



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/3
品名描述 Product Description	LRA 扁平振动马达 LRA Coin vibration motor		
型号Part No.	VG0840001D-SQ1		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
陳满	陈满	陈满	
2025.03.27	2025.03.27	2025.03.27	

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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	2024.02.26	/	初始规格/Preliminary spec	
A/1	2024.04.19	/	- Add customer Name and Part# - Add Note #2 to the drawin	Changed release paper (PSD020 -> PSD010)
A/2	2024.10.10	/	- Change Double-sided tape thickness - Add F-PCB tape/Release paper - Change Poron shape	
A/3	2025.03.27	/	- Release paper changed (PSD010 -> Paper) - Double-side tape changed (EP200DPC -> ST-957B)	

2. Application

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

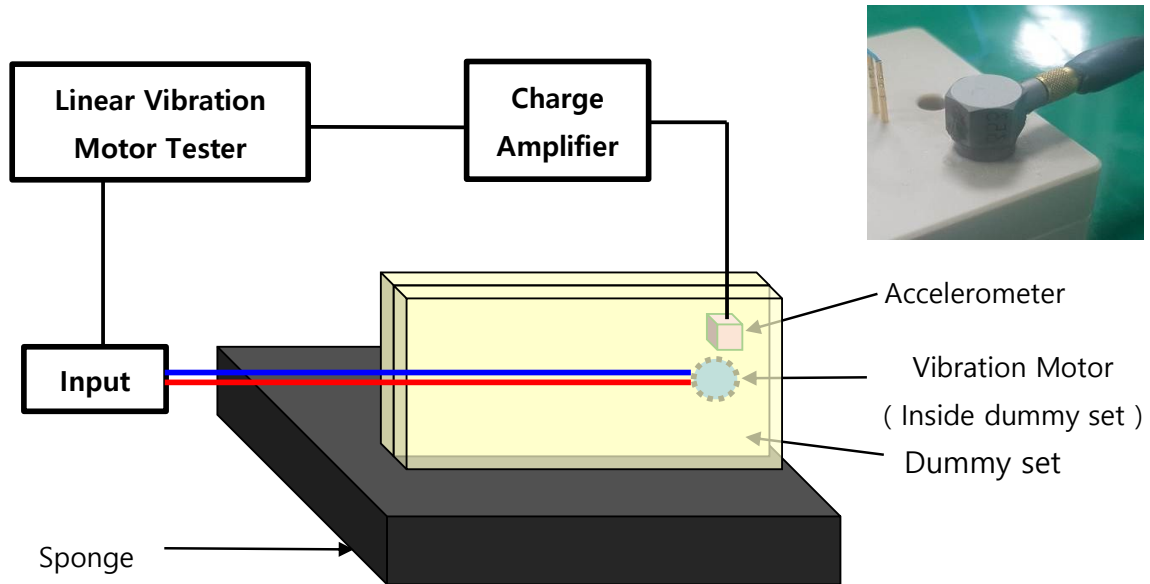
3. Operating , Storage Temperature /Humidity Conditions

No	Item	Condition
3-1	Operating Temperature Range	- 20°C ~ + 70°C
3-2	Storage Temperature Range	- 40°C ~ + 80°C

4. Measurement Conditions

No	Item	Condition
4-1	Temperature	20 ± 5 °C
4-2	Humidity	65 ± 20%RH
4-3	Rated Input Voltage	2.0Vrms AC, Sinewave
4-4	Input Voltage Range	0.1 ~ 2.0 Vrms AC
4-5	Input Frequency	170Hz (Alert) Refer to Graph 1
4-6	Operating Attitude	Refer to Figure 1

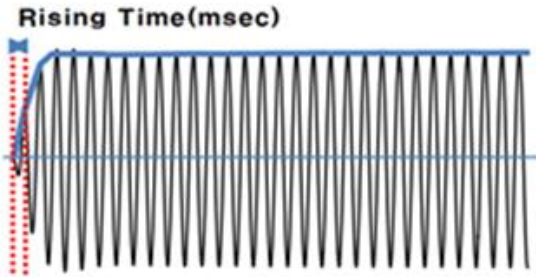
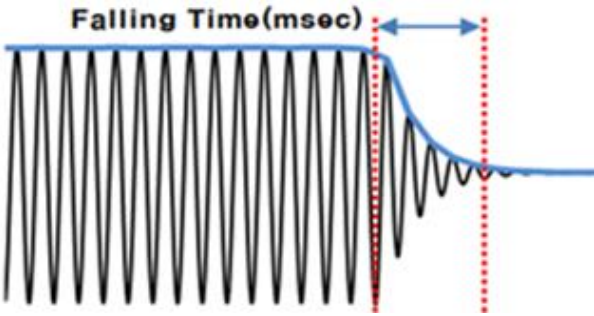
※ Measurement Method

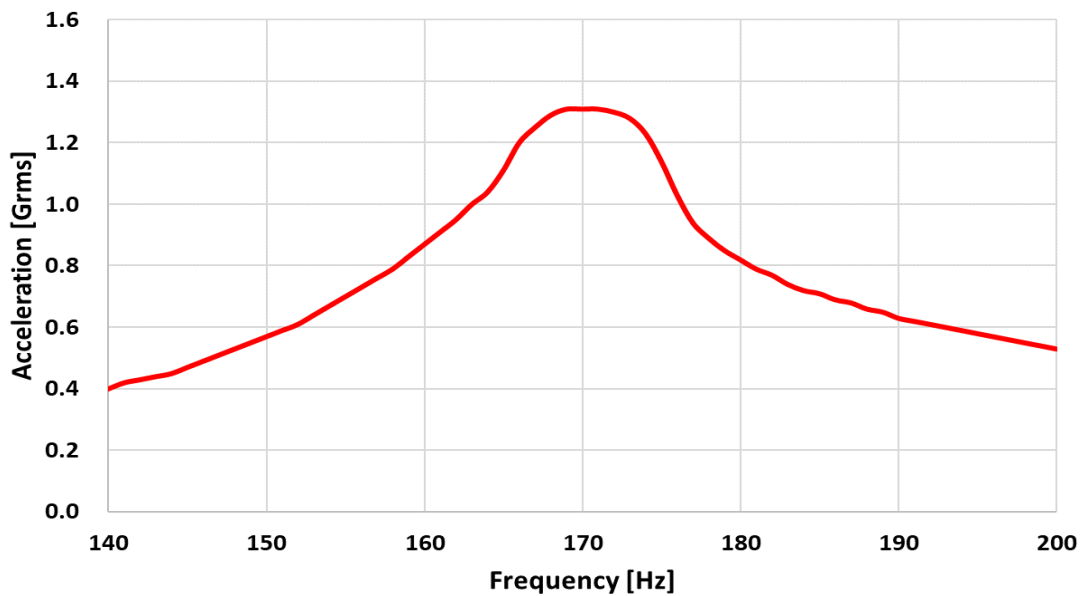


Density net : 27.0~33.0 kg/m³
Porosity : 80PPI (75.0~90.0 PPI)

5. Specifications

No	Item	Specification
5-1	Resistance	25Ω ± 5%
5-2	Rated Current	Max 90 mArms (Input Source : 170Hz, 2.0Vrms AC, sinewave)
5-3	Acceleration	1.0~1.8 Grms (Input Source : 170Hz, 2.0Vrms AC, sinewave)
5-4	Mass	Mass of Motor : ~1.3gr
5-5	Frequency Characteristics	Refer to Graph 1
5-6	Motor Height	4.05 ± 0.05mm - Put the Case of the motor on Jig after zero setting and measure center point of bracket by Height Gauge.
5-7	Noise by mechanical touch (Noise_T)	Max 35dB (Input Source : 170Hz, 2.0Vrms AC, sinewave)
5-8	Insulation Resistance	Min 10 MΩ (100V DC input, between case and terminal)

No	Item	Specification
5-9	Rising Time	<p>Max 12msec (@170Hz)</p> <p>- The time reaching to 50% of normal acceleration from power on</p>  <p>Rising Time(msec)</p>
5-10	Falling Time	<p>Max 55msec (@170Hz)</p> <p>- The time reaching to 10% of normal acceleration from power off</p>  <p>Falling Time(msec)</p>



Graph 1. Linear Vibrator Frequency Characteristics

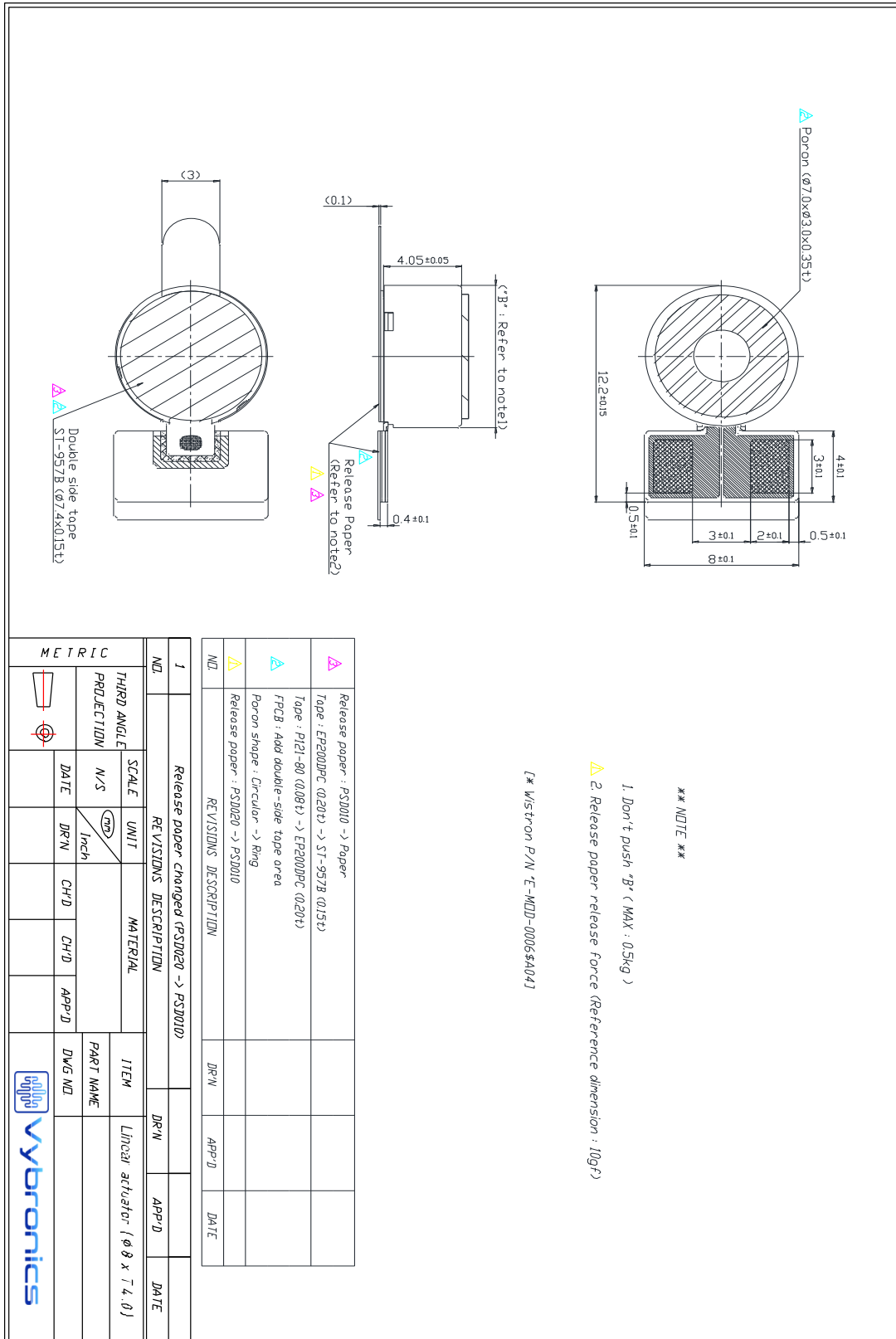
6. Reliability Test Condition

Test item	Condition
Low temperature storage test	Exposed to (-)20 °C for 120hours Measured at room temperature for 4 hours after leaving
Humidity test	Exposed to (+)60°C, humidity of 90% for 120hours. Measured at room temperature for 4 hours after leaving
Thermal shock test	Under condition of (-)40°C ~ (+)85°C for 30 mins continuous 96 cycles test.
Vibration test	Low frequency vibration test (RPM 145, 30 mins)
Unpaved Drop test	Fron, back, top, bottom, left, right, 4 edge, 2 times (152cm, 300g jig)
Run Drop test	50cm, 600 times
Life test	Under condition of 2 sec on & 1 sec off, 200,000 cycles on/off test

7. Cautions for Use

- (1) Do not press the product with more than 0.5Kgf or drop it.
It can cause the transformation of performance or external appearance.
- (2) Do not 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) Please refer to the packaging drawing. It can be modified by the request of the user.
- (6) The storage condition is 5°C~35°C, 15%~65% RH, 1year about packing.

8. SPEC Drawing

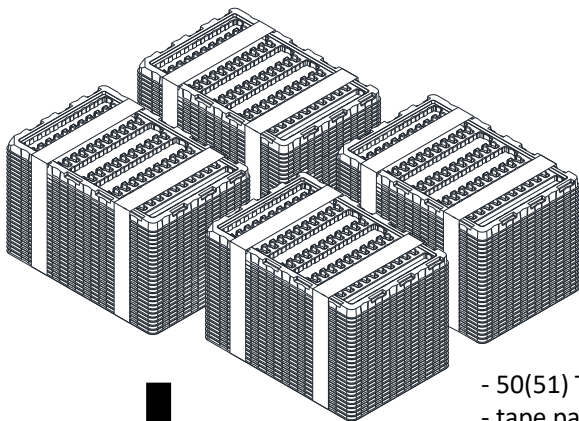


9. Packing

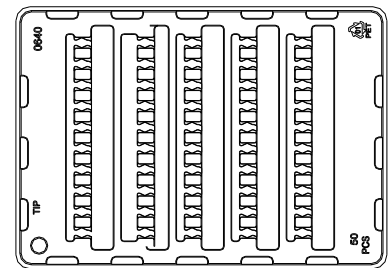
8-1. Paking q'ty : 5,000 PCS / Box

8-2. Out box size : 520 mm × 350 mm × 175 mm

8-3. Load max 6boxes



- 50(51) Tray x 25 x 4 = 5,000ea
- tape packing



1 Tray : 50ea

