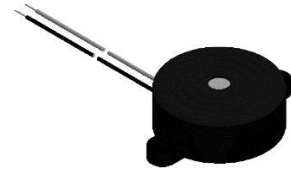




PUIaudio



Data Sheet

AI-4228-TF-SP-LW145-R

Features:

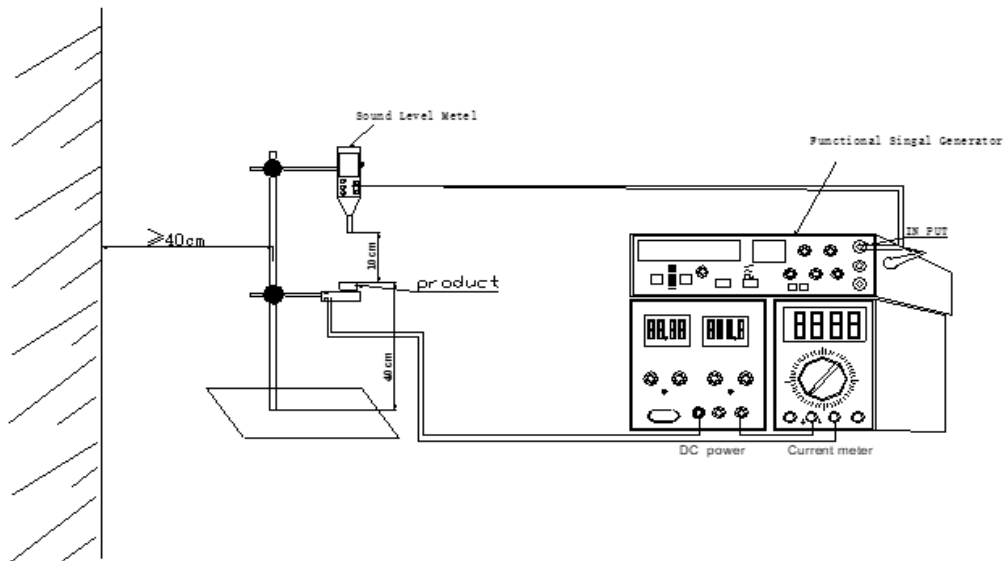
- Piezo Indicator
- 12VDC rated, 2800Hz
- Top-Firing Flange Type

Specifications

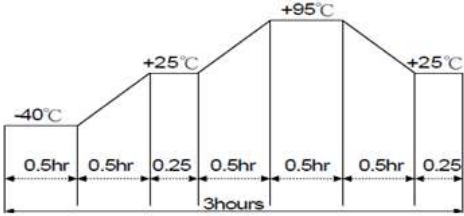
Parameters	Values	Units
Rated Voltage	12	VDC
Operating Voltage Range	3 ~ 20	VDC
Current Draw at Rated Voltage	10	mA
Minimum SPL @ 10cm	98	dBA
Resonant Frequency	2,800 ± 500	Hz
Tone or Pulse Rate	Slow Pulse	1.5 pulse/sec
Housing Material	ABS	-
Terminal Material	Lead Wires	UL1007 AWG 24
Weight	14.2	Grams
Acceptable Soldering Methods	Hand Solder	-
Environmental Compliances	RoHS/REACH	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)

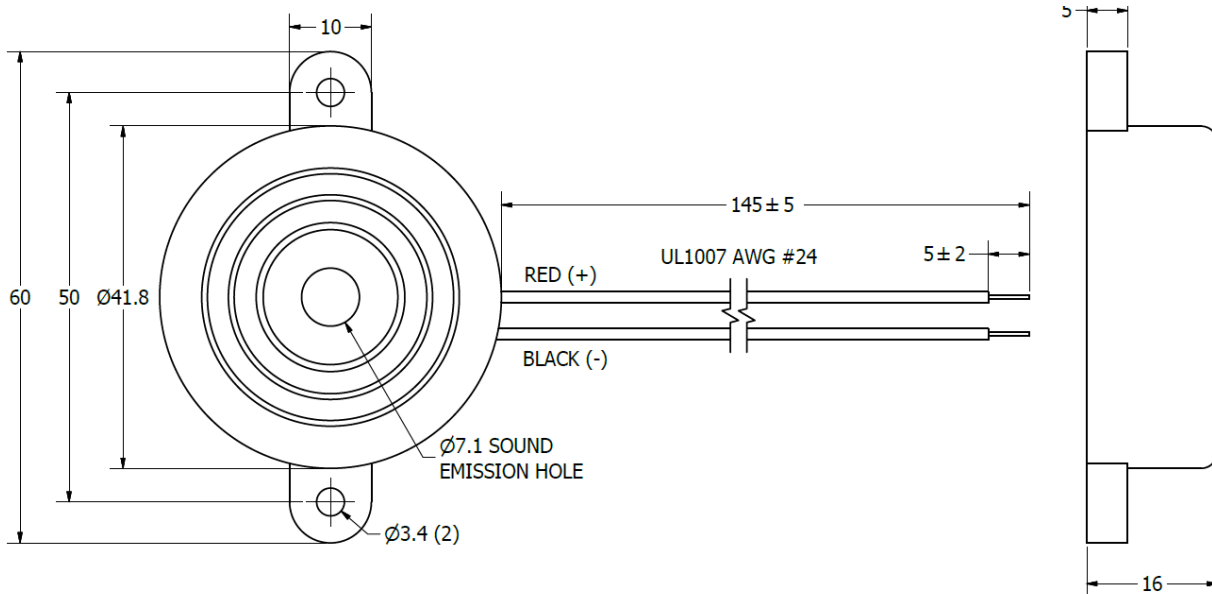


Reliability Testing

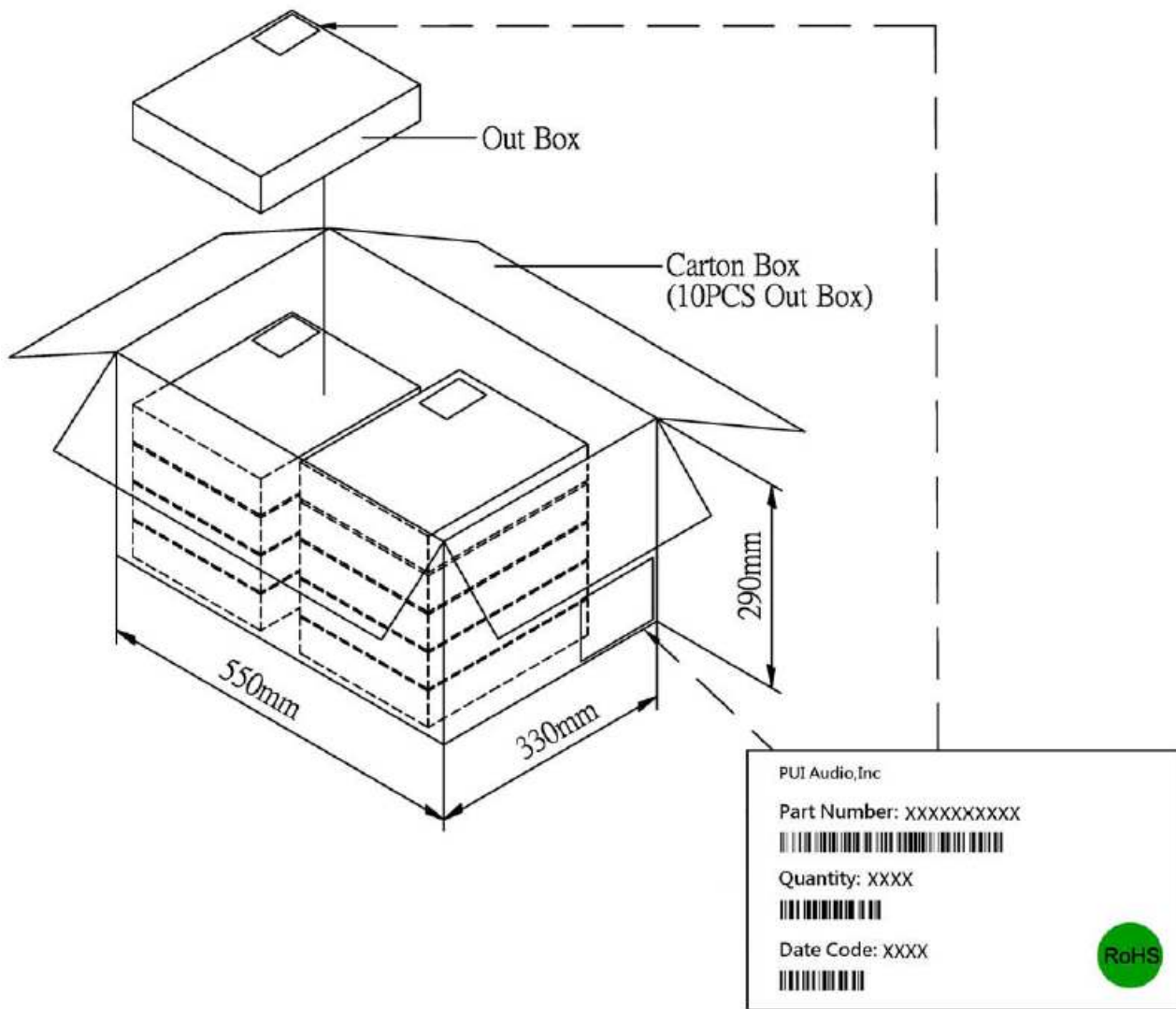
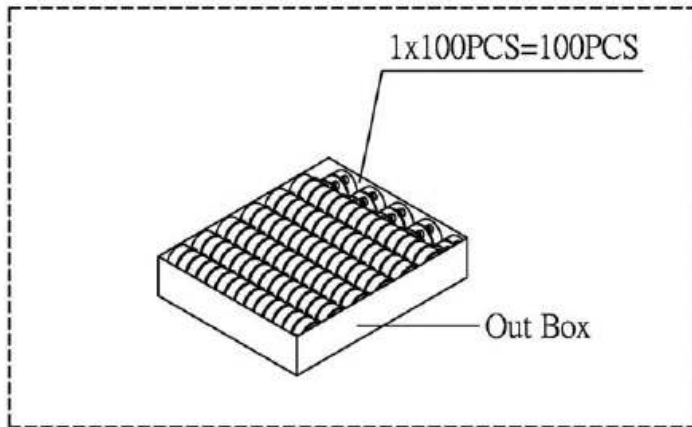
Type of Test	Test Specifications
High Temperature Test	Test chamber for 240 hours at +95°C, then rested at room temperature for 4 hours.
Low Temperature Test	Test chamber for 240 hours at -40°C, then rested at room temperature for 4 hours.
Humidity Test	Test chamber for 240 hours at +40°C with relative 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.
Lead Wire Pull Strength	3.0N horizontal force for 30 seconds 2.0N vertical force for 30 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).

No damage shall occur after testing. Measurements should be ±10% compared with initial after testing. SPL should be ±10 dB.

Dimensions



Packaging



Out Box	310mmx248mmx49mm	1x100PCS=100PCS
Carton Box	550mmx330mmx290mm	100PCSx10=1000PCS

Specifications Revisions

Revision	Description	Date
-	RELEASED FROM ENGINEERING	8/19/2004
A	REVISED TO INVENTOR 3D DRAWING TEMPLATE	3/5/2008
B	REVISED WEIGHT	2/24/2020

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.