



soberton inc.

WATERPROOF SPEAKER UNIT

Acoustic Product Specification

Product Number: WSP-3605-16Y



Release | Revision: A/2018

CONTENTS

This document contains the technical specifications for waterproof speaker.

Page 1

Speaker Specification

Reliability Test

Page 2

Measuring Circuit

Typical Frequency Response

Temperature Conditions

Page 3

Dimensions

Material

Page 4

Packaging

Speaker Specification

Item	Specification
Dimensions	Ø36 x 5.0mm
Rated Input Power	0.7 W
Max. Input Power	1.5 W
Mean Sound Pressure Level (S.P.L)	88±3dB (Input :0.5m/1W) at 0.8, 1.0, 1.2, 1.5KHz in average (0dB SPL=20µPa)
Impedance	16Ω±2.4Ω (at 1.5 KHz,1.0 V)
Lowest Resonance Frequency (f0)	600±130Hz (No Baffle)
Frequency Response	600Hz~5KHz (at -20dB)
Distortion Factor	10% max (at 1KHz ,0.7W/0.5m)
Operation	It shall be normal. Input power: 3.35 V of 650~5,000Hz sine wave.
Polarity	When a positive DC current is applied to the terminal marked(+),the diaphragm moves forward.

Reliability Test

Item	Method of Test
Load Test	Input power: 0.7W (3.35V) white noise Duration: 96 hours
Humidity Test	Temperature: 40°C RH: 90 ~ 95% Duration: 96 hours
High Temperature Test	Temperature: 60°C Duration: 96 hours
Low Temperature Test	Temperature: -25°C Duration: 96 hours
Thermal Shock Test	High Temperature: 60°C Low Temperature: -20°C Number of cycles: 5 cycles Duration of Exposure: 2 hours at each temp. Durations 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 of 15mm thick 5 times from a height of 75cm.
Terminal Strength	1kg-load for 15 sec, without resulting in any damage or rejection



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Temperature Conditions

Page 3

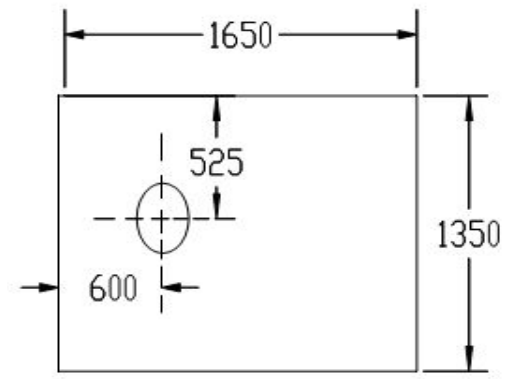
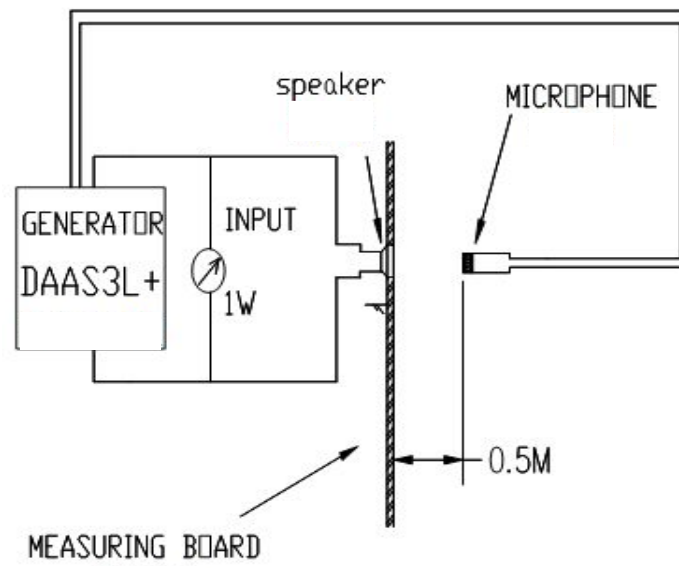
Dimensions

Material

Page 4

Packaging

Measuring Circuit



MEASUREMENT

Typical Frequency Response Curve



Temperature Condition

Item	Method of Test
Operation Temperature Range	-20°C ~ 40°C
Storage Temperature Range	-25°C ~ 70°C



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Page 1

Speaker Specification

Reliability Test

Page 2

Measuring Circuit

Typical Frequency Response

Temperature Conditions

Page 3

Dimensions

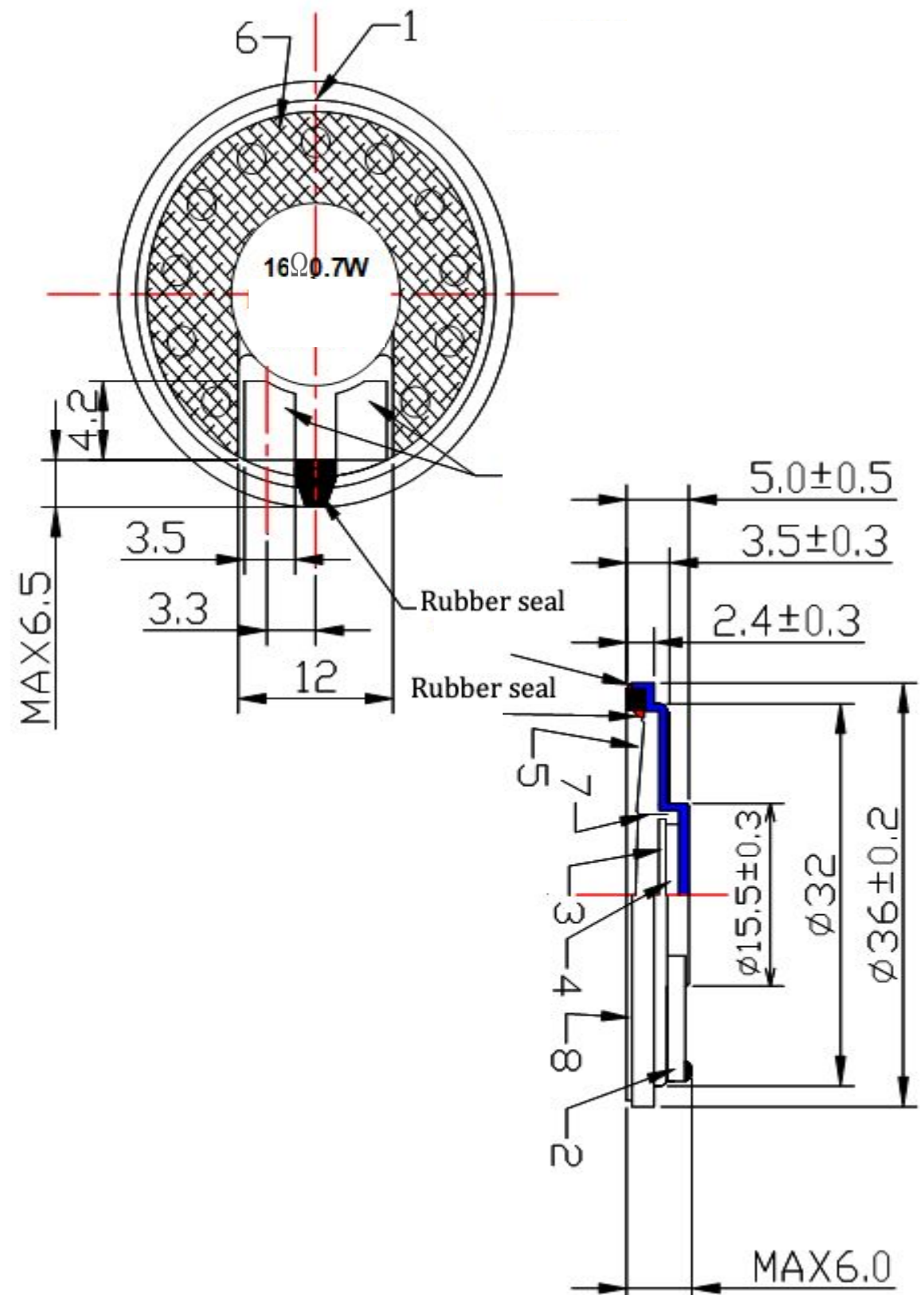
Material

Page 4

Packaging

Dimensions

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



No.	Part Name	Material	Quantity
1	Frame	Metal	1
2	Terminal	PCB	1
3	Plate	Metal	1
4	Magnet	NdFeB	1
5	Diaphragm	PET	1
6	Screen	Cloth	1
7	Coil	CU	1
8	Gasket	ABS	1



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Reliability Test

Page 2

Measuring Circuit

Typical Frequency Response

Temperature Conditions

Page 3

Dimensions

Material

Page 4

Packaging

Packaging

