



soberton inc.

DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-4005Y



Release | Revision: A/2018

CONTENTS

This document contains the technical specifications for the dynamic speaker.

Page 1

Speaker Specification

Reliability Test

Page 2

Temperature Condition

Test Setup

Typical Frequency Response Curve

Page 3

Dimensions

Speaker Specification

Item	Specification
Dimensions	Ø40.0 x H5.3 mm
Rated Input Power	1.0 W
Maximum Input Power	1.5 W
Sound Pressure Level	88±2dB (Input :0.5m/1.0W) at 0.8, 1.0, 1.5, 2.0KHz in average (0dB SPL=20µPa)
Impedance	8Ω±1.6Ω (at 1.2 KHz,1V)
Lower Resonance Frequency	500±100Hz (No Baffle)
Frequency Response	400Hz ~ 5.0KHz (at -10dB)
Distortion	10% max
Operation	It shall be normal. Input power: 1.0W sine wave.
Polarity	When a positive DC current is applied to the terminal marked(+), the diaphragm moves forward

Reliability Test

Item	Method of Test Standard
Load Test	Input Power: 1.0W (2.8V) white noise Duration: 96 hours
Humidity Test	Temperature: 40°C Relative Humidity: 90~95% Duration: 96 hours
High Temperature Test	Temperature: 70°C Duration: 96 hours
Low Temperature Test	Temperature: -20°C Duration: 96 hours
Thermal Shock Test	High Temperature: 70°C Low Temperature: -20°C Number of Cycles: 5 cycles Duration of Exposure: 2 hours at each temperature Duration of Recovery: 1 hour
Vibration Test	Amplitude: 1.5 mm Frequency: 10 ~ 55 Hz Sweep Time: 1 minute Axes: 3 axes Duration: 2 hours on each axes
Drop Test	Drop an unpacked unit onto a board 20mm thick 10 times from a height of 100cm.



soberton inc.

DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-4005Y



Release | Revision: A/2018

CONTENTS

This document contains the technical specifications for the dynamic speaker.

Page 1

Speaker Specification

Reliability Test

Page 2

Temperature Condition

Test Setup

Typical Frequency Response Curve

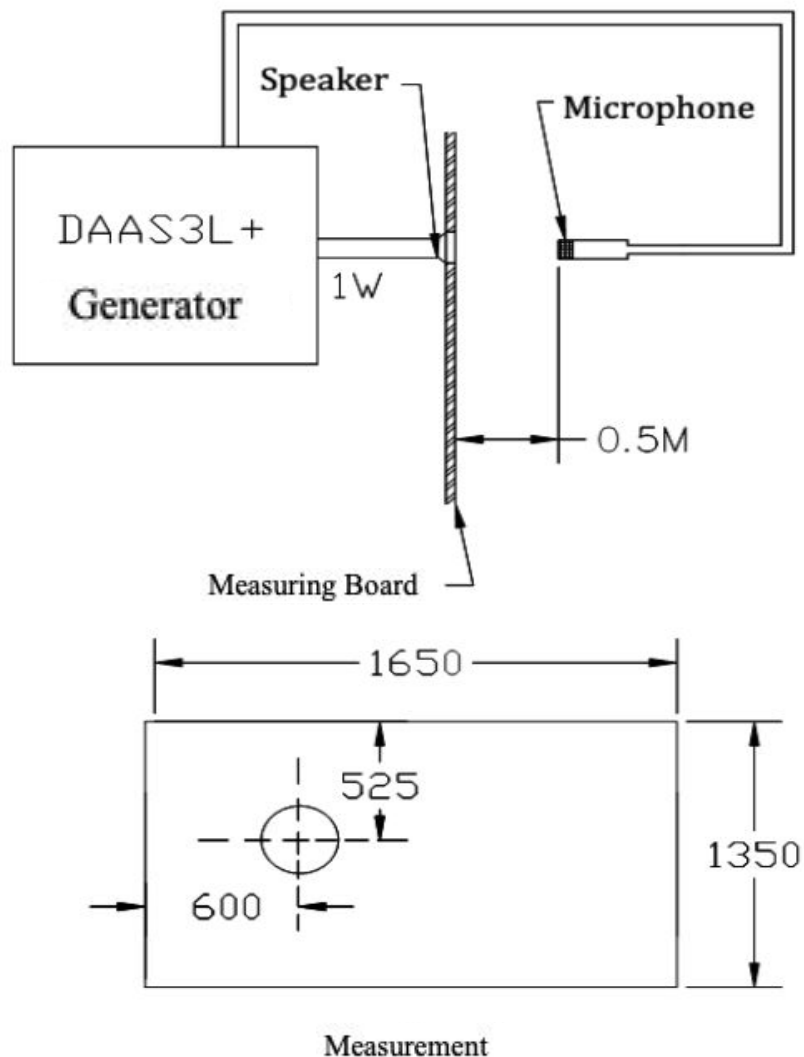
Page 3

Dimensions

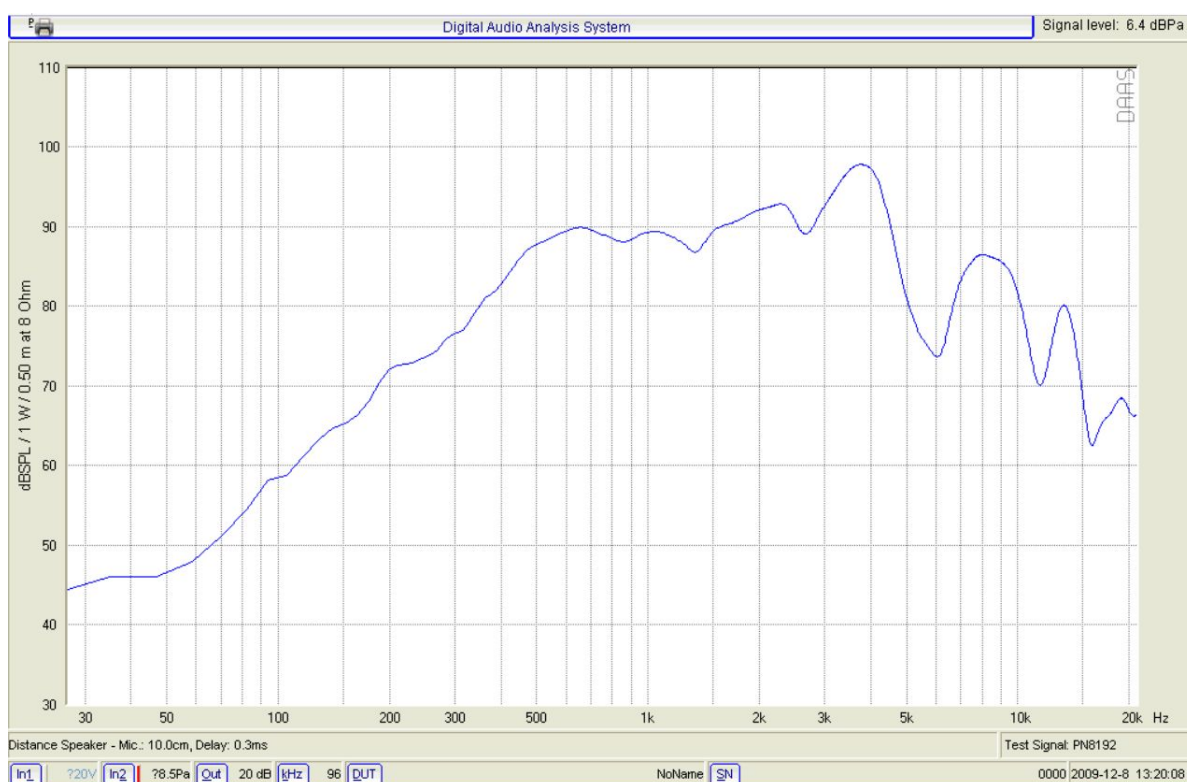
Temperature Condition

Item	Specification
Operation Temperature Range	-20°C ~ 60°C
Storage Temperature Range	-25°C ~ 70°C

Test Setup



Typical Frequency Response Curve





soberton inc.

DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-4005Y



Release | Revision: A/2018

CONTENTS

This document contains the technical specifications for the dynamic speaker.

Page 1

Speaker Specification

Reliability Test

Page 2

Temperature Condition

Test Setup

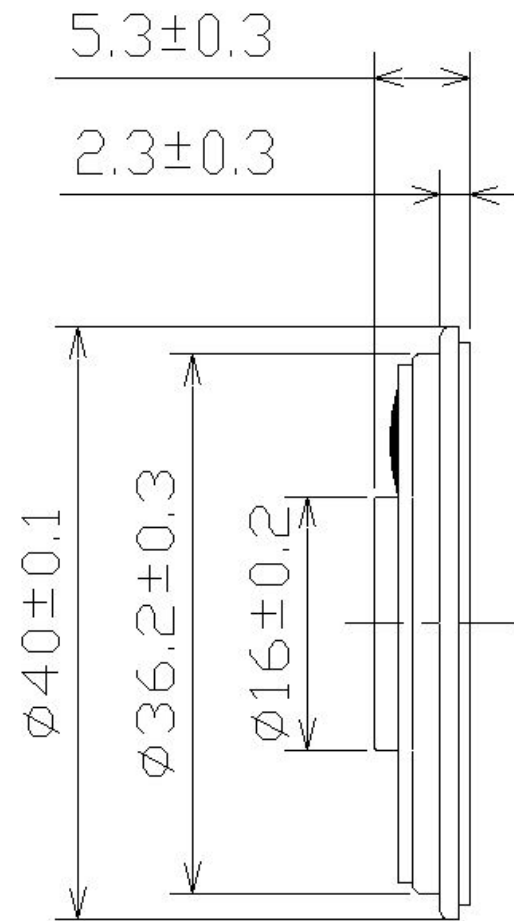
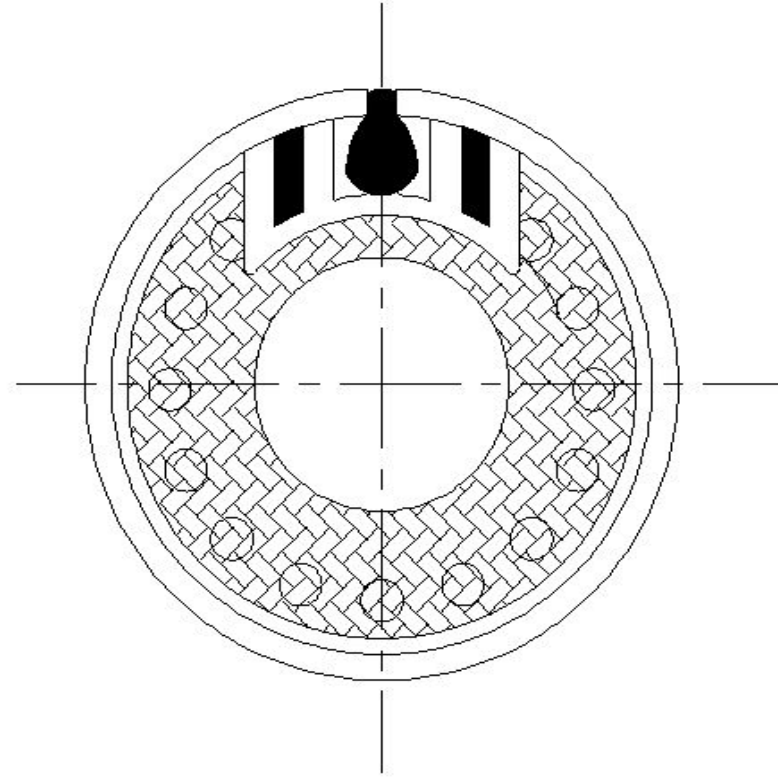
Typical Frequency Response Curve

Page 3

Dimensions

Dimensions

Tolerance: $\pm 0.2\text{mm}$



No.	Part Name	Material	Quantity
1	Frame	Metal	1
2	Magnet	Nd-Fe-B	1
3	YOKE	Metal	1
4	Diaphragm	PET	1