RS801i Sub

Open-Ceiling Speaker

Technical Information for System Engineers





Specifications: RS801i

Mounting hardware included

System Type	8" Subwoofer, open-ceiling, ported (66 Watt transformer fo		
	25/70.7/100 Volt or voice coil/4 Ohm direct)		
Frequency Response (-3 dB) ¹	50 Hz - 140 Hz		
Low Frequency (-10 dB) ¹	40 Hz - 200 Hz		
Max. Program Power	250 Watts		
Max. Continuous Power RMS ²	125 Watts		
Max. SPL dB @ 1 M	117 dB (Peak @ 90 Hz)		
Sensitivity dB @ 1W/1M ³	96 dB (Peak @ 90 Hz)		
Impedance (nominal)	4 Ohm (nominal value)		
Coverage Angle (-6 dB @ 2 kHz)	N/A		
Coverage Angle (-6 dB @ 10 kHz)	N/A		
Directivity Factor (Q)	N/A		
Directivity Index (DI)	N/A		
Tap Selector	6-Position rotary switch with voice coil/4 Ohm direct		
Transformer Taps			

70.7 V	Output	100 V	Output	25 V	Output
66 W	110.5 dB	66 W	110.5 dB	9 W	102.0 dB
35 W	108.0 dB	35 W	108.0 dB	4.5 W	99.0 dB
19 W	105.5 dB	19 W	105.5 dB	2.3 W	96.0 dB
10 W	102.5 dB	10 W	102.5 dB	1.1 W	93.0 dB
5 W	99.5 dB				

Transducers	
Low Frequency Driver	1 x 203 mm (8.0 in) Polypropylene cone, butyl rubber surround
High Frequency Driver	N/A
Low Frequency Voice Coil	30.4 mm (1.2 in)
Crossover Frequency	100 Hz
Network Type	
Low Pass	12 dB per octave, 2nd order
High Pass	N/A
Enclosure Material	Injection molded ABS, glass fiber reinforced
Motor Board	Cast aluminum with integrated heat sink
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	437.7 mm / 17.23 in
Diameter	376.5 mm / 14.82 in
Weight	10.7 kG / 23.5 lbs
Shipping Weight	13.2 kG / 29.0 lbs
Accessories	
Included	Hanging hardware, Euroblock connector & terminal
	weather boot
Optional	Surface-Mount Bracket (AC-RS-SM8)
Packaging	1 Per box

 $^{^{1}}$ Frequency response is measured in half & full space and includes a low-frequency peak > + 3 dB.

SoundTube continually develops new product innovations and improvements. Updates to existing products without prior notice are an example of SoundTube's drive for constant improvement.

Key Features

- One 203 mm (8.0 in) polypropylene woofer mounted to a proprietary castaluminum M8[™] baffle and heat sink.
- Weatherized components for indoor & outdoor applications.
- Includes hanging hardware with aircraft cables and integrated SpeedClamp[™] self-locking cable grip for fast, easy & secure installation.
- Patented ZeroReflection[™] enclosure technology for optimal sound reproduction & cabinet rigidity. Also includes Euroblock connector & terminal weather boot.
- Easy access 6-position selectable tap switch for 25, 70.7 and 100 Volt applications with 4 Ohm bypass simplifies ordering and inventory tracking.
- Iridite-plated steel grille with protective powder-coated finish for lasting durability.
- 96 dB Sensitivity offers high-output capabilities & reduced amplification costs.
- UL 1480 rev. 5, CE approval (EMC Directive 89/366/EEC, EN55020, EN55013), Milspec 810 & IEC529 approval pending.
- Optional accessory: SM8 bracket for surface-mount applications.
- High-quality black or white paint finish. Custom paint colors optional.

Description

The RS801i is an 8" subwoofer with an open-ceiling enclosure design that delivers additional low-end response (40 Hz) for satellite/subwoofer applications. The RS801i speaker design incorporates a low-profile grille, proprietary M8™ motorboard, 6-position tap switch with voice coil/4 Ohm direct. Hanging hardware is included & features SpeedClamp™ self-locking cable grip for fast, easy & secure installation.

Applications

Designed for indoor & outdoor background subwoofer applications, the RS801i includes a single point mounting system for rapid open-ceiling installations. True low-end response (40 Hz) and high sensitivity (96 dB 1W/1M) make the RS801i ideal for additional bass response in retail, restaurants and other open-ceiling subwoofer applications.

² Continuous power rating, EIA-426-B test.

³ 2.83 Volts at a distance of 1 meter.

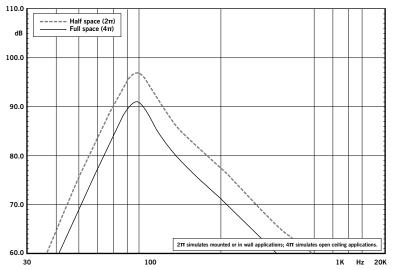
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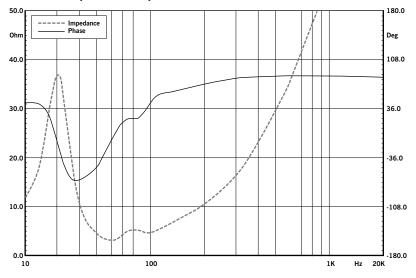
Technical Information for System Engineers



Frequency Response



Phase/Impedance Reponse



Patented SoundTube Technologies

SoundTube Entertainment is constantly developing new technologies that enhance audio product performance. SoundTube Entertainment innovations are protected by multiple U.S. & international patents, which explicitly cover SoundTube dispersion, enclosure & dome technologies. SoundTube Entertainment 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.

Data Acquisition

All performance data acquired at SoundTube's Technical Measurement Center (TMC) are analyzed using a variety of standard measurement techniques, including Measured Length Sequence (MLS) and Time Delay Spectrometry (TDS). Performance, development and data acquisition tools include: Gold Line TEF 20, CLIO, LMS, LEAP, and proprietary modeling software. EASETM data are acquired through an automated TEF 20/Outline/EASETM interface.

EASE™ Data – 3-D polar plots.

SoundTubeSPEC™ – Proprietary SoundTube speaker placement software.

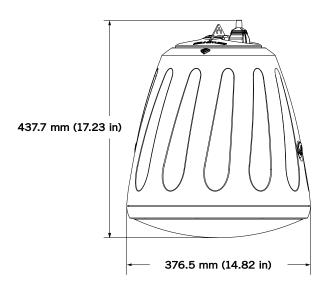
Architectural Specifications

The loudspeaker shall consist of a 203 mm (8.0 in) low-frequency transducer with a low-pass filter installed in the ported enclosure. The low-frequency voice coil diameter shall be 30.4 mm (1.4 in).

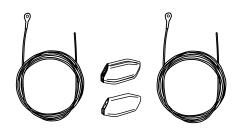
Performance specifications of a typical production unit shall be as follows: Useable frequency response shall extend from 40 Hz – 200 Hz (-10 dB, half space, no external equalization). Measured sensitivity (2.83 Volt input, 1 meter) shall be at least 96 dB. The speaker shall have a nominal impedance of 4 Ohms and be



Mechanical Drawings



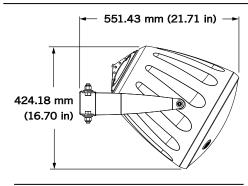
Included Accessories



Hanging Hardware: Main & Safety Cables w/ SpeedClamp™

SoundTube's hanging cable kit incorporates hanging & safety cables & fasteners for an integrated and easy-to-install system. All cables are infinitely adjustable up to 2.74 M (9.0 ft).

Optional Accessory



Surface-Mount Bracket (SM8)

available for 25, 70.7 & 100 Volt modes with voice coil/4 Ohm direct. The frequency-dividing network shall have a crossover frequency of 100 Hz with a 12 dB per octave (2nd order) slope for the low pass filter. Rated power capacity shall be at least 125 Watts continuous power (RMS) and conform to EIA-426-B testing. Maximum continuous output at 1 meter shall be 117 dB.

Installation for the RS801i shall be by aircraft cable affixed to the speaker chassis via a carabiner. For seismic & safety redundancy, a secondary aircraft cable shall be included and attach to the speaker chassis via #10 bolt. The external wiring input connector shall be a 4-pin, 5 mm Euroblock for 4 Ohm or distributed systems and shall accept from 10 – 22 gauge wire. The system shall be for indoor & outdoor applications, and shall have a weather-resistant terminal boot covering all wire connectors.

The enclosure shall be constructed of injection molded, mineral filled, glass reinforced ABS. The grille shall be constructed of iridite-plated, powder-coated steel for lasting performance in the elements. Overall cabinet dimensions shall be no more than 437.7 mm (17.23 in) in height by 376.5 mm (14.82 in) in diameter. The RS801i shall include hanging hardware, Euroblock connector and weather-resistant terminal boot.

The system shall be the SoundTube RS801i subwoofer with hanging hardware for both low & high impedance applications.

SoundTube Entertainment

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