

TEST REPORT

Report No.: HC90232A/2017

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Date: October 17, 2017

APACER TECHNOLOGY INC.
1F, NO. 32, ZHONGCHENG RD., TUCHENG DIST.,
NEW TAIPEI CITY, TAIWAN, R.O.C.

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

Product Description: SATA Flash Drive
Style/ Item No.: SM(S)21P-25/ No.1
Quantity: Total 1 piece
Testing Period: Oct. 2, 2017 to Oct. 6, 2017

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. Non-Operating Shock Test
2. Operating Shock Test
3. Non-Operating Vibration Test
4. Operating Vibration Test

Test Results: -PLEASE SEE ATTACHED SHEETS-

*HC90232/2017, dated on October 12, 2017, is hereby canceled and replaced by HC90232A/2017.

Signed for and on behalf of
SGS TAIWAN Ltd.



Hank Chiou
Supervisor

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1. Non-Operating Shock Test:

Test Equipment:

Name	Brand	Model	Serial No.
Shock Test System	LANSMONT	M-23D	M-15624
Data Acquisition & Analysis System	LANSMONT	103571-1-B	1011-85
ICP Accelerometer	PCB	350B04	35365

Lab Environmental Conditions:

Ambient temperature: $(25 \pm 3) ^\circ\text{C}$

Ambient humidity: $(55 \pm 20) \% \text{RH}$

Test Method/ Specification:

Test method: MIL-STD-883K w/CHANGE 2, Method 2002.5

Sample condition: Non-Operating

Pulse shape: Half-sine

Acceleration: 1500 G

Pulse duration: 0.5 ms

Shock direction: 6 faces ($\pm X$, $\pm Y$, $\pm Z$ axes, see photo 3 ~ 8)

No. of shock: 3 shocks/ face (total 18 shocks)

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Connect the specimen(s) with PC then examine whether access (read/write) function could be work normally or not.

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Specimen:

Style/ Item No.: SM(S)21P-25/ No.1

Quantity: Total 1 piece

Test Result:

Style/ Item No.	Check Item	Appearance check (Visual check)	Functional check
	SM(S)21P-25/ No.1		No visible damage

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2. Operating Shock Test:

Test Equipment:

Name	Brand	Model	Serial No.
Shock Test System	LANSMONT	65-81 TTSII	M-13418
Data Acquisition & Analysis System	LANSMONT	103570-2-B	0503-73
ICP Accelerometer	PCB	353B14	79347

Lab Environmental Conditions:

Ambient temperature: $(25 \pm 3) ^\circ\text{C}$

Ambient humidity: $(55 \pm 20) \% \text{RH}$

Test Method/ Specification:

Sample condition: Operating

Pulse shape: Half-sine

Acceleration: 50 G

Pulse duration: 11 ms

Shock direction: 6 faces ($\pm X$, $\pm Y$, $\pm Z$ axes, see photo 9 ~ 14)

No. of shock: 3 shocks/ face (total 18 shocks)

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Connect the specimen(s) with PC then examine whether access (read/write) function could be work normally or not.

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Specimen:

Style/ Item No.: SM(S)21P-25/ No.1

Quantity: Total 1 piece

Test Result:

<div style="text-align: right;">Check Item</div> <div style="text-align: left;">Style/ Item No.</div>	Appearance check (Visual check)	Functional check
SM(S)21P-25/ No.1	No visible damage	Normal

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3. Non-Operating Vibration Test:

Test Equipment:

Name	Brand	Model	Serial No.
Vibration Test System	King Design	EM-800F2K-50N120	RU104080389
Controller	Dactron	COMET 200	10539718
Control Accelerometer	WR	793-6	A4938

Lab Environmental Conditions:

Ambient Temperature : $(25 \pm 3) ^\circ\text{C}$

Ambient humidity : $(55 \pm 20) \% \text{RH}$

Test Method/ Specification:

Test method: MIL-STD-810G, Method 514.6, Category 7

Sample condition: Non-Operating

Wave form: Random

Frequency: (15 ~ 2000) Hz

Frequency (Hz)	Left Slope (dB/Oct.)	PSD (g^2/Hz)	Right Slope (dB/Oct.)
15	-	0.01	0
105.94	0	0.01	6
150	6	0.02	0
500	0	0.02	-6
2000	-6	0.0012	-
⇨ equivalent to 4.02 Grms			

Direction: X, Y, Z axes (see photo 15 ~ 17)

Test duration: 1 hour/ axis

- Examine the appearance of specimen(s) by visual check and perform functional check after test.
- Functional check: Connect the specimen(s) with PC then examine whether access (read/write) function could be work normally or not.

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Specimen:

Style/ Item No.: SM(S)21P-25/ No.1

Quantity: Total 1 piece

Test Result:

Style/ Item No.	Check Item	Appearance check (Visual check)	Functional check
	SM(S)21P-25/ No.1		No visible damage

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4. Operating Vibration Test:

Test Equipment:

Name	Brand	Model	Serial No.
Vibration Test System	King Design	EM-800F2K-50N120	RU104080389
Controller	Dactron	COMET 200	10539718
Control Accelerometer	WR	793-6	A4938

Lab Environmental Conditions:

Ambient Temperature : $(25 \pm 3) ^\circ\text{C}$

Ambient humidity : $(55 \pm 20) \% \text{RH}$

Test Method/ Specification:

Test method: MIL-STD-810G, Method 514.6, Category 24

Sample condition: Operating

Wave form: Random

Frequency: (20 ~ 2000) Hz

Frequency (Hz)	Left Slope (dB/Oct.)	PSD (g^2/Hz)	Right Slope (dB/Oct.)
20	-	0.04	0
1000	0	0.04	-6
2000	-6	0.001	-

⇨ equivalent to 7.69 Grms

Direction: X, Y, Z axes (see photo 17 ~ 20)

Test duration: 1 hour/ axis

- Examine the appearance of specimen(s) by visual check and perform functional check after test.
- Functional check: Connect the specimen(s) with PC then examine whether access (read/write) function could be work normally or not.

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Specimen:

Style/ Item No.: SM(S)21P-25/ No.1

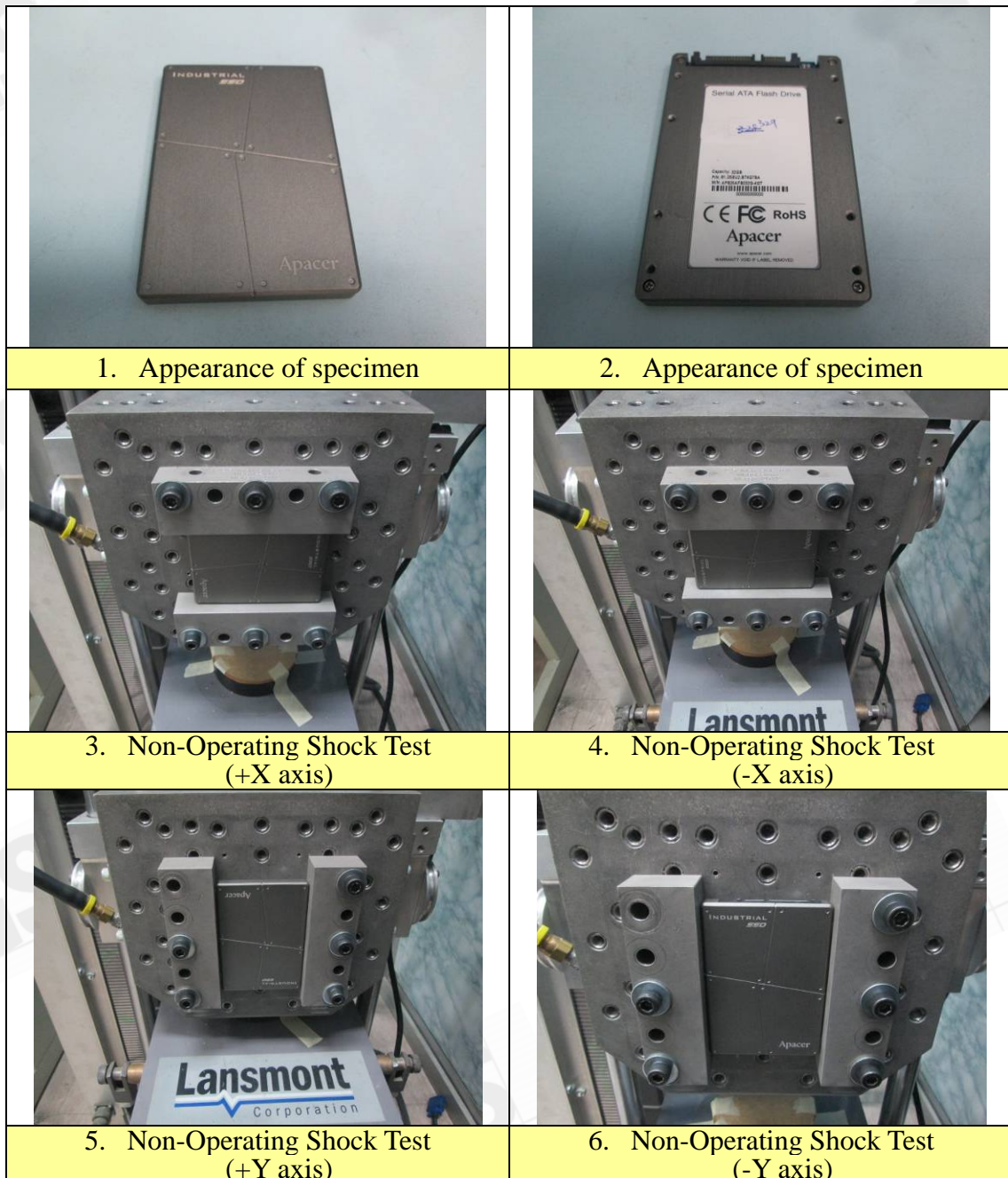
Quantity: Total 1 piece

Test Result:

<div style="text-align: right;">Check Item</div> <div style="text-align: left;">Style/ Item No.</div>	Appearance check (Visual check)	Functional check
SM(S)21P-25/ No.1	No visible damage	Normal

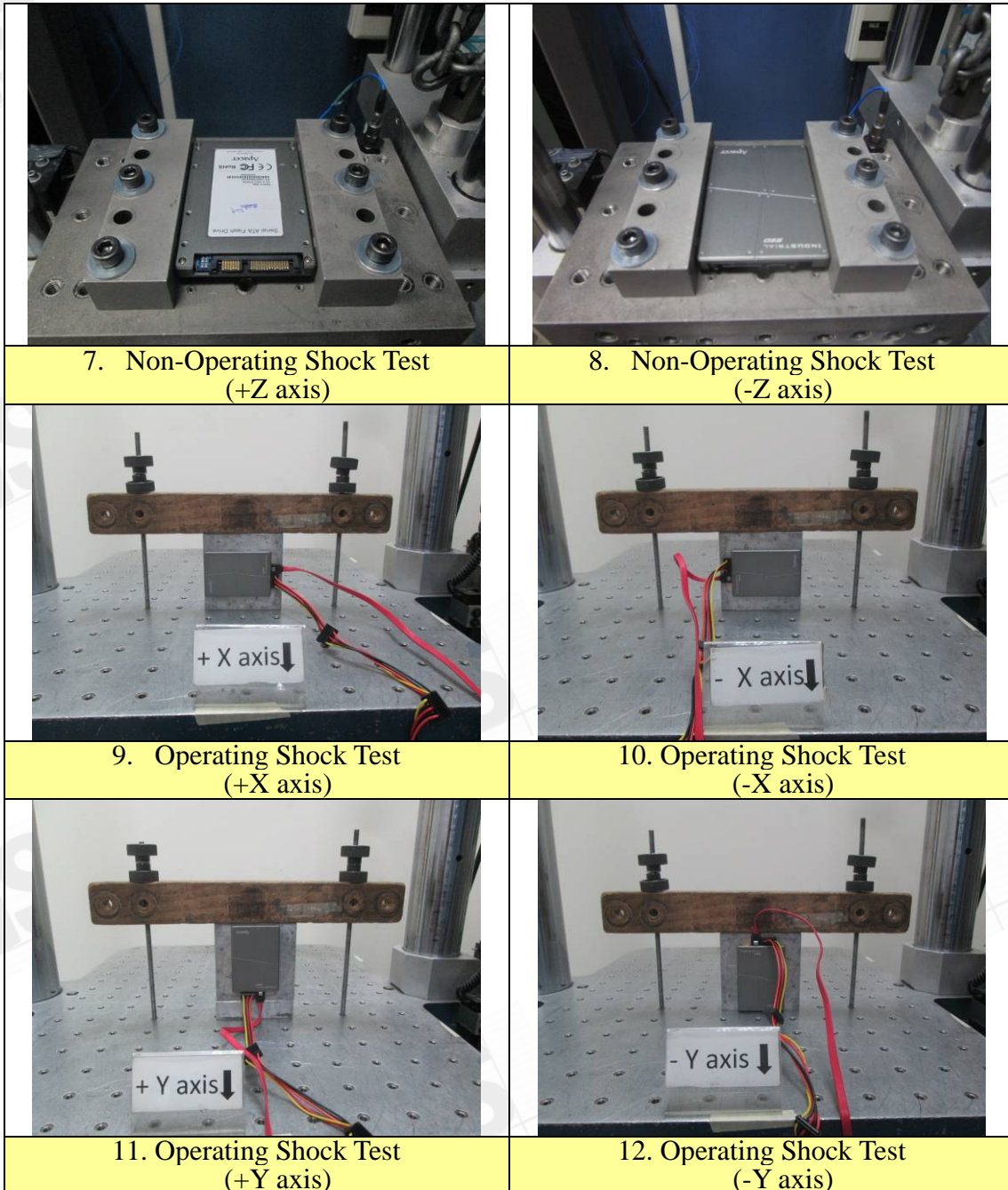
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Test Photos:



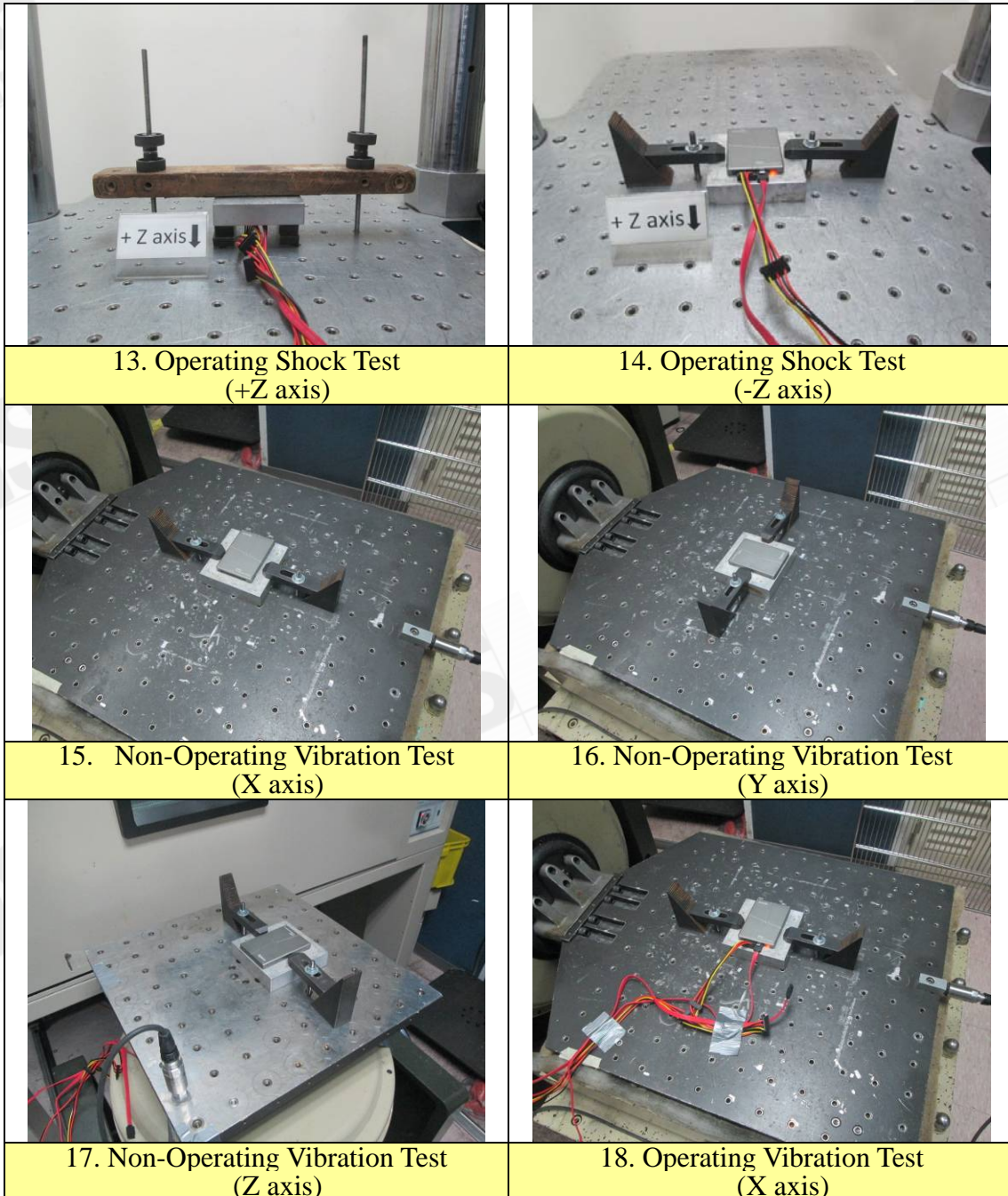
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Test Photos--Continued:



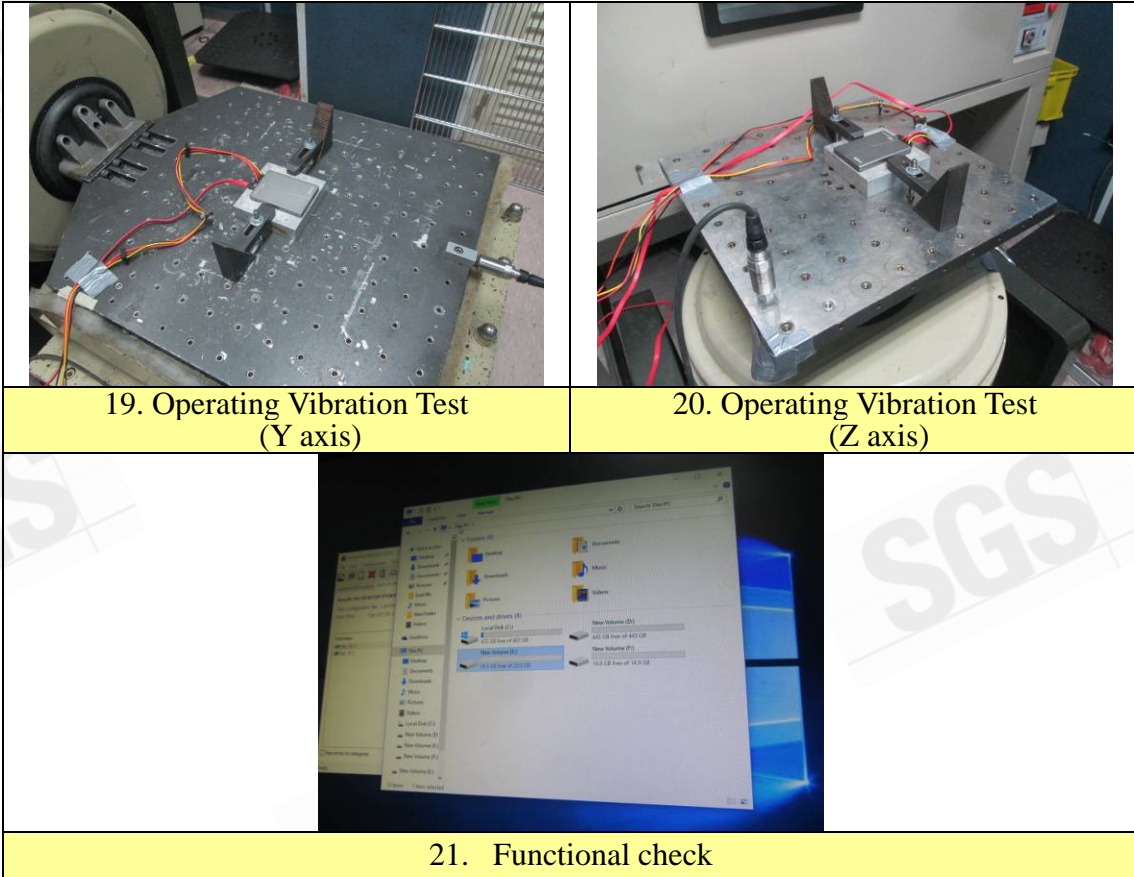
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Test Photos--Continued:



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Test Photos--Continued:



19. Operating Vibration Test (Y axis)

20. Operating Vibration Test (Z axis)

21. Functional check

— — — The End of Test Report — — —

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