Miniature Speaker Mylar, 32 ohm, 45mm	Part No.	ABS-209-RC
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1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Specifications
1-1	Dimension	Φ45×6.3t
1-2	Rated Input Power	0.25W
1-3	Max Input Power	0.4W
1-4	Rated Impedance	32±15% Ω /1KHz/1V
1-5	Resonance Frequency(f0)	500±20% Hz/1V
1-6	Sound Pressure Level	89±3dB,0.1W/0.1M at AVG（0.8，1.0，1.2，1.5）KHZ
1-7	Frequency Range	FOHZ ~ 6KHz
1-8	Total Harmonic Distortion	10%MAX. at 1KHz,0.1W
1-9	Polarity	When a positive DC Current is applied to the voice coil terminal marked +or red ,the diaphragm shall move forward
1-10	Operation Test	Must be normal at sine wave and program source 0.25W.
1-11	Buzz, Rattle, etc.	Should not be audible at 2.83 V sine wave between (F0 Hz ~ 2000Hz)
1-12	Voice Coil Diameter	Φ13.28mm
1-13	Magnet (NdFeB)	Φ12.5×1.5t mm
1-14	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.
1-15	Operating Temp. Range	-20℃～+55℃
1-16	Storge Temp. Range	-20℃～+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	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
2-6	Vibration	Frequency:10~55~10Hz Oct/mm Amplitude:1.5mm X,Y,Z 3 direction.2 hours each, total 6 hours.
2-7	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.)
2-8	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(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

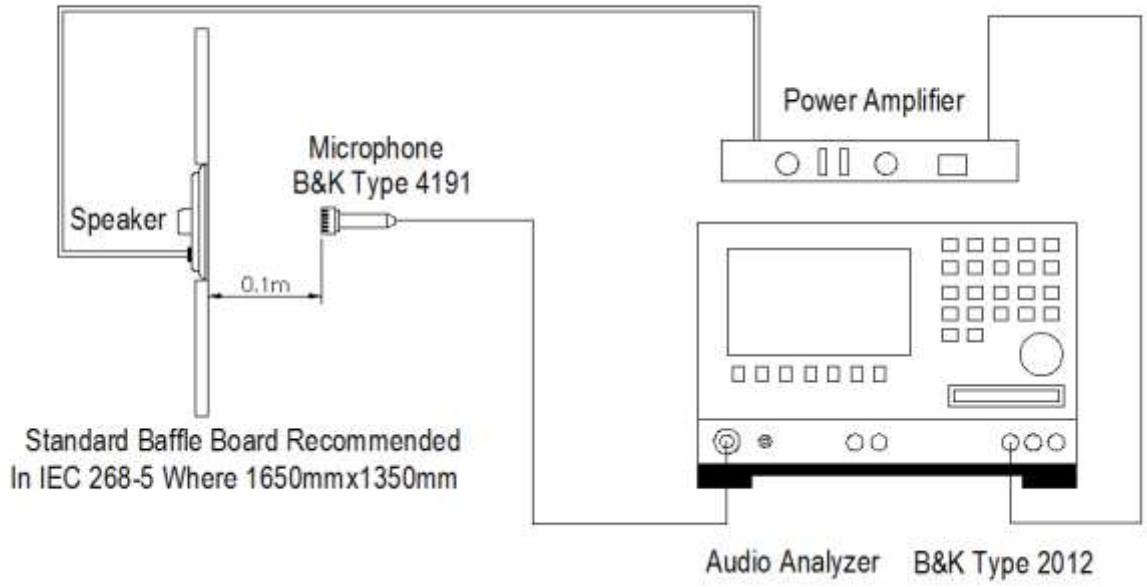
2.Zero Level : -dB

3.Mode : TSR

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

Standard test condition of speaker



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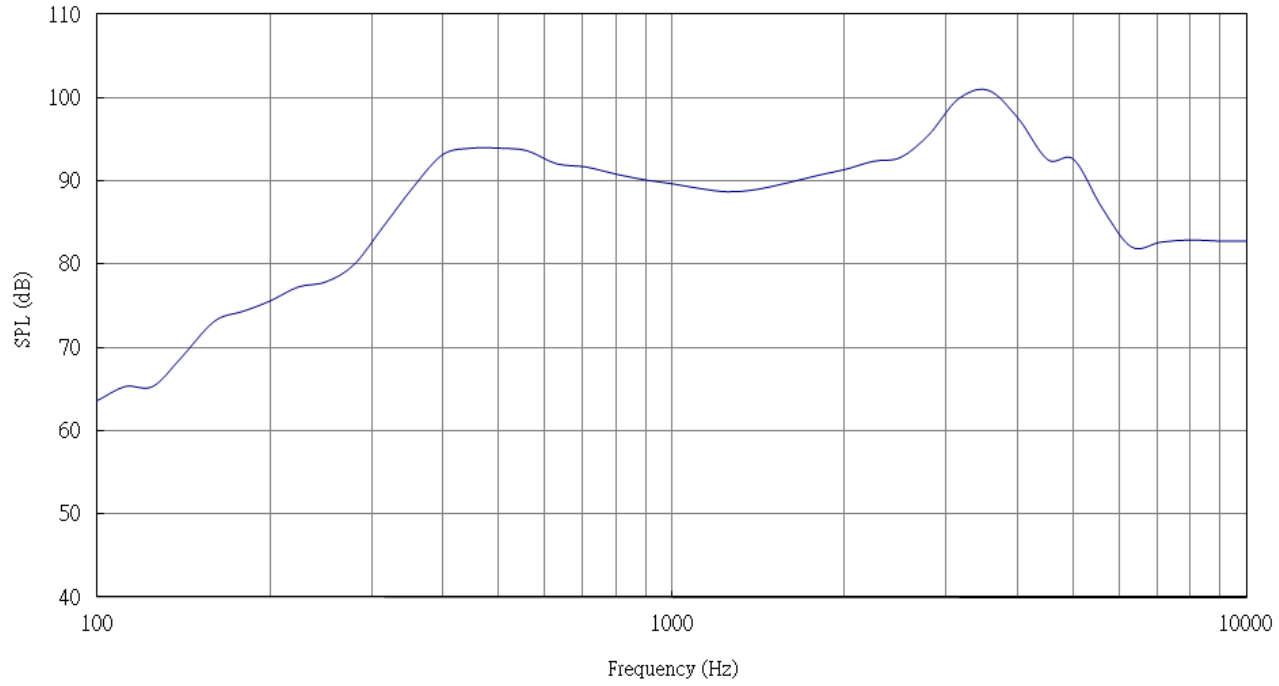
4.FREQUENCY RESPONSE CURVE



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SPECIFICATIONS	Part No.	ABS-209-RC
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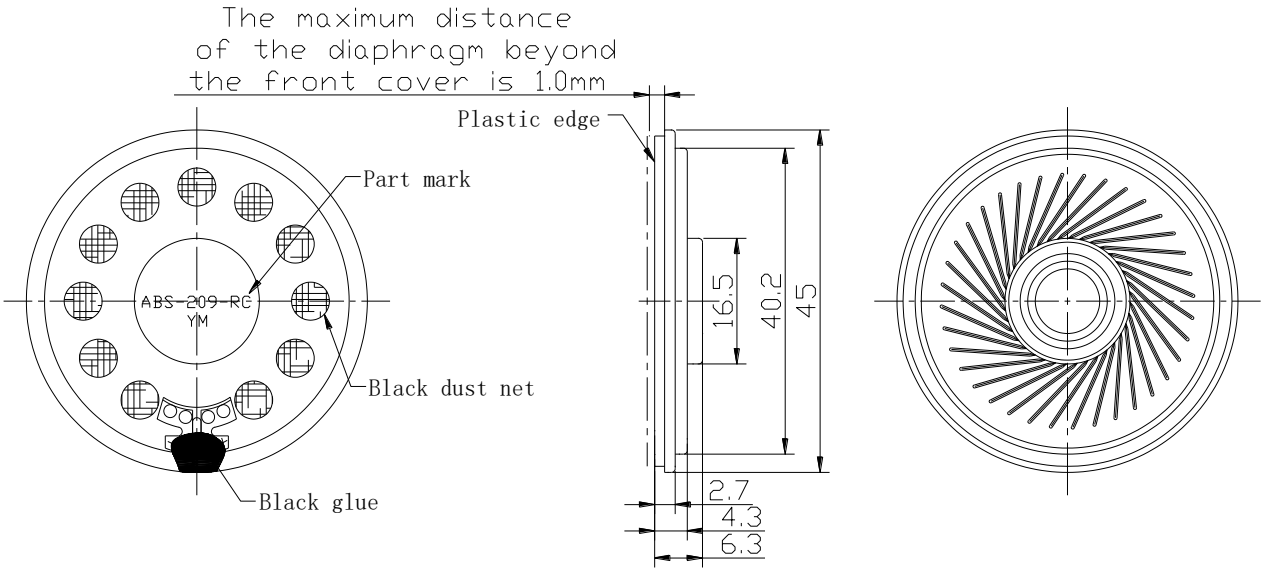
5.DIMENSIONS Unless otherwise specified, tolerance:±0.3(unit: mm)



8	Damping Net	1	Black	GU-001
7	Gasket	1	Black Gasket	GU-001
6	PCB	1	Epoxy	GU-001
5	Magnet	1	NdFeB	GU-001
4	Plate	1	SPCC	GU-001
3	Voice coil	1	Copper	GU-001
2	Diaphragm	1		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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