

TEST REPORT

Report No.: HC80202/2023

Page: 1 of 13

Date: October 16, 2023

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: M.2(NGFF) Solid State Drive
Style/ Item No.: SX24D-M280/ No.1
Quantity: Total 1 piece
Testing Period: Sep. 8, 2023 to Oct. 4, 2023

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

Test Results: -PLEASE SEE ATTACHED SHEETS-

Signed for and on behalf of
SGS TAIWAN Ltd.



Alex Chen
Asst. Supervisor

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TEST REPORT

Report No.: HC80202/2023

Page: 2 of 13

1. Non-Operating Mechanical 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 Location: No.31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District, New Taipei City, Taiwan

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: Turn on the power of specimen then execute test program "Burn-In Test" while performing functional check.

TEST REPORT

Report No.: HC80202/2023

Page: 3 of 13

Specimen:

Style/ Item No.: SX24D-M280/ 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
SX24D-M280/ No.1	No visible damage	Normal

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TEST REPORT

Report No.: HC80202/2023

Page: 4 of 13

2. Operating Mechanical Shock Test:

Test Equipment:

Name	Brand	Model	Serial No.
Shock Test System	LANSMONT	95/115D	M-17656
Data Acquisition & Analysis System	LANSMONT	TP4 8A-CH SML 1115-001	1115-001
ICP Accelerometer	PCB	353M288	190564

Lab Environmental Conditions:

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

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

Test Location:

No.33, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,
New Taipei City, Taiwan

Test Method/ Specification:

Test method: MIL-STD-202G, Method 213B
 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: Turn on the power of specimen then execute test program "Burn-In Test" while performing functional check.

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TEST REPORT

Report No.: HC80202/2023

Page: 5 of 13

Specimen:

Style/ Item No.: SX24D-M280/ 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
SX24D-M280/ No.1	No visible damage	Normal

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TEST REPORT

3. Non-Operating 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: 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 this test.
- Functional check: Turn on the power of specimen then execute test program "Burn-In Test" while performing functional check.

TEST REPORT

Report No.: HC80202/2023

Page: 7 of 13

Specimen:

Style/ Item No.: SX24D-M280/ 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
SX24D-M280/ No.1	No visible damage	Normal

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TEST REPORT

4. Operating 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: 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	0.01	-

⇨ equivalent to 7.69 grms

Direction: X, Y, Z axes (see photo 18 ~ 20)

Test duration: 1 hour/ 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 then execute test program "Burn-In Test" while performing functional check.

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TEST REPORT

Report No.: HC80202/2023

Page: 9 of 13

Specimen:

Style/ Item No.: SX24D-M280/ No.1




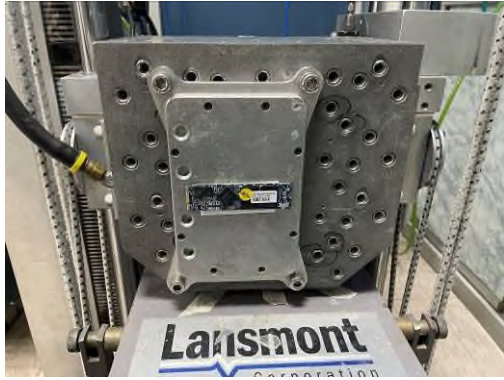


Quantity: Total 1 piece

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
SX24D-M280/ No.1	No visible damage	Normal

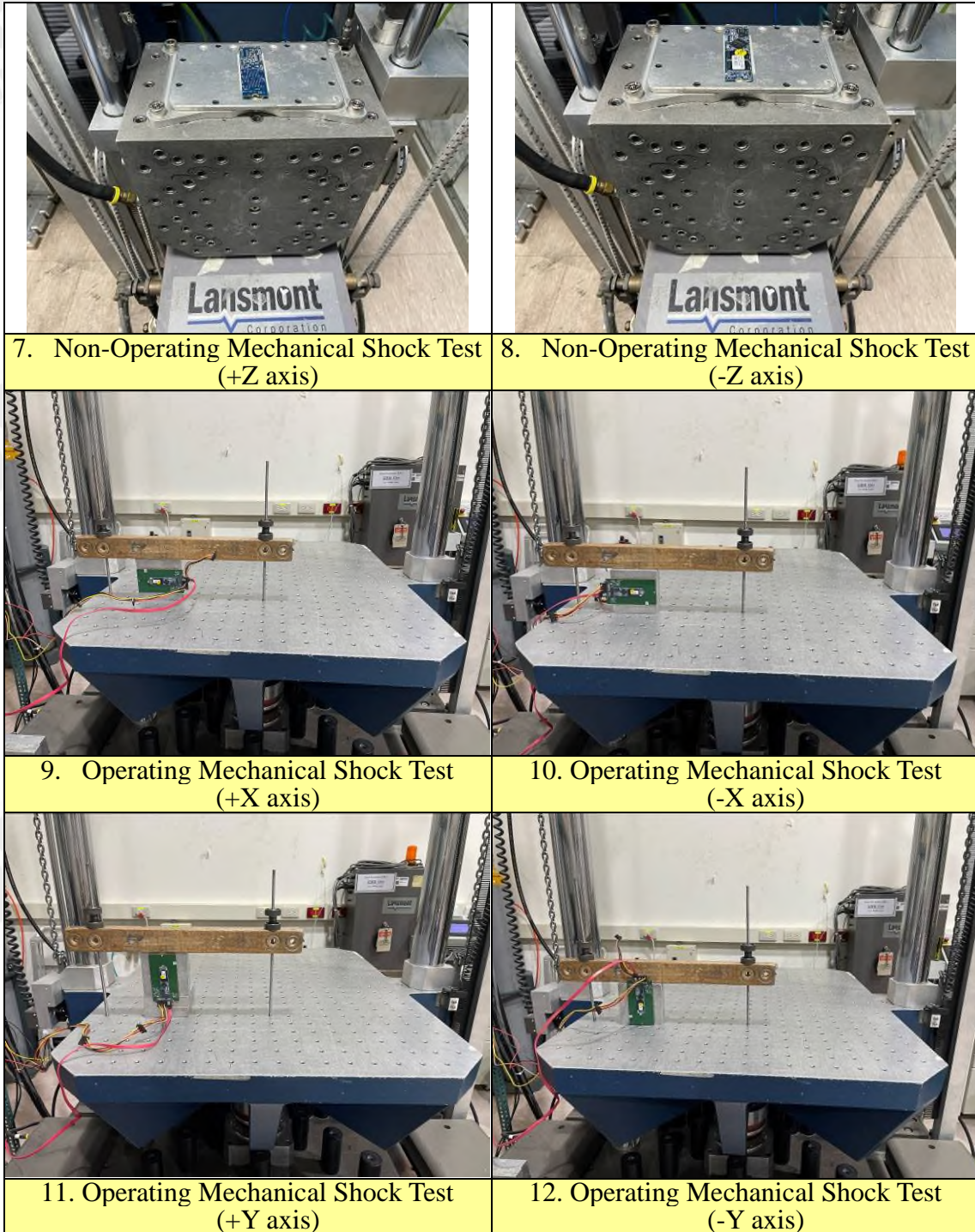
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Test Photos:

	
<p>1. Appearance of specimen</p>	<p>2. Appearance of specimen</p>
	
<p>3. Non-Operating Mechanical Shock Test (+X axis)</p>	<p>4. Non-Operating Mechanical Shock Test (-X axis)</p>
	
<p>5. Non-Operating Mechanical Shock Test (+Y axis)</p>	<p>6. Non-Operating Mechanical Shock Test (-Y axis)</p>

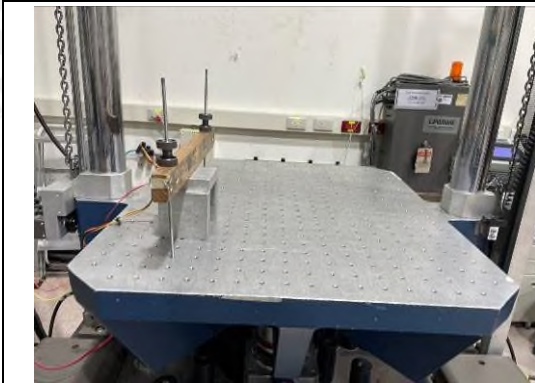
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Test Photos--Continued:

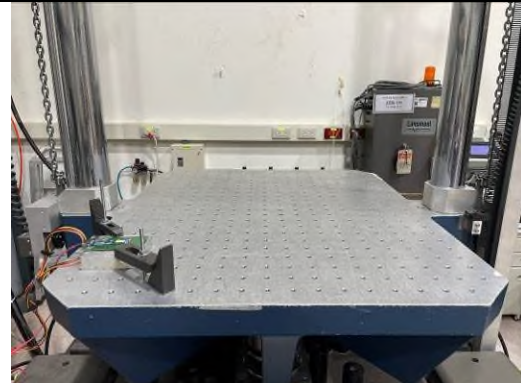


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Test Photos--Continued:



13. Operating Mechanical Shock Test (+Z axis)



14. Operating Mechanical Shock Test (-Z axis)



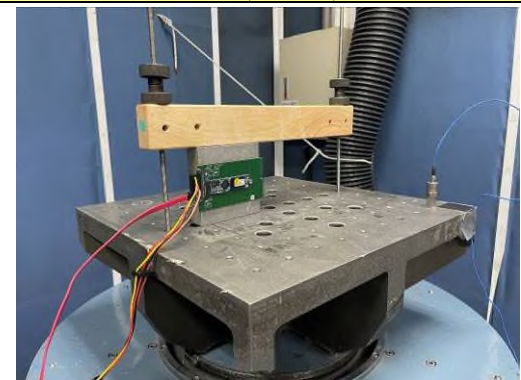
15. Non-Operating Vibration Test (X axis)



16. Non-Operating Vibration Test (Y axis)



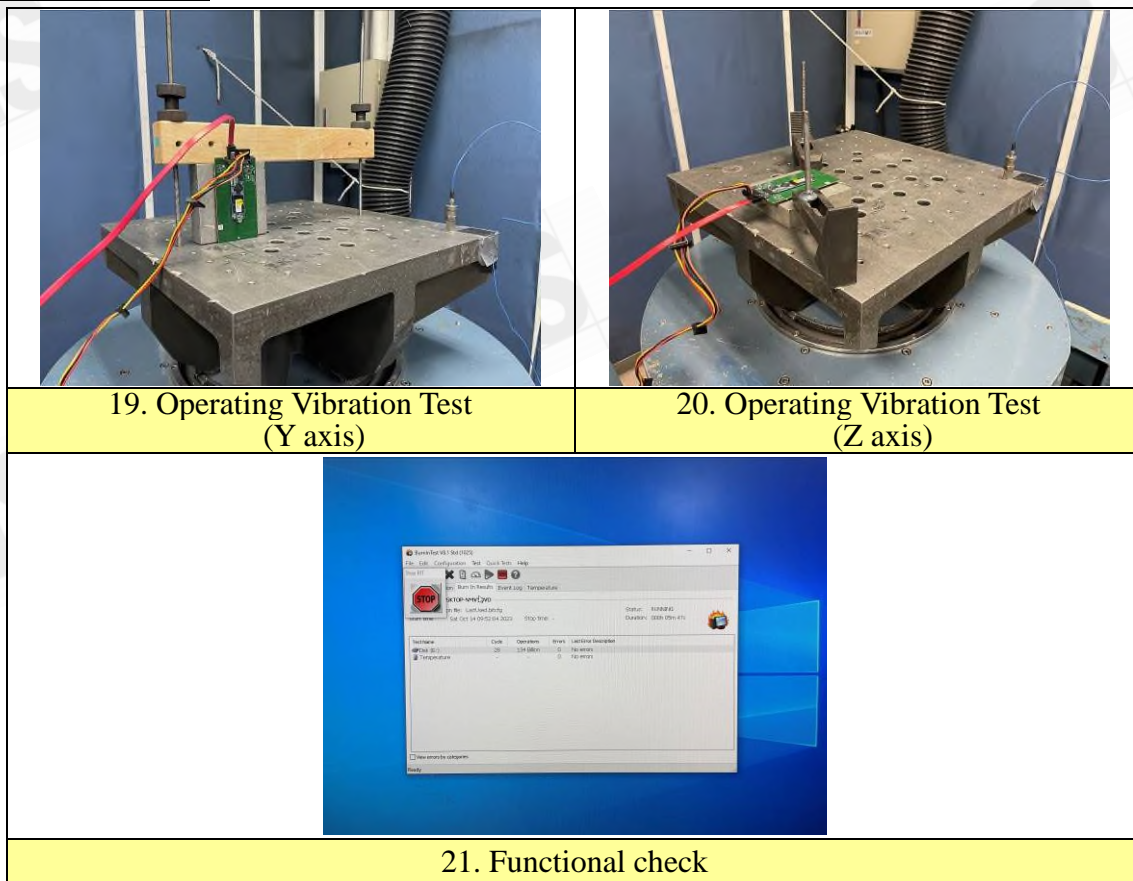
17. Non-Operating Vibration Test (Z axis)



18. Operating Vibration Test (X axis)

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Test Photos--Continued:



— — — The End of Test Report — — —

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