This document contains data proprietary to PUI Audio Inc. Any use or reproduction, in any form, without prior written permission of PUI Audio Inc. is prohibited.
©2020, PUI Audio Inc.

Data Sheet	SMS-1508MS-HT-R

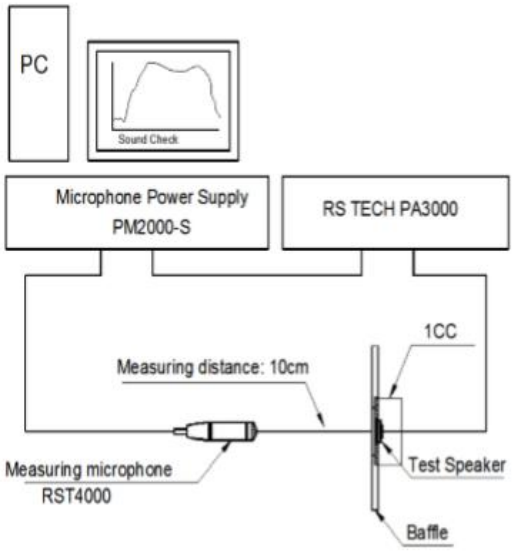
PUI Audio's **High-Temp** line of products is designed to meet and exceed the needs of the automotive industry with ultra-wide operating temperatures. The **SMS-1508MS-HT-R** is designed for high output at 800Hz in a small package.

- Wide -40°C to +105°C operating temperature
- 92 dB output at 10cm with 0.8W input
- Wide 400Hz to 10,000 Hz frequency range

Specifications

Parameters	Values	Units
Rated Input Power	0.8	Watts
Max Input Power	1.0	Watts
Impedance	8±20%	Ohms
Sensitivity @ 1k, 1.6k, 2.0k & 3.2kHz Ave	92±3	dB
Resonant Frequency	800±15%	Hz
Frequency Range	400 ~ 10,000	Hz
Weight	1.7	Grams
Acceptable Soldering Methods	Hand Solder, Reflow	See below for soldering information
Environmental Compliances	RoHS	-
Storage Temperature	-40 ~ +105	°C
Operating Temperature	-40 ~ +105	°C

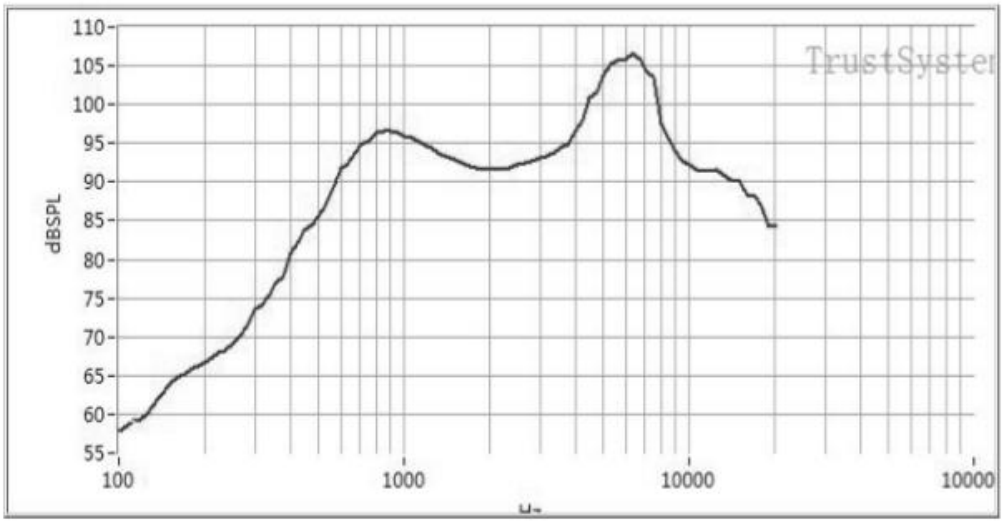
Measurement Method **(0.8W sine sweep, microphone spaced at 10cm, speaker in 1cc enclosure)**



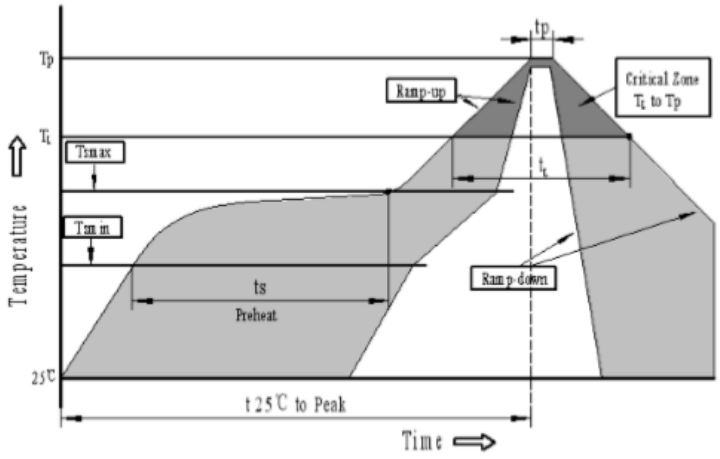
PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

This document contains data proprietary to PUI Audio Inc. Any use or reproduction, in any form, without prior written permission of PUI Audio Inc. is prohibited.
©2020, PUI Audio Inc.

Typical Frequency Response (0.8W sine-sweep with microphone spaced at 10cm)



Recommended Soldering Procedure



Profile Feature	Pb-Free Assembly
Average ramp-up rate(T_L to Tp)	3℃/second max.
Preheat	
-Temperature Min.(Ts_{min})	150℃
-Temperature Min.(Ts_{max})	200℃
-Temperature Min.(ts)	60～180 seconds
Ts_{max} to T_L	
-Ramp-up Rate	3℃/second max.
Time maintained above:	
- Temperature(T_L)	217℃
-Time(T_L)	60～150 seconds
Peak temperature(Tp)	245℃+0/-5℃
Time within 5℃of actual Peak temperature (tp)	6 seconds max.
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

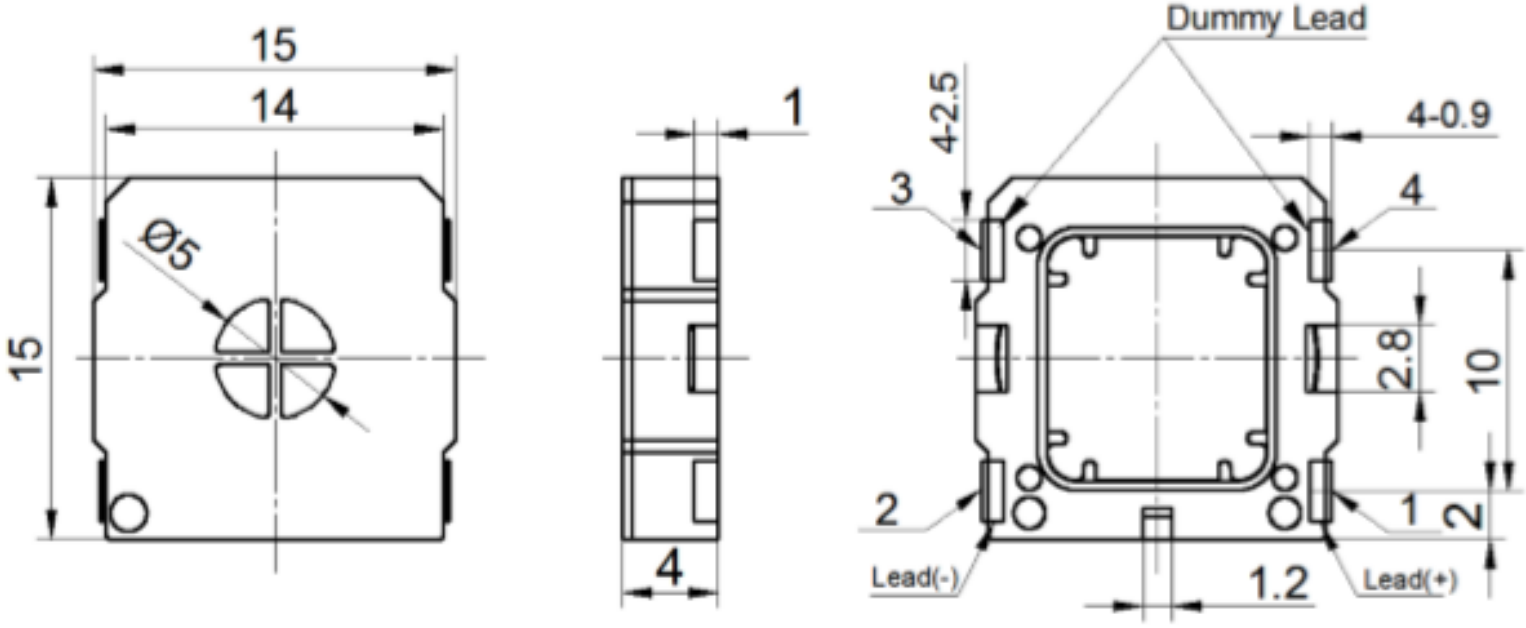
This document contains data proprietary to PUI Audio Inc. Any use or reproduction, in any form, without prior written permission of PUI Audio Inc. is prohibited.
©2020, PUI Audio Inc.

Reliability Testing

Type of Test	Test Specifications
High Temperature Test	Test part at +105℃ for 120 hours
Low Temperature Test	Test part at -40℃ for 120 hours
Humidity Test	40±2℃, 90 ～ 95% RH, 120 hours
Temperature Cycle Testing	Total 5 cycles, 1 cycle consisting of -40±2℃, 30 minutes 20±5℃ 15 minutes 105±2℃, 30 minutes 20±5℃ 15 minutes
Vibration Test	The part shall be subjected to a vibration cycle of 10Hz for a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3g). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.
Shock Test	Sounder shall be measured after being applied a shock of 980m/s^2 for each three mutually perpendicular directions to each of 3 times by a half sine wave.
Drop Test	Drop from 700mm height onto the surface of a 10mm thick wooden board.

All specifications must be satisfied after the test.

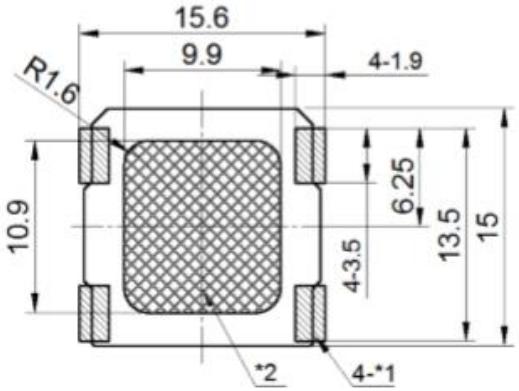
Dimensions (Tolerance: ±0.5mm unless otherwise specified)



PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

This document contains data proprietary to PUI Audio Inc. Any use or reproduction, in any form, without prior written permission of PUI Audio Inc. is prohibited.
©2020, PUI Audio Inc.

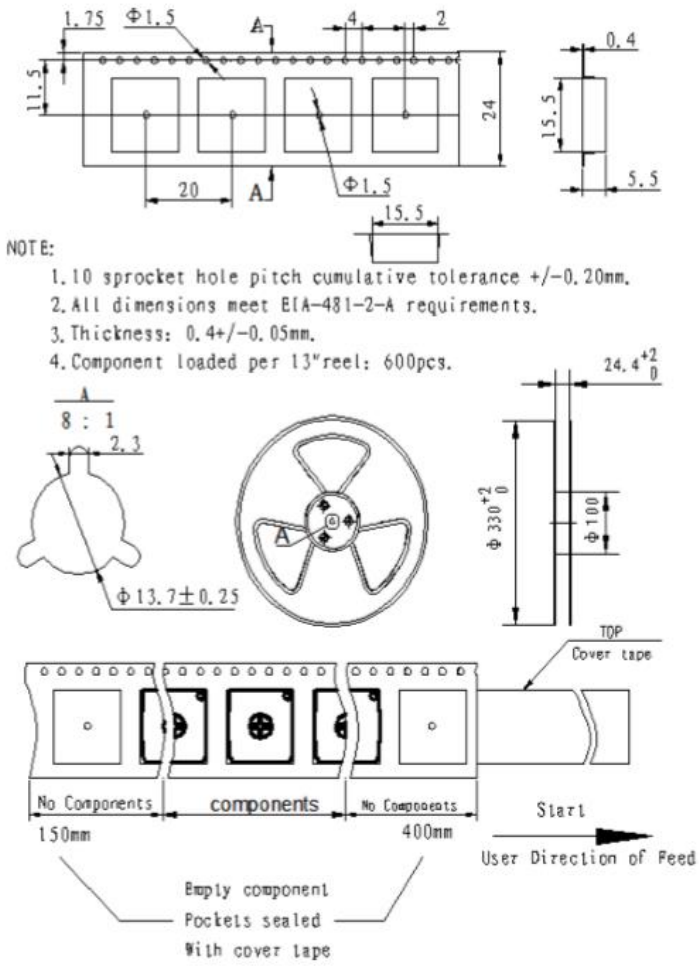
Suggested Land Pattern*



NOTE
1.Land pattern*1
2.Avoid any pattern
on the shade area
*2 of PC board is highly recommended

*This land pattern is advisory only and its use or adaptation is entirely voluntary. PUI Audio disclaims all liability of any kind associated with the use, application, or adaptation of this land pattern.

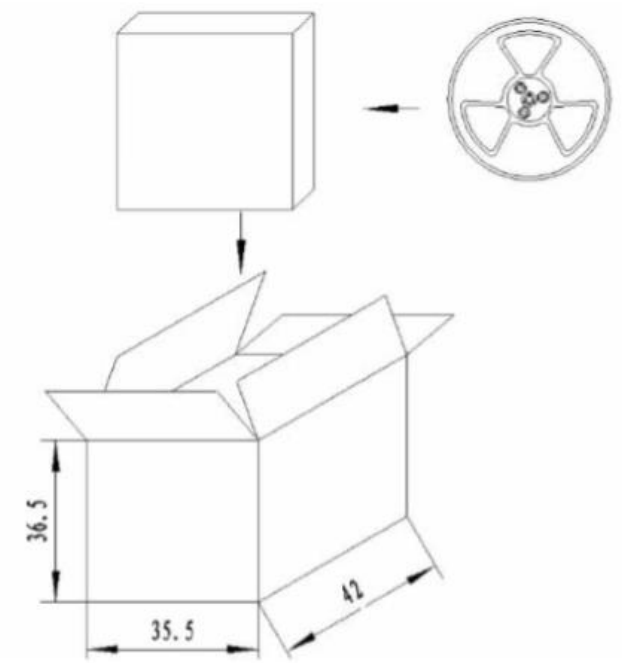
Packaging



PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925

This document contains data proprietary to PUI Audio Inc. Any use or reproduction, in any form, without prior written permission of PUI Audio Inc. is prohibited.
©2020, PUI Audio Inc.

Packaging (Cont'd)



NOTES:
1.600 PCS per box
2.Total 10 boxes per carton
3.Total 6000 PCS carton
4.Volume:42×35.5×36.5cm

This document contains data proprietary to PUI Audio Inc. Any use or reproduction, in any form, without prior written permission of PUI Audio Inc. is prohibited.
©2020, PUI Audio Inc.

Specifications Revisions

Revision	Description	Date
-	Released from Engineering	3/6/2020

Note:

1. Unless otherwise specified:
   A. All dimensions are in millimeters.
   B. Default tolerances are ±0.5mm and angles are ±3°.
2. Specifications subject to change or withdrawal without notice.

PUI Audio, Inc., 3541 Stop Eight Road, Dayton, OH 45414
Tel: (937) 415-5901 Fax: (937) 415-5925