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Specification

規 格 書

品名 (Product Name)	揚聲器 (Speaker)
料號 (Model No.)	P40KT08-W

Revision History			
Version	Date	Description	Author
1.0	2010/09/10	Creation	LHN
1.1	2010/10/12	修改喇叭總高度	LHN
1.2	2015/09/11	修正規格	LHN
1.3	2015/12/16	修正耐溫溫度	LHN
1.4	2018/02/26	修正No.13	LHN

核準 (Approval)	高紅華	2018/02/26
審查 (Check)	曾憲財	2018/02/26
制作 (Author)	劉紅妮	2018/02/26

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1.	MODEL:	P40KT08-W
2	Dimension & Weight	Outer Diameter 40X20 mm Baffle Opening 19X39 mm Height Refer to drawing Weight 4.4 Grams
3	Magnet	Materials Rare Earth Size 9.5ϕ × 1.5 mm
4.	DC Resistance	8 $\Omega \pm 15 \%$, On OHM Meter
5.	Power Rating	Normal 1.0 Watts Maximum 1.5 Watts Sine Wave. Normal Watts Maximum Watts Square Wave.
6.	Resonant Frequency	520 $\pm 20 \%$ Hz.
7.	Output Sound Pressure Level (S.P.L.)	83 ± 3 db/ 1.0 Watt · 0.5 Meter Average at 800, 1000, 1200, 1500 Hz.
8.	Frequency Range	F0 ~ 3300 Hz. Average SPL – 10 db.
9.	Distortion	5 % Maximum At 1000 Hz. 1.0 W.
10	Abnormal Sound test	Must be Normal Tested By 2.83 Volts. Sine Wave.
11	Load Test	Pink noise with HPF(High Pass Filter 235HZ-3db/Oct) 2.83 Volts. (RMS.) 96 Hours.
12	Polarity	Diaphragm shall move Forward while Apply a Positive DC Signal to the " + " or " Marked " Terminal.
13	Waterproof Level	IPX5

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	+ 85 ± 2 °C Humidity Random for 96 Hours. (GB2423.2-81)
14	Low Temperature	- 40 ± 2 °C Humidity Random for 96 Hours. (GB2423.1-81)
15	Humidity	+ 40 ± 2 °C Relative Humidity (RH) 90 ~ 95 % 96 Hours.
16	Vibration	Frequency 30 ± 15 Hz, Amplitude 1.5 mm for 3 Hours. (GB11606.8-89)
17	Drop test	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 ± 3 db from pre-test Measurement, and meet above spec. item 6. 7. 8. 9. 10.

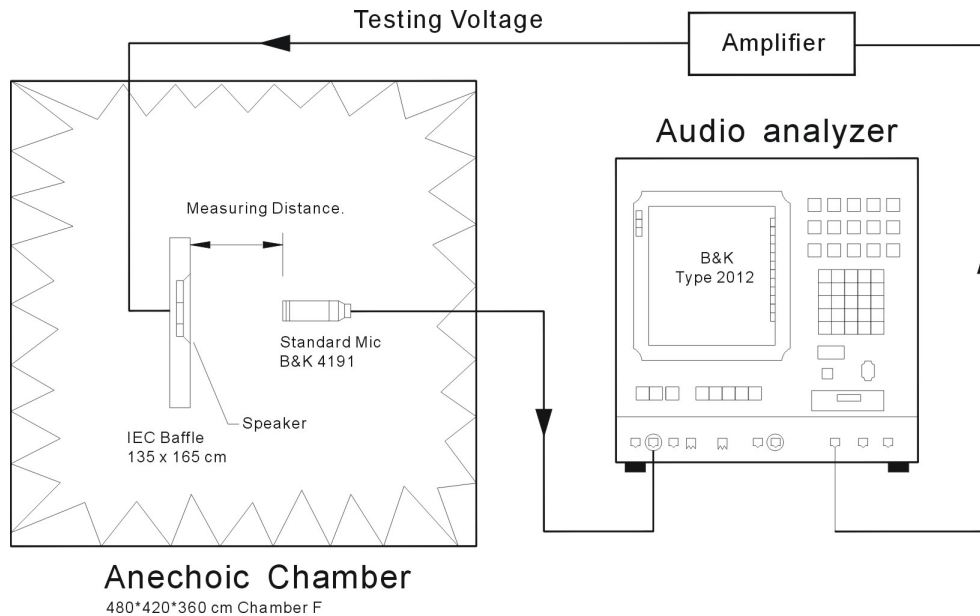
18	Temperature Cycle test	- 40 ~ + 85 °C 4 Cycles Temperature test. (GB5170.18-87)
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After test leave speakers at room temperature for 1 hour, SPL shall not deviate by ± 4 db from pre-test Measurement, and meet above spec. item 6. 7. 8. 9. 10.

Please refer to next pages for more 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°C 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

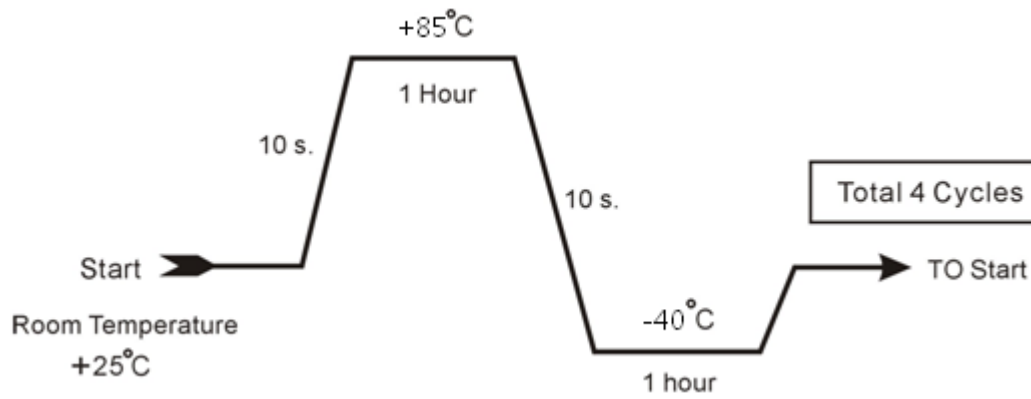
After exposure the speaker in the + 85 ± 2 °C chamber for 96 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by ± 3 db, and resonant frequency should not deviate by ± 50 Hz, compare with pre-test measurement.

3.2 Low Temperature: GB2423.1-81

After exposure the speaker in the -40 ± 2 °C chamber for 96 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by ± 3 db, and resonant frequency should not deviate by ± 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 ± 4 db, and resonant frequency should not deviate by ± 80 Hz, compare with pre-test measurement.



3.4 Humidity: GB5170.18-87

After exposure the speaker in the + 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 ±3 db, and resonant frequency should not deviate by ±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

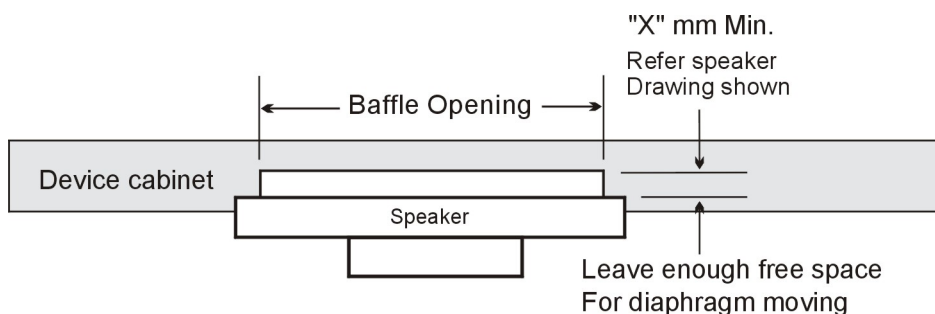
Speaker should not fail after apply 20 ~ 20K Hz Pink noise with HPF rated power input (RMS), 96 hours. After test, SPL shall not deviate by ±3 db from pre-test measurement,

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 Maximum input voltage

Maximum input voltage is in the shortest time. The speaker can bear simulation signal, that persist time is 1 second, interval 60 seconds, repeated 60 times, but the speaker wouldn't be damaged externally. The maximum signal voltage is the maximum input voltage in/the shortest time.

5.2 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.

5.3 The shortest time maximum power.

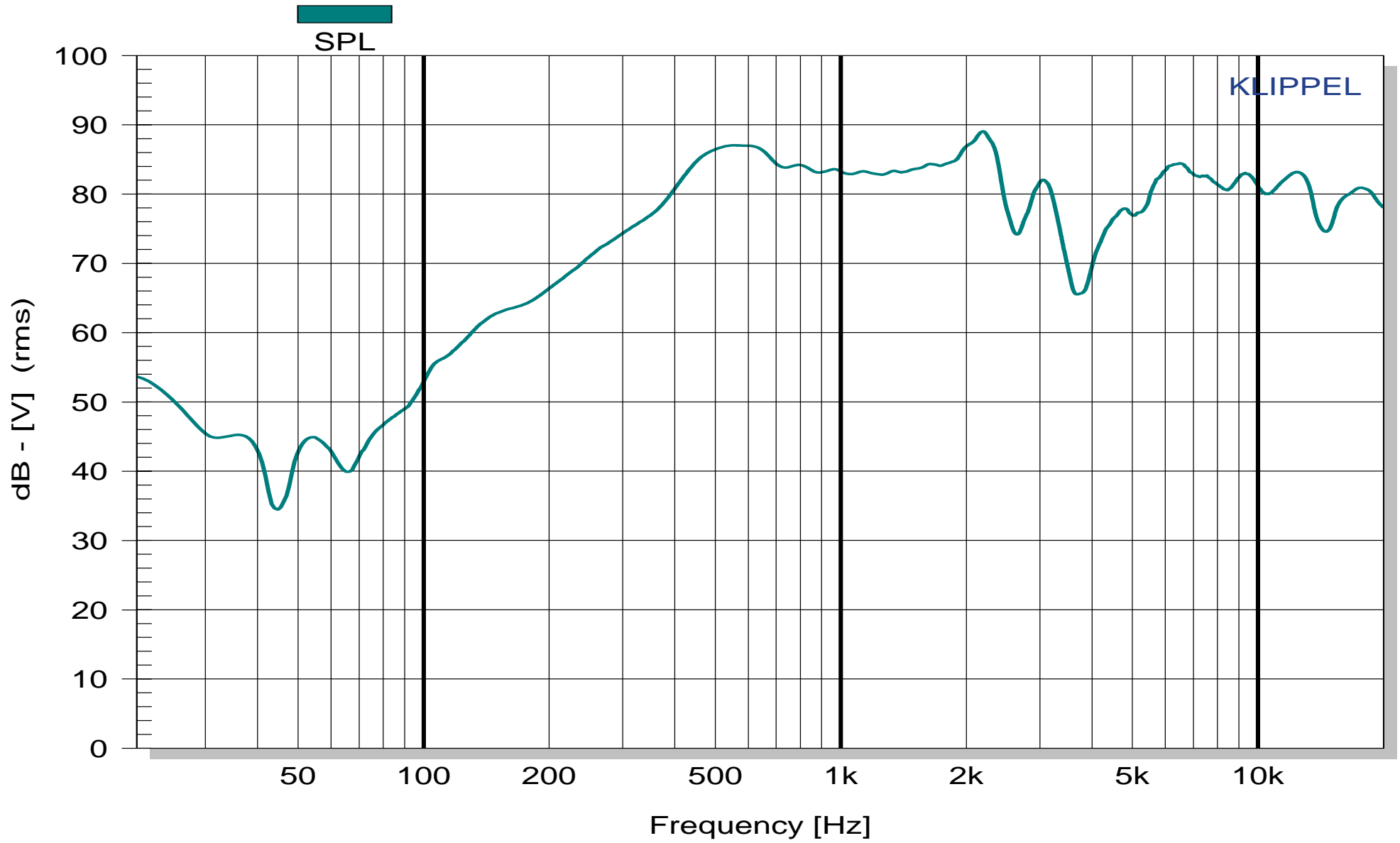
It is corresponding with the shortest time maximum input voltage, its definition is U_{st}^2/R , U_{st} indicates the shortest input power, R indicates the rated impedance.

VECO Part NO:

P40KT08-W

Measurement Condition:

VOL : 2.83V [1.0W] DIS : 0.5M



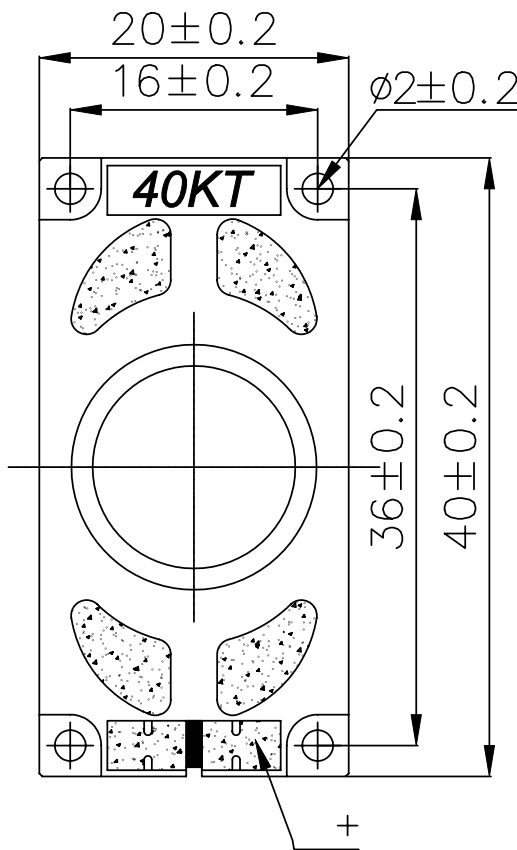
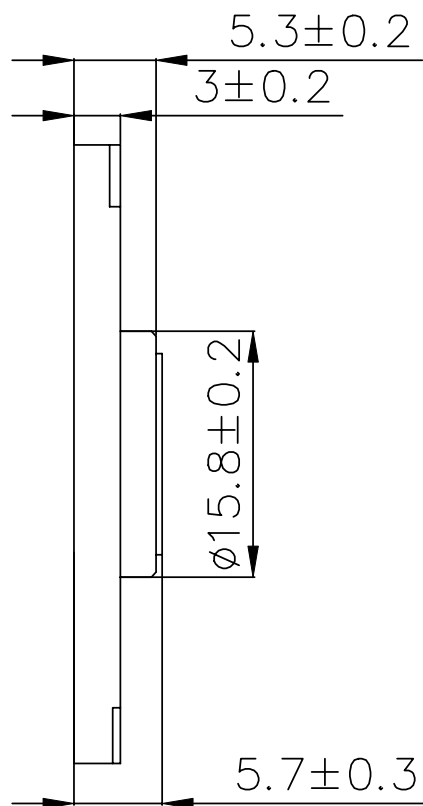
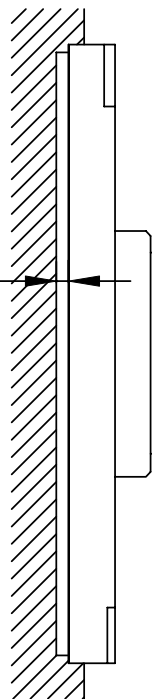
Test date: 13/01/18 time: 10:21:27 Username

- NOTE:
 1.加工要求:
 2.表面處理:
 3.制程重點:
 4.檢驗重點:

不准使用鎳利
 電子禁止使用的
 環境管理物質

MOUNTING NOTICE

AT LEAST
 0.8mm
 FOR -
 DIAPHRAM
 MOVING



防水等級IPX5

RANGE	TOL			✓	
0-8	±0.05	±0.1	±0.15	±0.2	±1
8-16	±0.1	±0.15	±0.2	±0.2	±2
16-24	±0.15	±0.2	±0.3	±0.3	±2
24-50	±0.2	±0.25	±0.3	±0.4	±3
50-100	±0.25	±0.3	±0.5	±0.5	±3
>100	±0.3	±0.4	±0.4	±0.8	±5

Ⓚ CRITICAL DIMENSIONS ENVIRONMENT REQUIREMENT:
 COSTOMER PN: VECO PN:
 DATE: DD/MM/YYYY MATERIAL: COLOUR:

01	10.11.12	修改框體高度	
ITEM	Y/M/D	CONTENTS OF CHANGE	SPONSOR

Vanson Electronics (Nanhai) Co.,

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Title: P40KT08-W

Unit: mm	VER: 00	Appr.:
	Scale: 1:1	CHK.: 吳生