Contitec Electronics Ltd.
Schatzbogen 33
D-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-SM2349A-5006EG86
Drawing No: K3030201-00018

Content

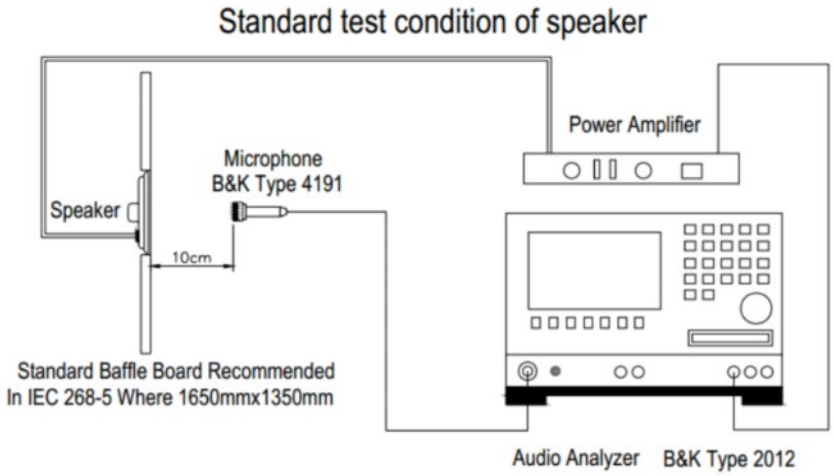
1. General

Speaker highly suitable for industrial and automotive applications.

2. Electrical and Acoustic Characteristics

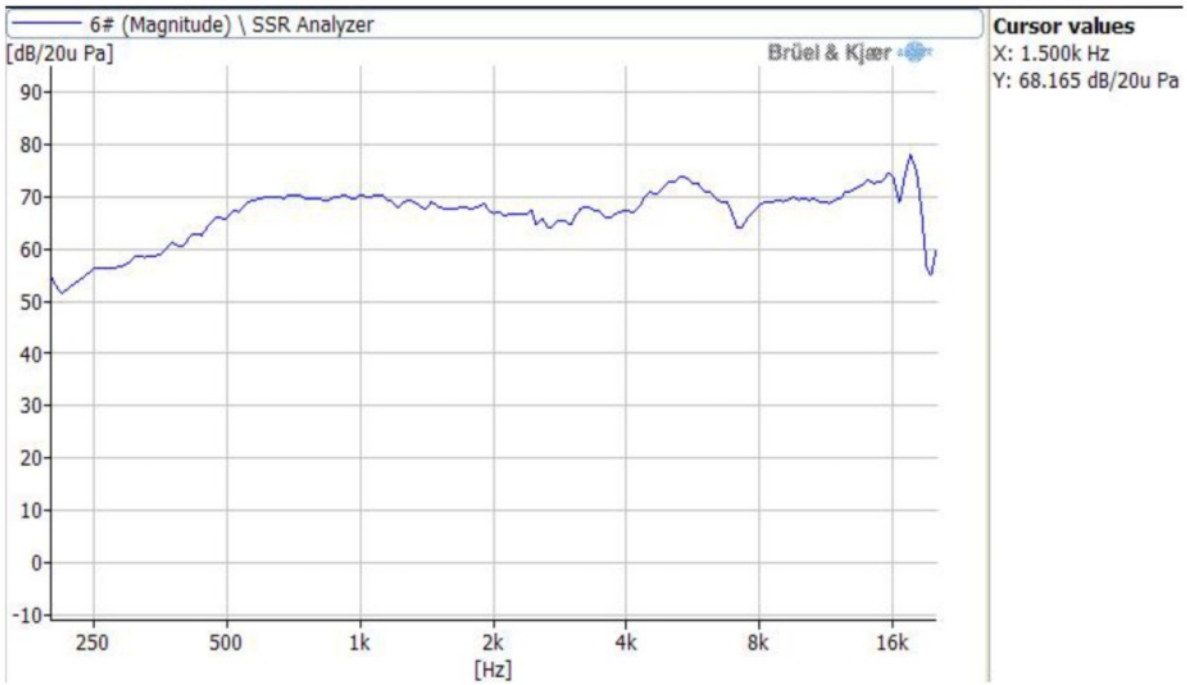
No	Items	Specification
	Impedance	50Ω ± 15% (1Vrms a 2Khz)
	Sound Pressure Level	68dB ± 3dB (0.1W/0.1M- at 0.8,1.0,1.2,1.5kHz)
	Resonance Frequency	500Hz ± 20%
	Frequency Range	300Hz~20KHz
	Input Power	Rated 0.6W / Max. 1.0W
	Distortion	< 5% Max. at 1kHz 0.1W
	Buzz and Rattle	Should not be audible buzzes, rattles when the 5.48V sine wave signal swept at frequency range.
	Polarity	When supplyed plus D.C. Voltage to (+) terminal, the cone diaphragm must move to forward.
	Flammability	The material of the membrane has to be of low flammability. The maximum burn-rate Bmax has to be less than 100mm-minute
	Dimensions	29.9x5.4mm
	Weight	4.5 g
	Operating Temperature range	-40~+85 ºC
	Store Temperature range	-40~+90 ºC

3. Test Circuit



Test Conditions:
Temperature: 15-30 ± 3ºC
Relative humidity: 25% ~ 80%
Atmospheric pressure: 860 to 1060mbar

4. Frequency Response Curve



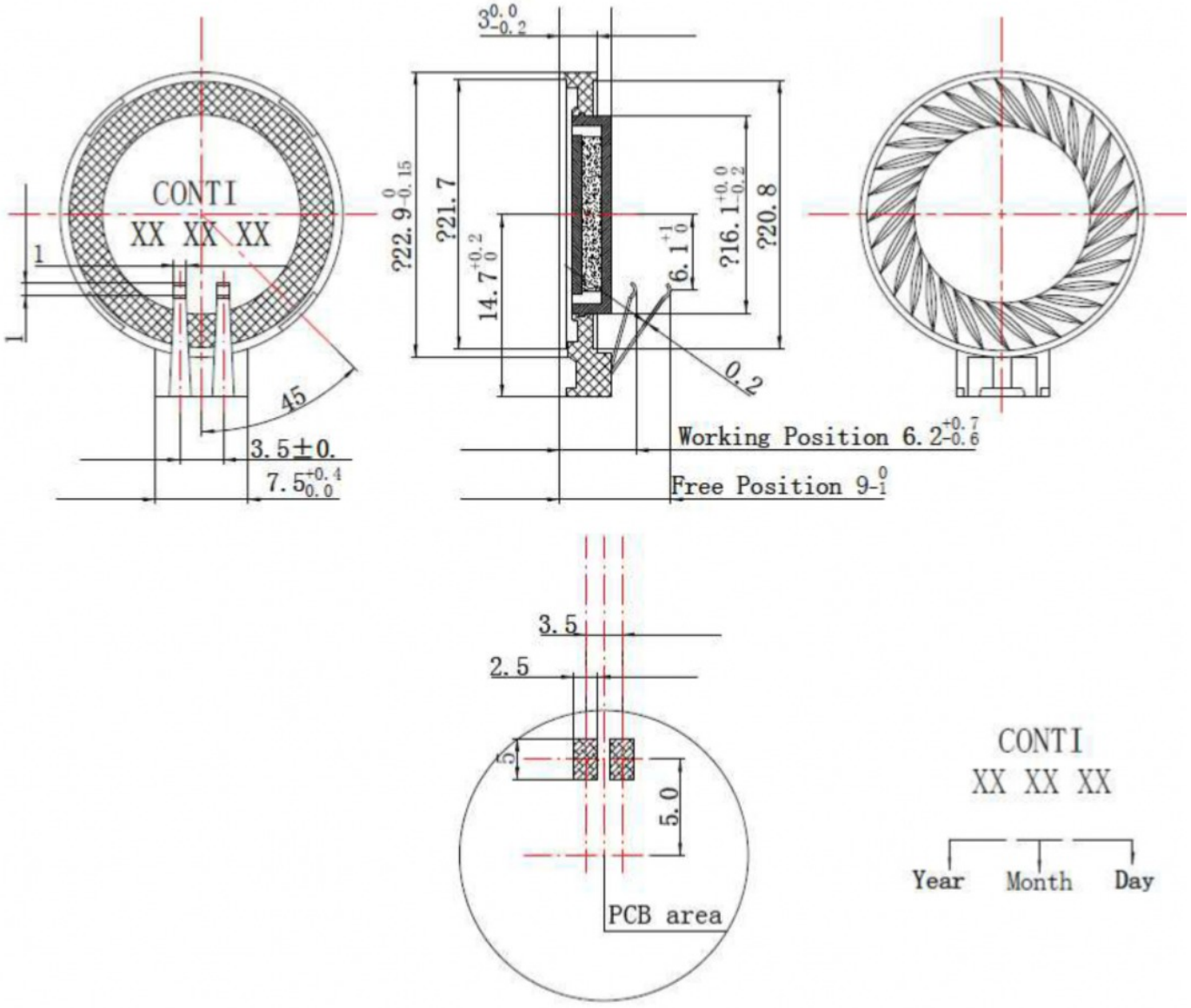
Revision	Date	Notes	Drawn by	Checked by	Approved by
01	10/01/2020	Production release	L. Chen	S. Ge	G. Schubert

5. Reliability Test

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with 85±3 ºC for 1000 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±3C for 1000 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 +55±3C for 6 hours and 6 cycles , then being placed in natural condition for 3 hour, speaker shall be measured.
4	Thermal Shock Test	After being placed in a chamber at +85 C for 30 min, then speaker shall be placed in a chamber at -40Cfor 30 min (1 cycle). After 100 above cycles, speaker shall be measured after being placed in natural condition for 30 min.
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 4 times random drops from a height of 1.0 meter to a concrete floor faced with 5mm thick hard wood board.and be nothing mechanical damage.
7	Operation at high temperature test	Put product in +85C environmental for 656 hours and take out in to normal air pressure for 1 hours and then test. Signal 7.75 Vpp , 800Hz square wave 50% duty cycle
8	Operation at low temperature test	Put product in -40 C environmental for 24 hours and take out in to normal air pressure fir 1 hours and then test. Signal 4.38 Vpp , 800Hz square wave 50% duty cycle
9	Thermal cycling load test	Condition: - 40 C working 1 hour, rise temperature for 2 hours , + 90C working for 1 h and reduce temperarture for 2 h , speaker working Test signal 4.38Vpp, 800Hz sq. wave 50% duty, One cycle: 1 min pulse, working 75ms, stop 294ms and then working 2 min, stops 8 min. Total cycle 320 hours

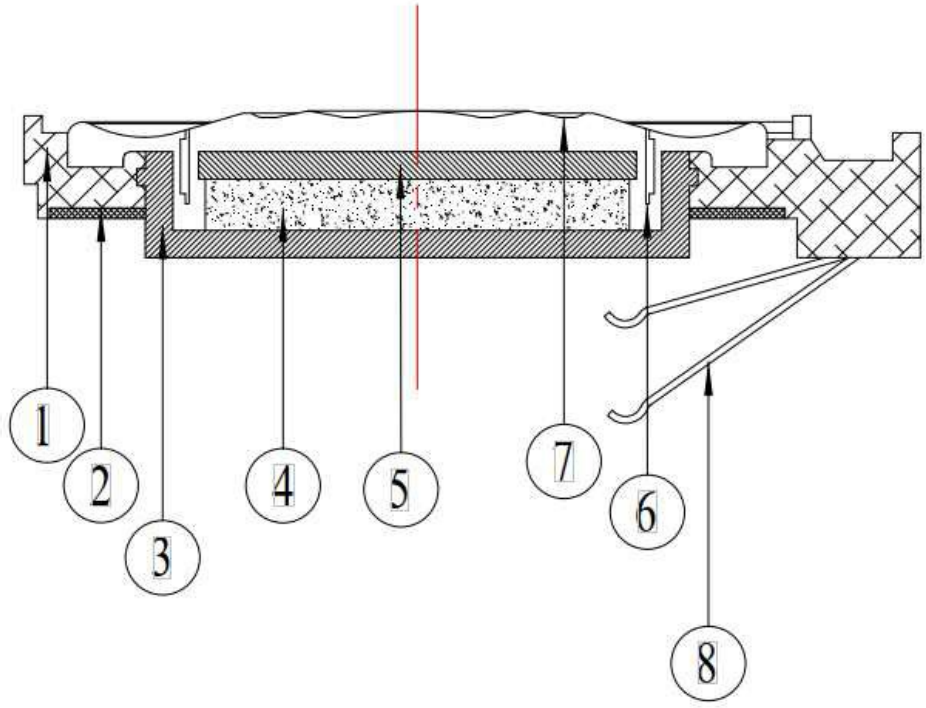
After test the speaker S.P.L. Difference shall be within ± 3dB, and the appearance not exist any change to be harmful to normal operation (e.g. Cracks, rusts, damages and distortion)

6. Dimension



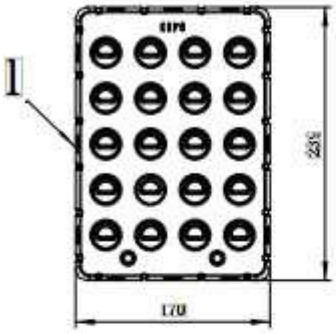
01	10/01/2020	Production release	L. Chen	S. Ge	G. Schubert
Revision	Date	Notes	Drawn by	Checked by	Approved by

7. Structure

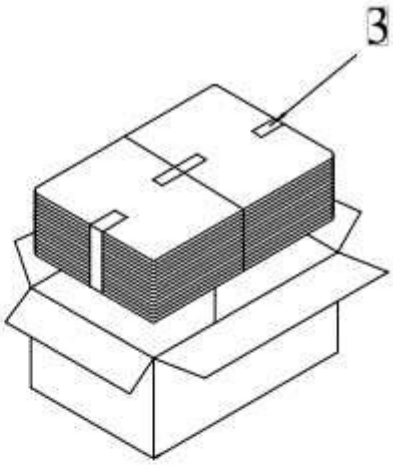


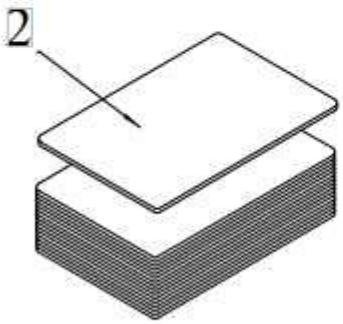
No.	Part Name	Qty	Material	Remarks
8	Spring	1	SUS301 3 / 4H	
7	Voice Coil	1	Copper	
6	Diaphragm	1	PEI	
5	Plate	1	SPCC	
4	Magnet	1	Nd-Fe-B	
3	U YOKE	1	SPCC	
2	Screen	1	Unwoven Fabric	
1	Frame	1	PPA	

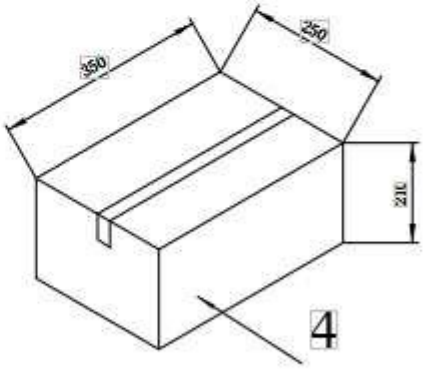
8. Packing



20Pcs







QTY: 440Pcs
350x250 x210

9) Revision

Rev. No	Date	Page	Description	Sign
´01	10/01/2020	all	Production release	Wang.Xue