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Specification 規格書

品名 (Product Name)	揚聲器 (Speaker)	
料號 (Model No.)	P28CR08FB-1-50BD	

Revision History			
Version	Date	Description	Author
V1.0	2007/01/30	Creation	WS
V1.1	2009/12/03	Update	WHK
V1.2	2010/11/30	Update FO	RSQ

核準 (Approval)	高紅華	2010/11/30
審查 (Check)	曾憲財	2010/11/30
制作 (Author)	饒三慶	2010/11/30

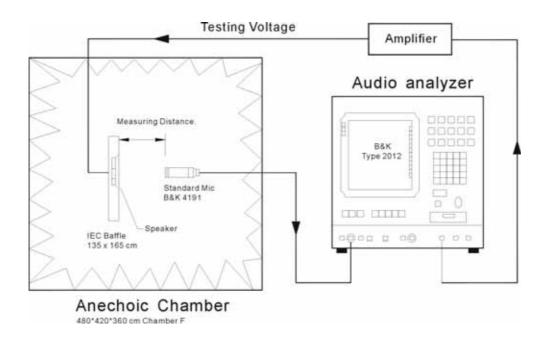


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1. MODEL:	28CR08FB-1-50BD		
2 Dimension & Weight Outer Diameter \$\phi_{28}\$ is	Outer Diameter \$\phi_{28} \text{ mm}\$		
Baffle Opening \$\phi_{25. 5}\$	Baffle Opening \$\phi_25. 5 mm		
Height Refer to draw	ring Weight 6 Grams		
3 Magnet Materials Rare	e Earth Size \$\theta 1.5 \times 1.5 mm		
4. DC Resistance 8	$\Omega\pm$ 15 %, On OHM METER		
5. Power Rating Normal 1.5 Watts	Normal 1.5 Watts Maximum 2.0 Watts Sine Wave.		
Normal Watts	Maximum Watts Square Wave.		
6. Resonant Frequency 600	± 20 % Hz.		
7. Output Sound Pressure 82 ± 3 c	db/ 1.0 Watt • 0.5 Meter		
Level (S.P.L.) Average at 60	00, 800 , 1000 , 1200 Hz.		
8. Frequency Range 300	~ 20000 Hz. Average SPL - 10 db.		
9. Distortion 5 % Max	kimum At 1000 Hz. 1.0 W.		
10 Abnormal Sound test Must be Normal Tested	Must be Normal Tested By 3.46 Volts. Sine Wave.		
11 Load Test Pink noise with HPF(High F	Pink noise with HPF(High Pass Filter 235HZ-3db-11db/Oct)3.46Volts(RMS.)96hrs		
	Diaphragm shall move Forward while Apply a Positive DC Signal to the " + " or " Marked " Terminal.		
Above Measuring condition under temperature : 15~35°C R.H. 25 ~75%. According to standard GB/T9396-1996			
Mechanical and vibration test			
13 High Temperature + 70 ± 2 °C Humidi	ty Random for 96 Hours. (GB2423.2-81)		
14 Low Temperature -30 ± 2 °C Humidit			
15 Humidity + 40 ± 2 °C Relative	+ 40 \pm 2 °C Relative Humidity (RH) 90 \sim 95 % 96 Hours.		
16 Vibration Frequency 30 ± 15 Hz,	Frequency 30 ± 15 Hz, Amplitude 1.5 mm for 3 Hours. (GB11606.8-89)		
17 Drop test 75 CM free falling on Co	75 CM free falling on Concrete floor, 10 times. (GB2423. 8-81)		
After test leave speakers at room temperature for 1 hour, SPL shall not deviate by \pm 3 db from pre-test			
Temperature Cycle test − 30 ~ + 70 °C 4 Cycles Temperature test. (GB5170.18-87)			
After test leave speakers at room temperature for 1 hour, SPL shall not deviate by \pm 3 db from pre-test			
Measurement, and meet above spec. item 6. 7. 8. 9. 10.			
Please refer to next pages for more	e detailed testing method.		

Test method and User precaution.

- 1. Characteristics measured according to standard GB/T 9396-1996
 - 1.1 Except other specified, measuring are under Temperature 15~35℃ R.H. 25 ~75%
 - 1.2. Judgement condition Temperature 20 ±2 R.H. 63~67%
 - 1.3 .Product shelf life is valid for 12 months only.
- 2. Output Sound Pressure Level (S.P.L.) and distortion testing setup



3. Environment & Mechanical test:

3.1 High Temperature: GB2423.2-81

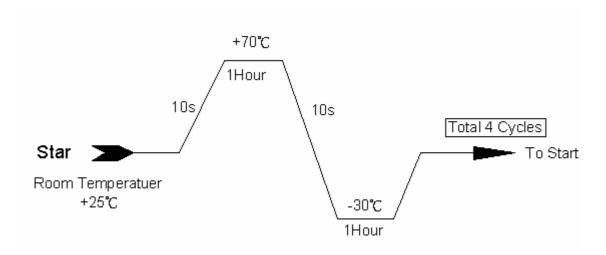
After exposure the speaker in the + 70 \pm 2 °C chamber for 96 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by \pm 3 db, and resonant frequency should not deviate by \pm 50 Hz, compare with pre-test measurement.

3.2 Low Temperature: GB2423.1-81

After exposure the speaker in the -30 ± 2 °C chamber for 96 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by \pm 3 db, and resonant frequency should not deviate by \pm 50 Hz, compare with pre-test measurement.

3.3 Temperature cycle: GB5170.18-87

After exposure the speaker in the chamber, temperature cycle setting as below shows, SPL should not deviate by \pm 3 db, and resonant frequency should not deviate by \pm 80 Hz, compare with pre-test measurement.



3.4 Humidity: GB5170.18-87

After exposure the speaker in the \pm 40±2 °C, relative humidity 90% ~ 95% chamber for 96 hours, then leave the speaker at room temperature for 6 hours, the SPL should not deviate by \pm 3 db, and resonant frequency should not deviate by \pm 50 Hz, compare with pre-test measurement.

3.5 Vibration: GB11606.8-89

Frequency 30 ± 15 Hz, Amplitude 1.5 mm for 3 Hours. After test, SPL shall not deviate by ±3 db from pre-test measurement,

3.6 Load test: GB/T 9396-1996

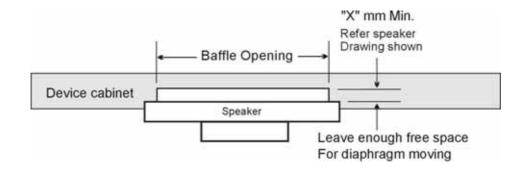
Speaker should not fail after apply $20 \sim 20 \text{K}$ Hz pink noise with HPF rated power input (RMS), 96 hours. After test, SPL shall not deviate by ± 3 db from pre-test measurement,

3.7 Drop test: GB2423. 8-81

75 cm free falling on concrete floor, 10 times. After test, SPL shall not deviate by ± 3 db from pre-test measurement,

4. Mounting precaution

In order to keep speaker work normally, there shall leave enough free space for diaphragm moving, minimum distance required is marked in speaker mechanical drawing.



5. Measuring & standard referenced

Abstract from GB/T 9396-1996 and IEC 268-5:1989 methods of measurement for main characteristics of loud speakers.

5.1 Rated sine voltage.

It is stipulated by manufacturer, sine signal voltage that make speaker work continuously in rated frequency range, but the speaker wouldn't be damaged heartily or mechanically. The persist time of the voltage is 1 hour.

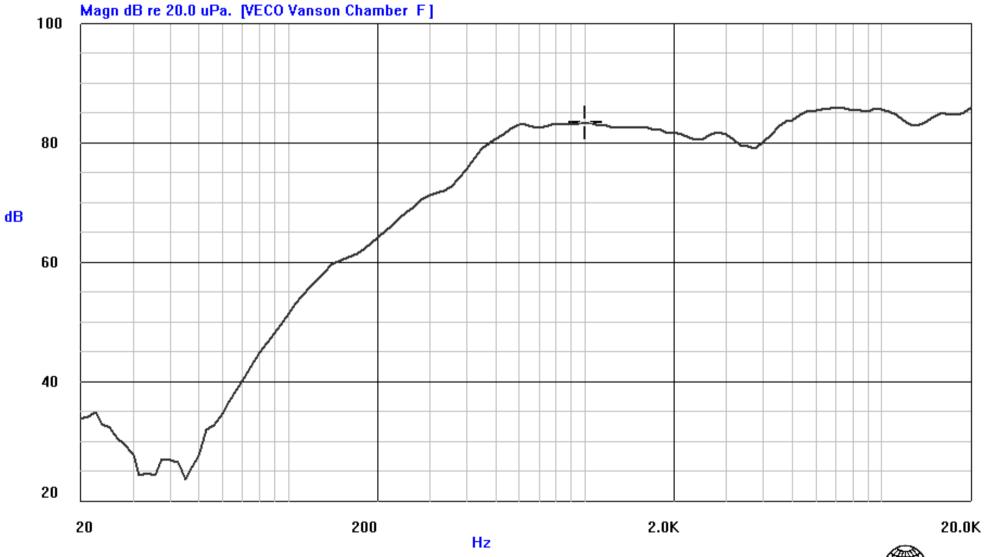
5.2 The rated sine power.

The rated sine power is corresponding with the rated sine voltage, its definition is U_s^2/R , Us indicates the maximum sin voltage, R indicates the rated impedance.

5.3 The rated noise power.

The rated noise power is corresponding with the rated noise voltage, its definition is U_n^2/R , Un indicates the rated noise voltage, R indicates the rated impedance.

P28CR08FB-1-50BD VOL:2.83V(1W) DIS:0.5M VANSONIC

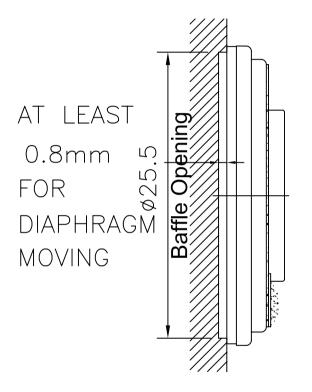


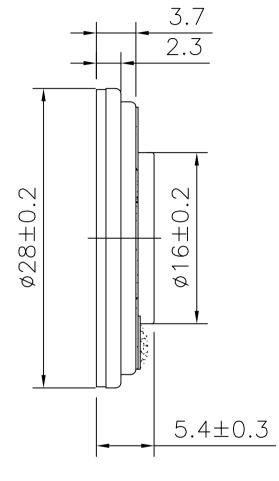
Current Curve: 0 X: 1000 Hz Y: 83.30 dB

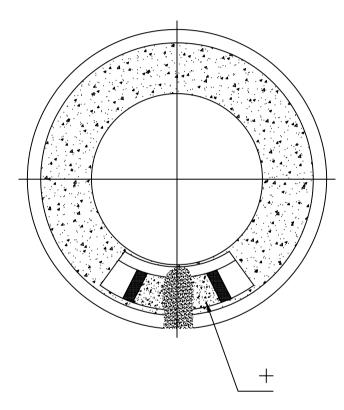
Time(Y/M/D H:M:S): 2007/ 1/31 1: 5:12



MOUNTING NOTICE







RANGE TOL			/	
0-8	±0.05	±0.10	±0.20	±0.30
8-16	±0.10	±0.15	±0.25	±0.40
16-24	±0.15	±0.20	±0.30	±0.50
24-50	±0.20	±0.25	±0.40	±1.0
50-100	±0.25	±0.30	±0.50	±2
>100	±0.40	±0.40	±0.80	±3

Vanson Electronics (Nanhai) Co., Ltd. Title: P28CR08FB-1-50BD

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V1.0 07.01.06		6			
VERSION DATE			DESCRIPTION	7	
Unit: mm Sc		ale:	Appr.: 高紅華		
Tol:		\bigcirc	CHK:劉雪華	Dwa.: 悤繼茂	