



Data Sheet	AS05404PS
------------	-----------

Features:

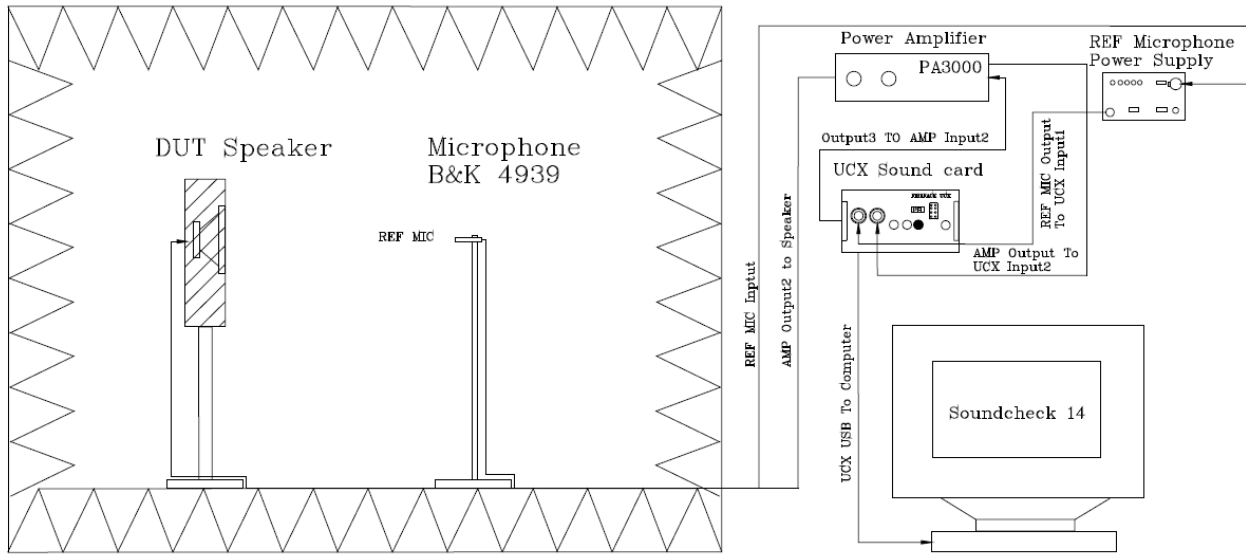
- Very high power for this frame size
- Great SPL with flat frequency response from 115-10K
- High Temperature grading

Specifications

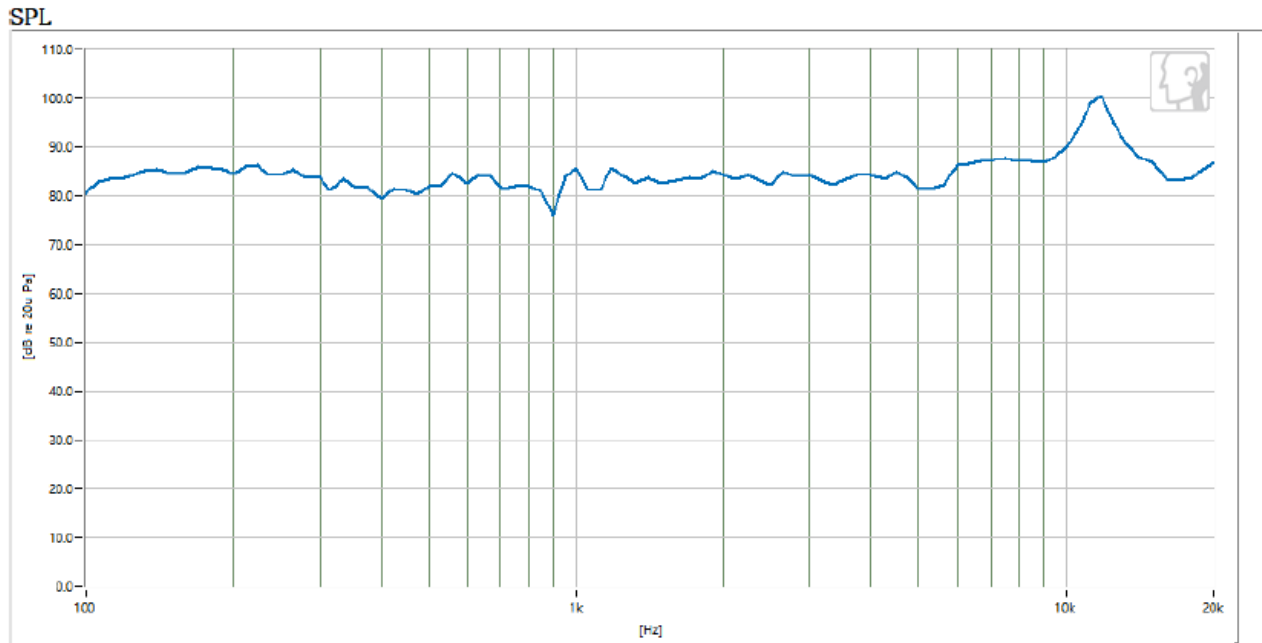
Parameters	Values	Units
Rated Input Power	10	Watts
Max Input Power	12	Watts
Impedance	4 ± 15%	Ohms
Output SPL (At (0.5K, 0.8K, 1.0K, 2.0K); 1W/1M)	82 ± 3	dB
Resonant Frequency	115 ± 20%	Hz
Frequency Range	115 ~ 20,000	Hz
THD	<5%	At 1.0KHz /1W/10cm
Recommended Enclosure Volume (closed box, no damping)	234.7	cc
Magnet Material	NdFeB	-
Diaphragm Material	Paper	-
Weight		Grams
Buzz, Rattle, etc.	Not be audible at 6.32V sine wave between FO~5K	-
Environmental Compliances	ROHS/REACH	-
Polarity	Diaphragm shall move Forward when a positive DC current is applied to the “+” terminal	-
Storage Temperature	-40 ~ 90	°C
Operating Temperature	-40 ~ 85	°C

Measurement Method

Speaker Testing framework diagram



Typical Frequency Response



Typical Thiele-Small Parameters (based on Golden Sample, up to 20% variance is normal)

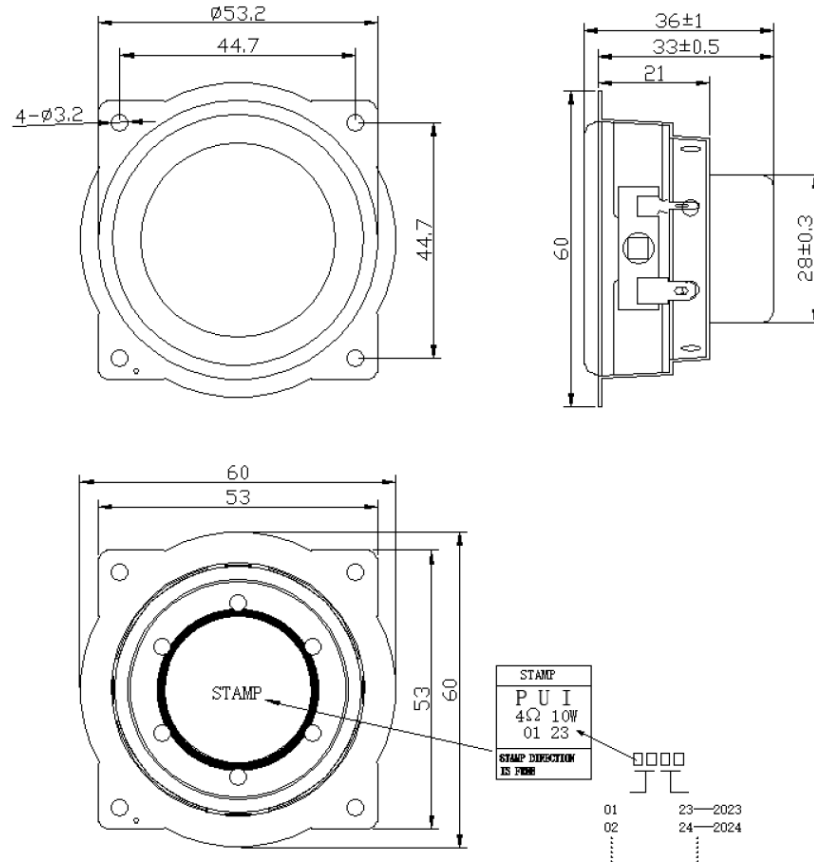
Specification	Value	Description
Re	4.00	DC resistance
Le	0.0816	Inductance @ 10 kHz
Fs	111.2728	Resonant Frequency
Mms	1.6024	Moving Mass
Bl	2.780	Magnet Force Factor
Qms	3.2193	Mechanical Q-factor
Qes	0.5799	Electrical Q-factor
Qts	0.4914	Total Q-factor
Vas	0.3760	Equivalent Air Volume of Suspension

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 45°C with relative humidity at 90~95%
Temperature Cycle Testing	<p>Subject to 5 cycles with each cycle consisting of:</p> <p>The diagram illustrates a temperature cycle testing profile. It starts at +85°C for 2 hours, then ramps down to +25°C in 0.5 hours. It remains at +25°C for 1 hour, then ramps down to -40°C in 0.5 hours. Finally, it remains at -40°C for 2 hours. The total duration of one cycle is 6 hours, indicated by a dashed line at the bottom.</p>
Vibration Test	Speaker shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours.
Drop Test	Drop the speakers contained in normal box onto the board 40mm thick 10 times from the height of 75cm
Load Test	10w White noise is applied for 96 hours, at room temp product

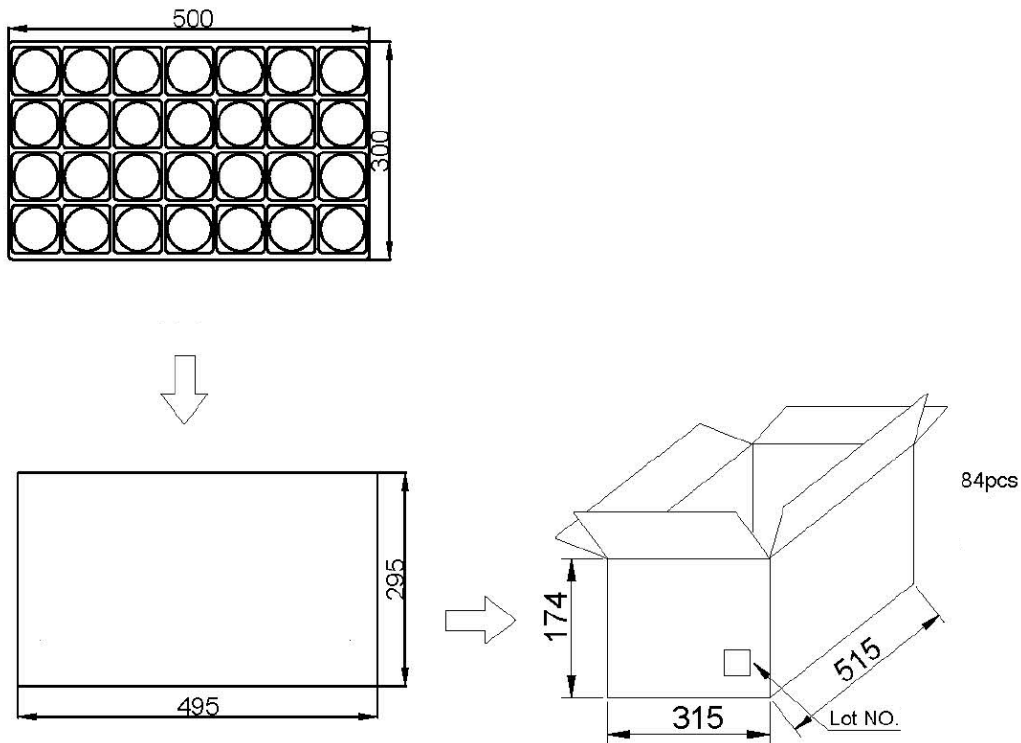
After each test let rest for 1 hour at 25°C, then the part shall be within ±3 dB.

Dimensions



Tol: ± 0.3 Unit: mm

Packaging



Specifications Revisions

Revision	Description	Date
A	Released from Engineering	12/16/2022
B	Updated Dimensions	4/11/2023

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.