

SPECIFICATION			
Customer :	QUARTZ-1		
Applied To :			
Product Name :	Speaker		
Model Name :	KP20DM01F800-4998		
Drawing No. :	KFC4998		
Signature of Approval			
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Signature of KEPO			
Approved by	Checked by	Issued by	Date
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ISO9001 Certificate

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Approved by	Checked by	Issued by	Date
		刘敬	



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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 : $\Phi 20$ mm

2.2 Height : 4.8mm

2.3 Weight : 4.2 gr.

2.4 Operating Temperature range:

-20~+70℃ without loss of function

2.5 Store Temperature range:

-40~+85℃ without loss of function

3. Electrical and Acoustic Characteristics.

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

	Items	Specification
1	Impedance	$8\Omega \pm 15\%$ (at 1Vrms,1.5kHz)
2	Sound Pressure Level	90dB \pm 3dB(1KHz/0.1W/0.1M)
3	Resonance Frequency	800Hz \pm 20%
4	Frequency Range	F ₀ ~ 20kHz
5	Input Power	Rated 0.5W / Max. 0.8W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 0.3W sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

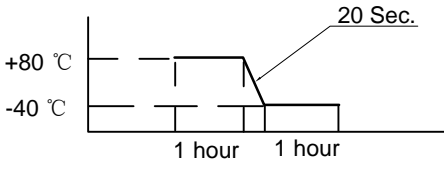
Vibration Requirements

	Items	Specification
1	Vibration Resonance Frequency	160Hz \pm 5%
2	Vibration Level for 100g block	134dB rms re $1 \times 10^{(-6)} \text{m.s}^{(-2)}$ minimum, 12dBVrms, 160Hz, 25 ℃ 128dB rms re $1 \times 10^{(-6)} \text{m.s}^{(-2)}$ minimum, 12dBVrms, 160Hz, 25 ℃
3	Level Response	A plot of vibration level versus input voltage level shall be provided for the rang(-26dBV to -6dBV) for the test block masses 100g at 160Hz

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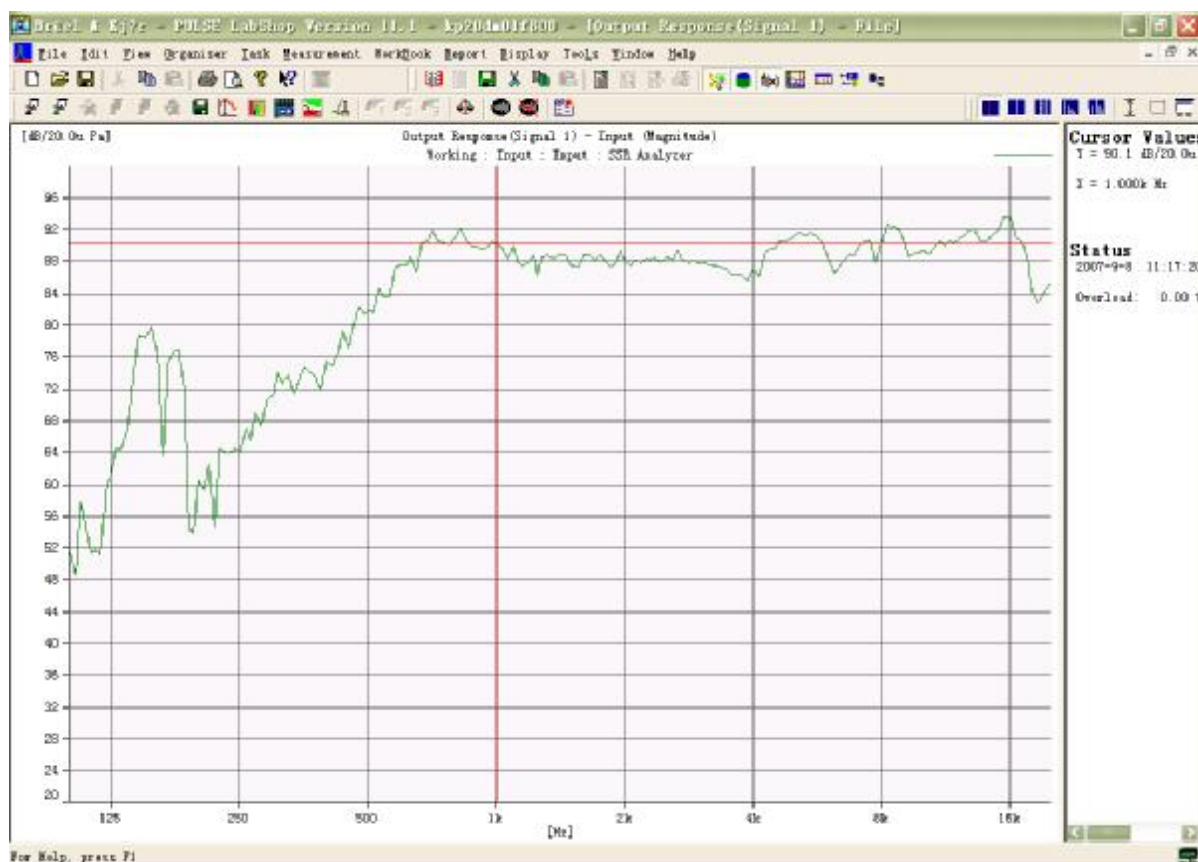
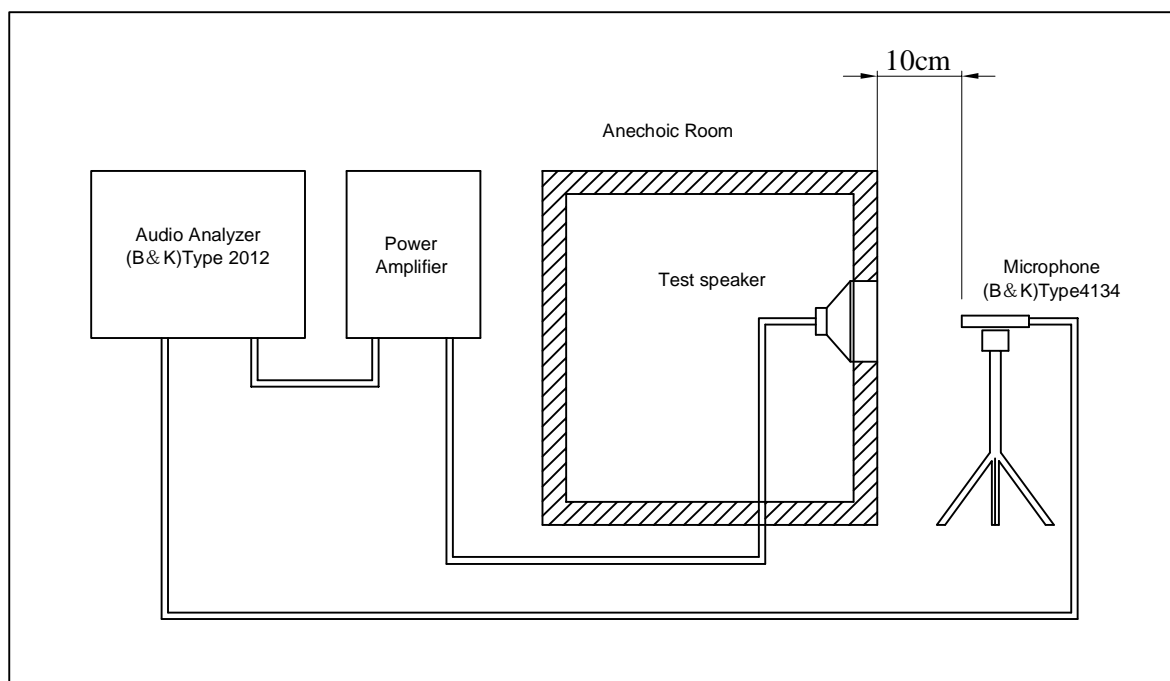
4. Reliability Test

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).

	Item	Specification
1	High Temperature Test	After being placed in a chamber with $+85\pm 3\text{ }^{\circ}\text{C}$ 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 $+80\text{ }^{\circ}\text{C}$ for 1 hour, then speaker shall be placed in a chamber at $-40\text{ }^{\circ}\text{C}$ for 1 hour(1 cycle is the below diagram).</p> <p>After 6 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 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 0.5W 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 MΩ

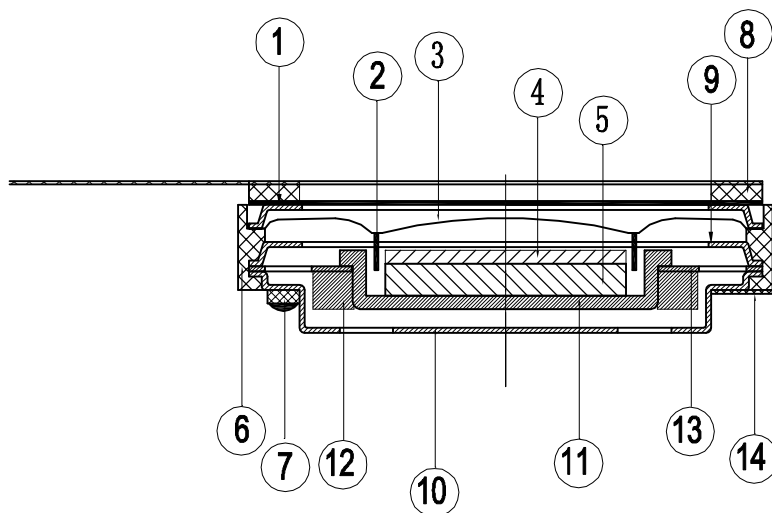
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5. Measurement Block Diagram & Response curve



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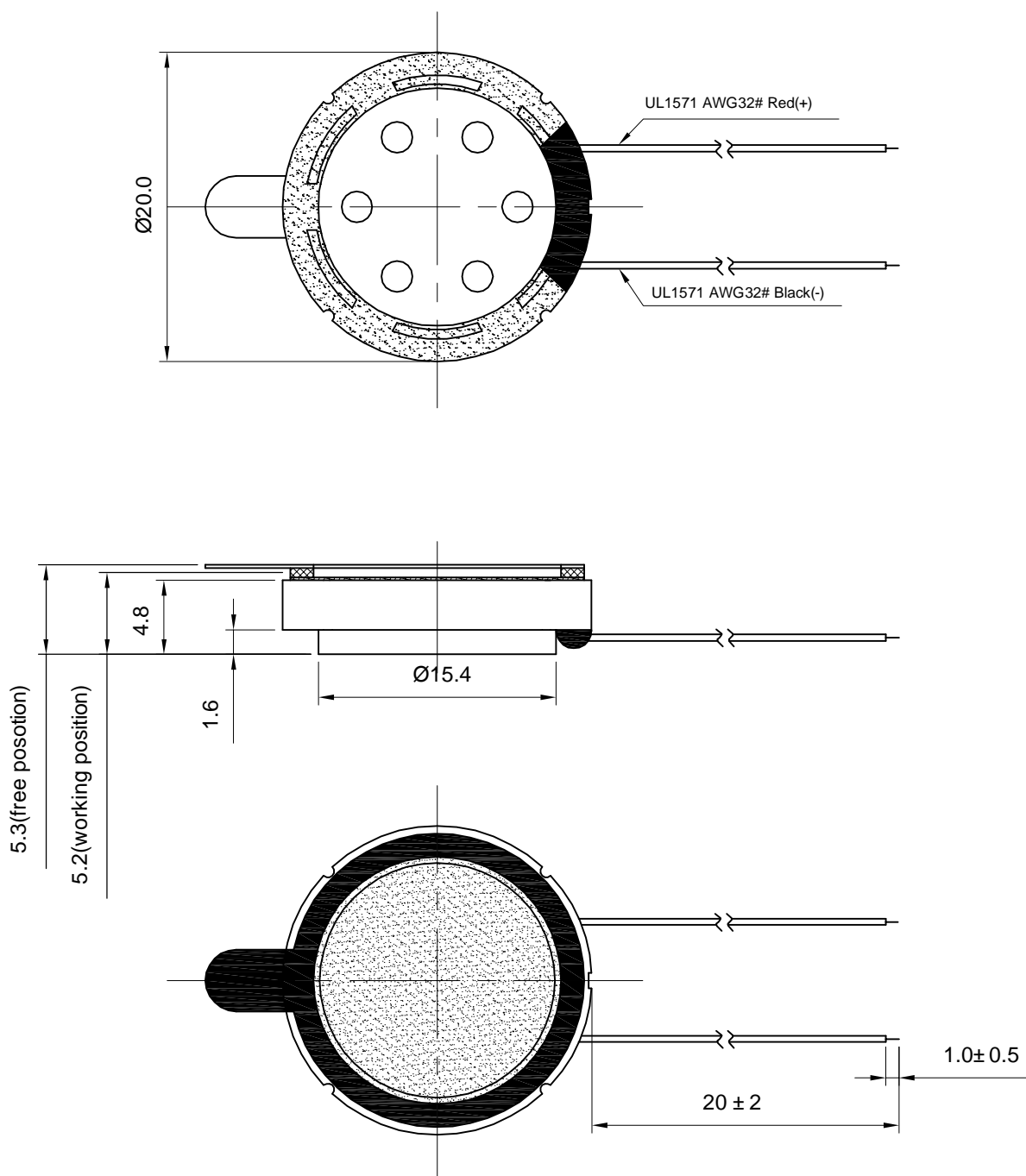
6. Structure



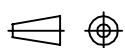
14	Screen	1	3B	
13	Plate	1	SUS 304	
12	Plate	1	SPCC	
11	U yoke	1	SPCC	
10	Cap	1	SUS 304	
9	Cap	1	SUS 304	
8	Gasket	1	unwoven fabric	800+2B+800
7	Terminal	1	Epoxy PCB	
6	Frame	1	PBT	
5	Magnet	1	Nd-Fe-B	
4	Plate	1	SPCC	
3	Diaphragm	1	PEN	
2	Voice Coil	1	Copper	
1	Cap	1	SUS 304	
No.	Part Name	Q'TY	Material	Remarks

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7. Dimensions



FIRST ANGLE PROJECTION

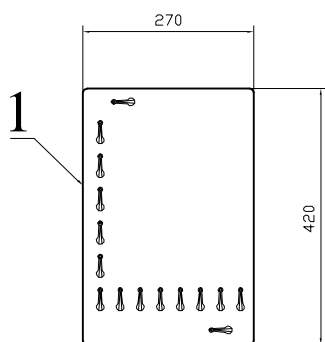


UNIT : mm

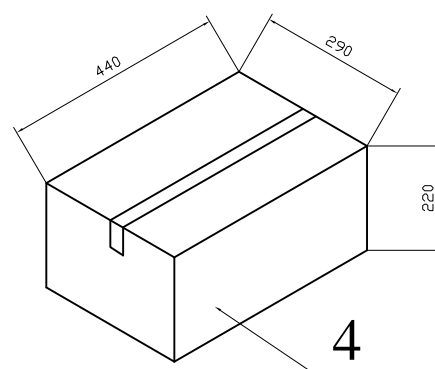
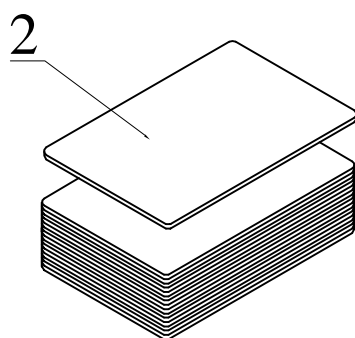
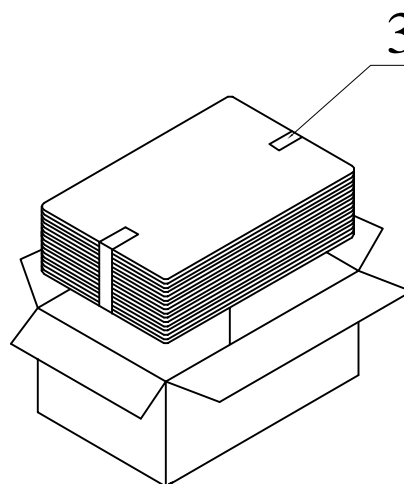
Tolerance : ± 0.2

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8. Packing



100Pcs



QTY: 2000Pcs
440 x290 x220

