

MESSRS. *Blume*

SPECIFICATION FOR APPROVAL

Product	DYNAMIC SPEAKER
Part No.	AK-230810-MM1CV6
Customer Approval	
Customer Part No.	

Approved By	Checked By	Made By
		



Advanced Acoustic Technology Corporation



ISO 9001 Certified

ISO 14001 Certified



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[illegible]

1. SPECIFICATION

AK-230810-MM1CV6

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 23 mm	
03	Rated Input Power	1.0 W	
04	Max. Input Power	1.5 W for 1 minute	
05	Impedance	$8\Omega \pm 15\%$ at 2KHz 1V	
06	Resonance Frequency (Fo)	700Hz $\pm$ 20% at Fo, 1V	
07	Sound pressure level	95dB(1.0W/0.1M) $\pm$ 3 dB	at AVG 0.8, 1.0, 1.2, 1.5 KHz.
08	Frequency Range	Fo – 10 K Hz	
09	Total Harmonics Distortion	Max 10 % at 1 KHz, 1.5V.	
10	Magnet	Rare earth permanent (NdFeB) magnet $\Phi 9.5 \times 1.5$ mm	
11	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.	
12	Operation Test	Must be normal at program source 1.0 W	
13	Buzz, Rattle, etc.	Should not be audible at 2.83V sine wave between Fo to 20KHz	
14	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.	
15	Terminal Strength	Capable of withstand 1kg load for 15 seconds without resulting in any damage or rejection.	
16	Temperature	Operating temperature: -20°C to +60°C Storage temperature: -30°C to +70°C	

RoHS

2. MEASURING METHOD

2-1 .Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity: 45% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

JUDGEMENT

Temperature : 20±3°C

Relative humidity: 60% ~ 70%,

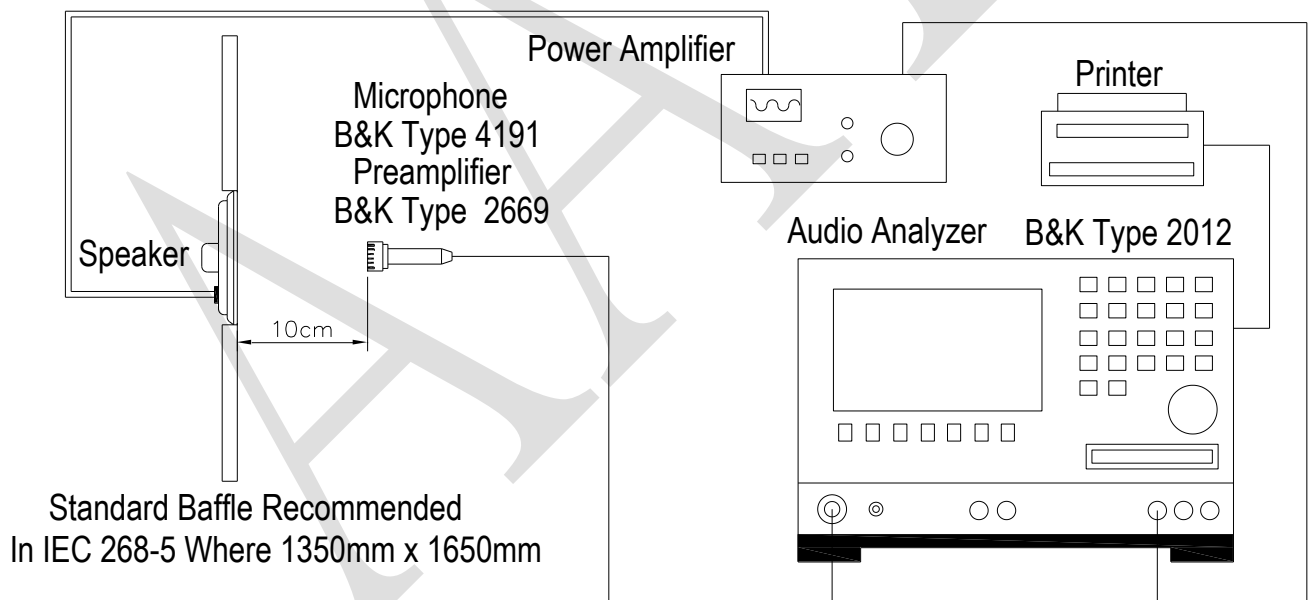
Atmospheric pressure: 860mbar to 1060mbar

2-2. Standard Test Fixture

1. Input Power: 1.0W (2.83V)

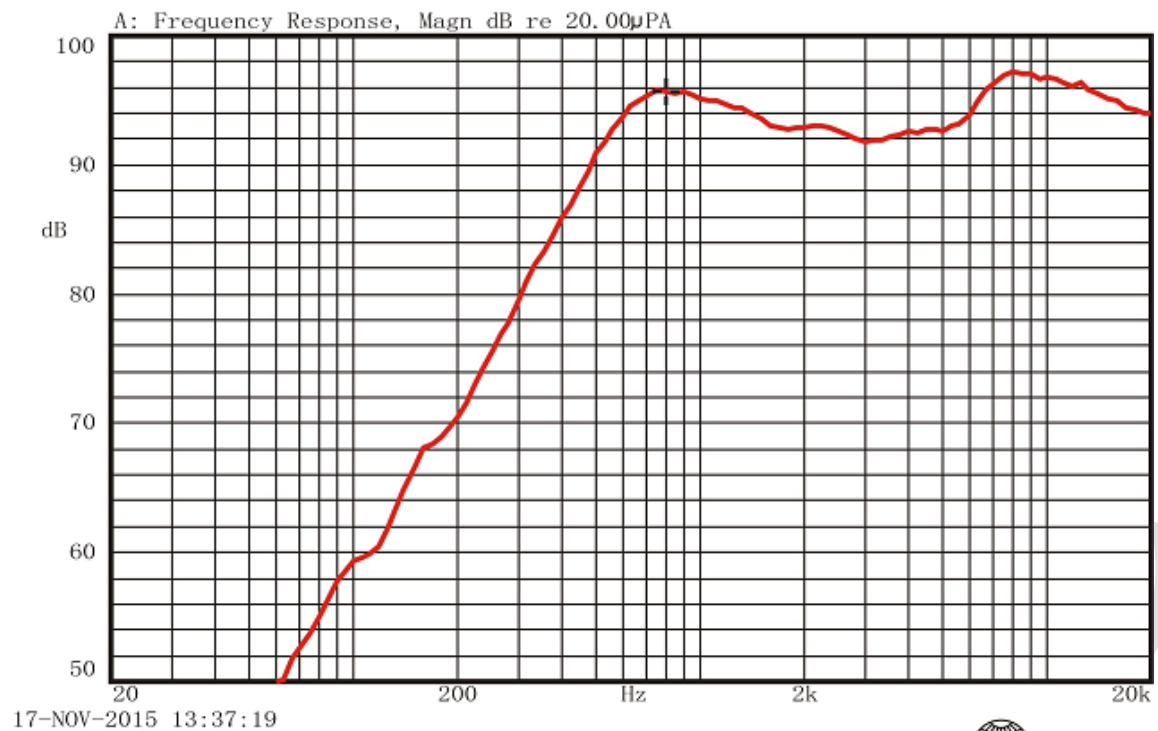
2. Mode: SPEAKER

3. Distance: X=10 cm



2-3. Frequency Response Curve

X:800.00Hz *Y:95.63dB ZA:Live Curve SSR Fund.

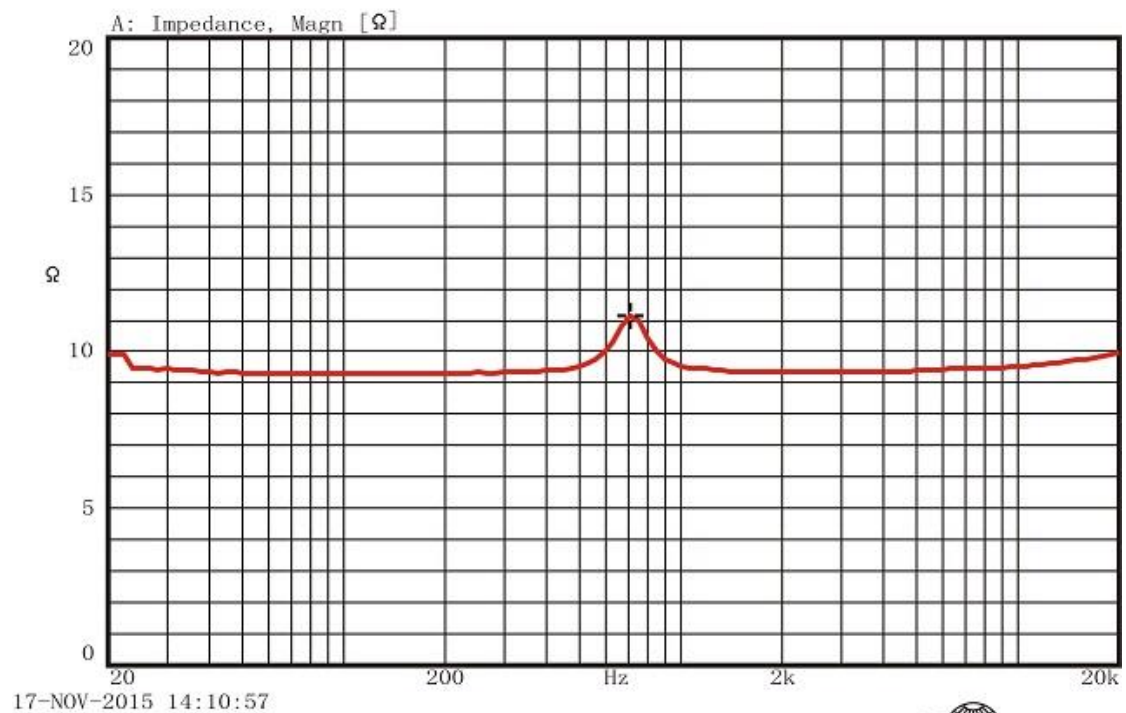


Mode: SPEAKER



2-4. Impedance Curve

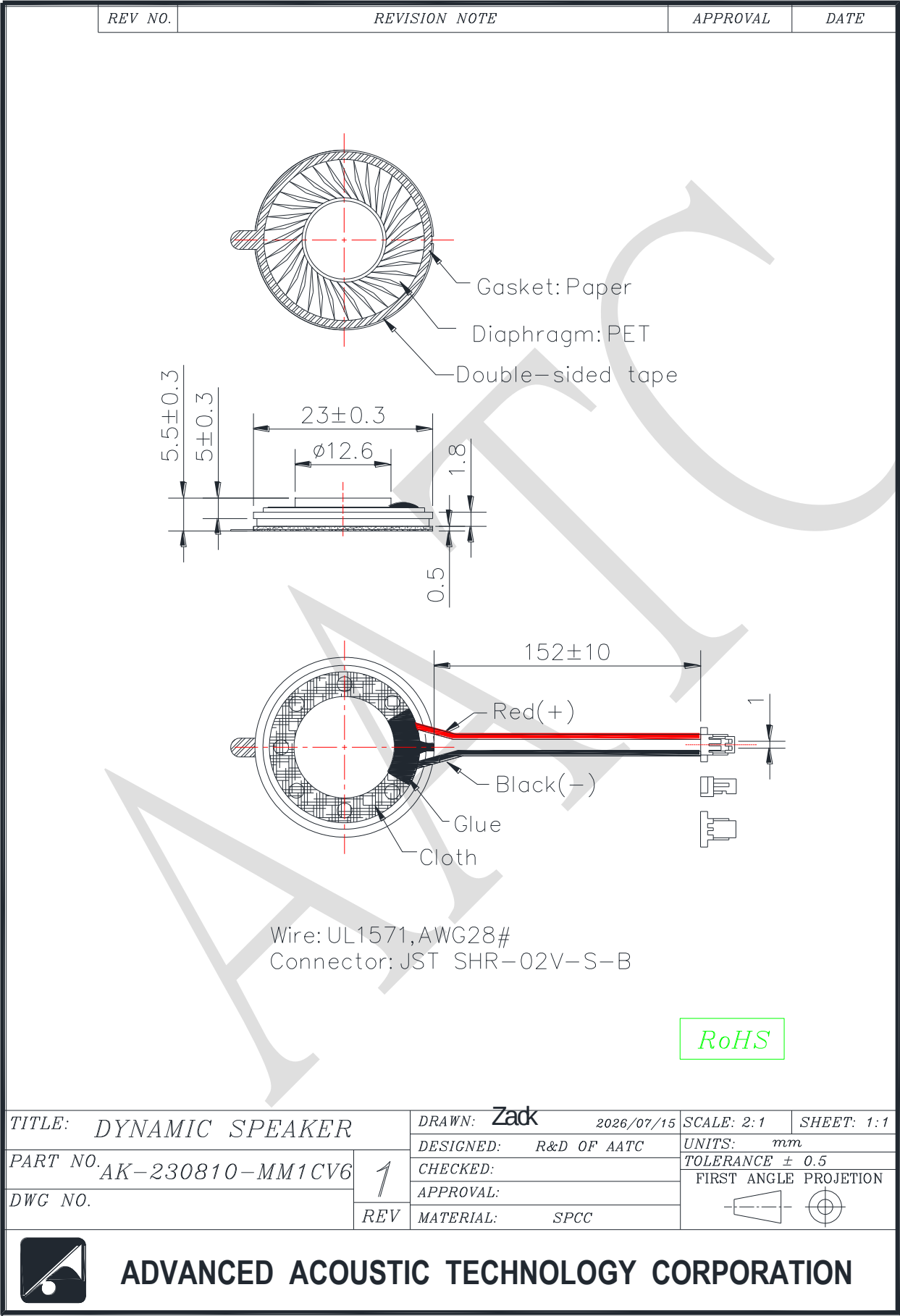
IMPEDANCE MEASUREMENTS: Measurement of Impedance $Z(j\omega)$
X:710.00Hz Y:11.13 Ω ZA:Live Curve Impedance



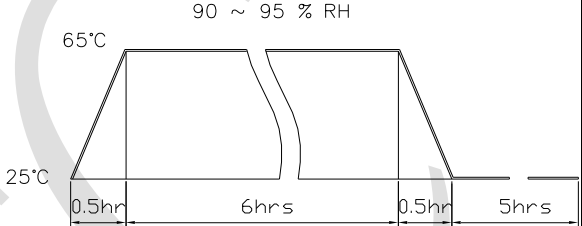
Mode: $Z(j\omega)$



3. DIMENSIONS



4. RELIABILITY TESTS

Items.		Specifications
01	High temp. Test	Keep 96 hours at $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	The part shall be subjected 5 cycles. One cycle shall be 12 hours. 
05	Thermal cycle test.	Low temperature: $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$, temperature: $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	Vibration	10~55~10Hz sin-wave sweep 15min. 5G(constant) X, Y, Z 3 direction. 2 hours each, total 6 hours.
07	Free drop test	Free drop from 100cm height to the concrete floor X, Y, Z 6 direction. 1 time each, total 6 times.
08	Load test	Rated power white noise is applied for 96 hours
09	Max Power test	Max power 1 min. on - 2 min. off 10 cycles.
10	Terminal strength test	Capable of withstand 1kg load for 15 seconds without resulting in any damage or rejection.

Criterion :

1. After testing any of the above reliability test items, the change of S.P.L shall be within ± 3 dB.
2. AATC reserves the right to change product material without prior notice, guaranteeing the same specification. Materials are subject to change due to environmental regulations, sourcing, and process improvements.
3. If you need more information, please contact our technology department, thank you.

5. PACKING

units: cm

Remark:

100pcs per tray

8 trays for unit, 2 units per carton

Total:1600 pcs per box

Size:36.5*30*28.5cm

