



soberton inc.

DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-4009-1Y



Release | Revision: A/2018

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Speaker Specification

Item	Specification
Dimensions	20.0 x 40.0 x H8.5 mm
Rated Input Power	2.0 W
Maximum Input Power	3.0 W
Sound Pressure Level	90±3dB (Input :0.1m/0.1W) at 1.0, 1.2, 1.5, 2.0KHz in average (0dB SPL=20µPa)
Impedance	8Ω±1.2Ω (at 1.5 KHz, 1V)
Lower Resonance Frequency	750±20%Hz
Frequency Response	750Hz ~ 10KHz (at -10dB)
Distortion	10% max (at 1KHz, 1.0m/1.0W)
Operation	Input power:2.0W sine wave. It shall be normal.
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: 2.0W (4V) 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: 80°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.



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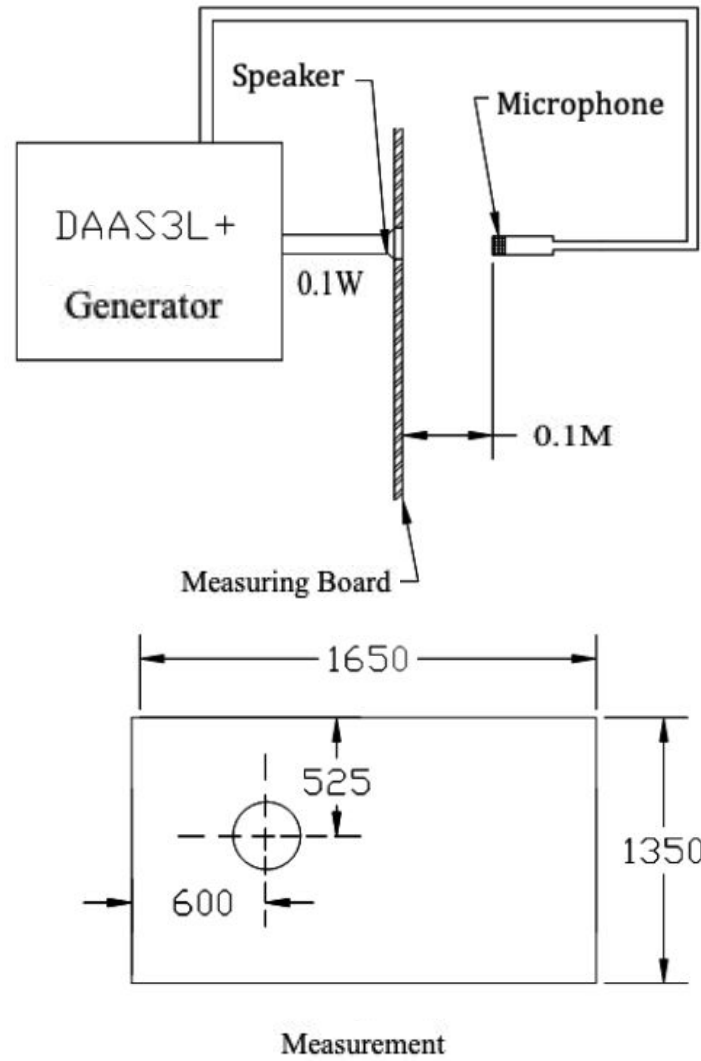
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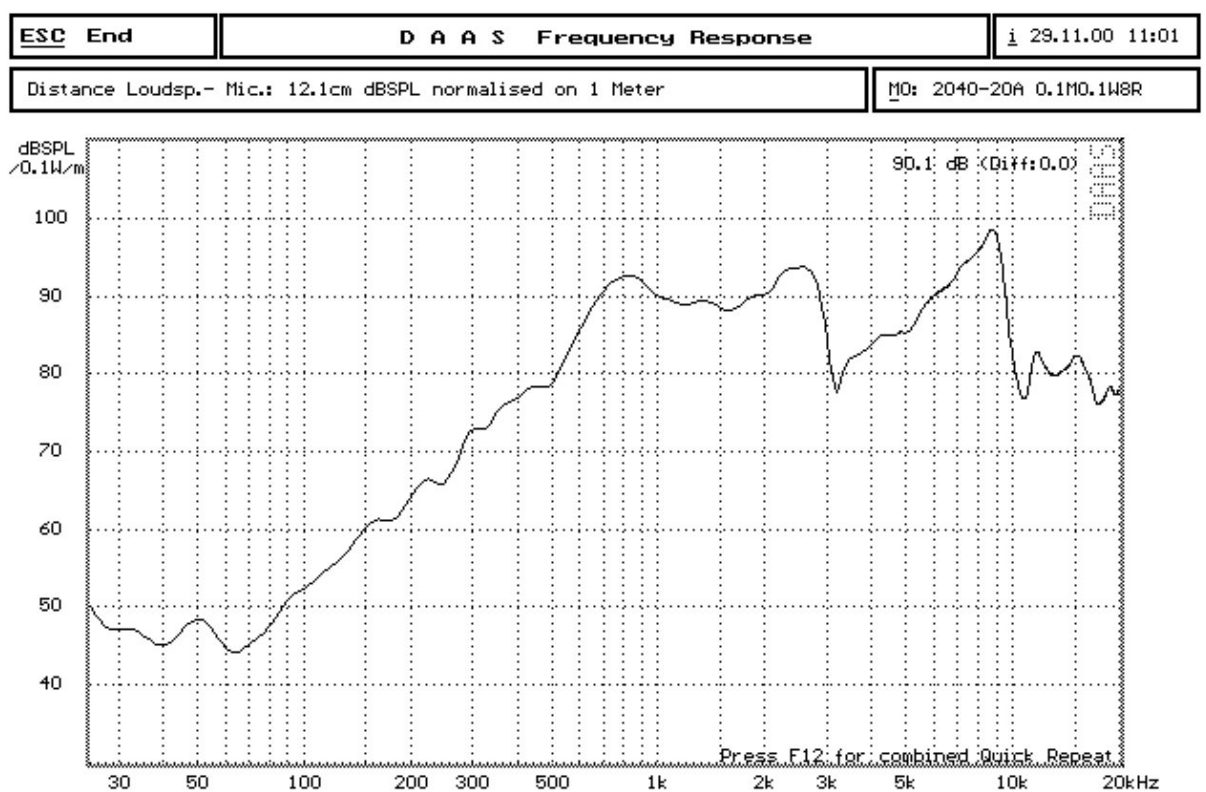
Temperature Condition

Item	Specification
Operation Temperature Range	-20°C ~ 70°C
Storage Temperature Range	-40°C ~ 85°C

Test Setup



Typical Frequency Response Curve





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Tolerance: $\pm 0.3\text{mm}$

