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# Component Specification

Product : Speaker  
Part Number : CA-SM2646A-0810W100  
Drawing No : KFC7415


## Content

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2. Electrical & Acoustical Characteristics
3. Test Circuit
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## Notes:

This specification is subject to change or withdrawel without notice

This part is RoHs 2011/65/EU compliant

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## 1. General

Speaker highly suitable for industrial applications.

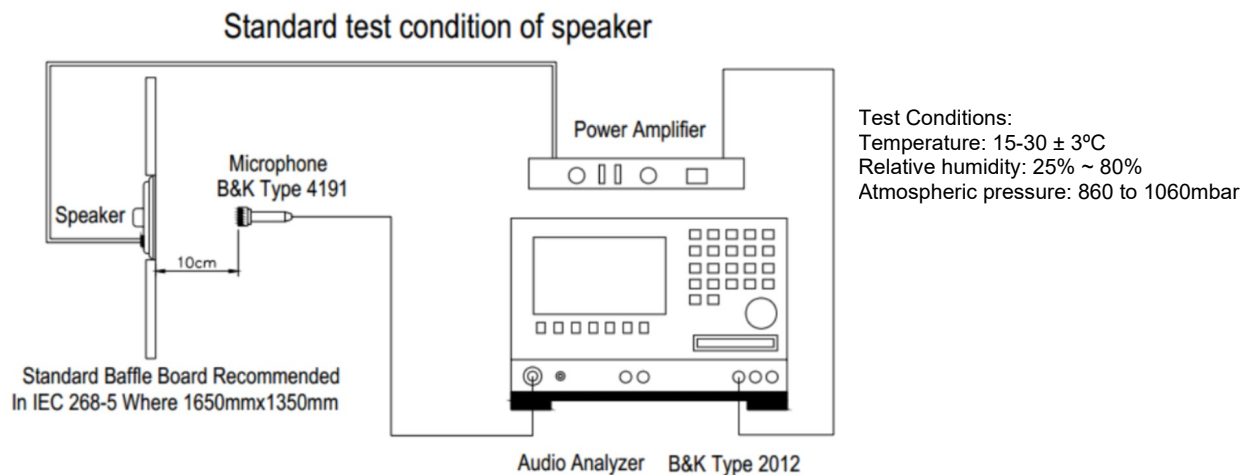
## 2. Electrical and Acoustic Characteristics

No	Items	Specification
	Impedance	$8\Omega \pm 15\%$ (1Vrms a 2Khz)
	Sound Pressure Level	90dB $\pm$ 3dB 0.1W/0.1M at 1kHz 100dB $\pm$ 3dB 1W/0.1M at 1kHz
	Resonance Frequency	800Hz $\pm$ 20% at 1V
	Frequency Range	200Hz ~ 5KHz
	Input Power	Rated 1W / Max. 1.5W
	Distortion	<5% Max. at 1kHz/1W
	Buzz and Rattle	Should not be audible buzzes,rattles when the 2.83V sine wave signal swept at frequency range.
	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.
	Dimensions	26x4.6mm
	Weight	5.6g
	Operating Temperature range	-30~+70 °C
	Store Temperature range	-40~+85 °C

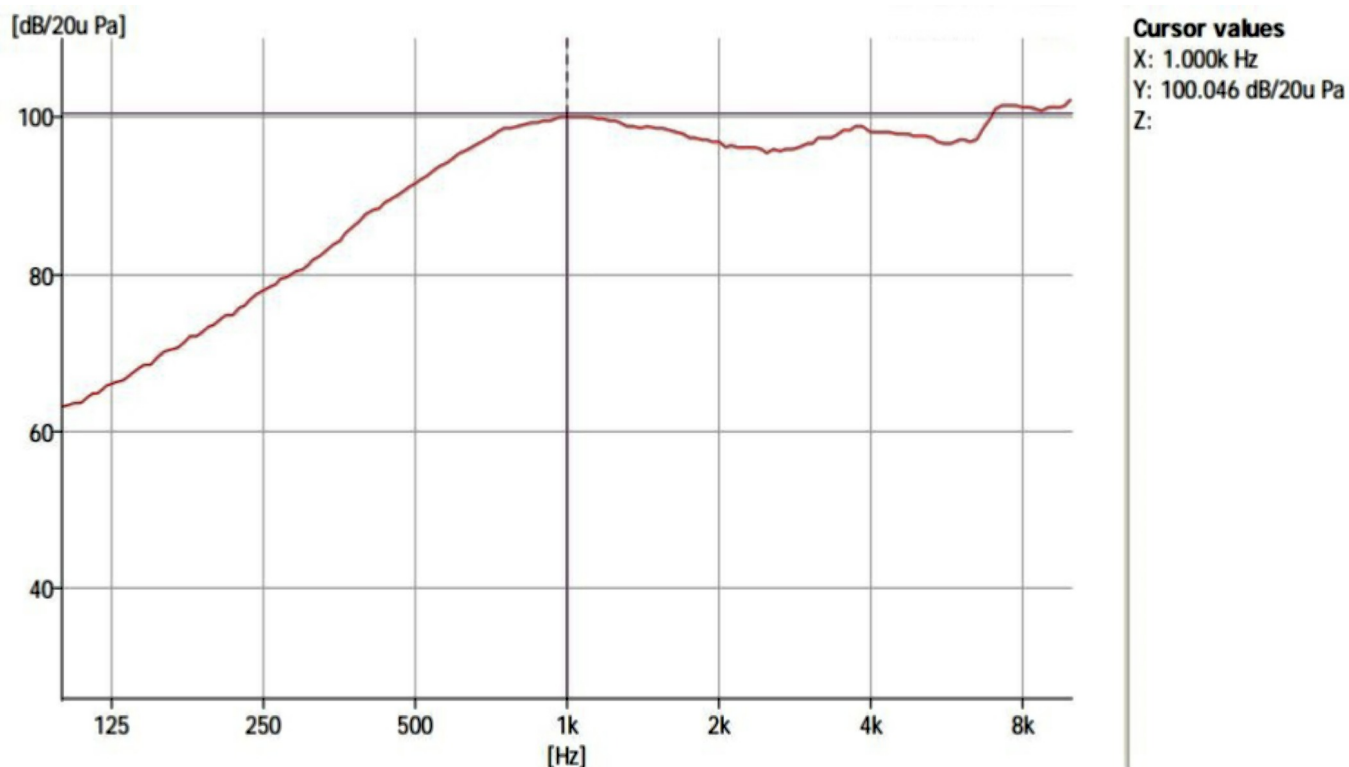
1 . 0	16/10/15	Preliminary	L. Chen	S. Ge	G. Schubert
Revision	Date	Note	Drawn by	Checked by	Approved by

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### 3. Test Circuit



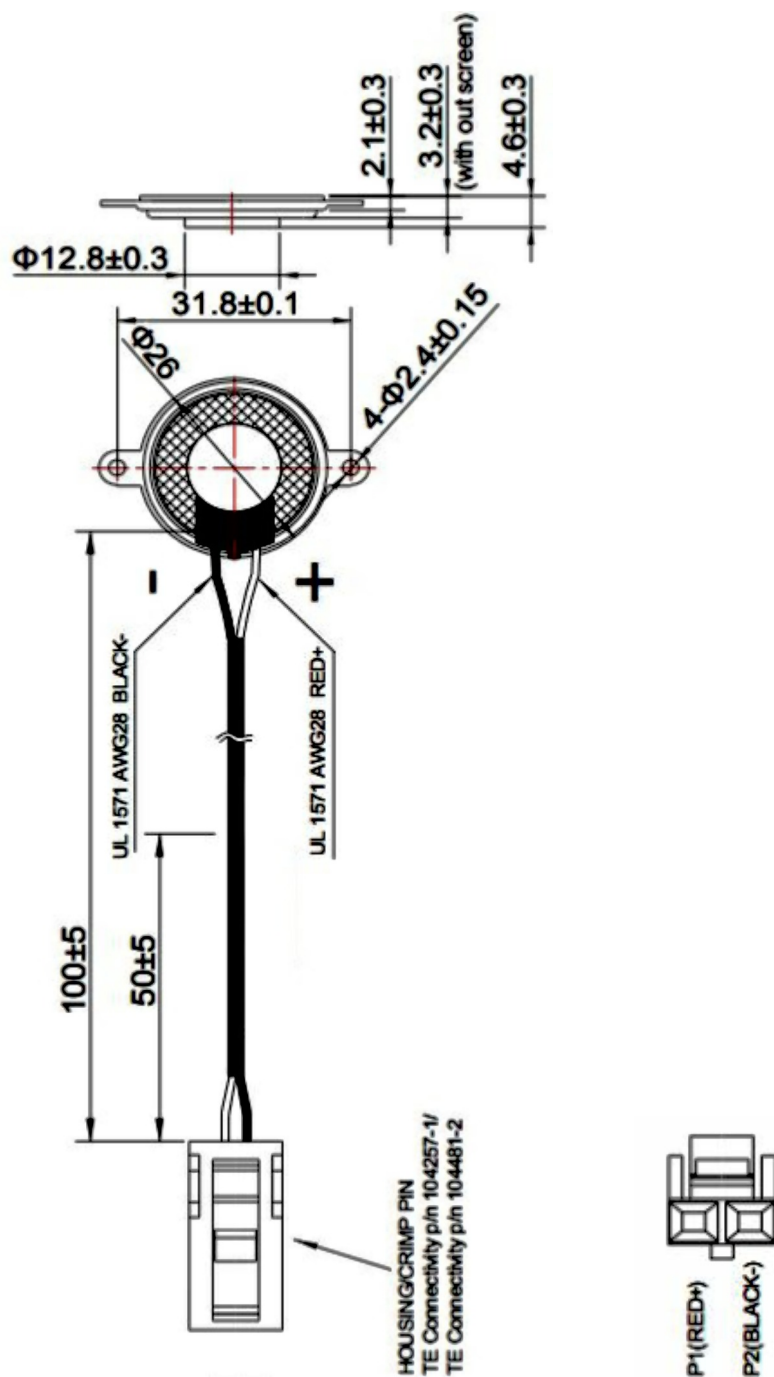
### 4. Frequency Response Curve




1.0	12/01/15	Preliminary	L. Chen	S. Ge	G. Schubert
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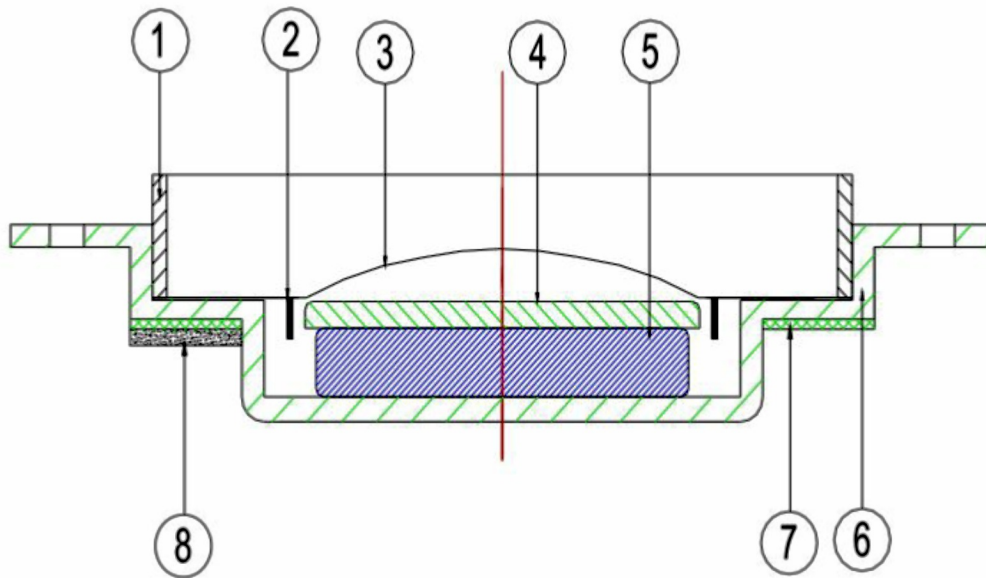
## 5. Dimension



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## 6. Structure

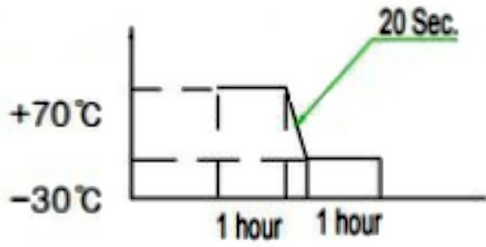


8	Terminal	1	Epoxy PCB	
7	Screen	1	Unwoven Fabric	
6	Frame	1	SPCC	
5	Magnet	1	Nd-Fe-B	
4	Plate	1	SPCC	
3	Diaphragm	1	PET	
2	Voice coil	1	Copper	
1	Gasket	1	Paper	
No.	Part Name	Qty	Material	Remarks

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## 7. Reliability Test

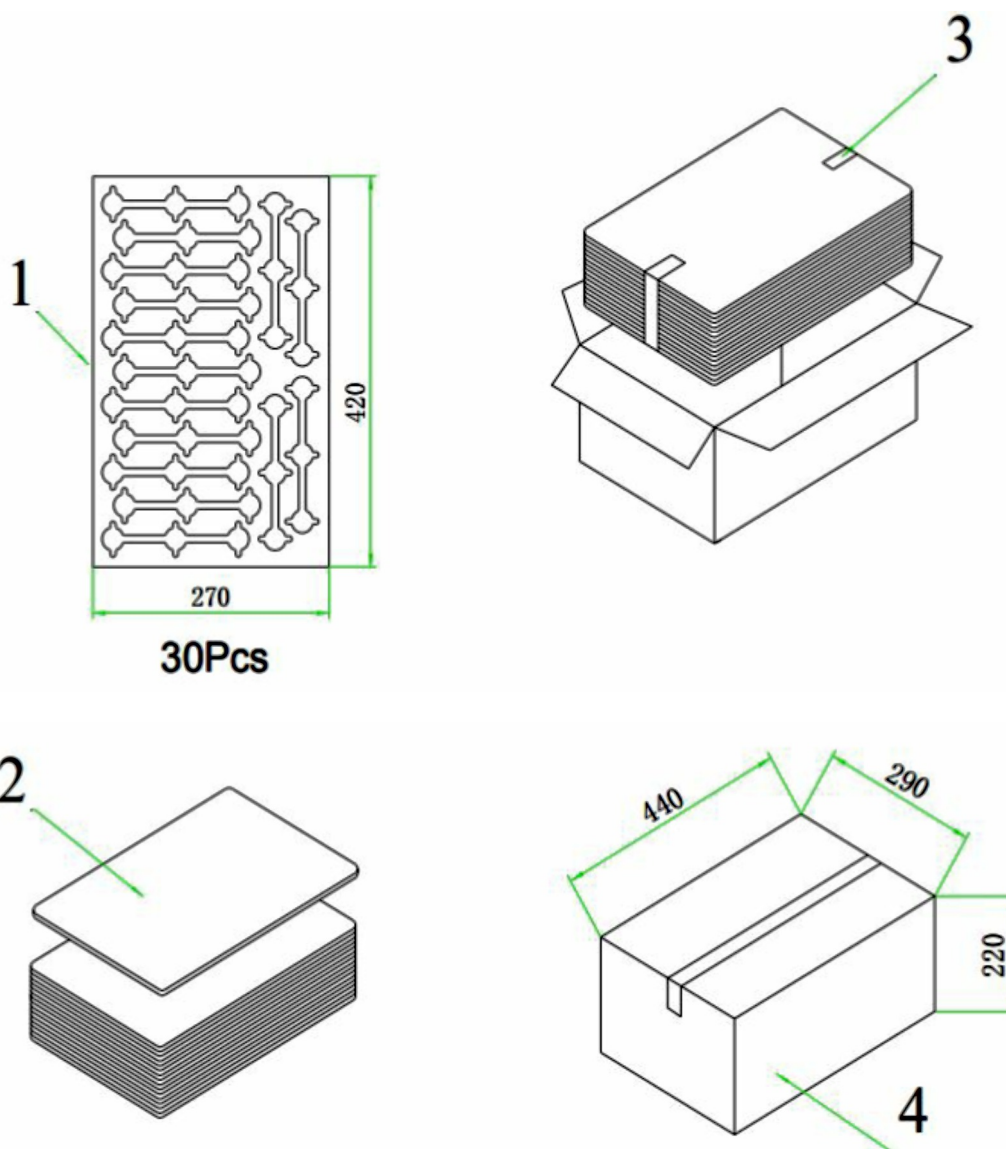
No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $85\pm 3^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be Measured.
2	Low Temperature Test	After being placed in a chamber with $-40\pm 3^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at $+40\pm 2^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4	Thermal Shock Test	<p>After being placed in a chamber at <math>+70^{\circ}\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-30^{\circ}\text{C}</math> for 1 hour (1 cycle is the below diagram). After 6 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</p> 
5	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55Hz 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 15 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	After being applied loading white noise with input power 1W(2.83Vrms.) for 96 hours, then placed in natural condition for 1 hour, speaker shall be measured.
8	Isulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 MΩ

After test 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 distortion)

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## 8. Packing



**QTY: 480Pcs**  
**440 x290 x220**

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## 9) Revision

Rev. No	Date	Page	Description	Sign
10	12/01/15	all	Preliminary	Wang.Xue

1 . 0	12/01/15	Preliminary	L. Chen	S. Ge	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by