APPROVAL SHEET
FOR
CELLULAR PORTABLE PHONE
VIBRATOR

CUSTOMER

AAC P/N ELV1036A

CUSTOM CODE

Add: RM A & B 2/F. , No.8 Building , Tianan Ind. Dengliang , Nanshan , Shenzhen , China

Tel : 0086 755 26054538

Fax : 0086 755 26407627

Email : aaca@aacelectr.com

AAC ELECTRONICS CORP.	**Product Specification**	**P/N**	**ELV1036A**

Keywords:Linear Vibrator, 26Ohms, Φ10x3.6mm, Contact :Pad,GP Compliant

NO.	090525.1	Issue: X1	Revision Date: 25/05/2009	Page: 1/10

ME	Zhang Wei	Check/Appr.	Xu Hongfu
Package Eng.	Wei Yonggang		
AE	Pu Yonghua	Check/Appr.	Dong Leping

Date	Issue	Detail changes
25/05/2009	X1	Preliminary

Table of contents

2. Environmental Requirement

The transducer including all components and solder joints must be free from lead (Pb) and other banned or restricted substances according to customer's requirements.

3. Description and Application

This is a wire contact vibrator which is applied with an AC signal (sine wave/square wave) around the resonant frequency. This device is recommended to be used for mobile phone or accessory.

4. Standard Operation Condition.

4.1 Rated voltage	2.0Vrms AC (Sinewave)
4.2 Operating voltage range	0-2.0Vrms
4.3 Rated Frequency	175Hz

4.4 Operating temperature range
-20℃ to +70℃ ordinary humidity (No condensation of moisture)

4.5 Storage temperature range
-40℃ to +85℃ ordinary humidity (No condensation of moisture)

5. Characteristics

5.1 Coil Resistance	26±10%Ω
5.2 Rated Current	90mA Max
5.3 Acceleration:	≥1.1G @100g fixture 175Hz 2.0Vrms(Refer to 5 Standard test Condition)
5.4 Noise:	≤50dB @10cm 100g fixture 175Hz 2.0Vrms input
5.5 Insulation Resistance:	1MΩ Miṇ@ 100VDC Between terminal and housing.

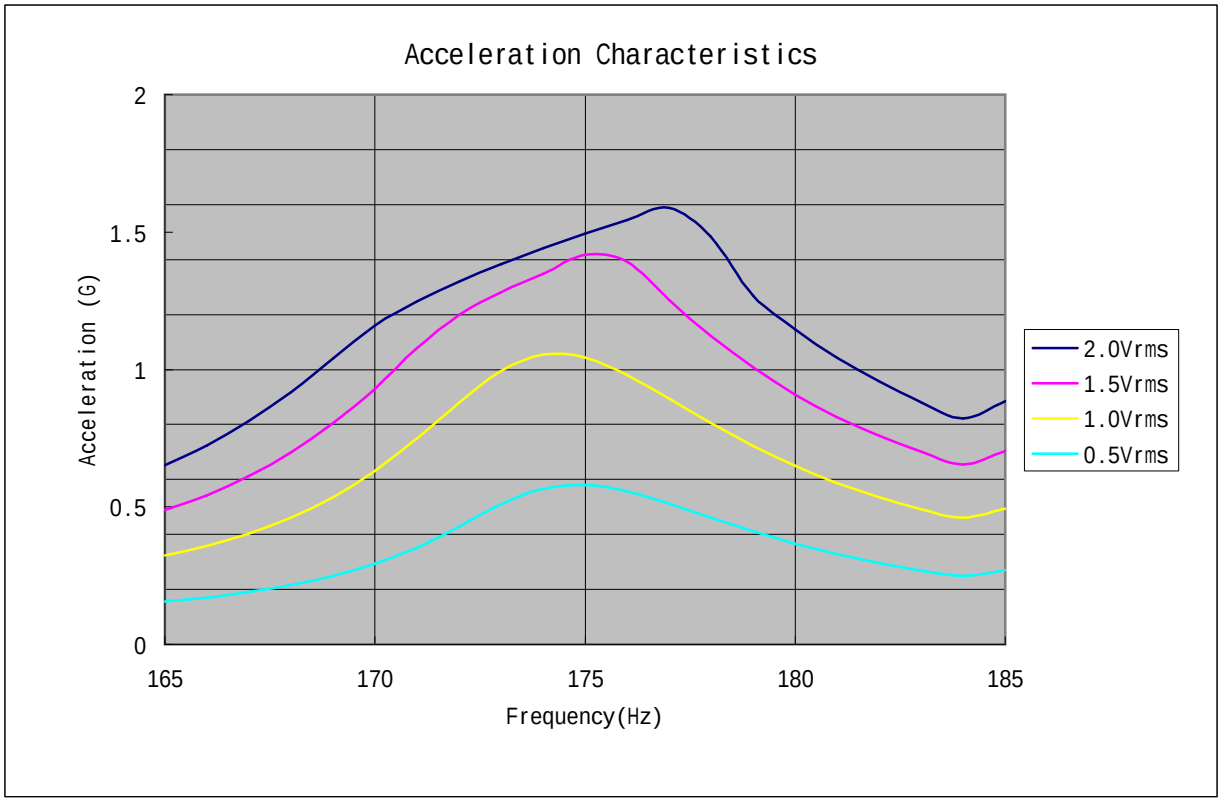

Fig.1 Typical Frequency response(Reference only)

6. Standard test Condition

6.1 Climatic condition

The measurement at 25℃±3℃ & 65%RH±20%RH is standard. If the judgment is not questionable, recognize measurement at 5℃ to 35℃ & relative humidity 45%RH to 85%RH.

6.2 Input Voltage 2.0 Vrms

6.3 Input Frequency 175Hz

6.4 Suspending method

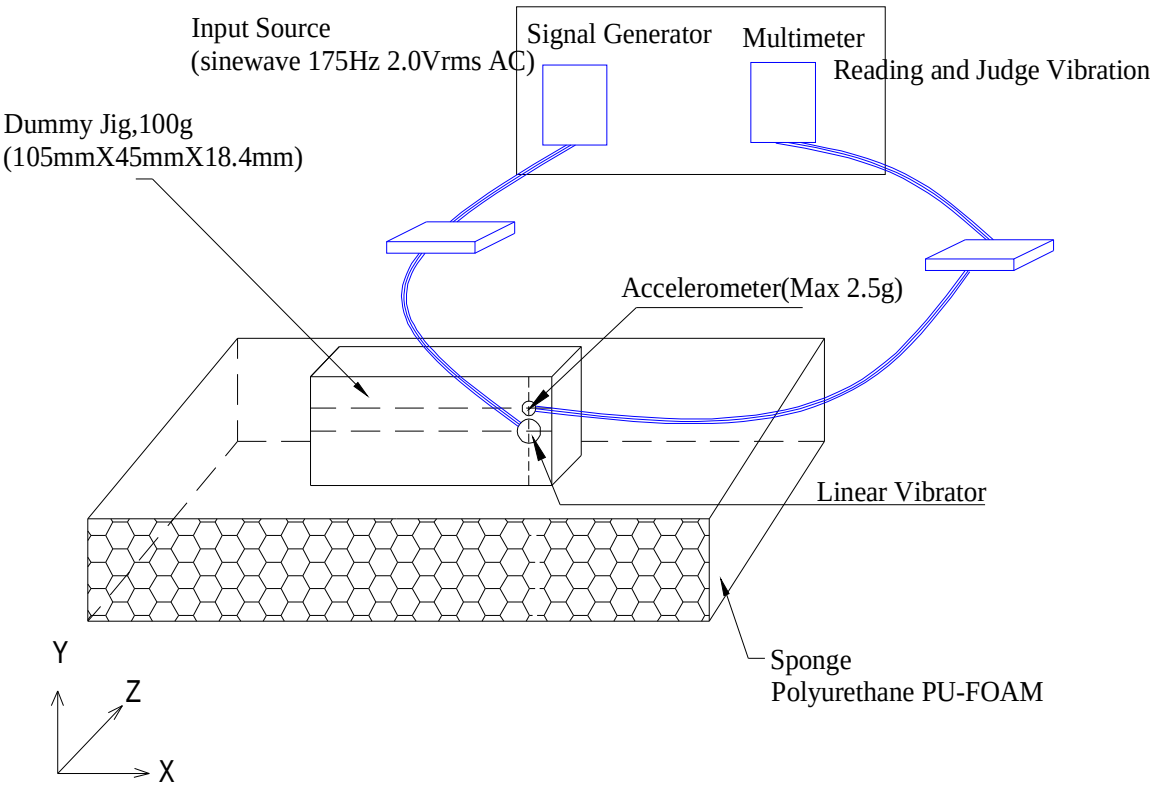

Fig 2. Test method

1.Placed a 100g dummy jig at the center of the soft foam that thickness more than 20mm. 105*18.4mm plane must locate on foam.

2. Attached the vibrator and accelerometer to the z axis face of the block, Both vibrate and measure direction should be mounted to z Axis.

6.5 Drawing of dummy jig

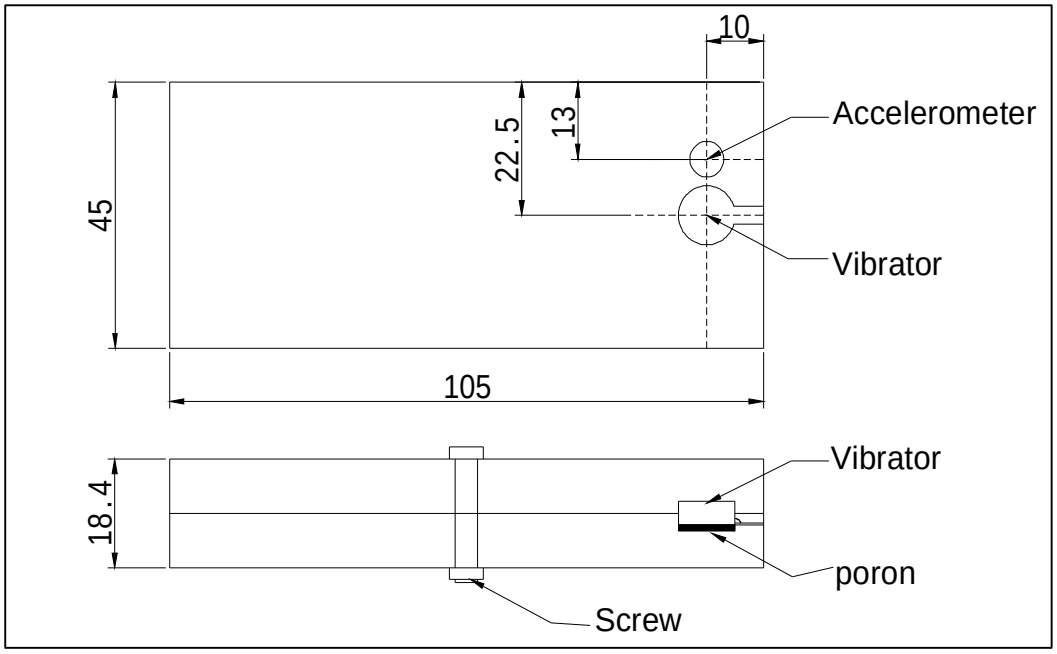

Fig 3. Test Jig

Caution:

Be sure the screw is tightly to get precise test result. Or may get wrong acceleration data or noise.

6.6 Measure method.

6.6.1. Apply 175Hz 2.0Vrms AC sinewave signal to the vibrator.
6.6.2.Reading the vibration after 2~3s.
6.6.3.For more precision measurement, Average of 3 times measure data is required.

7. Recommended Stimulus

0-2.0Vrms 175Hz single Frequency sinewave. Vibration can be adjust by changing voltage.

8. Reliability Tests

Immediately after reliability test, the samples shall be stored under climatic conditions such as normally exist in ordinary rooms or laboratories. Unless otherwise noted, the recovery period shall be 4 hours at least before performance testing.

After reliability test, all samples must be meet the requirements as follow:

1.Acceleration: Initial ±20%

2.Rated current: 90mA max

3.No abnormalities in appearance and structure.

8.1 Temperature Shock:10 samples

-40℃ / +85℃ in each of 2 hours. Totle15 cycles. 20 Max seconds transition time.

8.2 Static Humidity Test : 10 samples

+70°C with 95% relative humidity for 120 Hours.

8.3 High temperature storage:10 samples

+85℃, 168 hours

8.4 Low temperature storage: 10 samples

-40℃, 168 hours

8.5 Vibration Test: 10 samples

Samples that attached to a 100 gram fixture is vibrate with 2.2G,
10~55Hz/min for 10 minutes in each of X, Y, Z axis.

8.6 Drop Test:10 samples

The samples should be mounted to a 100 gram fixture, drop to concrete floor
1.52 meters three times in each direction

8.7 Life Test: 25 samples

Samples should be operated on standard condition (2Vrms Sinewave 175Hz).
On(2s)/off(1s) for 200 Hours.

9. Caution for use

9.1 Do not Press vibrator with force more than 5N. It may lead to transformation of appearance or performance.

9.2 Do not pull wires to fetch vibrator. It may broken wires and lead to open circuit.

9.3 Do not use vibrator in follow environment. It may cause decline of performance or damage to vibrator.

9.3.1 Do not keep vibrator at high humidity or high temperature for extended too long times .

9.3.2 Do not use vibrator near magnetic device.

9.3.3 Do not use vibrator near erosion gas.

9.3.4 Do not drop vibrator into liquid.

9.4 There is strong magnetic on the surface of vibrator. Please pay attention to use it.

9.5 To use vibrator reliable, vibrator should be fixed to house firmly in vibrate direction. Or it may be cause bad noise.

9.6 Soft material(such as poron,poam etc.) is not adequate to fix vibrator in vibration direction. it can only be used as a auxiliary to reinforce reliability. Or it may be cause lower vibration.

10.Mechanical Drawing:

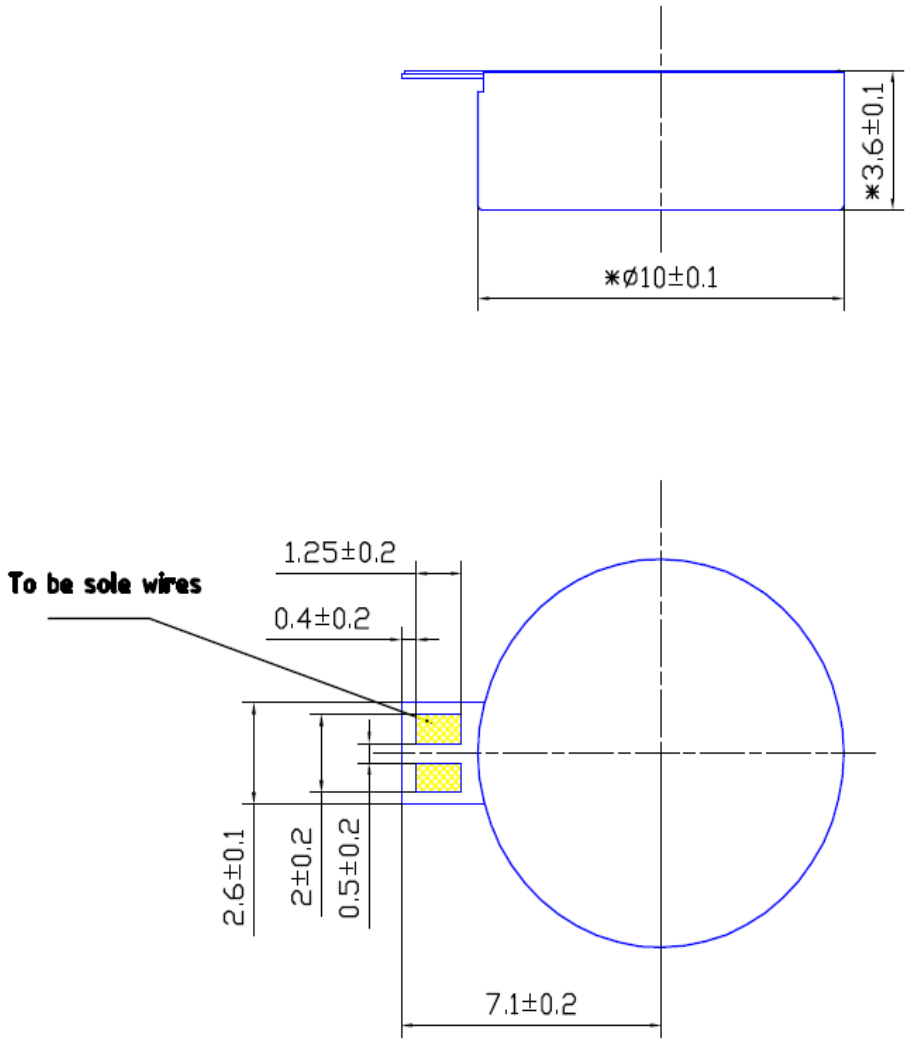

Fig.4 Mechanical Drawing

11. Package

T.B.D

Fig.6 Package dawing