

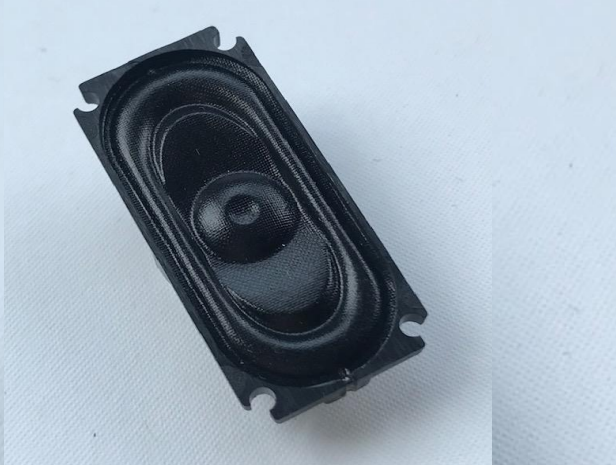


soberton inc.

SP DYNAMIC SPEAKER UNIT

Acoustic Product Specification

Product Number: SP-1635N-1



Release | Revision: A/2019

CONTENTS

This document contains the technical specifications for the speaker unit.

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General Specifications

Sound Pressure Level

89 ±3dB SPL @1.0 Watt, at 10 cm
Average on @ 0.8, 1.0, 1.2, 1.5 KHz

Voice Coil Impedance

DC : 8±15% Ω

Resonance Frequency

700±20% Hz

Response Range

F0~20KHz.

Power Rating (Normal / Maximum)

Normal: 1.0 W
Maximum: 2.0 W

Distortion

5% Max @1,000 Hz, 1.0Watt

Abnormal Sound Test

Result must be normal when tested at 2.83 Volts in free air.

Magnet

Material: NdFeB

Polarity

Diaphragm shall move forward when a positive DC current is applied to the "+" or "Marked" Terminal.

Load Test

White noise (EIA filter) for 96 hours @1.0W input power

Environmental Protection Regulation

RoHS 2.0

IP Level

None

Dimension

35.0x16.0xH6.0mm



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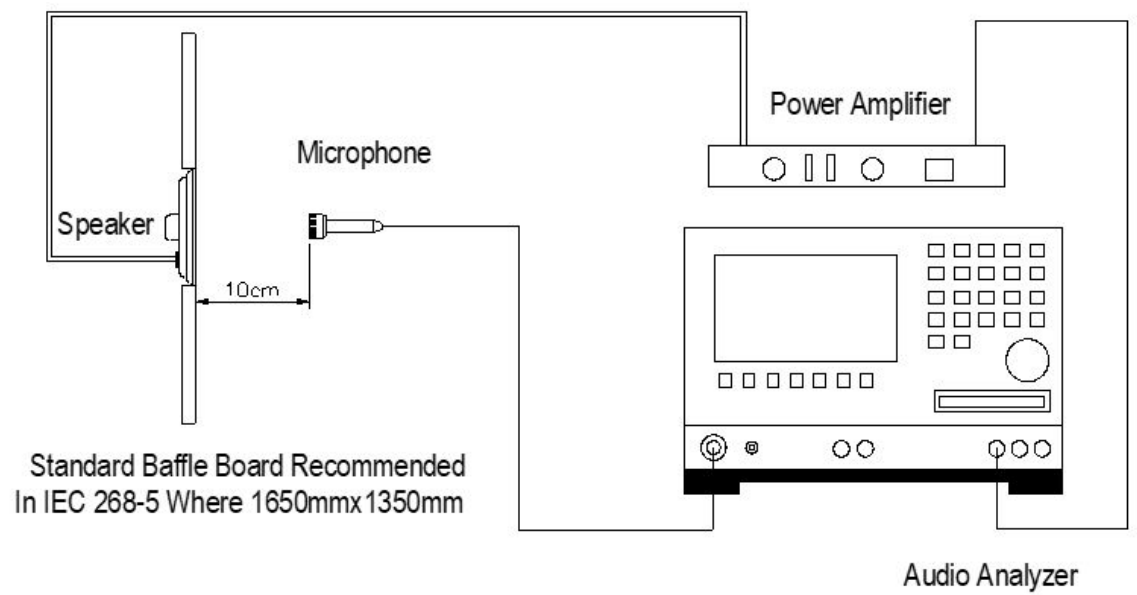
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Standard Test Condition



Test Conditions

Standard Test Condition

Temperature 15~ 35°C

Relative humidity 45% ~ 85%

Atmospheric pressure 860~1060 mbar

Standard Test Fixture

Input power: 1.0W (2.83V)

Zero level: -dB

Mode: TSR

Potentiometer Range: 50dB

Sweep time: 0.5sec

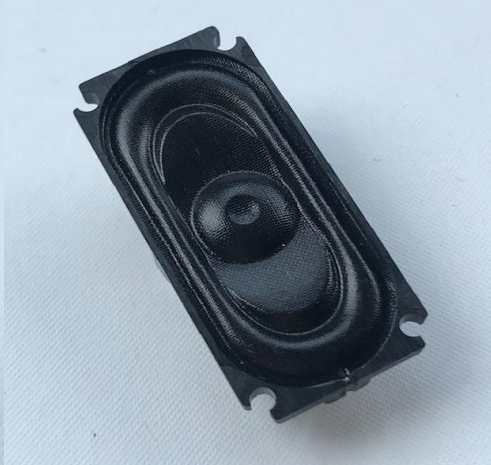


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Reliability Tests

The sound pressure as specified will neither deviate more than $\pm 3\text{dB}$ from the initial value, nor have any significant damage after any of following testing.

High Temperature Test

High Temperature $+60\pm 2^\circ\text{C}$

Duration 96 hours

Low Temperature Test

Low Temperature $-20\pm 2^\circ\text{C}$

Duration 96 hours

Heat Shock Test

High Temperature $+60\pm 2^\circ\text{C}$

Low Temperature $-20\pm 2^\circ\text{C}$

Changeover Time < 30 seconds

Duration 1 hour

Cycle 100

Humidity Test

Temperature $+40\pm 2^\circ\text{C}$

Relative Humidity 92%~95%

Duration 96 hours

Temperature Cycle Test

Temperature -25°C $+65^\circ\text{C}$

Duration 6 hours 6 hours

Temperature gradient $\pm 2^\circ\text{C}/\text{min}$

Cycle 5

Drop Test

Mounted with dummy set mass In Normal Box

Height 75 cm

Cycle 10 (1 each plain) onto the concrete board

Load Test

White noise (EIA filter) for 96 hours @1.0W input power



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Frequency Response Curve



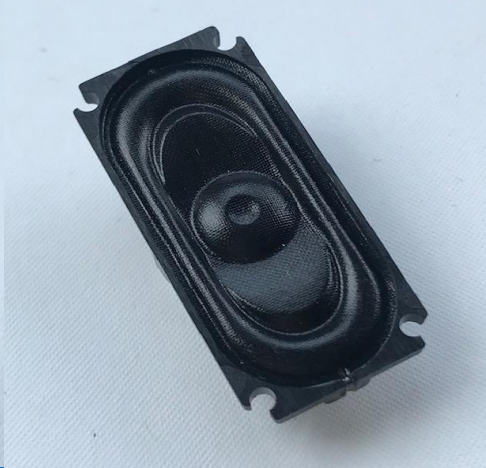


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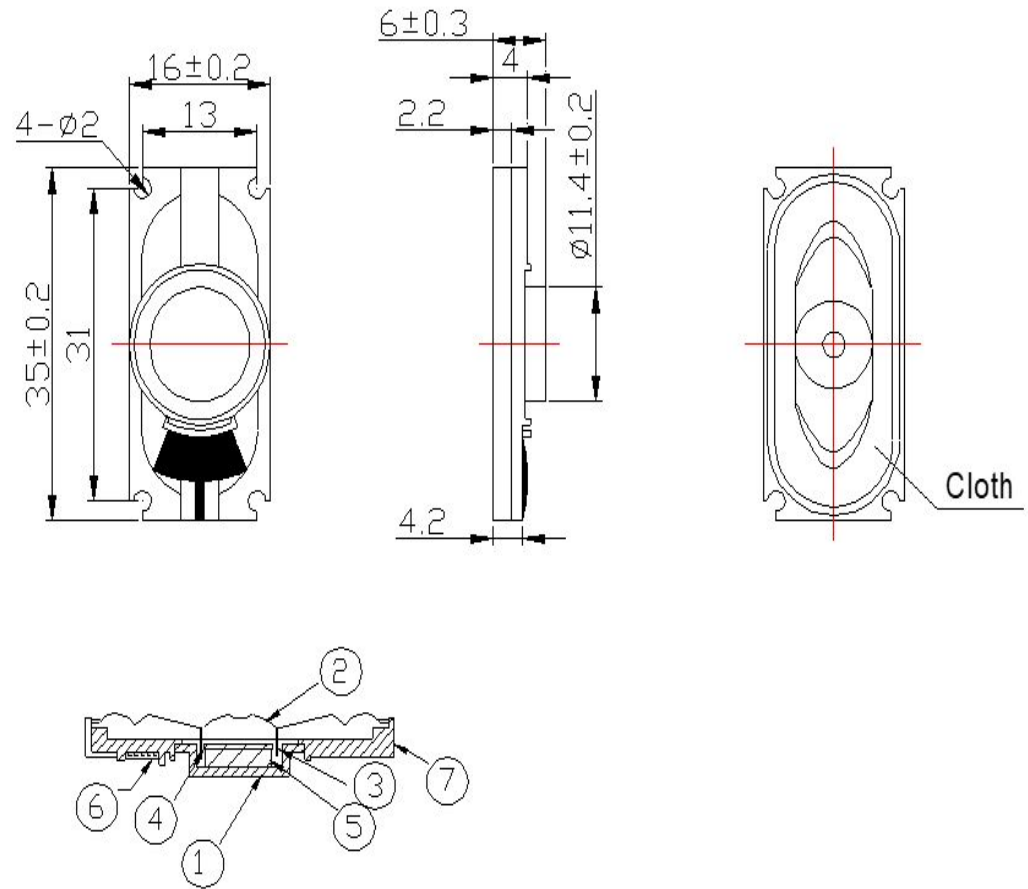
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Dimensions

Tolerance: ± 0.5 (unit: mm)



No.	Part Name	Material	Quantity
1	Yoke	SPCC	1
2	Diaphragm	Cloth	1
3	Voice Coil	Paper Cu	1
4	Plate	SPCC	1
5	Magnet	NdFeB	1
6	PCB Terminal	FR-4	1
7	Frame	ABS	1



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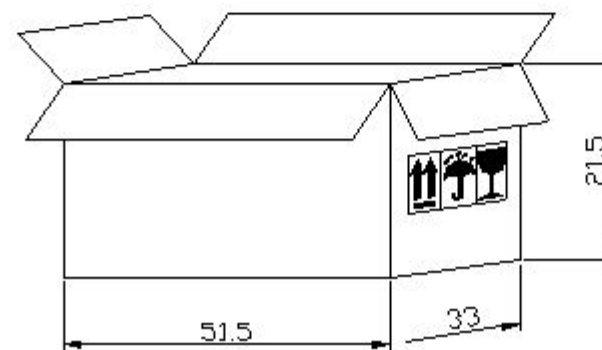
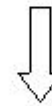
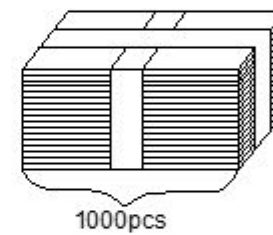
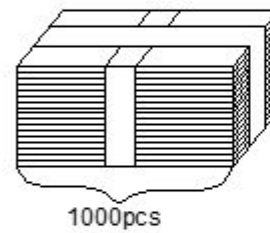
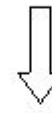
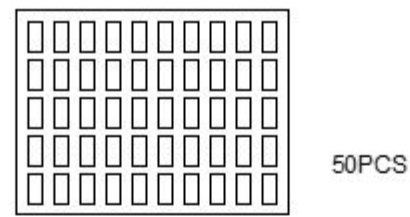
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Packing Information

Unit: cm

Per Tray: 50 pcs

Per Unit: 20 trays

Per Carton: 2 units

Per Carton: 2,000 pcs

Carton Size: 51.5 x 33.0 x 21.5 cm