Miniature Speaker 32ohm, 23mm dia. Encased speaker with PCB pins	Part No.	ABS-227-RC
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1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Specifications
1-1	Dimension	Φ22.8×8t
1-2	Rated Input Power	0.1W
1-3	Max Input Power	0.2W
1-4	Rated Impedance	32±20% Ω /3KHz/1V
1-5	Resonance Frequency(f0)	1800±20% Hz/1V
1-6	Sound Pressure Level	75±3 dB at 1KHz 0.1W/0.1m baffleboard (IEC)
1-7	Frequency Range	FOHZ ~ 4KHz
1-8	Total Harmonic Distortion	10%MAX. at 1KHz,1.0W.
1-9	Polarity	When a positive DC Current is applied to the voice coil terminal marked +or red ,the diaphram shall move forward
1-10	OperationTest	Must be normal at sine wave and program source0.1W.
1-11	Buzz,Rattle,etc.	Should not be audible at 1.789 V sine wave between (FO Hz ~ 4kHz)
1-12	Weight	3g±5%
1-13	Appearance	Should not exist any obstacle to be harmful to normal operation;damages,cracks,rusts and distortions,etc.
1-14	Operating Temp. Range	-20℃～+60℃
1-15	Storage Temp. Range	-40℃～+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 -40℃±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: -40℃±3℃, temperature:+60℃±3℃, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
2-5	Vibration	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
2-6	Drop test	Free drop from 100cm height to a board of 20mm thick x,y, z 6 direction. 1 times each, total 6 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 .

3.MEASURING METHOD(SPEAKER MODE)

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 : 0.1W(1.79V)

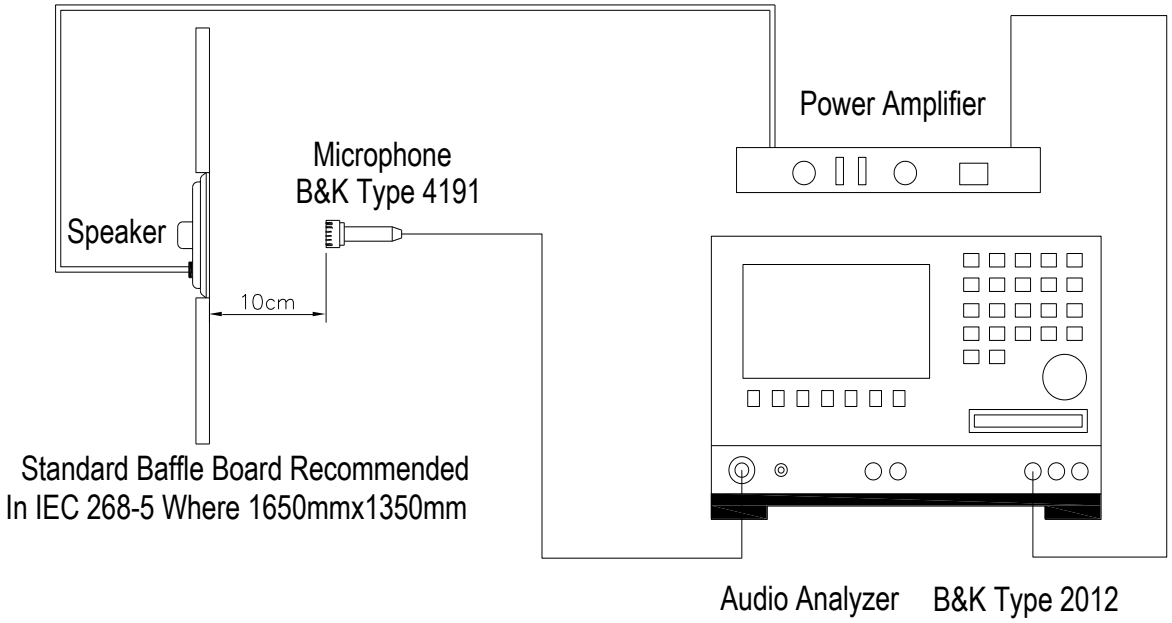
2.Zero Level : -dB

3.Mode : TSR

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

Standard test condition of speaker



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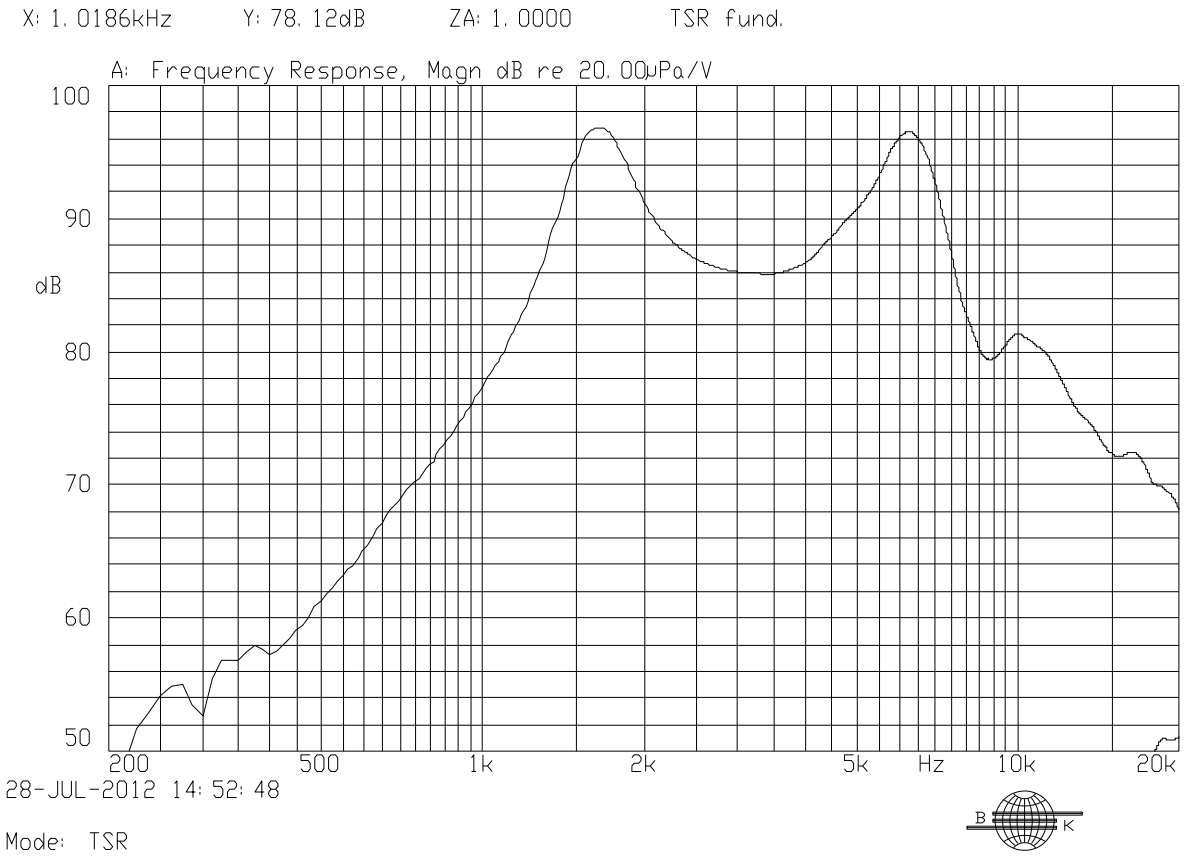
4.FREQUENCY RESPONSE CURVE



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SPECIFICATIONS	Part No.	ABS-227-RC
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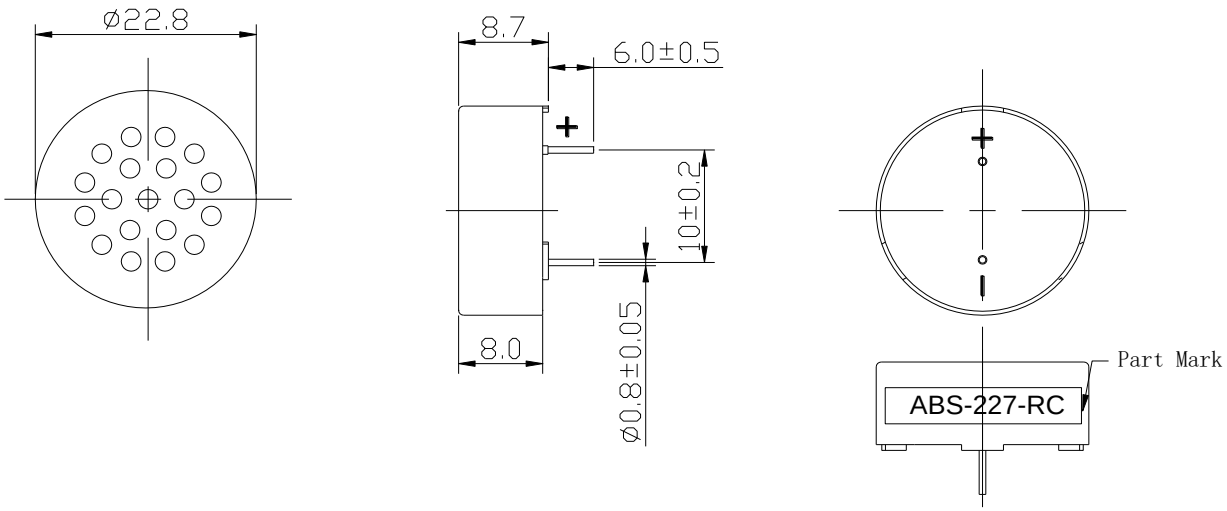
5.DIMENSIONS Unless otherwise specified,tolerance:±0.3(unit:mm)



9	Housing	1	ABS	
8	Pin	2	phosphor bronze	GU-001
7	Labels	1	PET	GU-001
6	PCB	1	FR4	GU-001
5	Magnet	1	NdFeB	GU-001
4	Plate	1	SPCC	GU-001
3	Voice coil	1	Copper	GU-001
2	Diaphragm	1	PET	GU-001
1	Frame	1	ABS+SPCC	GU-001
The material must be meet to GU-001				
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

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