



PUIaudio

Data Sheet

AT-1442-T-WP-LW80-R

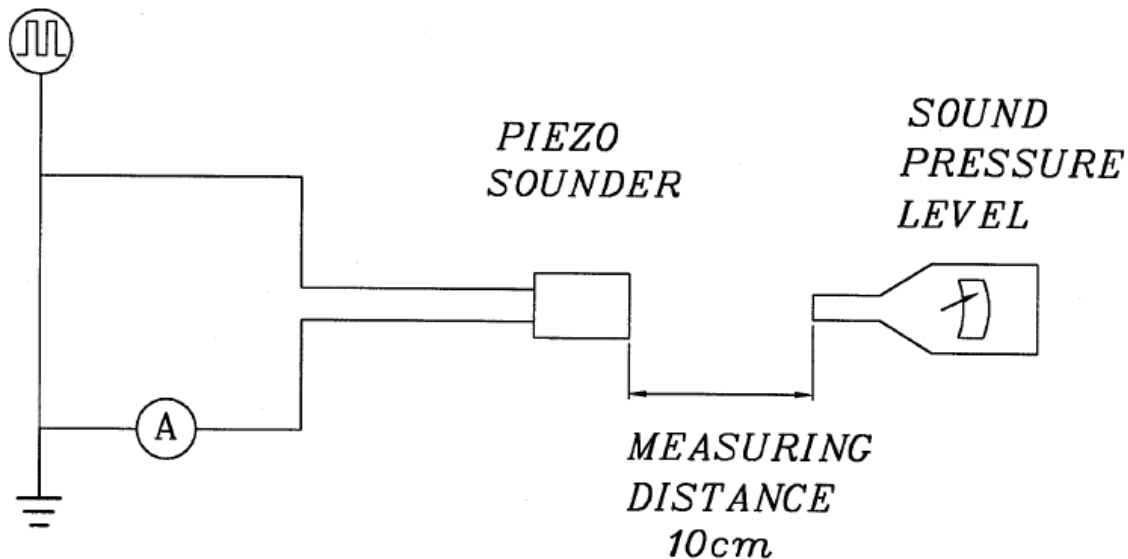
Features

- IP67 Rated Piezo Indicator
- Lead wires for easy installation
- 4,250 Hz Resonant Frequency

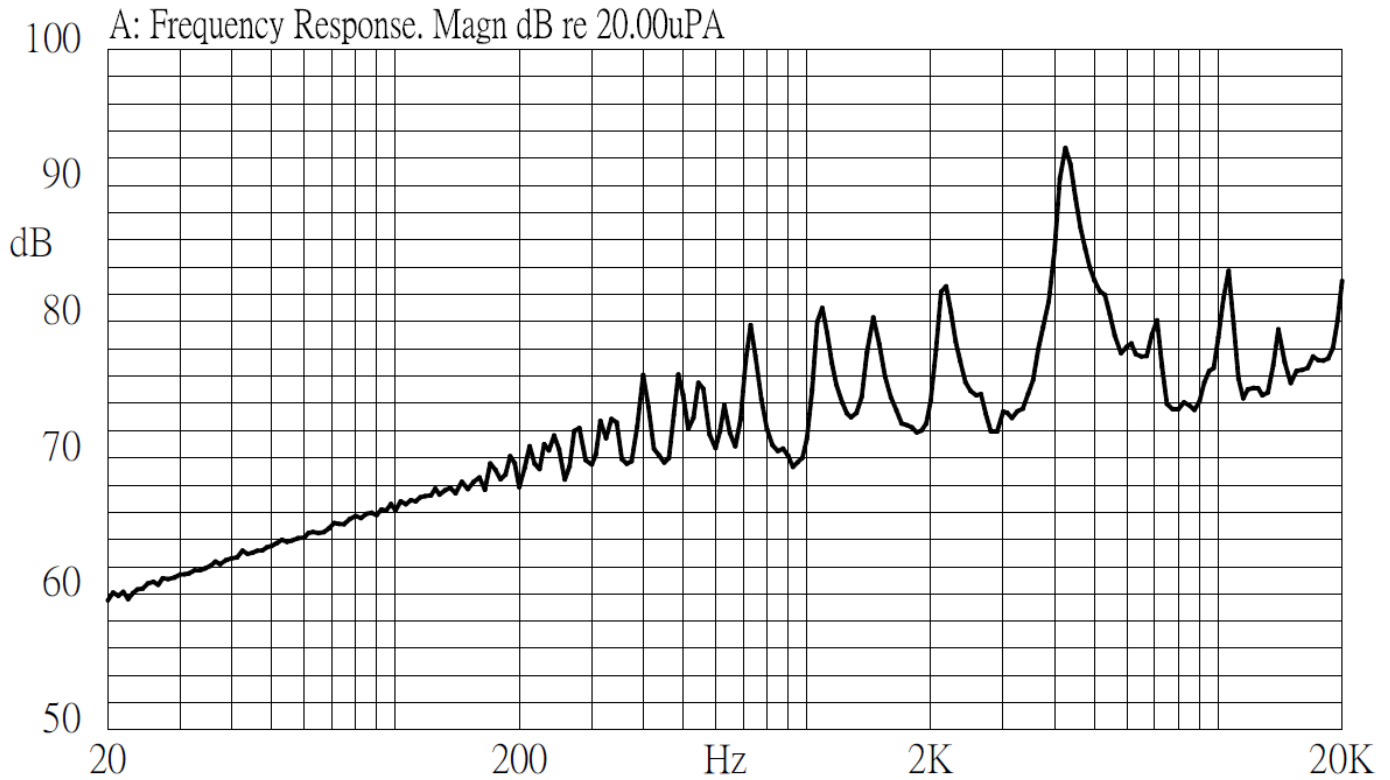
Specifications

Parameters	Values	Units
Rated Voltage	10	Vpp
Operating Voltage Range	30max	Vpp
Current Draw at Rated Voltage	10.1max	mA
Capacitance (1kHz/1V)	20,000±30%	pF
Minimum SPL @ 10cm	84	dBA
Resonant Frequency	4,250±500	Hz
Housing Material	ABS	-
Terminal Material	Lead Wire	-
Weight	2.6	Grams
Environmental Compliances	RoHS, REACH	-
Storage Temperature	-30 ~ +85	°C
Operating Temperature	-40 ~ +95	°C
IP Rating	IP67	

Measurement Method



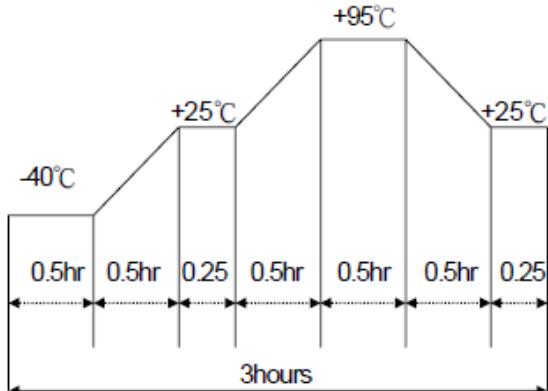
Typical Frequency Response



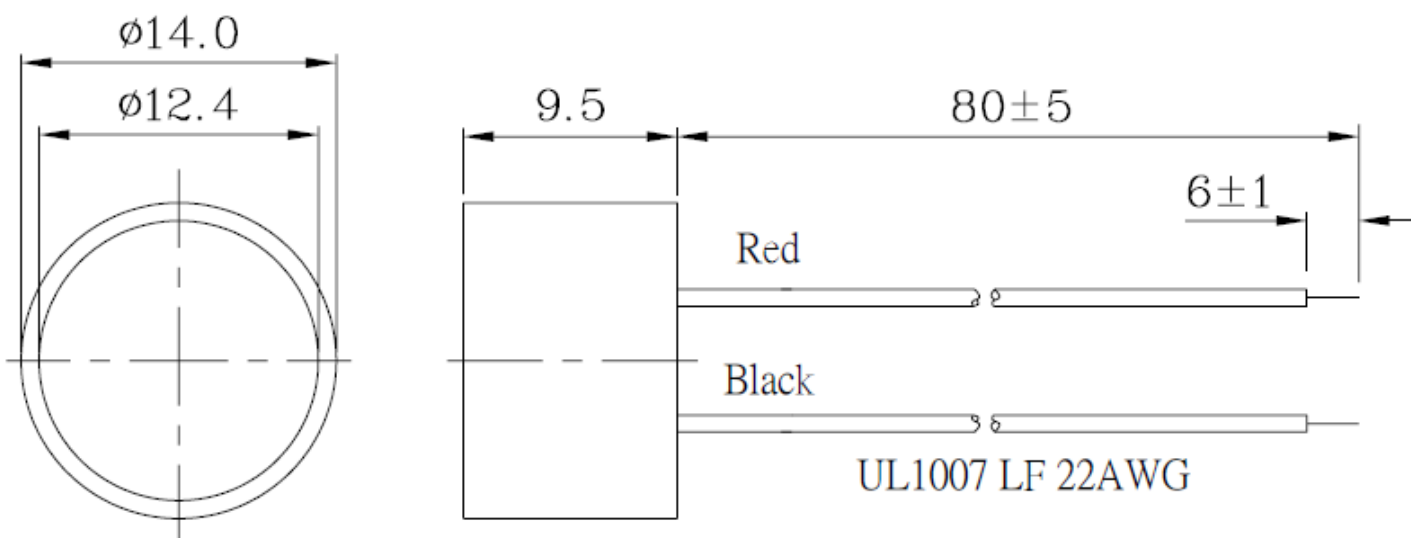
Reliability

No.	Item	Test Condition	Evaluation standard
1	Solderability 焊錫附著性 (Connector excepted) 端子類不適用此項	Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of $+270\pm5^{\circ}\text{C}$ for 3 ± 0.5 seconds. 裸線部份浸入松香溶液 5 秒後,再浸入 $+270\pm5^{\circ}\text{C}$ 熔融焊錫槽 3 ± 0.5 秒.	90% min. stripped wires shall be wet with solder.(Except the edge of terminal) 浸入裸線部份附著焊錫 90%以上.(末端斷面不算)
2	Lead Wire Pull Strength 線材拉力	The pull force shall be applied to double lead wire: Horizontal 3.0N(0.306kg) for 30 seconds. Vertical 2.0N(0.204kg) for 30 seconds. 雙線材水平方向施以 3.0N(0.306kg)的力量, 垂直方向施以 2.0N(0.204kg)的力量,各 30 秒	No damage and cutting off. 線材不鬆動,不脫落.
3	Vibration 振動試驗	Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours. 振動週波數 10~55HZ、全振幅 1.5mm 於 XYZ 3 個方向,各 2 小時.	The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones. The SPL should be in $\pm 10\text{dB}$ compared with initial one.
4	Drop test 落下測試	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times). 單體從 75 公分高處,XYZ 3 個方向,各 3 回,落於 40mm 厚木板上.	諧振頻率與消耗電流變化量須在 $\pm 10\%$ 內. 輸出音壓變化量須在 $\pm 10\text{dB}$ 內.

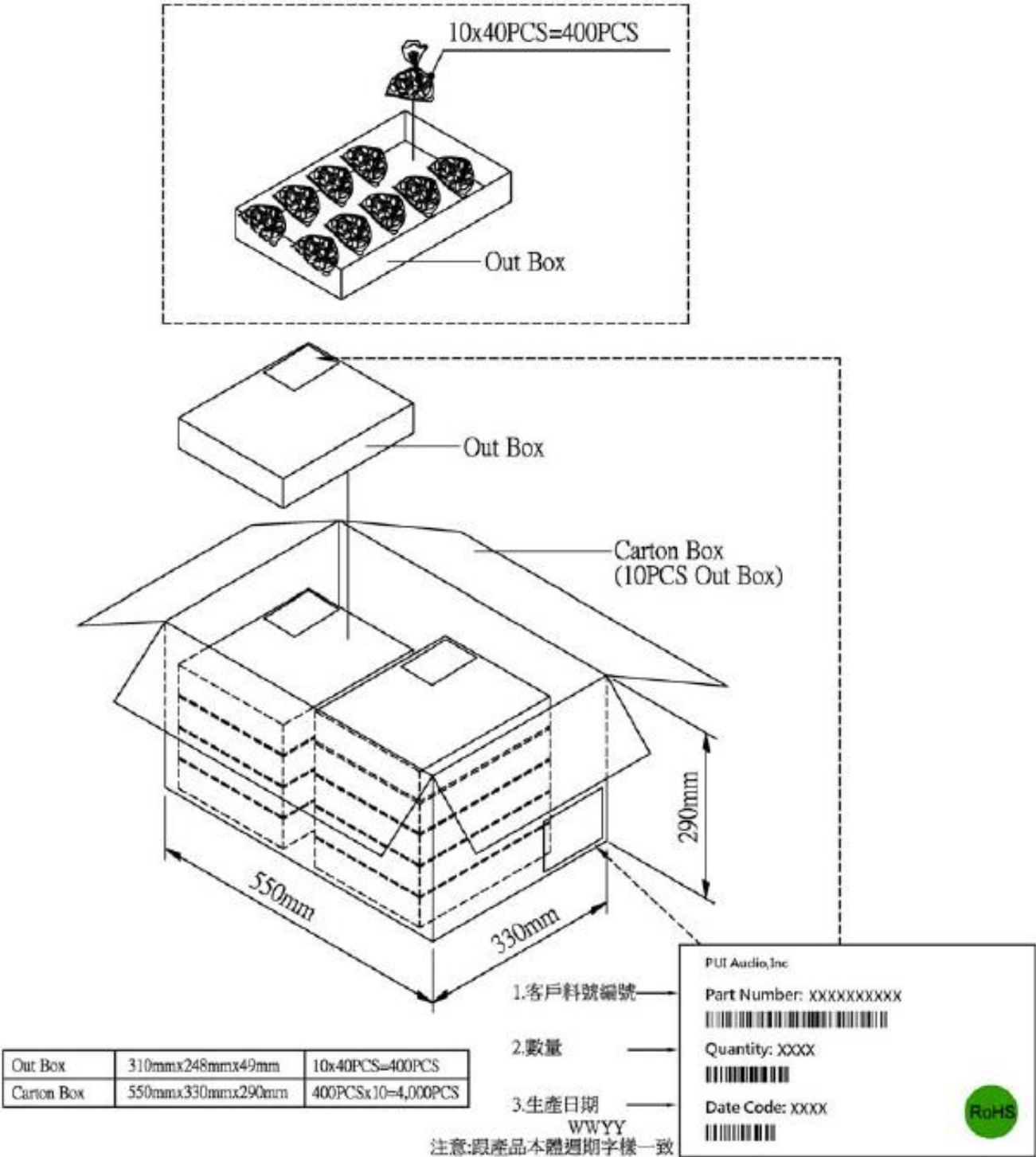
Temp Tests

No.	Item	Test Condition	Evaluation standard
1	High temp. test 高溫測試	After being placed in a chamber at +95°C for 240 hours 置於+95°C環境中 240 小時	Being placed for 4 hours at +25°C, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones. The SPL should be in $\pm 10\text{dB}$ compared with initial one. 經測試後, 靜置於+25°C (室溫) 環境中 4 小時後, 諧振頻率與消耗電流變化量須在$\pm 10\%$內. 輸出音壓變化量須在$\pm 10\text{dB}$內.
2	Low temp. test 低溫測試	After being placed in a chamber at -40°C for 240 hours 置於-40°C環境中 240 小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at +40°C and 90 $\pm$ 5% relative humidity for 240 hours 置於+40°C, 相對濕度 90 $\pm$ 5% 環境中 240 小時	
4	Temp. cycle test 溫度循環試驗	The part shall be subjected to 5 cycles. One cycle shall be consist of: 單體承受溫度循環測試 5 次, 其循環內容如圖示:  The diagram shows a temperature cycle profile over 3 hours. It starts at -40°C for 0.5hr, ramps up to +25°C in 0.5hr, dwells at +25°C for 0.25hr, ramps up to +95°C in 0.5hr, dwells at +95°C for 0.5hr, ramps down to +25°C in 0.5hr, and dwells at +25°C for 0.25hr. The total cycle time is 3 hours.	

Dimensions



Packaging



Specifications Revisions

Revision	Description	Date
A	Released from Engineering	6/23/2021

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.
3. This part is ROHS 2015/863/EU compliant (7c-1 piezo devices)

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