

SPECIFICATION FOR APPROVAL

Description : Piezo Audio Transducer

Customer's Model No. : _____

Specification No. : PKD-7622

Number Of The Edition : 1.3

CUSTOMER'S APPROVED SIGNATURE		

Approved by	Checked by	Issued by
		陽志明 2019.10.29

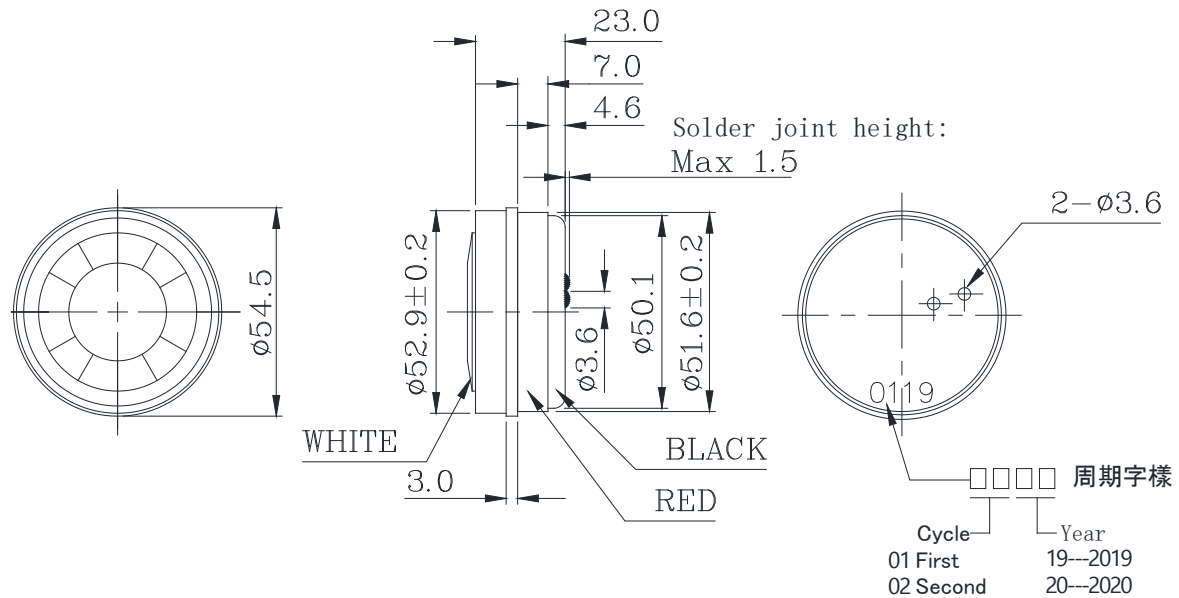
A. SCOPE

This specification applies piezo audio transducer, **KPEG1600NC**

B. SPECIFICATION

No.	Item	Unit	Specification	Condition
1	Operating Volt.	Vp-p	MAX. 150	
2	Current consumption	mA	MAX. 30	at 90Vp-p,sine wave,3.5KHz.
3	Sound pressure level	dB	MIN. 95	at 100cm/90Vp-p,sine wave,3.5KHz.
4	Electrostatic capacity	pF	30,000 ± 30%	at 1KHz/0.25V
5	Operating temp.	°C	-20 ~ +60	
6	Storage temp.	°C	-30 ~ +70	
7	Dimension	mm	φ54.5 x H23.0	See appearance drawing
8	Weight (MAX)	gram	35.0	
9	Material		ABS UL-94 1/16" HB	
10	Terminal		Terminal	See appearance drawing
11	Environmental Protection Regulation		RoHS2.0	

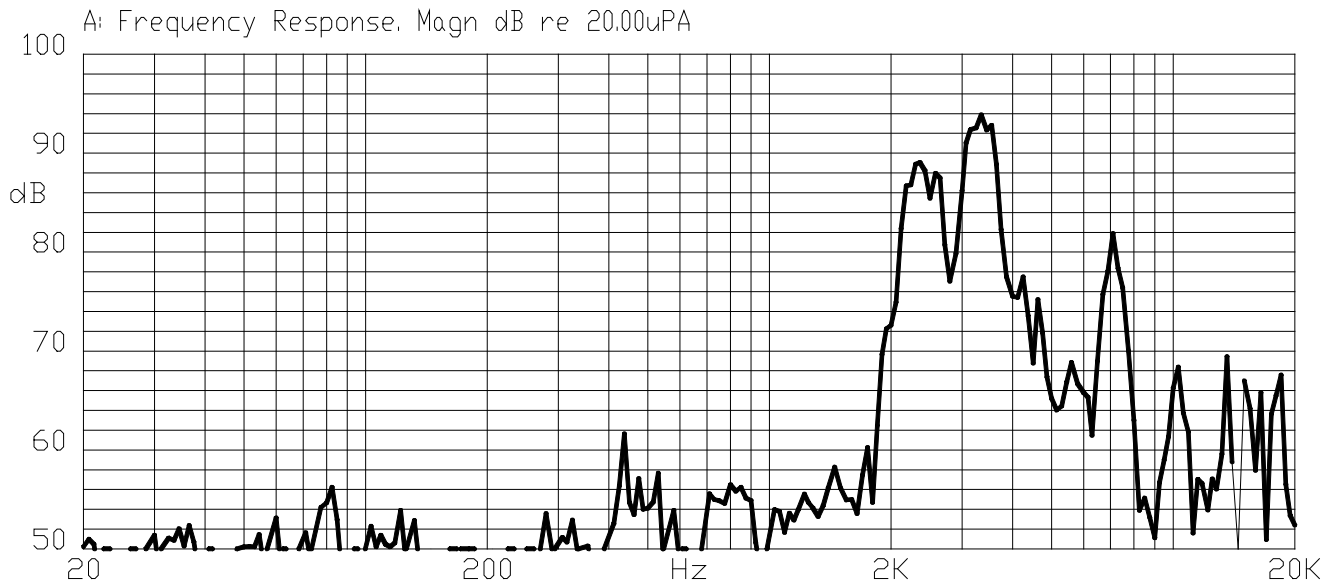
C. APPEARANCE DRAWING



Tol : ± 0.5

Unit: mm

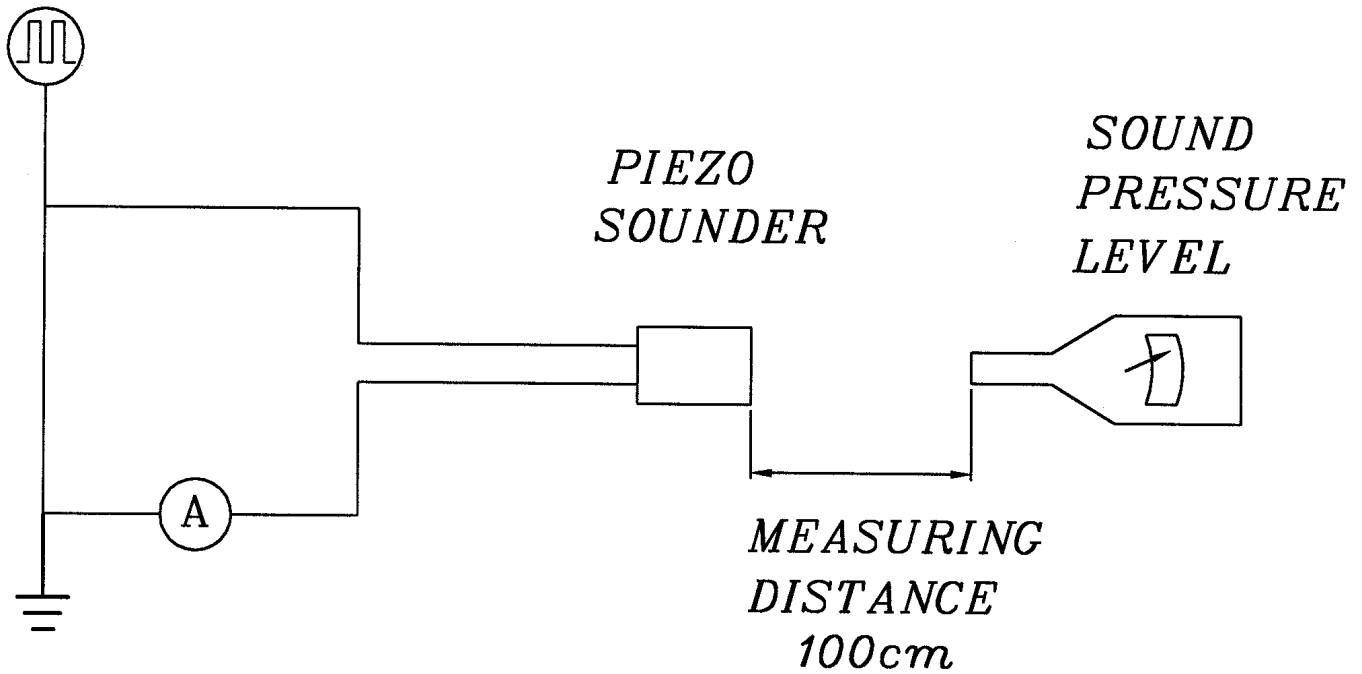
D. TYPICAL FREQUENCY RESPONSE CURVE



E. MEASURING METHOD

S.P.L. Measuring Circuit

Input Signal: 90Vp-p, 3.5kHz, Sine Wave



Mic : RION S.P.L meter UC30 or equivalent

S.G : Hewlett Packard 33120A Function Generator or equivalent

F. MECHANICAL CHARACTERISTICS

No.	Item	Test Condition	Evaluation standard
1	Vibration	Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours.	The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones .The SPL should be in $\pm 10\text{dB}$ compared with initial one.
2	Drop test	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 3 times in 3 axes (X.Y.Z). (a total of 9 times).	

G. ENVIRONMENT TEST

No.	Item	Test Condition	Evaluation standard
1	High temp. test	After being placed in a chamber at $+70^{\circ}\text{C}$ for 240 hours	Being placed for 4 hours at $+25^{\circ}\text{C}$, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones .The SPL should be in $\pm 10\text{dB}$ compared with initial one.
2	Low temp. test	After being placed in a chamber at -30°C for 240 hours	
3	Humidity test	After being placed in a chamber at $+40^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 240 hours	
4	Temp. cycle test	<p>The part shall be subjected to 5 cycles. One cycle shall be consist of::</p> <p>The diagram shows a temperature cycle profile. It starts at -30°C for 0.5hr, then ramps up to $+25^{\circ}\text{C}$ in 0.5hr, stays at $+25^{\circ}\text{C}$ for 0.25hr, ramps up to $+70^{\circ}\text{C}$ in 0.5hr, stays at $+70^{\circ}\text{C}$ for 0.5hr, ramps down to $+25^{\circ}\text{C}$ in 0.5hr, and stays at $+25^{\circ}\text{C}$ for 0.25hr. The total duration of one cycle is 3 hours.</p>	

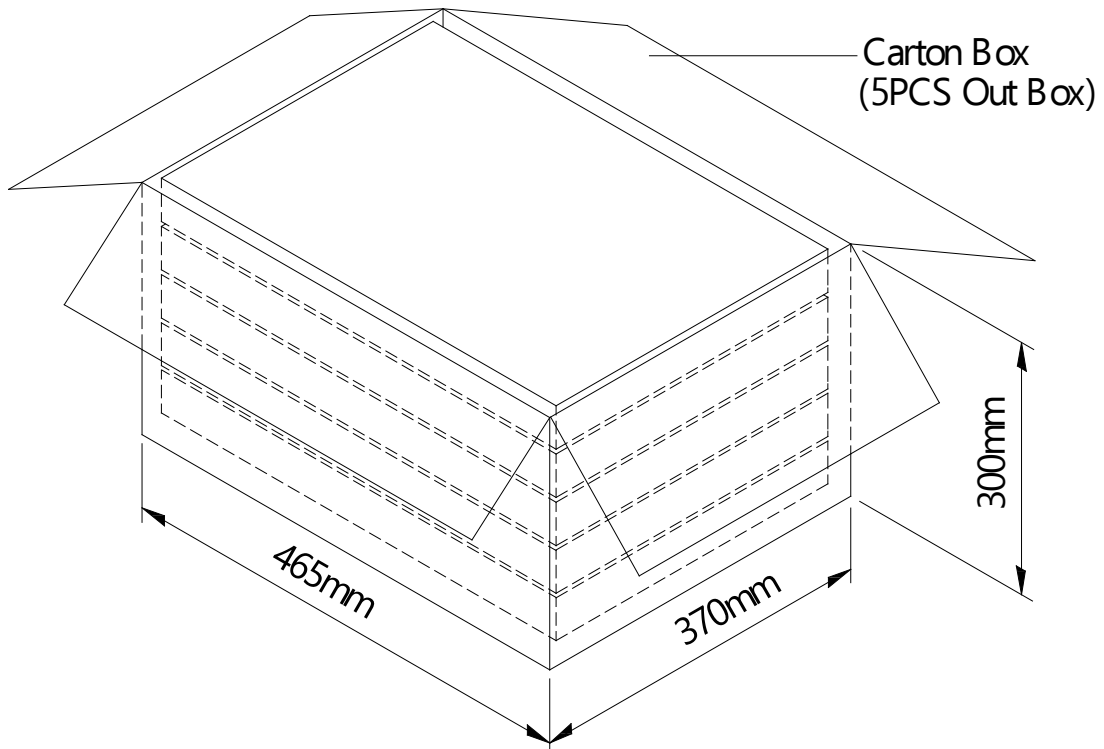
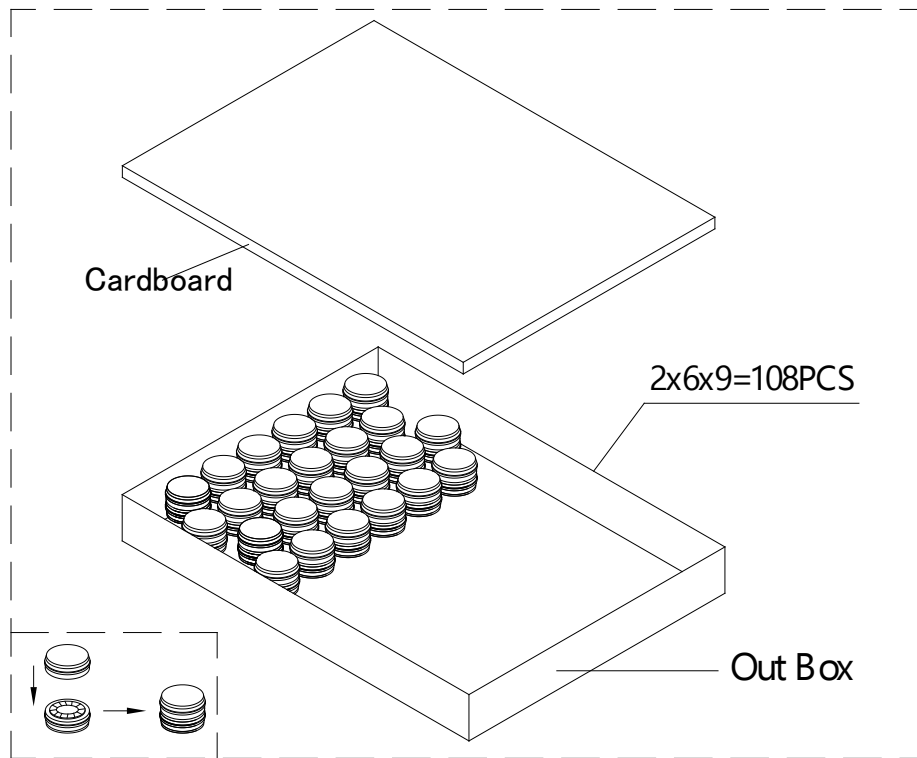
H. RELIABILITY TEST

No.	Item	Test condition	Evaluation standard
1	Operating life test	<p>1.Continuous life test 48 hours continuous operation at $+45^{\circ}\text{C}$ with rated voltage applied.</p> <p>2.Intermittent life test A duty cycle of 1 minute on, 1 minutes off, a minimum of 5000 times at room temp.($+25\pm 2^{\circ}\text{C}$)and rated voltage applied</p>	Being placed for 4 hours at $+25^{\circ}\text{C}$, buzzer shall be measured. The value of oscillation frequency/ current consumption should be in $\pm 10\%$ compared with initial ones .The SPL should be in $\pm 10\text{dB}$ compared with initial one.

TEST CONDITION.

Standard Test Condition : a) Temperature : $+5 \sim +35^{\circ}\text{C}$ b) Humidity : 45-85% c) Pressure : 860-1060mbar
 Judgment Test Condition : a) Temperature : $+25 \pm 2^{\circ}\text{C}$ b) Humidity : 60-70% c) Pressure : 860-1060mbar

I. PACKING STANDARD



Out Box	450mmx350mmx50mm	1x108PCS=108PCS
Carton Box	465mmx370mmx300mm	108PCSx5=540PCS