

# L1<sup>®</sup> Compact portable line array system



## Key Features

- **High-performing**, powered, portable two-way loudspeaker system with a 180° H x 40° V nominal dispersion designed for the production and reproduction of live music, music playback, speeches and A/V sound reproduction
- **Articulated line array** loudspeaker technology produces wide, uniform sound coverage throughout the entire listening area—even off to the extreme sides
- **Curved array design** provides 40° of vertical coverage
- **Integrated ToneMatch<sup>®</sup>** presets contain hardwired equalization curves for dynamic handheld microphones and acoustic guitars
- **Lightweight**, interlocking components for easy transport
- **Offers** both collapsed and extended setup positions



TECHNICAL DATA SHEET

## Product Overview

The L1 Compact system is our smallest and most portable system for an audience of up to 100. It has a 6-speaker articulated line array, and it includes an integrated two-channel mixer with ToneMatch<sup>®</sup> presets on each channel. Carry it in one trip. Set it up in one minute. Fill the room with one system.

## Technical Specifications

System Performance		
System Type	Self powered, two-way	
Frequency Response (+/-3 dB) <sup>1</sup>	65 Hz - 14 kHz	
Frequency Range (-10 dB) <sup>1</sup>	50 Hz - 16 kHz	
Nominal Dispersion	180° H x 40° V	
Maximum SPL @ 1 m <sup>2</sup>	106 dB SPL (112 dB SPL peak)	
Crossover Frequency	400 Hz 4th order Butterworth	
Amplification		
System Power Rating	130 W	
Distortion at Rated Power	0.1 % Max (30 Hz - 15 kHz)	
System Limiter	Dynamic limiter	
Overload Protection	Fuse/NTC	
Power Indicator	Blue LED: system on	
Transducers		
Driver Compliment	Array: Six (6) 2.00" (51 mm) HF drivers Power Stand: 8" (203 mm) LF driver	
Channel		
	Channel 1	Channel 2
Signal Indicators	Signal/clip LED: Green = signal present, Red = clip (limiter active)	Signal/clip LED: Green = signal present, Red = clip (limiter active)
ToneMatch Presets	ToneMatch microphone equalization is always engaged on Channel 1 and cannot be bypassed.	Switch provides ToneMatch equalization only to the 1/4" input. This preset is designed for an acoustic guitar with a piezo pickup is engaged.
Input	XLR Balanced: Pin 1 (GND), Pin 2 (+), Pin 3 (-)	1/4" TS/TRS, 1/8" TS/TRS, (2) RCA
Channel Gain (1/4" input)	N/A	-Infinity to +40 dB
Channel Gain (XLR input)	-Infinity to + 50 dB	N/A
Channel Gain (1/8" input)	N/A	-Infinity to +24 dB
Channel Gain (RCA input)	N/A	-Infinity to +24 dB
Maximum Input Signal	+8 dBu	+12 dBu (each: 1/4", 1/8", RCA)
Input Impedance	2.4 kΩ	1/4": 800 kΩ, 1/8": 14 kΩ, RCA: 12.5 kΩ
Controls	Volume, Treble (+/- 5 dB shelving filter @ 4 kHz), Bass (+/- 5 dB shelving filter @ 120 Hz)	Volume
Additional Connections		
Master Line Output	1/4" balanced TRS or unbalanced TS: Nominal +2.2 dBu, Max +20 dBu	
Record Out	(2) RCA unbalanced: Nominal -3.8 dBu, Max +14 dBu	
AC Mains	IEC Connector	

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Physical	
Enclosure	Power Stand: Polypropylene Extensions and Array: ABS
Grille	Powder-coated perforated steel grille
Dimensions	Assembled height, collapsed position: 16.5" (418 mm) Assembled height, extended position: 78.5" (1995 mm)
Net Weight	Power Stand: 24.6 lb (11.2 kg) Extensions (each): 2.3 lb (1.1 kg)
Shipping Weight	Power Stand: 30.0 lb (13.8 kg) Extensions: 7.5 lb (3.4 kg)

Voltages	
Universal	AC power rating: 100-240 V 50 / 60 Hz +/- 20 %, 200 W max

**Footnotes:**

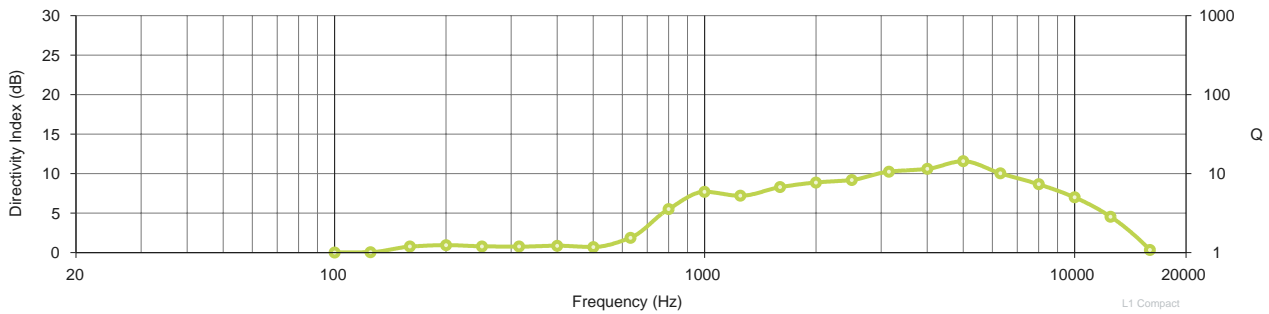
- 1 Frequency response and range measured on-axis with recommended active EQ in an anechoic environment.
- 2 Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.

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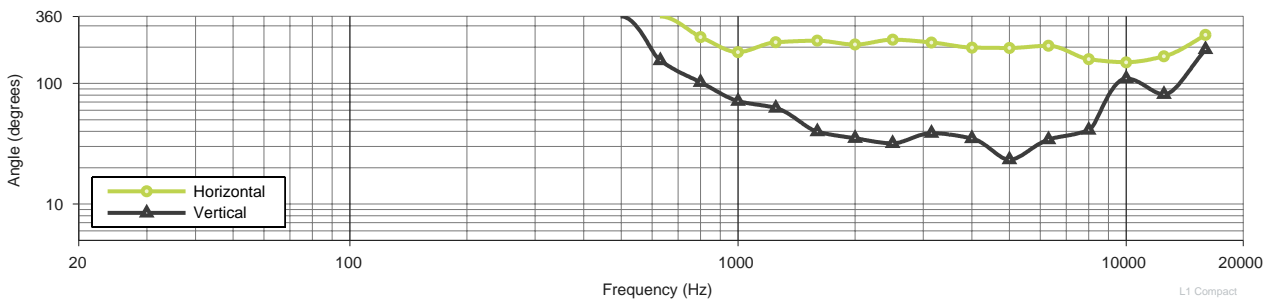
portable line array system



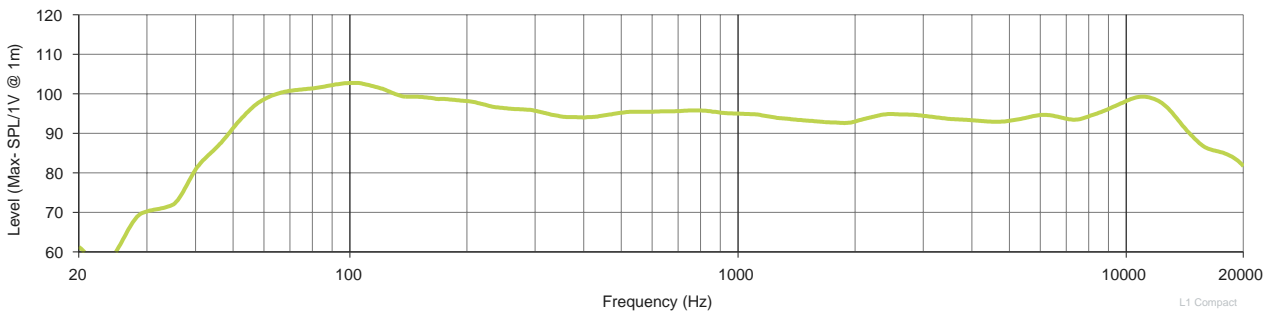
## Directivity Index and Q



## Beamwidth



## On-Axis Response

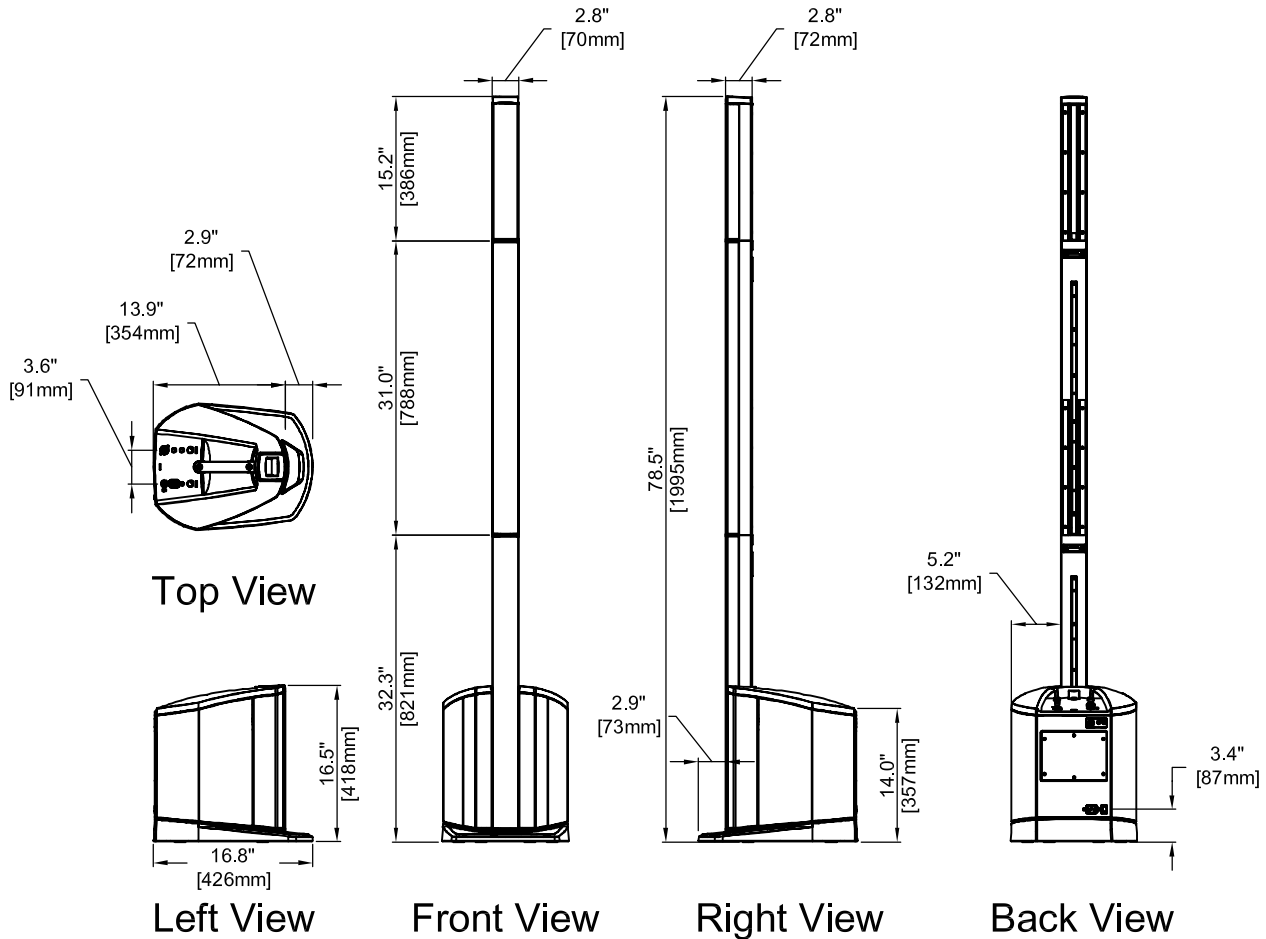


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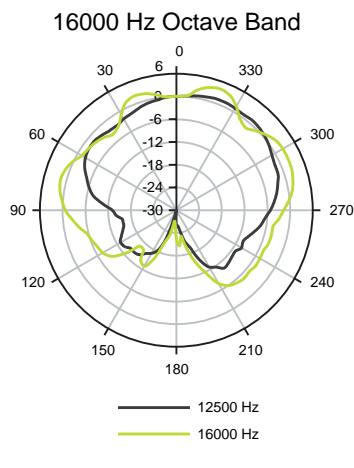
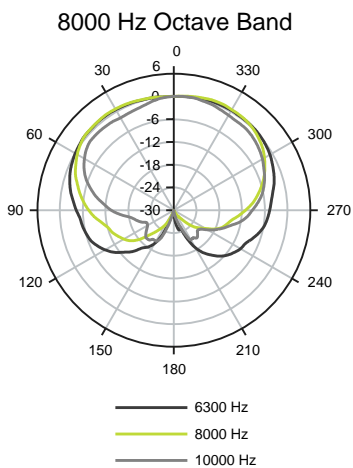
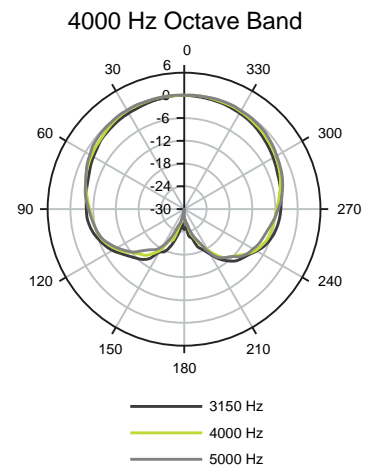
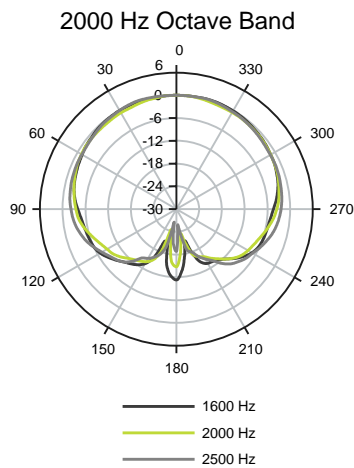
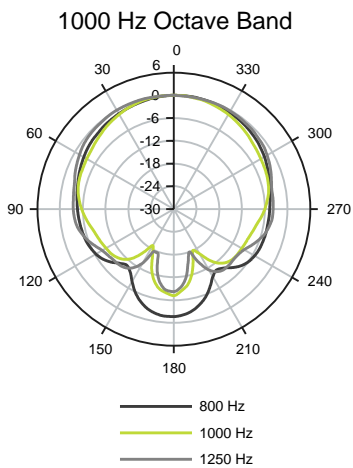
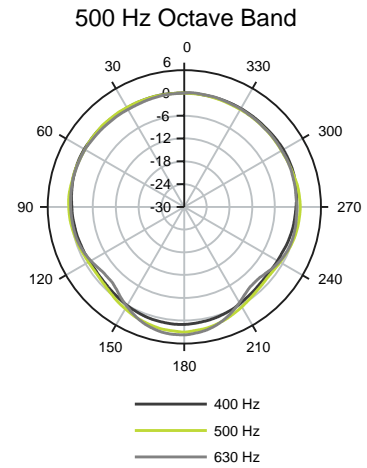
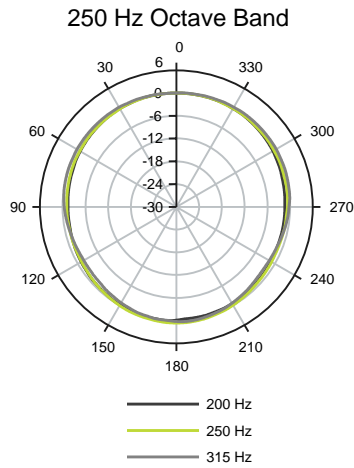
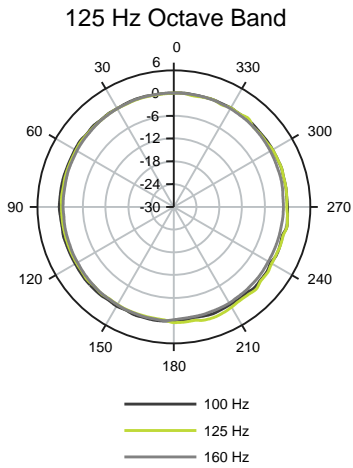
## Mechanical Diagrams



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## Horizontal Plots

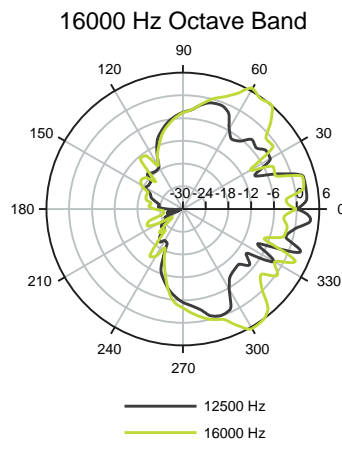
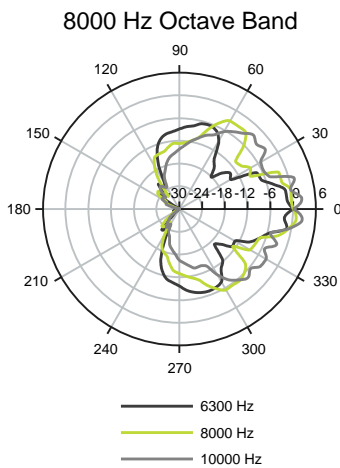
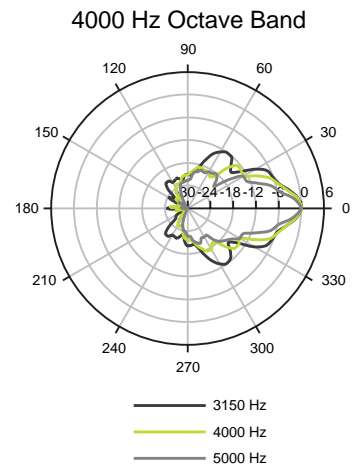
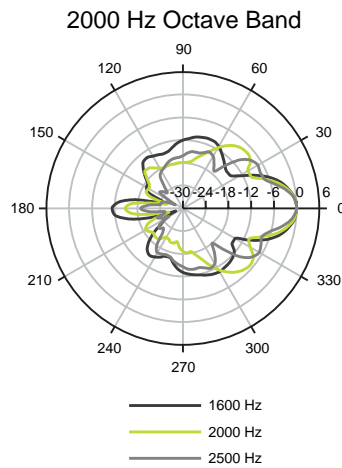
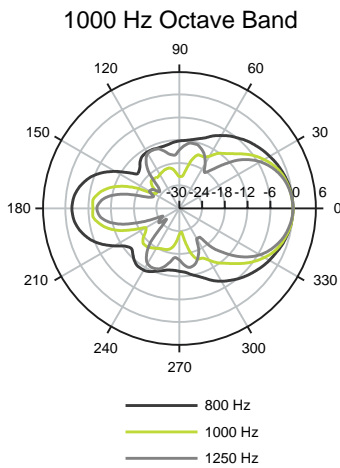
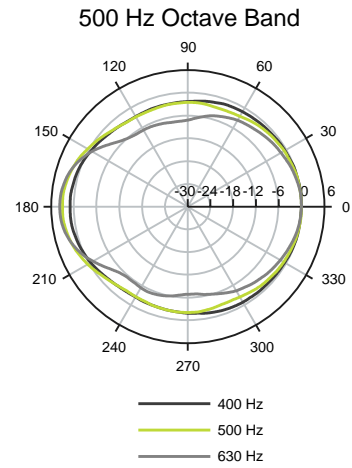
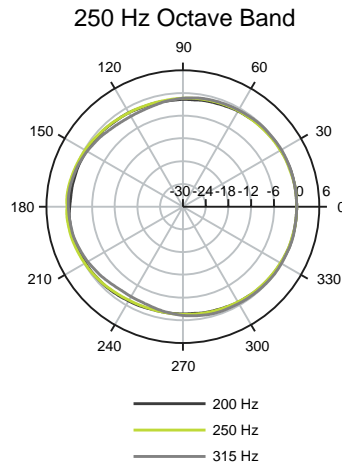
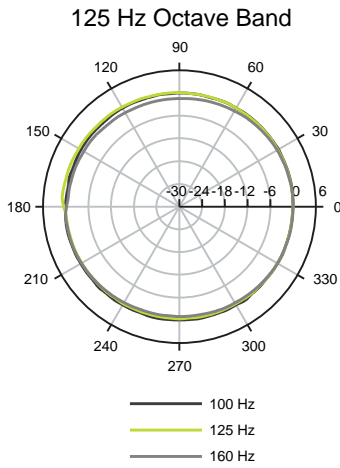


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## Vertical Plots



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## Architects' and Engineers' Specifications

The system shall be a multiple driver, full-range portable loudspeaker system with internally supplied power amplification and active equalization for multiple operating modes as follows:

The transducer complement shall consist of six 2.00" (51 mm) high-excursion drivers mounted in a curved Articulated Array<sup>®</sup> loudspeaker coupled with an integral 8" (203 mm) low-frequency driver mounted in a ported bass enclosure. The loudspeaker array shall be wired in a series/parallel configuration.

The nominal horizontal beamwidth of the loudspeaker shall be 180°, and the vertical coverage shall be 40°. The system's power stand shall incorporate a ported venting system for the low-frequency driver, tuned for 65 Hz. The power amplification for transducers shall be supplied by the integrated power stand providing 130 W continuous pink noise, band-limited from 65 Hz to 14 kHz (±3 dB).

The input connectors of the power stand module shall consist of one XLR with equalization for a dynamic handheld microphone, one 1/4" TRS with selectable ToneMatch<sup>®</sup> signal processing for acoustic guitar with piezo pickup, stereo RCA, and one 1/8" TRS receptacle. The output connectors of the power stand shall consist of one 1/4" balanced TRS or unbalanced TS and two RCA unbalanced phone plugs.

The enclosure of the power stand shall be constructed of polypropylene materials. The extension and array shall be constructed of ABS materials. In collapsed tabletop mode, the system's outer dimensions shall be 16.5" H x 13.3" W x 16.8" D (418 mm x 339 mm x 426mm). Its weight shall be 24.6 lb (11.2 kg). In extended operating mode, the system's outer dimensions shall be 78.5" H x 13.3" W x 16.8" D (1995 mm x 339 mm x 426 mm). Its weight shall be 29.2 lb (13.3 kg).

The system shall be capable of two operating modes; collapsed tabletop or extended position by integrating height-extension modules.

The loudspeaker shall be the Bose<sup>®</sup> L1<sup>®</sup> Compact portable line array system.

## Safety and Regulatory Compliance

The L1<sup>®</sup> Compact system complies with the following standards:

- UL/IEC/EN 60065 7th Edition Safety Standard for Audio and Video Equipment
- Ecodesign Directive 2005/32/EC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. This product complies with the Canadian ICES-003 Class A specifications. This product conforms to the EMC Directive 2004/108/EC Under standards: EN55103-1 & 2: 1997, Environment 2.

## Product Codes

Power stand - 100V	318882-3100
Power stand - 120V	318882-1100
Power stand - 230V	318882-4100
Power stand - 240V	318882-5100
L1 <sup>®</sup> Compact extensions	318881-0100

## Accessories

T1 ToneMatch <sup>™</sup> audio engine	PC 042826
T1 ToneMatch <sup>™</sup> audio engine power supply	PC 042533
T1 ToneMatch <sup>™</sup> audio engine mic stand bracket	PC 042535