



PUIaudio



Data Sheet

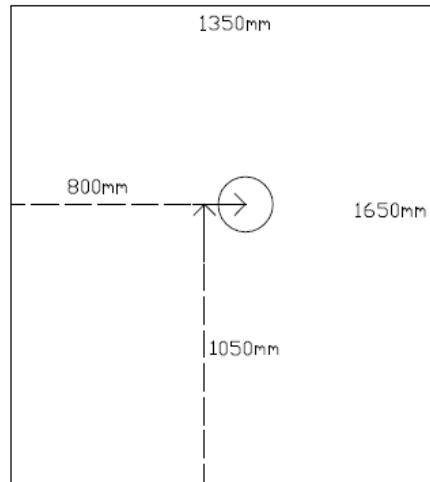
AS01508MS-SC14-WP

Specifications

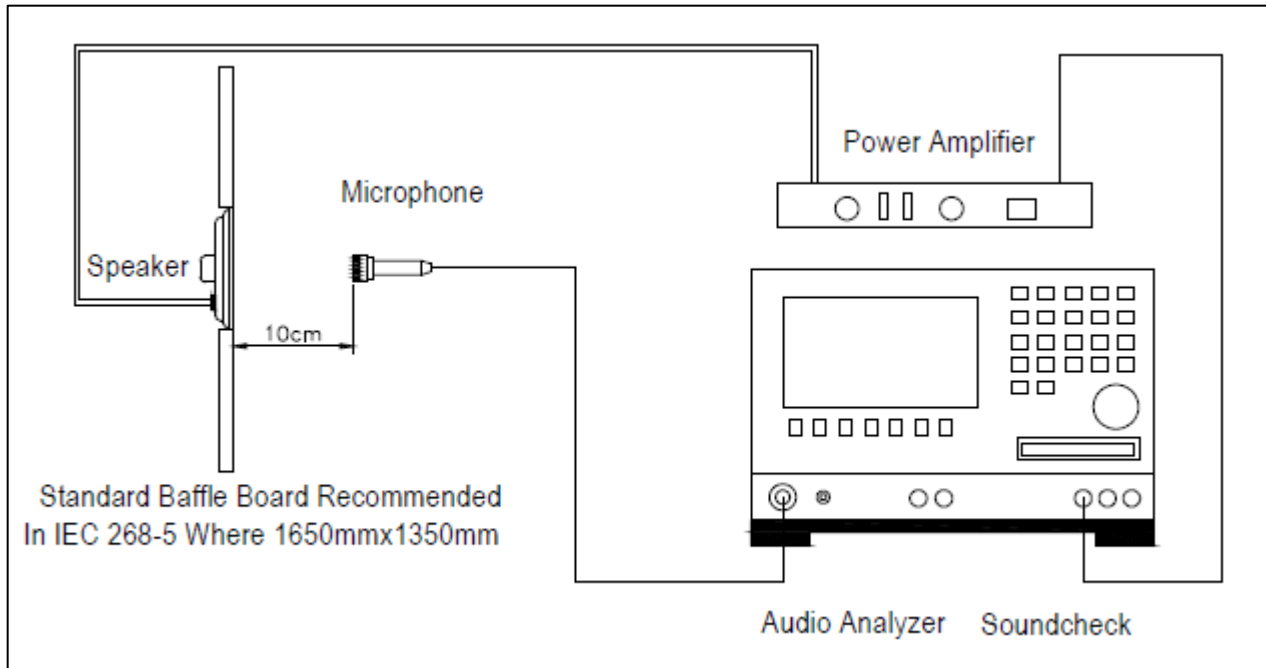
Parameters	Values		Units
Rated Input Power <i>(1cc enclosure)</i>	0.5		Watts
Max Input Power <i>(1cc enclosure)</i>	0.7		Watts
Impedance <i>(1V input)</i>	$8 \pm 15\%$		Ohms
DC Resistance	7 ± 0.7		Ohms
Output SPL (Average) <i>(2kHz @ 0.894V/0.1m)</i>	81.0 ± 3		dB
Resonant Frequency	1cc enclosure	$1050 \pm 20\%$	Hz
	Free Air	$850 \pm 20\%$	
Frequency Range	Fo ~ 20k		Hz
THD <i>(1kHz @ 0.5W) (1cc enclosure)</i>	< 10%		-
Frame Material	PPA		-
Magnet Material	NdFeB		-
Diaphragm Material	Peek		-
Weight	1.5		Grams
Buzz, Rattle, etc. <i>(3cc enclosure)</i>	Should not be audible when driven with sine wave		Fo~20k @ 2.1 V
Environmental Compliances	ROHS/REACH		-
Polarity	Cone moves forward when positive DC current is applied to (+) terminal		-
Storage Temperature	-40 ~ +85		°C
Operating Temperature	-30 ~ +70		°C
Ingress Protection	IPX8 <i>(1.5m / 60min)</i>		-

All specifications measured at 5 ~ 35°C, 45~85% RH, under 86~106 kPa of pressure, unless otherwise noted.

Measurement Method

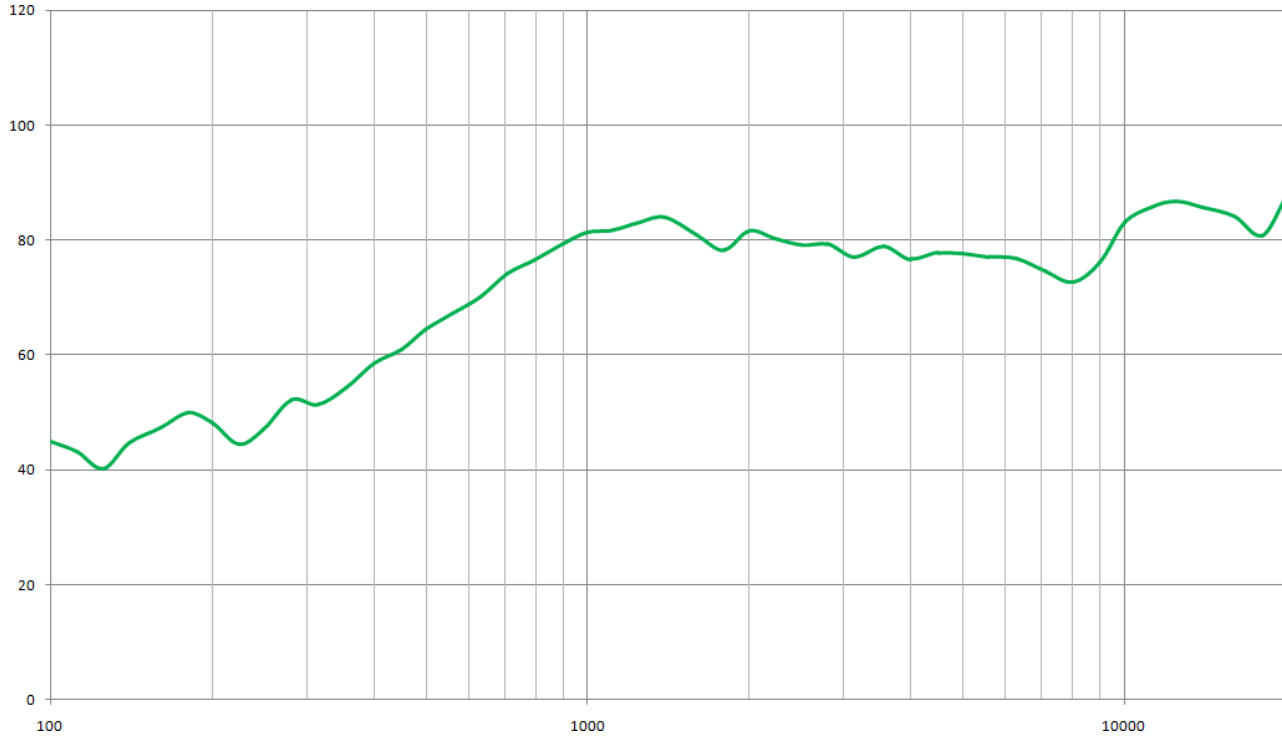


Block Diagram for Measurement Method

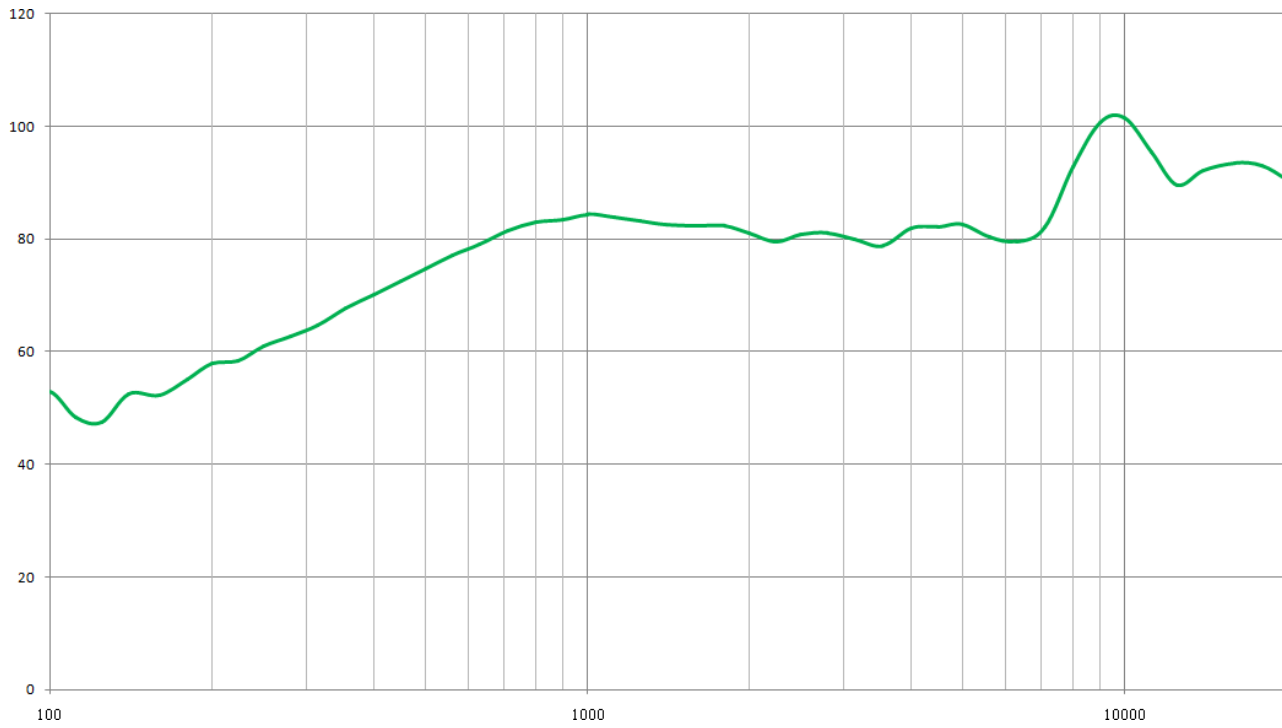


Speaker Test Setup

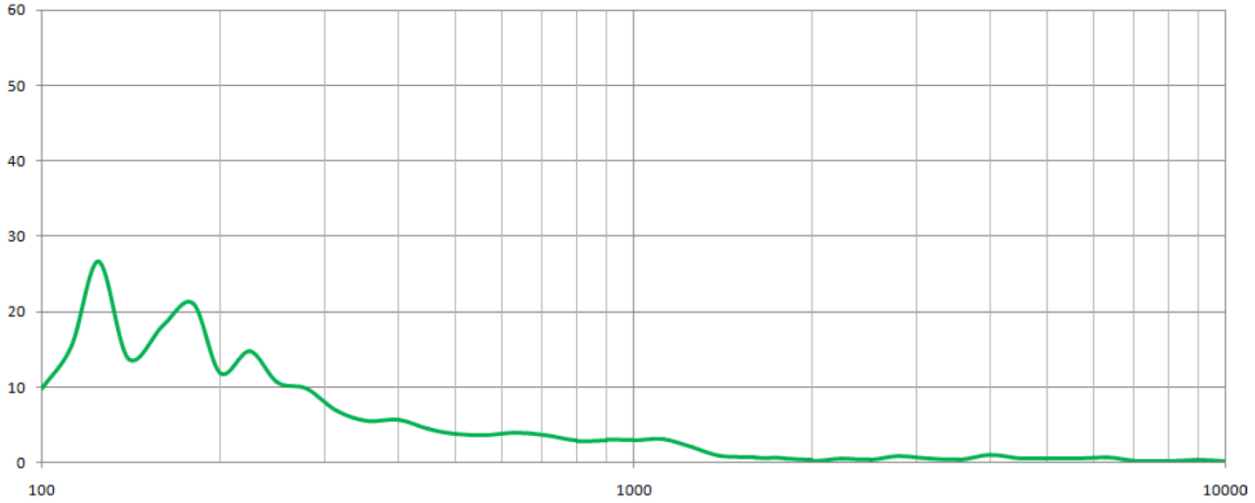
Typical Frequency Response (0.1W / 0.1M / 1cc enclosure)



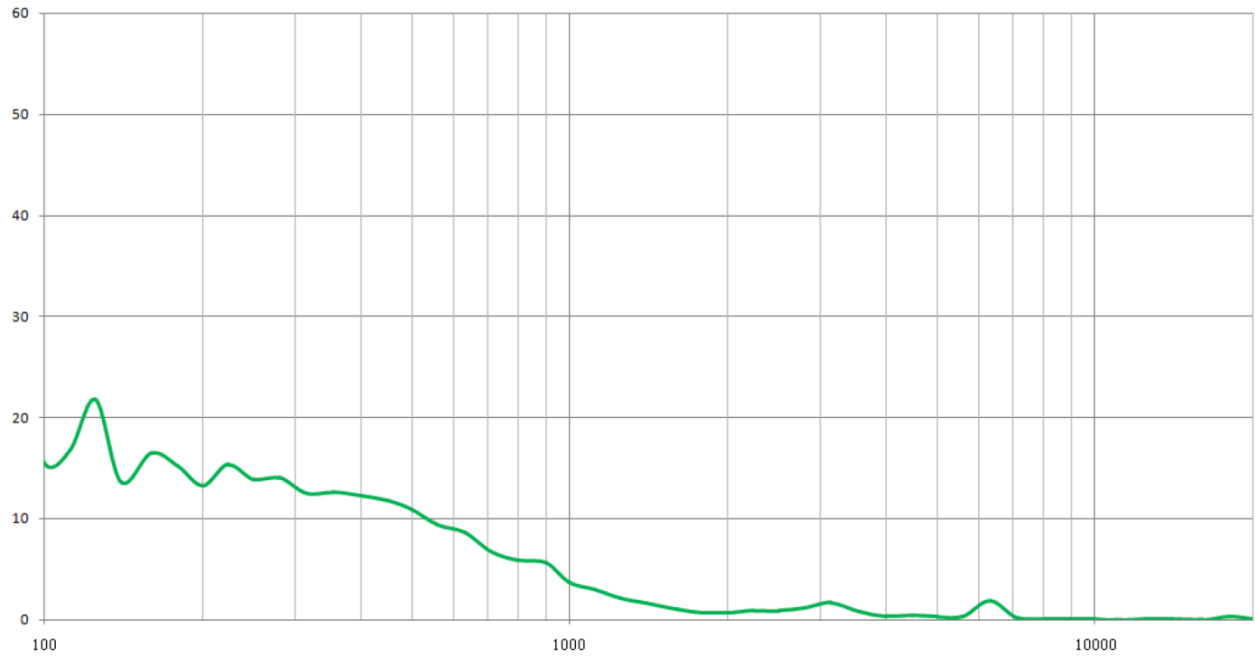
Typical Frequency Response (0.1W / 0.1M / Free Air)



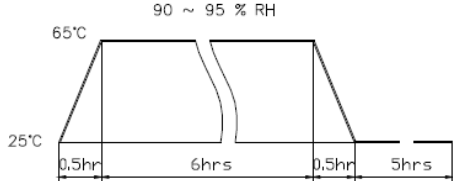
Total Harmonic Distortion Curve (0.1W / 0.1M / 1cc enclosure)



Total Harmonic Distortion Curve (0.1W / 0.1M / Free Air)

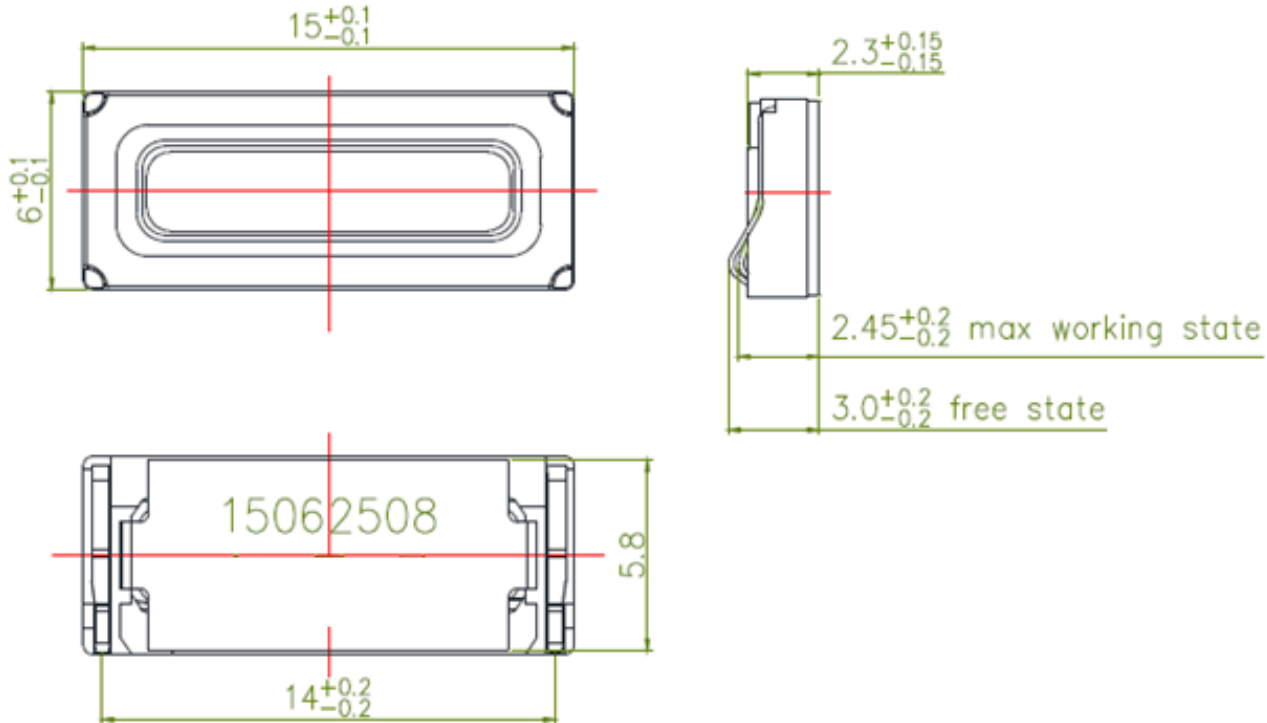


Reliability Testing

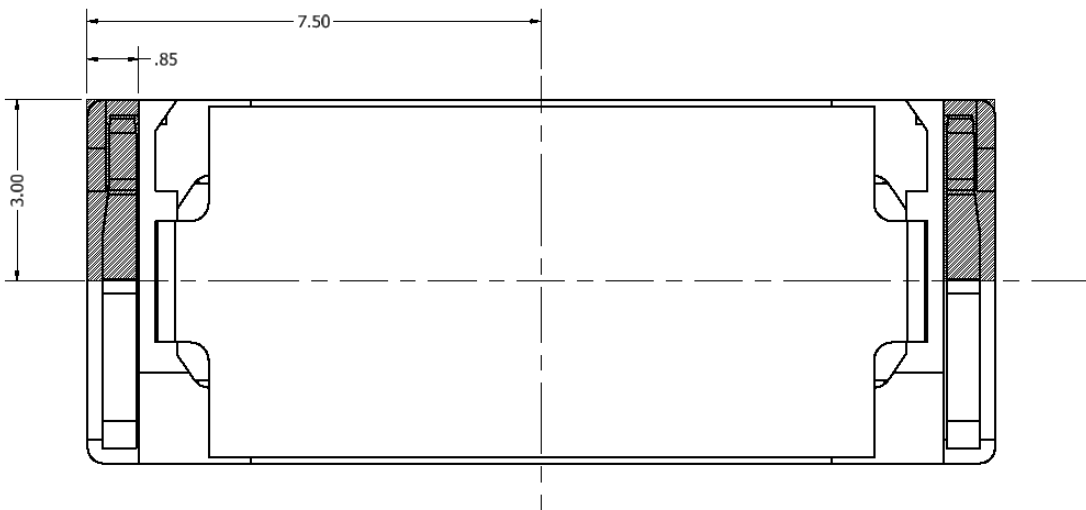
Type of Test	Test Specifications
High Temperature Test	96 hours at +85°C
Low Temperature Test	96 hours at -40°C
Humidity Test	96 hours at +30±3°C, 92-95% RH
Temperature Cycle Test	Part tested for 5 cycles, 6 hours per cycle according to the profile shown:  <p>The diagram shows a temperature cycle profile. It starts at 25°C for 0.5hr, ramps up to 65°C, stays at 65°C for 6hrs, ramps down to 25°C, stays at 25°C for 0.5hr, and then stays at 25°C for 5hrs. A note above the 65°C plateau indicates '90 ~ 95 % RH'.</p>
Vibration Test	Frequency: 10~55~10Hz Oct/min Amplitude: 1.5mm Duration: 2 hours per 3 perpendicular directions (XYZ)
Operation Life Test	Pink noise applied at rated power for 96 hours
Drop Test	Dropped in a typical enclosure onto 40mm thick board from 75cm, 10x
Termination Strength Test	3.0N applied to each terminal in horizontal direction for 30 seconds; 2.0N applied to each terminal in vertical direction for 30 seconds

Parts should confirm to original performance within +/- 3dB following testing at rated power and a 6 hour rest period

Dimensions (Tolerance: $\pm 0.15\text{mm}$, unless otherwise stated)

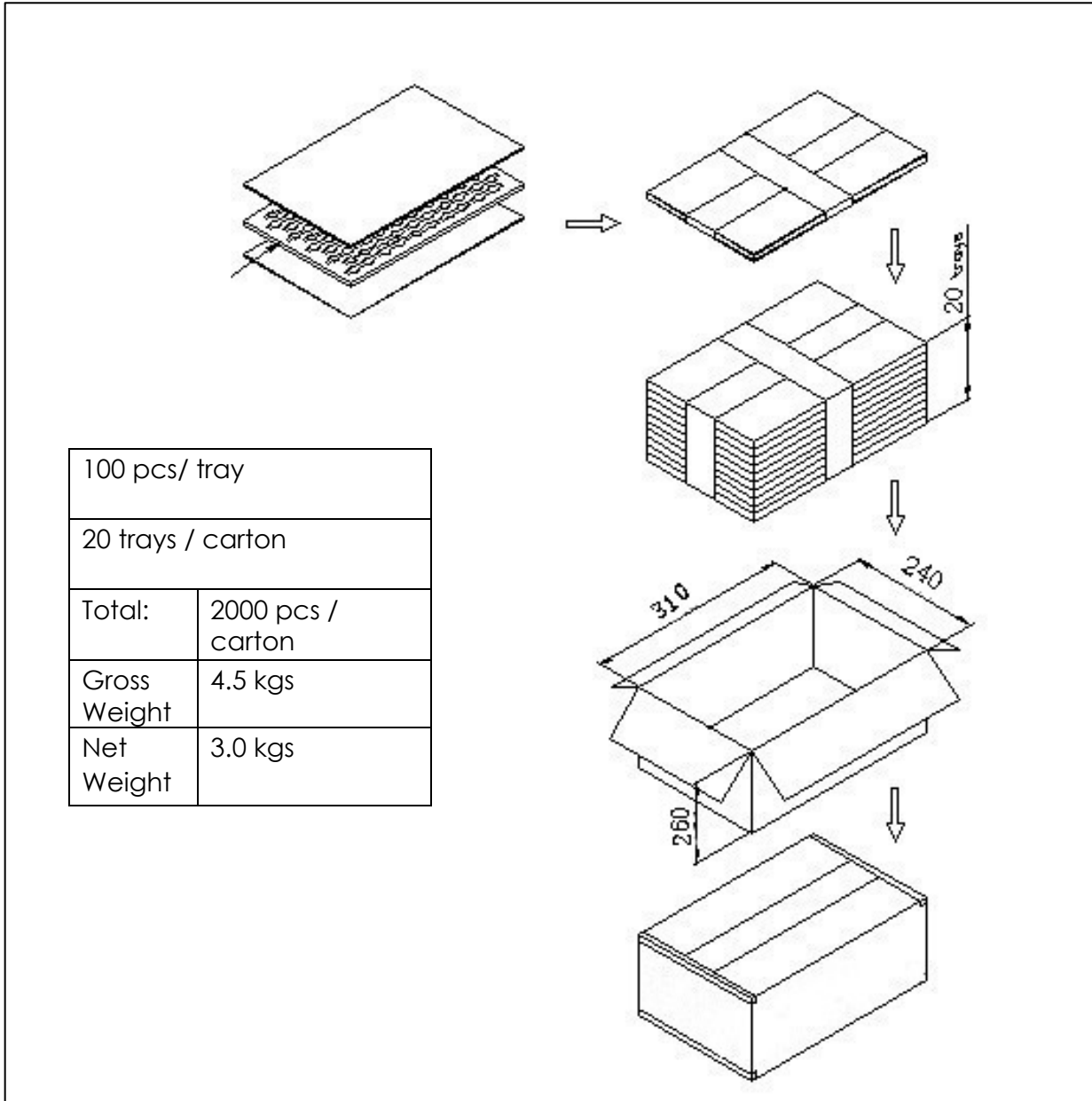


Suggested Land Pattern*



***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



Specifications Revisions

Revision	Description	Date	Approved
A	Released from Engineering	08/30/2023	-
B	Added Land Pattern	04/23/2024	K.H.

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.