

TEST REPORT

Report No.: HC80119/2022

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Date: September 7, 2022

ELGENS CO., LTD.

7F-6., NO.492, BANNAN RD.,

ZHONGHE DIST., NEW TAIPEI CITY, TAIWAN

The following merchandise was submitted and identified by the vendor as:

Product Description: Panel PC
Style/ Item No.: LPC-P156W-2VET7/ No.1
Manufacturer/Vendor: Elgens Co., Ltd.
Country of Origin: Taiwan
Quantity: Total 1 set
Testing Period: Aug. 17, 2022 to Aug. 25, 2022

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Required: (According to client's test specification, please see following sheets in detail.)

1. Functional Vibration Test
2. Long-Life Vibration Test
3. Operating Mechanical Shock Test

Test Results: - PLEASE SEE ATTACHED SHEETS -

Signed for and on behalf of
SGS TAIWAN Ltd.



Alex Chen
Asst. Supervisor

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1. Functional Vibration Test:

Test Equipment:

Name	Brand	Model	Serial No.
Vibration Tester	UNHOLTZ-DICKIE	SAI60-H560BAC/2/ST	474
Controller	Dactron	LASER	7110357
Control Accelerometer	PCB	353B34	LW213529

Lab Environmental Conditions:Ambient temperature: $(25 \pm 3) ^\circ\text{C}$ Ambient humidity: $(55 \pm 20) \% \text{ RH}$ Test Location:No.31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,
New Taipei City, Taiwan.Test Method/ Specification:Test method: EN 50155: 2021 Clause 13.4.10.4, Functional random vibration test and client's requestSample condition: OperatingWave form: RandomFrequency: (5 ~ 150) Hz

Longitudinal axis		Transverse axis		Vertical axis	
Frequency (Hz)	ASD (m^2/s^3)	Frequency (Hz)	ASD (m^2/s^3)	Frequency (Hz)	ASD (m^2/s^3)
5	0.015163	5	0.0062663	5	0.0315667
20	0.015163	20	0.0062663	20	0.0315667
150	0.000273307	150	0.000112948	150	0.000568977
⇨ equivalent to 0.70 (m/s^2)rms		⇨ equivalent to 0.45 (m/s^2)rms		⇨ equivalent to 1.01 (m/s^2)rms	

Direction: Longitudinal, Transverse, Vertical direction (See photo 3 ~ 5)Duration: 30 minutes/ axis

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Turn on the power of specimen(s) then examine whether the booting function of specimen(s) could be work normally or not.

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Specimen:

Style/ Item No.: LPC-P156W-2VET7/ No.1

Quantity: Total 1 set

Test Result:

Check Item Style/Item No.	Appearance Check (visual check)	Functional Check
LPC-P156W-2VET7/ No.1	No visible damage	Normal

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2. Long-Life Vibration Test:

Test Equipment:

Name	Brand	Model	Serial No.
Vibration Tester	UNHOLTZ-DICKIE	SAI60-H560BAC/2/ST	474
Controller	Dactron	LASER	7110357
Control Accelerometer	PCB	353B34	LW213529

Lab Environmental Conditions:

Ambient temperature: $(25 \pm 3) ^\circ\text{C}$ Ambient humidity: $(55 \pm 20) \% \text{ RH}$

Test Location:

No. 31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,
New Taipei City, Taiwan

Test Method/ Specification:

Test method: EN 50155: 2021 Clause 13.4.10.2, Simulated long life testing
and client's requestSample condition: Non-OperatingWave form: RandomFrequency: (5 ~ 150) Hz

Longitudinal axis		Transverse axis		Vertical axis	
Frequency (Hz)	ASD (m^2/s^3)	Frequency (Hz)	ASD (m^2/s^3)	Frequency (Hz)	ASD (m^2/s^3)
5	0.485264	5	0.201219	5	1.01246
20	0.485264	20	0.201219	20	1.01246
150	0.00874669	150	0.000362689	150	0.0182492
\Rightarrow equivalent to 3.96 (m/s^2)rms		\Rightarrow equivalent to 2.55 (m/s^2)rms		\Rightarrow equivalent to 5.72 (m/s^2)rms	

Direction: Longitudinal, Transverse, Vertical direction (See photo 6 ~ 8)Duration: 5 hours/ axis

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Turn on the power of specimen(s) then examine whether the booting function of specimen(s) could be work normally or not.

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Specimen:Style/ Item No.: LPC-P156W-2VET7/ No.1Quantity: Total 1 setTest Result:

Style/Item No.	Check Item	Appearance Check (visual check)	Functional Check
	LPC-P156W-2VET7/ No.1	No visible damage	Normal

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3. Operating Mechanical Shock Test:

Test Equipment:

Name	Brand	Model	Serial No.
Vibration Tester	UNHOLTZ-DICKIE	SAI60-H560BAC/2/ST	474
Controller	Dactron	LASER	7110357
Control Accelerometer	PCB	353B34	LW213529

Lab Environmental Conditions:Ambient temperature: $(25 \pm 3) ^\circ\text{C}$ Ambient humidity: $(55 \pm 20) \% \text{ RH}$ Test Location:

No. 31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,
New Taipei City, Taiwan

Test Method/ Specification:Test method: EN 50155: 2021 Clause 13.4.10.3, Shock testing and client's requestSpecimen Condition: OperatingPulse shape: Half-sineAcceleration: 50 m/s² (Longitudinal axis);30 m/s² (Transverse axis);30 m/s² (Vertical axis)Pulse duration: 30 msShock direction: ±Longitudinal, ±Transverse, ±Vertical axes (Same as photo 3 ~ 5)No. of shock: 3 shocks/ axis (total 18 shocks)

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Turn on the power of specimen(s) then examine whether the booting function of specimen(s) could be work normally or not.

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Specimen:

Style/ Item No.: LPC-P156W-2VET7/ No.1

Quantity: Total 1 set

Test Result:

Style/Item No.	Check Item	Appearance Check (visual check)	Functional Check
	LPC-P156W-2VET7/ No.1	No visible damage	Normal

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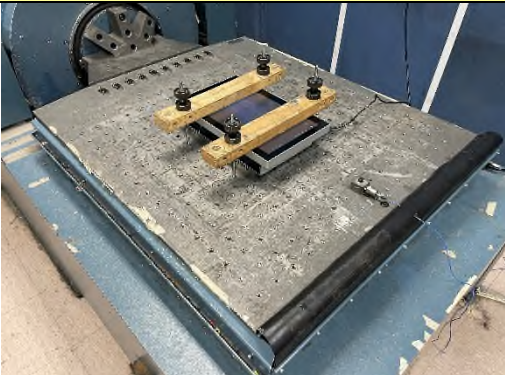
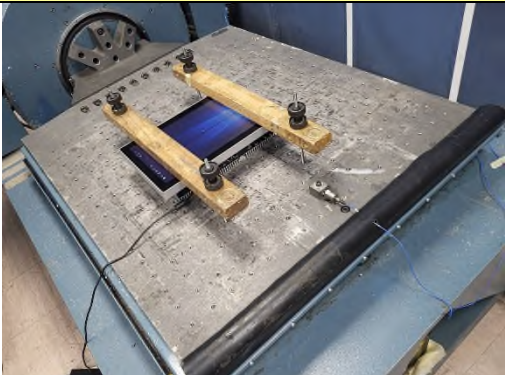


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Test Photos:

	
1. Appearance of specimen	2. Appearance of specimen
	
3. Functional Vibration Test: X axis / Operating Mechanical Shock Test : $\pm X$ axis	4. Functional Vibration Test: Y axis / Operating Mechanical Shock Test : $\pm Y$ axis
	
5. Functional Vibration Test: Z axis / Operating Mechanical Shock Test : $\pm Z$ axis	6. Long-Life Vibration Test: X axis

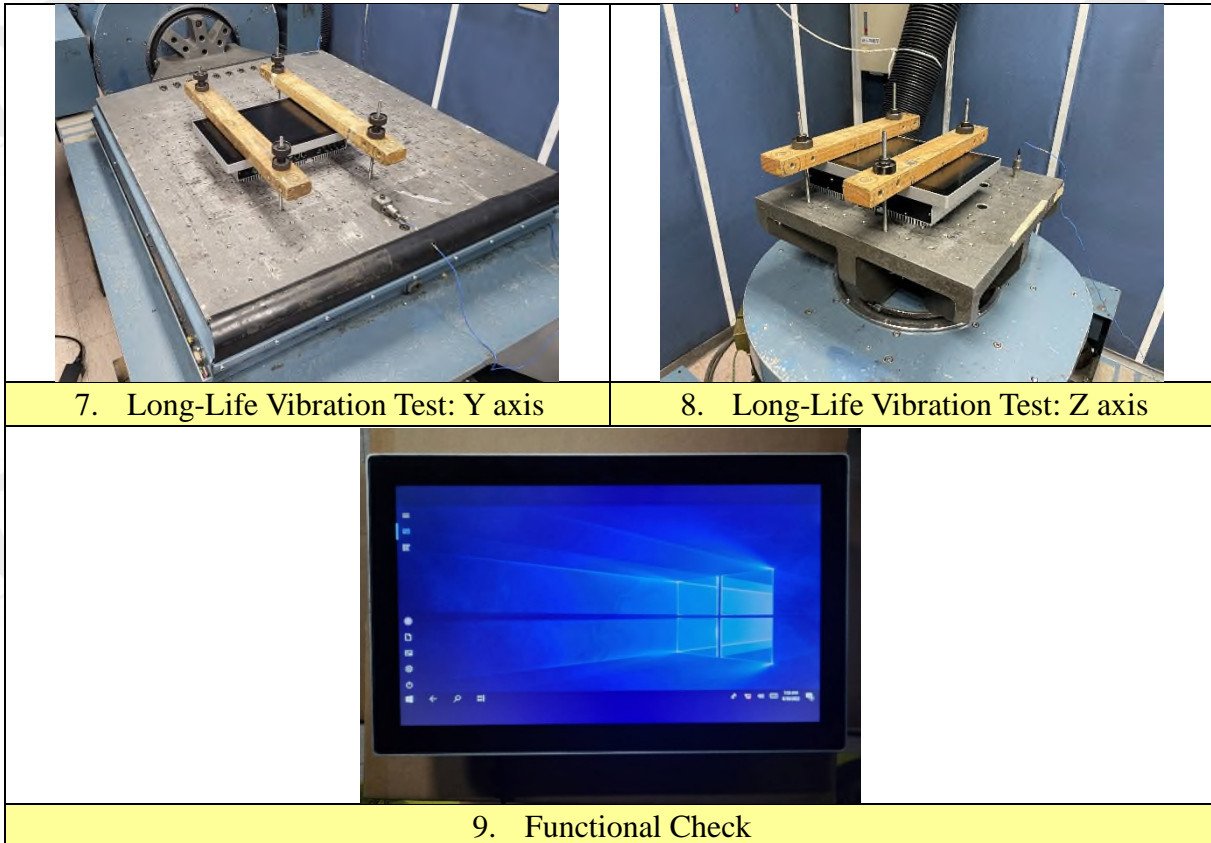
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Test Photos--Continued:



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