

L1® Model II portable line array system



Key Features

- High-performing, self-powered, portable two-way loudspeaker system designed for the production and reproduction of live music, music playback, speeches and A/V sound reproduction.
- Spatial Dispersion™ loudspeaker technology produces wide, uniform sound coverage throughout the entire listening area – even off to the extreme sides.
- Consistent front-to-back coverage, vertical line array design produces a loss of only 3 dB in sound pressure level per doubling in distance.
- Retractable folding leg mechanism for easy transport.
- Lightweight, interlocking components.
- Expandable bass design supports the use of multiple B1 bass modules.
- Digital Ethercon port provides single-wire connectivity for the T1 ToneMatch® audio engine.
- For smaller to larger spaces with audiences of up to 500.



Description

The L1® Model II portable line array system is a self-powered loudspeaker system designed to provide wide, uniform sound coverage and easy setup. Spatial Dispersion loudspeaker technology delivers clear, powerful sound throughout the entire listening area – even off to the extreme sides. The interlocking components are easily transported and eliminate the need for external speaker wires and stands.

The system offers one ¼" TS unbalanced or TRS balanced analog input and one digital Ethercon port for single-wire integration of the T1 ToneMatch audio engine. The L1 Model II system is well-suited for professional applications such as music playback, speeches and A/V sound reproduction.

Descriptive Data

System Specifications	
System Type	Self-powered, two-way
Calculated Maximum SPL @ 1m (continuous and peak)	115 dB continuous, 121 dB peak
Frequency Range (-3 dB)	40 Hz – 12 kHz
Frequency Range (-10 dB)	32 Hz – 14 kHz
Crossover Frequency	200 Hz 24 dB per octave
Nominal Coverage Pattern	197° H
Power	
System Power Rating	500 W
Low-Frequency Amplifier	250 W
High-Frequency Amplifier	250 W
Distortion at Rated Power	0.1% Max 30 Hz – 15 kHz
System Limiter	Dynamic Limiter
Transducers	
High-Frequency Drivers (Cylindrical Radiator® loudspeaker)	(24) 2.25" HF drivers
Low-Frequency Drivers (B1 bass module)	(2) 5.25" LF drivers (8 Ω)

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Descriptive Data (continued)

Inputs, Controls and Indicators	
Power Indicator	Blue LED = ON Red = FAULT
Power Switch	Switch system power on and off
AC Mains	IEC Connector
Analog Signal/Clip LED	Green = Signal Present Yellow = -3 dB below clip Red = Clip (limiter active)
Trim	+14 dB @ max
Input	¼" – TS Unbalanced or TRS Balanced
Channel Gain	-50 dB to +24 dB (Line)
Max Input Signal (Analog input)	+24 dBu, (Balanced)
Input Impedance	10 kΩ +/-10% (Unbalanced)
Bass Module Out (for B1 bass module only)	NL4 connector (all pins wired, two for audio, two for auto sensing) Bass output signal for driving one or two B1 bass modules. (1 B1 bass module = 8 Ω) (2 B1 bass modules = 4 Ω)
Bass Line Output	Post-DSP bass signal output. Accepts a ¼" TRS cable. Supplies low-frequency signal for connecting a PackLite® power amplifier or powered sub woofer.
ToneMatch® Port	CAT5 Ethernet cable with RJ45 connection providing digital audio and power connection for the optional T1 ToneMatch audio engine.
Physical Properties	
Grille	Powder-coated steel
Net Weight and Dimensions	
L1® Model II Power Stand	23.7 lbs. (10.7 kg) 5" H x 10" W x 27" D (128 mm x 262 mm x 692 mm)
L1 Model II Cylindrical Radiator® Loudspeakers	L1 Model II Cylindrical Radiator® loudspeaker top 16.3 lbs. (7.4 kg) 43.5" H x 3.7" W x 4" D (1105 mm x 89 mm x 105 mm) L1 Model II Cylindrical Radiator® loudspeaker bottom 17.4 lbs. (7.9 kg) 43.5" H x 3.7" W x 4" D (1105 mm x 89 mm x 105 mm)
B1 Bass Module	26.6 lbs. (12.1 kg) 14.5" H x 10.25" W x 17.75" D (381 mm x 260 mm x 450 mm)
Shipping Weight	
L1 Model II Power Stand	32 lbs. (14.5 kg)
L1 Model II Cylindrical Radiator® Loudspeakers	41 lbs. (18.6 kg)
B1 Bass Module	30 lbs. (13.6 kg)
Voltages	
USA/Canada	100-120 V 50 / 60 Hz 500 W
Europe	220-240 V 50 / 60 Hz 500 W

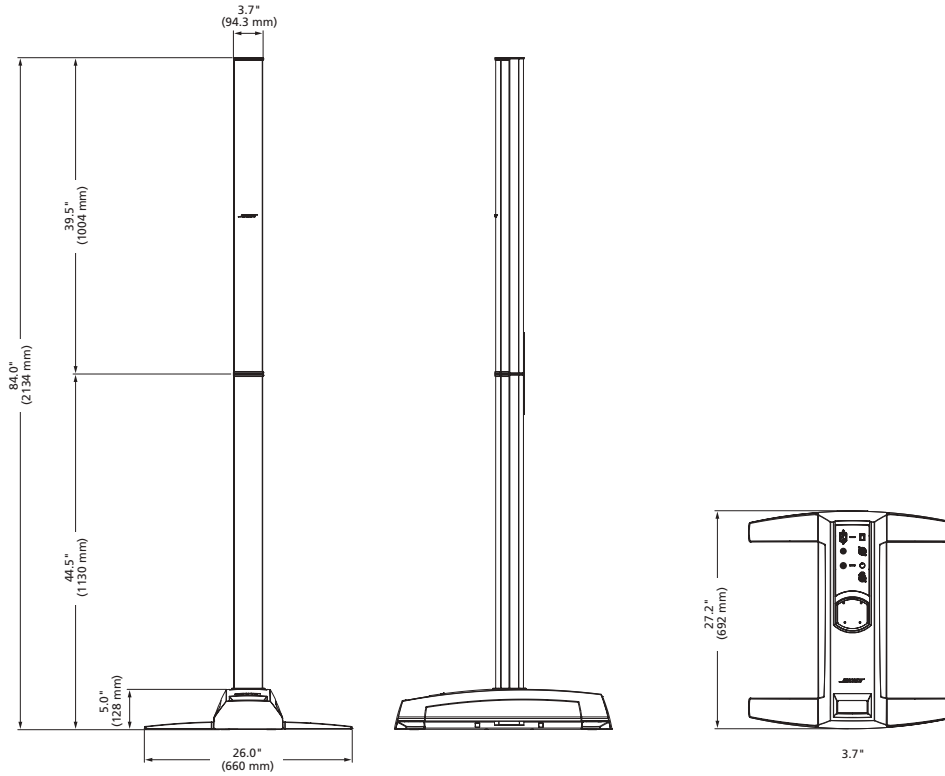
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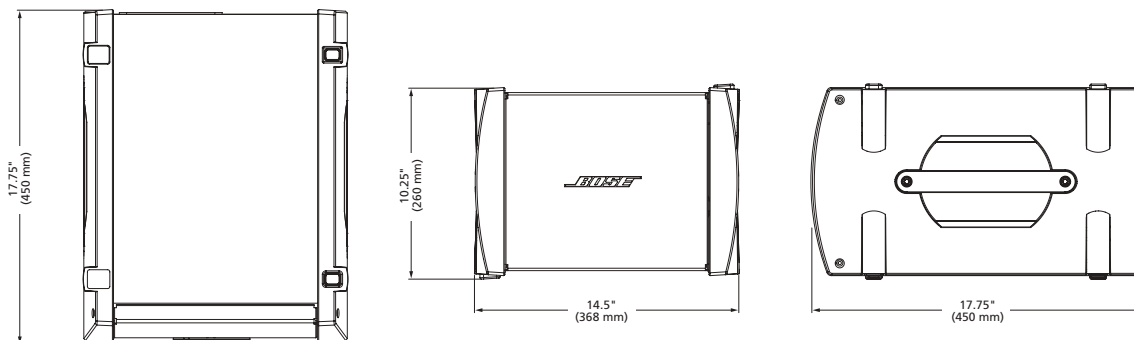


Mechanical Diagrams

L1 Model II



B1 Bass Module

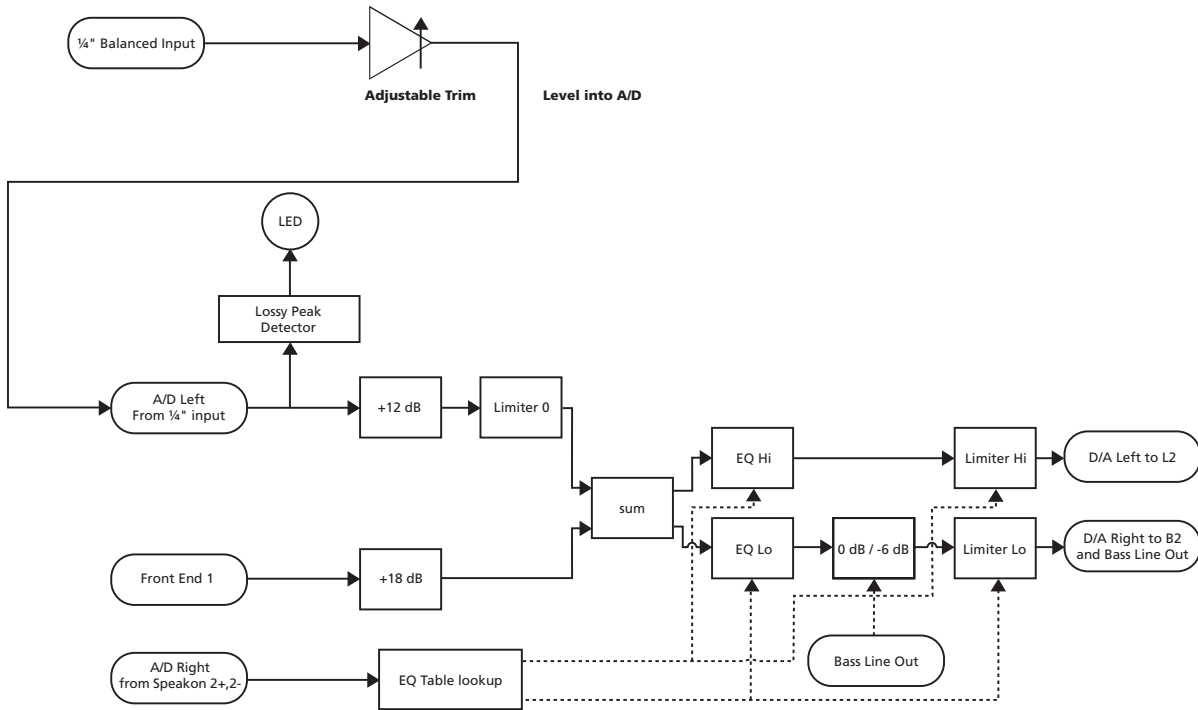


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Signal Flow Block Diagram



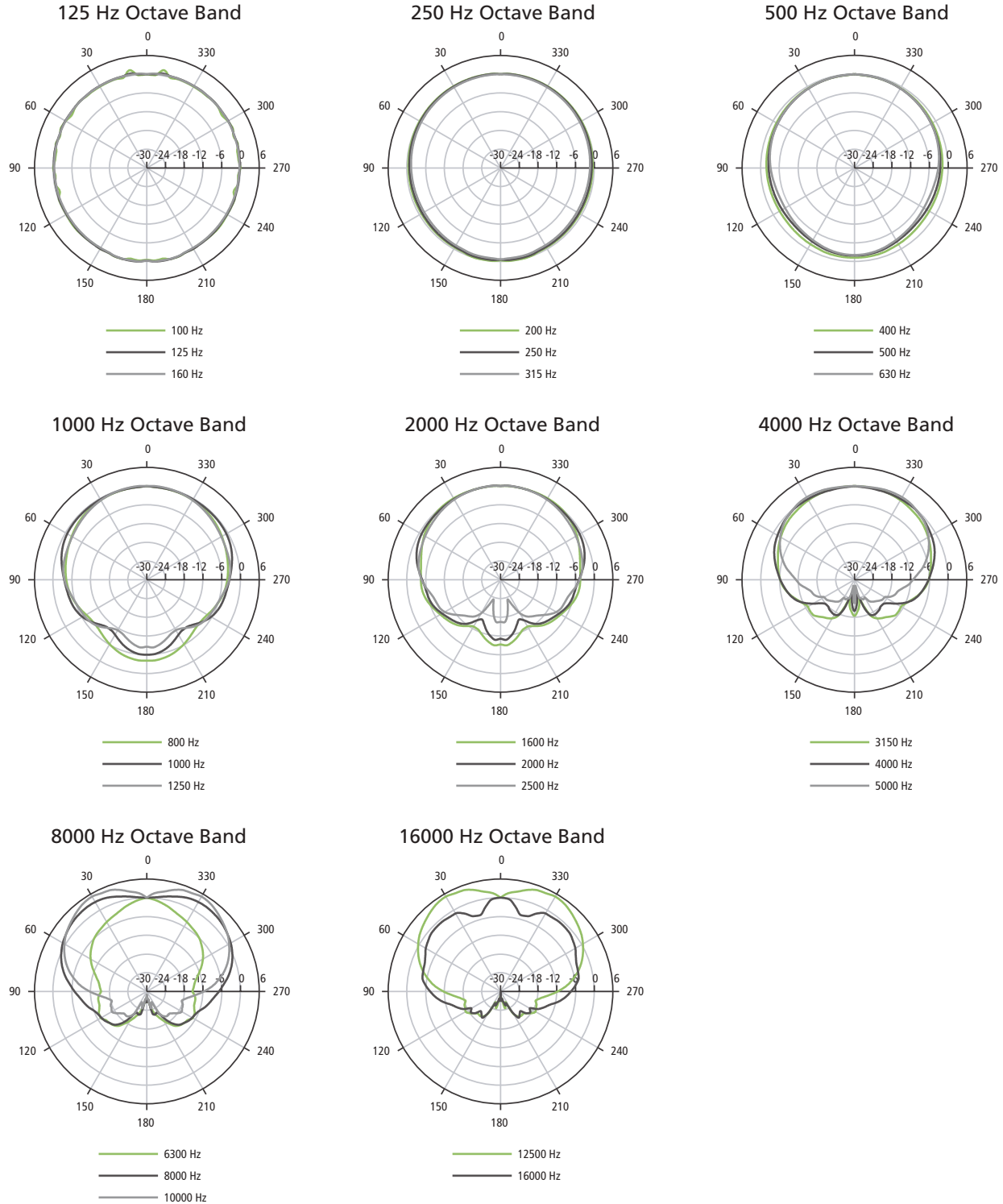
TECHNICAL DATA SHEET

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Polar Plots 1/3 Octave Horizontal



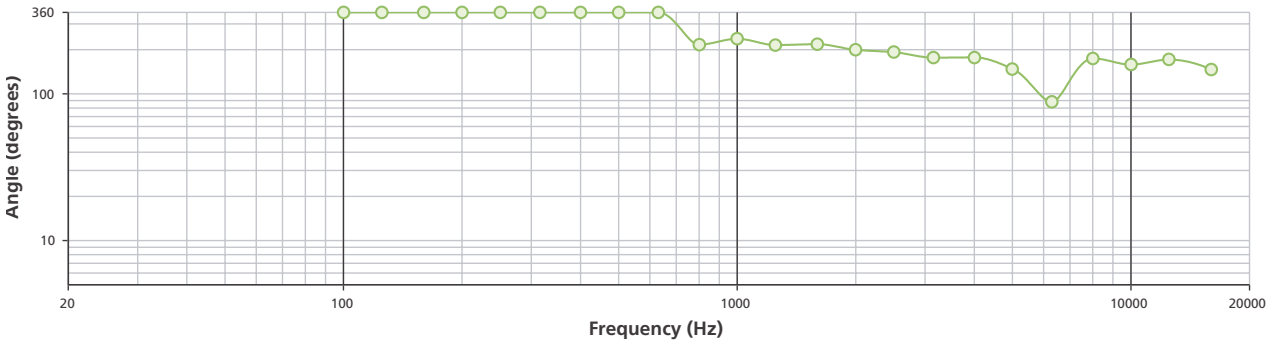
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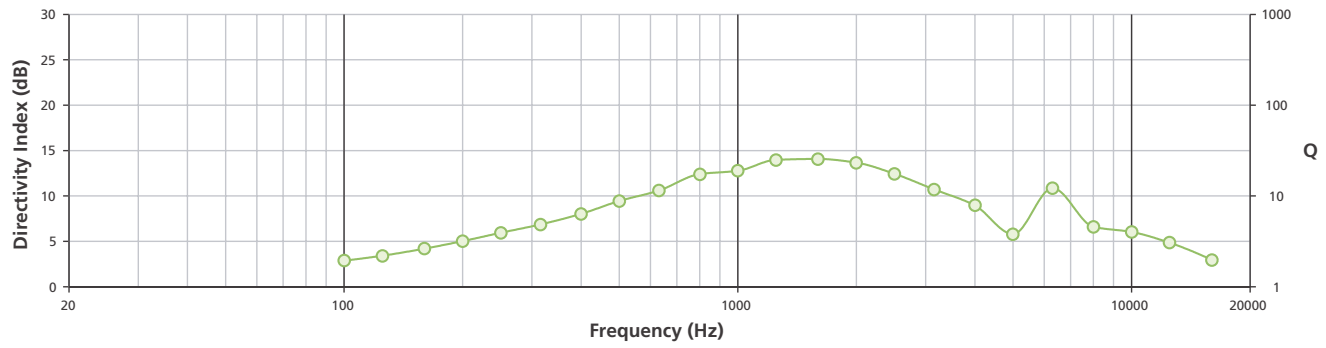


TECHNICAL DATA SHEET

Beamwidth



Directivity Index and Q



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Engineers' and Architects' Specifications

The system shall be a multiple driver, full-range portable loudspeaker system with internally supplied power amplification, active equalization and external bass modules.

The transducer complement shall consist of twenty-four 2.25" (57 mm) high-excursion, high-frequency drivers mounted in an Articulated Array[®] loudspeaker design, coupled with two 5.25" (133 mm) high-excursion, low-frequency drivers mounted in a vented bass enclosure. The loudspeaker array shall be wired in a series/parallel configuration.

The nominal horizontal beamwidth of the loudspeaker shall be 197°, and the vertical coverage shall be a narrow band of sound confined to the top and bottom of the array. The power amplification for transducers shall be supplied by the integrated power stand providing 500 W continuous pink noise, band-limited from 40 Hz to 12 kHz (-3 dB).

The input connectors of the power stand module shall consist of one ¼" TS unbalanced or TRS balanced receptacle and one digital Ethercon (RJ-45) receptacle for coupling the T1 ToneMatch[®] audio engine. The system's output connectors shall provide one NL4 receptacle capable of distributing power for two low-frequency B1 bass modules and one ¼" TRS line-level receptacle for supplying signal to a PackLite[®] extended bass package.

The enclosure of the Cylindrical Radiator[®] loudspeaker shall be constructed of extruded aluminum. The system's power stand shall be constructed of polypropylene materials. The total assembled system height shall be 84" (2134 mm), while the total assembled system weight shall be 103 lbs. (46.7 kg).

The loudspeaker shall be the Bose[®] L1[®] Model II portable line array system.

Safety and Regulatory Compliance

The Model II 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 289/336/EC Under standards: EN55103-1 & 2: 1997, Environment 2.

How our Loudspeakers are Measured

Calculated Max SPL

Calculated based on input sensitivity and maximum input power rating exclusive of power compression.

More Information

Technical literature and other materials are available at pro.Bose.com.

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Product Codes

System*

L1® Model II System 120 V	PC 042761
L1 Model II System 120 V with T1 ToneMatch® Audio Engine	PC 044015
L1 Model II System 240 V	PC 042824
L1 Model II System 240 V with T1 ToneMatch Audio Engine	PC 044019

Available Accessories

B1 Bass Module	PC 032494
T1 ToneMatch Audio Engine 100V – 240 V	PC 042826
T1 ToneMatch Audio Engine Power Supply	PC 042533
T1 ToneMatch Audio Engine Mic Stand Bracket	PC 042535
T1 ToneMatch Cable Assembly 18'	PC 042536
T1 ToneMatch Carry Bag	PC 042534
B1 Bass Module 4-Wire Speakon Cable Assembly	PC 035404
PackLite® Power Amplifier Module	PC 039057

Replacement Part Numbers

Power Cord 120 V	PC 035393
Carry Bag – L1 Model II Cylindrical Radiator® Loudspeaker (2 bags)	PC 044023
Carry Bag – L1 Model II Power Stand	PC 044024
Protective Slip Cover – B1 Bass Module.	PC 035025
B1 Bass Module Grille.	PC 263992
Loudspeaker Array Bayonet Assembly with qty. 2 (M6x 20 mm) screws	PC 035407

*Includes (1) B1 bass module.

