



产品规格书

PRODUCT SPECIFICATION

客户名称Buyer Name	
客户料号Buyer Part No.	
客户承认签章 Buyers Approval & Signatures	

文件编号Spec No.		版本	A/2
品名描述 Product Description	LRA 扁平振动马达 LRA Coin vibration motor		
型号Part No.	VG0825001D		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
陳满	陈满	陈满	
2022.08.23	2022.08.23	2022.08.23	

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1. Revision History

修改号 Rev. No.	日期 Rev. Date	页码 Page No.	修改项目 Revised Item	更改原因 Reason
A/0	2019.6.12	/	产品颁布/ Release for Production	
A/1	2020.07.01	/	changed company name from JINLONG MACHINERY to VYBRONICS, changed part # from G0825001D to VG0825001D	Rebranding
A/2	2022.08.23	/	Datasheet style update	

2. Applications

This specification provides structure, function and usage condition of Linear Vibrator used in mobile communication devices for silence call.

3. Storage, Operating Temperature Conditions

No	Item	Condition
3-1	Operating Temperature Range	- 15℃ ~ + 55℃
3-2	Storage Temperature Range	- 20℃ ~ + 60℃

4. Measurement Conditions, Input Voltage

No	Item	Condition
4-1	Temperature	20 ± 5℃
4-2	Humidity	65 ± 20%RH
4-3	Rated Input Voltage	1.2Vrms AC, Sinewave
4-4	Input Voltage Range	0.1~1.2Vrms AC, Sinewave
4-5	Input Frequency	240±0.1Hz
4-6	Operating Attitude	Refer to Figure 1

※ Test Condition

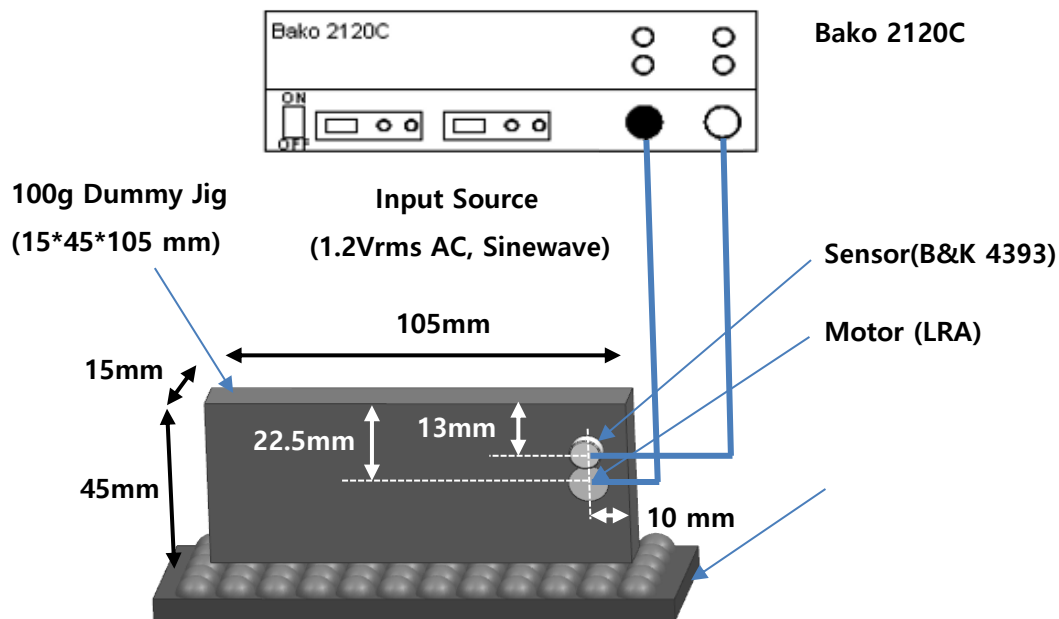


Figure 1. An Example of Measurement Method of Linear Vibrator

 Position of Linear Vibrator and Accelerometer (Refer to Figure 1)

- Linear Vibrator should be mounted to vibrate 15mm direction (y-direction) of Jig.
- Accelerometer also should be installed to measure y-direction vibration of Jig

 Position of Dummy Jig

- 15mm*105mm plane of Dummy Jig should be located on Sponge
- At measurement of acceleration, Dummy Jig should be stabilized

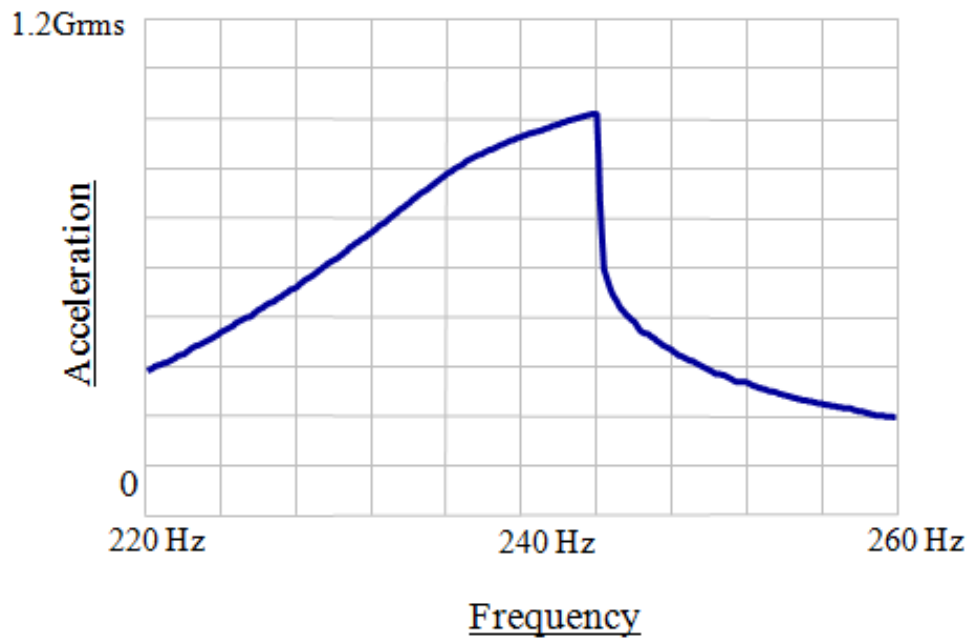
 Measurement of Acceleration

- Acceleration should be measured 2~3 second later when source inputed.
- For the precise measurement, Acceleration should be measured 3 times and adopted average value on each Linear Vibrator

5. Specifications

No	Item	Specification
5-1	Resistance	19.00Ohm +/- 10%
5-2	Rated Current	Max 80mArms (Input voltage: 240Hz, 1.2Vrms AC, sinewave)
5-3	Acceleration	Minimum 0.60Grms (Input voltage: 240Hz, 1.2Vrms AC, sinewave)
5-4	Frequency Characteristics	Refer to Graph 1
5-5	Dimension	Refer to 8. SPEC drawing
5-6	Weight	0.83 +/-0.1gram
5-7	Touch Noise	<p>In the mass production, we can use special measuring machine to inspect noise of all goods.</p> <p>(Example of measuring machine)</p> <ul style="list-style-type: none"> * Model of measuring machine : Bako 2120C or Bako 2020A * Measuring principle : It can be happened noise by mechanical touch of inner parts. At this case, we can check abnormal vibration and measure touch noise by using acceleration sensor. * Measuring SPEC : Max 35dB (Input voltage: 240Hz, 1.2Vrms AC, sinewave)
5-8	Insulation Resistance	Min 10 Mega Ohm (100V DC input, between Case and L/Wire)

Acceleration Characteristics



Graph 1. Linear Vibrator Frequency Characteristics

6. Reliability Test Condition

No	Item	Condition
6-1	Life test	Operating at rated input voltage(1.2Vrms AC, Sinewave), input frequency(240Hz) for 200,000 cycles. (2 sec On, 1sec Off)
6-2	Thermal shock test	- 40℃ ~ 85℃ in each of 2Hrs(1cycle), Total 15 cycles. Transition time is 5 minutes max. After the test, the Vibrator should be measured after room-temperature storage for 4Hrs.
6-3	High temperature storage test	+70℃, 168Hrs, After the test, the Vibrator should be measured after room-temperature storage for 4Hrs.
6-4	Low temperature storage test	-30℃, 168Hrs, After the test, the Vibrator should be measured after room-temperature storage for 4Hrs.
6-5	Static humidity test	+50℃, 95%RH, 120Hrs, After the test, the Vibrator should be measured after room-temperature storage for 4Hrs.
6-6	Mechanical shock test	The Vibrator that is attached to a 100g dummy jig is dropped to a steel floor 12 times(6 face, 2 times) from 1.5m in height.

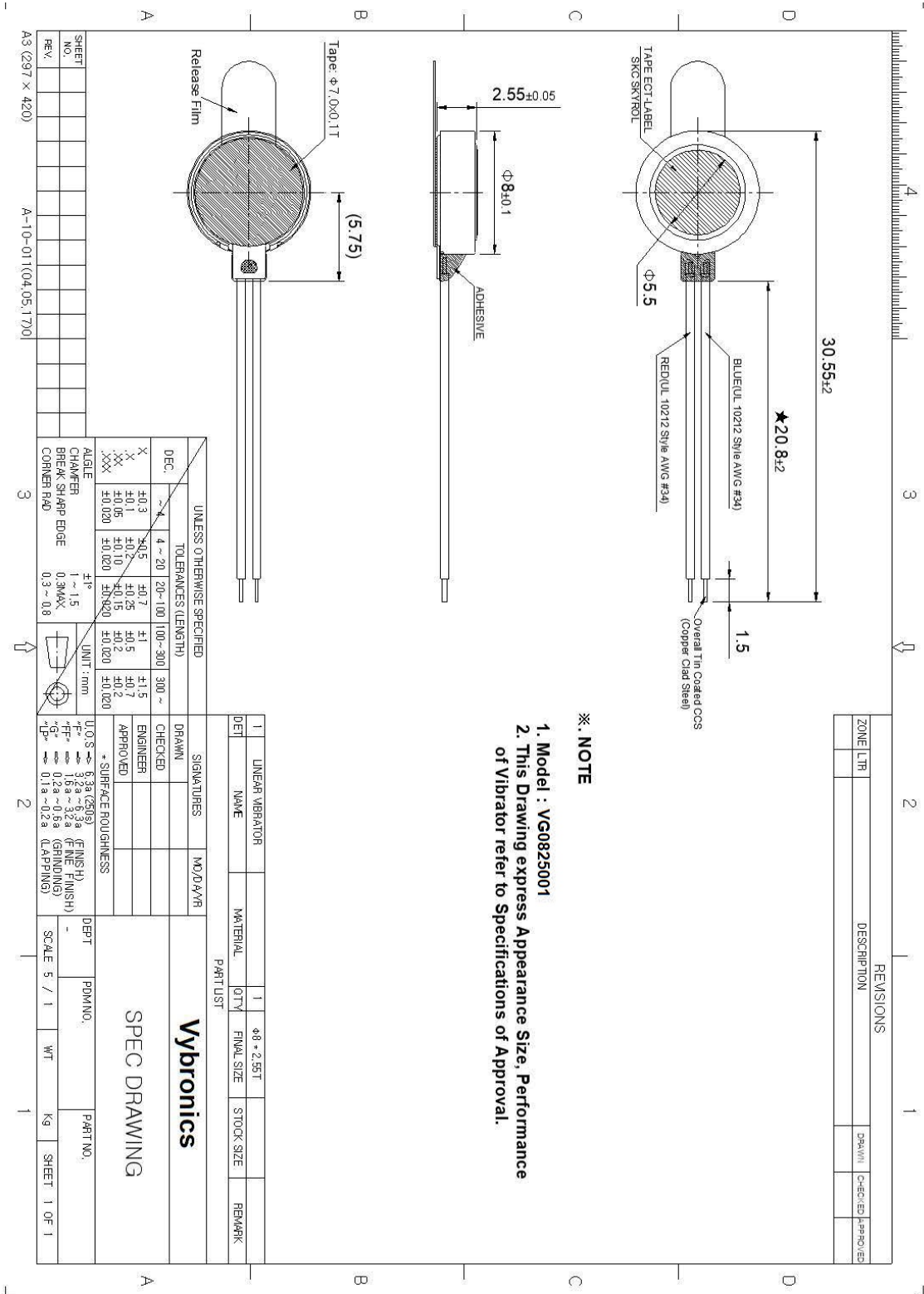
Judgement

- ① After test, The following specifications must be satisfied.
 - Acceleration : Within initial Value \pm 30%
 - Rated Current : Max 80 mA rms
- ② There should be no abnormalities in appearance and structure.

7. Caution for Use

- (1) Do not press the product with more than 0.5 kgf or drop it.
It can cause the transformation of performance or external appearance.
- (2) Don't use under the following conditions. It may cause a decline in performance.
 - Do not drop into fluid (such as: water, alcohol, etc.)
 - Do not keep at high temperature or high humidity for extended periods of times
 - Do not use near gases which cause erosion
 - Please refrain from operating the vibrator near magnetic devices.
- (3) The vibrator has a strong magnet, so please be aware that it has a magnetic force on the surface of the bracket.
- (4) To optimize the vibration force, rated frequency and voltage could be changed as to assemble condition.

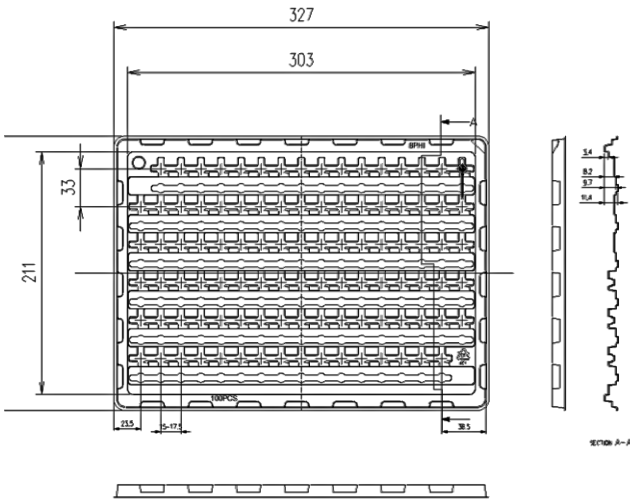
8. SPEC Drawing



※. NOTE

- Model : VG0825001
- This Drawing express Appearance Size, Performance of Vibrator refer to Specifications of Approval.

9. Packaging

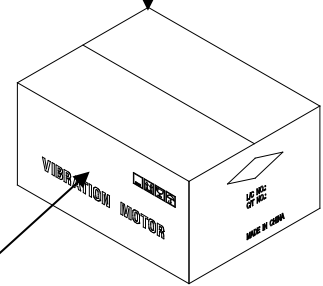


20(21) Trays
 + Vinyl
 + Vacuum
 + 2 Pads
 + PP-band



[packing quantity]

- 100ea/ tray
- 1 carton box
 - 40(42) trays with a dummy tray on the top
 - 4000ea/ carton box



[Halogen Free Marking]

No	Material	Size	Q'ty/Lot	How to Pack
1	PET Tray (MQ69-00108A)	327x239x11.2	40(42)	<ul style="list-style-type: none"> ● 40(42) trays are packed with packing vinyl. ● Vacuum packing ● The trays are bound with pad and pp band. ● One bound trays are put to a carton. ● Lot Numbering ● Delivery
2	Box	510x350x175	1	
3	Pad		4	
4	Packing vinyl		2	
5	PP-band		-	