## **New Product Announcement**



## **Slim-Line Micro Speakers**

PUI Audio, Inc.'s new line of slim-line micro speakers are purpose-built for space-limited, modern electronics such as smartphones, tablets, laptops, as well as wearable technology and IoT devices such as WiFi-enabled thermostats.

## 15 x 11 mm Slim-Line Micro Speakers

The **AS01508AO-SC-R** is a 15 x 11 speaker with pre-installed double-sided adhesive for quick, easy installation and spring-loaded contacts for a solderless electrical connection and features a 4.42 mm thickness.

25 mm speaker leads replace the spring contacts on the AS01508AO-SC-R to minimize thickness to 3.9 mm on the **AS01508AO-LW25-R**.

For more output and lower distortion, a multi-magnet motor drives the **ASO1508AO-3-R**, while solder pads drive the thickness down to 3.5 mm.

A spring-contact version is available in the **AS01508AO-3-SC-R**.

These are also available with an IP65-rated face: the **AS01508AO-WP-R** and the **AS01508AO-SC-WP-R**.

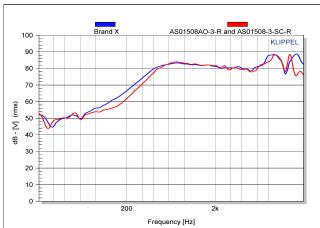
Each  $15 \times 11$  mm speaker features a class-leading resonant frequency below 600 Hz for realistic sound.

## 18 x 13 mm Slim-Line Micro Speakers

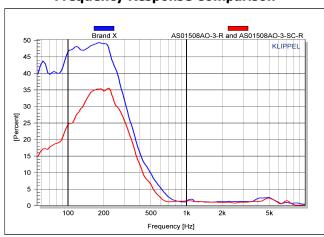
PUI Audio's 18 x 13 mm speakers build on the performance of the 15 x 11 mm speakers, while reducing the overall thickness to below 3 mm on the  $\bf ASO1808AO-3-R$  with solder pads and 3.1 mm on the  $\bf ASO1808AO-3-SC-R$  with spring contacts.

Both feature an amazingly low resonant frequency of 420 Hz and are available with IP65-rated faces in the **AS01808AO-WP-R** and **AS01808AO-SC-WP-R**.





#### **Frequency Response Comparison**



**Total Harmonic Distortion (THD) Comparison** 

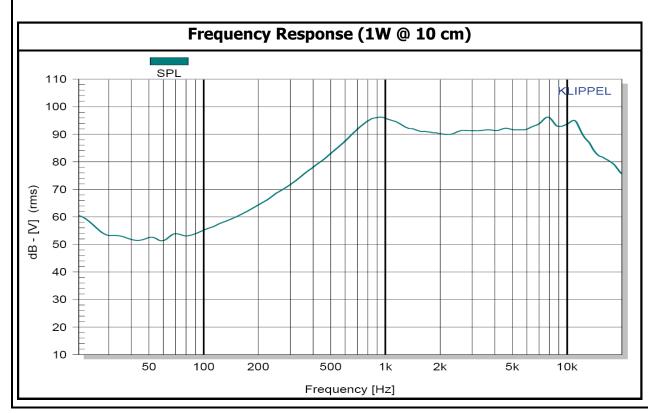


# AS01808AO-3-R 18x13mm Slim-Mount Speaker

3541 Stop Eight Road • Dayton, Ohio 45414

### **Product Overview**

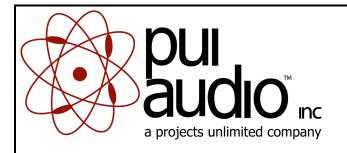
- 18 x 13 mm speaker with Neodymium magnet for 94 dB sensitivity
- 1W continuous, 1.2W maximum power handling and  $8\Omega$  impedance
- For space-limited applications such as cell phones and consumer electronics
- Horizontally placed solder pads











# AS01808AO-3-R 18x13mm Slim-Mount Speaker

| Mechanical and Environment Testing   |  |  |  |
|--|--|--|--|
| Test Description   | Test Condition                                       |  |  |
| High Temperature   | 60°C with random humidity for 96 hours               |  |  |
| Low Temperature  | -25°C with random humidity for 96 hours              |  |  |
| Humidity   | 40°C with 90% to 95% relative humidity for 96 hours  |  |  |
| Vibration  | 1.5 mm movement modulated at 15 to 45 Hz for 3 hours |  |  |
| Drop Test  | 75 cm free fall onto concrete, 10 cycles             |  |  |
| After tests, speaker shall rest for 1 hours. SPL shall not deviate ±3 dB from pre-test measurement |  |  |  |

Rq,including wiring <0.30

Rq,including wiring <0.30

power amplifier

analyzer

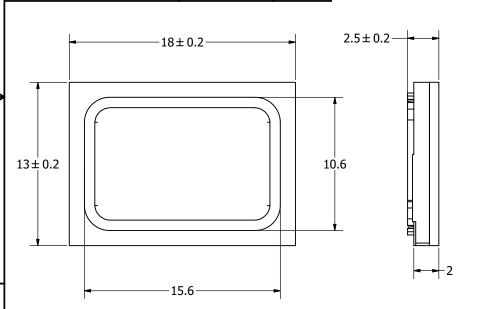
\*frequency response
\*THD
\*rub & buzz

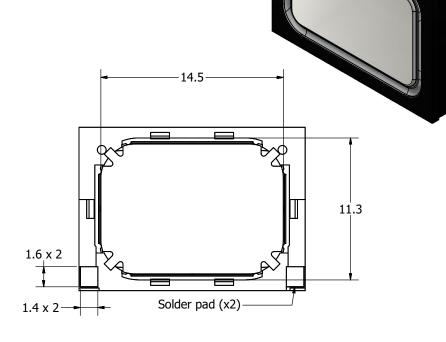
**SPECIFICATIONS PARAMETERS VALUES UNITS** RATED INPUT POWER 1.0 W 1.2 W MAX INPUT POWER **IMPEDANCE** 8± 15% ОНМ OUTPUT SPL @ 1W/0.1M 94±3 dBA (AVG. 0.8, 1, 1.2, 1.5 kHz) **DISTORTION (MAX.)** 5% RESONANT FREQUENCY 420±20% Hz FREQUENCY RANGE Fo ~ 14,000 Hz HOUSING MATERIAL ABS **ALUMINUM CAP CONE MATERIAL MYLAR** MAGNET MATERIAL NdFeB OPERATING TEMPERATURE -25 ~ +60 °C WEIGHT grams

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| REVISION HISTORY |                           |         |          |  |
|------------------|---------------------------|---------|----------|--|
| LTR              | DESCRIPTION               | DATE    | APPROVED |  |
| -                | RELEASED FROM ENGINEERING | 3/23/16 |          |  |





#### NOTES:

- 1. ALL DIMENSIONS ARE IN MILLIMETERS.
- 2. SPECIFICATIONS SUBJECT TO CHANGE OR WITHDRAWL WITHOUT NOTICE.
- 3. THIS PART IS RoHS 2011/65/EU COMPLIANT.

| UNLESS OTHERWISE                              |            | Designed by |
|---|------------|-------------|
| SPECIFIED:<br>DIMENSIONS ARE IN               | SIZE       | M.V.        |
| MILLIMETERS,                                  |            | $\sim$      |
| TOLERANCES<br>ARE ±0.5 AND<br>ANGLES ARE ±3°. | <b>A</b> 3 | XXX         |
| AS01808A0                                     | D-3-R.idw  | 4           |

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|----------|----------------------------------|---------------|
|          | pul.                             |               |
|          | audic<br>a projects unlimited co | inc<br>ompany |

3/23/2016 M V

Date

Checked by

Date

3/23/2016 B.R. 3/23/2016 3/23/2016 AS01808AO-3-R

Date

Drawn Date

Approved by

Speaker - Edition Sheet 1/1

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## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

PUI Audio: AS01808AO-3-R