

**MESSRS. ComKey**

**SPECIFICATION FOR APPROVAL**

**承 認 書**

Product	ELECTRO MAGNETIC BUZZER(SMD)
Part No.	AD-75B4CR
Customer Approval	
Customer Part No.	

Approved By	Checked By	Made By
		



**Advanced Acoustic Technology Corporation**  
**昊宸股份有限公司 // 常州笠翔电子有限公司**



ISO 9001 Certified

ISO 14001 Certified

Head Office / 2F, No.207, Sec. 6, Chung Shan N. Rd., Taipei, Taiwan

Tel: +886-2-8866-5255

Fax: +886-2-8866-5250

**RoHS**




**ADVANCED ACOUSTIC TECHNOLOGY CORP.**

昊 岁 股 份 有 限 公 司

REVISIONS			
PRODUCT		ELECTRO MAGNETIC BUZZER(SMD)	
PART NO.		AD-75B4CR	
REV.	REVISER	DATE	DESCRIPTION
1	HANK	2019-10-08	Releasing new drawing SPEC.
2	ZACK	2019-11-27	Add sound pressure level (Distance at 5cm) 85dB at Rated voltage, rated frequency.
3	ZACK	2020-02-10	Change Operating Temp from -30~+70°C to -40~+85°C Change Operating Temp from -40~+80°C to -40~+85°C

# 1. SPECIFICATION

AD-75B4CR

ITEM		UNITS	SPECIFICATIONS	CONDITIONS
01	Rated Voltage	V	3.6	
02	Operating Voltage	V	2.5 ~ 4.5	
03	Consumption Current	mA Max.	100	Standard state, standard drive circuit. Square wave 1/2 duty.
04	Sound pressure level (Distance at 5 cm )	dB(A) Min.	85	Rated voltage, rated frequency.
05	Sound pressure level (Distance at 10 cm )	dB(A) Min.	82	Rated voltage, rated frequency.
06	Direct Current Resistance	$\Omega$	15 $\pm$ 3	
07	Rated Frequency	Hz	2730	
08	Operating Temp.	$^{\circ}\text{C}$	-40 ~ +85	
09	Storage Temp.	$^{\circ}\text{C}$	-40 ~ +85	
10	Weight	g	0.4 $\pm$ 0.1	

# 2. MEASURING METHOD

## 2-1. Test Condition

STANDARD

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

Relative humidity : 45% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

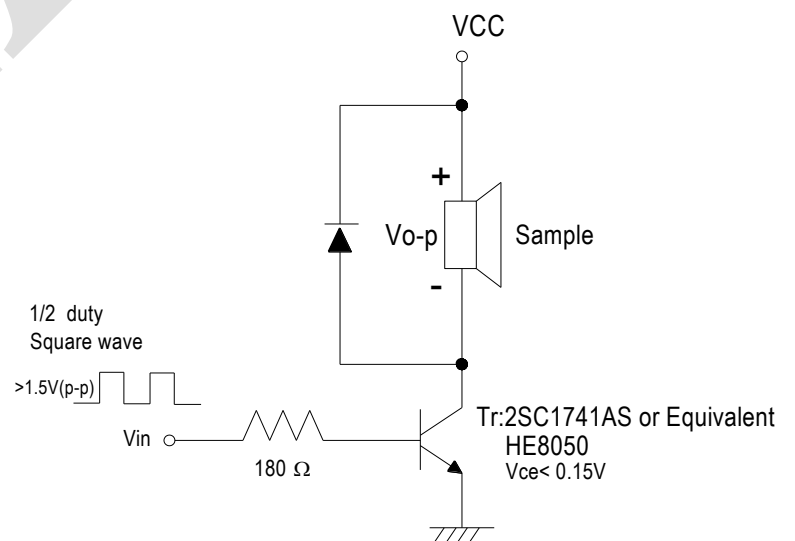
JUDGEMENT

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

Relative humidity : 60% ~ 70%,

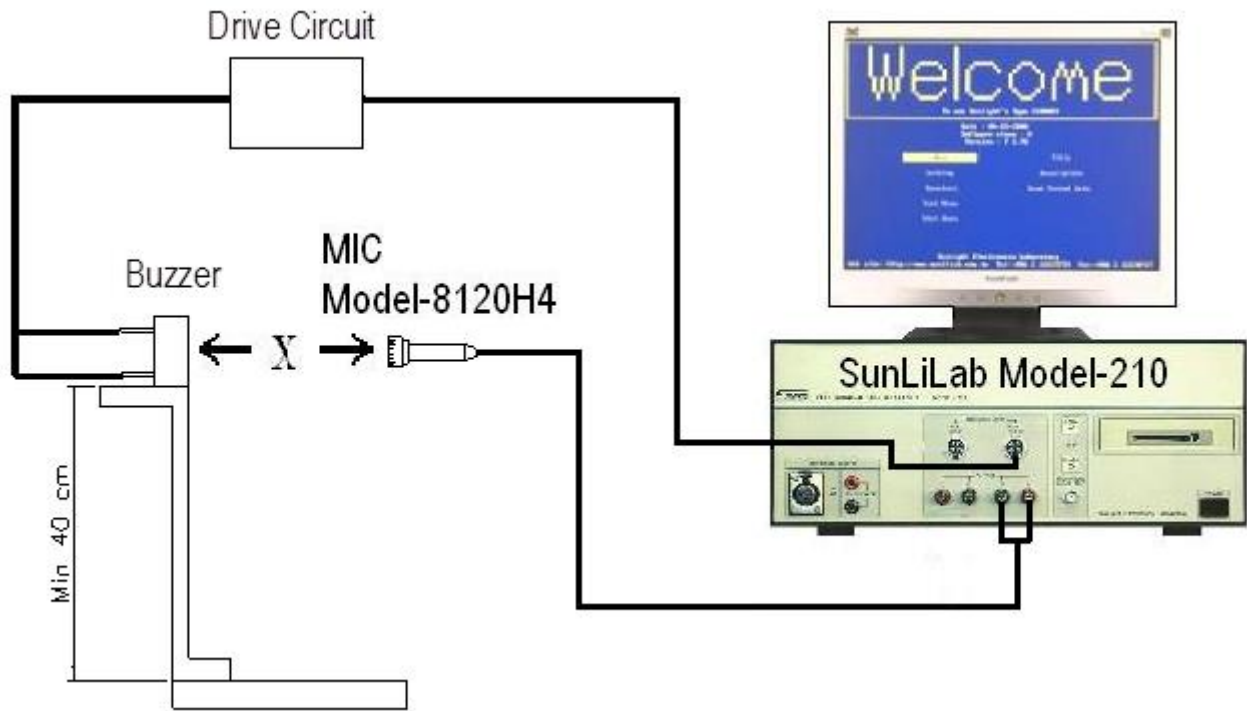
Atmospheric pressure : 860mbar to 1060mbar

## 2-2. Standard drive circuit



## 2-3. Standard Test Fixture

Distance:  $X=10$  cm

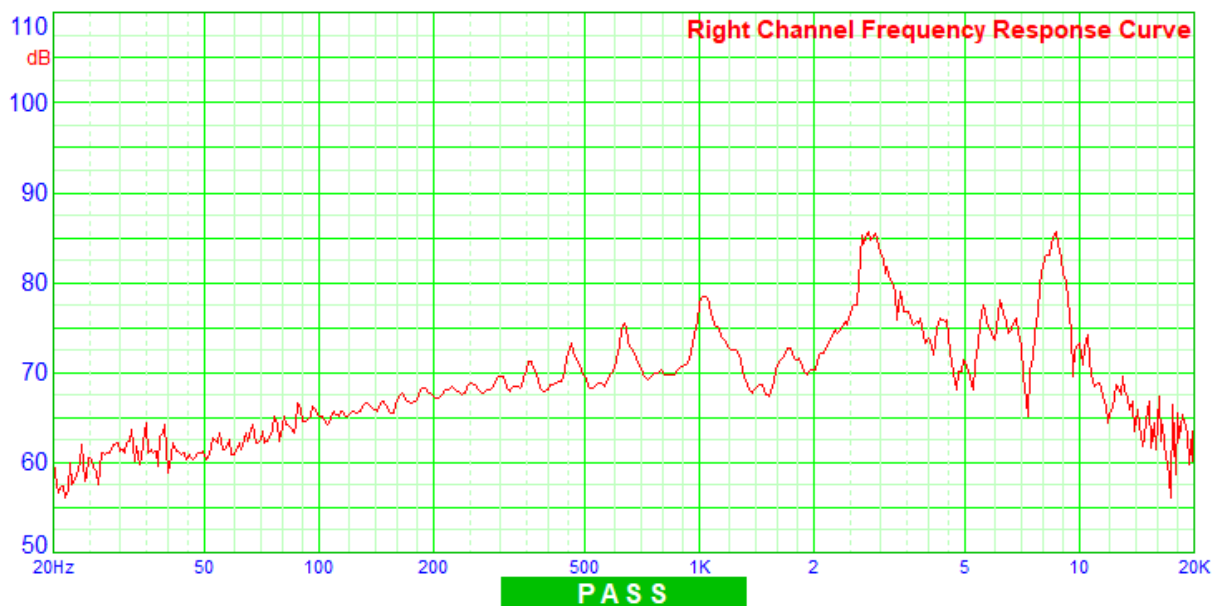


## 2-4. Frequency Response Curve

Type 2100PIE [Run] Piezo Frequency Response Test

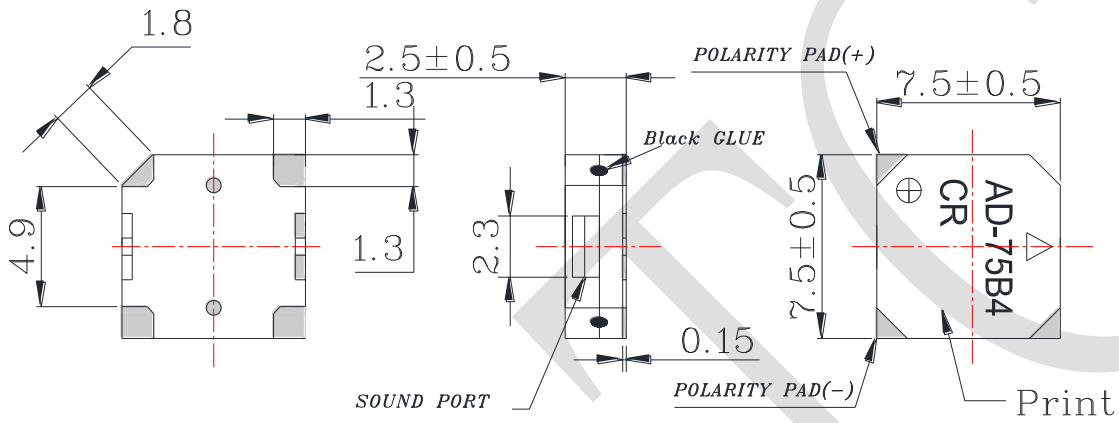
Firm:2017 Object:2017 2100PIE F 1.00 10-16-2019 13:32:20  
S= 84.9dB/ 2726Hz/3600.0mVP FR:P

1/48 Oct.

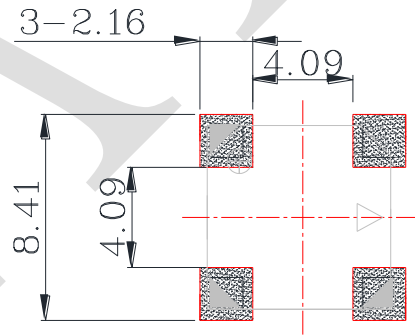


### 3. DIMENSIONS

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



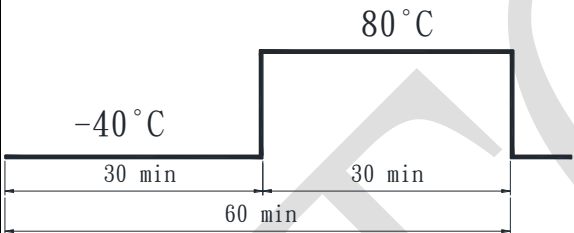
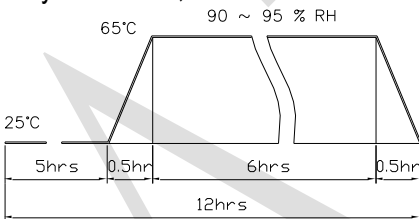
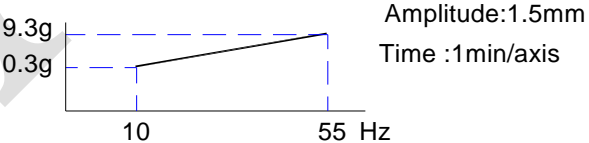
RoHS

TITLE: SOUND TRANSDUCER (SMD)		DRAWN: Zack	2020/02/10	SCALE: 1:1	SHEET: 1 : 1
PART NO. AD-75B4CR		DESIGNED: R & D OF AAT		UNITS: mm	
DWG NO. SMD-075025H-03627R15	3 REV	CHECKED:		TOLERANCE ± 0.5	
		APPROVAL:		UNLESS OTHERWISE SPECIFIED:	
		MATERIAL: LCP		ONE PLACE DECIMAL ± ***	
				TWO PLACE DECIMAL ± ***	
				THREE PLACE DECIMAL ± ***	



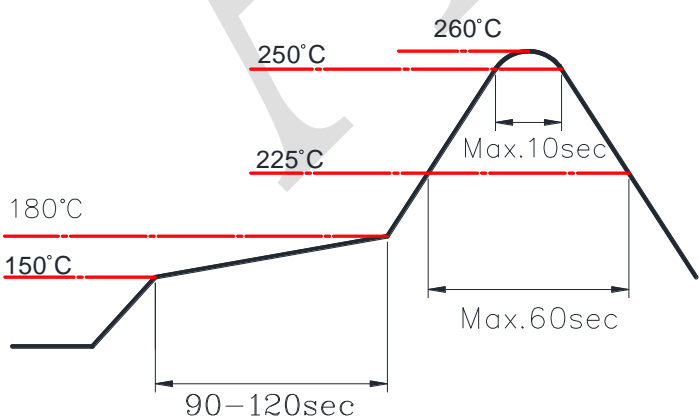
ADVANCED ACOUSTIC TECHNOLOGY CORPORATION

## 4. RELIABILITY TESTS

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.	
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 of ;</p> 	
04 Temp./Humidity cycle	<p>The part shall be subjected 10 cycles. One cycle shall of;</p> 	<p>1. After the test the part shall meet specifications without Any degradation in appearance and performance except S.P.L</p>
05 Operating life	<p>Rated Voltage, Frequency applied.</p> <ol style="list-style-type: none"> <li>1. Ordinary temperature The part shall be subjected to 1000 hours at room temperature (25 ±10°C)</li> <li>2. High temperature The part shall be subjected to 500 hours at 70°C</li> <li>3. Low temperature The part shall be subjected to 500 hours at -30°C</li> </ol>	<p>2. S.P.L shall be ±7 dB.</p>
06 Vibration	 <p>Amplitude:1.5mm Time :1min/axis</p> <p>Make this test for the directions of X, Y, Z for 2 hours each (total 6 hours).</p>	
Item	Test conditions	Evaluation standard

07	<b>Free drop</b>	The part only shall be dropped from a height of 75cm onto a 40mm thick wooden board 1 times in 3 Direction each (X.Y.Z). (a total of 3 times).	1. After the test the part shall meet specifications without Any degradation in
08	<b>Free drop (Packing)</b>	The part only shall be dropped from a height of 100cm onto a 10mm thick wooden board 1 times in 3 axes (X.Y.Z). (a total of 3 times).	appearance and performance except S.P.L 2. S.P.L shall be $\pm 7$ dB.

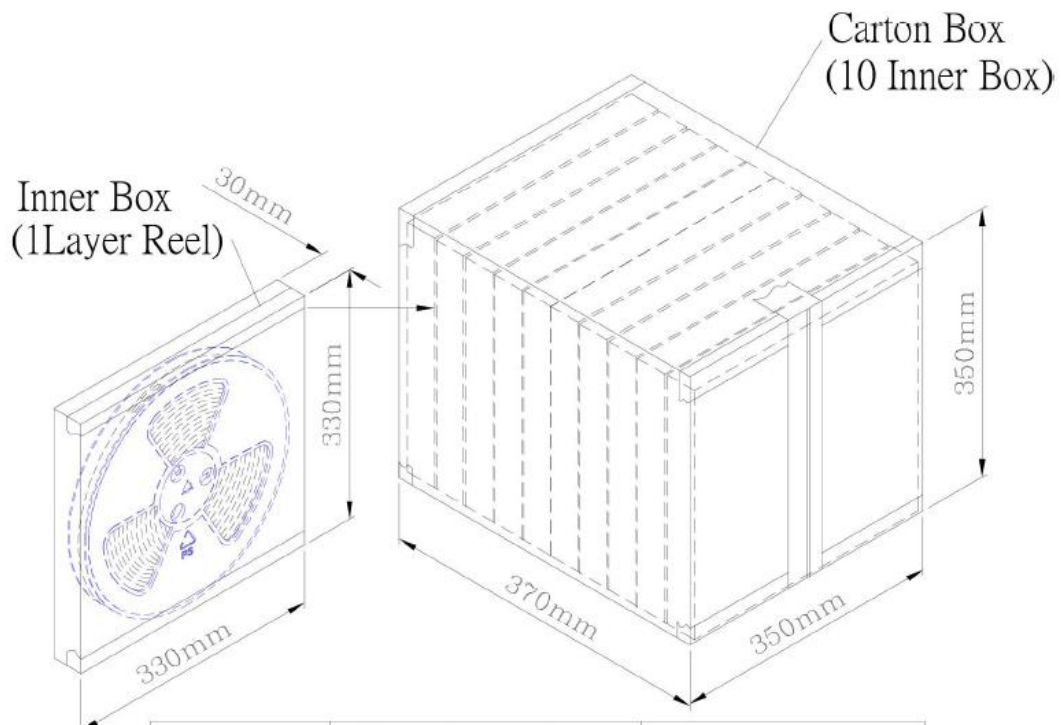
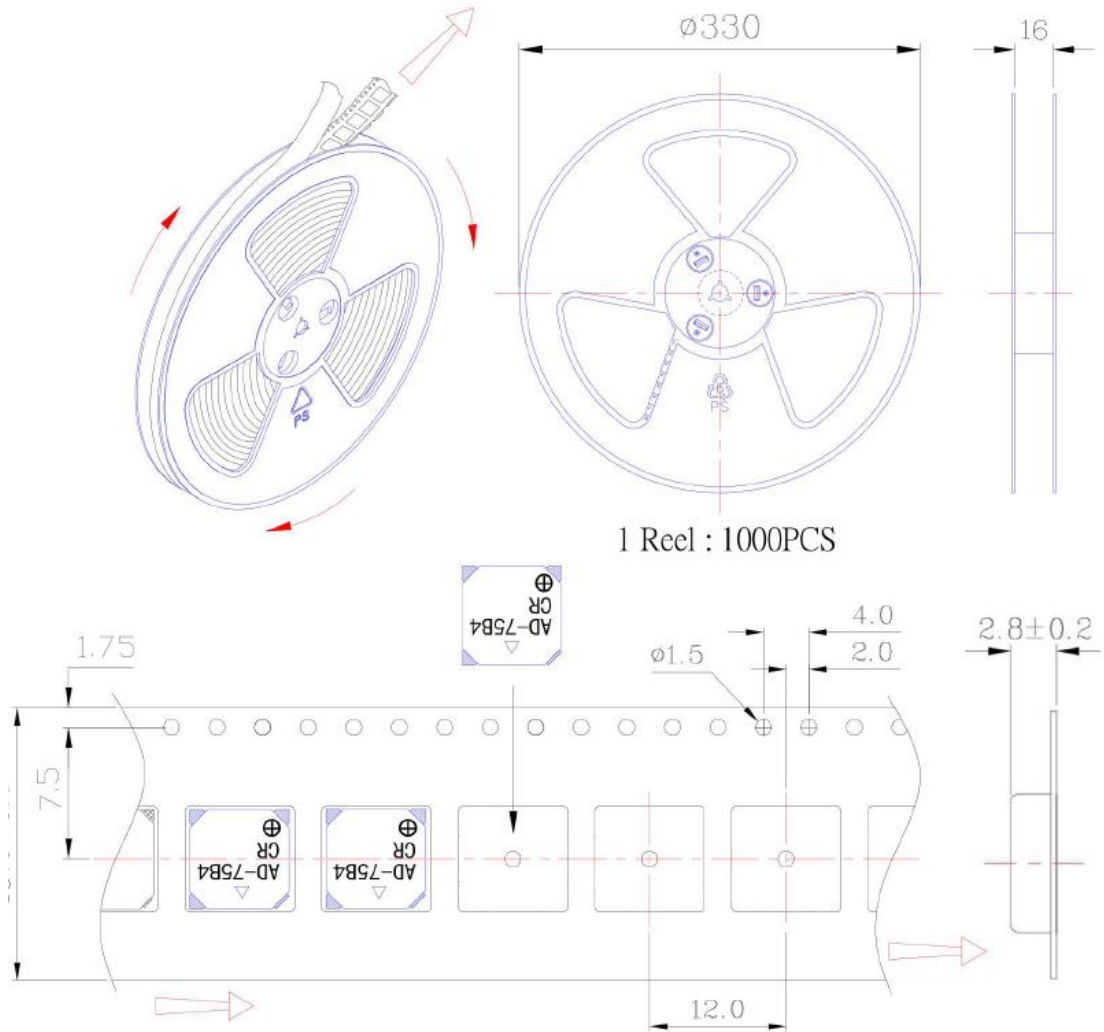
## 5. CAUTIONS FOR USE

01	<p>As this product is not protected from foreign material entering, please make sure that any foreign materials do not enter this product in your production processes. (e.g. magnetic powder, washing solvent, flux, corrosive gas)</p> <p>由於本產品不能防止異物進入，請確保任何異物不會在生產過程中進入本產品。 (例如磁粉，洗滌溶劑，焊劑，腐蝕性氣體)</p>		
02	<p>The functional degradation may occur if foreign material enter it. (e.g. SPL down)</p> <p>如果外來物質進入，則可能發生功能退化。(例如 SPL 下降)</p>		
03	<p>Washing of the component is not acceptable. Because it is not seal.</p> <p>不可水洗的部件，因為它非密封。</p>		
04	<p>After solder bath, the cooling time must be longer than 2 hours before function test.</p> <p>測試功能前，必須在過完錫爐後並冷卻 2 小時以上。</p>		
05	<p>Soldering profile 爐溫曲線 Soldering into solder bath : <math>260 \pm 5^\circ\text{C}</math>, 3~5 Sec. 錫爐溫度: <math>260 \pm 5^\circ\text{C}</math>, 3~5 Sec.</p> 		

06	<p>Soldering with iron 焊接</p> <p>Hand soldering : <math>360\pm 10^{\circ}\text{C} / \leq 2 \text{ Sec.}</math> 手焊: <math>360\pm 10^{\circ}\text{C} / \leq 2 \text{ Sec.}</math></p> <p>Recommend using constant searing-iron 建議使用烙鐵</p>
07	<p>AATC reserves the right to change product material without prior notice, guaranteeing the same specification. Materials are subject to change due to environmental regulations, sourcing, and process improvements. 材料可能由於環境法規，物料及製程工藝精進而發生變動，AATC 保證相同的規格，並有權保留更改產品材料的權利，恕不另行通知。</p>
08	<p>If you need more information, please contact our technology department, thank you 如您需要更多信息，請聯繫我們的技術部門，謝謝。</p>



## 6. PACKING



Inner Box	330mmx330mmx30mm	1x1000PCS=1000PCS
Carton Box	350mmx350mmx370mm	10x1000PCS=10,000PCS