



PUIaudio



Data Sheet

AS03104MR-F-WP-R

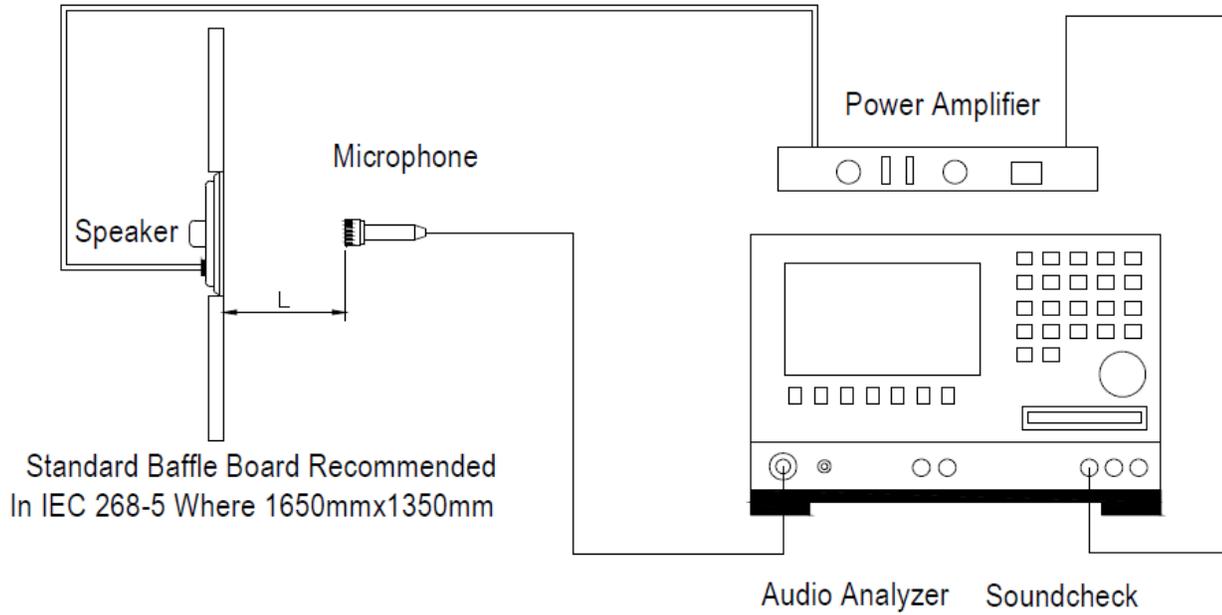
Features:

- Flange Mount for easy installation
- IP 65 Rated

Specifications

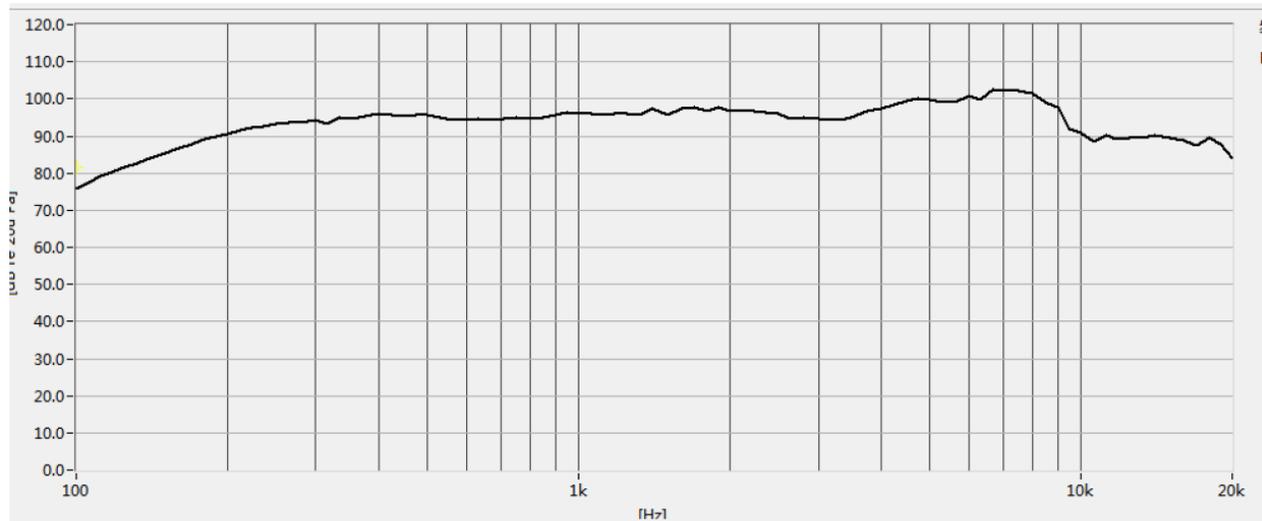
Parameters	Values	Units
Rated Input Power	3.0	Watts
Max Input Power	5.0	Watts
Impedance	4 ± 15%	Ohms
Output SPL (@ 0.8k, 1.0k, 1.2k, 1.5k Hz in 1.0W/0.1M)	94 ± 3	dB
Resonant Frequency	280 ± 20%	Hz
Frequency Range	280 ~ 20,000	Hz
THD (@ 1kHz, 1.0W)	<10%	-
Frame Material	PC	-
Magnet Material	NdFeB	-
Diaphragm Material	Rubber + AL	-
Weight	20	Grams
Ingress Protection Rating	IP65	-
Buzz, Rattle, etc.	must be normal at sine wave between 230 ~ 5K Hz	-
Environmental Compliances	ROHS/REACH	-
Polarity	cone will move forward with positive dc current to "+" terminal	-
Storage Temperature	-40 ~ 85	°C
Operating Temperature	-20 ~ 60	°C

Measurement Method



L=10cm

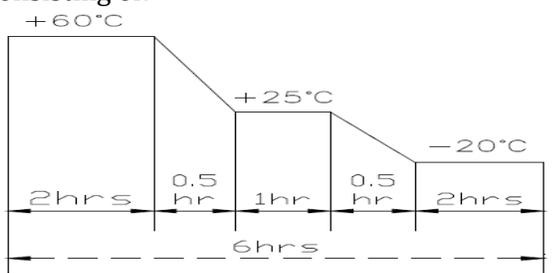
Typical Frequency Response (1.0W/0.1M)



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

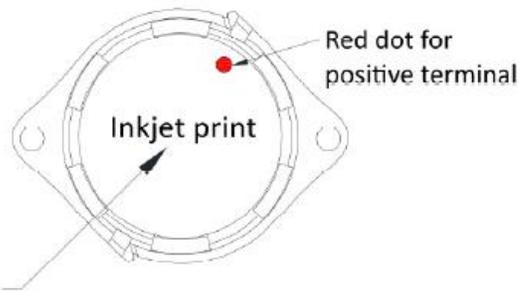
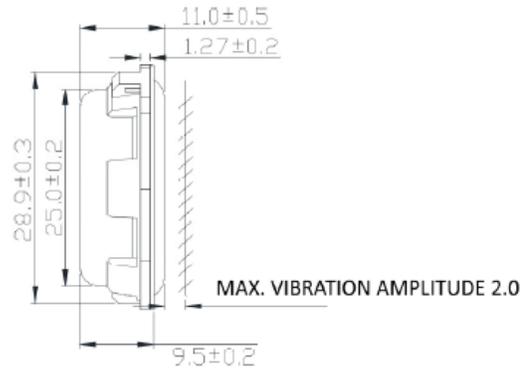
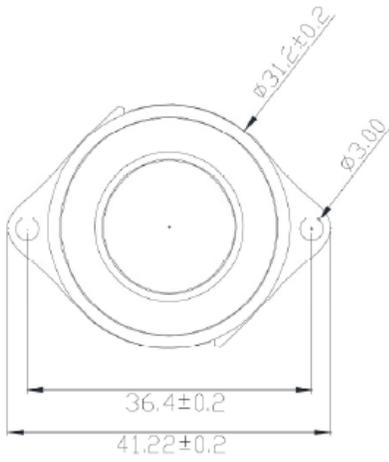
Specification	Value	Description
Re	3.64	DC resistance
Le	0.027	Inductance @ 10 kHz
Fs	377.8	Resonant Frequency
Mms	0.386	Moving Mass
Bl	1.112	Magnet Force Factor
Qms	2.948	Mechanical Q-factor
Qes	2.697	Electrical Q-factor
Qts	1.408	Total Q-factor
Vas	0.0157	Equivalent Air Volume of Suspension

Reliability Testing

Type of Test	Test Specifications
High Temperature Test	96 hours at $85 \pm 2^\circ\text{C}$
Low Temperature Test	96 hours at $-40 \pm 2^\circ\text{C}$
Humidity Test	48 hours at $40 \pm 2^\circ\text{C}$ with relative humidity at 90~95%
Temperature Cycle Testing	<p>The cycle should be run 4 times, with each cycle consisting of:</p>  <p>The diagram illustrates a temperature cycle with the following segments: a 2-hour dwell at +60°C, a 0.5-hour ramp down to +25°C, a 1-hour dwell at +25°C, a 0.5-hour ramp down to -20°C, and a 2-hour dwell at -20°C. The total duration of one cycle is 6 hours.</p>
Vibration Test	Frequency 30 ± 15 Hz, Amplitude 1.5 mm for 3 Hours
Drop Test	75 CM free falling on Concrete floor, 10 times
Load Test	Must perform normal with program White-Noise source at rated power for 96 hours

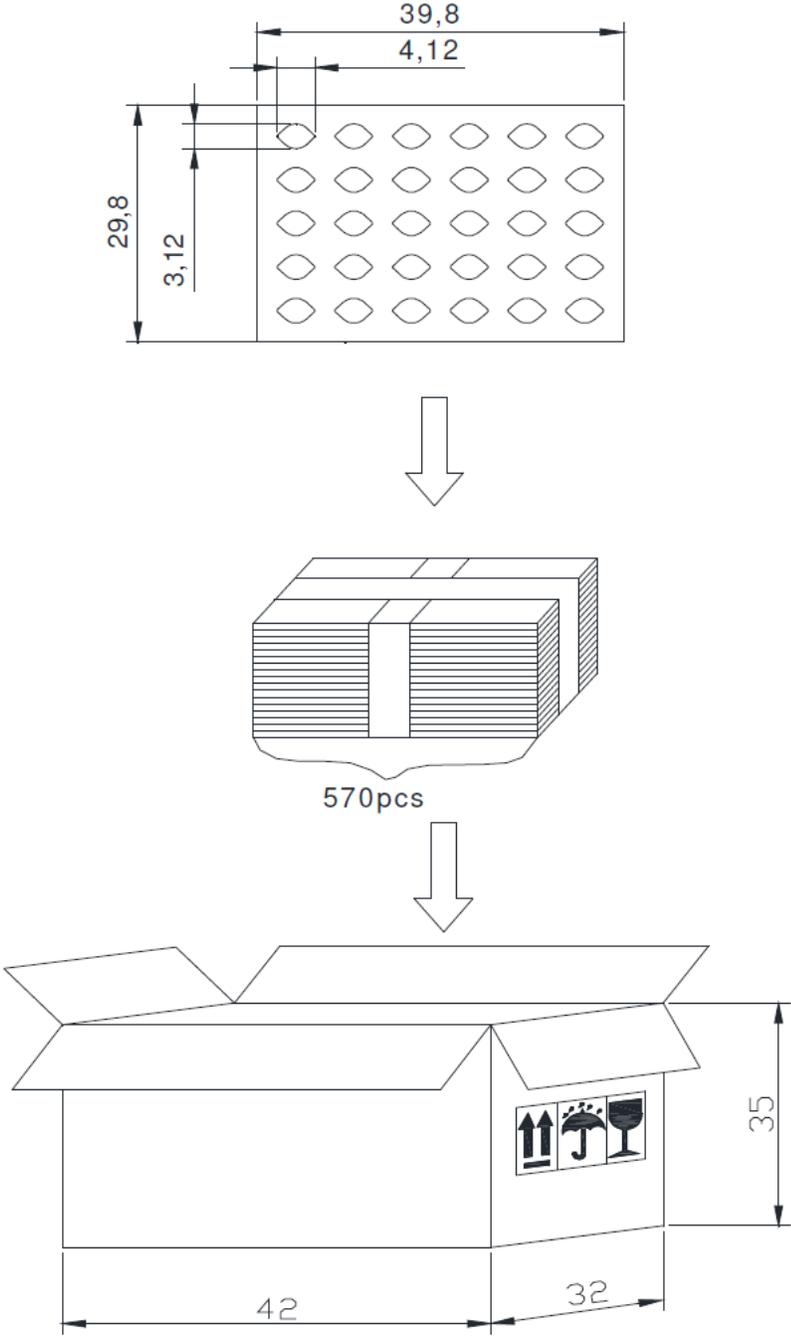
After each test, parts should conform to original performance within ± 3 dB tested with Rated Power, after 6 hours of recovery period.

Dimensions



AS03104MR
F-WP-R
22 A
(22: Year A: Month)

Packaging



Specifications Revisions

Revision	Description	Date
A	Released from Engineering	5/11/2022
B	Revised Resonant Frequency, Frequency Range, Drawing and Packaging	11/18/2022

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.