



Applicant : 7Starlake Co., LTD.
2F., No.190, Sec. 2, Zhongxing Rd., Xindian Dist.,
New Taipei City 23146, Taiwan (R.O.C.)

Description : Sample Name AVR800-S4L4
Model Name AVR800-S4L4
Date of Received OCT. 22, 2025
Date of Testing OCT. 23, 2025 ~ DEC. 03, 2025

Test Required : As requested by the applicant, please see following sheets in detail.

Conclusion	Test Information	Q'ty	Test Result	Page
	Please refer to page 2 for details.	1	Attached sheets	2

Certificate : TAF/ ilac-MRA Certificate of Independent Test Laboratory/ Approval
Certificate No.: 1723

Authorized by:
On behalf of World Advance Co., Ltd

Casper Lu

Casper Lu
Manager



Notes :

- This report is a non-quantitative test and does not include measurement uncertainty.
- This report refers only to the specimen(s) submitted to test,
and is invalid as separately used.



Conclusion

Test Item	Test Information	Q'ty	Test Result	Page
1	High Temperature Storage Test	1	PASS	4
2	High Temperature Operation Test	1	PASS	7
3	Low Temperature Storage Test	1	PASS	10
4	Low Temperature Operation Test	1	PASS	12
5	C-130(J/K) Aircraft Vibration Test	1	PASS	14
6	Functional Vibration Test	1	PASS	16
7	Tactical Transportation Vibration Test	1	PASS	18
8	Road Transportation Shock Test	1	PASS	20
9	Degrees of protection provided by enclosures: IPX5	1	PASS	21



Sample Description

Sample Name	AVR800-S4L4
Model Name	AVR800-S4L4
Serial Number	AVR800S4L4001
Test Quantity	1
Unit Dimension	45 x 32 x 15.6 cm (L x D x H)
Unit Weight	18.8 kg
Function Check	BurnIn Test
Remark	—

Appearance Photo of Unit -1



Appearance Photo of Unit -2



Operation Photo of Unit





1. High Temperature Storage Test

Test Date : NOV. 26, 2025 ~ DEC. 03, 2025

Test Equipment :

Apparatus name : Programmable Temperature & Humidity Chamber

Brand : A-LAB

Model : AL-KSTH-01501

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

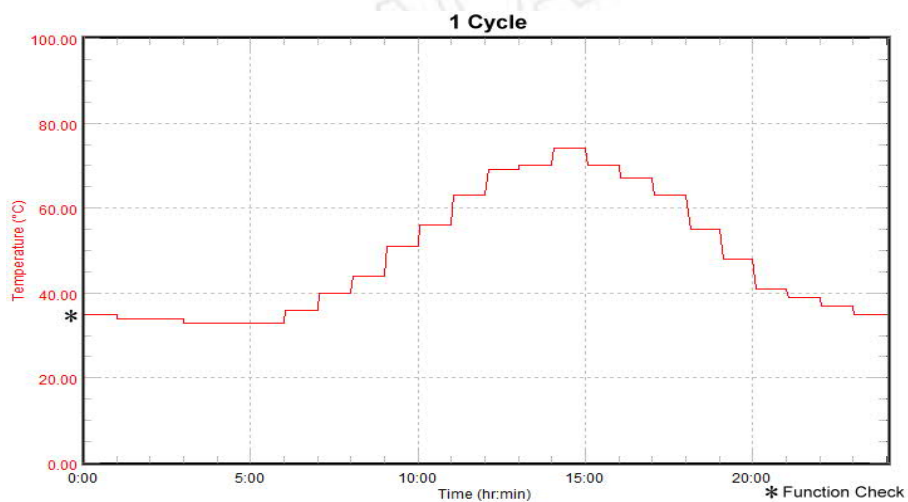
The test was performed with reference to MIL-STD-810H method 501.7 procedure I and customer specification.

Test Condition :

Step	Temperature (°C)	Time of day (h : min)	Number of Cycle	Condition
1	+35	01:00	7	Non-Operation Function check before and after the test.
2	+34	02:00		
3	+34	03:00		
4	+33	04:00		
5	+33	05:00		
6	+33	06:00		
7	+36	07:00		
8	+40	08:00		
9	+44	09:00		
10	+51	10:00		



11	+56	11:00
12	+63	12:00
13	+69	13:00
14	+70	14:00
15	+74	15:00
16	+70	16:00
17	+67	17:00
18	+63	18:00
19	+55	19:00
20	+48	20:00
21	+41	21:00
22	+39	22:00
23	+37	23:00
24	+35	24:00





Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal after the test.



2. High Temperature Operation Test

Test Date : NOV. 04, 2025 ~ NOV. 07, 2025

Test Equipment :

Apparatus name : Programmable Temperature & Humidity Chamber

Brand : A-LAB

Model : AL-KSTH-08004

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to MIL-STD-810H method 501.7 procedure II and customer specification.

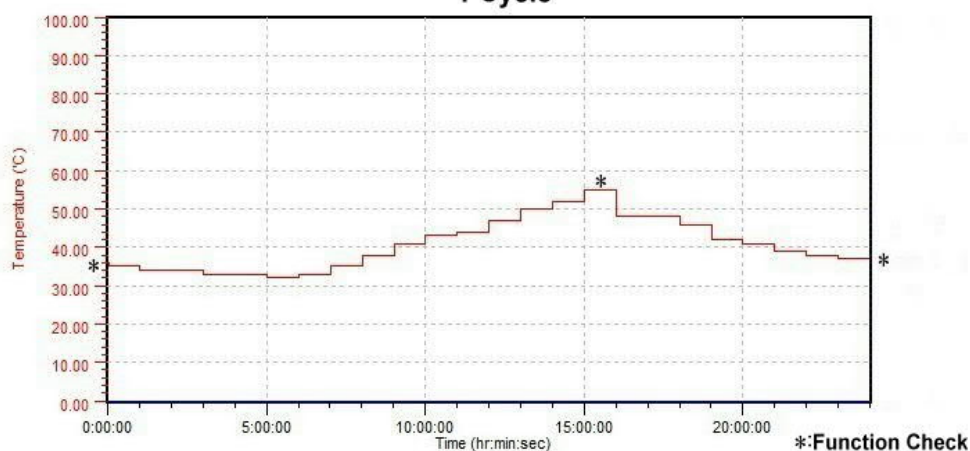
Test Condition :

Step	Temperature (°C)	Time of day (h : min)	Number of Cycle	Condition
1	+35	01:00	3	Operation Function check before, after the test and at the maxium temp. of each one of 3 cycles.
2	+34	02:00		
3	+34	03:00		
4	+33	04:00		
5	+33	05:00		
6	+32	06:00		
7	+33	07:00		
8	+35	08:00		
9	+38	09:00		
10	+41	10:00		



11	+43	11:00
12	+44	12:00
13	+47	13:00
14	+50	14:00
15	+52	15:00
16	+55	16:00
17	+48	17:00
18	+48	18:00
19	+46	19:00
20	+42	20:00
21	+41	21:00
22	+39	22:00
23	+38	23:00
24	+37	24:00

1 Cycle





Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal all the test.



3. Low Temperature Storage Test

Test Date : OCT. 30, 2025 ~ NOV. 02, 2025

Test Equipment :

Apparatus name : Programmable Temperature & Humidity Chamber

Brand : A-LAB

Model : AL-KSTH-08004

Laboratory Ambience Condition :

Temperature : 25 °C

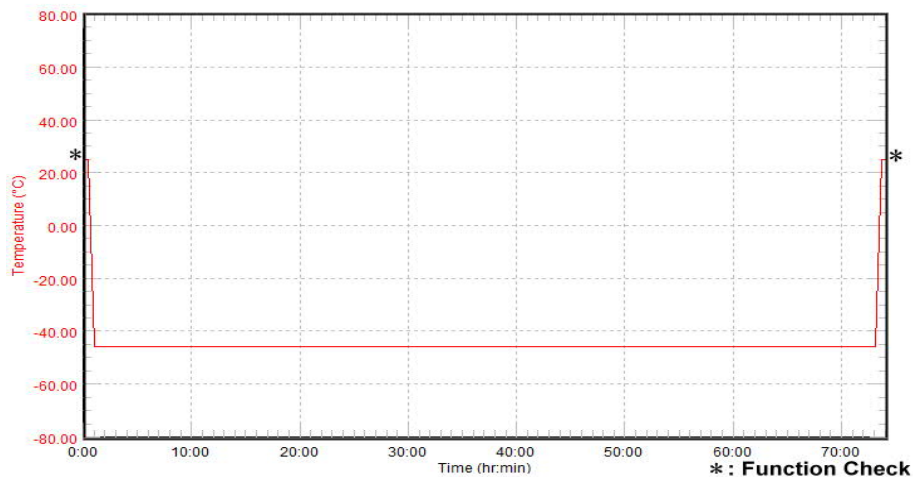
Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to MIL-STD-810H method 502.7 procedure I and customer specification.

Test Condition :

Step	Temperature (°C)	Duration (h : min)	Number of Cycles	Temp. Ramp (°C/min)	Condition
1	+25	00:05	1	2	Function Check
2	-46	72:00			Non-Operation
4	+25	00:05			Function Check





Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal after the test.



4. Low Temperature Operation Test

Test Date : NOV. 03, 2025 ~ NOV. 12, 2025

Test Equipment :

Apparatus name : Programmable Temperature & Humidity Chamber

Brand : A-LAB

Model : AL-KSTH-08004

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to MIL-STD-810H method 502.7 procedure II and customer specification.

Test Condition :

Step	Temperature (°C)	Duration (h : min)	Number of Cycles	Temp. Ramp (°C/min)	Condition
1	+25	00:05	3	2	Function check before, after the test and at last 5 minutes of -20°C, -33°C and 0°C period.
2	-20	03:00			
4	-33	03:00			
5	0	00:05			
6	+25	00:05			



Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal all the test.



5. C-130(J/K) Aircraft Vibration Test

Test Date : NOV. 10, 2025 ~ NOV. 13, 2025

Test Equipment :

Apparatus name : Electromagnetism Vibration Test System

Brand : A-LAB

Model : AL-KDVI-0600

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to MIL-STD-810H method 514.8 category 7.
C-130(J/K) aerial transportation vibration and customer specification.

Test Condition :

Random wave

Frequency (Hz)	PSD (G ² /Hz)	Grms	Direction (Axis)	Duration (h : min)	Condition
5	0.002812	0.76	X Y Z	06:40 06:40 06:40	Unpacked Non-Operation
12	0.002812				
28	0.000419				
432	0.000419				
500	0.000177				
971	0.000177				
1106	0.000349				
1461	0.000349				
1529	0.000187				
2000	0.000197				



Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal after the test.

**6. Functional Vibration Test**

Test Date : NOV. 14, 2025 ~ NOV. 14, 2025

Test Equipment :

Apparatus name : Electromagnetism Vibration Test System

Brand : A-LAB

Model : AL-KDVI-0600

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to MIL-STD-810H method 514.8 category 7.
Tactical functional vibration and customer specification.

Test Condition :

Random wave

Frequency (Hz)	PSD (G ² /Hz)	Grms	Direction (Axis)	Duration (h : min)	Condition
5	0.00025	0.09	X	02:00	Operation
7	0.00119				
9	0.00119				
15	0.00002				
27	0.00002				
30	0.00015				
35	0.00015				
40	0.0000094				
75	0.000007				
80	0.000002				
120	0.000002				
145	0.000007				
200	0.000001				



5	0.0004	0.10	Y	02:00	Operation
7	0.0027				
8	0.0027				
20	0.00002				
35	0.00002				
40	0.0000009				
55	0.0000009				
60	0.000003				
200	0.000001	0.09	Z	02:00	Operation
5	0.0004				
8	0.0004				
10	0.00008				
13	0.00008				
15	0.00001				
23	0.00001				
29	0.0006				
31	0.0006				
40	0.000002				
45	0.000002				
47	0.000015				
90	0.000015				
94	0.00006				
105	0.00006				
200	0.000003				

Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal all the test.



7. Tactical Transportation Vibration Test

Test Date : NOV. 17, 2025 ~ NOV. 17, 2025

Test Equipment :

Apparatus name : Electromagnetism Vibration Test System

Brand : A-LAB

Model : AL-KDVI-0600

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to MIL-STD-810H method 514.8 category 7.

Tactical transportation vibration and customer specification.

Test Condition :

Random wave

Frequency (Hz)	PSD (G ² /Hz)	Grms	Direction (Axis)	Duration (h : min)	Condition
5	0.042957	1.12	X	02:00	Unpacked Non-Operation
6	0.011799				
12	0.067922				
13	0.202557				
15	0.147065				
16	0.014014				
19	0.017844				
20	0.066407				
22	0.064492				
36	0.000118				
38	0.000118				
43	0.003833				
45	0.003833				
52	0.000047				
80	0.000047				
85	0.000189				
87	0.000185				
92	0.000055				



146	0.000055				
190	0.002614				
199	0.002573				
232	0.00066				
365	0.00066				
380	0.001758				
397	0.001758				
412	0.000048				
500	0.000004				
5	0.007363				
11	0.011679				
13	0.113665				
15	0.113665				
16	0.025428				
18	0.025428				
22	0.004349				
24	0.001189				
26	0.001189				
30	0.007527				
31	0.007527				
35	0.000505				
45	0.000505	0.80	Y	02:00	Unpacked Non-Operation
47	0.000176				
87	0.000176				
92	0.000016				
146	0.000016				
191	0.001189				
210	0.001189				
268	0.0000038				
348	0.0000038				
386	0.000135				
397	0.000135				
413	0.000017				
500	0.000017				
5	0.030709				
11	0.047759				
13	0.120143				
15	0.110033				
17	0.012507	1.14	Z	1.14	Unpacked Non-Operation
18	0.012507				
19	0.080906				
21	0.082702				
25	0.001069				
28	0.001069				



30	0.005311				
32	0.005311				
36	0.000389				
38	0.000398				
42	0.006912				
45	0.006912				
47	0.002255				
154	0.000195				
190	0.005286				
200	0.005315				
231	0.000091				
257	0.000093				
282	0.0000094				
353	0.0000095				
360	0.000180				
399	0.000180				
410	0.000025				
500	0.000025				

Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal after the test.



8. Road Transportation Shock Test

Test Date : NOV. 18, 2025 ~ NOV. 18, 2025

Test Equipment :

Apparatus name : Electromagnetism Vibration Test System

Brand : A-LAB

Model : AL-KDVI-0600

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to MIL-STD-810H method 516.8 procedure II and customer specification.

Test Condition :

Pulse Shapes	Acceleration (G)	Pulse width (ms)	Direction (axis)	Number of Shocks	Condition
Terminal Peak Sawtooth	10	11	±X, ±Y, ±Z	18 (3 shocks for each ±axis)	Operation

Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no visible damage on the unit.
- The function is normal after the test.



9. Degrees of protection provided by enclosures: IPX5

Test Date : OCT. 23, 2025 ~ OCT. 23, 2025

Test Equipment :

Apparatus name : International Protection X1-9K System

Brand : ALAB

Model : AB-IPWT-X1TO9

Apparatus name : Programmable Temperature & Humidity Chamber

Brand : A-LAB

Model : AL-YLTH-08001

Laboratory Ambience Condition :

Temperature : 25 °C

Humidity : 60 %RH

Test Reference Document :

The test was performed with reference to IEC60529: 2019 and customer specification.

Test Condition :

Water Temperature (°C)	Conditioning Temperature (°C)	Conditioning Holding Time (h : min)
+26.0	+36.0	02:00

Item	Water jet hose nozzle (mm)	Water flow rate (L/min)	Distance (m)	Waterproof direction	Duration time
IPX5	6.3	12.5 ±5%	2.5 ~ 3	surface of enclosure	1 min/m ² at least 3 min



Test Result :

Sample Name / Model Name / Serial Number	PASS	FAIL	No Judgment
AVR800-S4L4 / AVR800-S4L4 / S/N: AVR800S4L4001	V	—	—

Test Criteria :

- There is no trace of water inside.
- The function is normal after the test.



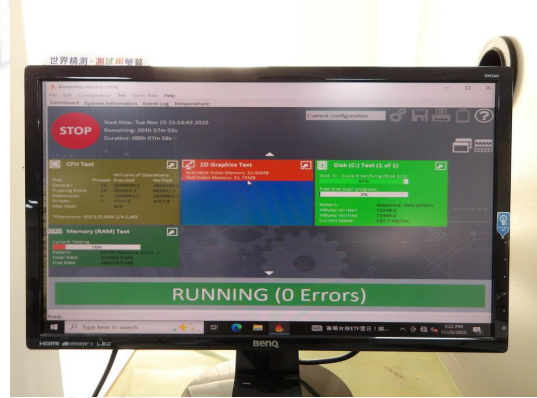
Test photo :

1 High Temperature Storage Test

1-1 Before Test -1



1-2 Before Test -2



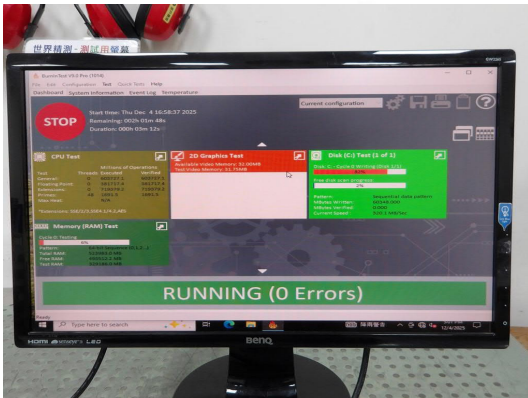
1-3 Before Test -1



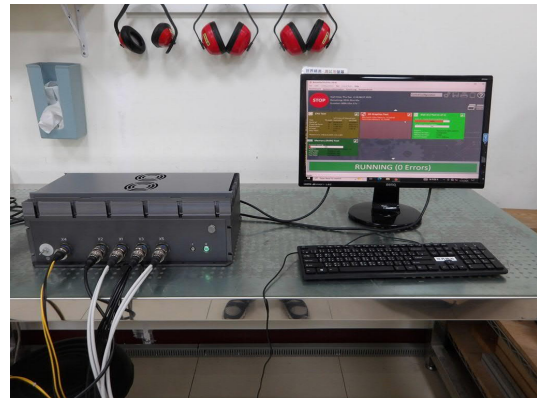
1-4 After Test -1



1-5 After Test -2



1-6 After Test -3





2 High Temperature Operation Test

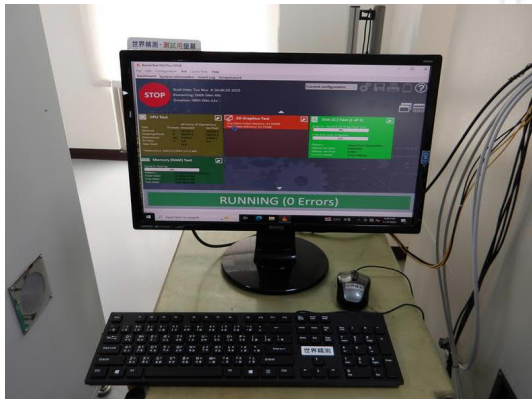
2-1 Before Test -1



2-2 Before Test -2



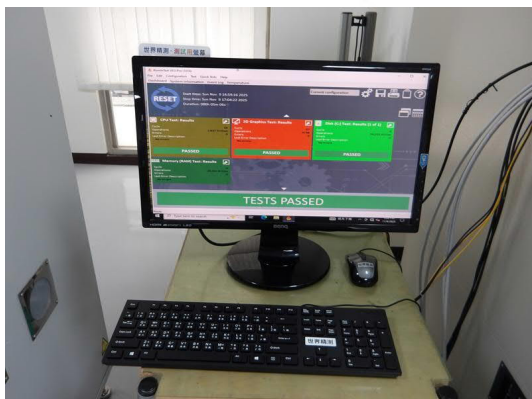
2-3 Testing



2-4 After Test -1



2-5 After Test -2





3 Low Temperature Storage Test

3-1 Before Test -1



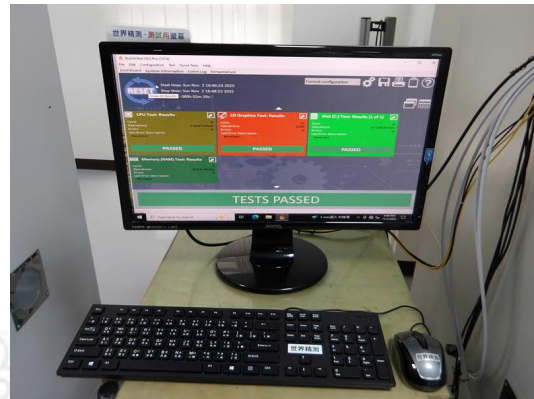
3-2 Before Test -2



3-3 After Test -1



3-4 After Test -2





4 Low Temperature Operation Test

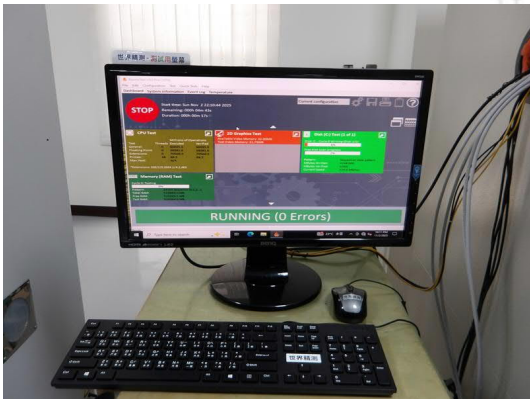
4-1 Before Test -1



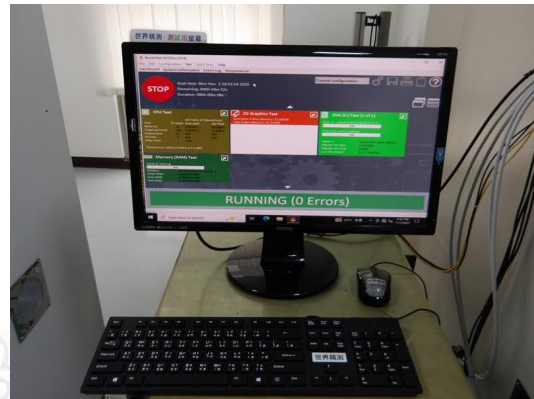
4-2 Before Test -2



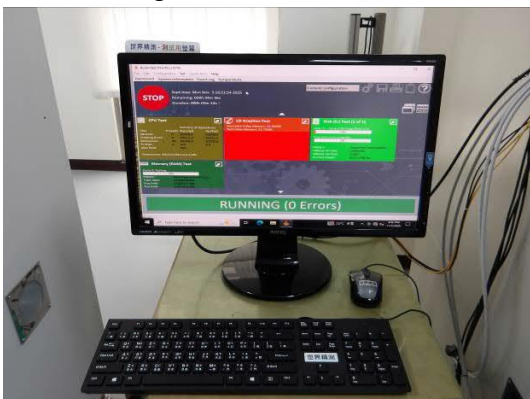
4-3 Testing: -20 °C



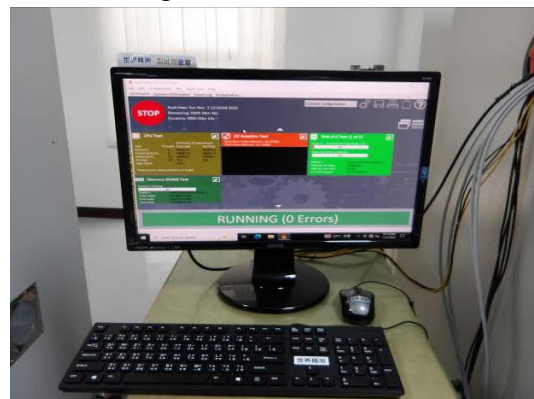
4-4 Testing: -33 °C



4-5 Testing: 0 °C



4-6 Testing: +25 °C

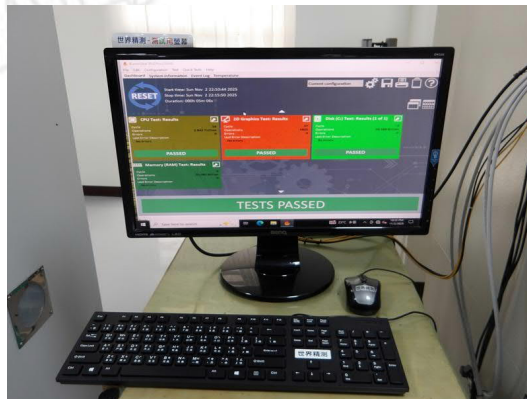




4-7 After Test -1



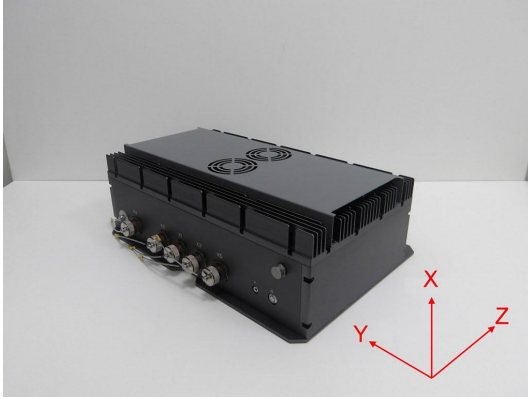
4-8 After Test -2



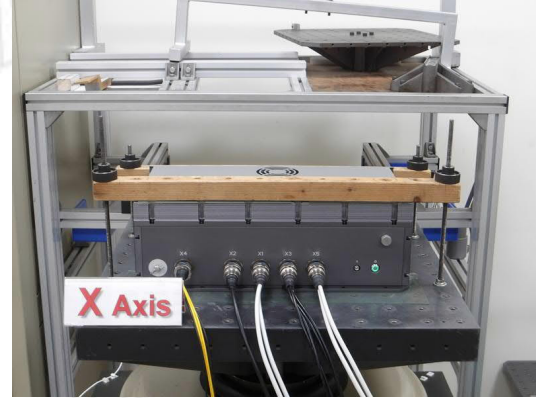


5 C-130(J/K) Aircraft Vibration Test

5-1 Direction



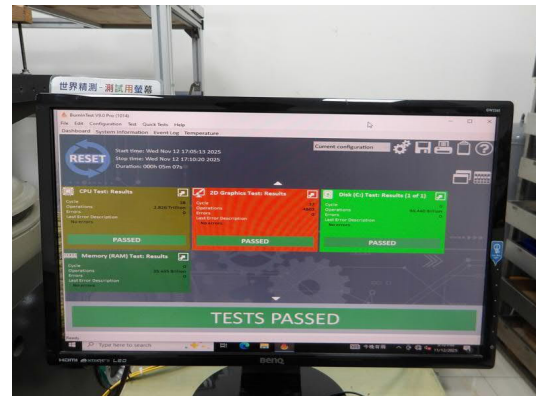
5-2 X axis: Before Test -1



5-3 X axis: Before Test -2

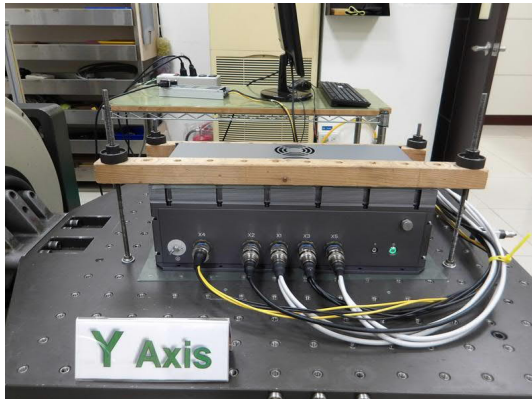


5-4 X axis: After Test

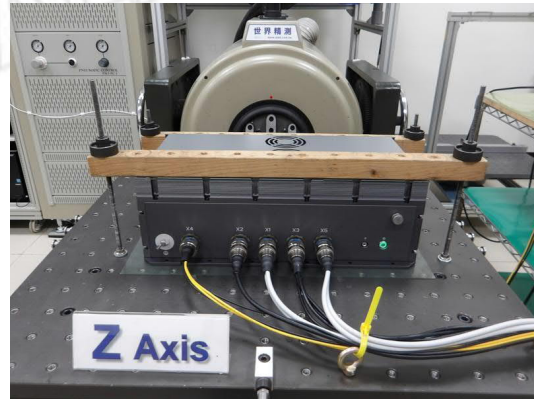




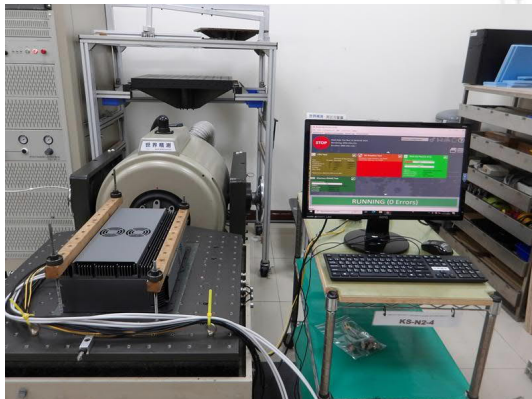
5-5 Y axis: Before Test -1



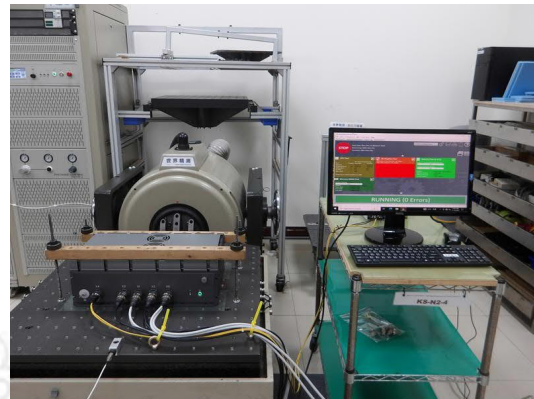
5-8 Z axis: Before Test -1



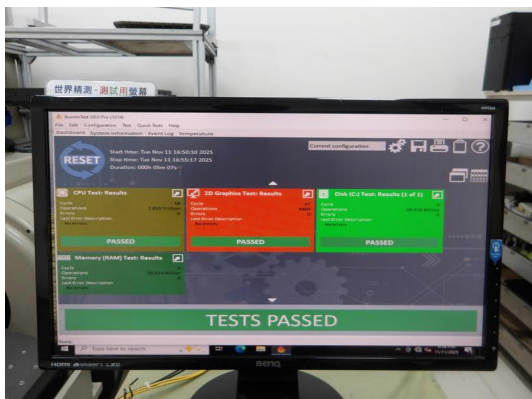
5-6 Y axis: Before Test -2



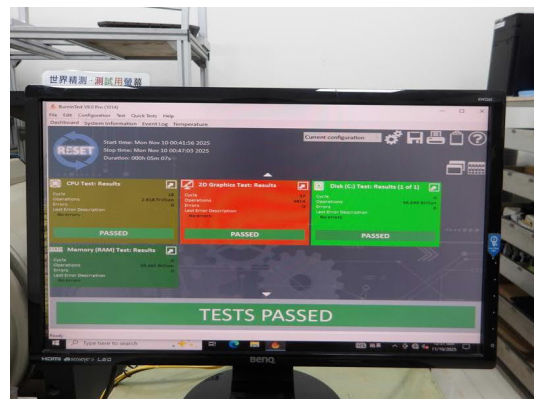
5-9 Z axis: Before Test -2



5-7 Y axis: After Test



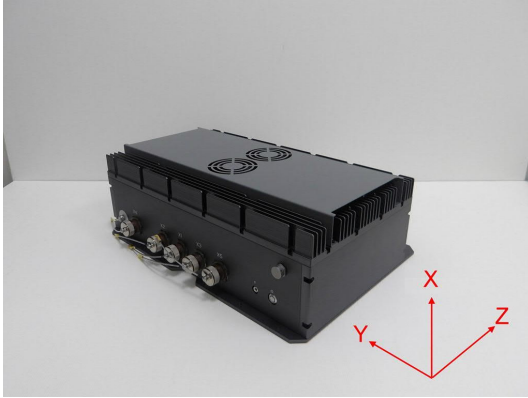
5-10 Z axis: After Test





6 Functional Vibration Test

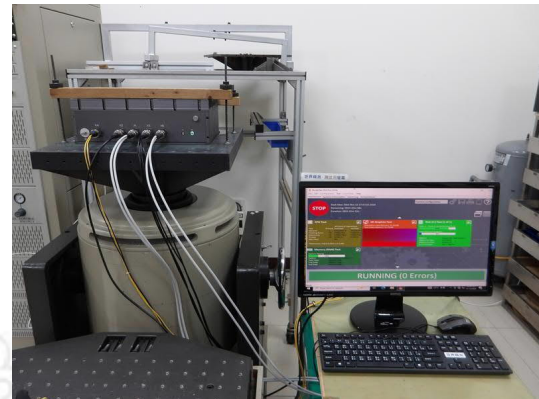
6-1 Direction



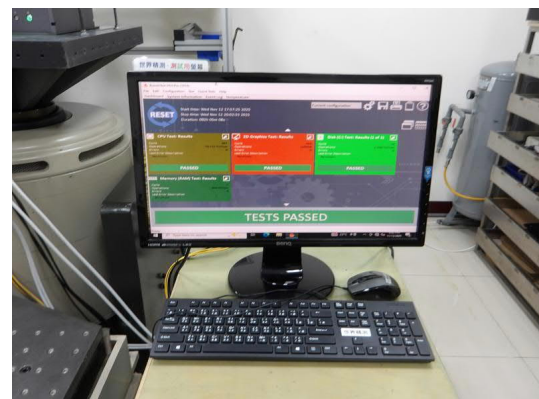
6-2 X axis: Before Test



6-3 X axis: Testing

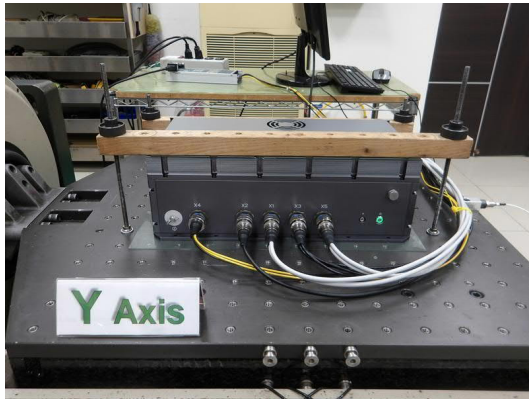


6-4 X axis: After Test

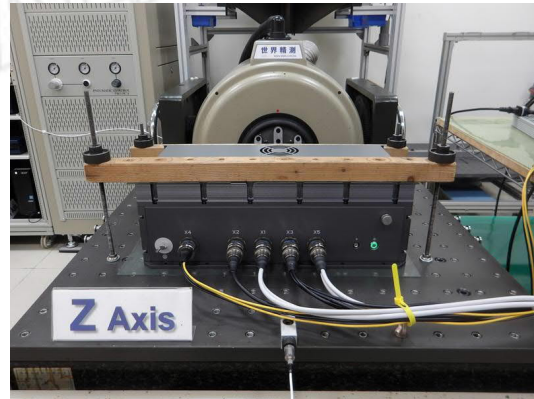




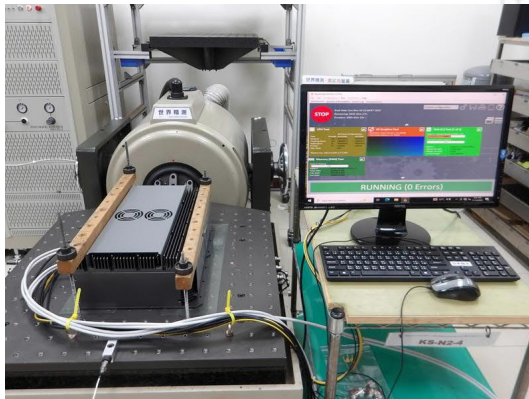
6-5 Y axis: Before Test



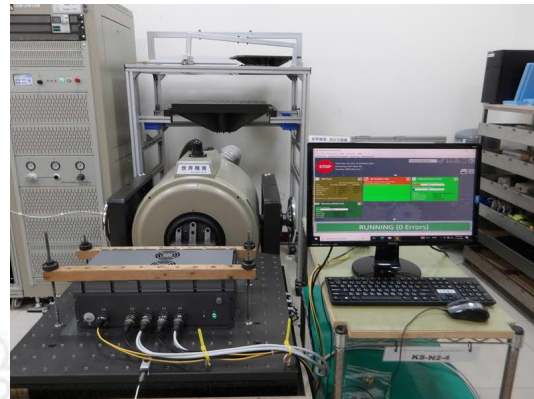
6-8 Z axis: Before Test



6-6 Y axis: Testing



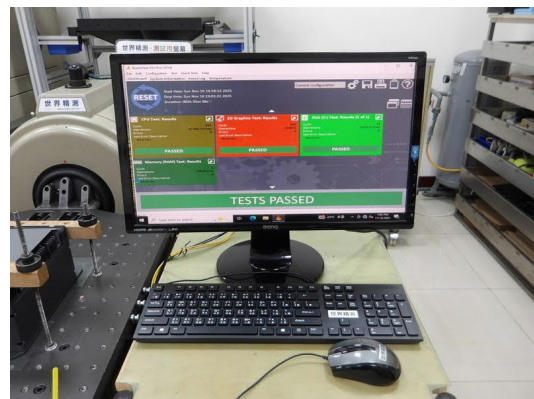
6-9 Z axis: Testing



6-7 Y axis: After Test



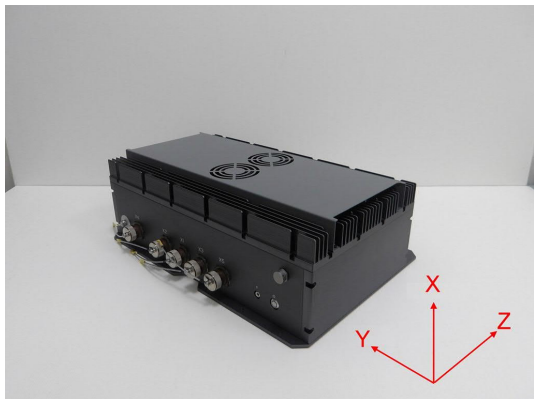
6-10 Z axis: After Test





7 Tactical Transportation Vibration Test

7-1 Direction



7-2 X axis: Before Test -1



7-3 X axis: Before Test -2



7-4 X axis: After Test

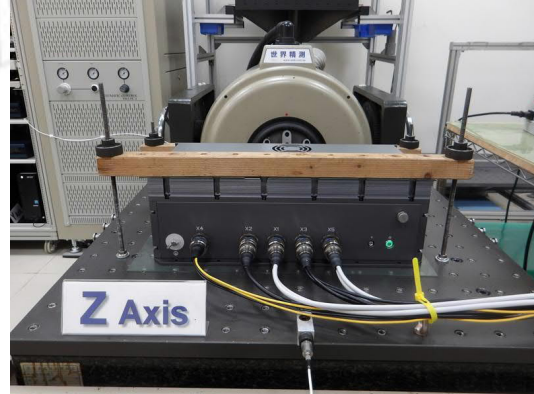




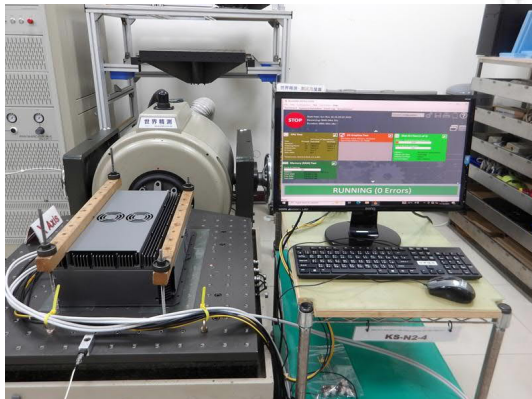
7-5 Y axis: Before Test -1



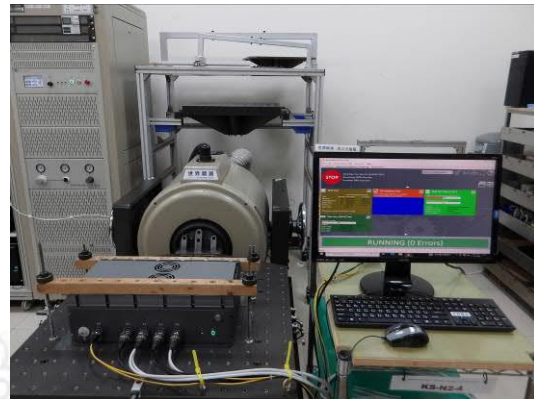
7-8 Z axis: Before Test -1



7-6 Y axis: Before Test -2



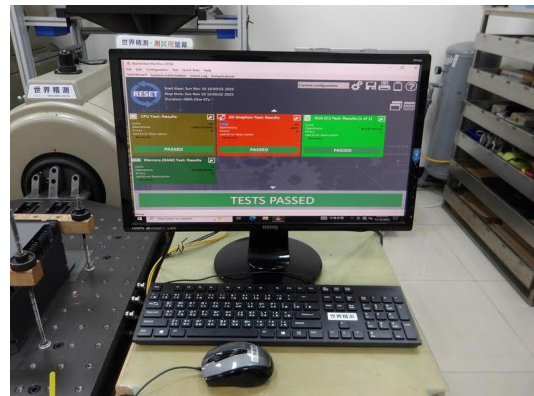
7-9 Z axis: Before Test -2



7-7 Y axis: After Test



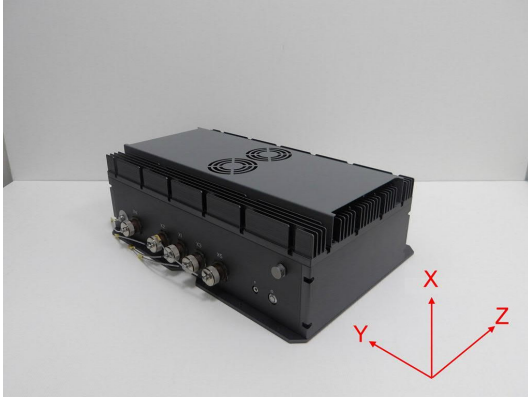
7-10 Z axis: After Test



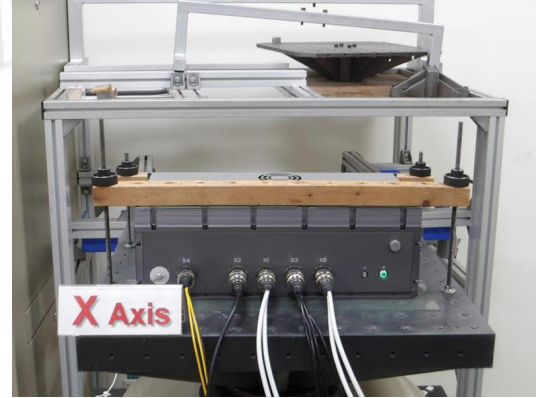


8 Road Transportation Shock Test

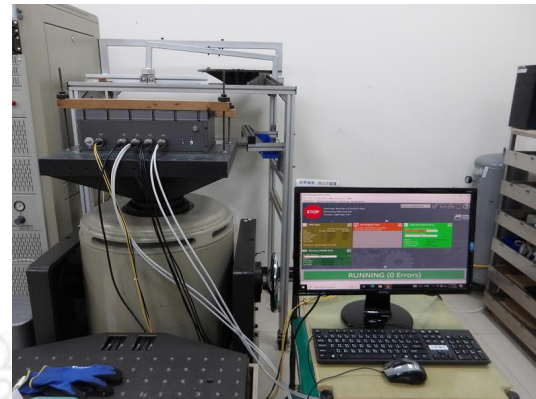
8-1 Direction



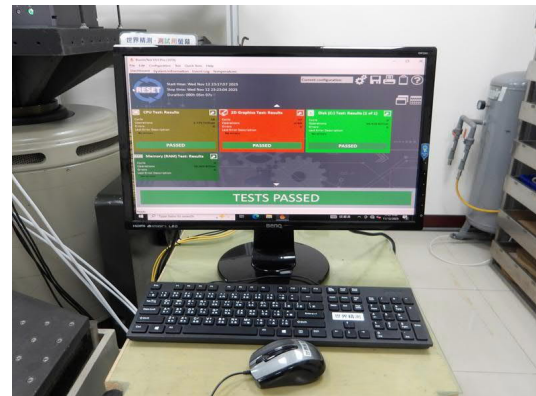
8-2 $\pm X$ axis: Before Test -1



8-3 $\pm X$ axis: Before Test -2



8-4 $\pm X$ axis: After Test

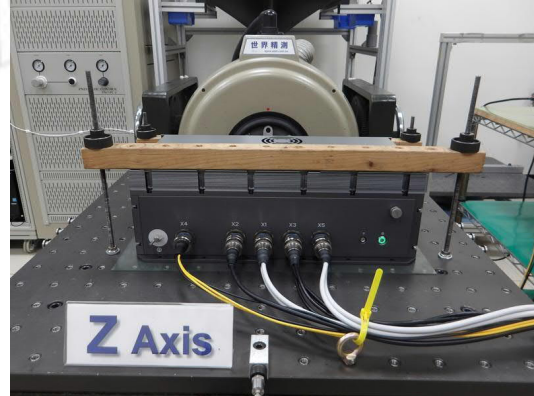




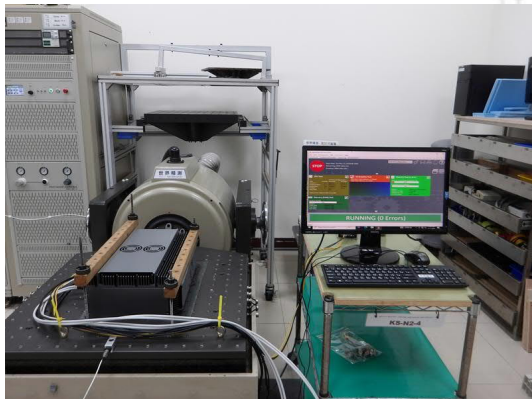
8-5 $\pm Y$ axis: Before Test -1



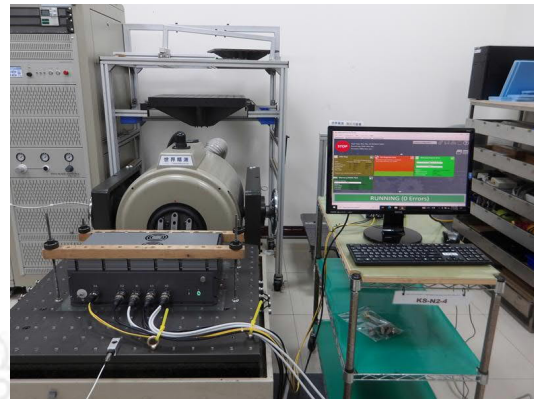
8-8 $\pm Z$ axis: Before Test -1



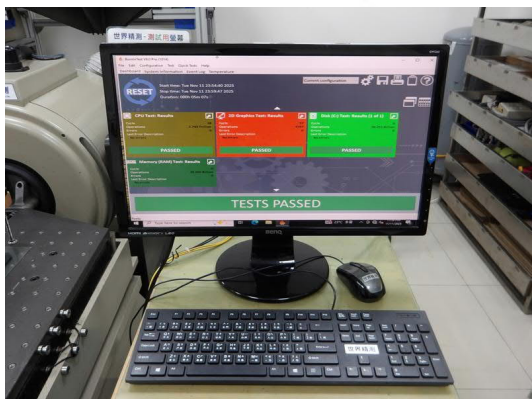
8-6 $\pm Y$ axis: Before Test -2



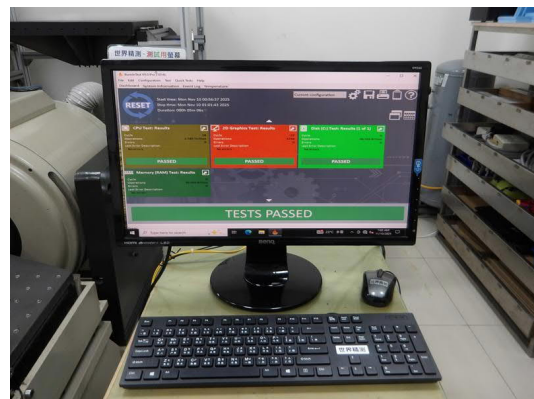
8-9 $\pm Z$ axis: Before Test -2



8-7 $\pm Y$ axis: After Test



8-10 $\pm Z$ axis: After Test





9 Degrees of protection provided by enclosures: IPX5

9-1 Water Temperature



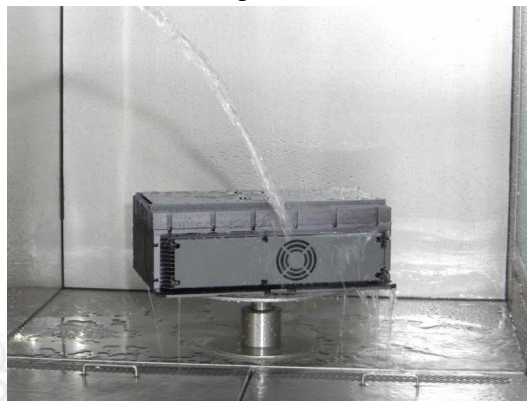
9-4 IPX5 Before Test



9-2 Conditioning Temperature



9-5 IPX5 Testing -1



9-3 Conditioning



9-6 IPX5 Testing -2





9-7 After Test -1



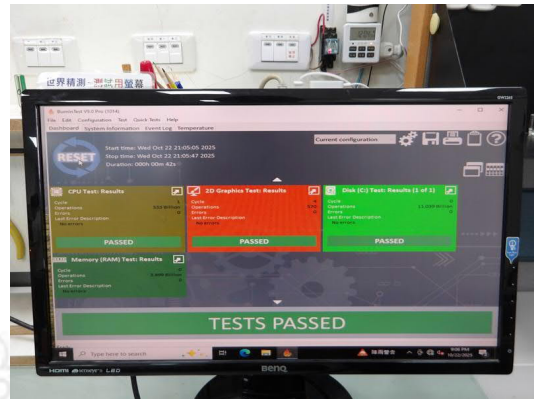
9-10 After Test -4



9-8 After Test -2



9-11 After Test -5



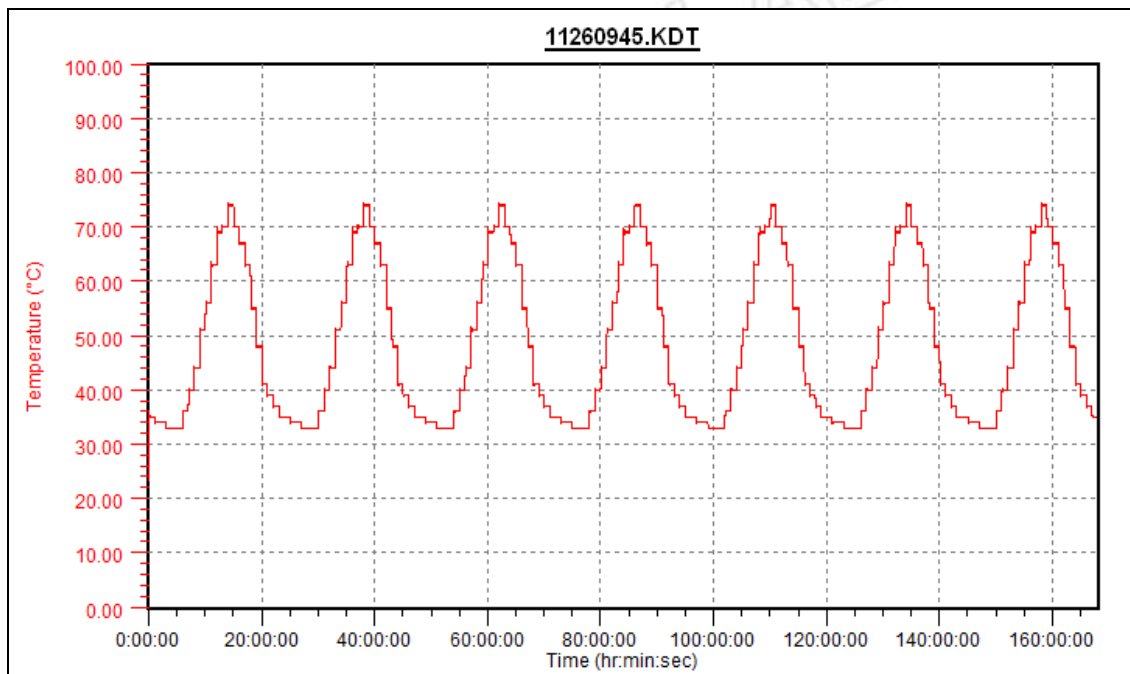
9-9 After Test -3



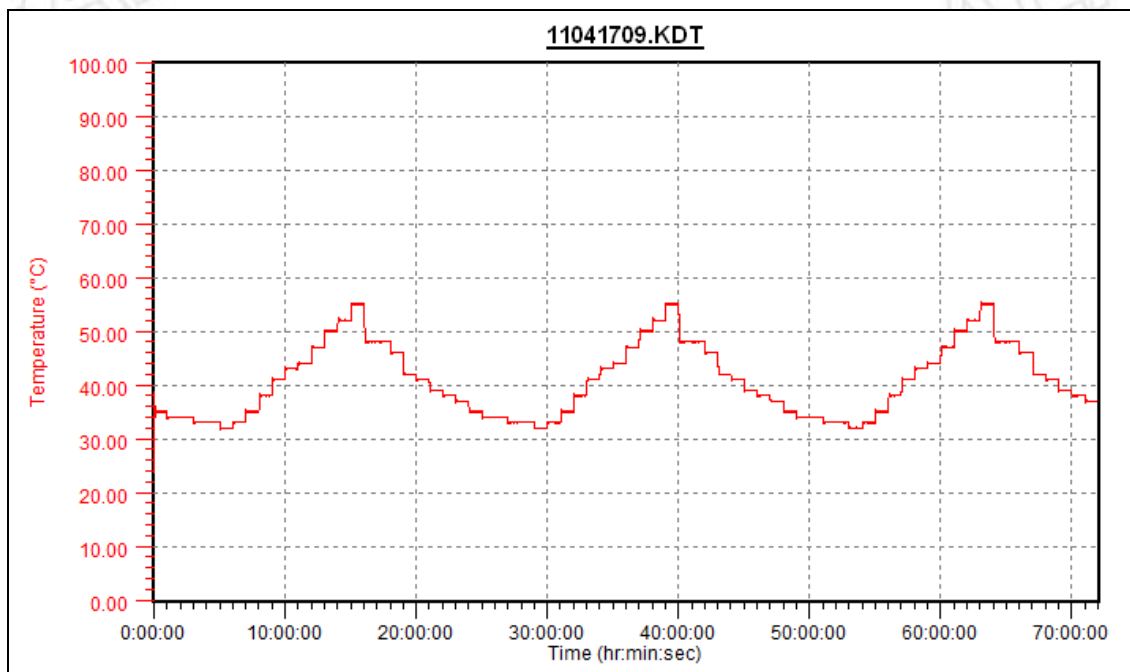


Test Profile :

1 High Temperature Storage Test

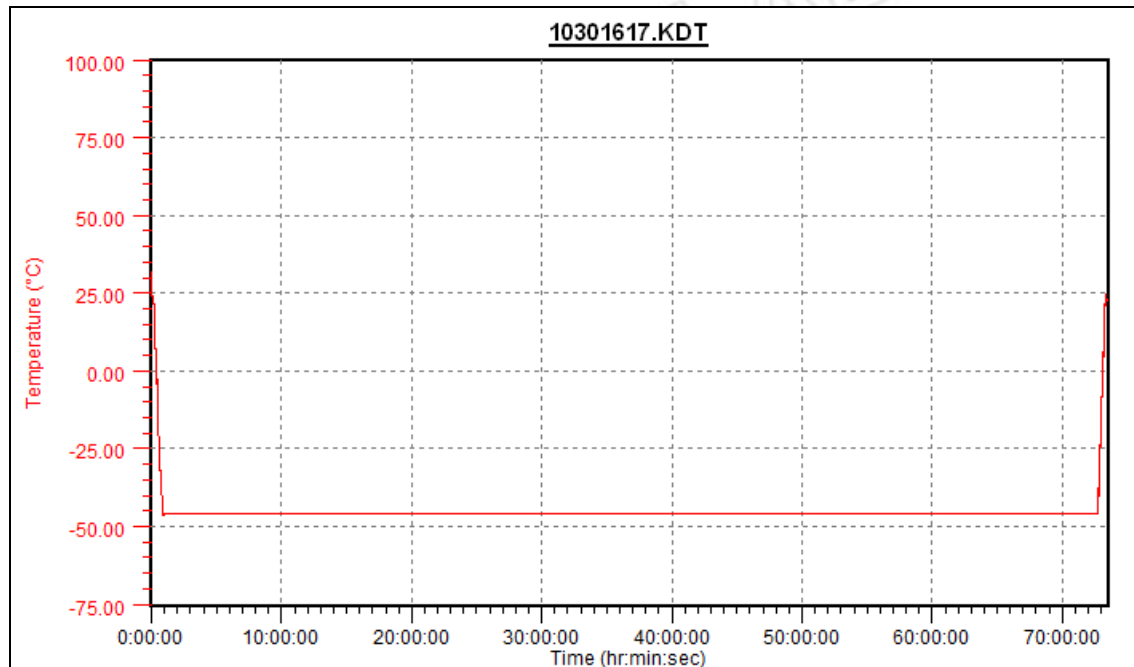


2 High Temperature Operation Test

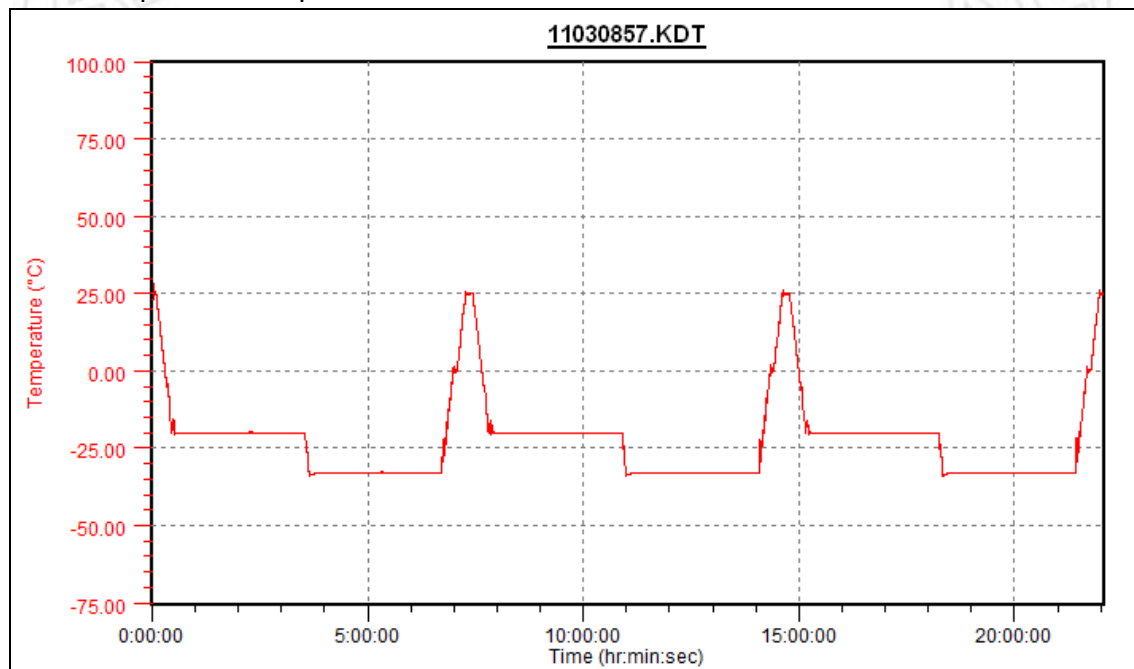




3 Low Temperature Storage Test



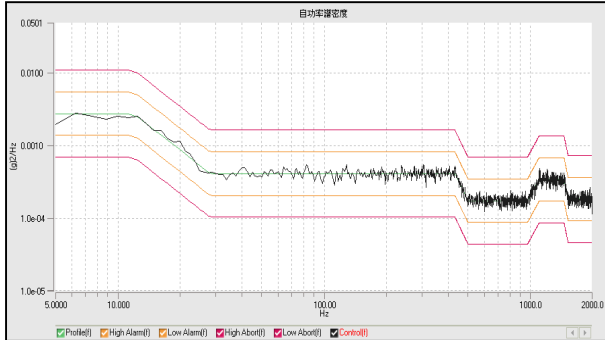
4 Low Temperature Operation Test



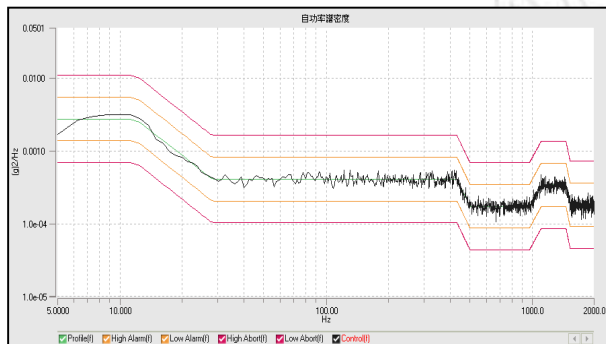


5 C-130(J/K) Aircraft Vibration Test

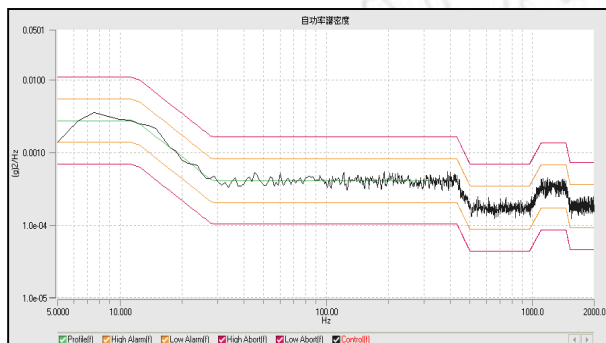
X axis



Y axis



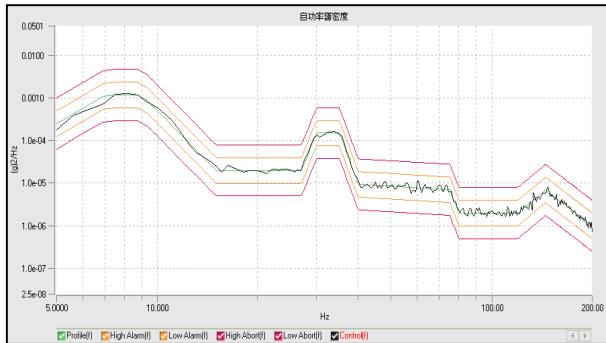
Z axis



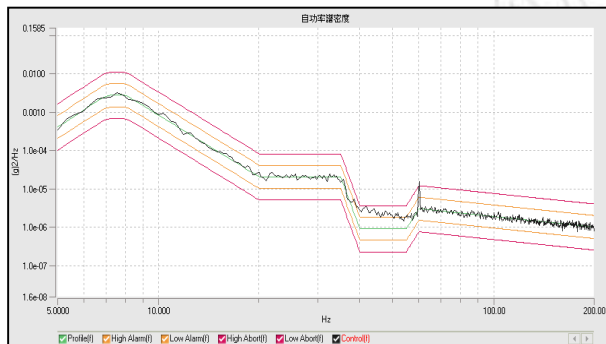


6 Functional Vibration Test

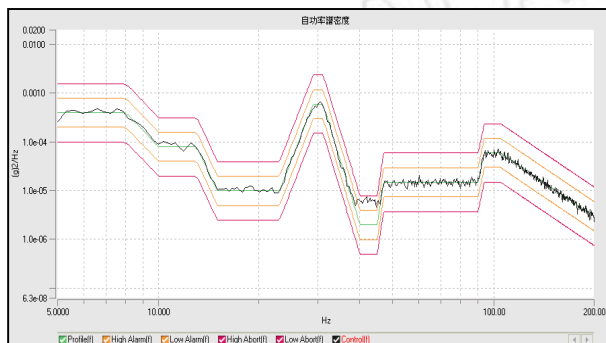
X axis



Y axis



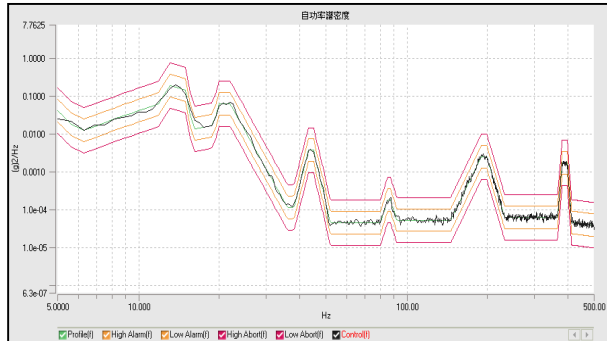
Z axis



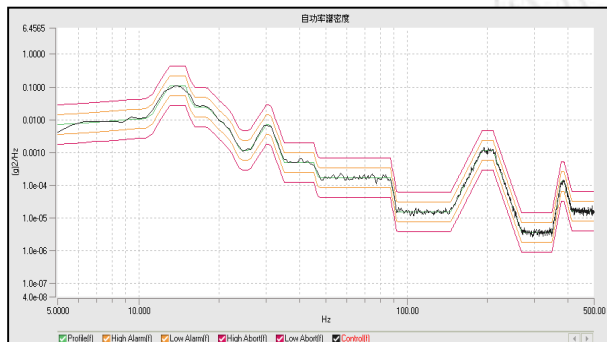


7 Tactical Transportation Vibration Test

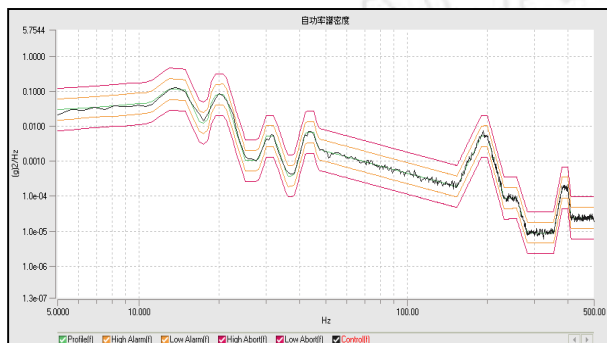
X axis



Y axis



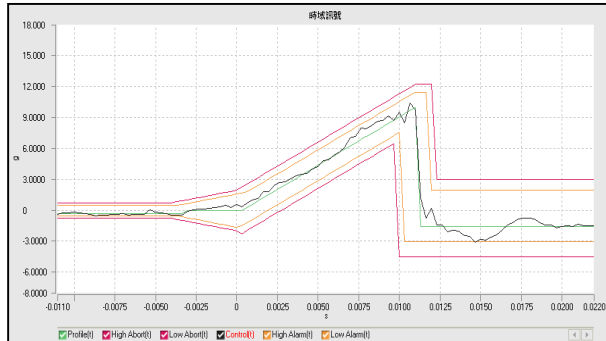
Z axis



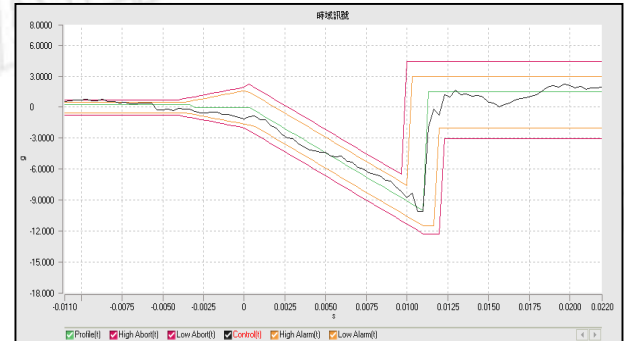


8 Road Transportation Shock Test

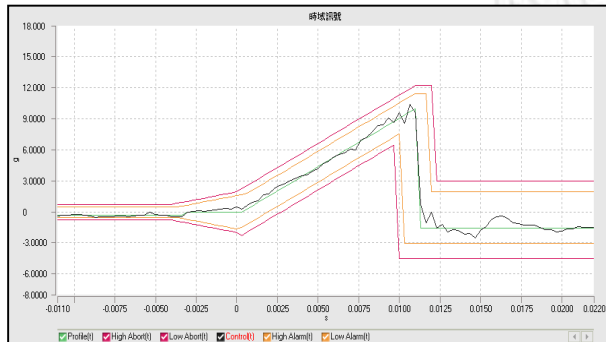
+X axis -1



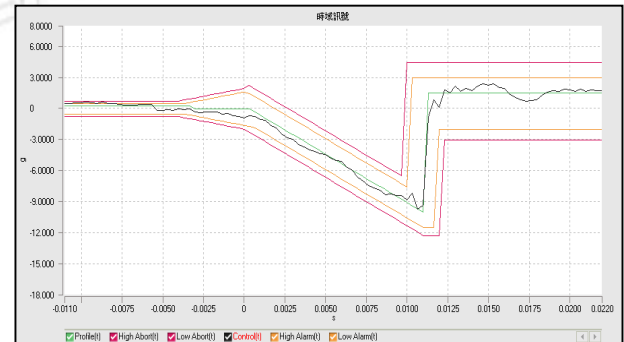
-X axis -1



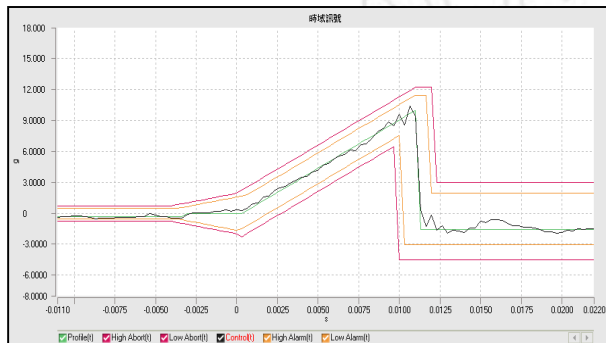
+X axis -2



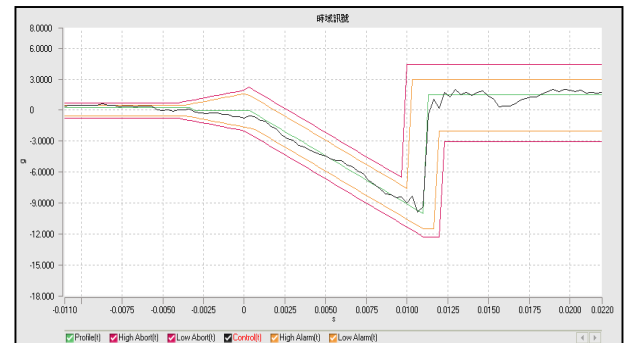
-X axis -2



+X axis -3

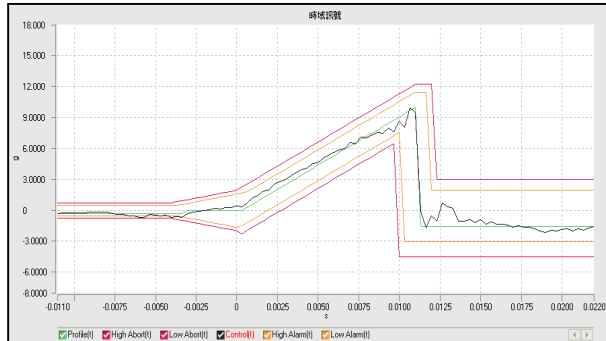


-X axis -3

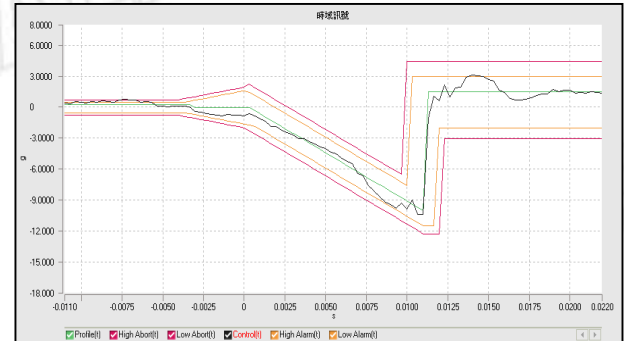




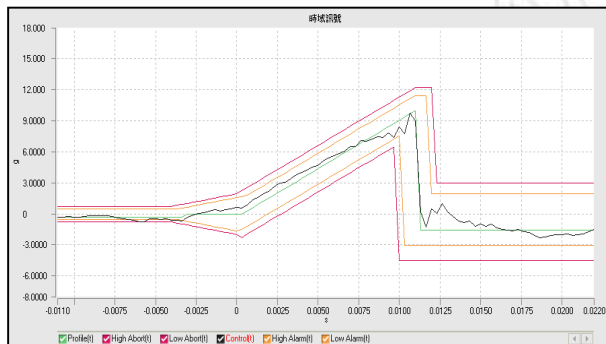
+Y axis -1



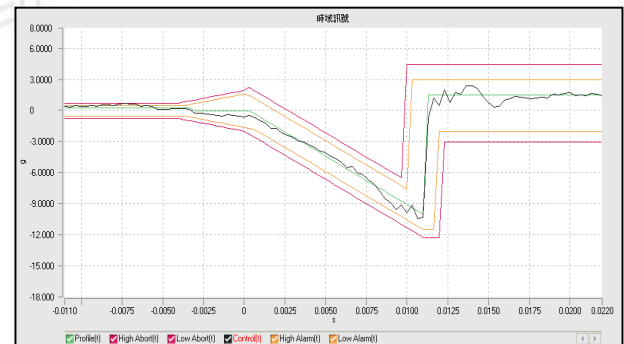
-Y axis -1



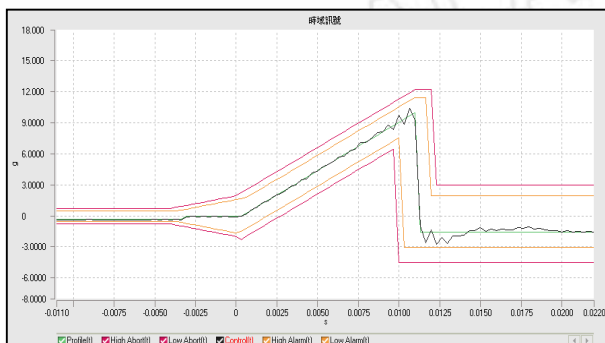
+Y axis -2



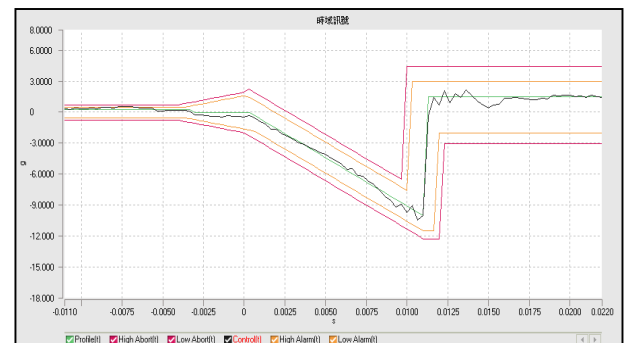
-Y axis -2



+Y axis -3

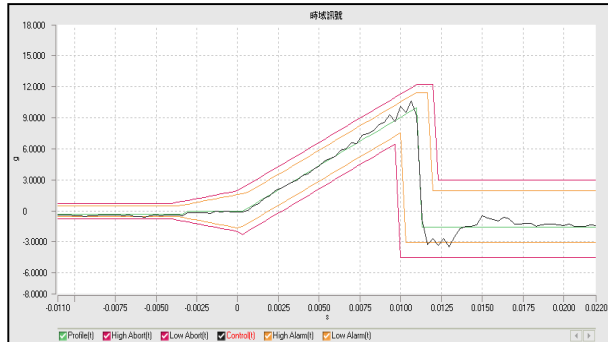


-Y axis -3

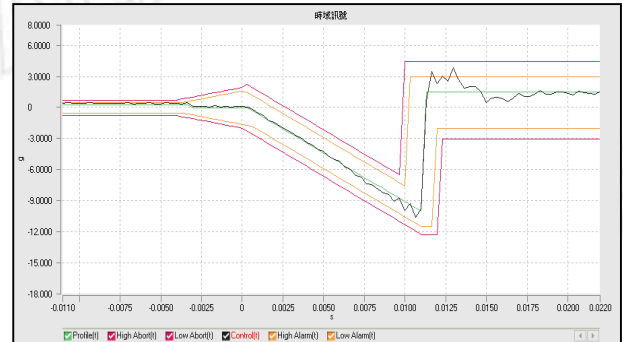




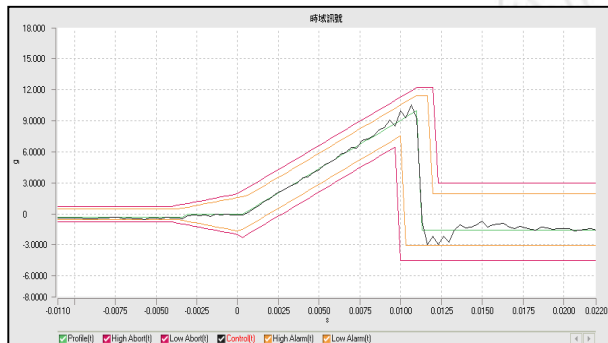
+Z axis -1



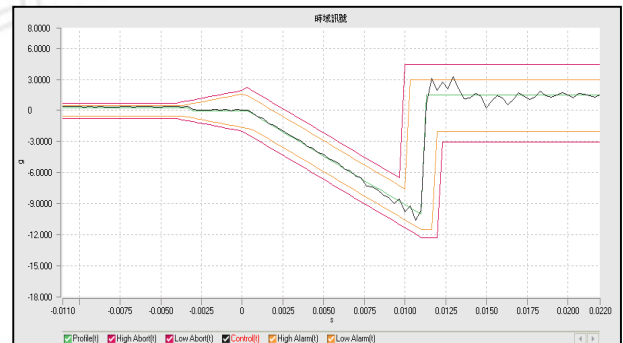
-Z axis -1



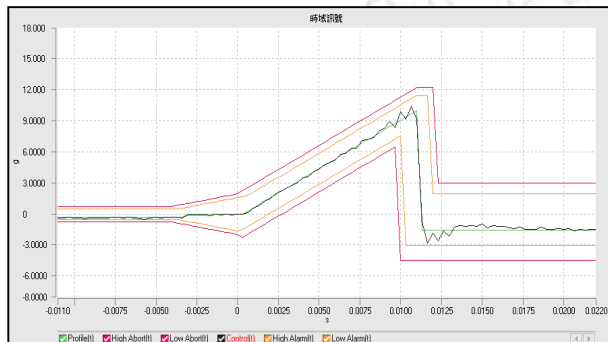
+Z axis -2



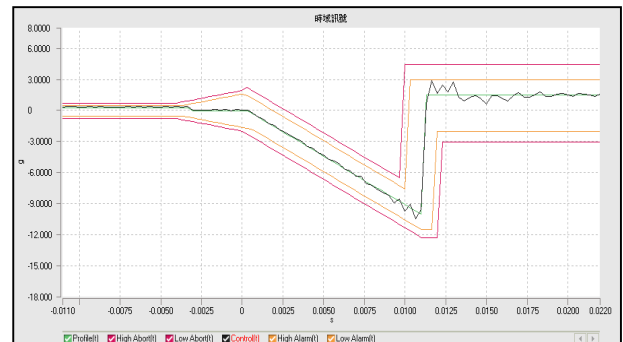
-Z axis -2



+Z axis -3



-Z axis -3



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