International Components Corporation

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**215 McCormick Drive, Bohemia, NY 11716**

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| | | |
|---|---|---|
| 1 | **MODEL:** | **SR50X10VN** |
| 2 | Dimension & Weight | Outer Diameter **25 * 12** mm |
| | | Baffle Opening **24.2 * 11.2** mm |
| | | Height **Refer to drawing** Weight **2.8** Grams |
| 3 | Magnet | Materials **Rare Earth** Size **Φ6.5X1.5** mm |
| 4 | DC Resistance | **8** Ω ± 15 %, On Ohm Meter |
| 5 | Power Rating | Normal **2** Watts Maxim **2.3** Watts Sine Wave. |
| | | Normal Watts Maxim Watts Square Wave. |
| 6 | Resonant Frequency | **1000** ± 20 % Hz. |
| 7 | Output Sound Pressure Level (S.P.L.) | **75** ± 3 db/ **1.0** Watt. **1.0** Meter |
| | | Average at **800, 1000, 1200, 1500,** Hz. |
| 8 | Frequency Range | **FO ~ 20000** Hz. Average SPL – 10 db. |
| 9 | Distortion | 10 % Maximum At **1000** Hz. 1.0 W. |
| 10 | Abnormal Sound test | Must be Normal Tested By 4.0 Volts. Sine Wave. |
| 11 | Load Test | Pink noise with HPF(High Pass Filter 235HZ-3db/Oct)4.0Volts(RMS.)**96**hours |
| 12 | Polarity | Diaphragm shall move Forward while Apply a Positive DC Signal to the "+" or "Marked "Terminal. |
| Above Measuring condition under temperature : 15~35℃ R.H. 25 ~75%. According to standard GB/T9396-1996 | | |
| **Mechanical and vibration test** | | |
| 13 | High Temperature | + 60 ± 2 °C Humidity Random for 96 Hours. |
| 14 | Low Temperature | – 25 ± 2 °C Humidity Random for 96 Hours. |
| 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. |
| 17 | Drop test | 75 CM free falling on Concrete floor, 10 times. |
| 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 | – 25 ~ + 60 °C 4 Cycles Temperature tests. (GB5170.18-87) |
| 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. | | |

Please refer to next pages for more detailed testing method.

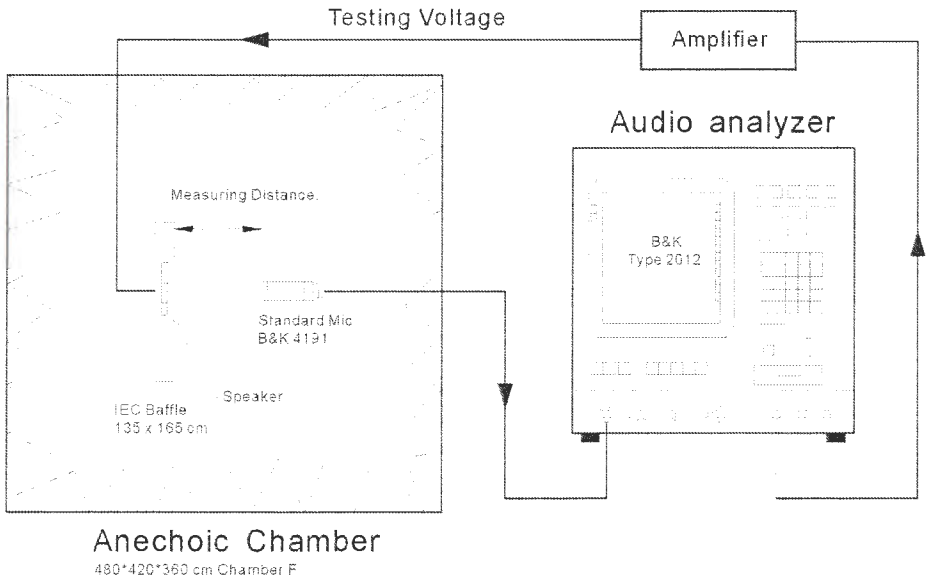
1. Characteristics measured according to standard GB/T 9396-1996

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

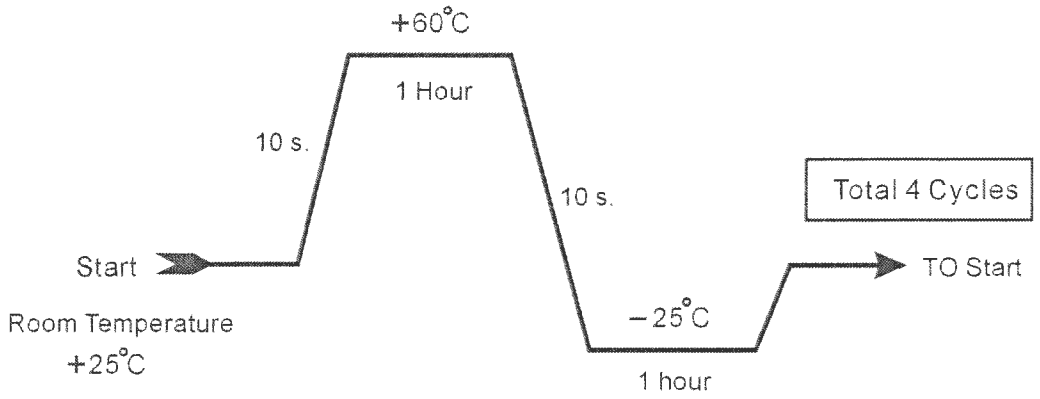
After exposure the speaker in the + 60 ± 2 °C chamber for 96 hours, then leave the speaker at room temperature for 1 hour, the SPL should not deviate by ± 3 db, and resonant frequency should not deviate by ± 50 Hz, compare with pre-test measurement.

3.2 Low Temperature: GB2423.1-81

After exposure the speaker in the –25 ± 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

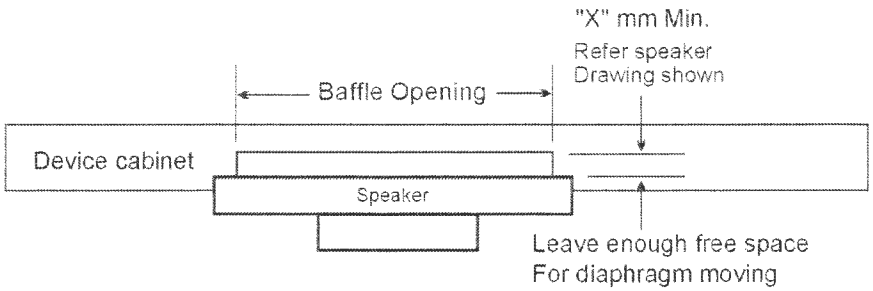
Speaker should not fail after apply 20 ~ 20K Hz Pink noise with HPF rated power input (RMS), 96 hours. After test, SPL shall not deviate by ±3 db from pre-test measurement,

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 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 rated 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.

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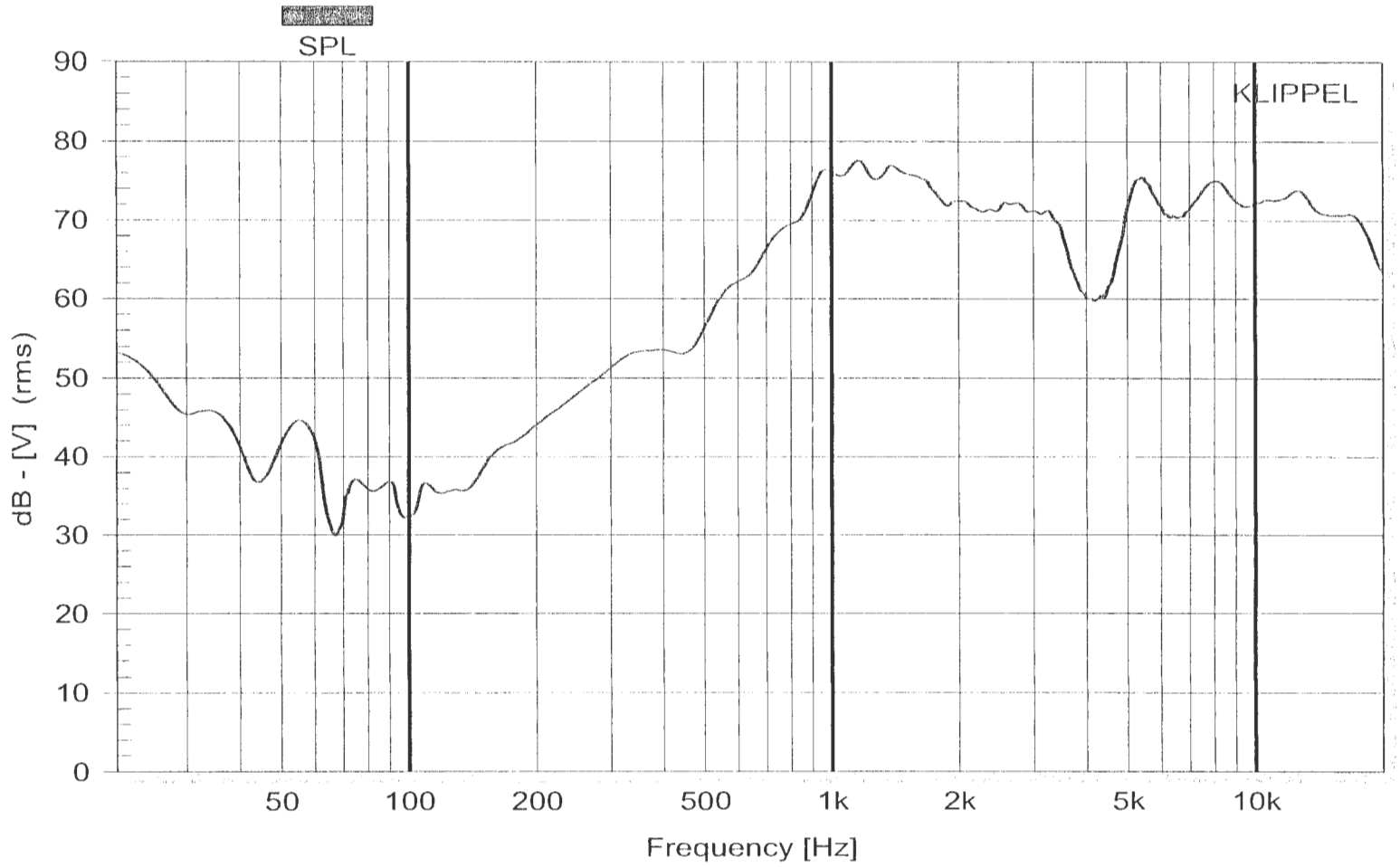
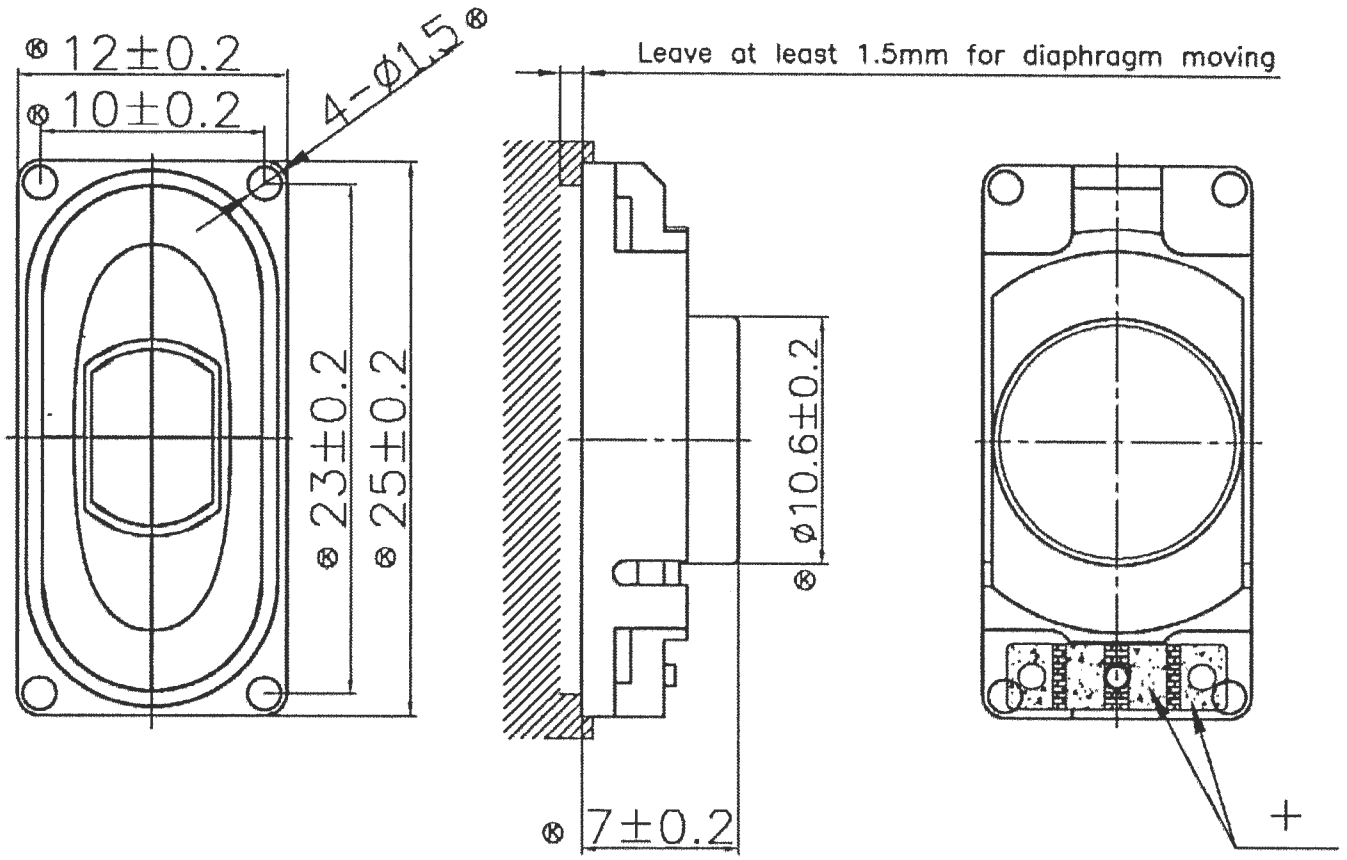
**SR50X10VN**

Measurement Condition: VOL:2.83V[1W] DIS:1.0M




Test date: 12/06/07 time: 15:30:27 Username




| TOL / RANGE | | | | V | |
|---|---|---|---|---|---|
| 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:

DATE: 27/03/2012 | MATERIAL: | COLOUR:

| ITEM | Y/M/D | CONTENTS OF CHANGE | SPONSOR |
|---|---|---|---|
| | | | |

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# SR50X10VN

| | | | |
|---|---|---|---|
| Unit: mm | VER: 00 | Appr.: 高紅華 | |
| | Scale: 1:1 | CHK.: 曾憲財 | Dwg.: 吳生 |