



### PRELIMINARY SPECIFICATIONS:

#### SA502

System Type	50 w per channel (8 ohm) class D amplifier
Frequency Response	20 Hz - 20 kHz
Max gain	34 dB (8 ohm)
Power per channel @ < 10 % THD	55 watts (8 ohm) 2 x 70 watts (4 ohms)
Power per channel @ < 1 % THD	50 watts (8 ohm) 65 watt (4 ohm)
Bridged mono power @ < 1 % THD	90 watts (4 ohm)
Power supply requirement	32 v DC, 3.75A
Signal to noise ratio	> 83 dB (50 watts)
Input impedance	47 kohm line level, 600 ohm balanced
Input sensitivity	0.5 v line input
High-pass filter (F <sub>3</sub> )	120 Hz (12 dB per octave) selectable
Height	30.5 mm (1.2 in.)
Width	99.1 mm (3.9 in.)
Depth	101.6 mm (4.0 in.)
Weight - amp only	0.26 kg (0.56 lbs)
Packaging	One per box
Included accessories	Power supply, stereo RCA female to mini male adapter, pole/surface mount adapter, two male 4 pin euroblock connectors and two 3 pin Euroblock connector.
Optional accessory (SA502)	Rack mount adapter (AC-SA502-RMA)
Regulatory - UL	Planned
Regulatory - CE	Approved
RoHS	Approved

### Preliminary Technical Information

- 34 dB maximum gain with 2 x 50 watt output.
- Three operating modes: stereo, mono or bridged mono
- Three user selectable inputs: balanced stereo (euroblock), stereo unbalanced mini jack, or high level euroblock.
- External 12-32 V trigger
- Signal detecting auto standby to conserve energy
- Bi-color LED on front panel indicates when unit has power (red) and when signal is sensed (blue).
- Dual concentric gain controls for independent channel control
- 20 Hz- 20 kHz frequency response
- 120 Hz high pass switch (defeatable)
- Small size- 1.2" x 3.9" x 4"
- Rugged aluminum housing
- Optional Accessories: rack mount adapter kit (AC-SA502-RMA)

### Description

The SA502 is 50-watt per channel (4 ohm) Class D amplifier with maximum gain of 34 dB. Input options include balanced stereo euroblock, unbalanced line level mini jack, and a stereo speaker level (amplified) euroblock input for applications with low wattage speaker outputs. The SA502 has three operating modes: stereo, dual mono, or bridged mono. In stereo, each input channel flows directly to its corresponding output channel. In dual mono, the left input is fed to both output channels. In bridged mono, the left input is fed to the bridged output. System includes selectable 12-32 v external trigger input or auto standby to conserve energy.

### Applications

Small, powerful and cost-effective, the SA502 is engineered for external amplification with SoundTube and other high-fidelity speakers. Additional applications include digital signage, education, point of purchase, museums, surgical centers, AV carts or any application where a small amplifier is needed to boost a limited source output (e.g., computers, A/V projectors, etc.).



## Patented Technologies

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. and 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](http://www.soundtube.com).

Technical data and downloads include:

EASE™ data – 3-D polar plots.

EASE™ Address – 2-D modeling for distributed systems

Autodesk® Revit® software

Tech Sheets – Technical information and architectural specs for system engineers

SoundTubeSPEC™ – Proprietary speaker placement software

### Independent Data Acquisition and Verification

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

## Architectural Specifications

The amplifier shall be a 50-watt per channel (8 ohm) Class D amplifier.

The amplifier shall provide three inputs including a balanced stereo

euroblock, enbalanced line level mini jack, and a stereo speaker level (amplified) euroblock input for applications with low wattage speaker outputs. The SA502 also includes a variable 34 dB maximum gain control. The amplifier shall provide three operating modes including stereo, dual mono, or bridged mono.

Performance specifications of a typical production unit shall be as follows: 50 watts per channel (20 Hz – 20 kHz, 8 ohm, stereo) or 65 watt per channel (20 Hz – 20 kHz, 4 ohm stereo) at 1% THD. The high-pass filter shall have an  $f_3$  of 120 Hz and a slope 12 dB per octave.

The external wiring output connector shall be a Euroblock connector that accepts from 12 – 22-gauge wire. The power input shall either be by three-pin Euroblock that accepts from 12 - 22-gauge wire or barrel connection. The system shall be for indoor applications.

The enclosure shall be constructed of extruded aluminum with integrated heat-sink fins. Overall cabinet dimensions shall be no more than 30.5 mm (1.2 in.) in height by 99.1 mm (3.9 in.) in width and 101.6 mm (4.0 in.) in depth.

The system shall include the amplifier, pole/surface mount adapter, power supply, stereo RCA female to mini male adapter, two male 4-pin euroblock connectors and two 3-pin euroblock connectors.

The system shall be the SA502 for amplification.

## SoundTube Entertainment

6430 North Business Park Loop  
Park City, Utah 84098  
Phone 435.647.9555  
Fax 435.647.9666  
Toll Free 800.647.TUBE  
[www.soundtube.com](http://www.soundtube.com)

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

---

# SA502

## Mini Amplifier

Preliminary Technical Information for System Engineers

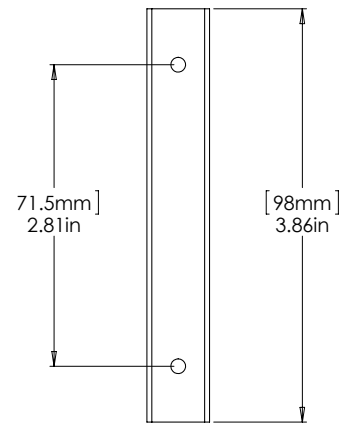
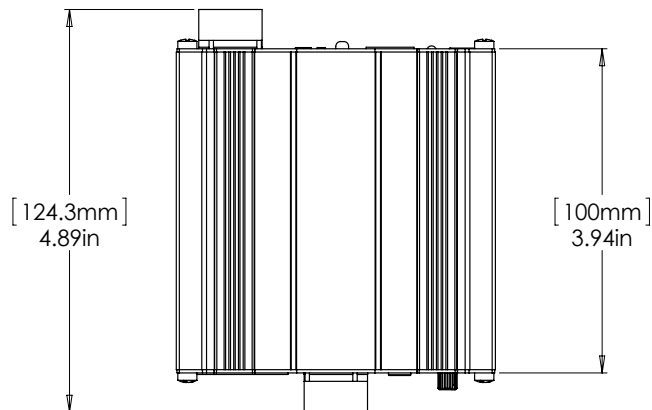
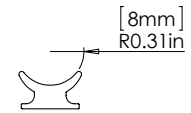
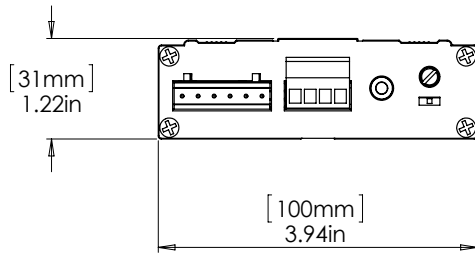


# SOUNDTUBE

ENTERTAINMENT

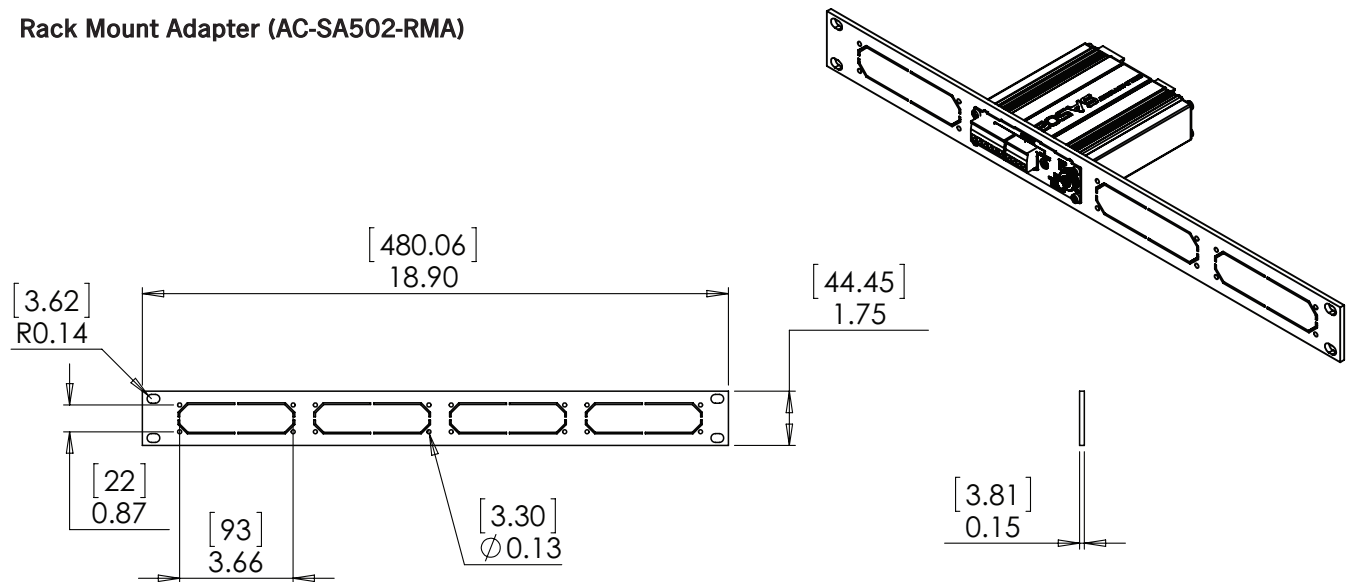
### Mechanical Drawings

### Included Accessories



### Included Accessories

#### Rack Mount Adapter (AC-SA502-RMA)



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.