DEVETECH ELECTRONICS CO. LTD

DYNAMIC SPEAKER
CUSTOMER: DACHS ELECTRONICA
P/N: DVS50250R8F220P2

DESIGNED BY	
CHECKED BY	
APPROVED BY	

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1. Revision

Rev. No	Date	Page	Description of Revision
1.0	22/10/2016		Preliminary

2. Scope

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

3. General Characteristics

3.1 Out-Diameter: 50mm
3.2 Height: 25mm
3.3 Weight: 45g
3.4 Operating Temperature: -20~+50°C without loss of function
3.5 Store Temperature: -20~+50°C without loss of function

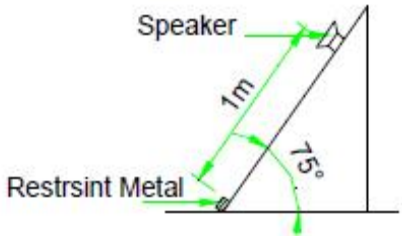
4. Electrical and Acoustic Characteristics

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

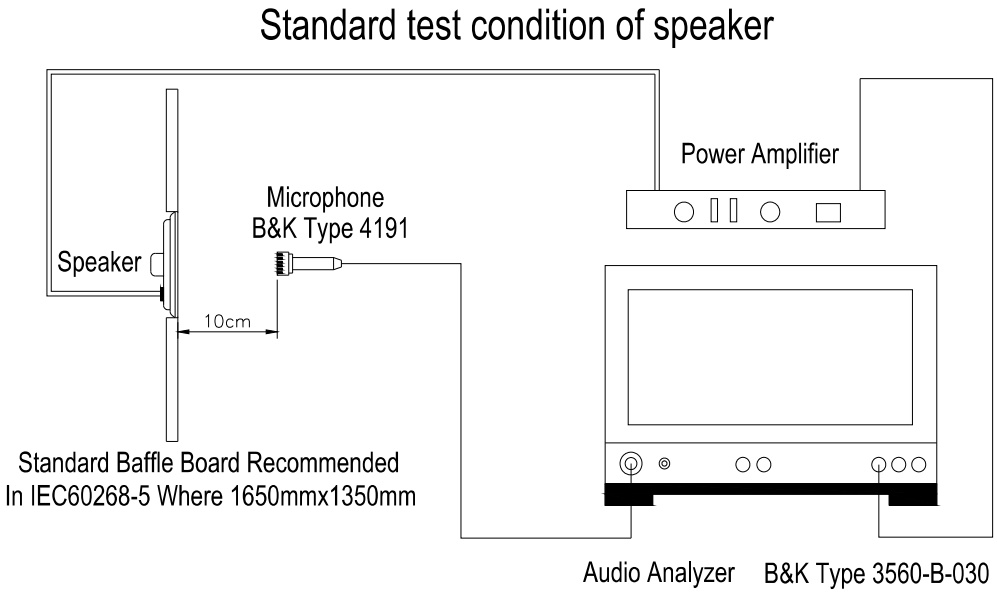
	Items	**Specification**
1	Impedance	8 Ω ± 15% (1Vrms at 0.6KHz)
2	Sound Pressure Level	83 dB ± 3dB (1m/1w at 0.8, 1.0, 1.2, 1.5kHz)
3	Resonance Frequency (fo)	220 Hz ± 20% at 1V
4	Frequency Range	fo ~20KHz
5	Input Power	Rated 2W / Max. 3W
6	Distortion	<5% at 1KHz 1W
7	Buzz and Rattle	Should not be audible buzzes, rattles when the 4V 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.
9	Magnet	Φ40x22x8mm

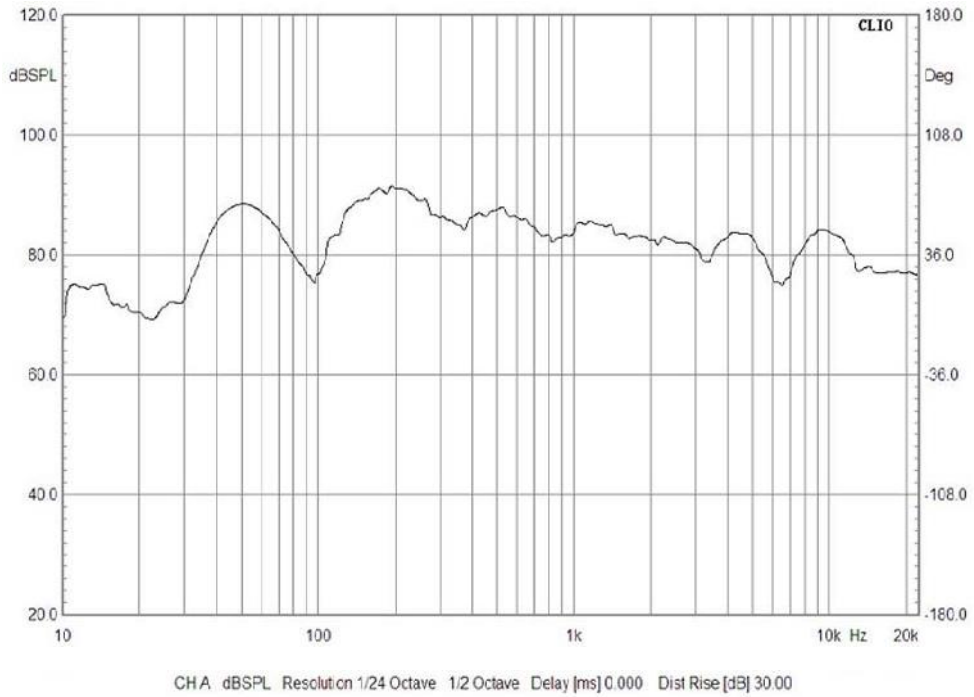
5. Reliability Test

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.

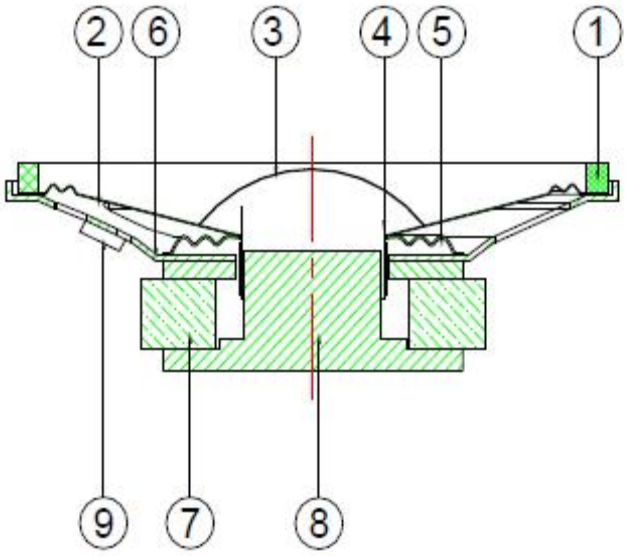
No	Items	Specification
1	High Temp. Test	Keep 24 hours at +50±3 °C, and leave 3 hours in normal temperature and then check.
2	Low Temp. Test	Keep 24 hours at -20±3 °C, and leave 3 hours in normal temperature and then check.
3	Humidity Test	Keep 24 hours at -20±3 °C, relative humidity 85 to 90% and leave 4 hours in normal temperature and then check.
4	Thermal Shock Test	Each temperature cycle shall consist of 2 hour at +25±3 °C followed by 2 hour at +50±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	A speaker is dropped from 1m in length on75º inclination to a board 20mm thick hardwood board and be nothing mechanical damage. Total 6 times. 
7	Load test	Loading white noise with input rate power for 96 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 1MΩ.

6. Measurement Method and Frequency Response Curve





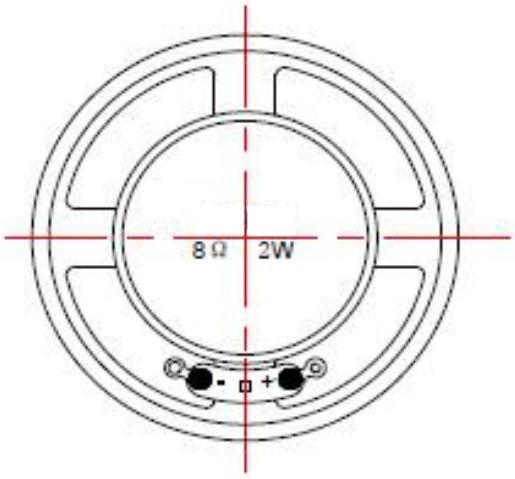
7. Mechanical layout

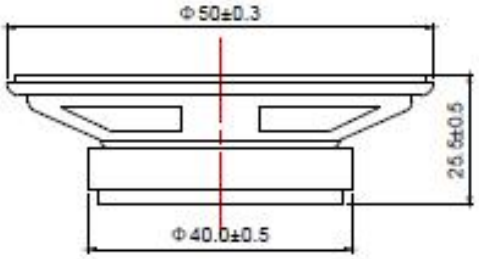


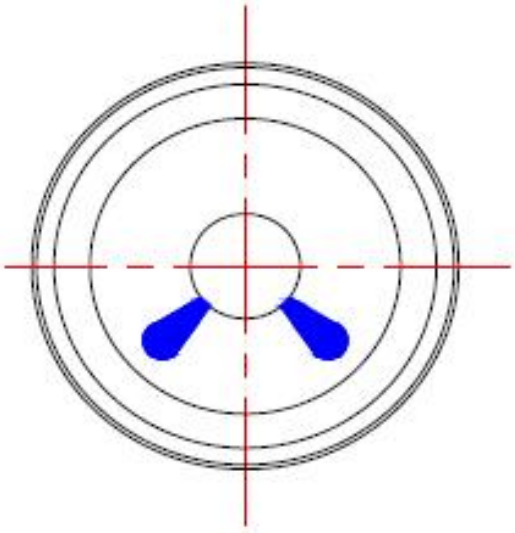
9	Terminal	1	Red Fiber	
8	T yoke	1	SPCC	
7	Magnet	1	Y30 Ferrite	
6	Frame	1	SPCC	
5	Spider	1	Cotton Yarn	
4	Voice Coil	1	Kraft Paper+QA	
3	Dust Cap	1	Paper	
2	Cone	1	PO+Paper	
1	Gasket	1	Paper	
No	**Part Name**	**Q'ty**	**Material**	**Remarks**

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