



# PUIaudio



Data Sheet

AT-1620-TWT-HT-R

PUI Audio's **High-Temp** line of products is designed with ultra-wide operating temperatures. The **AT-1620-TWT-HT-R** is built for high output at 2048 Hz in a small package.

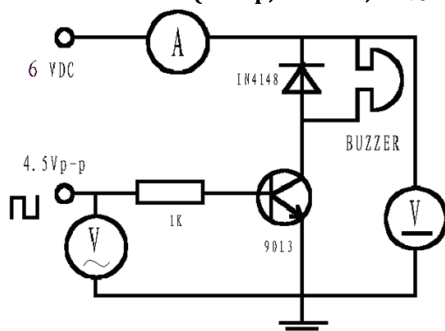
### Features:

- 90 dB output with 6V0-p and 2048Hz input
- Low current draw of only 40mA
- Through-hole design for quick, easy mounting on a PCB
- Wave Solder and Washing Allowed

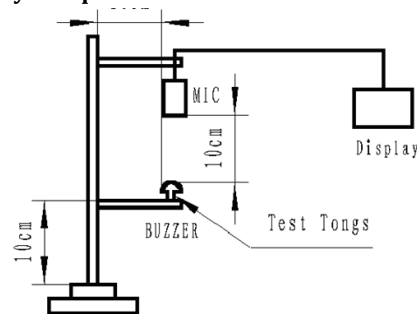
### Specifications

Parameters	Values	Units
Rated Voltage	6	V0-p
Operating Voltage Range	3 ~ 8	V0-p
Current Draw at Rated Voltage	40(Max.)	mA
Coil Resistance	50 ± 7	Ohms
Minimum SPL @ 10cm	90	dBA
Resonant Frequency	2,048 ± 500	Hz
Housing Material	PBT	-
Terminal Material	Sn plated Brass	-
Weight	4.9	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	See following pages
Environmental Compliances	RoHS/REACH	-
Storage Temperature	-40 ~ +90	°C
Operating Temperature	-40 ~ +85	°C

### Measurement Method (6V0-p, 2048Hz, 50% duty cycle square wave with a SPL meter at 10cm)

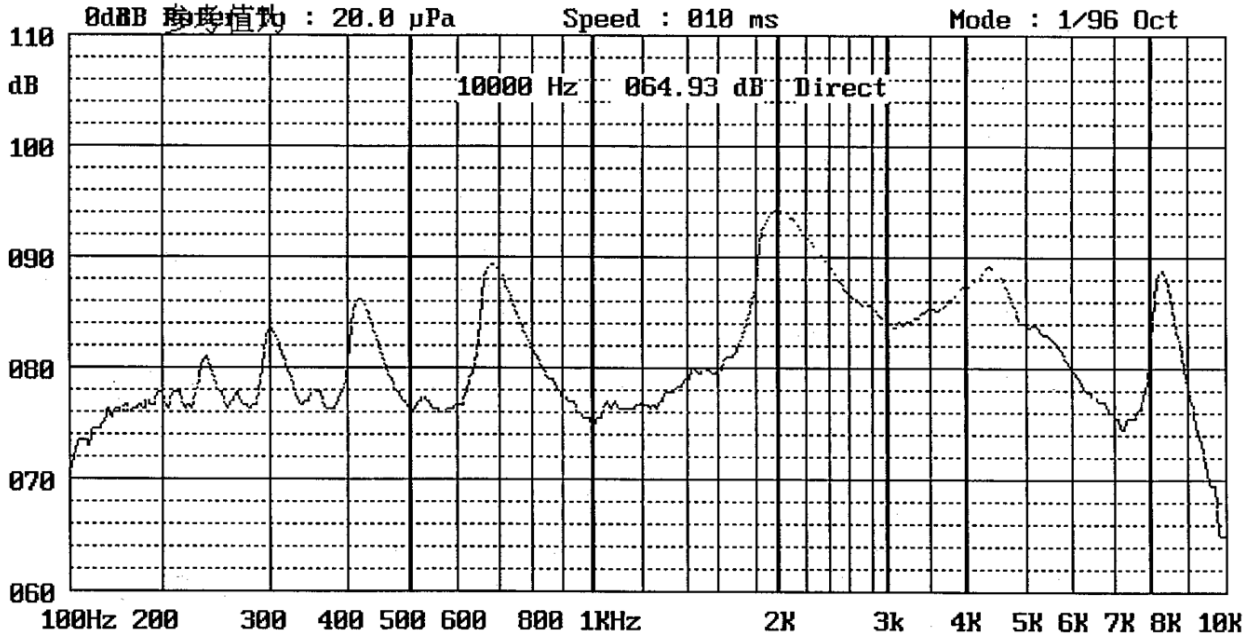


Test Circuit



Test Equipis

### Typical Frequency Response (6V0-p square wave-sweep, distance 10cm)

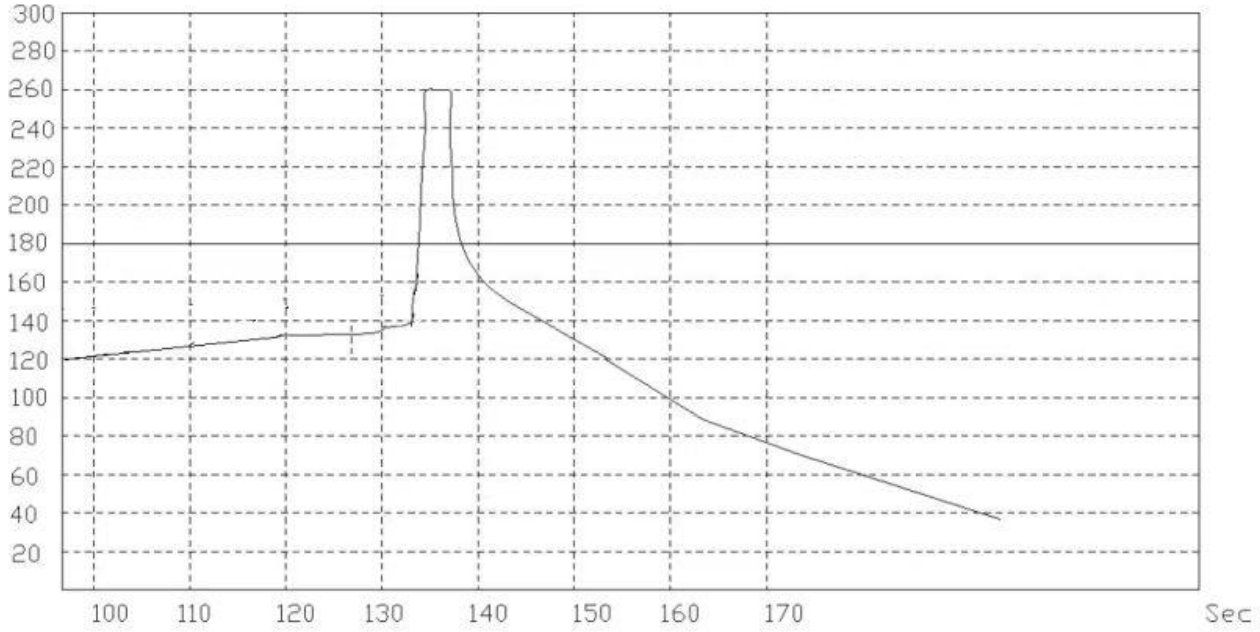


### Reliability Testing

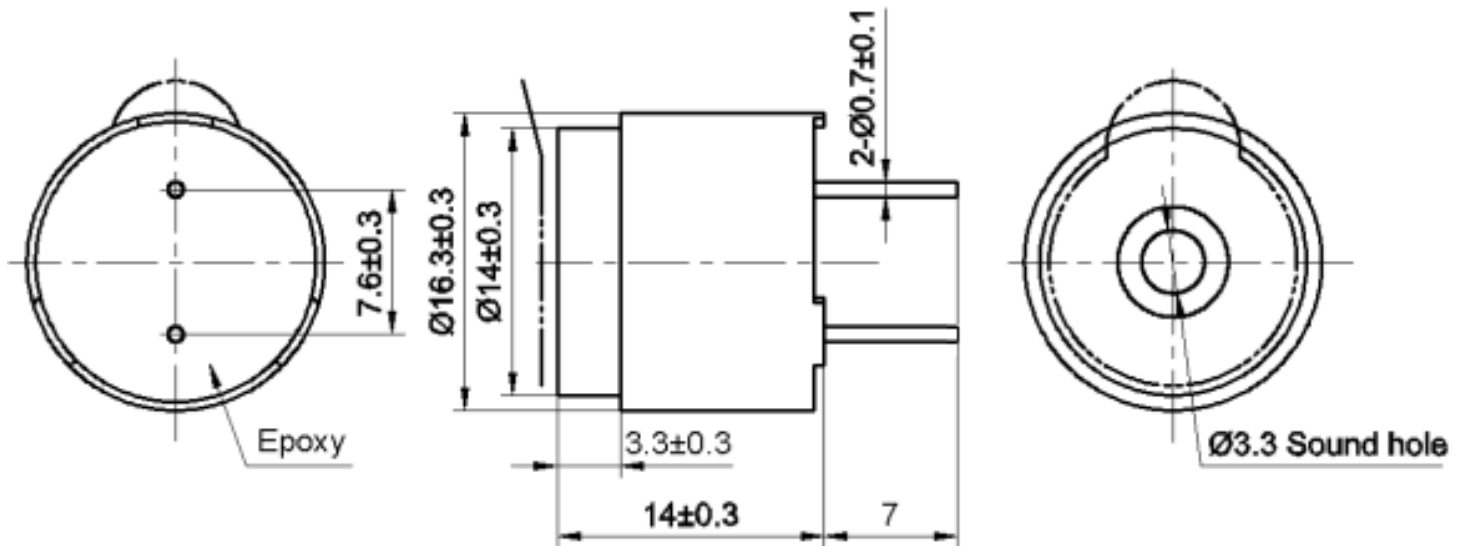
Type of Test	Test Specifications
High Temperature Test	+90 $\pm$ 2 $^{\circ}$ C, 96HRS
Low Temperature Test	-40 $\pm$ 2 $^{\circ}$ C, 96HRS
Humidity Test	40 $\pm$ 2 $^{\circ}$ C, 93(+2/-3) %RH, 96HRS
Temperature Cycle Testing	5 cycles with 1 cycle consisting of: -40 $\pm$ 2 $^{\circ}$ C, 30minutes Room temp., 15 minutes +90 $\pm$ 2 $^{\circ}$ C, 30 minutes Room temp.,15 minutes
Vibration Test	Test each direction of X, Y, and Z (total 0.5 hours). To-and-fro sweep time (from 10 to 55 Hz and then from 55 to 10Hz) under single amplitude of 1.0 mm for 1 minute
Drop Test	Drop 3 times from a height of 70cm onto the surface of a 10mm thick wooden board.

All specifications must be satisfied after testing.

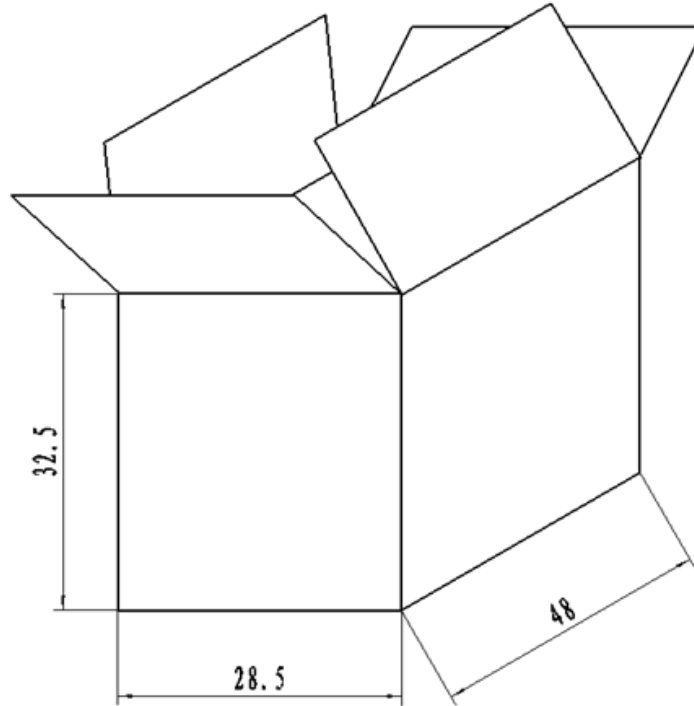
## Recommended Wave Solder Profile



## Dimensions (Tolerance: $\pm 0.5\text{mm}$ )



## Packaging



**NOTES:**

- 1.50 PCS per box
- 2.Total 40 boxes per carton
- 3.Total 2000 PCS carton
- 4.Volume:48 × 28.5 × 32.5cm

**Specifications Revisions**

Revision	Description	Date	Approved
A	RELEASED FROM ENGINEERING	03/31/2020	-
B	Update Spec Format, Add Details for Wave Solder and Terminal Material	10/14/2024	ML

**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.