
SPECIFICATION FOR APPROVAL

Product	SMD PIEZO BUZZER
Part No.	APD-1603-KP2
Customer Approval	

Approved By	Checked By	Made By



A & B Components

<http://www.speaker-tw.com>

1. Specifications

APD-1603-KP2

Items		Units	Specifications	Conditions
01	Rated Voltage	Vp-p	3.0	(square wave)
02	Operating Voltage	Vp-p	1.0~18.0	
03	Rated Current	mA(Max)	3	
04	Sound Output	dBA(Min)	70	At 3Vp-p , 4K Hz / 10cm
05	Resonant Frequency	Hz	4000	
06	Capacitance	pF	14000±30%	At 120Hz
07	Operating Temp.	℃	-30 ~ +75	
08	Storage Temp.	℃	-40 ~ +85	
09	Weight	g	1.0	

2. Measuring Method

2-1. Test Condition

STANDARD

Temperature : 15 ~ 35℃

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

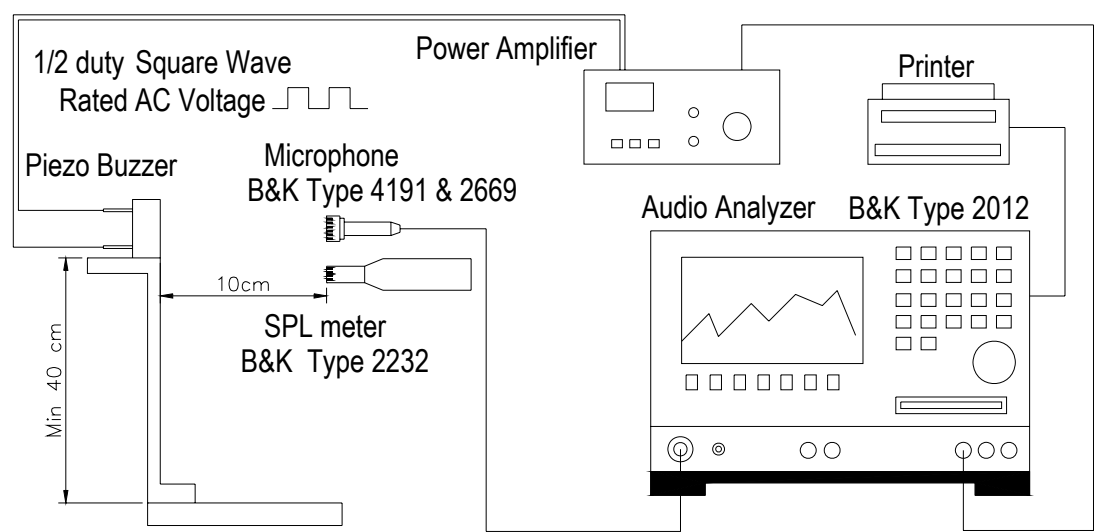
BASIC

Temperature : 20±3℃

Relative humidity : 60% ~ 70%,

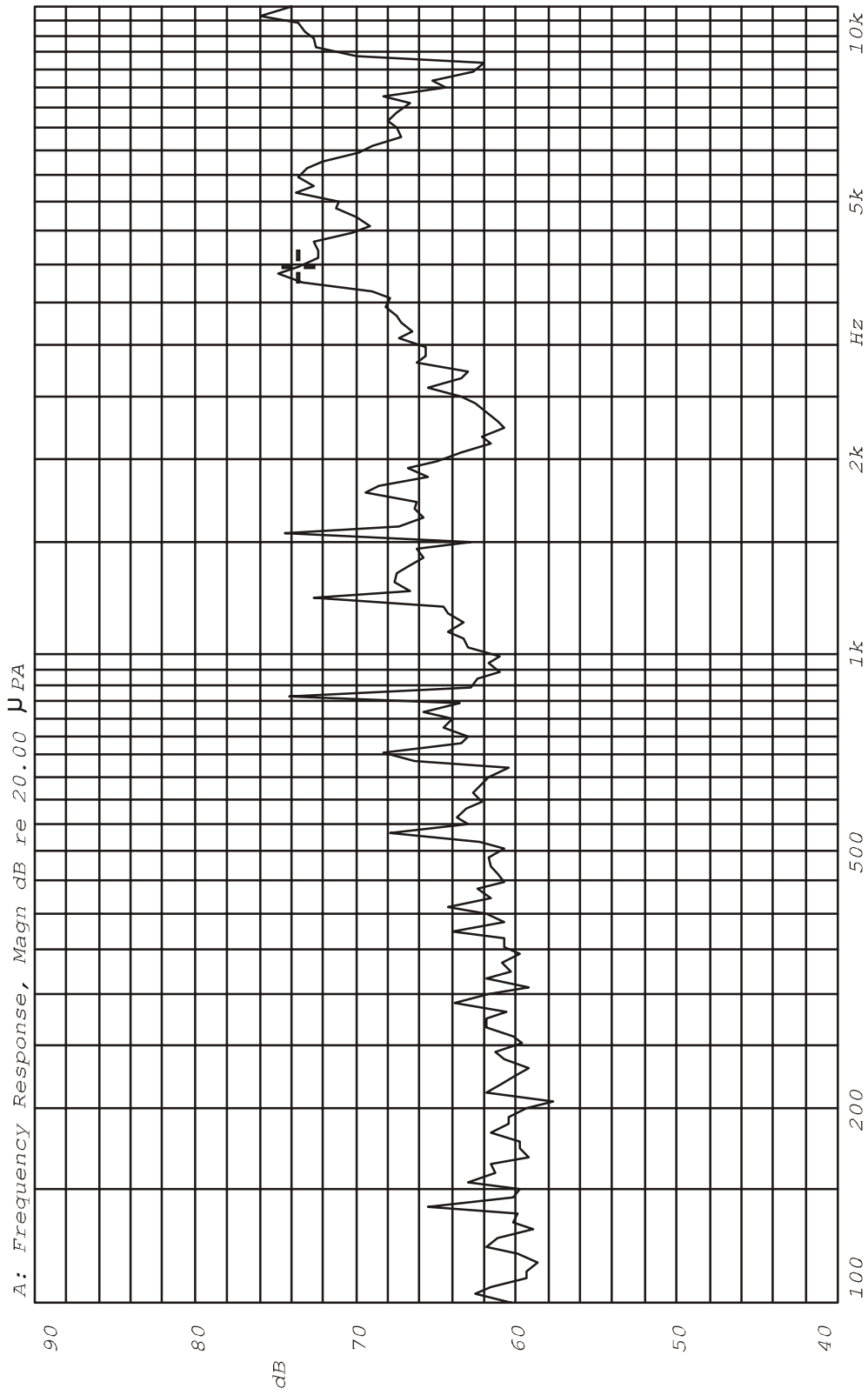
Atmospheric pressure : 860mbar to 1060mbar

2-2. Standard Test Fixture



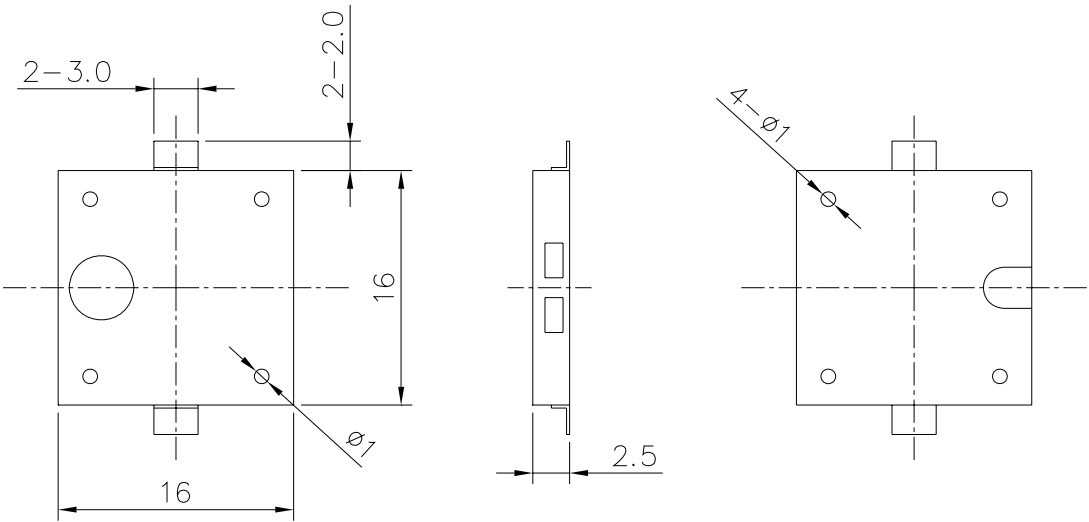
2-3. Frequency Response Curve

X:3.9811kHz Y:73.56dB ZA:Live Curve SSR T. RMS

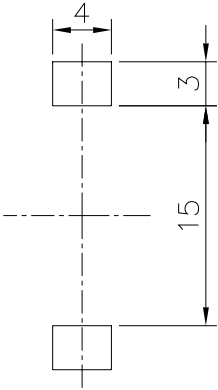


Mode: SSR

REV NO.	REVISION NOTE	APPROVAL	DATE
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PCB LAYOUT



TITLE: <i>PIEZO BUZZER (SMD)</i>		DRAWN: <i>Richard</i> 07/11/2007	SCALE: 4:1	SHEET: 1 OF 1
PART NO. <i>APD-1603-KP2</i>	1	DESIGNED: <i>R&D DEP.</i>	UNITS: <i>mm</i>	
DWG NO. <i>DPD-1002</i>		CHECKED:	TOLERANCE ± 0.2	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED:	
	REV	MATERIAL: <i>LCP</i>	ONE PLACE DECIMAL $\pm$ ***	
			TWO PLACE DECIMAL $\pm$ ***	
			THREE PLACE DECIMAL $\pm$ ***	

A & B Components

4. Reliability Test

Item		Conditions	Evaluation standard
01	Low Temp. Storage Test	$-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$,240Hr	After the test the part shall meet specifications without Any degradation and performance except S.P.L S.P.L shall be 73dB or more.
02	High Temp.Storage Test	$85^{\circ}\text{C} \pm 2^{\circ}\text{C}$,240Hr	
03	Temp./Humidity Storage Test	$40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, RH90-95% 240Hr	
04	Thermal Shock Test	$-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ (0.5Hr) $\rightarrow$, $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ (0.25Hr) $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ (0.5Hr) $\rightarrow$, $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ (0.5Hr) 5 cycles	
05	Vibration Test	10-55Hz/2 Hr amplitude1.5mm X,Y, Z,3 directions	
06	Mechanical Shock Test	+100G,Half Sine wave, XYZ , 3 impacts per axis ,3 times.	
07	Free Drop Test	The part shall be dropped freely from a height of 75 cm X,Y, Z,3 directions 3times (total 9 times)	
08	Life Burning Test	The part shall be subjected to 500 hrs in the room temp with rated voltage applied	
09	Lead Strength Test	Pull Lead with a force of 10N,on the direction of the lead axis for 10 ± 1 sec.	

5.Solder ability

Temperature profile for reflowable Buzzer .

