DEVETECH ELECTRONICS CO. LTD

DYNAMIC SPEAKER
CUSTOMER: DACHS ELECTRONICA
P/N: DVS5075R8P1.0F400

DESIGNED BY	
CHECKED BY	
APPROVED BY	

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1. Revision

Rev. No	Date	Page	Description of Revision
1.0	2013-06-05		Preliminary

2. Scope

This document contains required environmental, electrical, acoustic, mechanical, package and reliability test requirements.

3. General Characteristics

2.1 Out-Diameter: 50 mm
2.2 Height: 7.5 mm
2.3 Weight: 7g
2.4 Operating Temperature: -20~+60°C without loss of function
2.5 Store Temperature: -30~+60°C without loss of function

4. Electrical and Acoustic Characteristics

Test condition: 15 ~ 35 °C Temperature: 25% ~ 75% RH,86~106 kPa
Refer to IEC60268-1

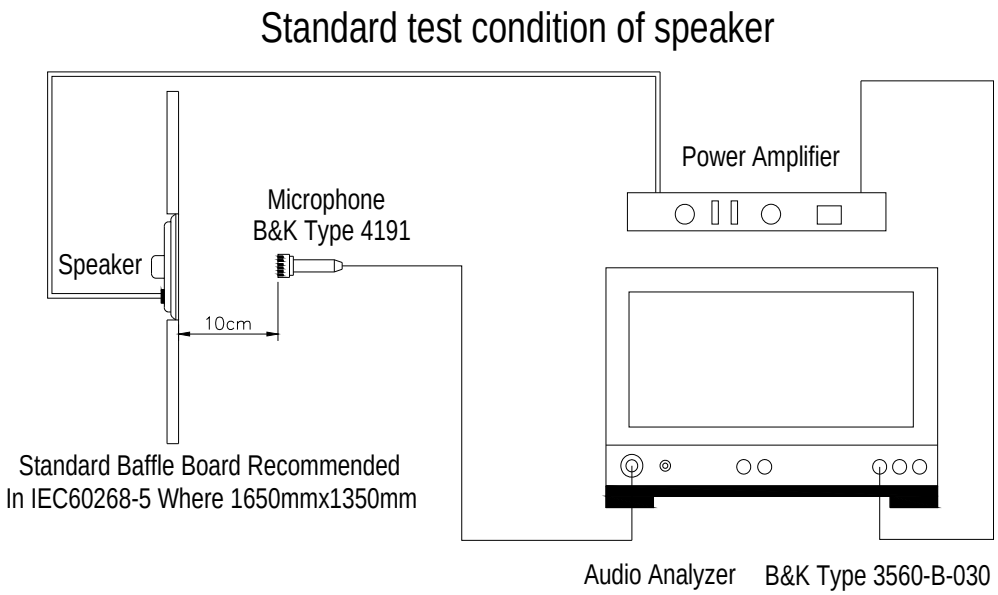
	Items	**Specification**
1	Impedance	8 Ω ± 15% (1Vrms at 1KHz)
2	Sound Pressure Level	90 dB ± 3dB (0.1m/1w at 0.8, 1.0, 1.2, 1.5kHz average)
3	Resonance Frequency (fo)	400 Hz ± 20% at 1V
4	Frequency Range	fo~10KHz
5	Input Power	Rated 0.5 W / Max. 1 W
6	Distortion	<10% at 1KHz 0.5W
7	Buzz and Rattle	Should not be audible buzzes, rattles when the 2V sine wave signal swept at frequency range.
8	Polarity	When a positive DC current is applied to the voice coil terminal marked (+) , the diaphragm shall move to forward.

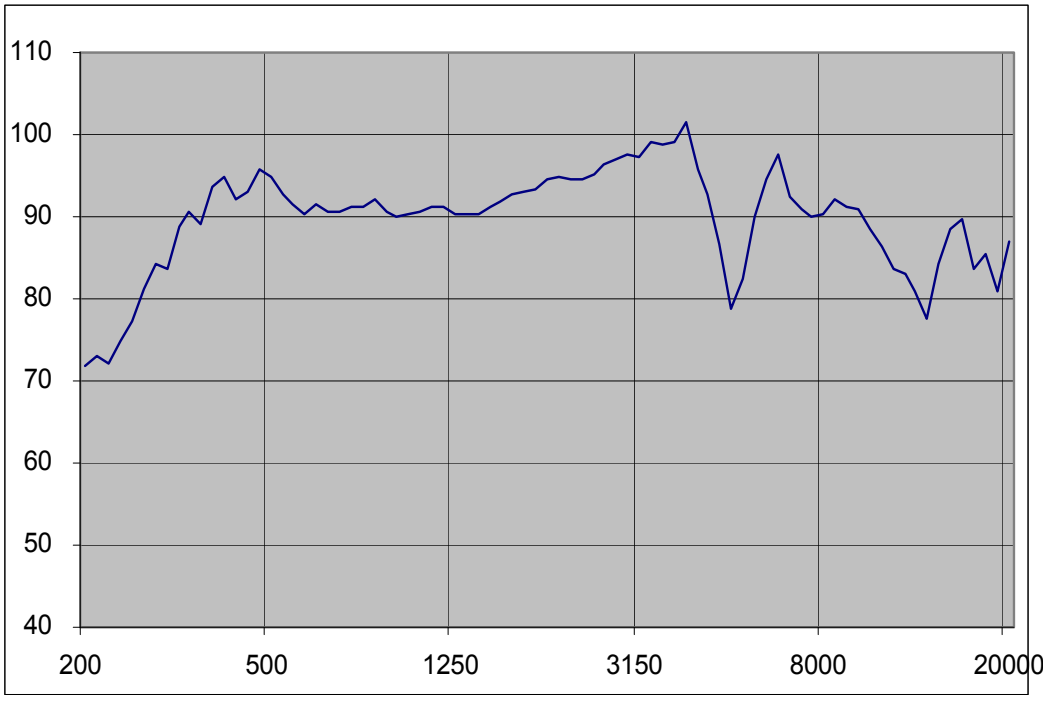
5. Reliability Test

After test (1~7item), the speaker S.P.L difference shall be within ±3dB, and the appearance not exist any change to be harmful to normal operation.

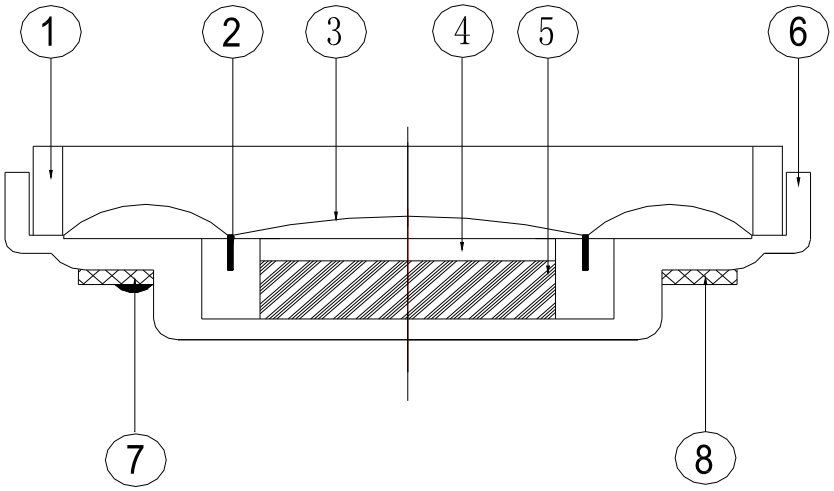
No	Items	Specification
1	High Temp. Test	Keep 100 hours at +60±3 °C, and leave 3 hours in normal temperature and then check.
2	Low Temp. Test	Keep 100 hours at -30±3 °C, and leave 3 hours in normal temperature and then check.
3	Humidity Test	Keep 100 hours at -30±3 °C, relative humidity 85 to 90% and leave 4 hours in normal temperature and then check.
4	Thermal Shock Test	Each temperature cycle shall consist of 2 hours at +25±3 °C followed by 2 hours at +60±3 °C, and followed by 2 hours at -30±3 °C with a 20 to 40 minutes transition time between each 2 temperature extremes. The test duration is for 10 cycles.
5	Vibration Test	Being applied vibration of amplitude of 1.5mm with 10-55-10Hz band of vibration frequency, X.Y.Z. 3 direction. 2 hours each, total 6 hours.
6	Drop Test	Free drop from 1m high to a board 20mm thick hard wood board and has no mechanical damage. Total 6 times.
7	Load test	Loading white noise with input rate power for 100 hours, then placed in natural condition for 1 hour and then check.
8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 MΩ

6. Measurement Method and Frequency Response Curve





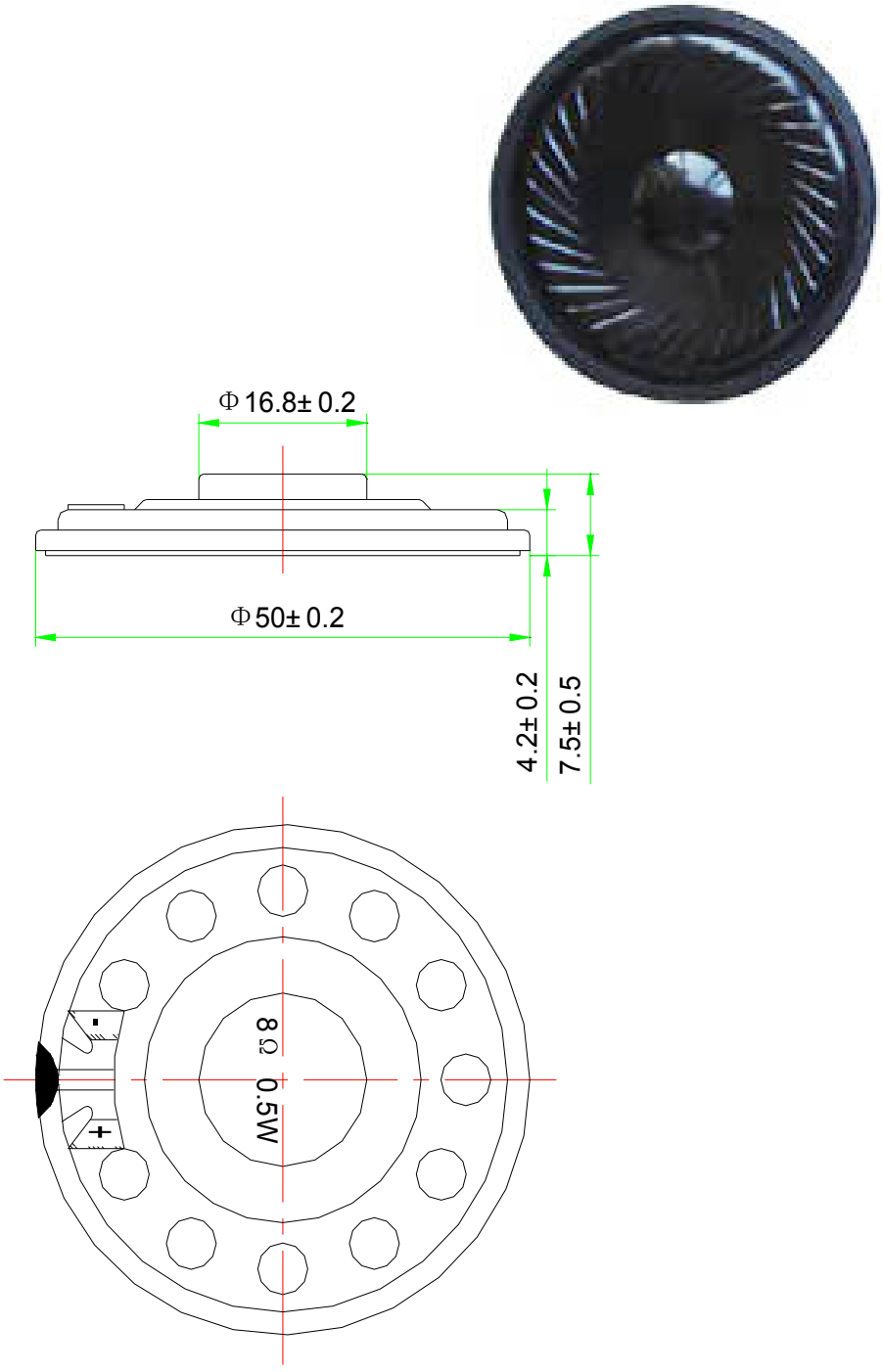
7. Mechanical layout



8	Screen	1	Unwoven fabric	
7	PCB	1	FR-4	
6	Frame	1	SPCC	
5	Magnet	1	Nd-Fe-B	
4	Plate	1	SPCC	
3	Diaphragm	1	PET	
2	Voice coil	1	Cu	
1	Gasket	1	Paper	
No.	**Part Name**	**Q'ty**	**Material**	**Remarks**

8. Dimensions

Unit: mm Tolerance: ±0.2



9. Packing

Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number, quantity and outgoing inspection number. There shall be no mechanical damage on products during in storage.

NOTES