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1. Scope

This specification is applied to the dynamic speaker which is used all of the electrical acoustic product.
-- compact, rich sound
-- applications: mobile phone, PDA, notebook computer, etc. ..

2. General

2.1 Out-Diameter : Φ10 mm

2.2 Height : 4.7 mm

2.3 Weight : 0.5 g

2.4 Operating Temperature range:

-20~+60℃ without loss of function

2.5 Store Temperature range:

-30~+70℃ without loss of function

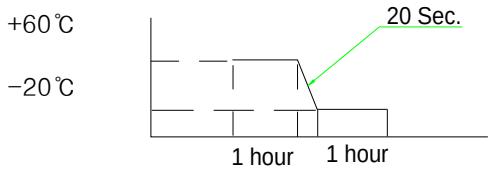
3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 ℃, 25% ~ 85% RH, 860~1060 mbar

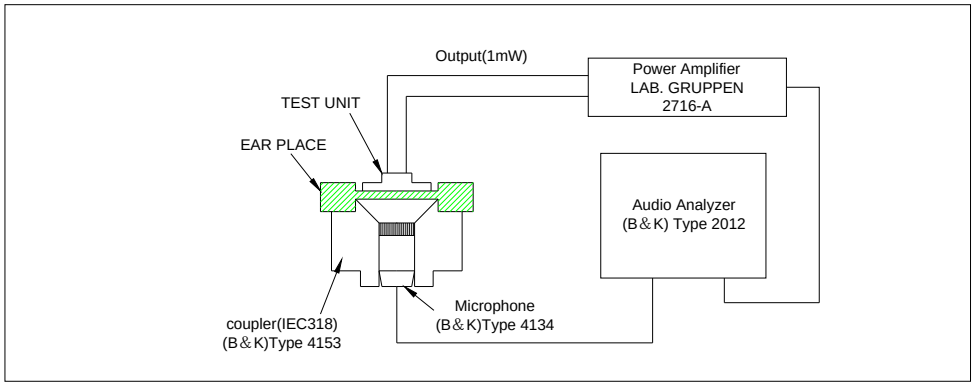
No	Items	Specification
1	Impedance	32 Ω ± 15% (1Vrms at 1KHz)
2	Sound Pressure Level	114 dB ± 3dB (179mV at 1kHz)
3	Resonance Frequency	450 Hz ± 20%
4	Frequency Range	70Hz ~20KHz
5	Input Power	Rated 10 mW / Max. 20 mW
6	Distortion	<5% Max. from 150Hz to 16kHz
7	Buss and Rattle	Should not be audible buzzes,rattles when the 0.57V sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

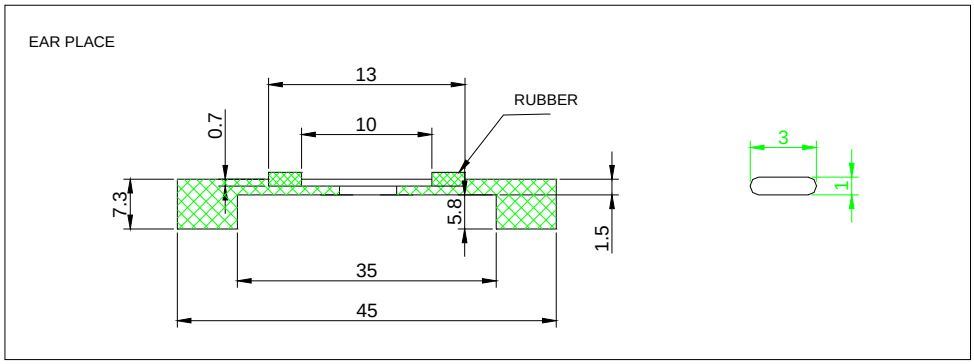
4. Reliability Test

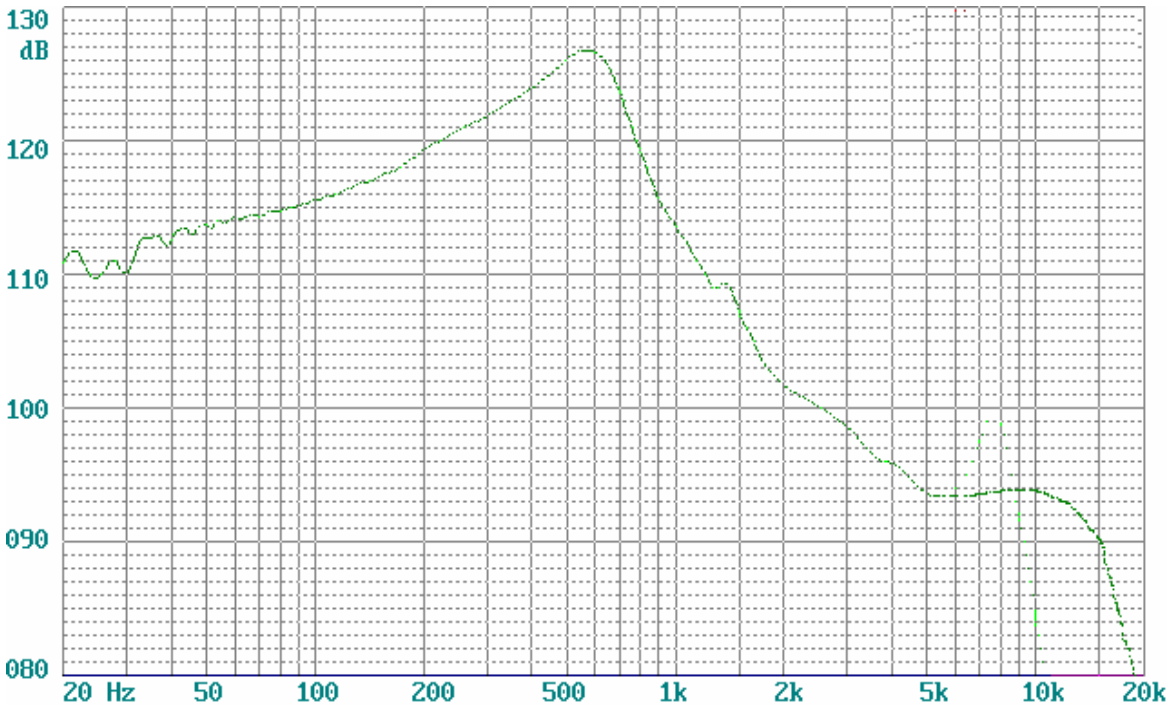
After test(1~7item), the speaker S.P.L . difference shall be within ±3dB, and the appearance not exist any change to be harmful to normal operation (e.g. cracks,rusts,damages and especially distortion).

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with +70±3 ℃ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with −30±3 ℃ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at +40±2 ℃ for hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4	Thermal Shock Test	After being placed in a chamber at +60℃ for 1 hour, then speaker shall b placed in a chamber at −20℃ for 1 hour(1 cycle is the below diagram). After 6 above cycles, speaker shall be measured after being placed in natural condition for 1 hour. 
5	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to55Hz band of vibration frequency to each of 3 perpendicular directions for 1 hour, then placed in natural condition for 1 hour, speaker shall be measured.
6	Drop Test	The speaker when mounted in the jig which weight 85g~100g, shall with stand 15 times random drops from a height of 1.5 meter to a concrete floor faced with 5mm thick hard wood board.and be nothing mechanical damage.
7	Load test	After being applied loading white noise with input power 10W(17.89Vrms.) for 96 hours, then placed in natural condition for 1 hour, speaker shall be measured.
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

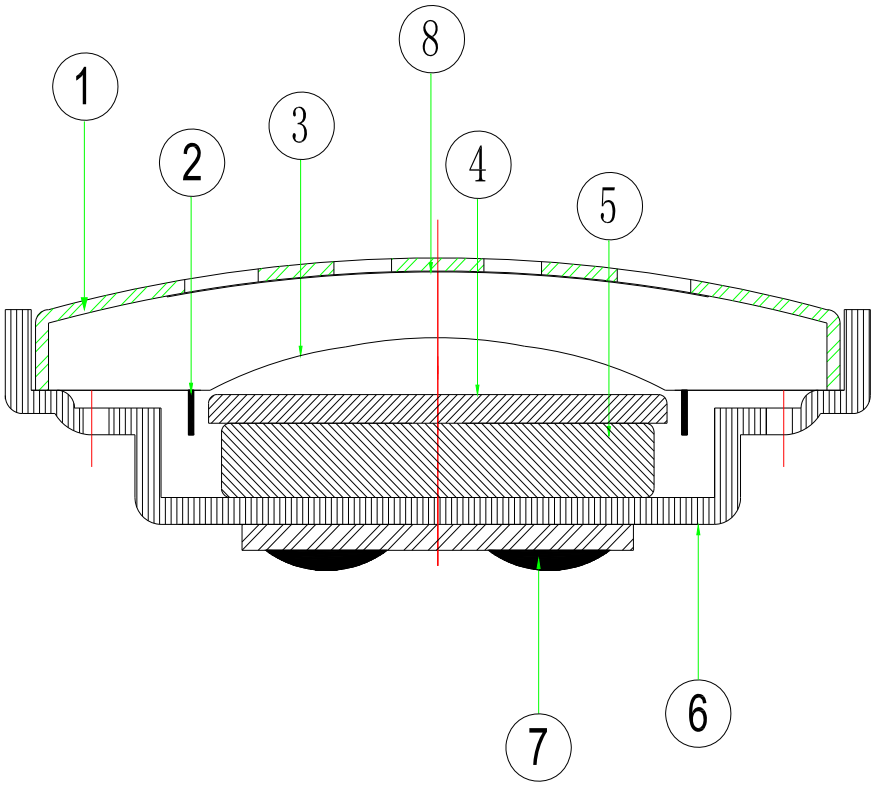
5. Measurement Block Diagram & Response curve





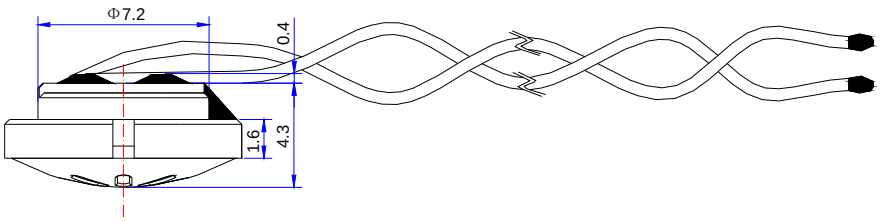


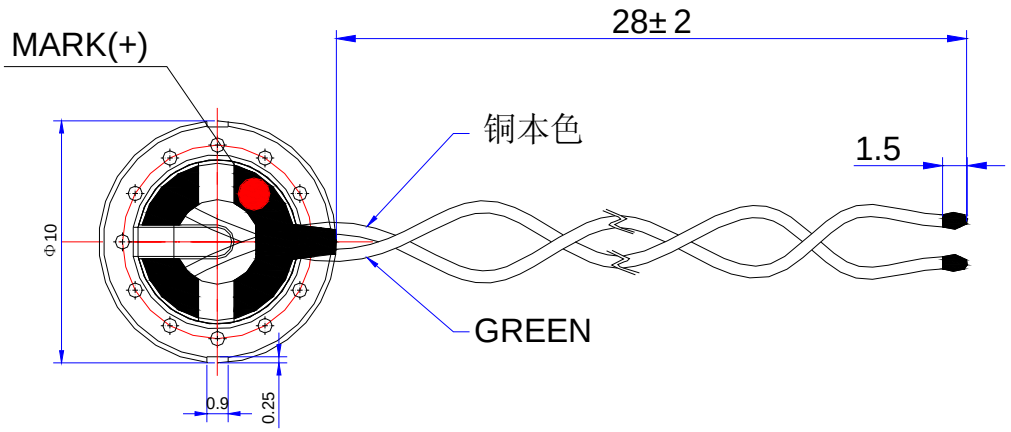
6. Structure

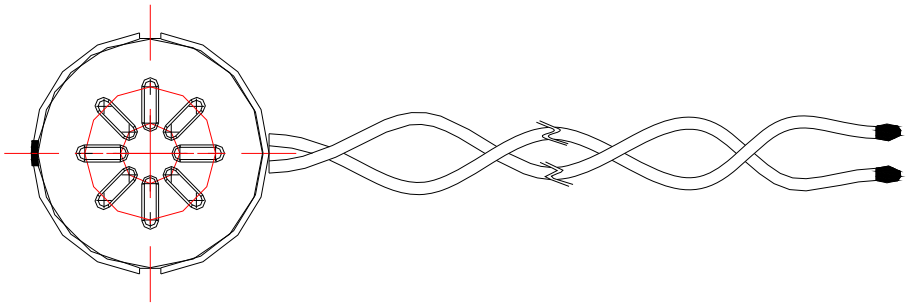


No.	Part Name	Q'ty	Material	Remarks
8	Screen	1	Net	
7	Terminal	1	Epoxy PCB	
6	Frame	1	PBT	
5	Magnet	1	Nd-Fe-B	
4	Plate	1	SPC	
3	Diaphragm	1	PET	
2	Voice Coil	1	Copper	
1	CAP	1	ABS	

7. Dimensions





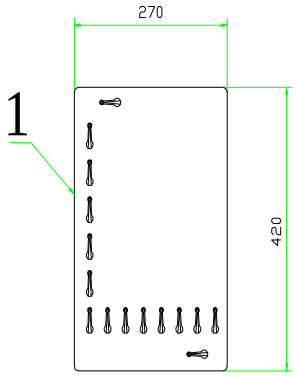


FIRST ANGLE PROJECTION

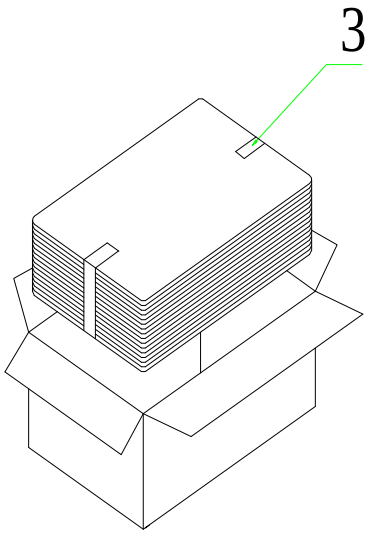
UNIT : mm

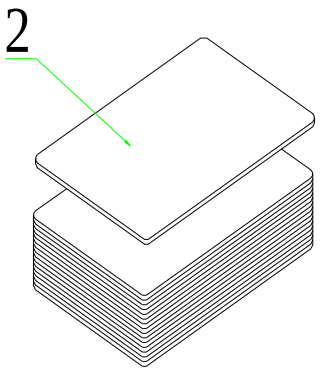
Tolerance : ±0.2

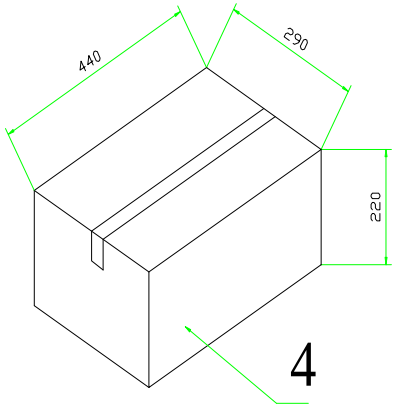
8. Packing



75Pcs







QTY: 1500Pcs

440 x290 x220

9. Revision

Rev. No.	DATE	PAGE	DESCRIPTION	BOM