

# MESSRS.

## SPECIFICATION FOR APPROVAL

### 承 认 书

Product	MAGNETIC BUZZER (SMD)
Part No.	AD-8504-MQ3 (RoHS)
Customer Approval	

Approved By	Checked By	Made By
工程 王台平 JUN-22-2007	工程 丁小娥 JUN-22-2007	工程 赵丽 JUN-22-2007



常州立翔电子有限公司  
常州华龙电子有限公司

ADVANCED ACOUSTIC TECHNOLOGY CORP.

Head Office / 台北 立翔科技股份有限公司

Tel: +886-2-88665255 Fax: +886-2-88665250



ISO 9001 Certified

常州公司/工厂

中国江苏省常州市新区创新科技楼南区 A 座 4 楼

Tel: +86-519-5112382. 86-519-5106698, Fax: +86-519-5100908

深圳办事处: +86-0755-25126320 FAX:+86-0755-25102966

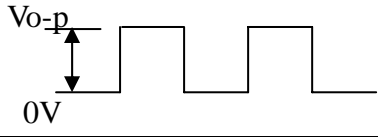
[http:// www.aatc.com.tw](http://www.aatc.com.tw)

[www.aatc.com.cn](http://www.aatc.com.cn)

EDITION:1.1

# AD-8504-MQ3

## 1.CHARACTER DATA

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, Rated Frequency, Distance at 10 cm free air, Square Wave 1 / 2 Duty
			Peak 300	
04	Sound Output	dB (min)	85	
05	Rated Frequency	Hz	2500	
06	Coil Resistance	$\Omega$	$16 \pm 3$	
07	Operating Temp.	$^{\circ}\text{C}$	-30 ~ +75	
08	Storage Temp.	$^{\circ}\text{C}$	-40 ~ +85	
09	Weight	Gram	0.6	

## 2.Test Condition

### STANDARD

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

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

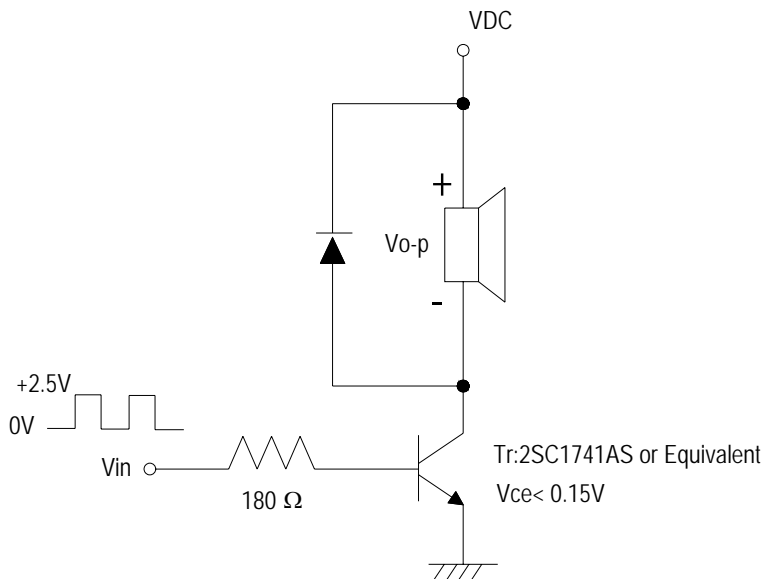
### BASIC

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

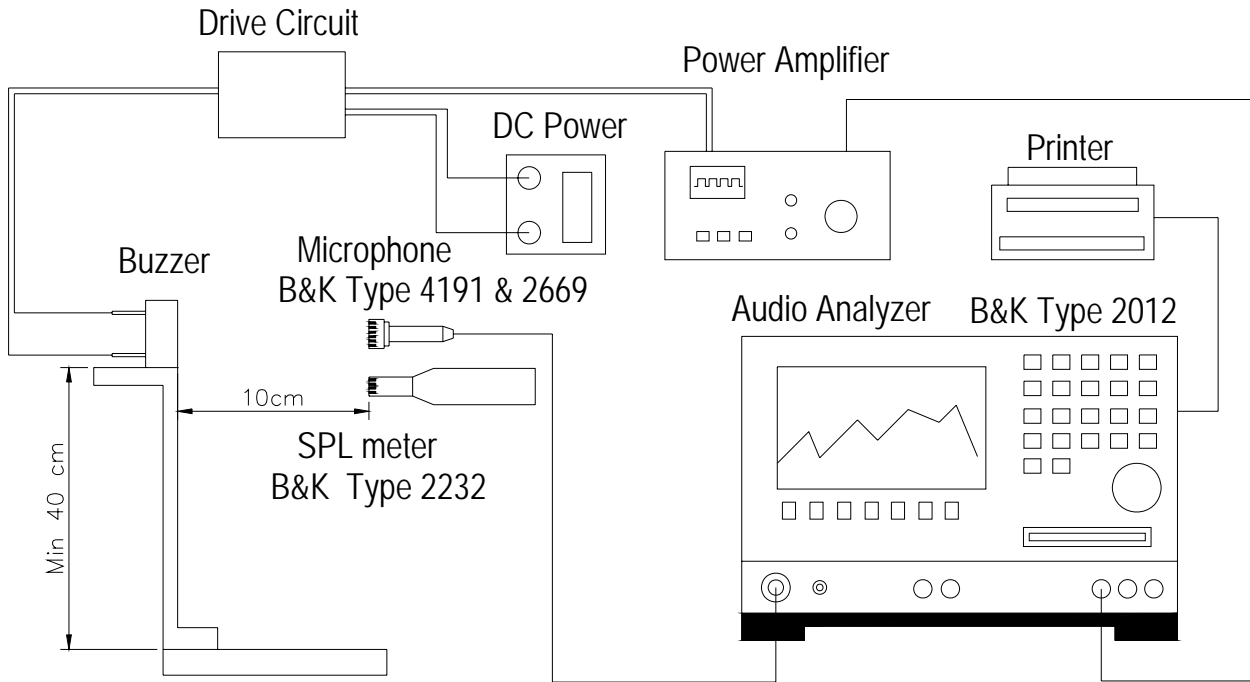
Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

### Standard Drive Circuit



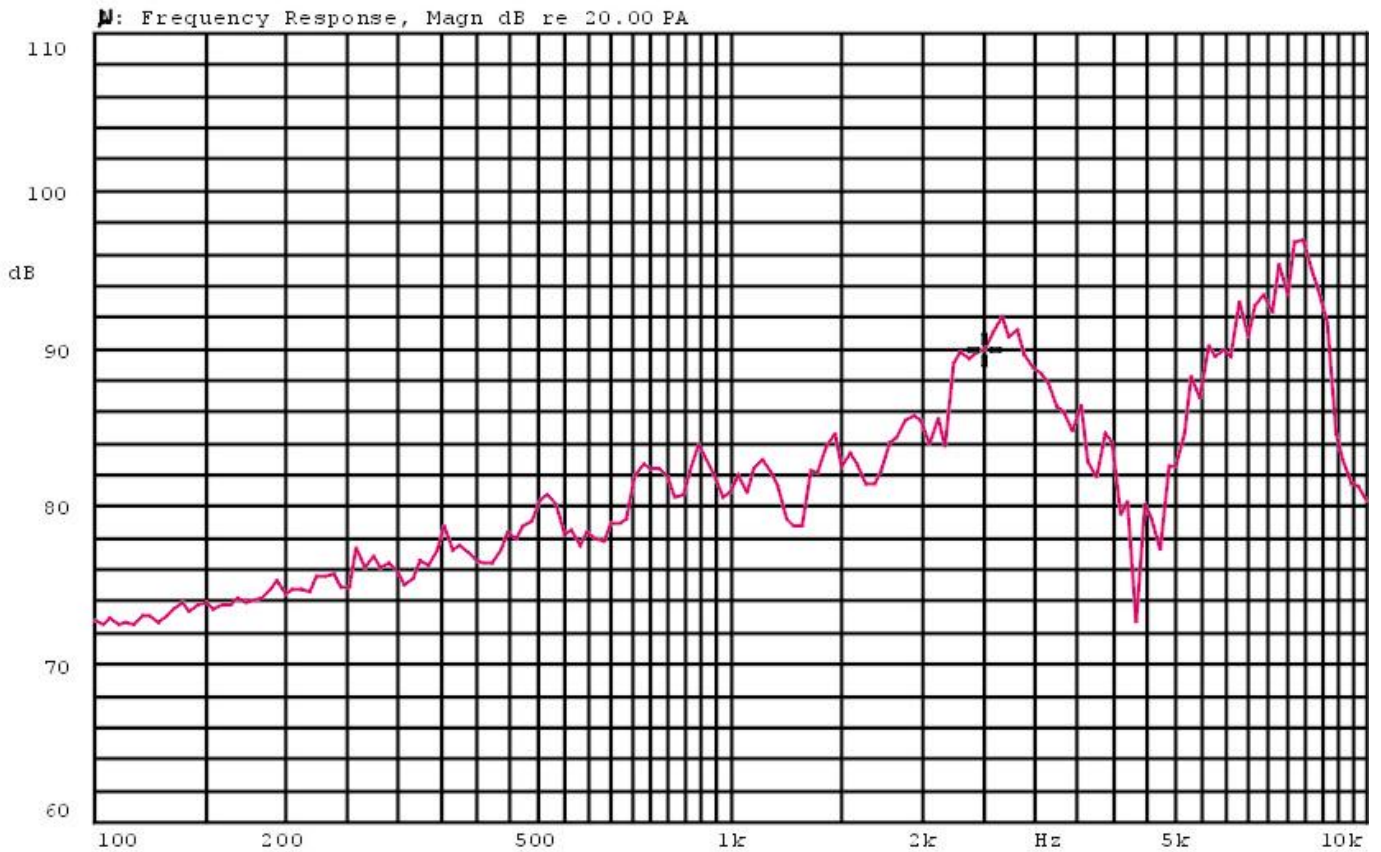
# Standard Test Fixture



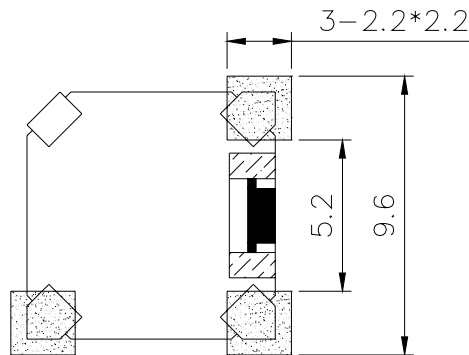
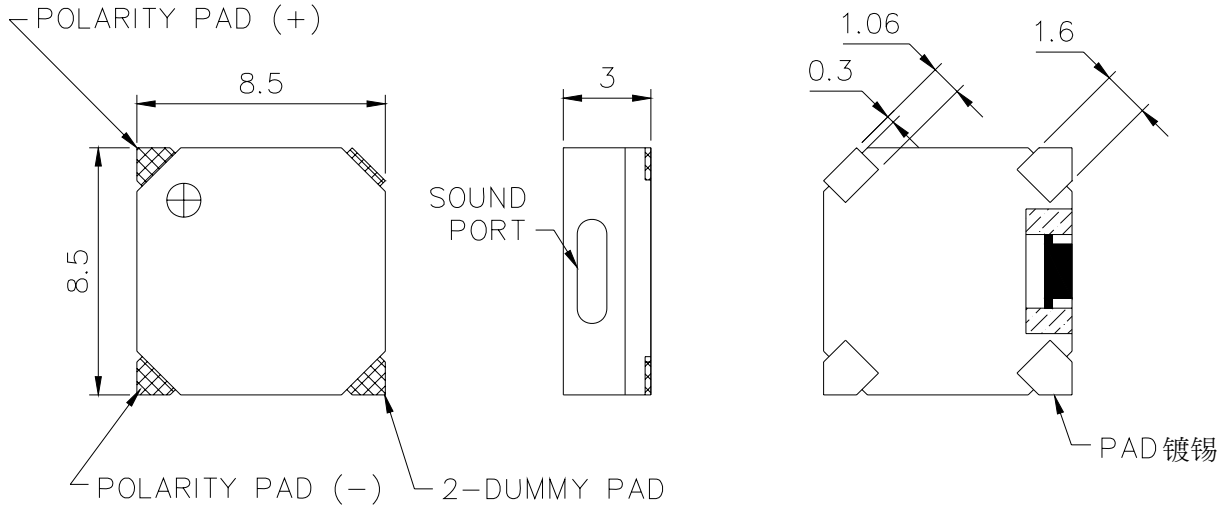
# Frequency Response Curve

AD-8504-MQ2

X:2.5119kHz Y:89.89dB ZA:Live Curve SSR T. RMS



REV NO.	REVISION NOTE	APPROVAL	DATE
---------	---------------	----------	------



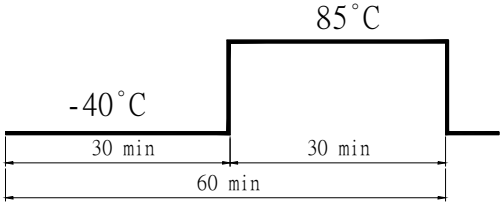
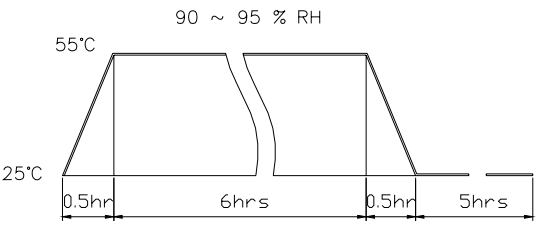
RECOMMENDED P.C.B LAYOUT

TITLE: SOUND TRANSDUCER (SMD)		DRAWN: <i>Lily</i> 2007/06/22	SCALE: 4:1	SHEET: 1 OF 1
PART NO. AD-8504-MQ3		DESIGNED: R&D OF AAT	UNITS: mm	
DWG NO. DTD-2003		CHECKED:	TOLERANCE ± 0.2	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
REV		MATERIAL: LCP		



ADVANCED ACOUSTIC TECHNOLOGY CORPORATION

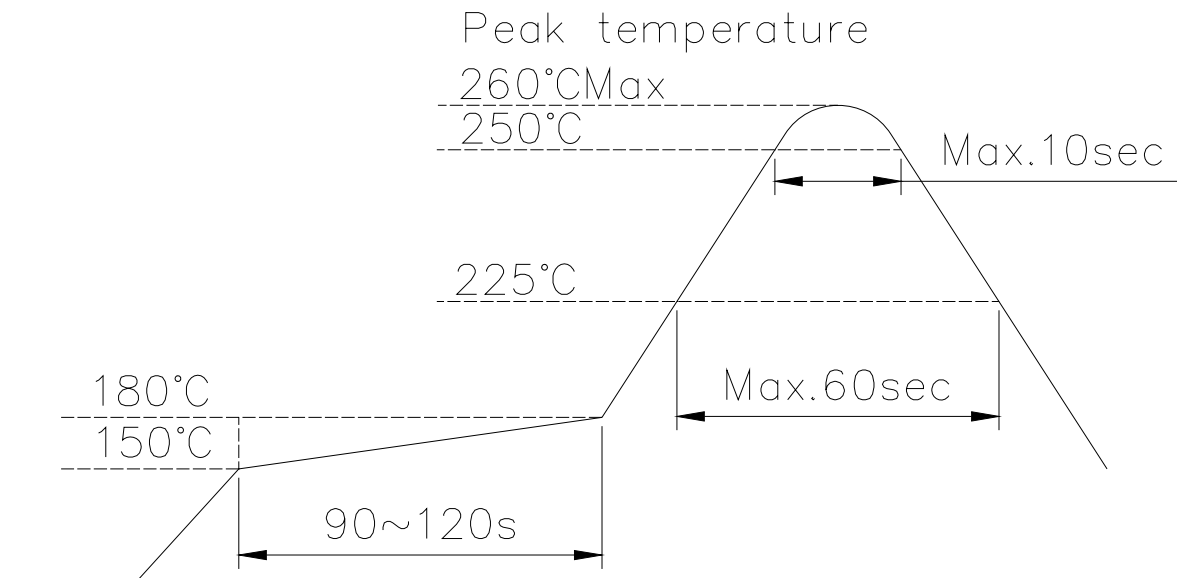
## 5.RELIABILITY TEST

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 78dB 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>  <p>The diagram shows a temperature cycle with a total duration of 60 minutes. It consists of a 30-minute hold at -40°C, followed by a 30-minute hold at 85°C.</p>	
04	Temp./Humidity cycle	<p>The part shall be subjected 10 cycles. One cycle shall be 12 hours and consist of</p>  <p>The diagram shows a 12-hour cycle. It starts with a 0.5-hour ramp from 25°C to 55°C. It then holds at 55°C for 6 hours with 90 ~ 95 % RH. This is followed by a 0.5-hour ramp down to 25°C, and finally a 5-hour hold at 25°C.</p>	
05	Operating life	<p>Rated Voltage,Frequency applied.</p> <ol style="list-style-type: none"> <li>Ordinary temperature The part shall be subjected to 1000 hours at room temperature (<math>25 \pm 10^\circ\text{C}</math>)</li> <li>High temperature The part shall be subjected to 500 hours at 75°C</li> <li>Low temperature The part shall be subjected to 500 hours at -30°C</li> </ol>	
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	

## SOLDER ABILITY

Recommend temperature profile for lead-free solder.



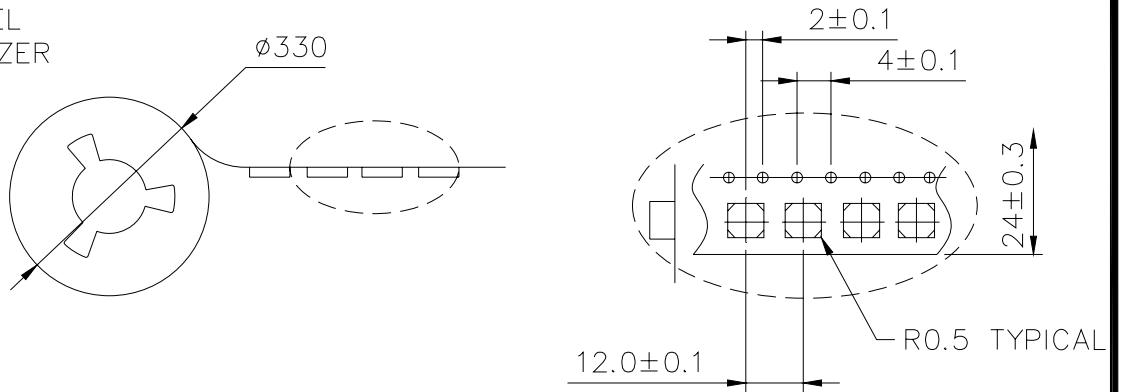
REV NO.

REVISION NOTE

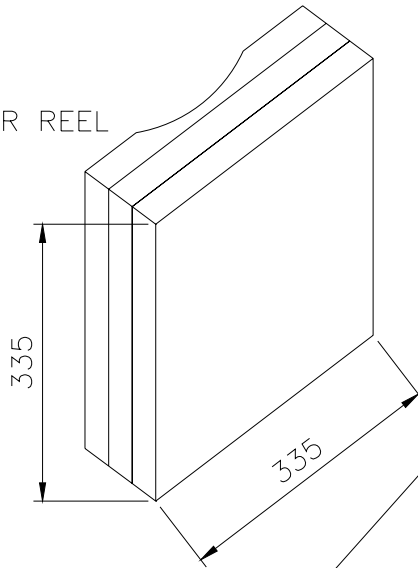
APPROVAL

DATE

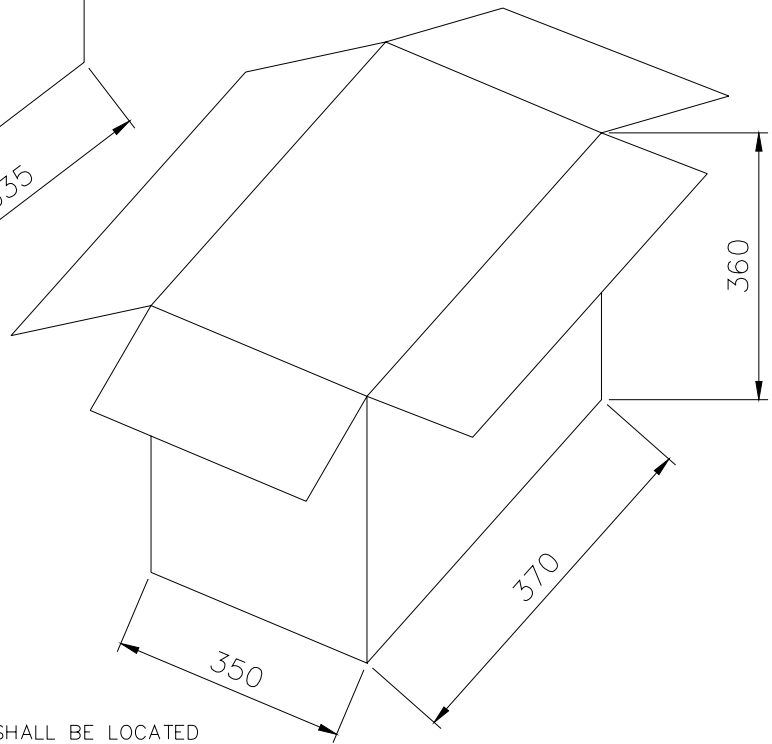
CARRIER REEL  
1K PCS BUZZER



INNER BOX  
1 ROLL CARRIER REEL



CARTON BOX  
10 INNER BOX  
10K PCS BUZZER



NOTE:

TAPE WIDTH: 24MM  
TAPE PITCH: 12MM  
TAPE POLARITY: COMPONENTS "+" TERMINAL SHALL BE LOCATED CLOSEST TO THE ROUND SPROCKET HOLES AND ON THE TAPE'S LEADING EDGE.(THE SOUND PORT IS ORIENTED OPPOSITE THETAPE FEEDER SPROCKET HOLES)  
REEL DIAMETER: 330MM(13 INCHES)

TITLE: <i>PACKING FORMAIION</i>		DRAWN: <i>Lily</i> 2007/06/22	SCALE: NONE	SHEET: 1 OF 1
PART NO. <i>AD-8504-MQ3</i>	1 REV	DESIGNED: <i>R&amp;D OF AAT</i>	UNITS: <i>mm</i>	
DWG NO. <i>DTE-1119-1</i>		CHECKED:	TOLERANCE ± ****	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
		MATERIAL:		



ADVANCED ACOUSTIC TECHNOLOGY CORPORATION