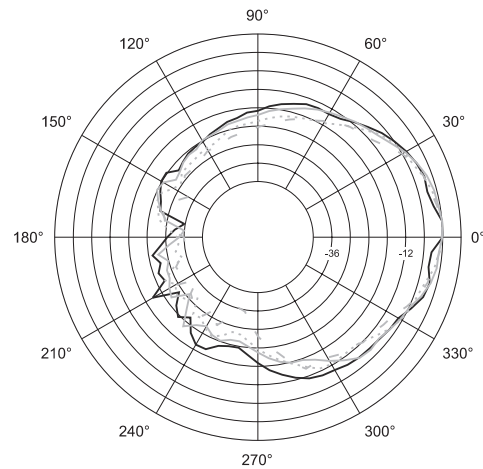
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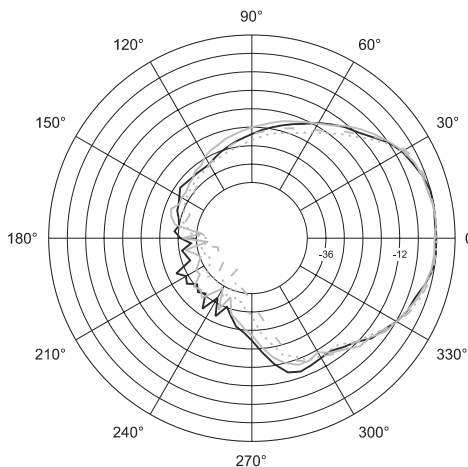
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