

MESSRS.

SPECIFICATION FOR APPROVAL

承 認 書

Product	MAGNETIC BUZZER (SMD)
Part No.	AD-8504-LQ2-LF(RoHS)
Customer Approval	

Approved By	Checked By	Made By
工程 部 王台平 OCT-27-2005	工程 部 劉民祥 OCT-27-2005	工程 部 許俊程 OCT-27-2005



ADVANCED ACOUSTIC TECHNOLOGY CORP.

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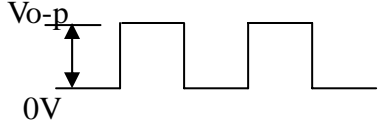
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<http://www.aatc.com.tw>

AD-8504-LQ2-LF

FEATURES

Applications : Mobile phone , PDA , pager etc.

Items		Units	Specifications	Conditions	
01	Rated Voltage	Vo-p	3.6		
02	Operating Voltage	Vo-p	2.5 ~ 4.5		
03	Consumption Current	mA (max)	Mean	100	Standard State, Standard Drive Circuit. Rated Voltage, Distance at 10 cm free air 4000Hz, Square Wave 1 / 2 Duty
			Peak	300	
04	Sound Pressure Label	dB (min)	90		
05	Resonant Frequency	Hz	4000		
06	Coil Resistance	Ω	16 ± 3	At Basic State	
07	Operating Temp.	$^{\circ}\text{C}$	-30 ~ +75		
08	Storage Temp.	$^{\circ}\text{C}$	-40 ~ +85		
09	Weight	Gram	0.5		

Test Condition

STANDARD

Temperature : 15 ~ 35 $^{\circ}\text{C}$

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

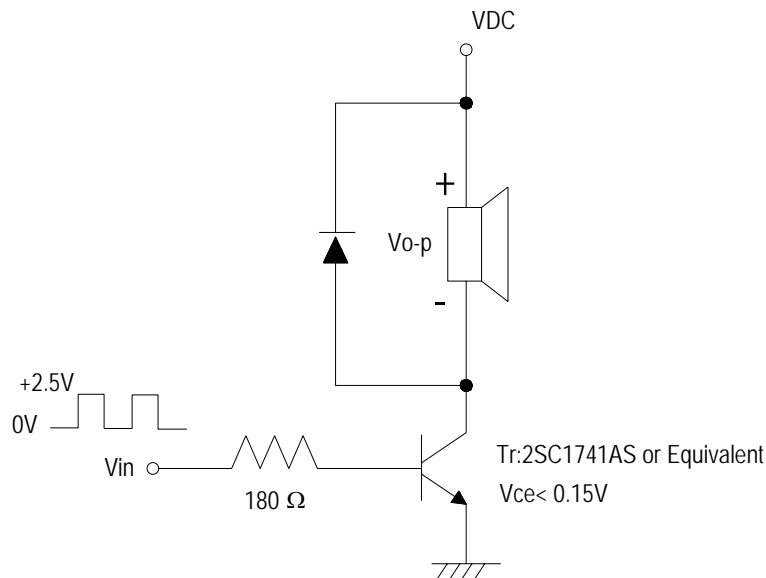
JUDGEMENT

Temperature : 20 \pm 3 $^{\circ}\text{C}$

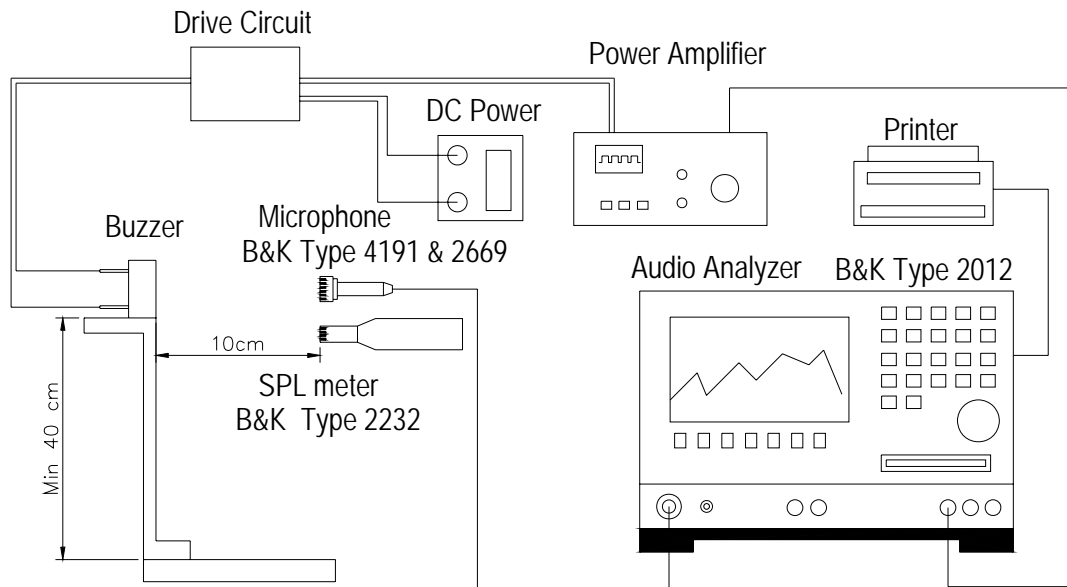
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

Standard Drive Circuit



Standard Test Fixture



Frequency Response Curve

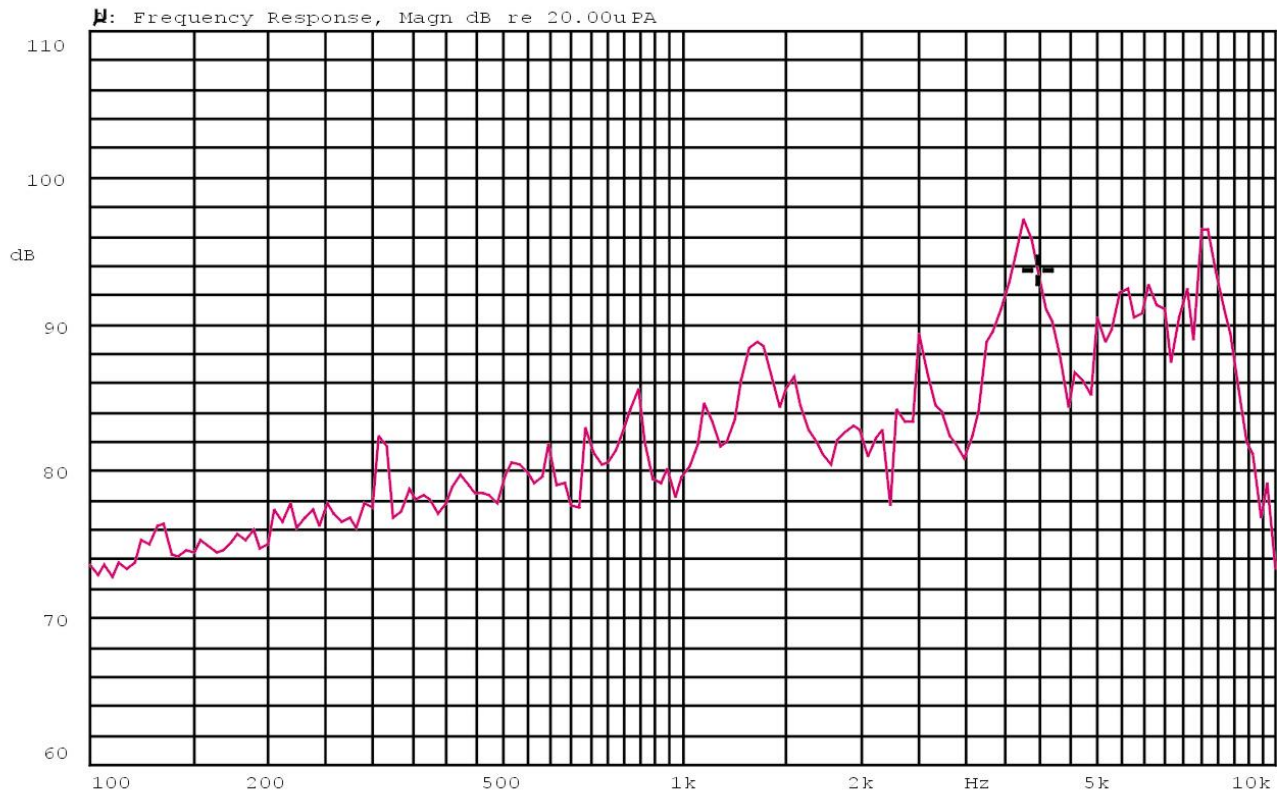
AD-8504-LQ2

X: 3.9811kHz

Y: 93.64dB

EA: Live Curve

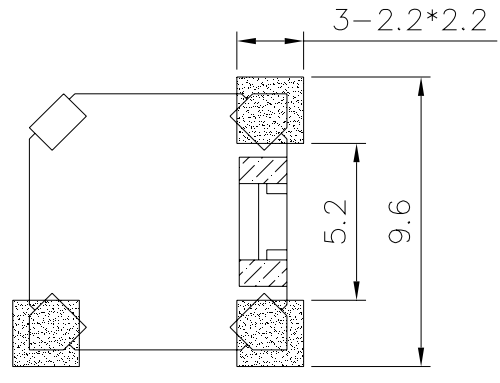
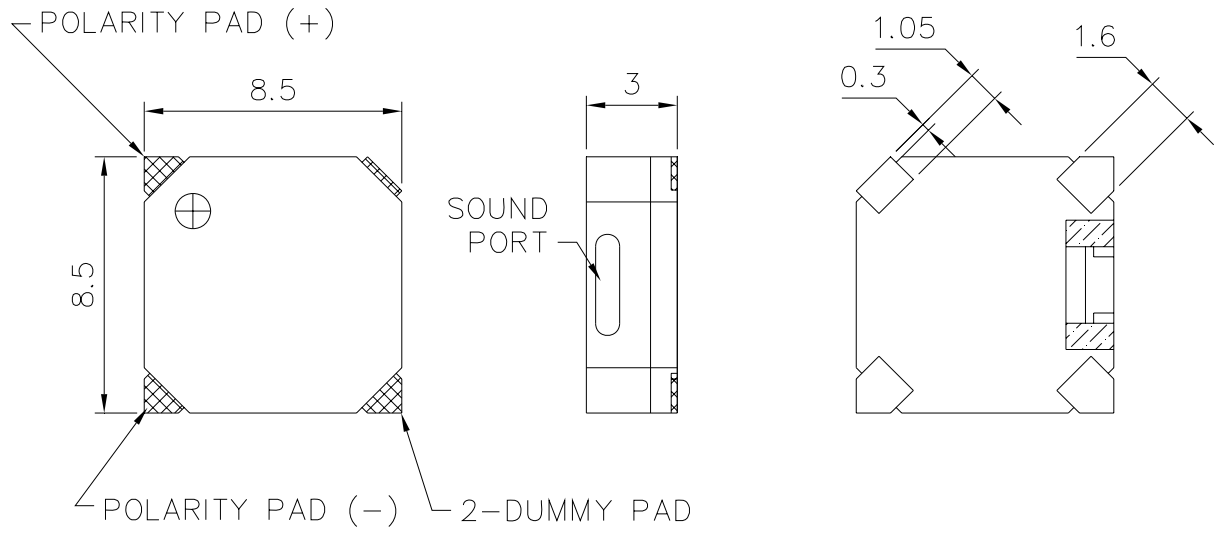
SSR T. RMS



Mode: SSR



REV NO.	REVISION NOTE	APPROVAL	DATE
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RECOMMENDED P.C.B LAYOUT

TITLE: SOUND TRANSDUCER (SMD)		DRAWN: JCHEN	10/28/2005	SCALE: 4:1	SHEET: 1 OF 1
PART NO. AD-8504-LQ2-LF		DESIGNED: R&D OF AAT	UNITS: mm		
DWG NO. DTD-2003		CHECKED:	TOLERANCE ± 0.2		
REV 1		APPROVAL:	UNLESS OTHERWISE SPECIFIED:		
		MATERIAL: LCP	ONE PLACE DECIMAL ± ***		
			TWO PLACE DECIMAL ± ***		
			THREE PLACE DECIMAL ± ***		



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RELIABILITY TEST

Item		Test conditions	Evaluation standard								
01	High temp.Storage life	The part shall be capable of withstanding a storage Temperature of 85°C for 96 hours.	After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L S.P.L shall be 77dB or more.								
02	Low temp.Storage life	The part shall be capable of withstanding a storage Temperature of -40°C for 96 hours.									
03	Temp. cycle	<p>The part shall be subjected 10 cycles. One cycle shall consist of;</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td style="text-align: center;">-40°C</td> <td style="text-align: center;">85°C</td> </tr> <tr> <td style="text-align: center;">30min</td> <td style="text-align: center;">30min</td> </tr> <tr> <td colspan="2" style="text-align: center;">60min</td> </tr> </table>		-		-40°C	85°C	30min	30min	60min	
-											
-40°C	85°C										
30min	30min										
60min											
04	Temp./Humidity cycle	The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of;									
05	Operating life	<p>Rated Voltage,Frequency applied.</p> <p>1. Ordinary temperature The part shall be subjected to 1000 hours at room temperature (25 ±10°C)</p> <p>1. High temperature The part shall be subjected to 500 hours at 85°C</p> <p>2. Low temperature The part shall be subjected to 500 hours at -40°C</p>									
06	Vibration	The part shall be subjected to a vibration cycle of 10Hz to 55Hz to 10Hz in a period of 1 minute. Total peak amplitude shall be 1.52mm (9.3G). The vibration test shall consist of 2 hours per plane in each three mutually perpendicular planes for a total time of 6 hours.									
07	Fixed drop	The part shall be mounted on standard pc board and dropped from a height of 152cm onto a concrete floor 5 times in each 6 planes.(a total of 30 times)									

Item		Test conditions	Evaluation standard
08	Free drop	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).	
10	Lead strength	Pull lead with a force of 10N, on the direction of the lead axis for 10 :10±1 sec	
11	Washability	Solvent : deionized water Solvent temp. : 55±5°C Soaking time : 5±0.5 min.	

SOLDER ABILITY

Temperature profile for reflowable Buzzer .

