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|-------------------------------|--------------|---------|
| Specification for Speaker BOX | Page         | 2/9     |
|                               | Revision No. | 1.4     |
|                               | Drawing No.  | KFC5377 |
| Model No. : KPB3701-5377      |              |         |

## CONTENTS

1. Scope
2. General
3. Electrical and Acoustic Characteristics.
4. Reliability Test
5. Measurement Block Diagram & Response curve
6. Structure
7. Dimensions
8. Packing
9. Revision

|                               |              |         |
|-------------------------------|--------------|---------|
| Specification for Speaker BOX | Page         | 3/9     |
|                               | Revision No. | 1.4     |
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## 1. Scope

This specification is applied to the dynamic speaker which is used all of the electrical acoustic product.

-- compact, rich sound

-- applications: mobile phone, PDA, notebook computer, etc. ..

## 2. General

2.1 Out-Diameter : 37 mm

2.2 Height : 20.6 mm

2.3 Weight : 5.3 g

2.4 Operating Temperature range:

-40 ~+85 °C without loss of function

2.5 Store Temperature range:

-40 ~+90 °C without loss of function

## 3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

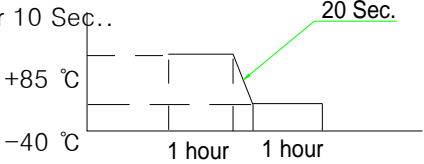
| No | Items                | Specification  |
|----|----------------------|--|
| 1  | Impedance            | 50 Ω ± 15% (1Vrms at 1KHz)   |
| 2  | Sound Pressure Level | 92 dB ± 3dB (0.1w/0.1m at average 0.8, 1.0, 1.2, 1.5KHz)                                       |
| 3  | Resonance Frequency  | 550 Hz ± 20%   |
| 4  | Frequency Range      | Fo ~7KHz   |
| 5  | Input Power          | Rated 0.3 W / Max. 0.5 W   |
| 6  | Distortion           | 10% Max. at 1kHz 0.3W  |
| 7  | Buzz and Rattle      | Should not be audible buzzes,rattles when the 3.87V sine wave signal swept at frequency range. |
| 8  | Polarity             | When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.      |

|                               |              |         |
|-------------------------------|--------------|---------|
| Specification for Speaker BOX | Page         | 4/9     |
|                               | Revision No. | 1.4     |
|                               | Drawing No.  | KFC5377 |

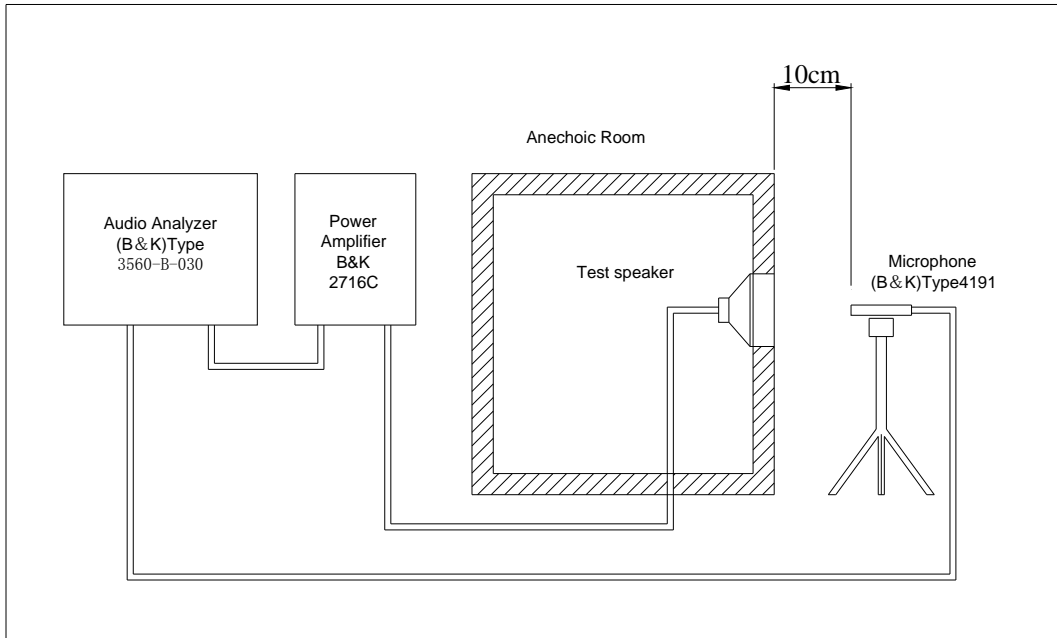
Model No. : KPB3701-5377

## 4. Reliability Test

After test(1~7item), 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 especially distortion).

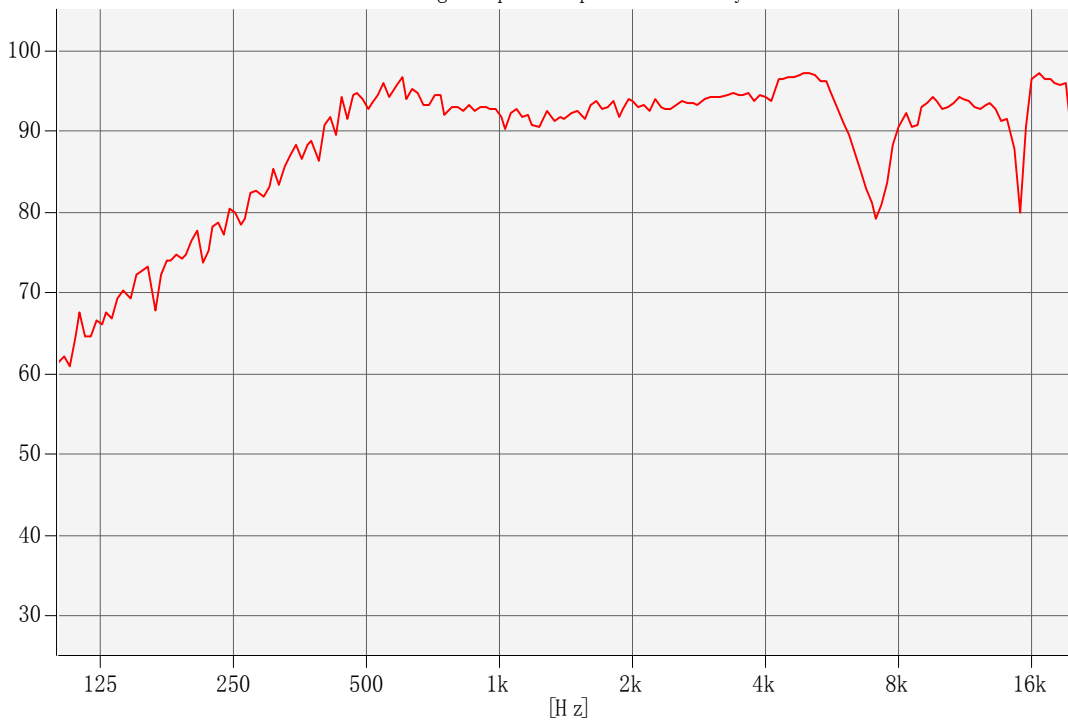
| No | Items                 | Specification   |
|----|-----------------------|---|
| 1  | High Temperature Test | After being placed in a chamber with $+90 \pm 3 \text{ }^\circ\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.  |
| 2  | Low Temperature Test  | After being placed in a chamber with $-40 \pm 3 \text{ }^\circ\text{C}$ 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 $+40 \pm 2 \text{ }^\circ\text{C}$ 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 <math>+85 \text{ }^\circ\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-40 \text{ }^\circ\text{C}</math> for 1 hour(1 cycle is the below diagram).</p> <p>After 4 above cycles, speaker shall be measured after being placed in natural condition for 10 Sec..</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 0.3W(3.87Vrms.) for 96 hours, then placed in natural condition for 1 hour, speaker shall be measured.  |
| 8  | Insulation test       | When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than $1 \text{ M}\Omega$   |

### 5. Measurement Block Diagram & Response curve

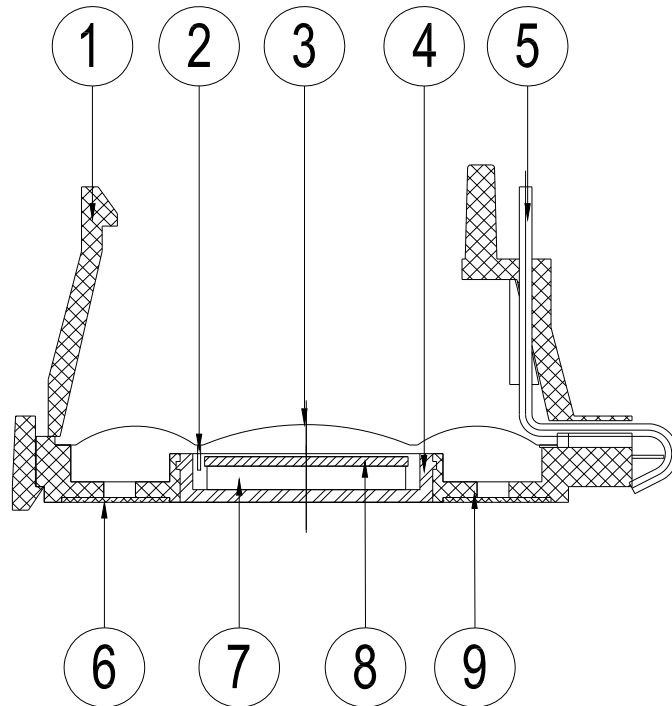


[dB/20.0u Pa]

Output Response (Signal) - Input Magnitude  
Working : Input : Input : SSR Analyzer



### 6. Structure



|     |            |      |          |         |
|-----|------------|------|----------|---------|
| 9   | Frame      | 1    | PBT      |         |
| 8   | Plate      | 1    | SPCC     |         |
| 7   | Magnet     | 1    | Nd-Fe-B  |         |
| 6   | Screen     | 1    | NET180   |         |
| 5   | PIN        | 1    | H62      |         |
| 4   | Yoke       | 1    | SPCC     |         |
| 3   | Diaphragm  | 1    | PEI      |         |
| 2   | Voice Coil | 1    | Copper   |         |
| 1   | Cap        | 1    | PA66     |         |
| No. | Part Name  | Q'ty | Material | Remarks |

# Specification for Speaker BOX

Page

7/9

Model No. : KPB3701-5377

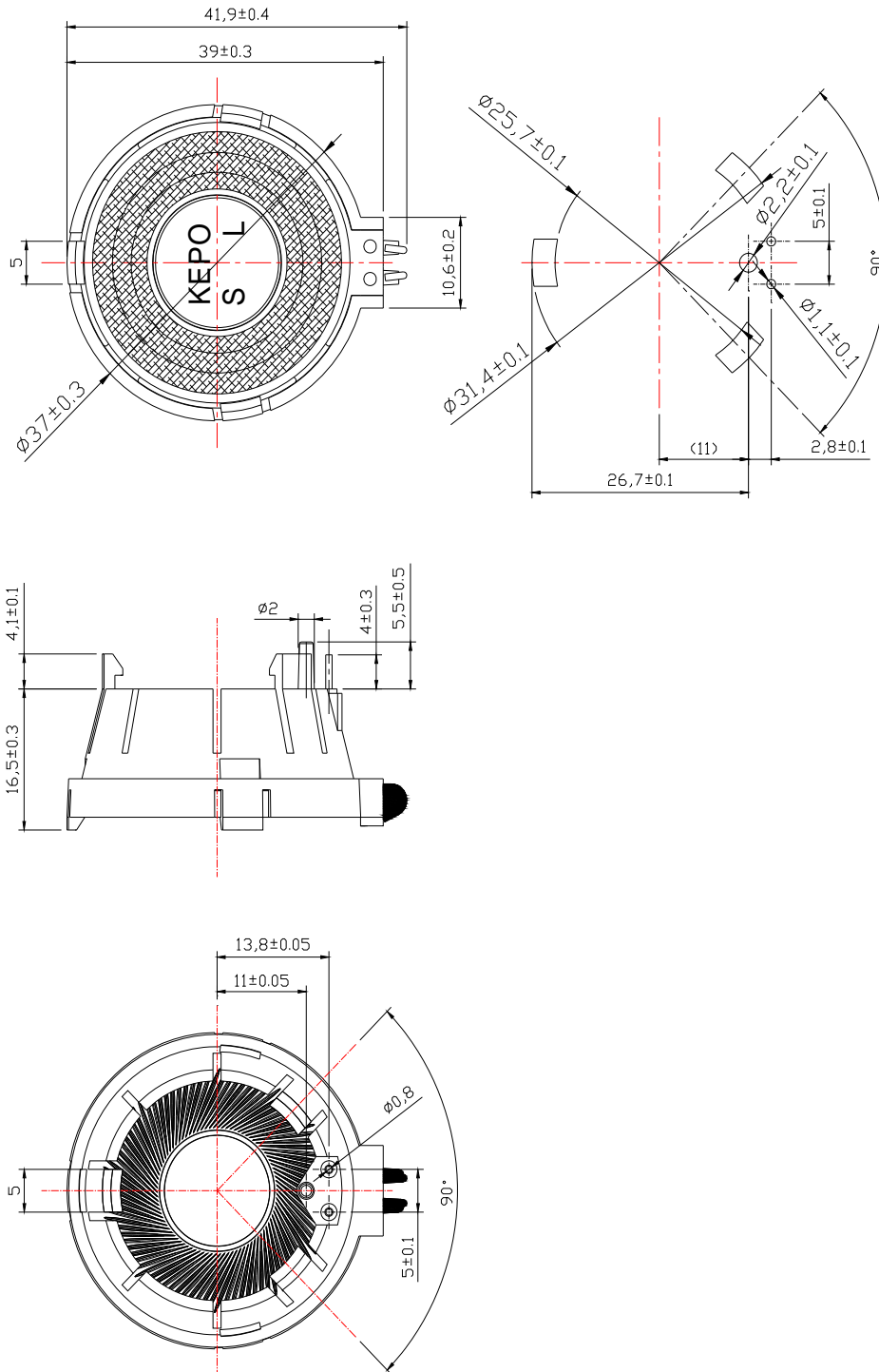
Revision No.

1.4

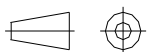
Drawing No.

KFC5377

## 7. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance :  $\pm 0.2$

### 8. Packing

