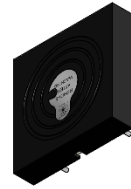




PUIaudio



Data Sheet

AI-4033-TWT-R

Features:

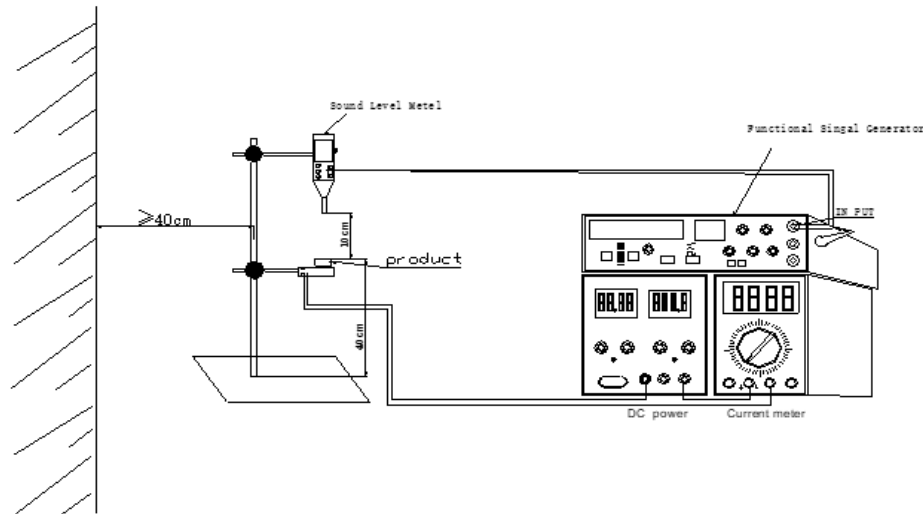
- Piezo Indicator
- 12VDC rated, 3300Hz
- Top-Firing Thru-Hole Type
- Wave Solder and Washing Allowed

Specifications

Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	3 ~ 20	VDC
Current Draw at Rated Voltage	8	mA
Minimum SPL @ 10cm	95	
Minimum SPL @ 30cm	90	dBA
Resonant Frequency	3,300 ± 500	Hz
Tone or Pulse Rate	Continuous	-
Housing Material	ABS	-
Terminal Material	Au Plated Bronze	-
Weight	8	Grams
Acceptable Soldering Methods	Hand Solder, Wave Solder	-
Environmental Compliances	RoHS/REACH	Ex. 7c-1
Storage Temperature	-40 ~ +95	°C
Operating Temperature	-30 ~ +85	°C

Measurement Method (Temperature: 25±3°C; Relative Humidity: 60% ~ 70%)

Standard Test Fixture (Distance: 10cm, 12VDC)

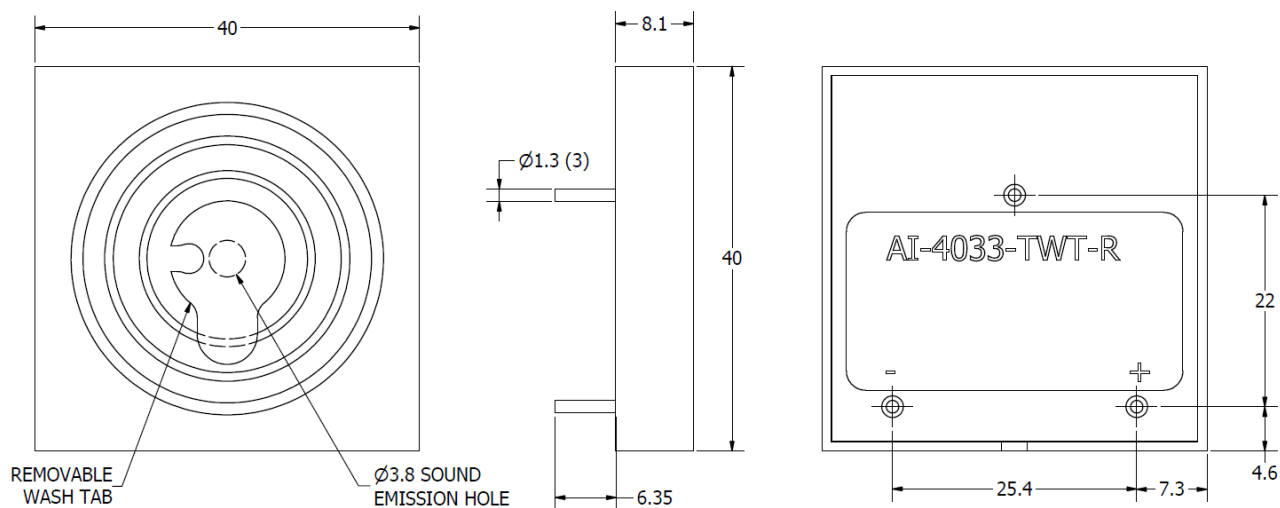


Reliability Testing

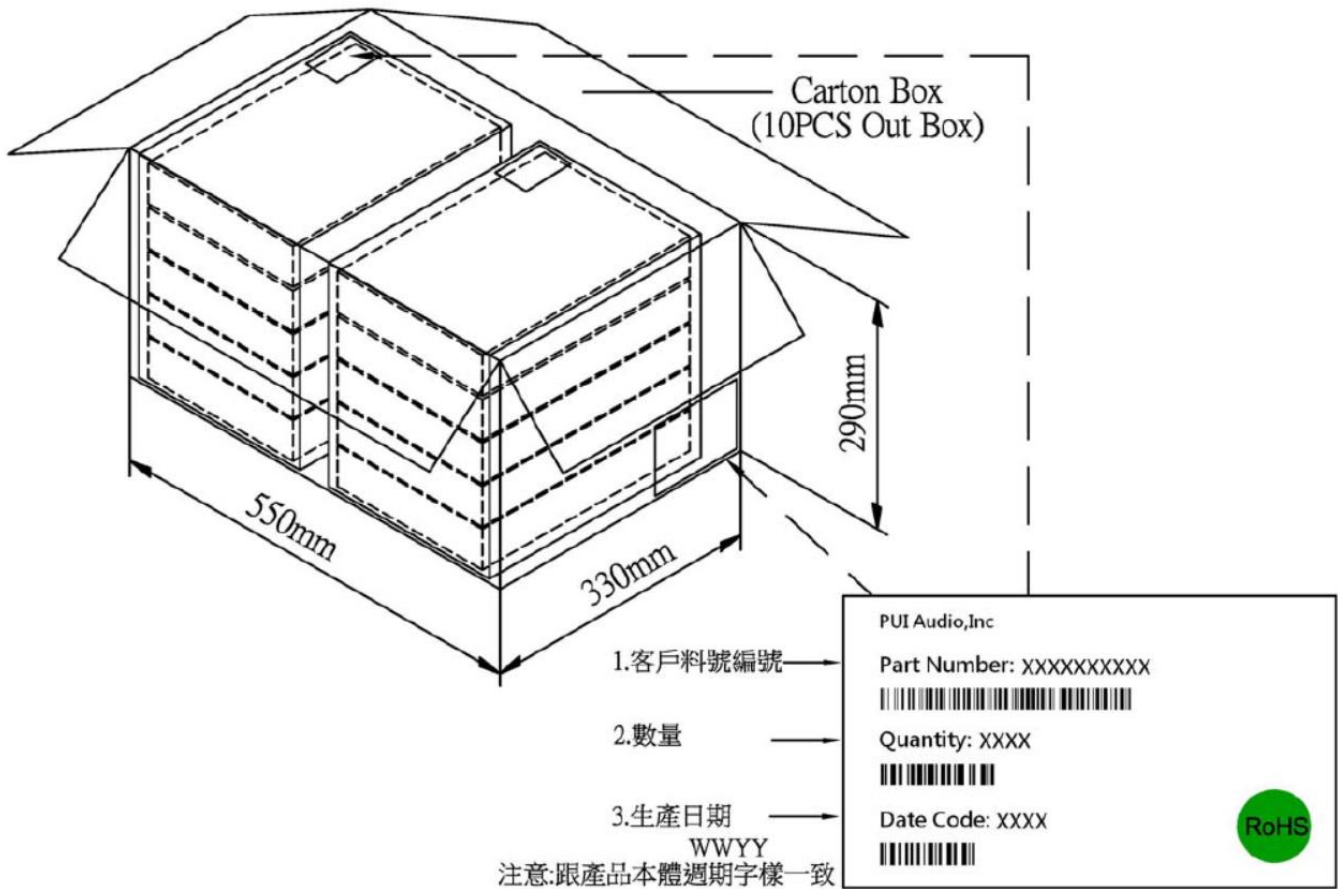
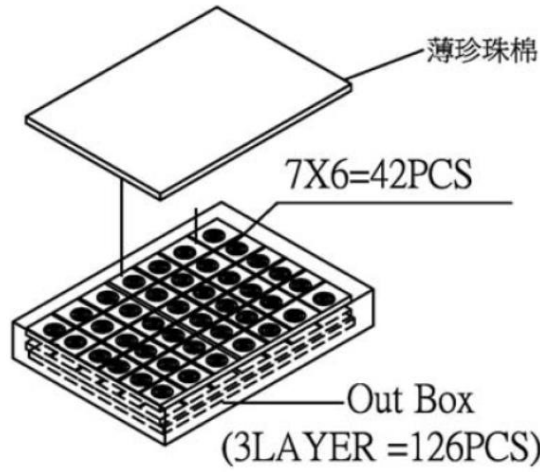
Type of Test	Test Specifications
High Temperature Test	Test chamber for 240 hours at +95°C, then rested at room temperature for 4 hours.
Low Temperature Test	Test chamber for 240 hours at -40°C, then rested at room temperature for 4 hours.
Humidity Test	Test chamber for 240 hours at +40°C with relative humidity at 90±5%, then rested at room temperature for 4 hours.
Temperature Cycle Testing	<p>Test repeated 5 times, then rest at room temperature for 4 hours.</p>
Vibration Test	1.5mm amplitude vibration with 10~55Hz band of vibration frequency for 2 hours. Repeat test in X, Y, Z directions (total 6 hours).
Solderability Test	Lead terminals immersed in rosin for 5 seconds, then in solder bath of +270±5°C for 3±1 seconds.
Soldering Heat Resistance	Lead terminals immersed up to 1.5mm from indicator body in solder bath of +260±5°C for 3±0.5 seconds or +260±5°C for 10±1 seconds
Drop Test	Free drop a unit from the height 75cm to the surface of 40mm thick board, three times. Repeat test in X, Y, Z directions (total 9 times).
Load Test	Apply rated voltage for 48 hours continuously at +70°C. Apply a duty cycle of 1 minute on, 1 minute off 5000 times minimum, at rated voltage and room temperature (+25±2°C).

Measurements should be ±10% compared with initial after testing. SPL should be ±10 dB.

Dimensions



Packaging



Out Box	310mmx248mmx49mm	42PCSx3=126PCS
Carton Box	550mmx330mmx290mm	126PCSx10=1260PCS

Specifications Revisions

Revision	Description	Date	Approved
-	RELEASED FROM ENGINEERING	04/12/2006	-
A	REVISED OPERATING & STORAGE TEMPERATURE	06/08/2009	BR
B	REVISED TO INVENTOR 3D DRAWING TEMPLATE	02/27/2010	BR
C	Update Spec Format, Add details for Reliability, Packaging, Etc.	08/01/2024	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.