Reliability Report

Report Reference No. ..... :	WH-REL-S22081101
Tested by (name + signature) ..... :	Brandon Chiu
Approved by (name + signature)..... :	Tony H.
Date of issue..... :	2022-09-14
Contents..... :	29 pages
Testing laboratory	
Name..... :	WH Technology Corp.
Address..... :	7F., No.262, Sec. 3, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)
Testing location..... :	No.67-22, Baoxin St., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)
Applicant	
Name	Cermate Technologies Inc
Address..... :	7F.-1, No.168, Liancheng Rd. Zhonghe Dist.,New Taipei City 235, Taiwan (R.O.C.)
Test item	
Description ..... :	DVT stage
Model and/or type reference..... :	PM207, PM210
Trade name ..... :	N.A.

List of Attachments (including a total number of pages in each attachment):

- Photos documentation (2 pages)

Test Item

No.	Test Item	Test specification	Result	Remark
1	IP Test	IPX6	Pass	Water pollution
	IP Test	IP6X	Pass	Dust pollution
2	**Vibration test**	Vertical	Pass	(Z Axis)
	Vibration test	Transverse	Pass	(Y Axis)
	Vibration test	Longitudinal	Pass	(X Axis)

IP66 Test

Test Date: Sep. 01, 2022 ;
2. EUT: DVT stage

3. Test equipment :

Waterproof Test Chamber

Model: TM-980C S/N: 170203

Date of Calibration: 2022/02/08

Dust Tester chamber

Model: TM-975B S/N: T-170245

Date of Calibration: 2022/02/08

Test Standard: Reference IEC60529 Edition 2.1: 2001-02

Test Condition:

I. Test for protection against solid foreign objects (IEC60529 IP6X)
   1. Test method: Dust test
   2. Test area: Front panel
   3. System condition: Non-operation
   4. Type of dust: Talcum powder
   5. The amount of dust: 2kg/ m^3
   6. Test duration: Maximum depression is 2KPa. (20Mbar)
   7. Test duration: 8 hours

II. Test for protection against water (IEC60529 IPX6)
   1. Test method: Waterproof test
   2. Test area: Front panel
   3. System condition: Non-operation
   4. Internal diameter of the nozzle: 12.5mm
   5. Delivery rate: 100 liter/minute ±5%
   6. Distance from nozzle to enclosure surface: Between 2.5m and 3m.
   7. Test time: 3 minute

Sample Configuration & Quantity Under Test:

Model No. PM207, PM210

The model different is screen size.

Performance Criteria:

Visual check after test:

1. No water permeates into the enclosure.
2. No dust deposit inside the enclosure.

1. Test Date: Sep. 5, 2022
2. EUT: PM207, PM210
3. Test equipment : **Vibration test**
Model:FV203VT640
S/N:L2001003
Data of Calibration:2022/04/09

4. Test Standard: Reference IEC 61373：2010 Category 1- Class B- Body-mounted.

5. Test Condition:

1. Test Temperature: 25℃
2. Test Times: 1 hr
3. Test Frequency: (5-20Hz)
4. Test Axial: Vertical (Z Axis)
5. Test Amplitude: 1.00 m / s^2 RMS
6. Power Spectral Density: 0.030 $(m/s^2)^2$ /Hz (5 ~ 20 Hz)
   -6dB /octave（20 ~ 150 Hz）

6. Performance Criteria:

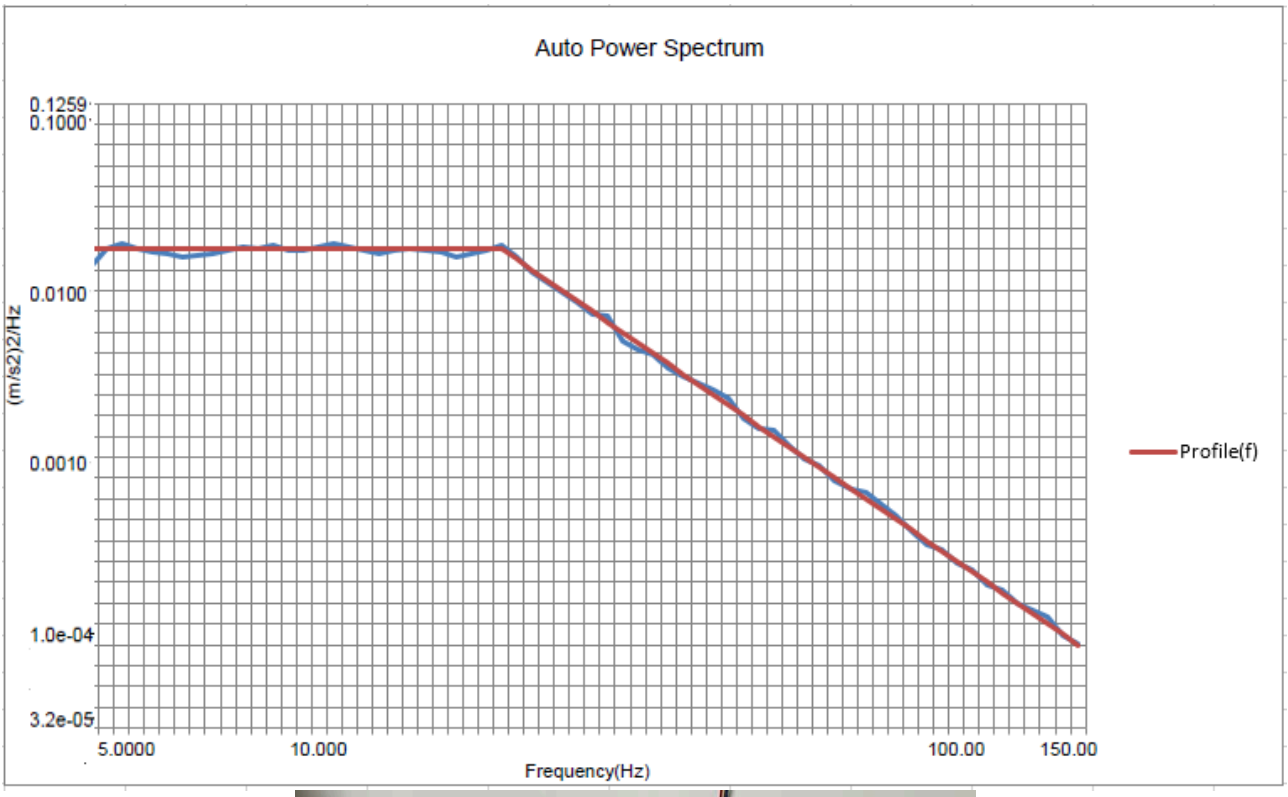
Mechanical function check:

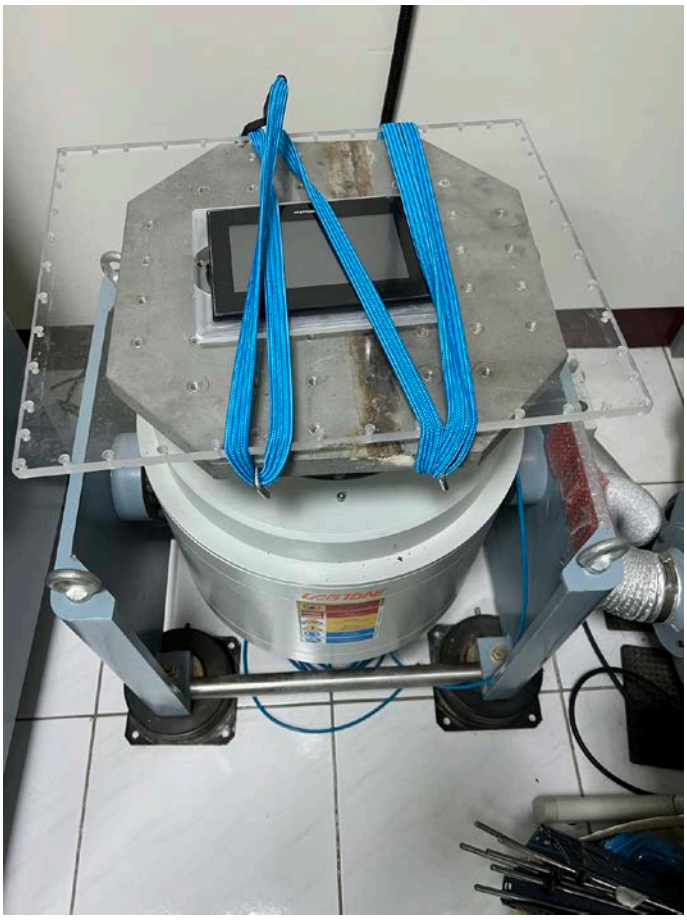
1. The connectors and components should work properly without any interference.
2. All screws should be tightened up appropriately.

7. Test Result:

There is no damage in electronic and mechanical functions. Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation

8. Spectrum (Z Axis)





9. **Test By: Brandon Chiu**

1. Test Date: Sep 05, 2022
2. EUT: PM207, PM210
3. Test equipment: **Vibration test**
Model:FV203VT640
S/N:L2001003
Data of Calibration:2022/04/09

4. Test Standard: Reference IEC 61373：2010 Category 1- Class B- Body-mounted.

5. Test Condition:

1. Test Temperature: 25℃
2. Test Times: 1 hr
3. Test Frequency: (5-20Hz)
4. Test Axial: Transverse (Y Axis)
5. Test Amplitude: 0.8 m / s^2 RMS
6. Power Spectral Density: 0.035 $(m/s^2)^2$ /Hz (5 ~ 20 Hz)
   -6dB /octave（20 ~ 150 Hz）

6. Performance Criteria:

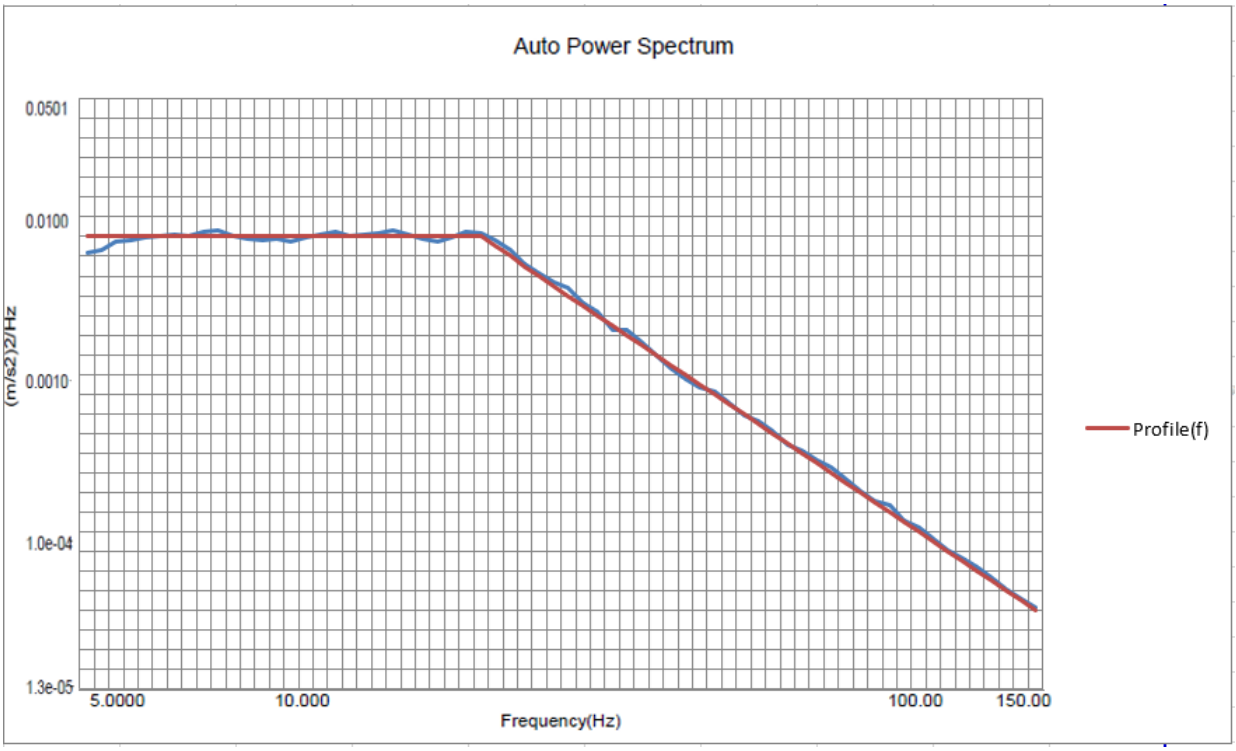
Mechanical function check:

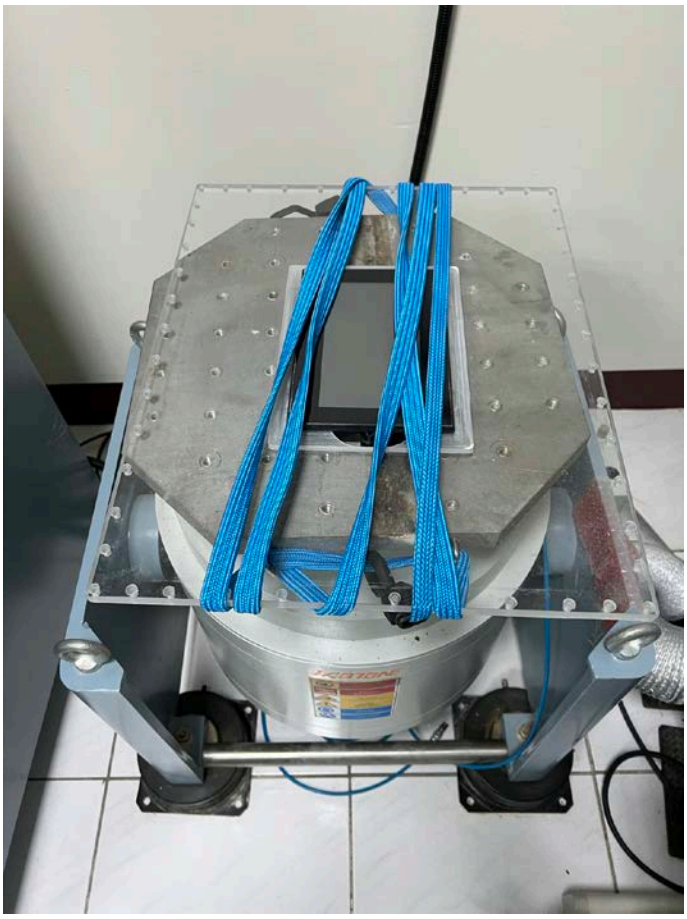
1. The connectors and components should work properly without any interference.
2. All screws should be tightened up appropriately.

7. Test Result:

There is no damage in electronic and mechanical functions. Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation

8. Spectrum (Y Axis)





9. **Test By: Brandon Chiu**

1. Test Date: Oct 28, 2022
2. EUT: PM207, PM210
3. Test equipment: **Vibration test**
Model:FV203VT640
S/N:L2001003
Data of Calibration:2020/04/09

4. Test Standard: Reference IEC 61373：2010 Category 1- Class B- Body-mounted.

5. Test Condition:

1. Test Temperature: 25℃
2. Test Times: 1 hr
3. Test Frequency: (5-20Hz)
4. Test Axial: Longitudinal (X Axis)
5. Test Amplitude: 0.8 m / s^2 RMS
6. Power Spectral Density: 0.035 $(m/s^2)^2$ /Hz (5 ~ 20 Hz)
   -6dB /octave（20 ~ 150 Hz）

6. Performance Criteria:

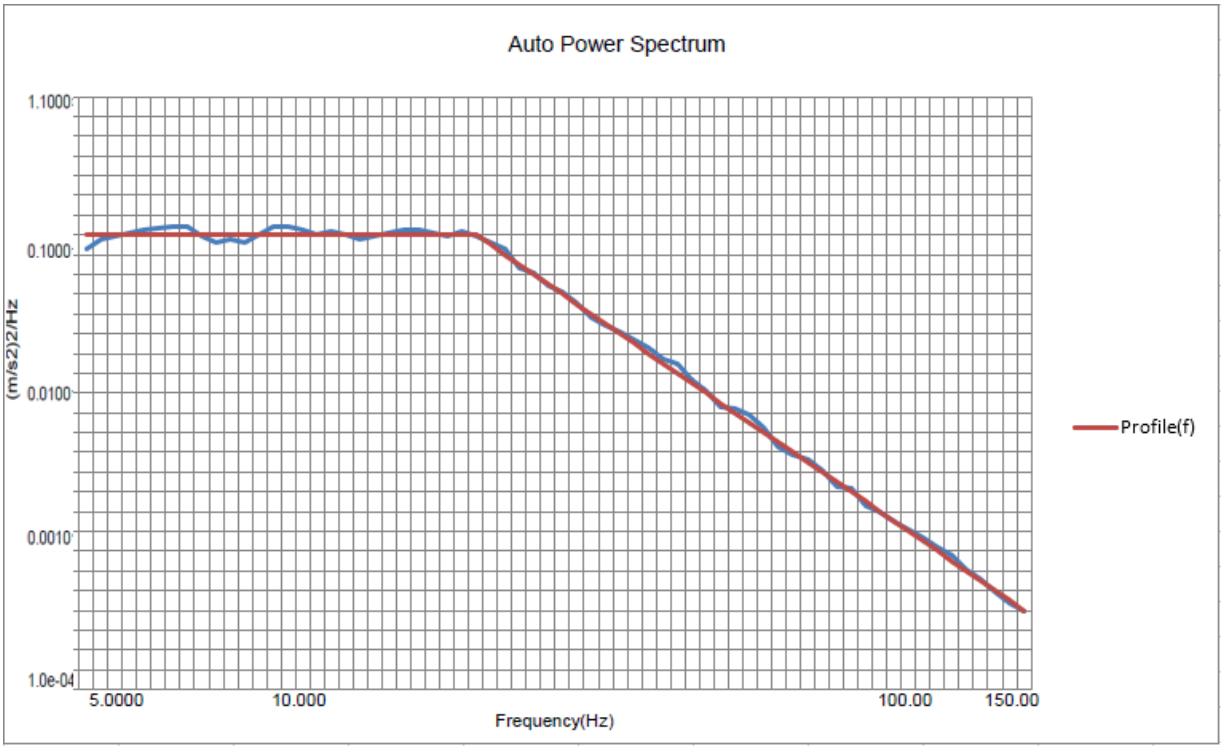
Mechanical function check:

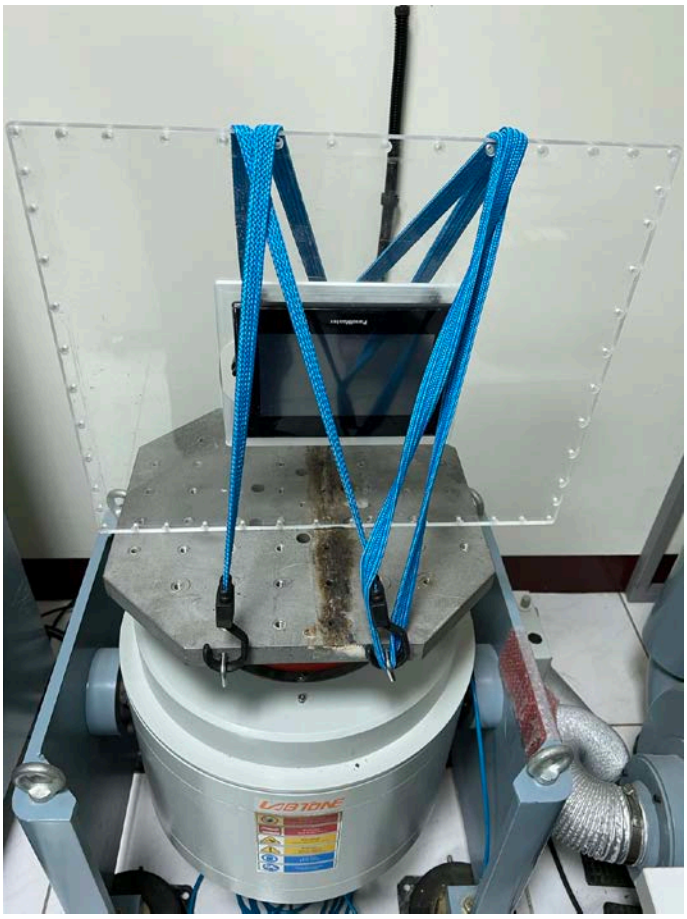
1. The connectors and components should work properly without any interference.
2. All screws should be tightened up appropriately.

7. Test Result:

There is no damage in electronic and mechanical functions. Degradation has not been found.
Performance is maintained with no incurable physical damage or degradation

8. Spectrum (X Axis)





9. **Test By: Brandon Chiu**