

# SPECIFICATION

Customer : QUARTZ-1

Applied To :

Product Name : Receiver

Model Name : KPDR-157BH

Drawing No. : KF3.002.345

Signature of Approval

[illegible]

Signature of KEPO

Approved by	Checked by	Issued by	Date



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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 : Ø 20mm
- 2.2 Height : 5.2mm
- 2.3 Weight : 2gr.
- 2.4 Operating Temperature range:  
-25~+65℃ without loss of function
- 2.5 Store Temperature range:  
-25~+65℃ without loss of function

## 3. Electrical and Acoustic Characteristics.

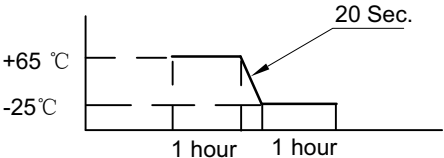
Test condition : 20±2 ℃, 60% ~ 70% RH, 860~1060 mbar

	Items	Specification
1	Impedance	150 Ω ± 20%(at 1Vrms,1kHz)
2	Sound Pressure Level	92dB ± 2dB( 1kHz/100mV with IEC 318 coupler )
3	Frequency Range	300Hz~3.4KHz
4	Input Power	Rated 30mW / Max. 2.5W
5	Buzz and Rattle	Should not be audible buzzes,rattles when the 30mw sine wave signal swept at frequency range.

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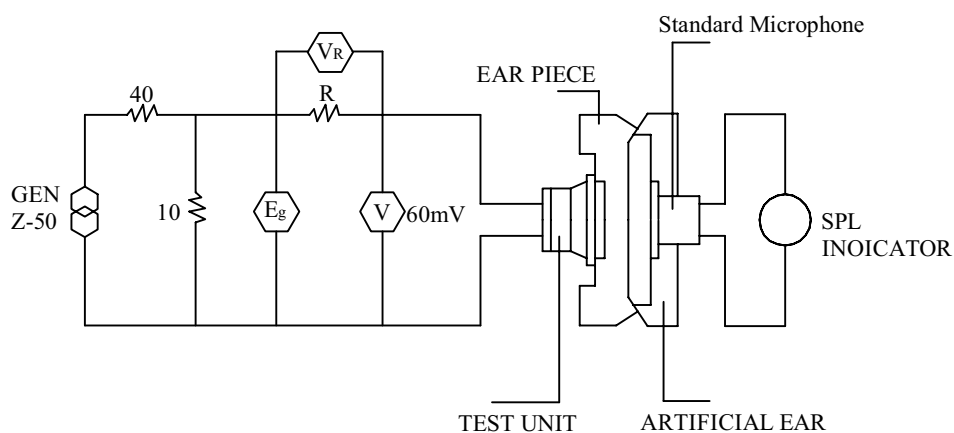
## 4. Reliability Test

After test(1~7item), the speaker S.P.L . difference shall be within  $\pm 2\text{dB}$ , and the appearance not exist any change to be harmful to normal operation(e.g. cracks,rusts,damages and especially distortion).

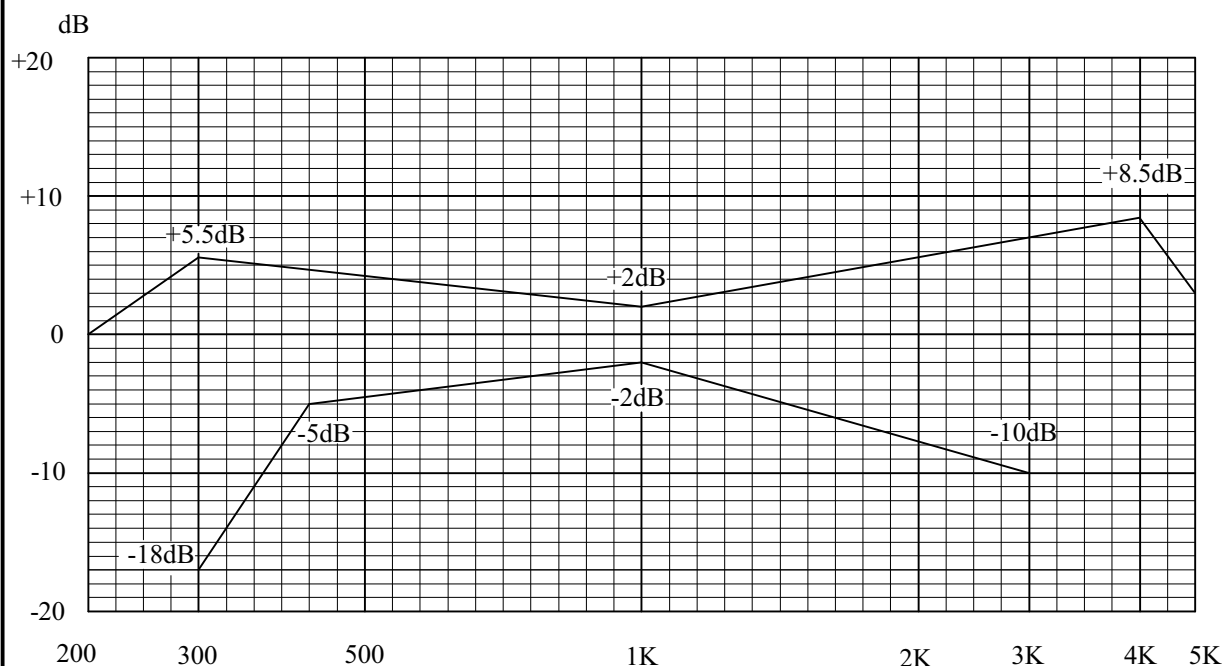
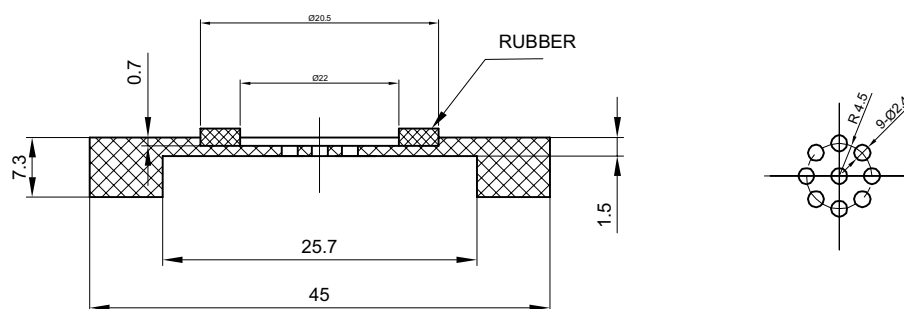
	Item	Specification
1	High Temperature Test	After being placed in a chamber with $+65\pm 3\text{ }^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-25\pm 3\text{ }^{\circ}\text{C}$ 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 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>+65\text{ }^{\circ}\text{C}</math> for 2 hour, then speaker shall be placed in a chamber at <math>-25\text{ }^{\circ}\text{C}</math> for 2 hour(1 cycle is the below diagram).</p> <p>After 2 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</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 2 hours each axes, speaker shall be measured.
6	Drop Test	Drop a unit contained in normal box into a board 5mm . ( 3 Place each 1 time)from a height of 1.5m and then a unit must have no abnormality
7	Load test	The receiver after being applied loading white noise with input power (30mw) for 24 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 M $\Omega$

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## 5. Measurement Block Diagram & Response curve

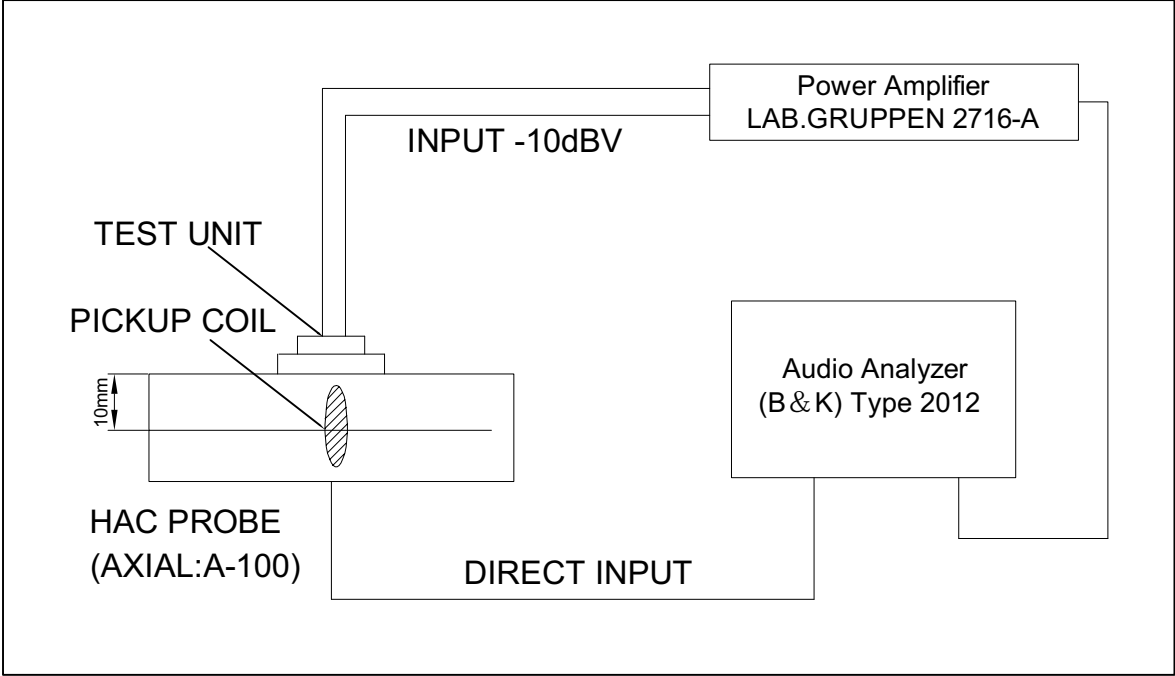


EAR PLACE

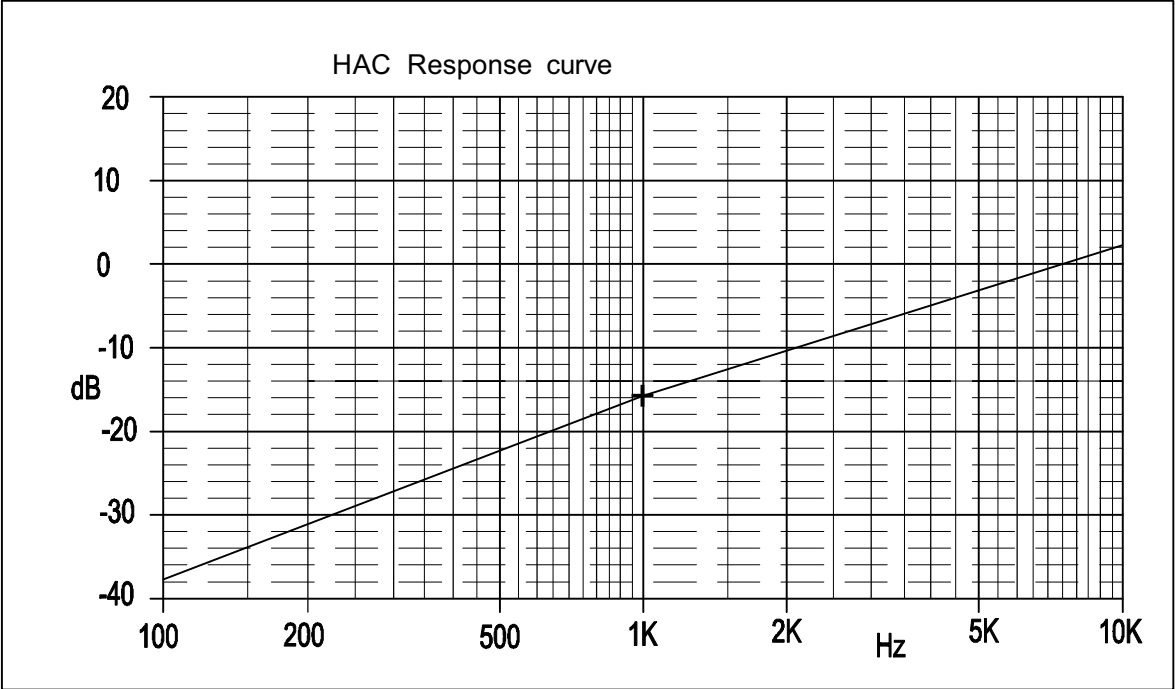


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6.1 HAC Measurement Block Diagram

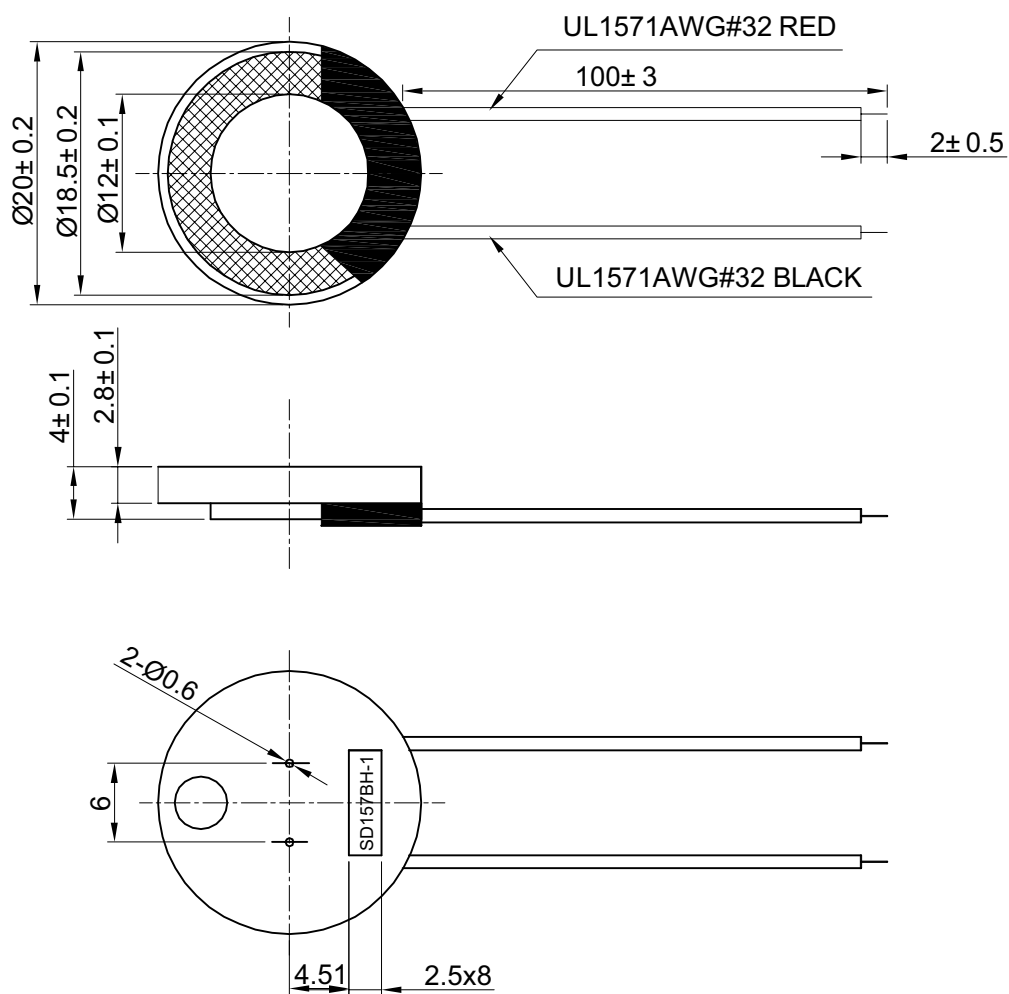


6.2 HAC Response curve

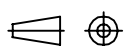


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## 8. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ±2

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## 9. Packing

Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number, quantity and outgoing inspection number.

There shall be no mechanical damage on products during transportation and/or in storage.



