

LT 6400

mid/high loudspeaker



Key Features

- **60° x 40°** coverage for medium-throw applications in auditoriums, worship facilities, performing arts centers, stadiums and arenas
- **Mid/high-frequency** loudspeaker designed for use in arrays with separate LF augmentation (Bose® MB12 or MB24 bass arrays) or voice-only applications
- **Bose V2 midrange manifold** sums output of 2 x 4.5" (114 mm) extended-range cone drivers for lower breakup distortion and improved transient response. Provides a smoother, more natural vocal range compared to single 8" to 12" woofers. The LT 6400 loudspeaker utilizes a single Bose V2 midrange manifold
- **Bose large-format waveguide** provides effective 60° x 40° pattern control to approximately 1 kHz (horizontal) and 1.5 kHz (vertical). Minimizes loudspeaker overlap in arrays to reduce comb-filter interference and improve intelligibility



TECHNICAL DATA SHEET

Product Overview

The Bose® LT 6400 is a mid/high-frequency loudspeaker designed for downfill applications with LT Coherent Zone arrays in medium to large permanent installations, or as the primary reinforcement source along with MB low-frequency loudspeakers in smaller arrays and venues. The large-format 60° x 40° waveguide provides precise coverage and high intelligibility, serving as a cost-effective alternative to multiple-cabinet line arrays for many applications.

Technical Specifications

System Performance	
Frequency Response (+/-3 dB) ¹	190 Hz - 16 kHz
Frequency Range (-10 dB) ¹	170 Hz - 18 kHz
Nominal Dispersion	60° H x 40° V
Sensitivity (SPL / 1 W @ 1 m) ²	105 dB SPL
Maximum SPL @ 1 m ³	125 dB SPL (131 dB SPL peak)
Crossover Type	Passive
Crossover Frequency	1.8 kHz
Recommended High-Pass Filter	170 Hz with 4th order filter (24 dB / octave)
Loudspeaker EQ	Required
Long-Term Power Handling ⁴	100 W (400 W peak)
Nominal Impedance	8 Ω
Transducers	
Driver Complement	HF: 1.75" (44 mm) voice-coil compression driver MF: Bose V2 midrange manifold with 2 x 4.5" (114 mm) cone drivers
Physical	
Enclosure	Baltic birch plywood, 11-ply, 13 mm
Finish	Polyurethane-based textured paint, black or white
Grille	16-gauge perforated steel grille with powder-coated finish
Environmental	Indoor use only
Connectors	Two (2) parallel-wired NL4 Neutrik® Speakon® connectors
Suspension / Mounting	Sixteen (16) points SAE 3/8" - 16 threaded inserts (4 each: top, bottom, sides), steel
Dimensions	25.2" H x 24.1" W x 22.6" D (640 mm x 612 mm x 574 mm)
Net Weight	82 lb (37.2 kg)
Shipping Weight	96 lb (43.4 kg)
Product Code	
Black	040184
White	040185 (Special Order Only)

Footnotes:

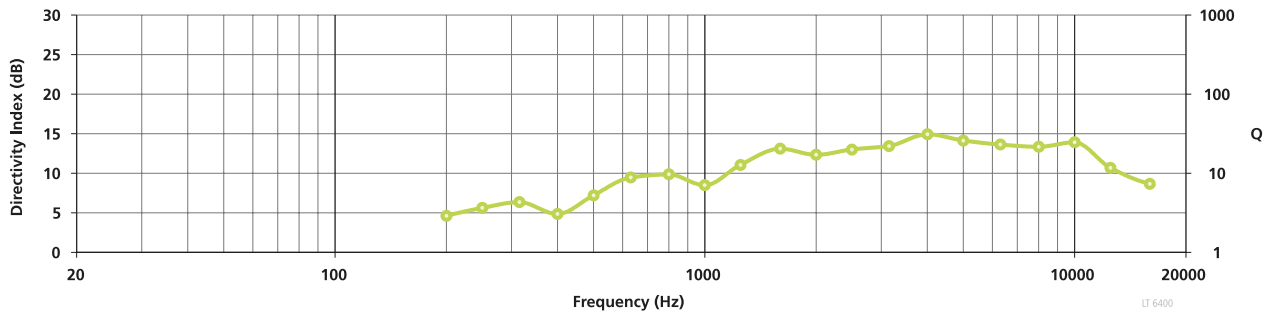
- ¹ Frequency response and range measured on-axis with recommended active EQ in an anechoic environment.
- ² Sensitivity measured in free field (no boundary-loading gain) with recommended active EQ, referenced to 1W/1m.
- ³ Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.
- ⁴ Power handling tested using pink noise filtered to meet IEC 268-5, 6 dB crest factor, 100 hours, with recommended EQ.

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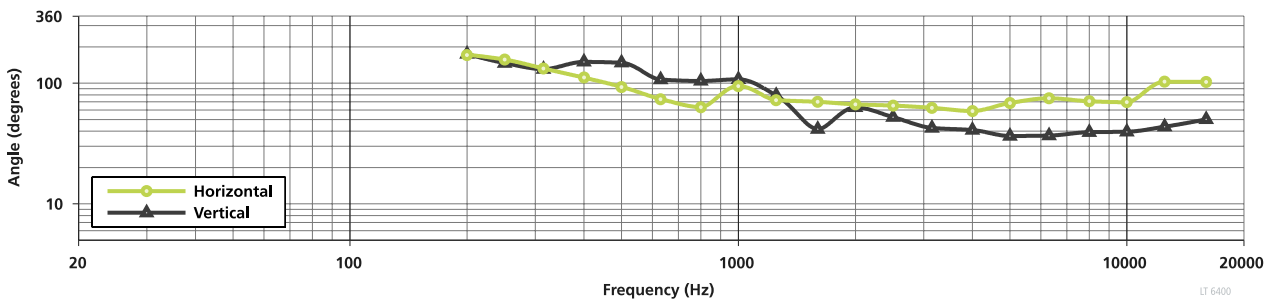
mid/high loudspeaker



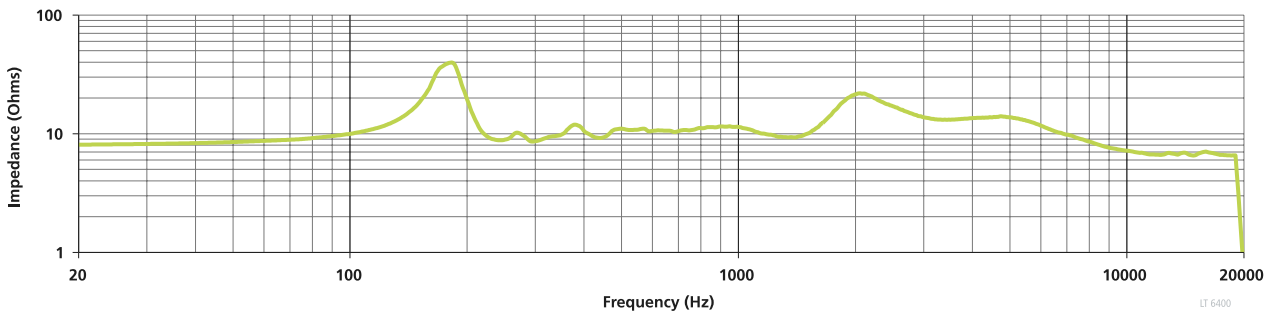
Directivity Index and Q



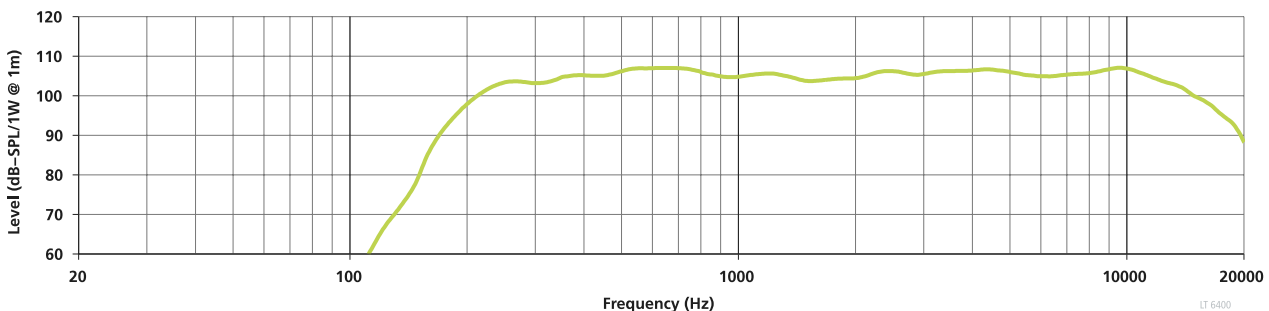
Beamwidth



Impedance



On-Axis Response

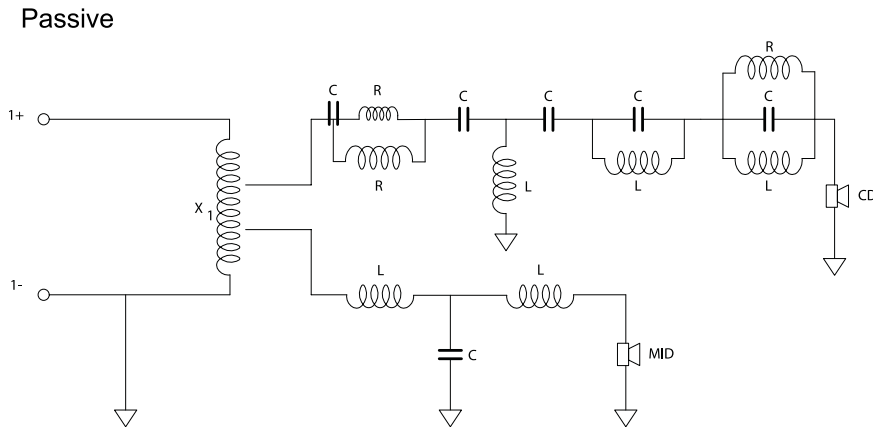


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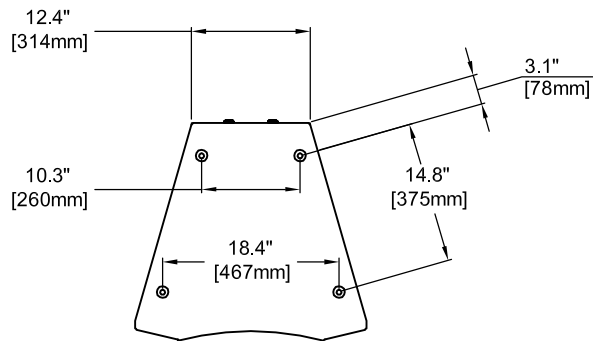
mid/high loudspeaker



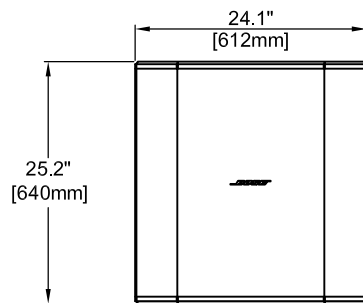
Wiring Diagram



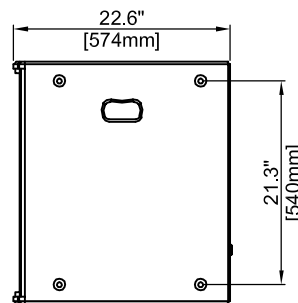
Mechanical Diagrams



Top View



Front View



Right View

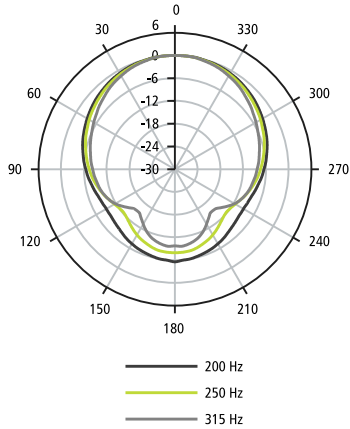
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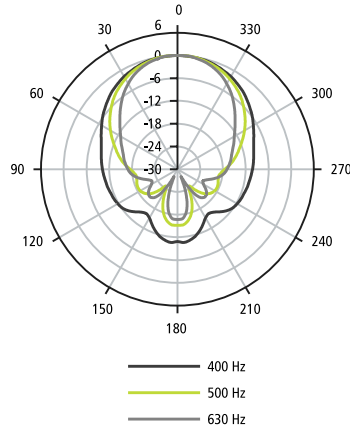


Horizontal Plots

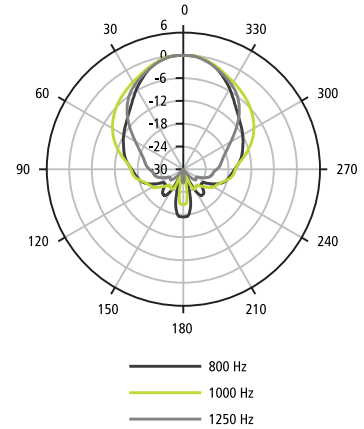
250 Hz Octave Band



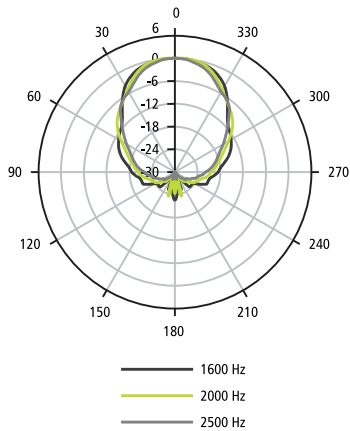
500 Hz Octave Band



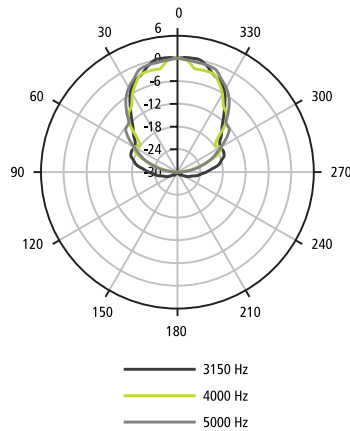
1000 Hz Octave Band



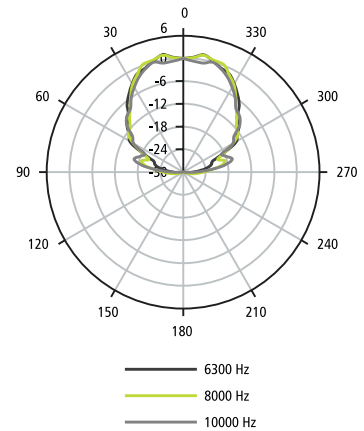
2000 Hz Octave Band



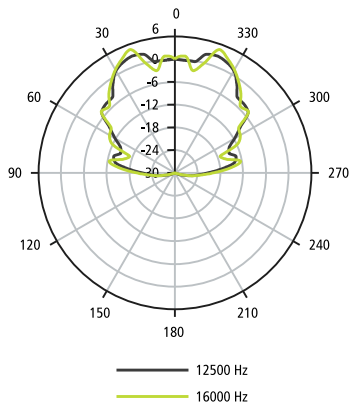
4000 Hz Octave Band



8000 Hz Octave Band



16000 Hz Octave Band



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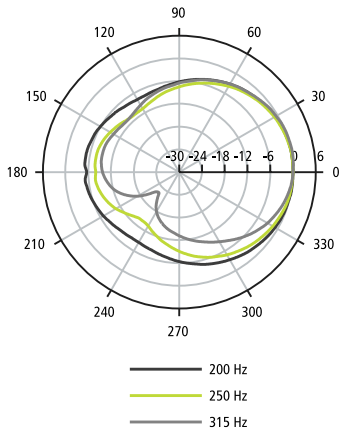
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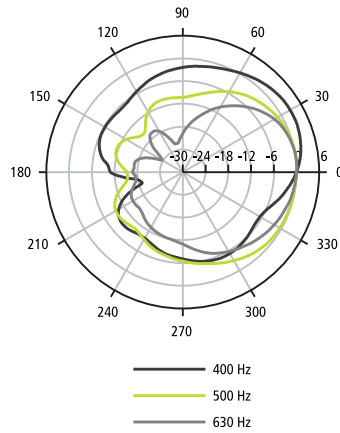


Vertical Plots

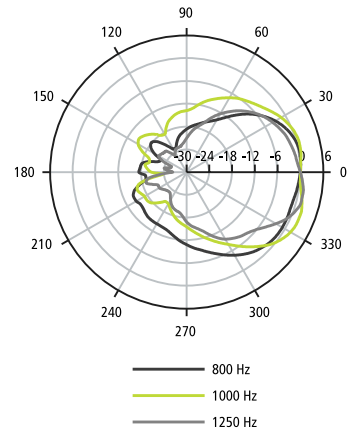
250 Hz Octave Band



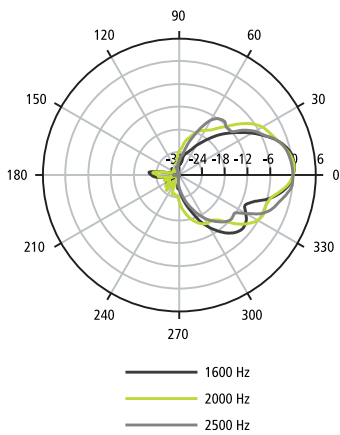
500 Hz Octave Band



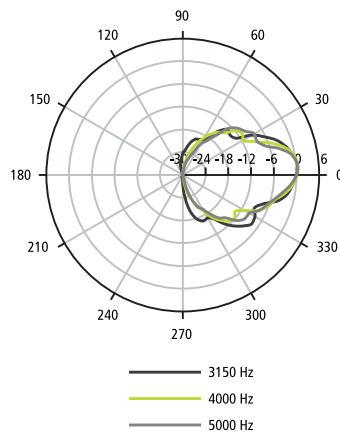
1000 Hz Octave Band



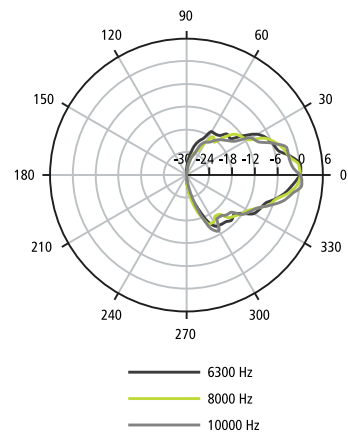
2000 Hz Octave Band



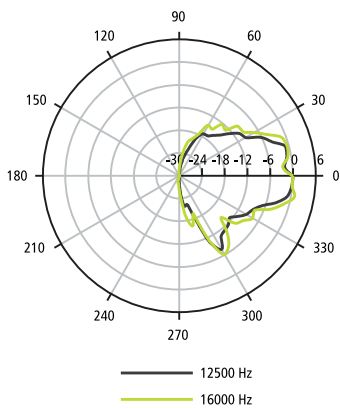
4000 Hz Octave Band



8000 Hz Octave Band



16000 Hz Octave Band



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Architects' and Engineers' Specifications

The 2-way, mid/high-frequency loudspeaker shall contain a 1.75" (44 mm) diaphragm compression driver and a midrange manifold, which utilizes two (2) 4.5" (114 mm) cone drivers in a heat-sink/acoustic summation assembly. The transducers will exit into a large-format waveguide with 60° x 40° nominal beamwidth and effective pattern control to approximately 1 kHz (horizontal) and 1.5 kHz (vertical). An internal filter network with crossover of 1.8 kHz shall allow passive operation without external crossover processing.

On-axis system frequency response shall be 190 Hz to 16 kHz (+/- 3 dB) with recommended active equalization. The system sensitivity shall be 105 dB SPL with 1 watt input and be capable of producing peak output of 131 dB SPL on axis at 1 meter. The loudspeaker shall handle 100 watts of amplifier power (IEC 268-5 pink noise, 6 dB crest factor, for 100 hours) and the nominal input impedance shall be 8 ohms.

The trapezoidal enclosure shall be constructed of void-free, Baltic birch plywood with extensive internal bracing. The enclosure exterior shall be treated with a polyurethane-based paint that resists scuffing. The enclosure shall be covered by a 16-gauge perforated steel grille with powder-coated finish. The loudspeaker shall be rated for indoor use only. The enclosure shall have sixteen (16) steel threaded inserts (4 each: top, bottom, sides) that accept standard SAE 3/8"-16 rigging hardware. Inputs shall be two (2) NL4 Neutrik® Speakon® connectors. Loudspeaker dimensions shall be 25.2" x 24.1" x 22.6" (640 mm x 612 mm x 574 mm). Net weight shall be 82 lb (37.2 kg).

The 2-way, mid/high-frequency loudspeaker shall be the Bose® LT 6400 loudspeaker.