SPECIFICATION FOR APPROVAL

承 认 书

Description	:	**Piezo electric Diaphragm**
Kingstate Part No.	:	**KBIG1536NA02032A**
Customer's Model No.	:	
Specification No.	:	**DOD-Y365**
Number Of The Edition	:	**1.1**

CUSTOMER'S APPROVED SIGNATURE		

志丰电子股份有限公司 KINGSTATE ELECTRONICS CORP.

KINGSTATE

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Approved by	Checked by	Issued by
		ZHUXIAOLEI 2026.04.10

RELEASE HISTORY 发行历史

Revision	Version	Date	Description	Remark
1	1.1	2026.04.10	初版发行	ZHUXIAOLEI

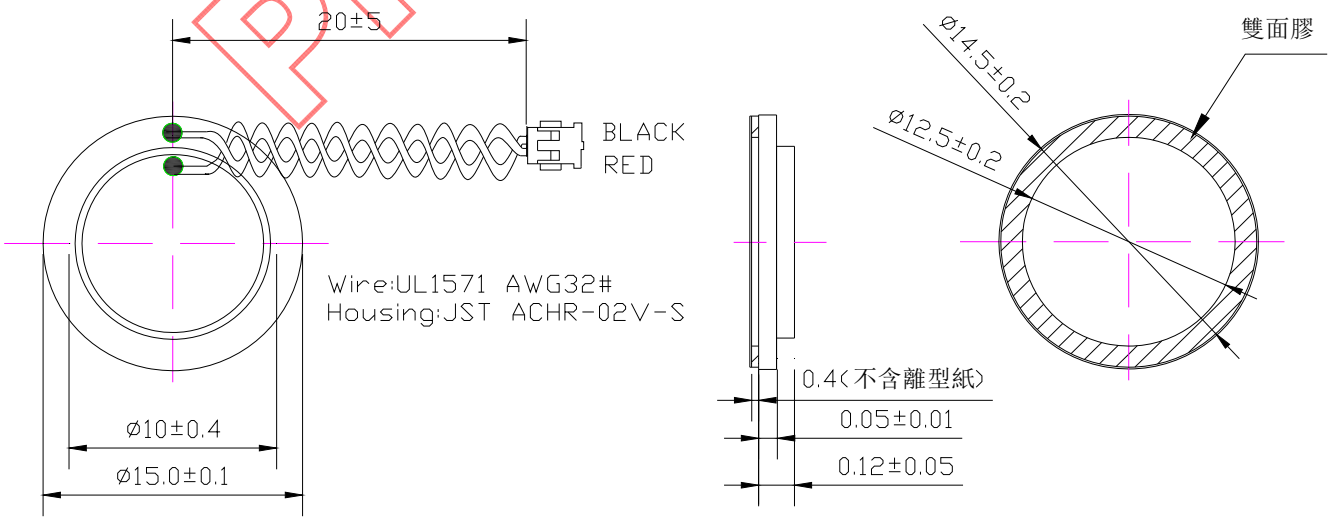
A. SCOPE 范畴

This specification applies piezoelectric diaphragm, **KBIG1536NA02032A**
此规格书适用于压电式蜂鸣片, **KBIG1536NA02032A**

B. SPECIFICATION 规格

No.	Item	Unit	Specification	Condition
1	Max. input voltage 最大输入电压	Vp-p	MAX. 30	
2	Resonant frequency 共振频率	KHz	3.6± 0.5	The resonant frequency is suitable only for piezo element without wire. 共振频率仅适用于蜂鸣片不加线材时之量测
3	Resonant impedance 共振阻抗	ohm	MAX. 500	The resonant resistance is suitable only for piezo element without wire. 共振阻抗仅适用于蜂鸣片不加线材时之量测
4	Electrostatic capacity 静电容量	pF	25,000 ± 30%	at 100Hz/1V
5	Operating temp. 操作温度	℃	-20 ~ + 60	
6	Storage temp. 储存温度	℃	-30 ~ +70	
7	Dimension 尺寸	mm	Φ15 x H0.12	
8	Piece weight/Out Box weight 单重 / 箱重	gram	0.5/5500	
9	Material 材质		ALLOY	
10	DC Resistance 直流电阻	MΩ	MIN. 20	FLUKE 45 RATE: FAST MEASUREMENT TIME: 1 Sec (only for ≦20mm must be test)
11	Environmental Protection Regulation 环保法规		RoHS2.0	Piezo electronic device is exempted from RoHS2.0. Lead contain restriction. 压电陶瓷片产品含铅是 RoHS2.0 豁免的

C. APPEARANCE DRAWING 外观尺寸图



Tol: ± 0.5
Unit: mm

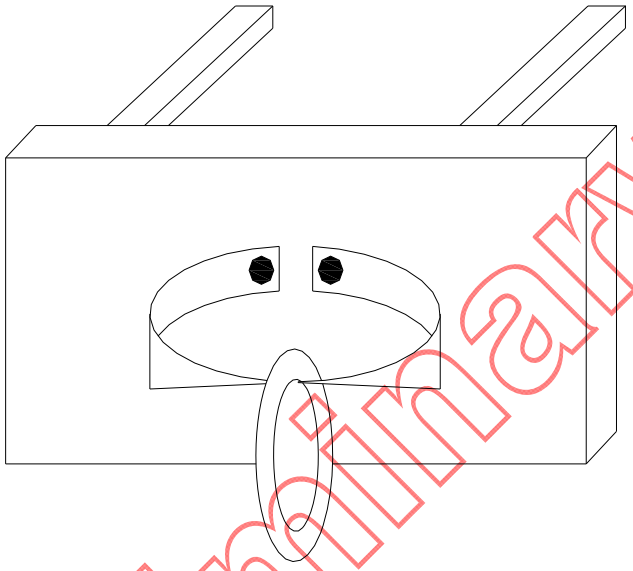
D. MEASURING METHOD 测量方法

1. Resonant frequency / Resonant impedance 共振频率/共振阻抗

Piezoelectric diaphragm shall be clamped at a node point as shown in following figure to be free from any mechanical stress, and measured its resonant frequency and resonant impedance by using vector impedance analyzer or equivalent.

When the input frequency is swept within 2KHz to 8KHz, the resonant frequency is defined the frequency where the impedance shows minimum value, and this impedance shell be the resonant impedance

将压电式振动片之节点夹住,如下图,在无任何机械压力状况下,以交流阻抗分析仪测量其共振频率及共振阻抗.以扫频的方式输入 2KHz to 8KHz 频率,共振频率为阻抗最低的那一点,且此阻抗即共振阻抗.



2. Static capacitance 静电容量

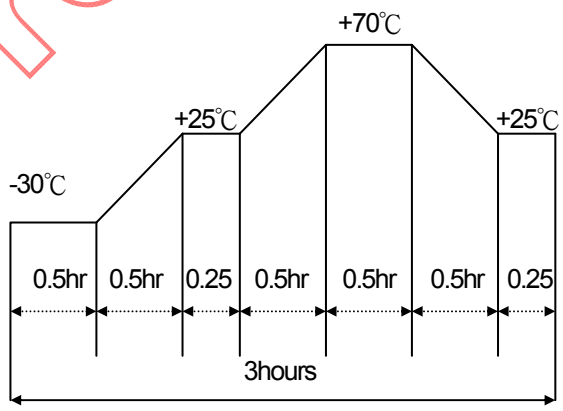
An electrostatic capacity capacitance shall be measured at 100Hz by using L.C.R. meteex.HP4194A(H.P.), or equivalent. The part shall be clamped in the same way as the measurement of resonant frequency/ resonant impedance mentioned in the above.

以 HP4194A 测量在 100Hz 时振动片的静电容量.夹住振动片方式与上述测共振频率及共振阻抗的夹法相同.

E. MECHANICAL CHARACTERISTICS 机械特性

No.	Item	Test Condition	Evaluation standard
1	Solderability 焊锡附着性 (Connector excepted) 端子类不适用此项	Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of +270±5℃ for 3±0.5 seconds. 裸线部份浸入松香溶液 5 秒后,再浸入+270±5℃溶融焊锡槽 3±0.5 秒.	90% min. stripped wires shall be wet with solder.(Except the edge of terminal) 浸入裸线部份附着焊锡 90%以上.(末端断面不算).
2	Lead Wire Pull Strength 线材拉力	The pull force shall be applied to double lead wire： Horizontal 3.0N(0.306kg) for 30 seconds. 双线材水平方向施以 3.0N(0.306kg)的力量,30 秒.	No damage and cutting off. 线材不松动,不脱落.
3	Vibration 振动试验	Diaphragm 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. 振动周波数 10～55HZ、全振幅 1.5mm 于 X.Y.Z 3 个方向,各 2 小时	The value of resonant frequency should be in± 10%, electrostatic capacity should be ±20%, which is compared with initial ones. The resonant impedance should be 2000ohm max. 与试验前相较，试验后的共振频率变化量须在±10%内，静电容量须在±20%内,共振阻抗为 2000ohm 以下.

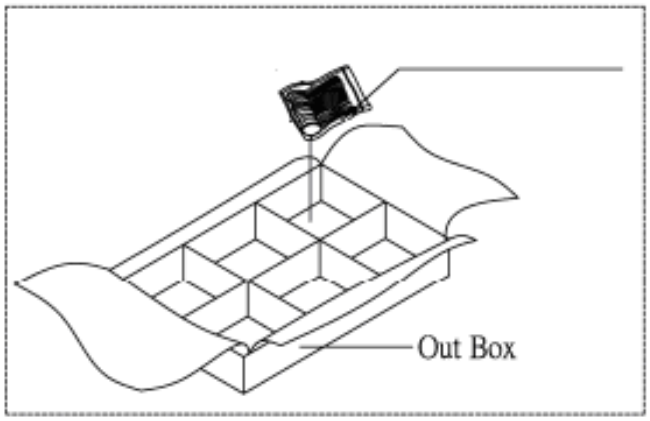
F. ENVIRONMENT TEST 环境测试

No.	Item	Test Condition	Evaluation standard
1	High temp. test 高温测试	After being placed in a chamber at +70℃ for 240 hours 置于+70℃环境中 240 小时	Being placed for 4 hours at +25℃, diaphragm shall be measured The value of resonant frequency should be in ±10%, electrostatic capacity should be ±20%, which is compared with initial ones. The resonant impedance should be 2000 ohm max. 经测试后，静置于+25℃（室温）环境中 4 小时后，与试验前相较,试验后的共振频率变化量须在±10%内，静电容量须在±20%内,共振阻抗为 2000ohm 以下.
2	Low temp. test 低温测试	After being placed in a chamber with –30℃for 240 hours 置于-30℃ 环境中 240 小时	
3	Humidity test 相对湿度测试	After being placed in a chamber at +40℃ and 90±5% relative humidity for 240 hours 置于+40℃，相对湿度 90±5% 环境中 240 小时	
4	Temp. cycle test 温度循环试验	The part shall be subjected to 5 cycles. One cycle shall be consist of: 单体承受温度循环测试 5 次,其循环内容如图示: 	

TEST CONDITION.

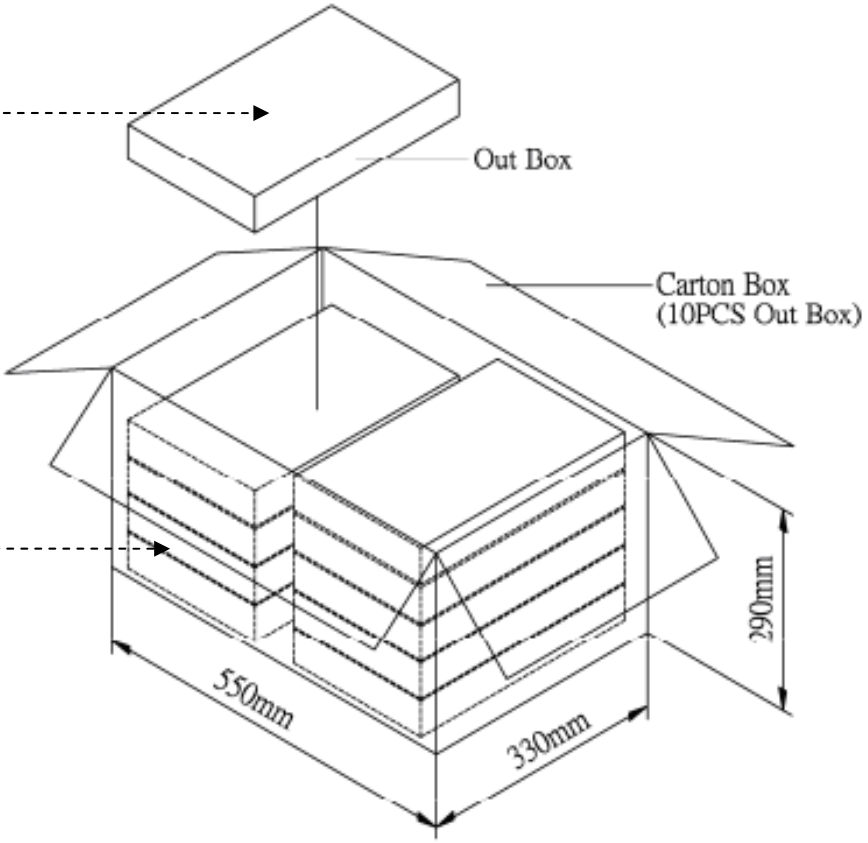
Standard Test Condition	:	a) Temperature : +5 ~ +35℃	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般测试条件	:	a) 温度 : +5 ~ +35℃	b) 湿度 : 45-85%	c) 气压 : 860-1060mbar
Judgment Test Condition	:	a) Temperature : +25 ± 2℃	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
争议时测试条件	:	a) 温度 : +25 ± 2℃	b) 湿度 : 60-70%	c) 气压 : 860-1060mbar

G. PACKING STANDARD 包装规格



Lot No.	XXXXXXXXXX
Part No.	XXXXXXXXXX
Quantity	XXXX Pcs
Date: WWYY HSF	
KINGSTATE ELECTRONICS CORP.	

* The label sticked on inner boxes and the outer of carton.



Out Box	310mmx248mmx49mm	6x100PCS=600PCS
Carton Box	550mmx330mmx290mm	600PCSx10=6000PCS