Miniature Speaker 4ohm, 2W, 40x28x12mm	Part No.	ABS-230-RC
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1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Specifications
1-1	Dimension	40.0×28.3×12.0t
1-2	Rated Input Power	2.0W
1-3	Max Input Power	4.0W
1-4	Rated Impedance	4±15% Ω /1KHz/1V
1-5	Resonance Frequency(f0)	380±20% Hz/1V
1-6	Sound Pressure Level	84±3 dB at (AVG 0.8,1.0,1.2,1.5)KHz 1W/0.5M
		87±3 dB at (AVG 0.8,1.0,1.2,1.5)KHz 0.1W/0.1M
1-7	Frequency Range	200HZ ~ 20KHz
1-8	Total Harmonic Distortion	5%MAX. at 1KHz, 0.63V
1-9	Flux Density	1.0T
1-10	Polarity	When a positive DC Current is applied to the voice coil terminal marked +or red ,the diaphram shall move forward
1-11	OperationTest	Must be normal at sine wave and program source 2.0W.
1-12	Buzz,Rattle,etc.	Should not be audible at 2.83V sine wave between (200 Hz ~ 2KHz)
1-13	Weight	13g
1-14	Voice Coil Diameter	Φ13.28mm
1-15	Magnet (NdFeB)	Φ12.5×2.5t mm
1-16	Appearance	Should not exist any obstacle to be harmful to normal operation;damages,cracks,rusts and distortions,etc.
1-17	Operating Temp. Range	-20℃～+60℃
1-18	Storage Temp. Range	-30℃～+60℃

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2.ENVIRONMENTAL TEST

	Item	Specifications
2-1	High temp. Test	Keep 96 hours at +60℃±3℃ and leave 3 hours in normal temperature and then check
2-2	Low temp. Test	Keep 96 hours at -20℃±3℃ and leave 3 hours in normal temperature and then check
2-3	Humidity test	Keep 96 hours at + 40℃±3℃ relative humidity 95% and leave 3 hours in normal temperature and then checked.
2-4	Thermal cycle test.	Low temperature: -20℃±3℃, temperature:+60℃±3℃, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
2-5	Vibration	Frequency:10~55~10Hz Oct/mm Amplitude:1.5mm X,Y,Z 3 direction.2 hours each, total 6 hours.
2-6	Drop test	The speaker shall be fixed in cabinet, packed with carton and dropped 70cm height vertically to 10cm wooden board.(one point ,three corners ,six sides. 1 times each, total 10 times.)
2-7	Load test	Rated Power white noise is applied for 96 hours
2-8	Max Power test	Max power 1 min on – 2 min off 10 cycles.
2-9	Terminal strength test	Capable of withstand 1kg load for 15seconds without resulting in any damage or rejection.

PASS CRITERION :

After these test , the change of S.P.L shall be within ±3 dB .

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3.MEASURING METHOD

3-1 .Test Condition

STANDARD

Temperature : 15 ~ 35℃

Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

JUDGEMENT

Temperature : 20±3℃

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

3-2 . Standard Test Fixture

1.Input Power : 1.0W(2.83V)

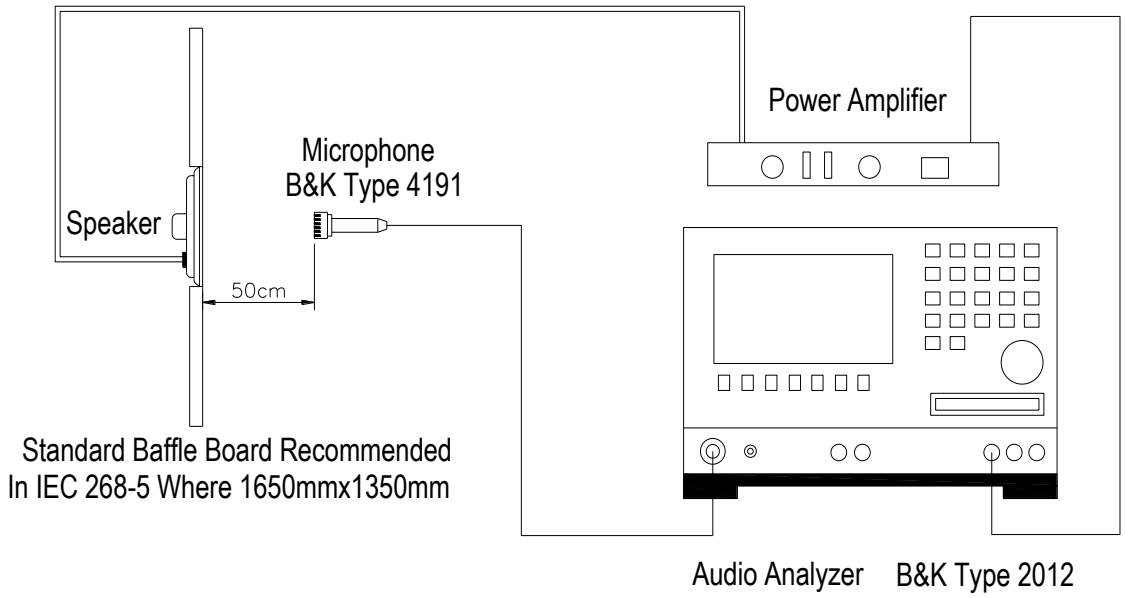
2.Zero Level : -dB

3.Mode : TSR

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

Standard test condition of speaker



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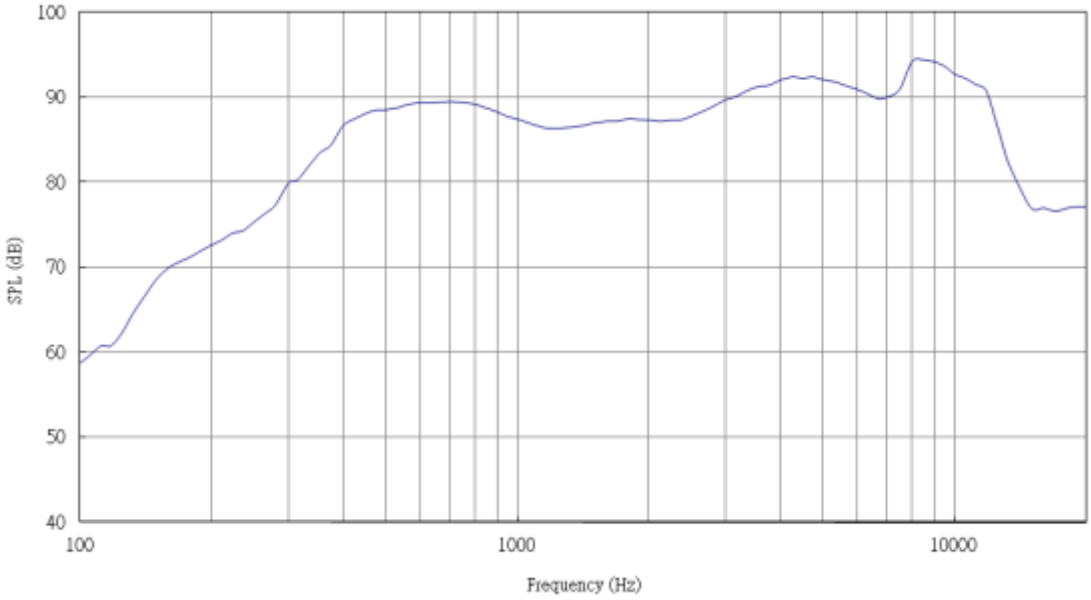
4.FREQUENCY RESPONSE CURVE



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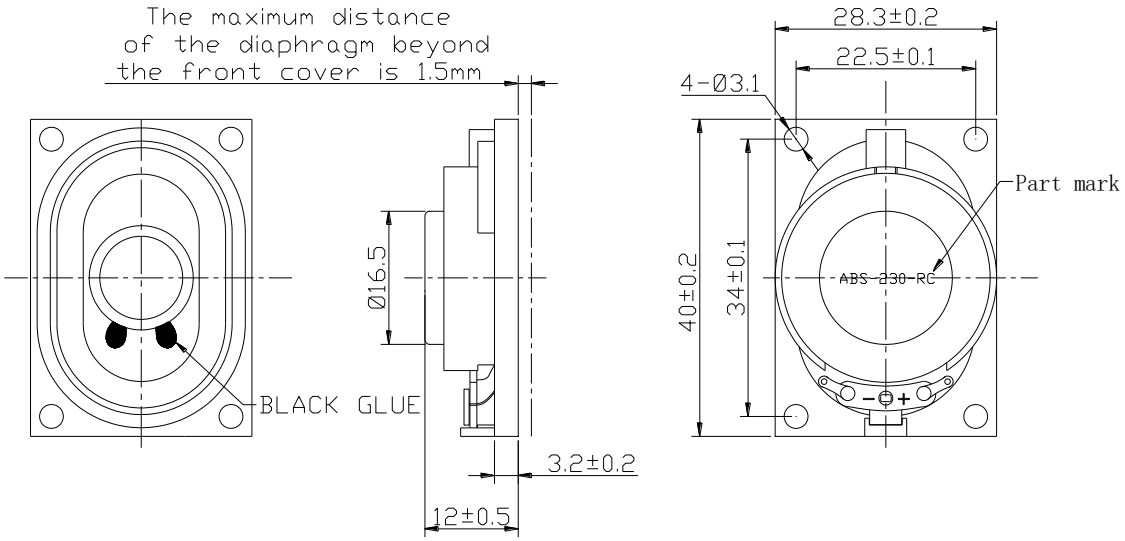
5.DIMENSIONS

Unless otherwise specified,tolerance:±0.5 (unit:mm)



9	Shrapne	1	Silk cloth	GU-001
8	PCB	1	EPOXY	GU-001
7	Plate	1	2.0t	GU-001
6	Magnet	1	NdFeB	GU-001
5	Voice coil	1		GU-001
4	Dust cap	1	PAPER	GU-001
3	Yoke	1	1.5T	GU-001
2	Cloth conel	1	Cloth	GU-001
1	Frame	1	SPCC	GU-001
The material must be meet to GU-001				
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

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