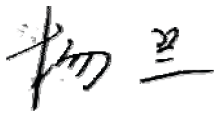
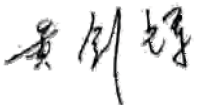
产品规格书

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/4
品名描述 Product Description	线性振动马达 LINEAR VIBRATION MOTOR		
型号Part No.	VLV101040A		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
			
2026.02.25	2026.02.25	2026.02.25	

www.vybronics.com
sales@vybronics.com

Contents of Specification

1. Revision History

2. Application

3. Operating ,Storage Temperature and Humidity Conditions

4. Measurement Conditions

5. Specifications

6. Reliability Test Conditions

7. Cautions for Use

8. Application Recommendation

9. SPEC Drawing

10. Packing

1. Records of Revisions

Rev. No.	Rev. Date	Page No.	Revised Item	Reason
A/0	2019.10.25	.	Release for Production	
A/1	2020.07.01	/	changed company name from JINLONG MACHINERY to VYBRONICS, changed part # from LV101040A to VLV101040A	Rebranding
A/2	2021.02.24	/	Added "Reliability Test" and "Application Recommendation"	Infomation update
A/3	2022.08.23	/	Update temperature range	
A/4	2026.02.26	/	Updated Falling Time, Lifecycle Storage Temperature, Added Magnetic Leakage Spec	Infomation update

2. Applications

These specifications provide structure, function and usage condition of Linear Vibration Motor used in mobile communication devices for silence call.

3. Storage, Operating Temperature Conditions

No	Item	Condition
1	Operating Temperature Range	- 25℃ ~ + 70℃
2	Storage Temperature Range	- 40℃~ + 85℃
3	Operating Humidity Range	Max 65% RH
4	Storage Humidity Range	Max 65% RH

4. Measurement Conditions, Input Voltage

NO	Item	Condition
1	Temperature	20 ± 5 ℃
2	Humidity	65 ± 20 %RH
3	Rated Input Voltage	2.5 Vrms, AC, Sinewave
4	Input Voltage Range	0.1 ~ 2.5 Vrms AC
5	Input Frequency	Alert : 140 ~ 300Hz
6	Operating Attitude	Refer to Figure 1 / Figure 1

※ **Test Conditions**

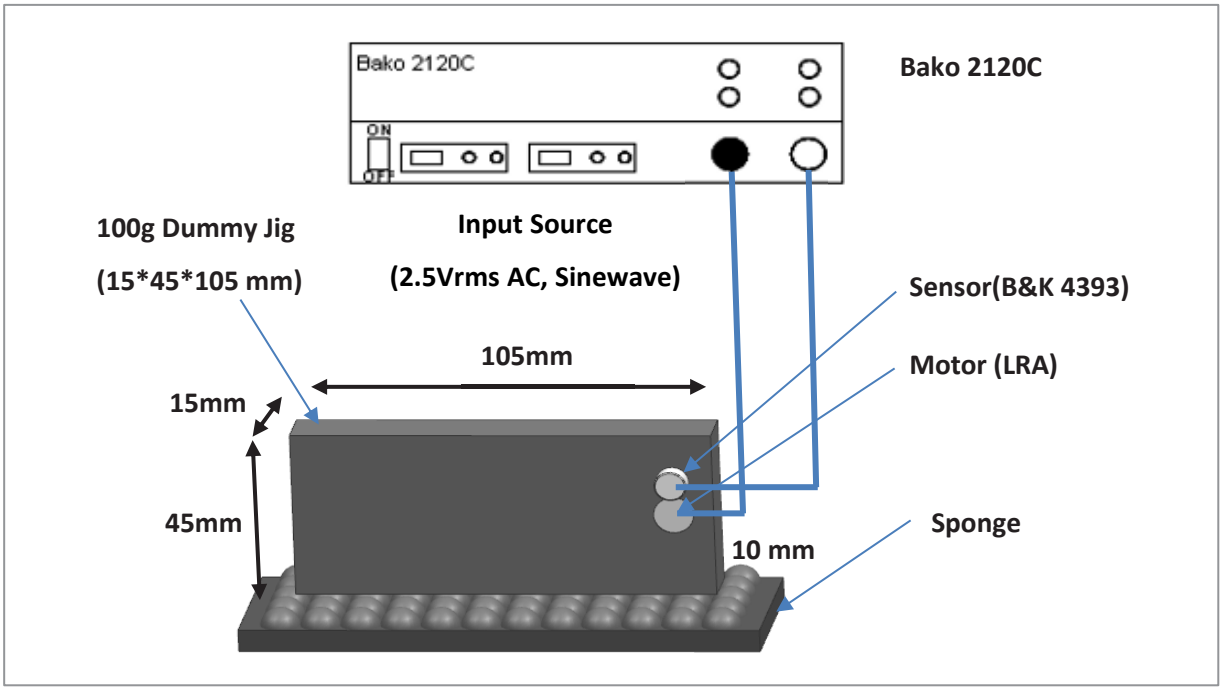


Figure 1. Measurement Method of Linear Vibration Motor

■ **Linear Vibration Motor/ Accelerometer mounting position (refer to Figure 1)**

Linear Vibration Motor / Accelerometer

- Linear Vibration Motor should be mounted to vibrate 15mm direction (y-direction) on Dummy Jig
- Also, Accelerometer should be mounted to measure y-direction vibration on Dummy Jig

■ **Dummy Jig position** / Dummy Jig

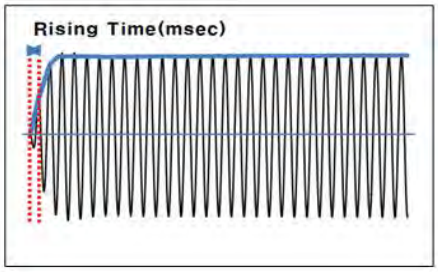
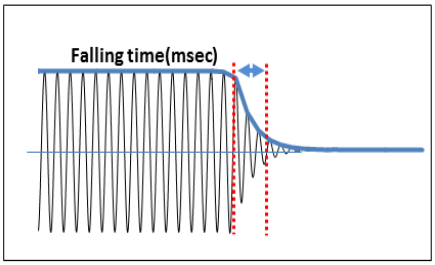
- 15mm*105mm plane of Dummy Jig should be located on Sponge
- At measurement of acceleration, Dummy Jig should be stabilized.

■ **Measurement of Acceleration**

- Acceleration of Linear Vibration Motor should be measured 2~3 second later when source inputed (2.5Vrms AC, Sinewave)
- For the precise measurement, Acceleration of Linear Vibration Motor is average data (repeat 3 times each Linear Vibration Motor)

5. Specifications

NO	Item	Specification
1	Resistance	6.0 ~ 7.5 Ohm
2	Rated Current	Max 350mA (Input Source : 140Hz, 2.5Vrms AC, Sinewave)
3	Acceleration	Min 0.9 Grms @140Hz, 300Hz Min 1.9 Grms @Sweep(120~400Hz) Max 2.75 Grms @~170Hz (Input Source : 2.5Vrms AC, Sinewave)
4	Frequency Characteristics	Refer to Figure 2
5	Noise	Max 50 dB(A) - Back Ground Noise: Max. 30dB(A) - 100g Steel Jig - 10cm distance from microphone (Input Source : 140Hz/300Hz, 2.5Vrms AC, Sinewave)
6	Noise by mechanical Touch (Noise-T)	■ SPEC ■ Noise-Touch : Max 35dB (Input Source : 140Hz/300Hz,2.5Vrms AC, Sinewave)
7	Magnetic amount of leakage	Max. 35 Gauss (Test position : Bottom case direction)

NO	Item	Specification
7	Sweep Noise by mechanical Touch (Sweep Noise-T)	■ SPEC - Noise-Touch : Max 35dB (Input Source : 2.5Vrms AC,400~120Hz Down Sweep, Sinewave)
8	Insulation Resistance	Min 10 Mega Ohm (100V DC input, between Case and Lead Wire)
9	Rising Time	Max 10msec @140Hz Time to reach level of normal vibration髮刀儀 
10	Falling Time	Max 35msec @140Hz Time to reach level of normal vibration after power off髮刀儀 

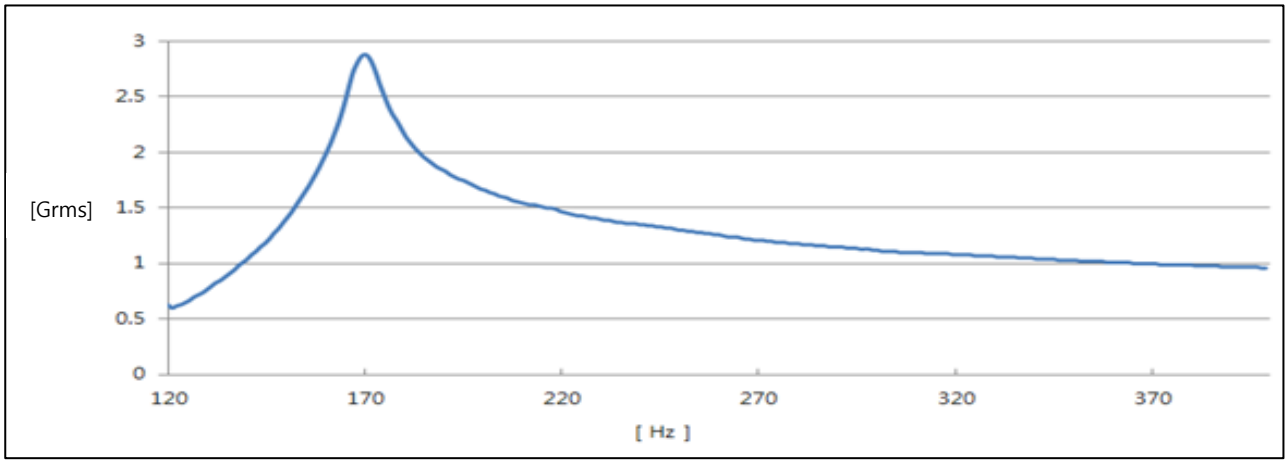


Figure 2. Frequency Characteristics

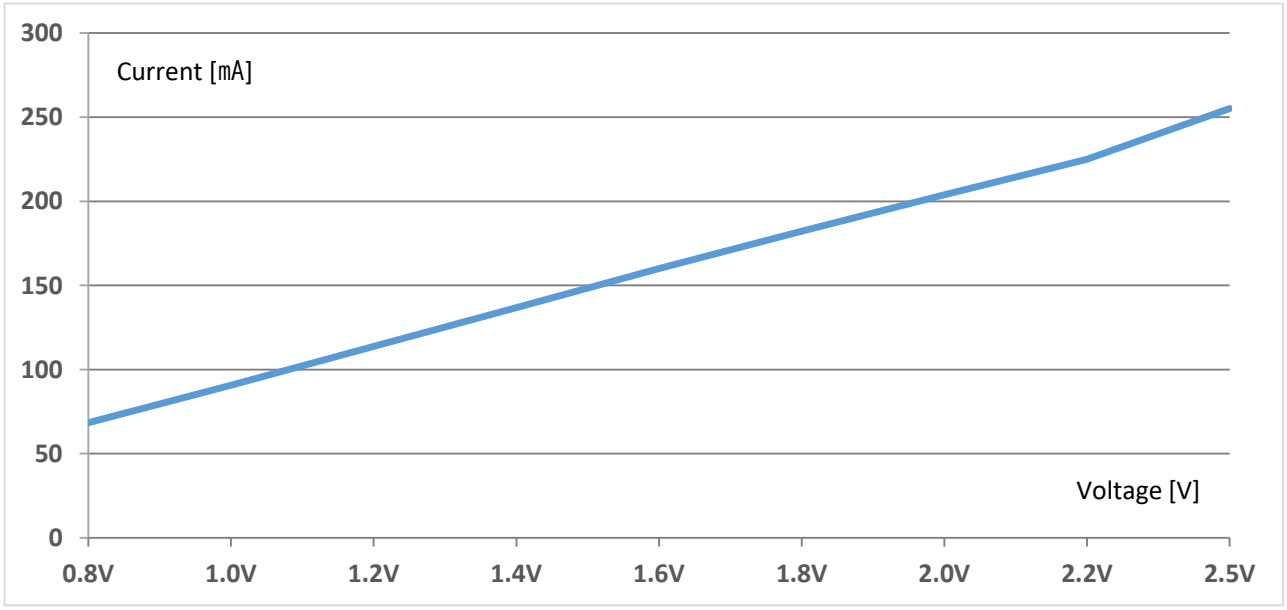


Figure 3. Current vs Voltage

Due to this LRA's wide bandwidth , the use of Haptic drivers that make use of "auto-resonance" detection can not be used. Please use the Dongwoon Anatech Part # DW7914A or equivalent.

6. Reliability Test Condition

No	Item	Condition
.	Life test	Operating at rated input voltage(2.5Vrms AC, Sinewave), input frequency(155Hz) for 1,00,000 cycles. (2 sec On, 1sec Off)
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.
3	High temperature storage test	+70℃, 168Hrs, After the test, the Vibrator should be measured after room-temperature storage for 4Hrs.
4	Low temperature storage test	-30℃, 168Hrs, After the test, the Vibrator should be measured after room-temperature storage for 4Hrs.
5	Static humidity test	+50℃, 95%RH, 120Hrs, After the test, the Vibrator should be measured after room-temperature storage for 4Hrs.
6	Mechanical shock test	The Vibrator that is attached to a 160g dummy jig is dropped to a steel floor 30 times(6 face, 5 times in each of X,Y,Z axis) from 1.5m in height.

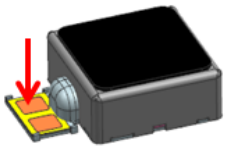
☐ **Judgement**

① After test, The following specifications must be satisfied.
- Acceleration : Within initial Value ± 30%
- Rated Current : Max 350 mA rms

② There should be no abnormalities in appearance and structure.

7. Cautions for Use

(1) Do not press the product with more than 0.3kgf or drop it.
It can cause the transformation of performance or external appearance.
(In particular, if the force exerted downward in Bracket)



(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.

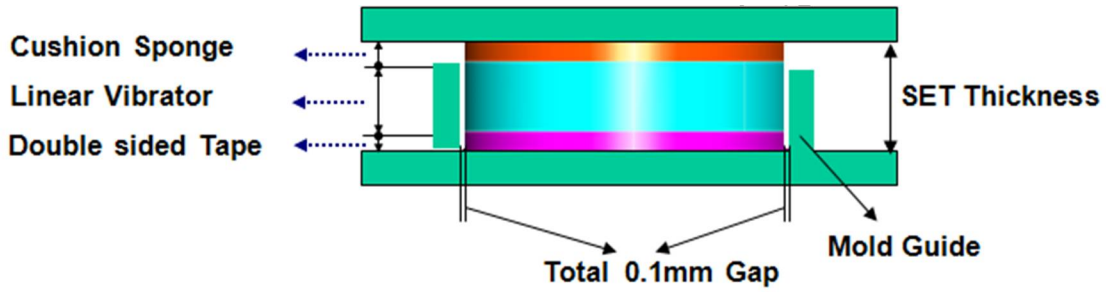
(4) To optimize the vibration force, rated frequency and voltage could be changed as to assemble condition.

(5) Packing: Please refer to the packaging drawing.
(It can be modified by the request of the users.)

(6) f any problems occur, both the user and Vybronics shall try to solve the problem by mutual agreement and on reflection of the specification sheet.

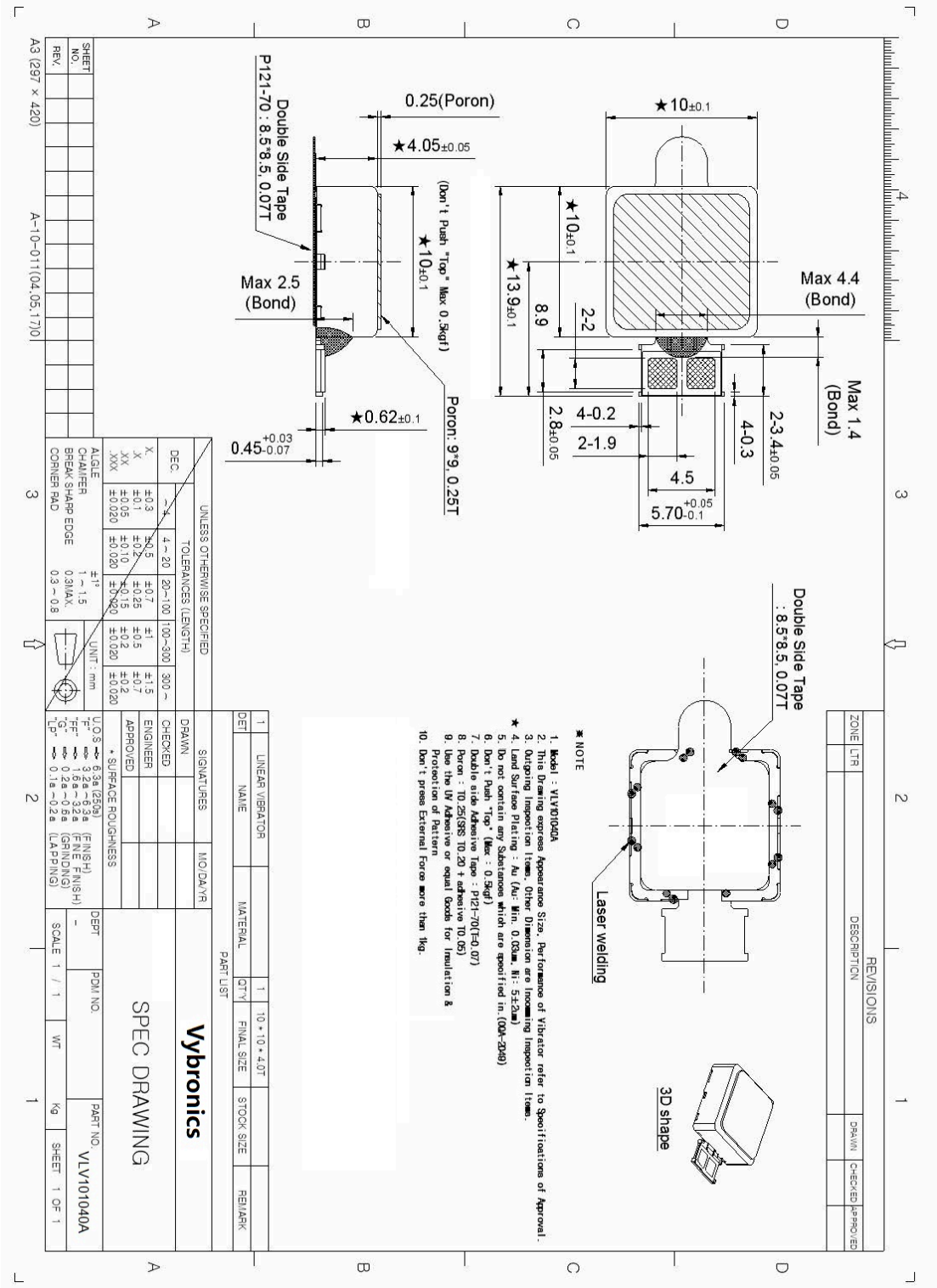
(7) The storage condition is 5℃~35℃, 15%~65% RH, 1year about packing.

8. Application Recommendation

NO	Contents
1	<Mounting example> - It recommends to that it attaches in double side tape & cushion sponge in the top and bottom of Linear vibrator. (Prevention of drop damage and Noise) - The gap between vibrator and mold-guide is recommended 0.1mm. - The part which UV bond attaches must be escaped so that it is not interfered.  ◆ Mounting Example

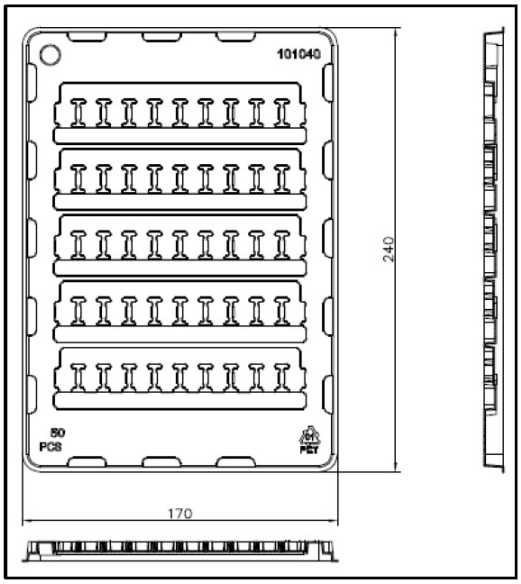
Unit	Before	After	Remark	Picture
Cushion	0.35	0.20	30~60% 圧着	
Vibrator	4.05	4.05		
Tape	0.10	0.10		
Total	4.48	4.35		

9. Spec Drawing

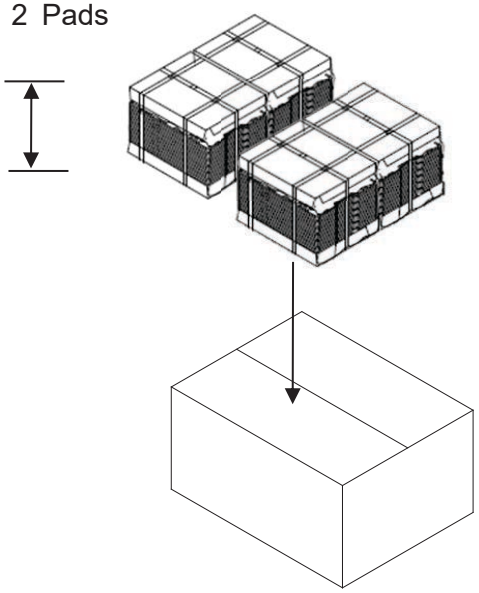


10. Packing

[Pet Tray]



20(21) Trays
+ 2 Pads



[Packing quantity]

- 50ea/ Tray
- 1 Carton box
  - 80(84) trays with a dummy tray on the top
  - 4000ea/ carton box

No	Material	Size	Q'ty/Lot	How to Pack
1	PET Tray	170x240x10.9	80(84)	• 80(84) trays are packed with packing vinyl. • The trays are bound with pad and pp band • One bound trays are put to a carton. • Lot Numbering • Delivery • Loading Capacity : 12
2	Carton Box	510x350x175	1	
3	Pad		8	
4	Packing vinyl		4	
5	PP-band		-	