



Specifications: HP1290i

System Type	12" Coax, open-ceiling, high SPL (150 Watt transformer for 25/70.7/100 Volt or 8 Ohm direct)
Impedance (nominal) ¹	8 ohm
Sensitivity dB @ 2.83V/1M	96.0 dB
Sensitivity dB @ 1W/1M ²	96.0 dB
Frequency Response (-3 dB) ³	77 Hz - 19 kHz
Frequency Response (-10 dB) ³	59 Hz - 22 kHz
Max. Program Power ⁴	300 w
Max. Continuous Power RMS ⁵	150 w
Max. Power SPL @ 1 M ⁶	118.0 dB
Coverage Angle (-6 dB @ 2 kHz)	60°
Coverage Angle (-6 dB @ 10 kHz)	85°
Coverage Angle (Avg. 2 - 10 kHz)	100°
Directivity Factor (Q)	6.2 (Averaged 100 Hz - 10 kHz) 16.2 (@ 2 kHz)
Directivity Index (DI)	6.7 dB (Averaged 100 Hz - 10 kHz) 12.1 dB (@ 2 kHz)
Tap Selector	5 Position rotary switch with 8 ohm direct
Transducer - Low Frequency Driver	305mm (12in) Treated fiber cone, Treated cloth surround
Transducer - High Frequency Driver	1 x 35mm (1.375") Mylar compression driver with waveguide
Low Frequency Voice Coil	50.8 mm / 2.0 in
Crossover Frequency	2.2 kHz
Network Type: Low Pass	24 dB per octave, 4th order
Network Type: High Pass	24 dB per octave, 4th order
Enclosure Material	Injection molded ABS
Grille	Iridite-plated steel with powder-coat finish
Inputs	4 Pin, 5 mm Euroblock for individual or daisy chain connection
Colors	Black or white
Height	22.8 in / 579.1 mm
Diameter	20.8 in / 528.3 mm
Weight	35.0 lb / 15.9 kg
Shipping Weight	44.9 lb / 528.3 kg
Accessories	
Included	Hanging hardware, Euroblock connector & terminal weather boot
Optional	SM bracket (AC-HP-SM1290)
Packaging	1 per box
Regulatory - UL	UL 1480 pending
Regulatory - CE	Approved, UL 2239 Approved

¹ Impedance listed per IEC 60268-5

² 1w1m sensitivity determined using nominal impedance

³ Frequency response measured in half or full space as dictated by speaker mounting configuration

⁴ Max program power is 3 dB above max continuous power

⁵ Continuous power rating, EIA-426-B test

⁶ Max output based on max continuous power

⁷ Max useable SPL based on testing by NWAALabs

Transformer Taps

70.7 V Output		100 V Output		25 V Output	
150 w	118.0 dB	150 w	118.0 dB	19 w	109.0 dB
75 w	115.0 dB	75 w	115.0 dB	9.5 w	106.0 dB
38 w	112.0 dB	38 w	112.0 dB	4.8 w	103.0 dB
19 w	109.0 dB			2.4 w	100.0 dB

Preliminary Technical Information

- High-SPL, high-efficiency system for the sound reinforcement and PA markets.
- An impressive 2 cubic foot ZeroReflection™ enclosure for added rigidity and optimal sound reproduction.
- BroadBeamHP® waveguide technology delivers a consistent dispersion pattern up to 10 kHz for maximum coverage area per speaker (Independently verified by NWAALabs, www.nwaalabs.com).
- One 305 mm (12 in) treated fiber cone with a cloth surround concentrically mounted to a 35 mm (1.375 in) Mylar compression driver with waveguide.
- High efficiency (96 dB sensitivity) for reduced amplification costs and max. output (118 dB SPL) for distributed or 8 Ohm systems.
- Weatherized components for both indoor and outdoor applications and a ported enclosure for added bass response (down to 59 Hz, -10 dB).
- Low insertion loss 150 Watt transformer and an easy-access 5-position tap switch for 25/70.7/100 Volt and 8 Ohm settings allows for easy ordering, stocking and installation.
- UL 1480 approval pending; Hanging hardware is UL 2239 rated.
- Included accessories: impact-resistant steel grille, hanging hardware, Euroblock connector, terminal weather boot.
- Optional accessories: surface-mount bracket (AC-RS-SM1290).
- High quality black or white painted finish. Custom colors available.

Description

The HP1290i is a 12" coaxial 2-way hanging speaker with a surface-mount option and a proprietary BroadBeamHP® waveguide. Engineered to deliver true high-SPL performance, the HP1290i incorporates a 12" treated fiber cone and one coaxially-mounted 35 mm (1.375 in) Mylar compression driver. The result is a pendant-mount speaker with maximum efficiency (96 dB 1W/1M) and an extended frequency response from 59 Hz - 22 kHz (-10 dB). For lasting performance and maximum rigidity, the enclosure is made from injection-molded, glass-filled ABS.

UL 2239 rated mounting hardware is included and features hanging and safety cables, Euroblock connector and terminal



weather boot. For easy ordering, stocking and installation, every speaker is equipped with a 5-position tap switch for 25, 70.7 & 100 Volt applications with voice coil/8 Ohm bypass. For surface-mount applications, SoundTube offers an optional surface mount adaptor (AC-RS-SM1290).

Applications

Developed specifically for true PA and sound reinforcement applications including convention centers, ballrooms, arenas, stadiums, gymnasiums, ice rinks, nightclubs and other open ceiling or outdoor applications where rapid installation, high-SPL and lasting durability are required.

Patented SoundTube Technologies

SoundTube Entertainment and the MSE SoundTube Entertainment and the MSE Audio Group constantly develop new technologies which enhance audio product performance. SoundTube Entertainment innovations are protected by multiple U.S. & international patents, which explicitly cover SoundTube dome, enclosure and dispersion technologies. The MSE Audio Group actively defends its patents in order to protect SoundTube resellers and end-users.

Technical Data and Specification Tools

Technical Data

SoundTube Entertainment strives to provide complete and effective technical information and data to dealers, engineers and designers. All data are available from SoundTube Entertainment or at www.soundtube.com and

includes EASE™ Data – 3-D polar plots and SoundTubeSPEC™ – Proprietary SoundTube speaker placement software.

Acquisition & Verification

All data for SoundTube speakers is independently collected from and verified by NWAALabs (www.nwaalabs.com) using their proprietary MACH testing system. All data is collected and analyzed according to ASTM, ISO and AES standards using EASERA, TEF and MLSSA. Full balloon data including both phase and magnitude is compiled into a variety of formats including EASE 4.x, GLL and CLF.

Architectural Specifications

The loudspeaker shall consist of one 305 mm (12 in) low-frequency transducer and one 35 mm (1.375 in) high-frequency transducer with a frequency dividing network installed in a ported enclosure. The low-frequency voice coil diameter shall be 50 mm (2.0 in). The low-frequency transducer shall have treated fiber cone material with a treated cloth surround. The high-frequency transducer shall be constructed of Mylar material.

Performance specifications of a typical production unit shall be as follows: Usable frequency range shall extend from 59 Hz - 22 kHz, -10 dB. The loudspeaker shall be available with selectable 25/70.7/100 Volt and 8 Ohm/voice coil direct tap switch. The frequency-dividing network shall have a crossover frequency of 2.2 kHz. Rated power capacity of the components and network shall be at least 150 Watts continuous RMS and conform to EIA-426-B testing. Maximum continuous output at 1 meter shall be at least 118 dB.

The ported enclosure shall be constructed from injection molded, glass-reinforced ABS with a total volume of 2 cubic feet. The grille shall be constructed of powder-coated steel and affix to the speaker via friction fit with two blind mounted, radial screws.

The HP1290i shall ship complete with hanging hardware including hanging and safety cables, Euroblock connector and terminal weather boot. The HP1290i has an optional surface mount bracket (AC-RS-SM1290).

The HP1290i is factory preset to the 150 Watt setting in the 70.7 Volt operating mode, with a tap switch located on the front baffle of the speaker and is accessible by a removable grille plug. Signal input shall be by 4-pin Euroblock connector, which accepts up to 10 gauge wire.

The system shall be the SoundTube HP1290i for both low & high impedance applications.

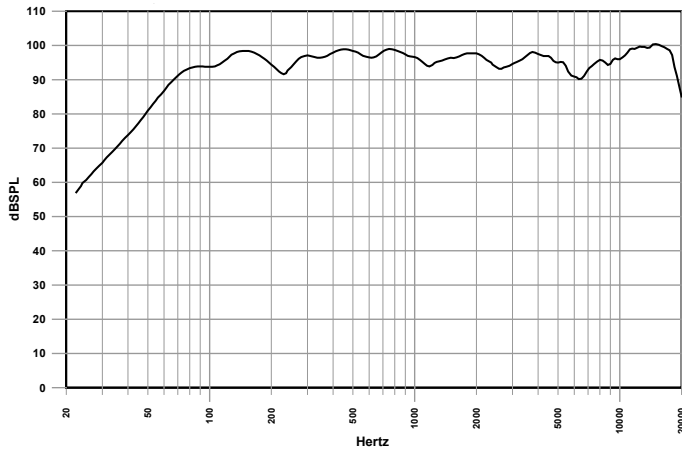
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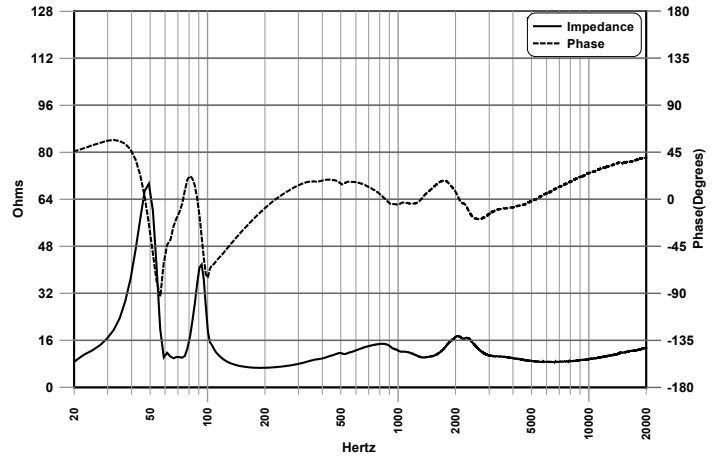
All SoundTube products come with a 5-year limited warranty.

Graphs and Plots

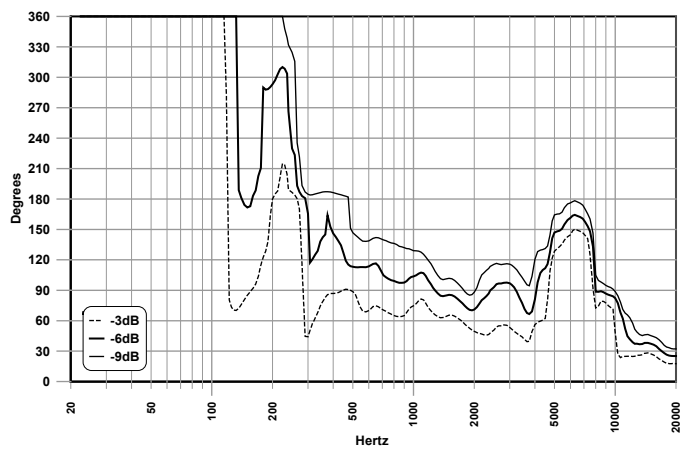
Frequency Response



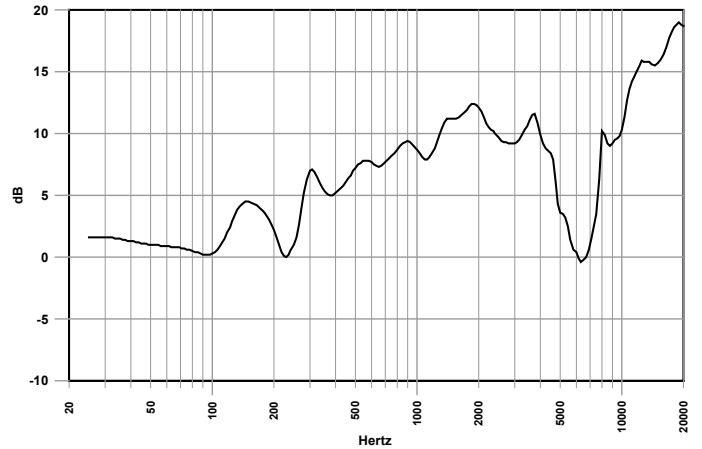
Phase/Impedance Response



Vertical Beamwidth (-6 dB)



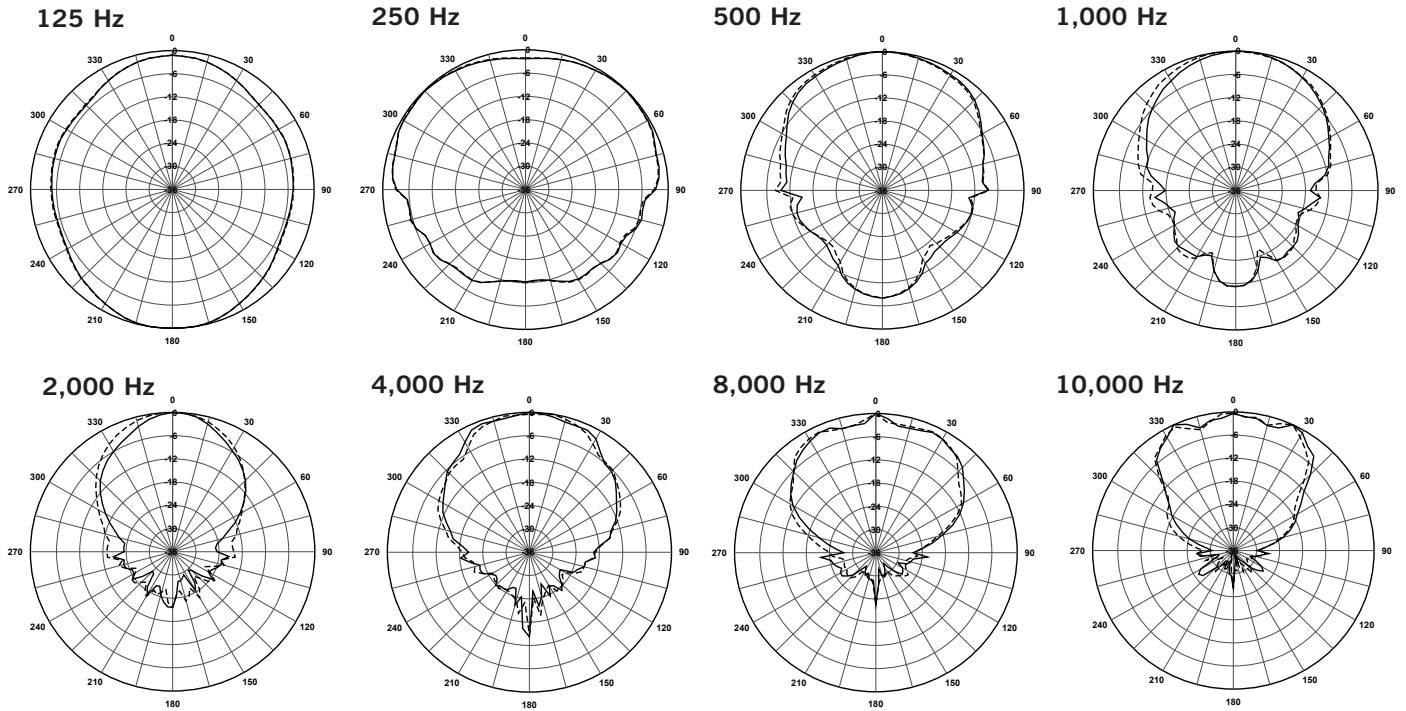
Directivity Index (DI)





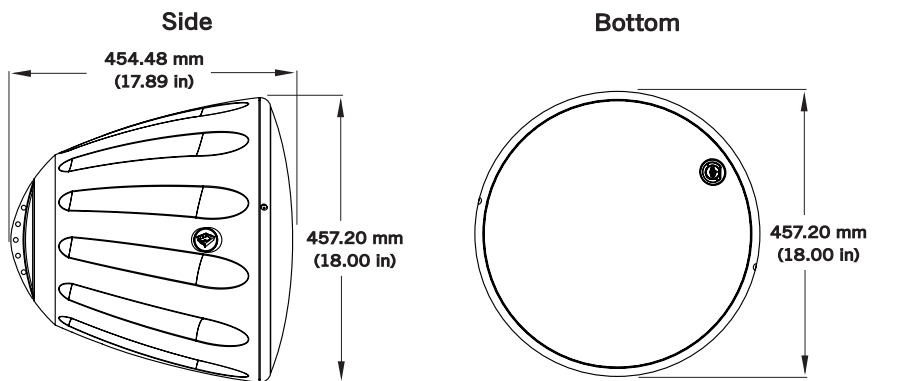
Polar Plots

— Horizontal
- - - Vertical

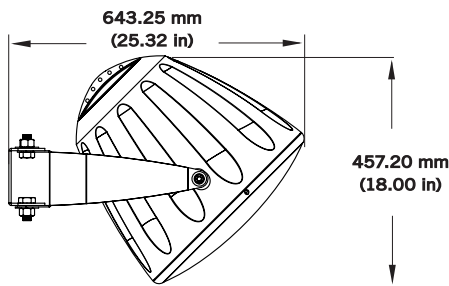


Technical data, EASE™ plots, SoundTubeSPEC™ software & product downloads available at www.soundtube.com

Mechanical Drawings

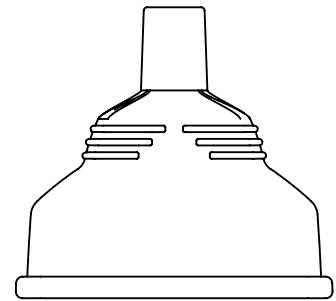


Optional Accessories

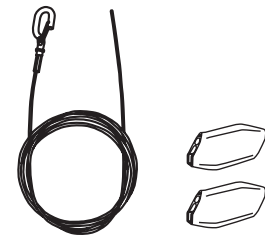


Surface Mount Bracket (AC-HP-SM129)

Included Accessories



Terminal Weather Boot



Hanging Hardware

SoundTube Entertainment manufactures a complete line of speakers for:
Open-Ceiling • In-Ceiling • Surface-Mount • Outdoor • Sound-Focusing

All SoundTube products are designed and engineered in the USA.