



Contitec Electronics Ltd.
Schatzbogen 33
81829 München

Tel. +49 89 99 81 86 30
Fax. +49 89 3219 50 75
eMail: sales@contitec.com
web: www.contitec.com

Component Specification

Product : Speaker
Part Number : CA-SL4020B-0810P
Drawing No : CE94S43


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2. Electrical & Acoustical Characteristics
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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.

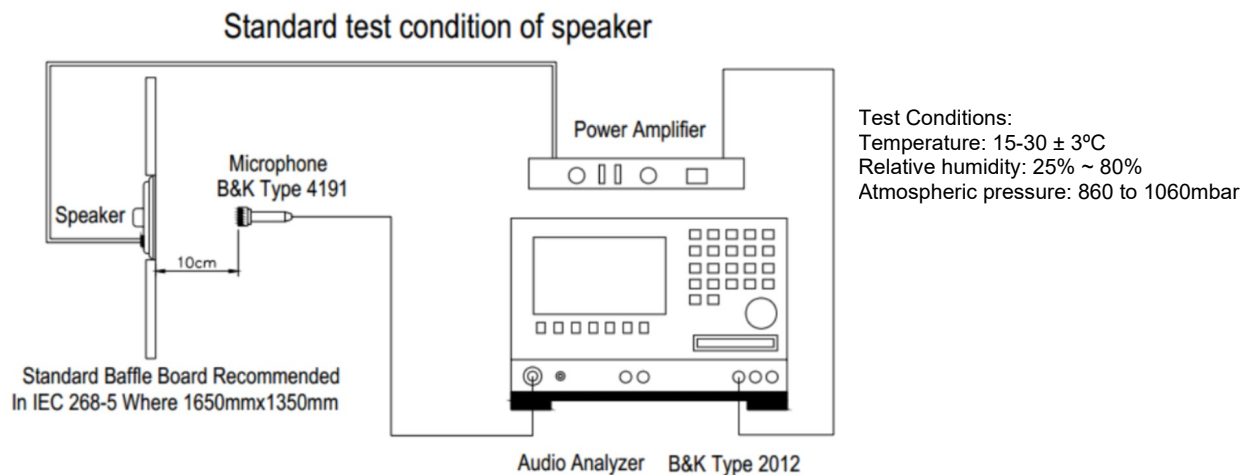
2. Electrical and Acoustic Characteristics

No	Items	Specification
	Impedance	$8\Omega \pm 15\%$ (1Vrms a 1Khz)
	Sound Pressure Level	$91\text{dB} \pm 3\text{dB}$ (0.1W/0.1M at 0.8, 1.0, 1.5, 2kHz)
	Resonance Frequency	$600\text{Hz} \pm 20\%$
	Frequency Range	f0~10KHz
	Input Power	Rated 1W / Max. 1.5W
	Distortion	<10% Max. at 2kHz/2Vrms
	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	40x20x8.2 mm
	Weight	5.8g
	Operating Temperature range	-20~+50 °C
	Store Temperature range	-40~+60 °C

1 . 0	16/10/15	Preliminary	L. Chen	S. Ge	G. Schubert
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3. Test Circuit



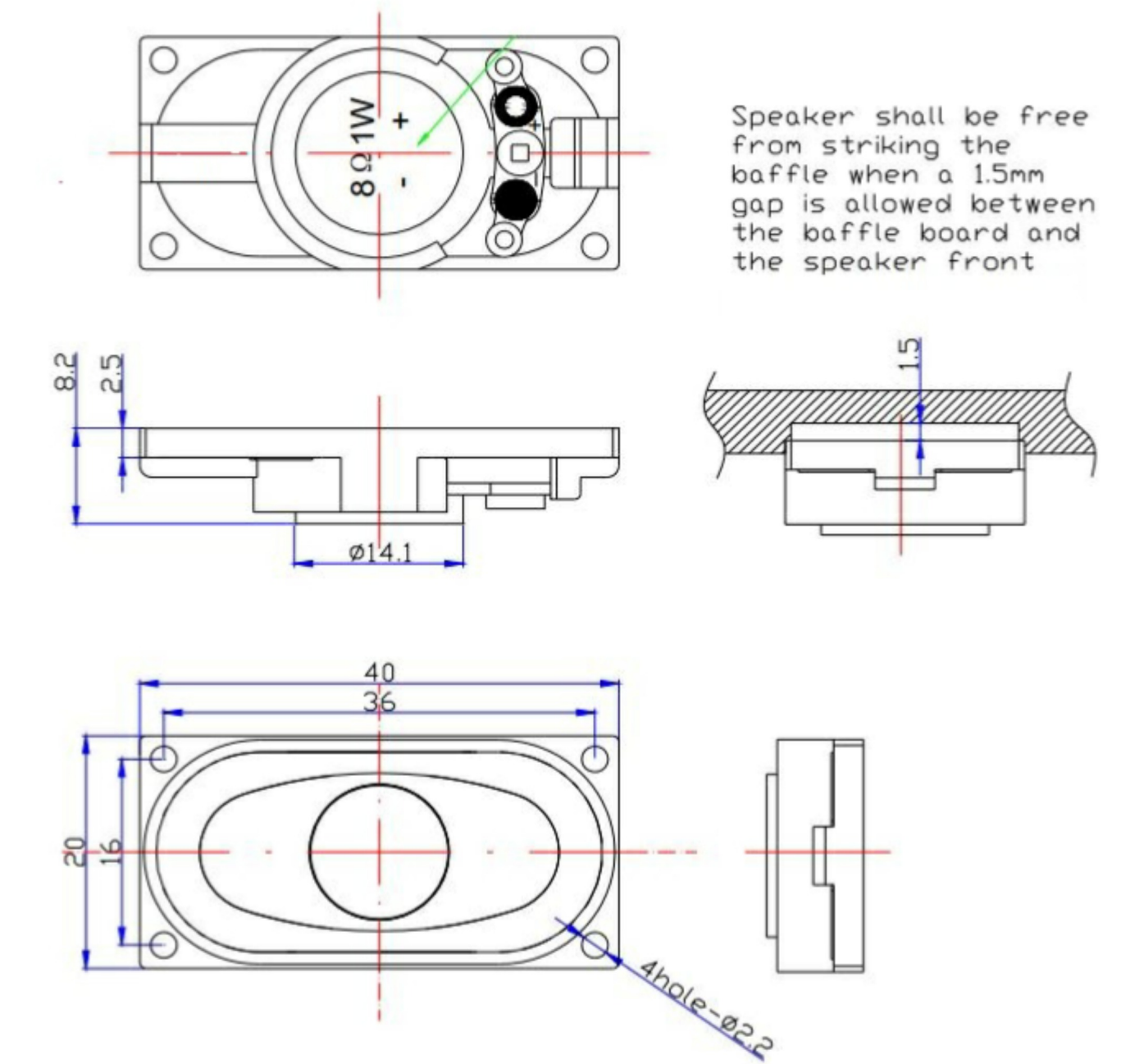
4. Frequency Response Curve




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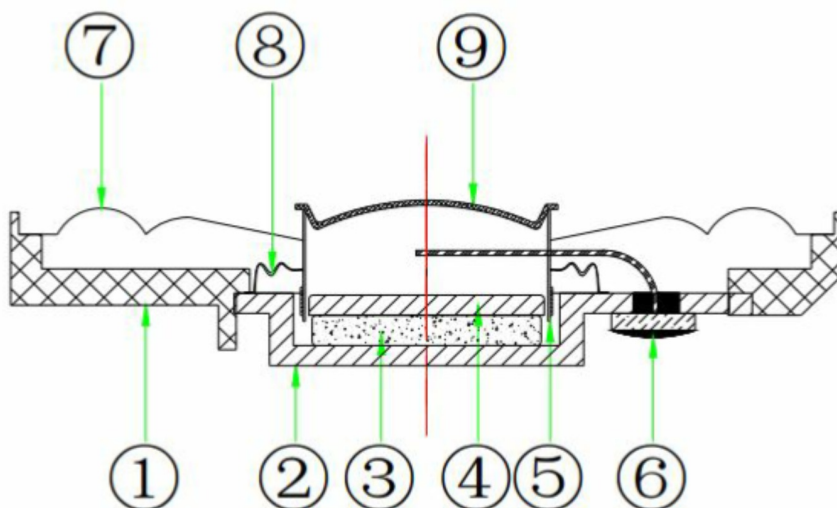
5. Dimension



1 . 0	29/12/09	Preliminary	L. Chen	S. Ge	G. Schubert
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6. Structure

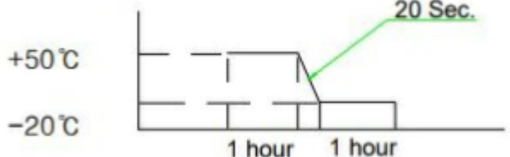


9	Dust Camper	1	Kraft Paper	
8	Damper	1	Silk	
7	Diaphragm	1	Tetoron	
6	Terminal	1	White Fiber	
5	V-Coil	1	Lock bobbin	
4	Plate	1	SPCC	
3	Magnet	1	Nd-Fe-B	
2	YOKE	1	SPCC	
1	Frame	1	ABS	
No.	Part Name	Qty	Material	Remarks

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7. Reliability Test

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $60\pm3^{\circ}\text{C}$ 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 $-40\pm3^{\circ}\text{C}$ 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 $+40\pm3^{\circ}\text{C}$ 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 $+50^{\circ}\text{C}$ for 1 hour, then speaker shall be placed in a chamber at -20°C 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

Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number, quantity and outgoing inspection number.

There shall be no mechanical damage on products during transportation and/or in storage.

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9) Revision

Rev. No	Date	Page	Description	Sign
10	29/12/09	all	Preliminary	Wang.Xue

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