

SPECIFICATION

Customer :

Applied To :

Product Name : SPEAKER

Model Name : KW5090SA81625A-4E

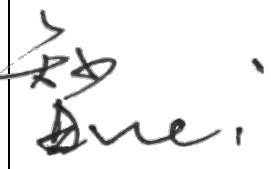
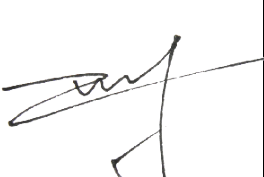
Drawing No. : OEM210813027

Green Level : Sn-Pb RoHS RoHS and HF

Signature of Approval

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Signature of KINGWEI

Approved by	Checked by	Issued by	Date
			



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1. Scope

This product specification is applied to the two mode 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 : 90x50 mm

2.2 Height : 37.5 mm

2.3 Weight : 100 g

2.4 Operating Temperature range : -30~+75 °C without loss of function

2.5 Store Temperature range : -40~+85°C without loss of function

3. Electrical and Acoustic Characteristics.

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

3.1 Speaker

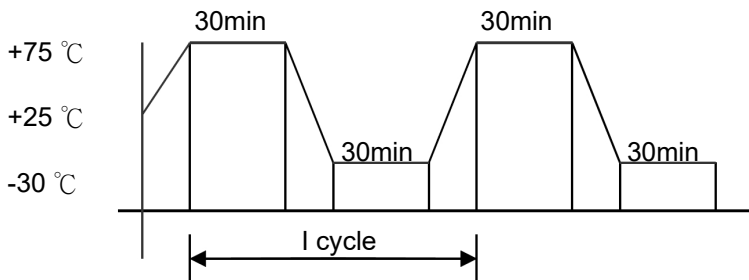
NO	ITEM	SPECIFICATION	TEST CONDITION
1	IMPEDANCE	16Ω±15%	AT 2kHz
2	OUTPUT POWER	88±3db	At 0.1M/0.1W, Average of 1.0K, 1.2K, 1.5K, 2.0KHz
3	Resonance Frequency (Fo)	270Hz ± 20%	
4	FREQ RESPONES	Fo - 20KHZ ±20%	OUTRUTS.P.L±10db
5	INPUT POWR(NOM.)	2.5W (White noise with JIS filter) 1 minute, 10 times at intervals of 2 minutes)	
6	INPUT POWR(MAX.)	5W (White noise with JIS filter) 1 minute, 10 times at intervals of 2 minutes)	
7	AUDIBLE NOISE	Must be free audible noise (buzzes and rattles) (100 Hz~3000 Hz frequency range, input level up to4.9Vrms)	
8	Magnet	Rare earth permanent (Nd-Fe-B) magnet 2-Φ 32x18x6mm	
9	Voice Coil	Diameter Φ 13.28mm KSV+Cu	
10	Vibrating plate	橡膠邊紙盆 Rubber + Paper Cone	
11	DISTORITON	5%Max	1W AT 1kHz

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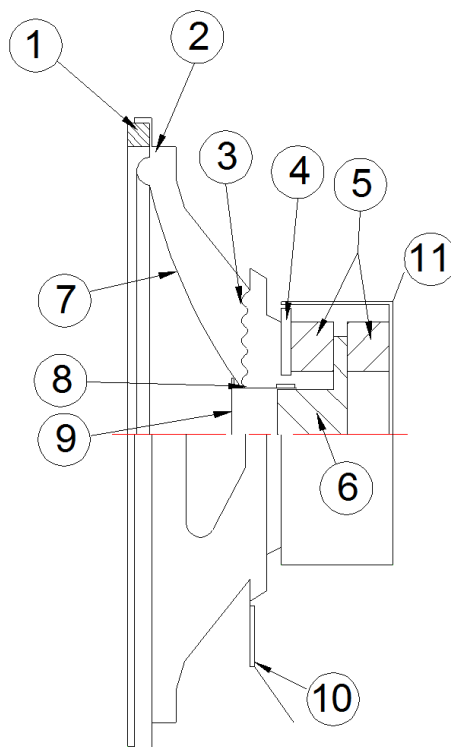
4. Reliability Test

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

	Item	Specification
1	High Temperature Test	After being placed in a chamber with $+85\pm 3^{\circ}\text{C}$ for 48 hours and then being placed in natural condition for 1hours, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-40\pm 3^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1hours, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 90 to 95%R.H. at $+70\pm 2^{\circ}\text{C}$ for 48 hours and then being placed in natural condition for 1 hours, speaker shall be measured.
4	Thermal Shock Test	<p>After being worked in a chamber at $+75^{\circ}\text{C}$ for 30min, then sounder shall be placed in a chamber at -20°C for 30min (1 cycle is the below diagram). After 6 above cycles, sounder shall be measured after being placed in natural condition for 1 hour.</p>  <p>The diagram shows a temperature profile for one cycle. The y-axis represents temperature in degrees Celsius, with markers at $+75^{\circ}\text{C}$, $+25^{\circ}\text{C}$, and -30°C. The x-axis represents time. The cycle starts at $+25^{\circ}\text{C}$, ramps up to $+75^{\circ}\text{C}$ (labeled 30min), holds at $+75^{\circ}\text{C}$ (labeled 30min), ramps down to -30°C (labeled 30min), holds at -30°C (labeled 30min), ramps up to $+25^{\circ}\text{C}$ (labeled 30min), and holds at $+25^{\circ}\text{C}$ (labeled 30min). A double-headed arrow below the x-axis indicates the duration of one cycle.</p>
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 10 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	The speaker after being applied loading white noise with input power 10W for 72 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 $1\text{M}\Omega$

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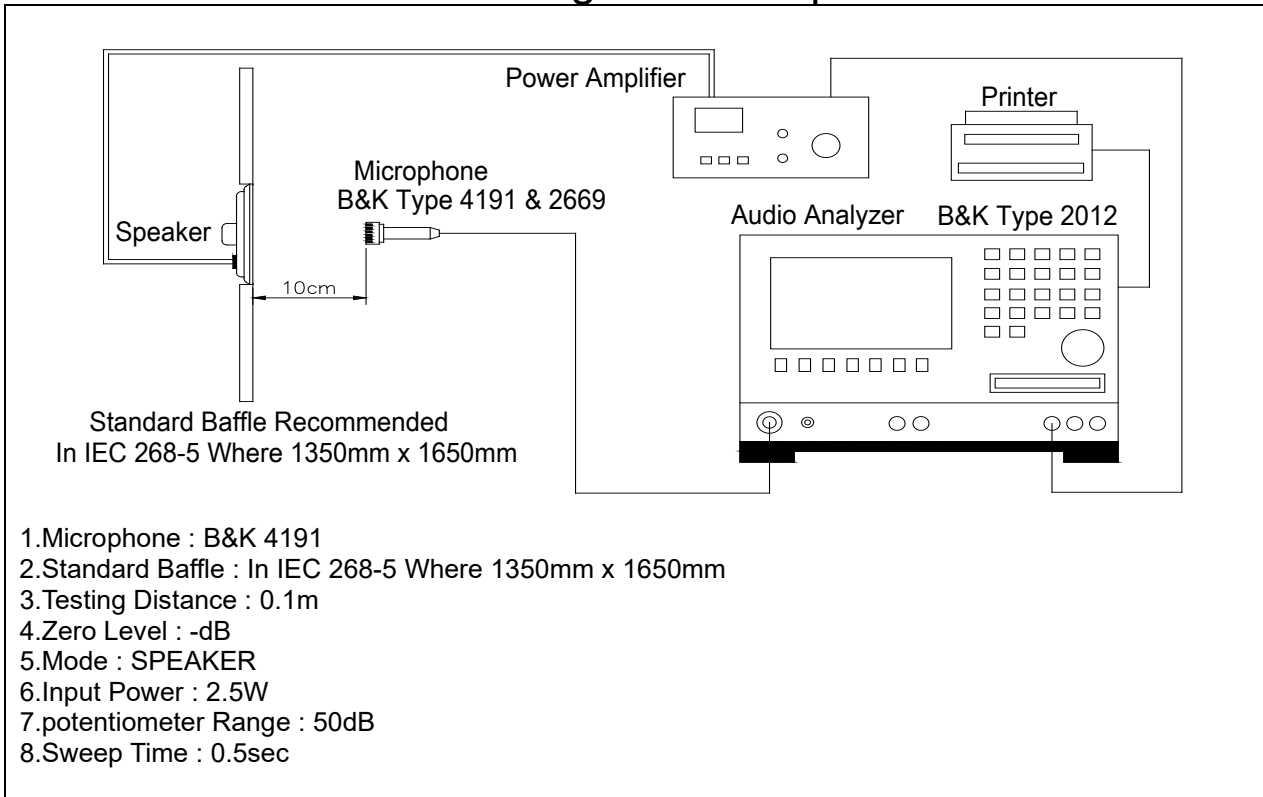
5. Drawing



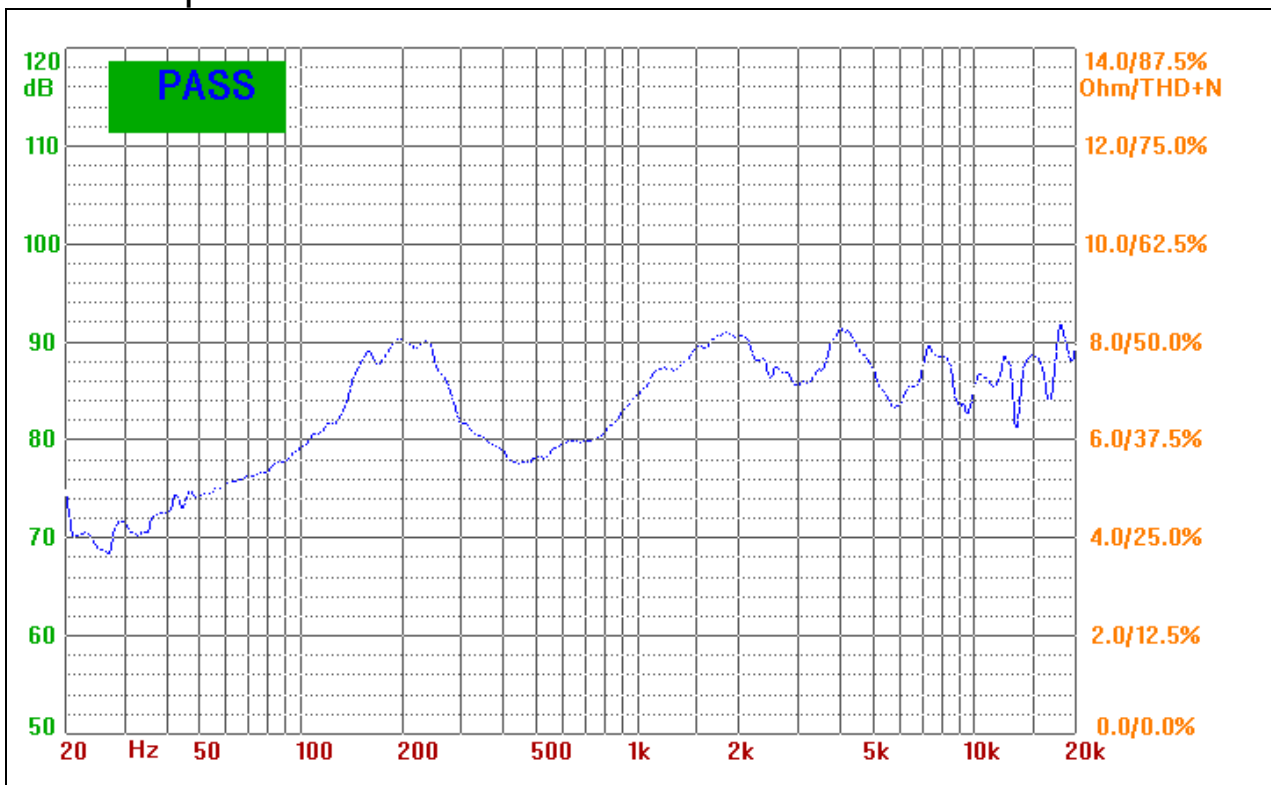
11	磁罩 Magnetic Cover	1	冷軋鋼板 SPCC	
10	接線板 Terminals	1	紙+鐵 Paper+Steel	
9	帽子 Dust cap	1	紙帽 Paper	
8	音圈Voice Coil	1	紙管 PL+Cu	
7	鼓紙 Cone	1	泡邊紙盆 Foam+Paper	
6	T鐵 T-Yoke	1	冷軋鋼板 SPCC	
5	磁鐵 Magnet	1	鐵氧鐵 Ferrite	
4	華司Washer	1	冷軋鋼板 SPCC	
3	彈波 Damper	1	布 Cloth	
2	盆架 Frame	1	冷軋鋼板SPCC	
1	壓邊 Gasket	1	紙 Paper	
No.	Part Name 型號	Q'TY	Material 材質	Remarks 備註

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6. Measurement Block Diagram & Response curve

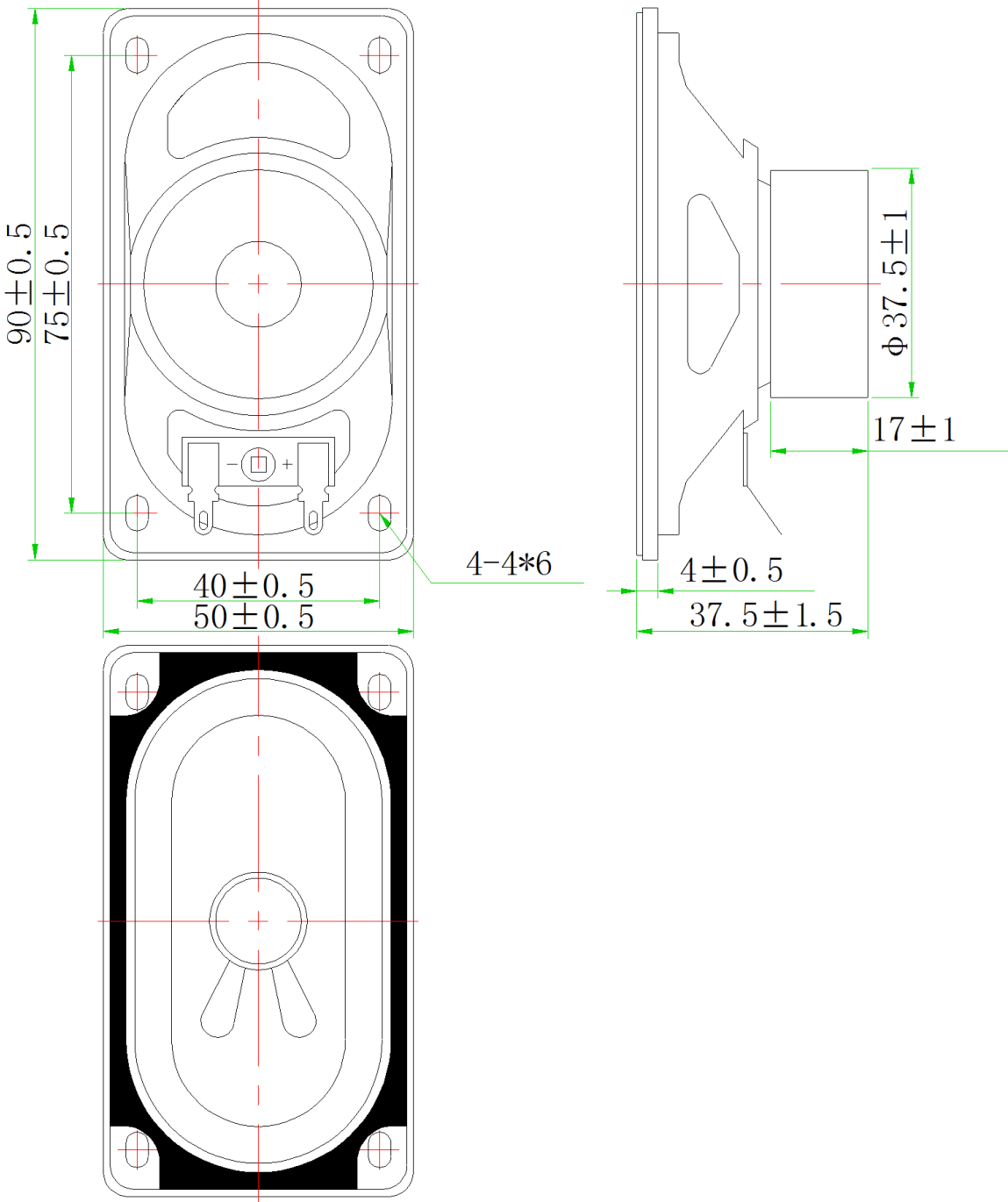


Response curve



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7. Dimensions

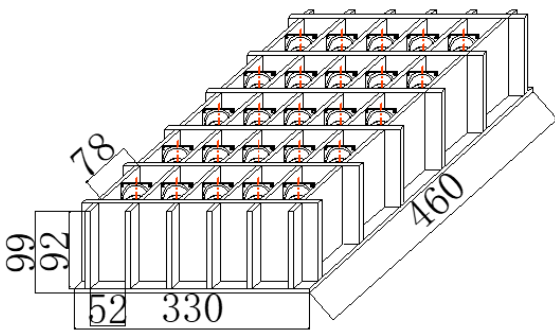


FIRST ANGLE PROJECTION

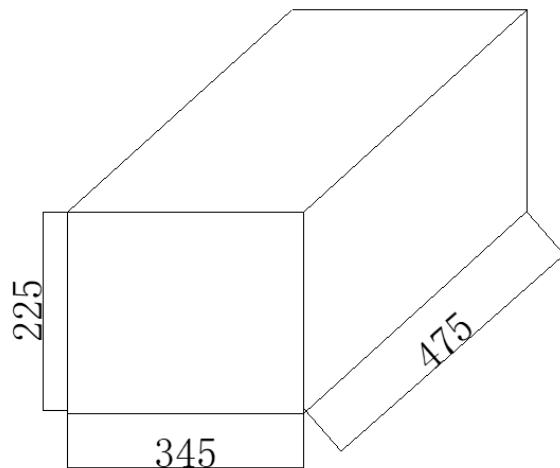
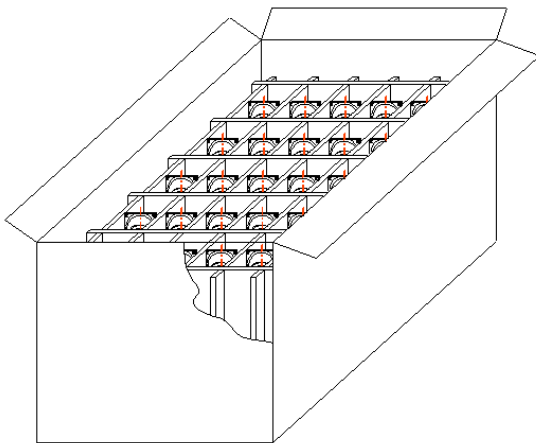
UNIT : mm
Tolerance : ± 0.2

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8. Packing specifications



1. Each clapboard 50pcs,
Each carton 2 clapboards,
100 pcs/carton
N.W: 9 KG, G.W:11 KG
2. Corrugated paper: 460*330mm 1 pcs
3. Carton size: 475*345*225mm 1 pcs



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9. Revision

Rev. No.	DATE	PAGE	DESCRIPTION	BOM
1.0	2021.08.13		primary	