

SPECIFICATION

受 控

Customer : QUARTZ

Applied To :

Product Name : Speaker

Model Name : KP45170SP3R4-WP-7862

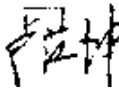
Drawing No. : KFC7862

Compliance with ROHS

Signature of Appronal

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Signature of KEPO

| Approved by | Checkde by | Issued by | Date |
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| | Revision No. | 1.0 |
| | Drawing No. | KFC7862 |
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Model No. : KP45170SP3R4-WP-7862

1. Scope

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

-- compact, rich sound

-- applications: telephone, print, electrical appliance, etc. ..

2. General

2.1 Out-Diameter : 44.5 mm

2.2 Height : 17 mm

2.3 Weight : 27 g

2.4 Operating Temperature range:

-20 ~+60 °C without loss of function

2.5 Store Temperature range:

-25 ~+60°C without loss of function

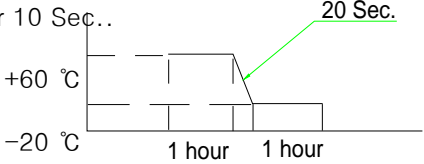
3. Electrical and Acoustic Characteristics.

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

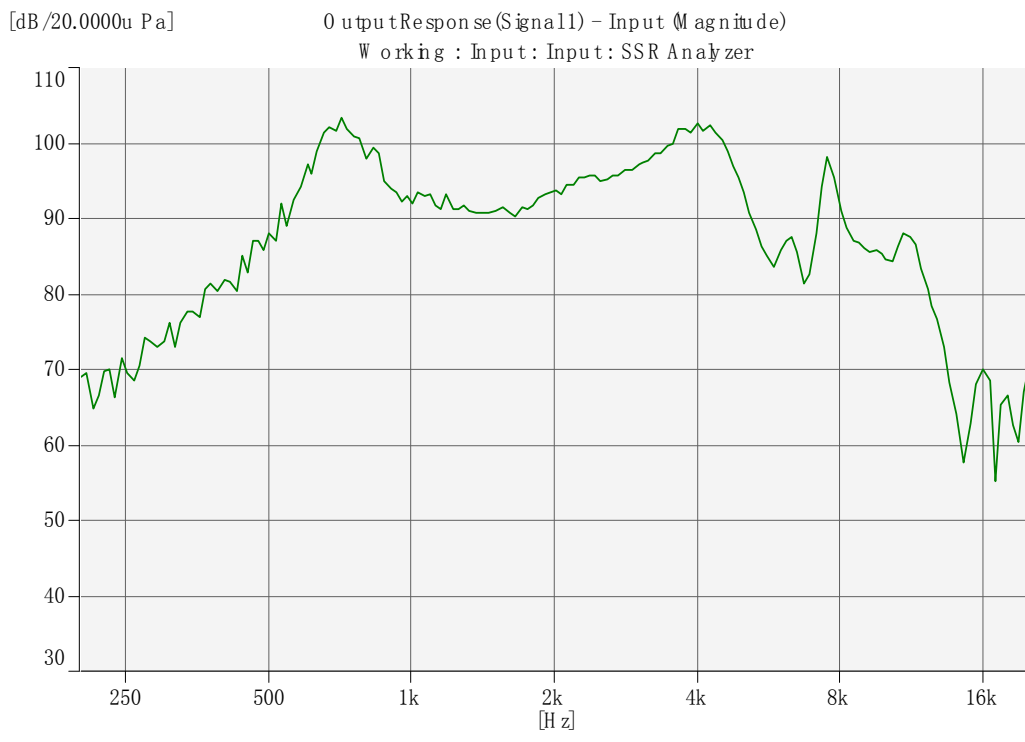
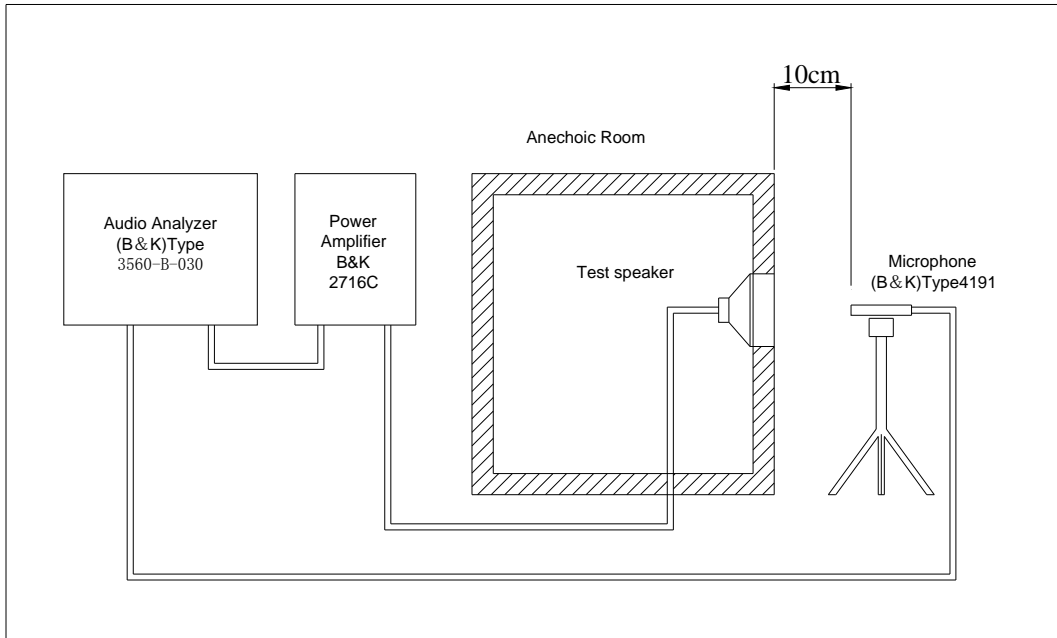
| No | Items | Specification |
|----|----------------------|--|
| 1 | Impedance | 4 Ω ± 15% |
| 2 | Sound Pressure Level | 92 dB ± 3dB (0.1W/0.1M Avg. at 1k,1.2k,1.5k,2kHz) |
| 3 | Resonance Frequency | 800 Hz ± 20% |
| 4 | Frequency Range | Fo ~4KHz |
| 5 | Input Power | Rated 3 W / Max. 4 W |
| 6 | Distortion | 10% Max. at 2kHz 3W |
| 7 | Buzz and Rattle | Should not be audible buzzes,rattles when the 3.46V sine wave signal swept at frequency range. |
| 8 | Polarity | When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward. |
| 9 | Water-proof | IPX7 |

4. Reliability Test

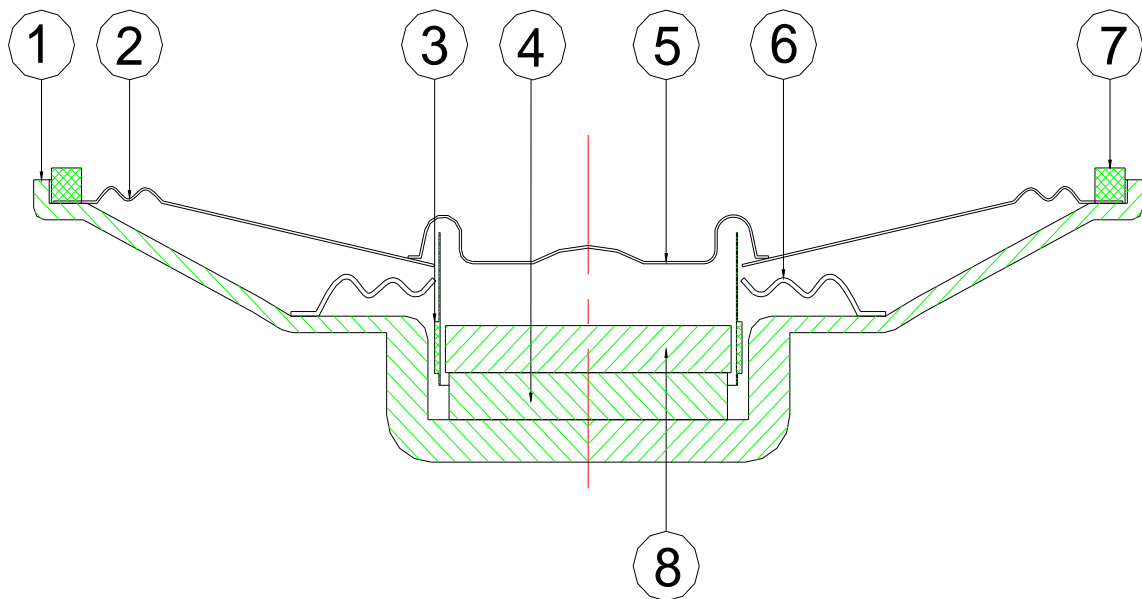
After test(1~7item), the speaker S.P.L . difference shall be within $\pm 3\text{dB}$, and the appearance not exist any change to be harmful to normal operation (e.g. cracks,rusts,damages and especially distortion).

| No | Items | Specification |
|----|-----------------------|---|
| 1 | High Temperature Test | After being placed in a chamber with $+60^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 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 $-25 \pm 3^{\circ}\text{C}$ 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 $+40 \pm 2^{\circ}\text{C}$ 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 $+60^{\circ}\text{C}$ for 1 hour, then speaker shall be placed in a chamber at -20°C 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 3W(3.46Vrms.) 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



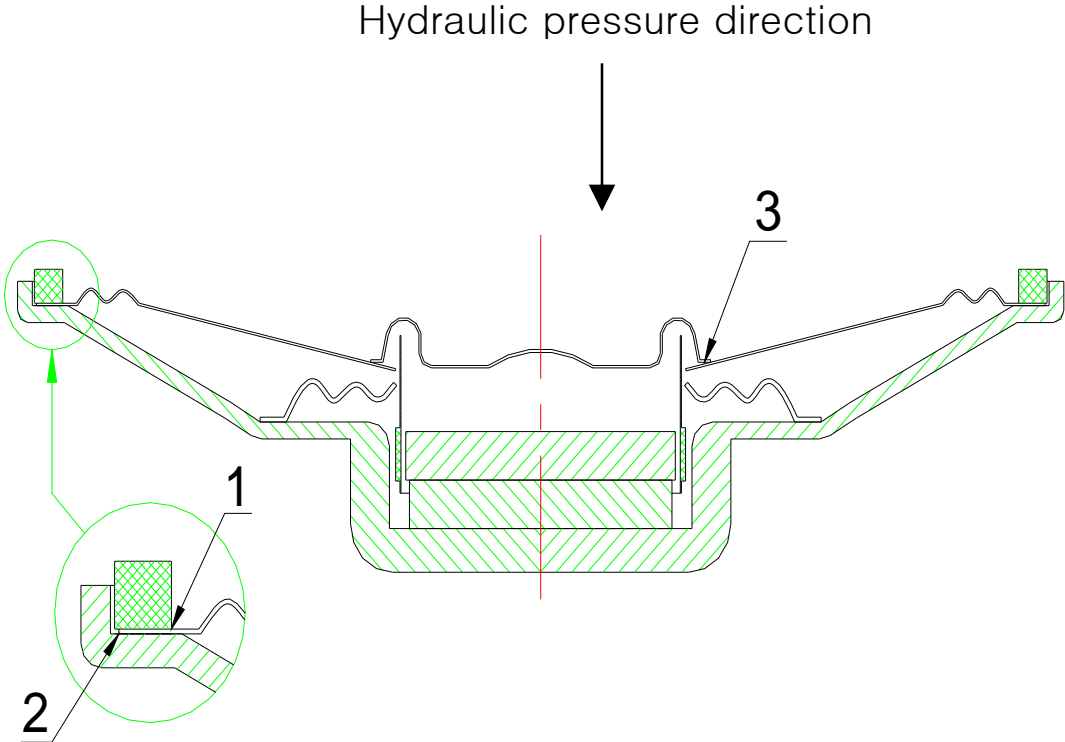
6. Structure



| | | | | |
|-----|-----------------|------|--------------|---------|
| 8 | Top Plate | 1 | SPCC | |
| 7 | Gasket | 1 | ABS | |
| 6 | Spider | 1 | Silk | |
| 5 | Dust Cap | 1 | Mylar | |
| 4 | Magnet | 1 | Nd-Fe-B | |
| 3 | Voice Coil | 1 | Paper+Copper | |
| 2 | Waterproof Cone | 1 | Mylar | |
| 1 | Frame | 1 | SPCC+Q195 | |
| No. | Part Name | Q'ty | Material | Remarks |

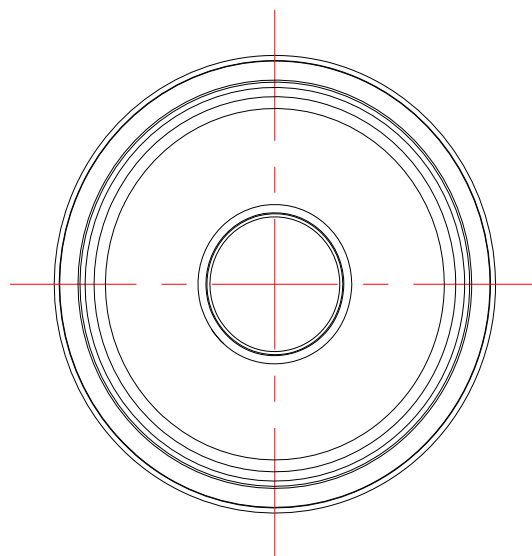
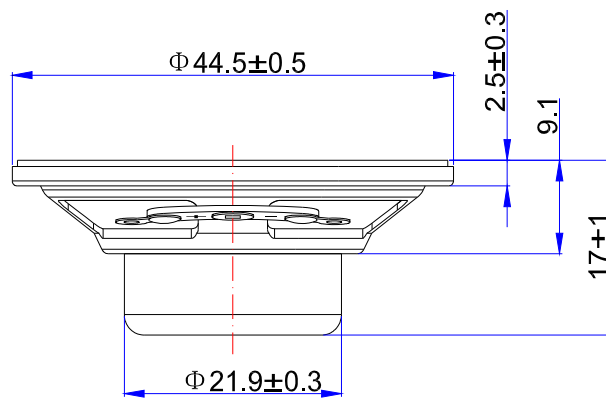
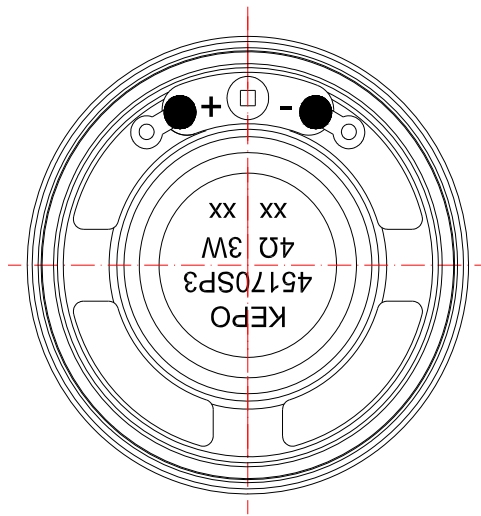
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7. Waterproof part drawing

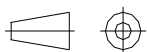


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|-----|--------------------------------------|---|
| 3 | Between Waterproof Cone and Dust Cap | Product under 4.9kpa hydraulic pressure for 30 minute, the water will not filter. |
| 2 | Between Waterproof Cone and Frame | |
| 1 | Between Waterproof Cone and Gasket | |
| No. | Part Name | Waterproof conditions |

8. Dimensions



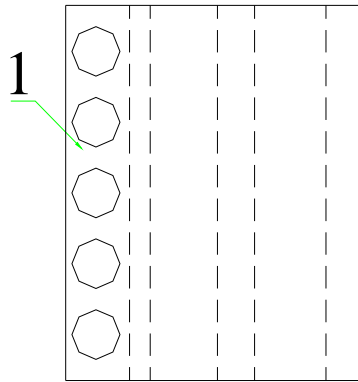
FIRST ANGLE PROJECTION



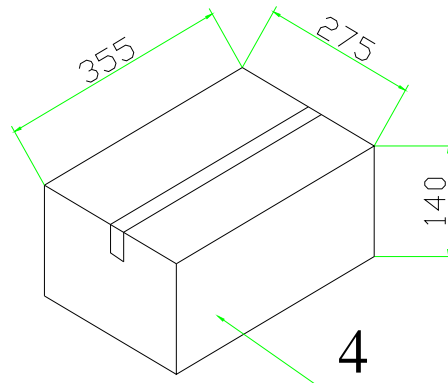
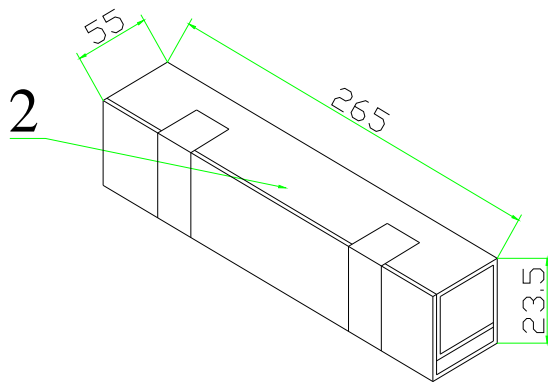
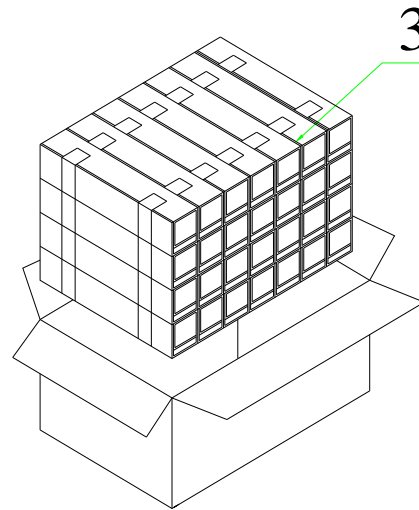
UNIT : mm

Tolerance : ± 0.3

9. Packing



5Pcs



QTY:150Pcs

355 x275 x140

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10. Revision

| Rev. No. | DATE | PAGE | DESCRIPTION | BOM |
|----------|------------|------|-------------|-----|
| 1.0 | 2015-12-15 | | Primary | |
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