



PUIaudio



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.

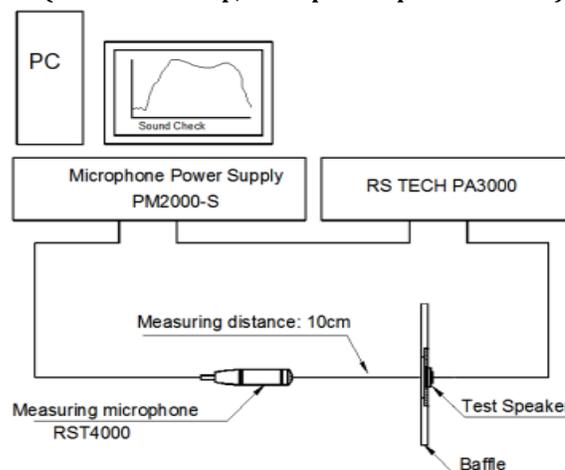
The **SMS-1508MS-HT-R** is designed for high output at 800Hz in a small package.

- 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

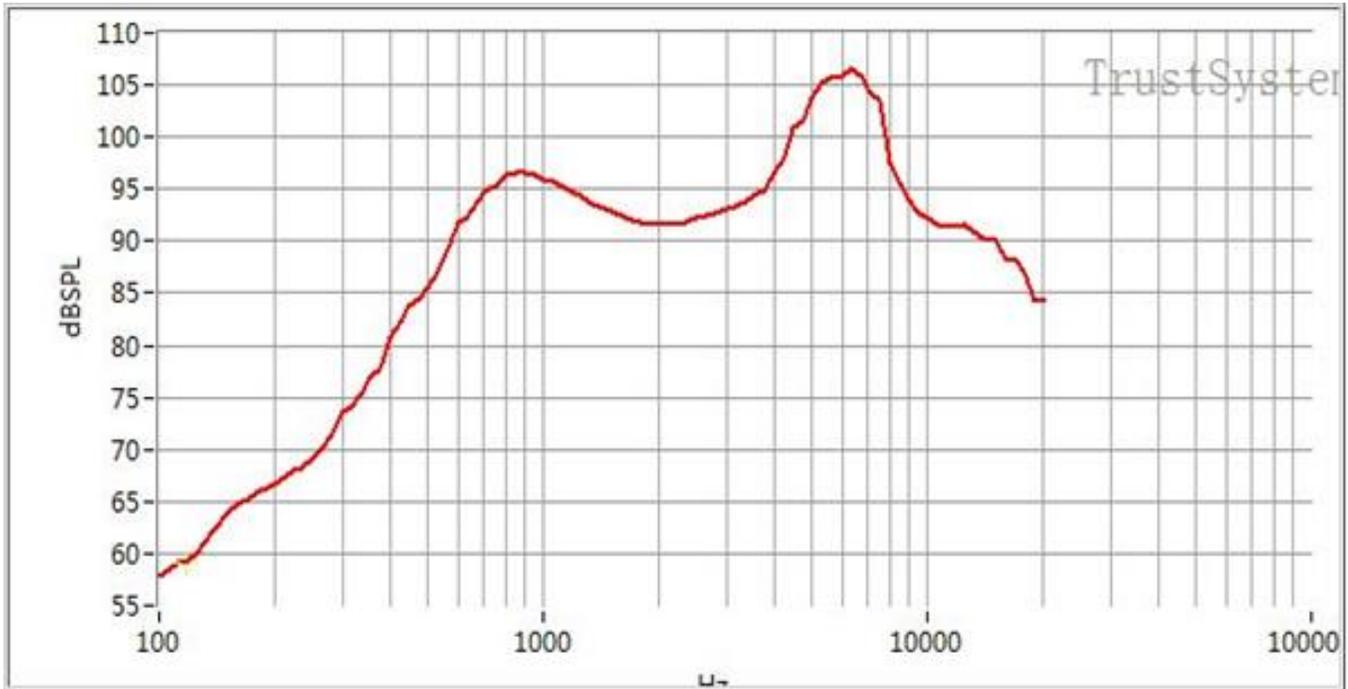
Specifications

Parameters	Values	Units
Rated Input Power	0.8	Watts
Max Input Power	1.0	Watts
Impedance	8 ± 20%	Ohms
Output SPL @ 0.8W/10cm (Avg. 1k, 1.6k, 2.0k & 3.2kHz)	92 ± 3	dB
Resonant Frequency	800 ± 20%	Hz
Frequency Range	400 ~ 10,000	Hz
THD (Distortion) @ 2.2kHz	≤10%	-
Diaphragm Material	Mylar	-
Weight	1.7	Grams
Acceptable Soldering Methods	Hand Solder, Reflow	See following pages
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-40 ~ +105	°C
Operating Temperature	-40 ~ +105	°C

Measurement Method (0.8W sine sweep, microphone spaced at 10cm)



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

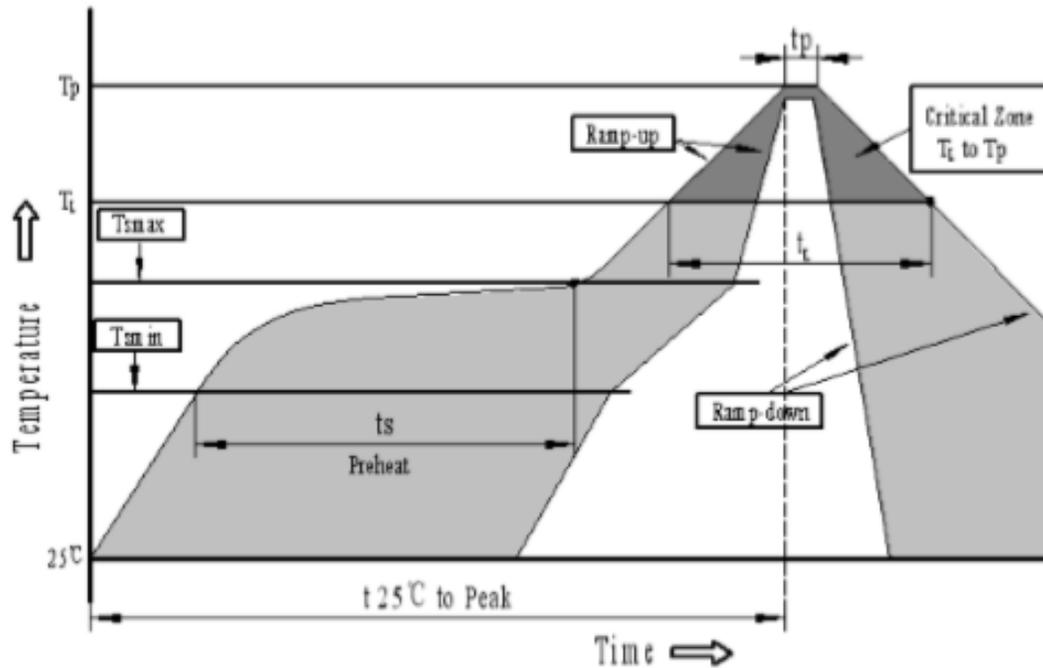


Reliability Testing

Type of Test	Test Specifications
High Temperature Test	Test part at +105°C for 96hours
Low Temperature Test	Test part at -40°C for 96hours
Humidity Test	40±2°C, 90 ~ 95% RH, 96hours
Temperature Cycle Testing	<p style="text-align: center;">5 cycles</p>
Vibration Test	1.52mm amplitude, sweep time is 1 minute with 10 to 55Hz and 55 to 10Hz of vibration frequency to each of 3 perpendicular directions for 2 hrs.
Drop Test	The product shall be dropped from the height of 70cm onto 10mm thick wooden board each 3 times in 3 axial directions(x,y&z) (a total of 9 times).

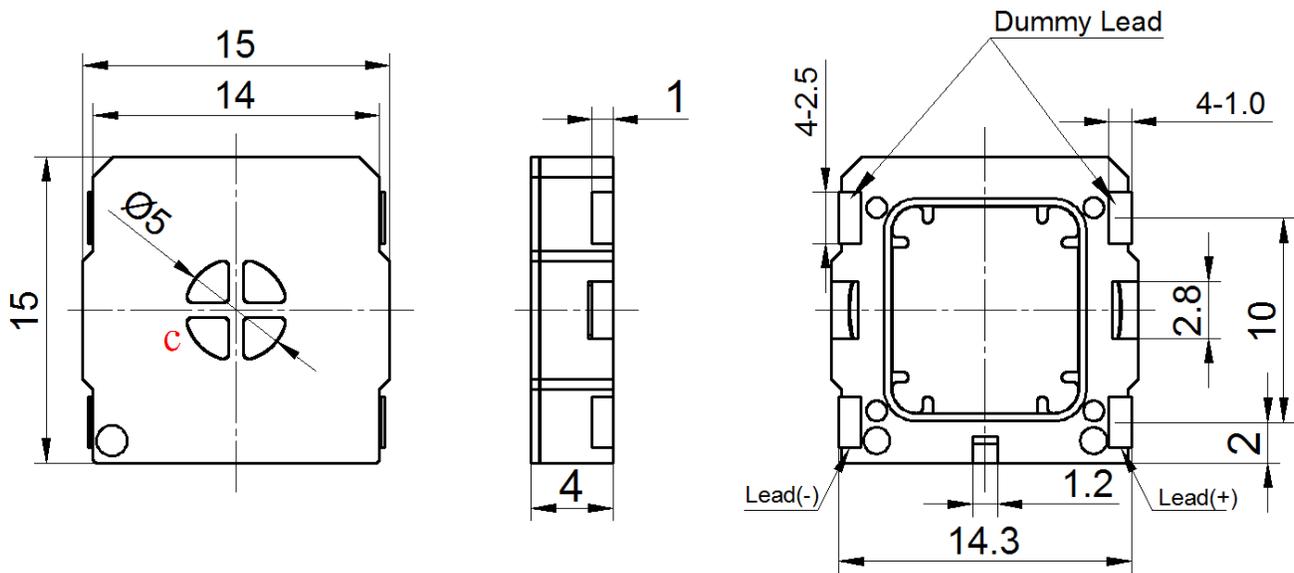
All specifications must be satisfied after the test.

Recommended Soldering Procedure

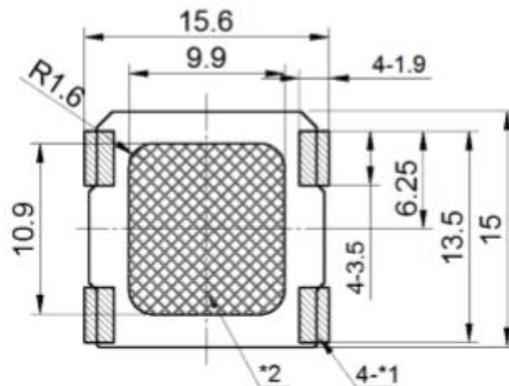


Profile Feature	Pb-Free Assembly
Average ramp-up rate(T _L to T _p)	3°C/second max.
Preheat	
-Temperature Min.(T _{smin})	150°C
-Temperature Min.(T _{smax})	200°C
-Temperature Min.(ts)	60~180 seconds
T _{smax} to T _L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
- Temperature(T _L)	217°C
-Time(T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

Dimensions (Tolerance: $\pm 0.5\text{mm}$ unless otherwise specified)



Suggested Land Pattern*



NOTE

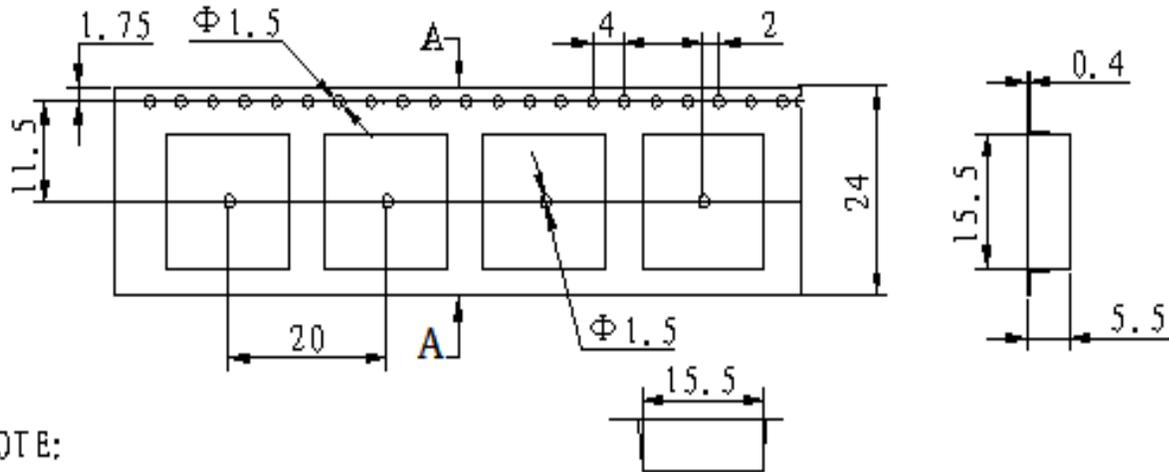
1.Land pattern*1

2.Avoid any pattern on the shade area

*2 of PC board is highly recommended

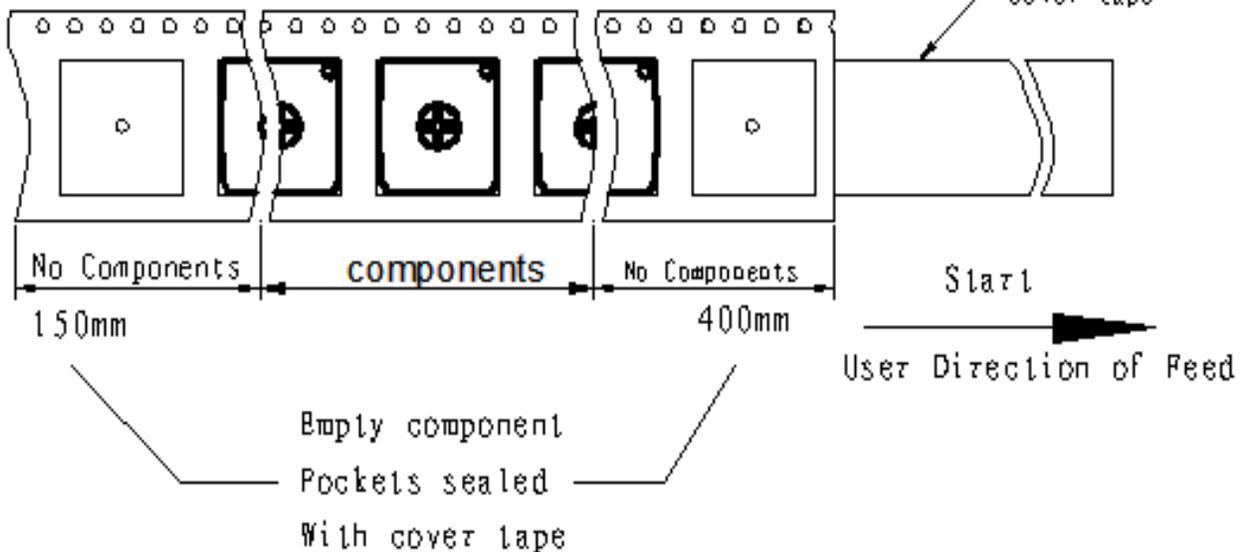
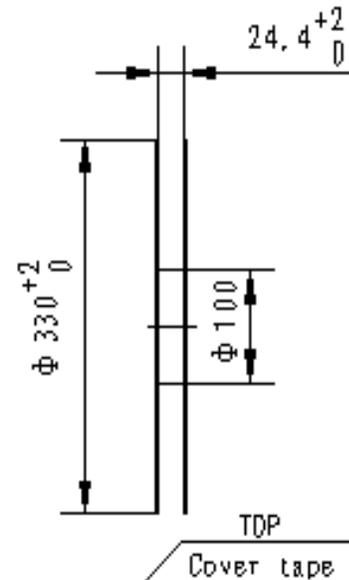
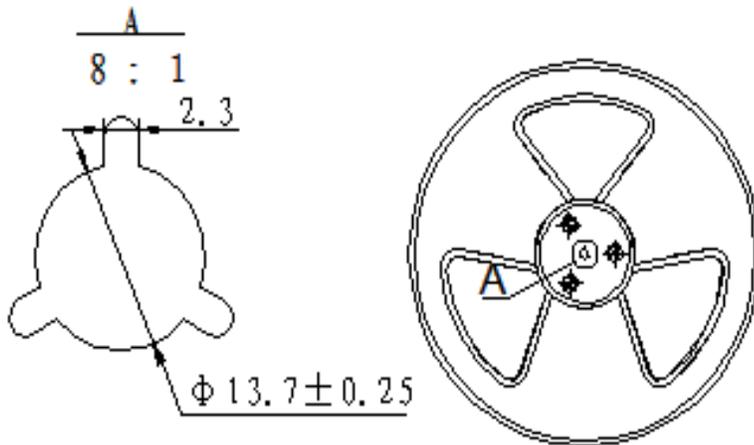
*This land pattern is advisory only and its use or adaptation is entirely voluntary. PUI Audio disclaims all liability of any kind associated with the use, application, or adaptation of this land pattern.

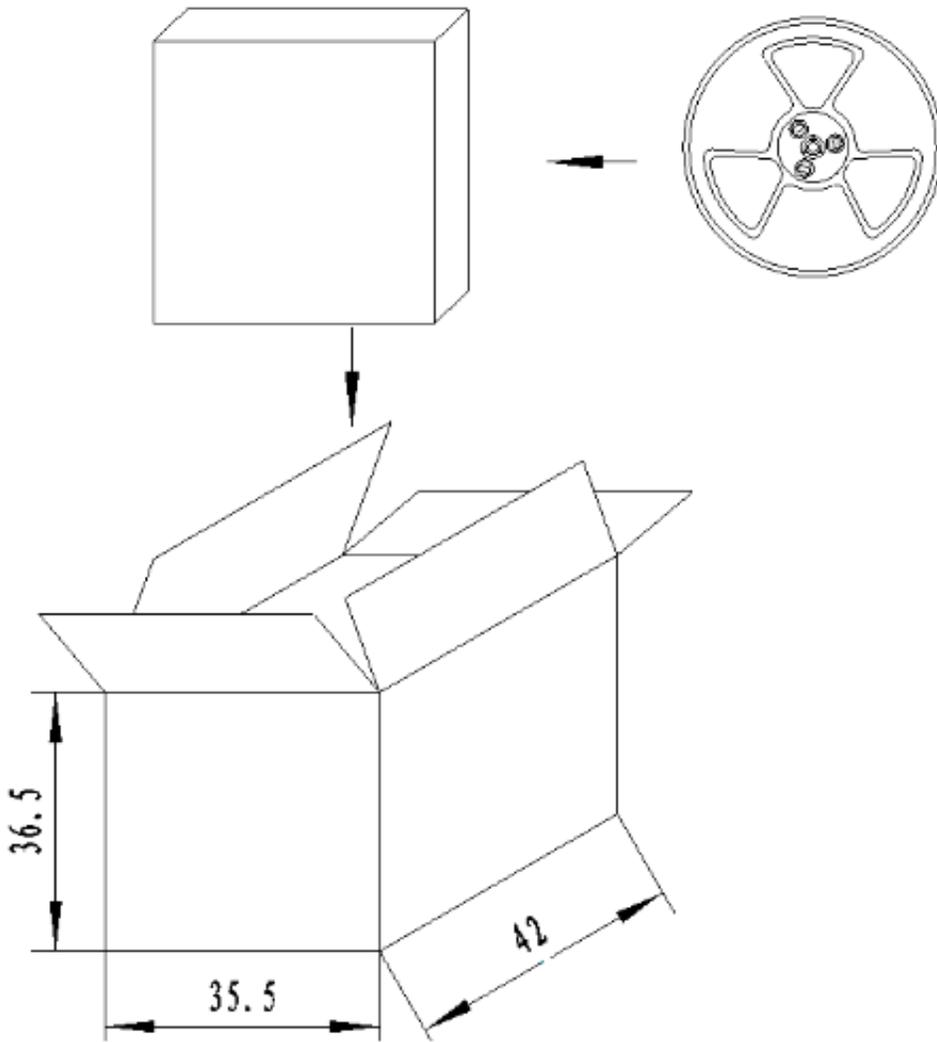
Packaging



NOTE:

1. 1.10 sprocket hole pitch cumulative tolerance ± 0.20 mm.
2. All dimensions meet EIA-481-2-A requirements.
3. Thickness: 0.4 ± 0.05 mm.
4. Component loaded per 13" reel: 600pcs.





600pcs/Reel
6,000pcs/CRTN

Specifications Revisions

Revision	Description	Date	Approved
A	Released from Engineering	03/06/2020	-
B	Revised Drawing Details, Add SPL details for power and distance	05/05/2025	ML

Note:

1. Unless otherwise specified:
 - A. All dimensions are in millimeters.
 - B. Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
2. Specifications subject to change or withdrawal without notice.