

# TEST REPORT



## CTK Co., Ltd.

5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si,  
Gyeonggi-do, Republic of Korea  
Tel: +82-31-339-9970  
Fax: +82-31-624-9501

REPORT No.:  
CTK-2023-02240  
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### 1. Applicant

◦ Name : Hanwha Vision Co., Ltd  
◦ Address : 6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si,  
Gyeonggi-do, 13488 KOREA  
◦ Date of Receipt : 2022-09-01

### 2. Manufacturer

◦ Name : Hanwha Vision Co., Ltd

### 3. Use of Report

: Quality control

### 4. Test sample / Model

: NETWORK CAMERA / XNP-C6403R

### 5. Date(s) of test

: 2023-10-12 to 2023-10-15

### 6. Location of Test

: ☒ Permanent Testing Lab ☐ On Site Testing

Address: (5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea)

### 7. Test Standard (Method) used

: Specifications presented by the sponsor  
(reference NEMA TS 2.2.8)

### 8. Testing Environment

: Temperature: (20.0 ± 1.0) °C,  
Humidity: (50.0 ± 1.0) %R.H.

### 9. Test Results

: Refer to each test items

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.  
This Test Report cannot be reproduced, except in full.

Affirmation	Tested by	Technical Manager
	Min-Gi Mun (Signature)	SooChan Bae (Signature)

Remark, This report is not related to KOLAS accreditation and relevant regulation.

2023-10-18

CTK Co., Ltd.



## 1. Resonant search

### 1.1. Test equipment

Test equipment	Model	manufacturer	Serial
VIBRATION TESTING SYSTEM	LT1010	FAMTECH	D2012335
Vibration VIEW	Vibration Research Corp.	2020.2.11 Unicode	9558306F
VIBRATION TESTING SYSTEM	LTT1515	FAMTECH	D2012334
Vibration VIEW	Vibration Research Corp.	2020.2.11 Unicode	955858B9, 95587FD9
Acceleration sensor	8703A250M5	KISTLER	5241941
Acceleration sensor	8703A250M5	KISTLER	5241944

### 1.2. Test condition

- 1) With the test unit securely fastened to the test table, set the test table for a double amplitude displacement of 0.015 inch.
- 2) Cycle the test table over a search range from 5 to 30 Hz and back within a period of 12.5 minutes.
- 3) Conduct the resonant frequency search in each of the three mutually perpendicular planes.
- 4) Note and record the resonant frequency determined from each plane.
  - a. In the event of more than one resonant frequency in a given plane, record the most severe a. resonance.
  - b. If resonant frequencies appear equally severe, record each resonant frequency.
  - c. If no resonant frequency occurs for a given plane within the prescribed range, 30 Hz shall be recorded.

### 1.3. Test Result

Axis	Resonance check	Recorded
X	none	30 Hz
Y	1 Point	13.75 Hz
Z	2 Point	27.14 / 27.41Hz

## 2. Endurance Test

### 2.1. Test equipment

Test equipment	Model	manufacturer	Serial
VIBRATION TESTING SYSTEM	LT1010	FAMTECH	D2012335
Vibration VIEW	Vibration Research Corp.	2020.2.11 Unicode	9558306F
VIBRATION TESTING SYSTEM	LTT1515	FAMTECH	D2012334
Vibration VIEW	Vibration Research Corp.	2020.2.11 Unicode	955858B9, 95587FD9
Acceleration sensor	8703A250M5	KISTLER	5241941

### 2.2. Test condition


1. Vibrate the test unit in each plane at its resonant frequency for a period of 1 hour at an amplitude resulting in 0.5 g acceleration. (test profile)
2. When more than one resonant frequency has been recorded in accordance with Section 1.2 Item 4, the test period of 1 hour shall be divided equally between the resonant frequencies.
3. The total time of the endurance test shall be limited to 3 hours, 1 hour in each of three mutually perpendicular planes.

### 2.3. Check Item

- No mechanical damage.

### 2.4. Test Result

- Pass

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## Manufacturer's name

Name and address of factory (ies)	1) HANWHA VISION VIETNAM COMPANY LIMITED Lot O-2, Que Vo Industrial Zone extended area, Nam Son commune, Bac Ninh city, Bac Ninh province, Vietnam  2) D-TECH CO.,LTD. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, Korea (Suwon Industrial Complex)
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## Model description

Basic Model .....:	XNP-C6403R
Series model .....:	XNP-C6403
Model differences .....:	Use of the same external shape and materials (case, finishing material, PCB, cable, etc.), differences in electronic parts inside the product.

### 3. APPENDIX


#### 3.1. Product Photographs

< Photo 1 > Product External view



< Photo 2 > Product External view



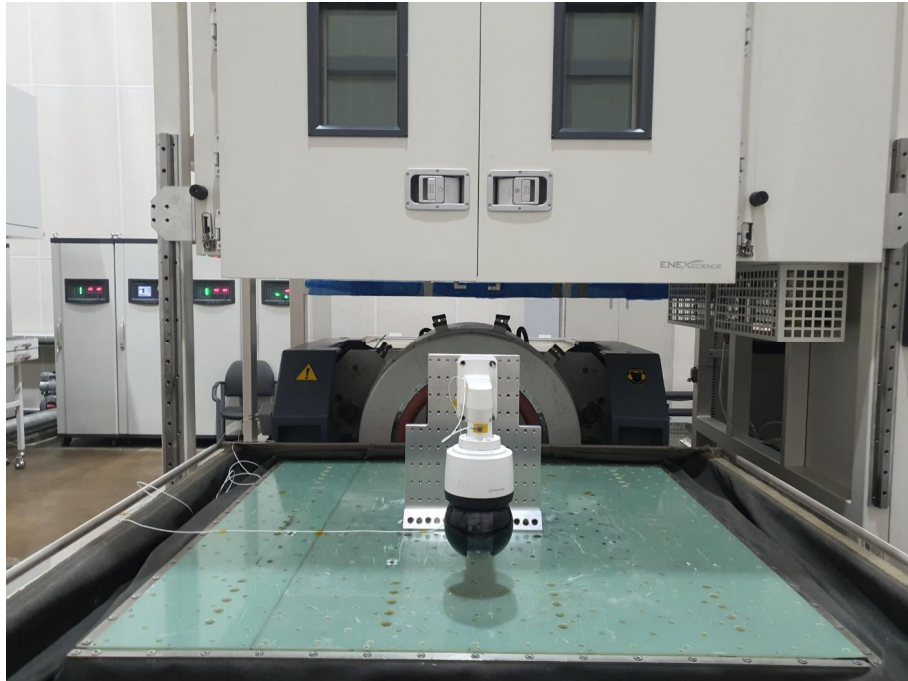
 <p><b>CTK Co., Ltd.</b> The Prime Leader of Global Regulatory Certification</p>	<p><b>CTK Co., Ltd.</b> 5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea Tel: +82-31-339-9970 Fax: +82-31-624-9501</p>	<p>REPORT No.: CTK-2023-02240 Page (7) / (16) pages</p>	
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< Photo 3 > Product label

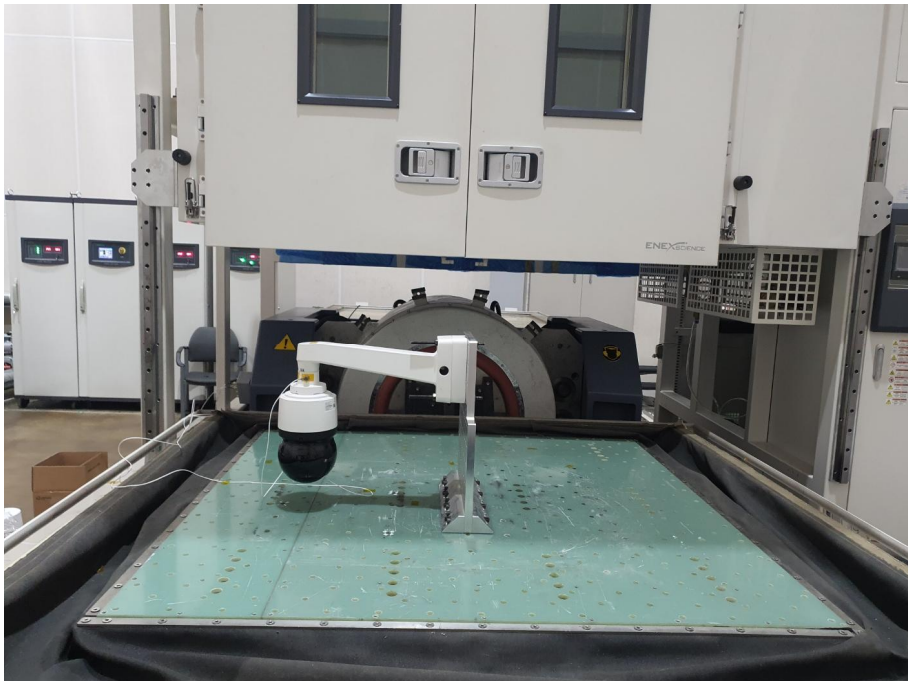


### 3.2. Test Setup Photos and Configuration

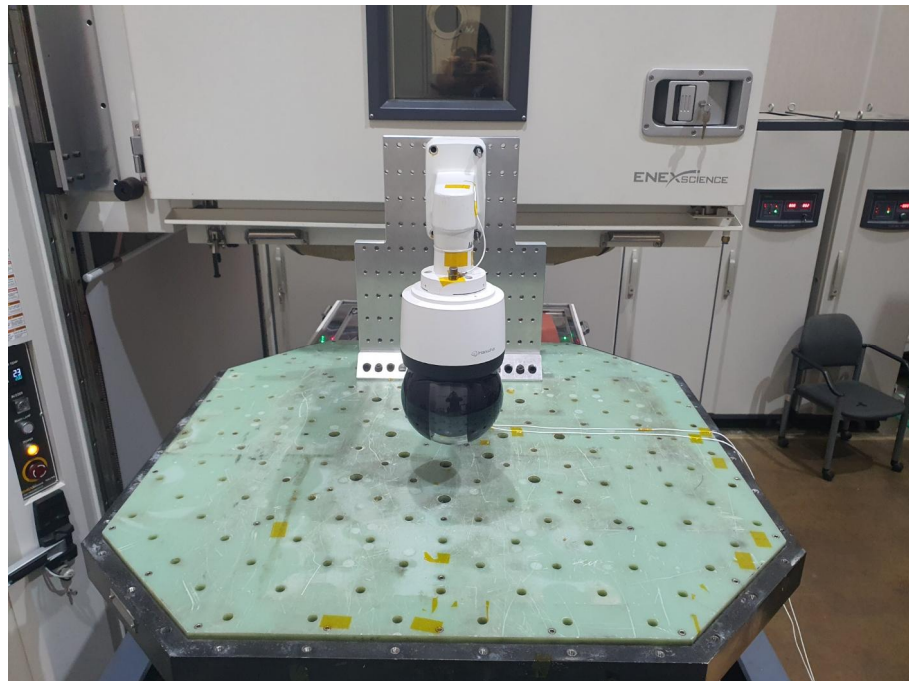
[X axis]



[Y axis]

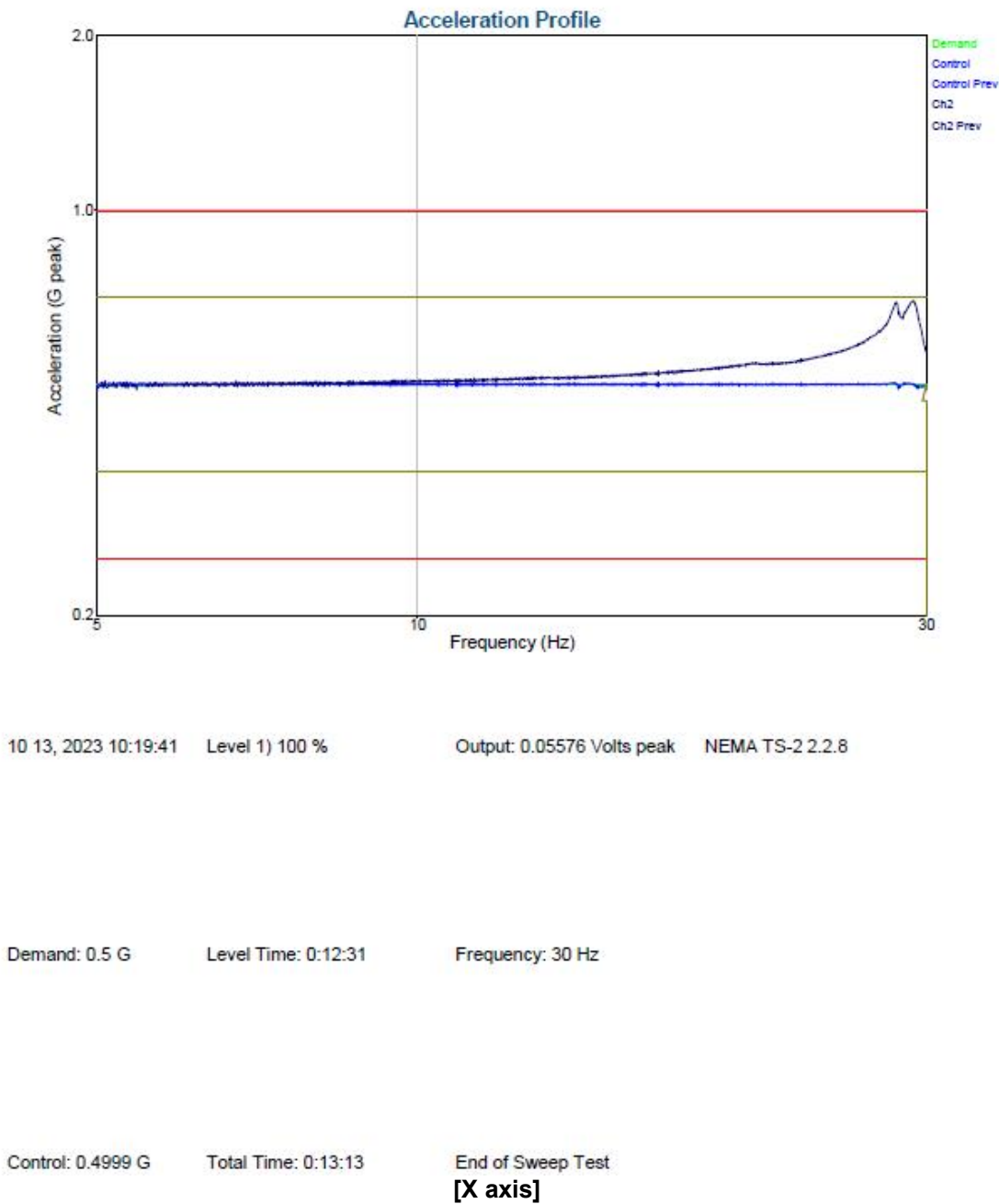


[Z axis]

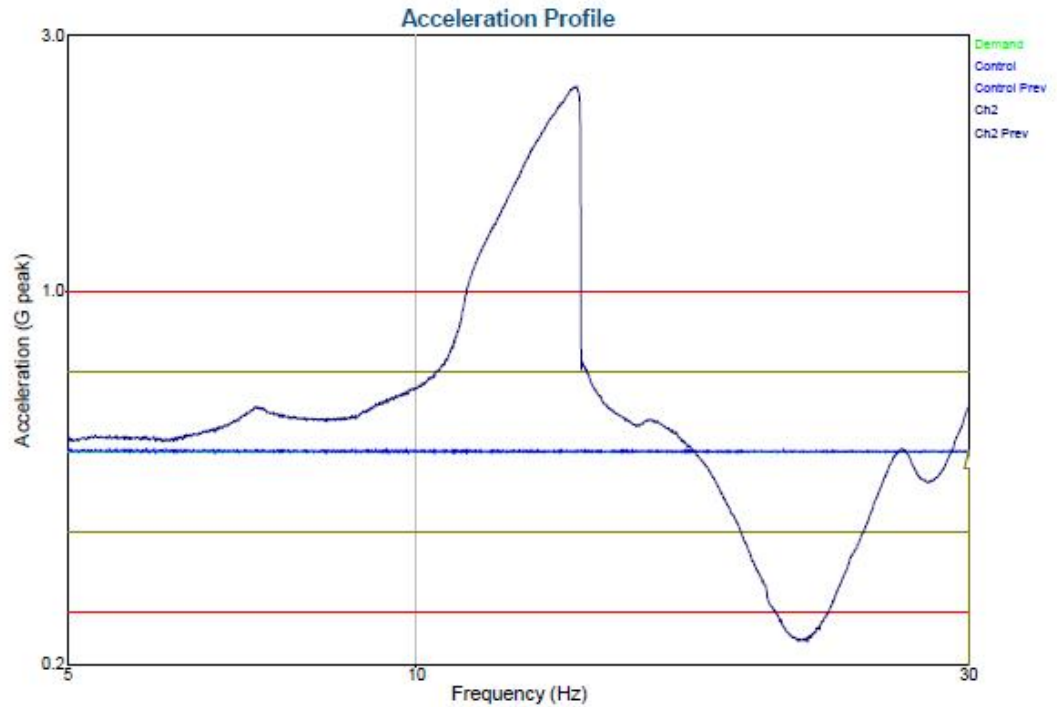


3.3. Data

[Resonant search]



[Resonant search]



10 14, 2023 15:33:56 Level 1) 100 %

Output: 0.06315 Volts peak NEMA TS-2 2.2.8

Demand: 0.5 G

Level Time: 0:12:30

Frequency: 30 Hz

Control: 0.5009 G

Total Time: 0:12:42

End of Sweep Test

[Y axis]



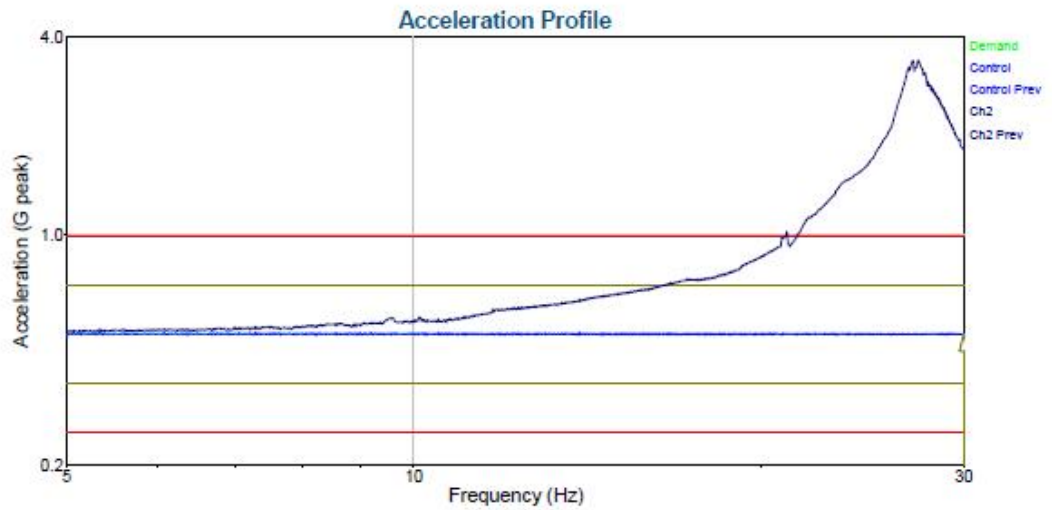
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### [Resonant search]



10 15, 2023 16:19:37 Level 1) 100 %

Output: 0.03435 Volts peak NEMA TS-2 2.2.8

Demand: 0.5 G

Level Time: 0:12:30

Frequency: 30 Hz

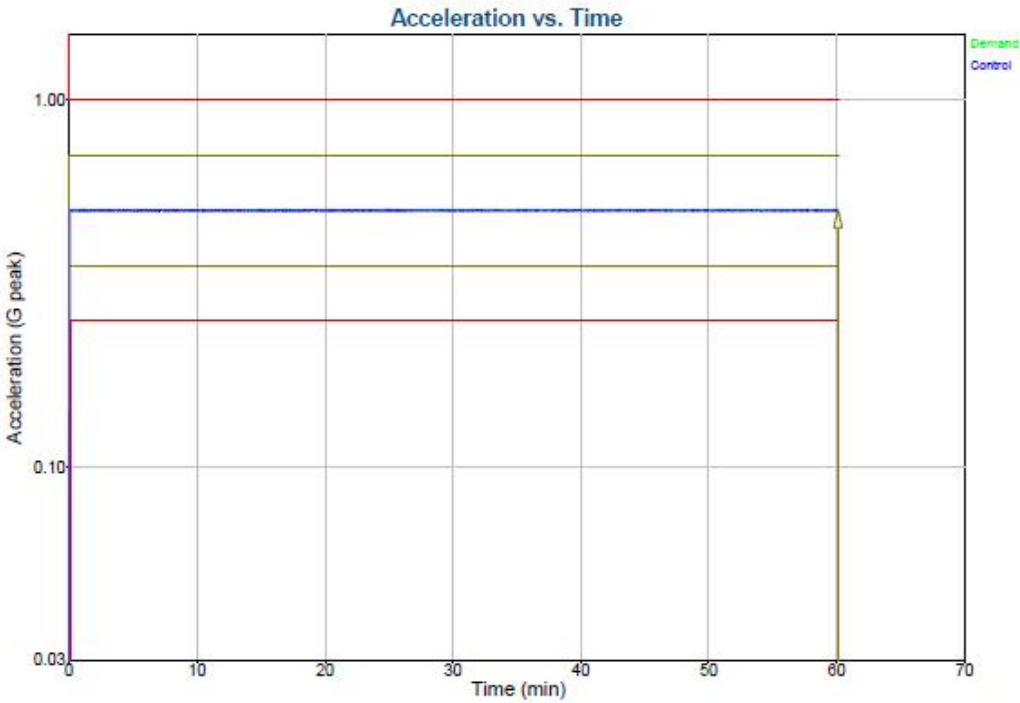
Control: 0.5 G

Total Time: 0:12:41

End of Sweep Test

### [Z axis]

[Endurance Test]



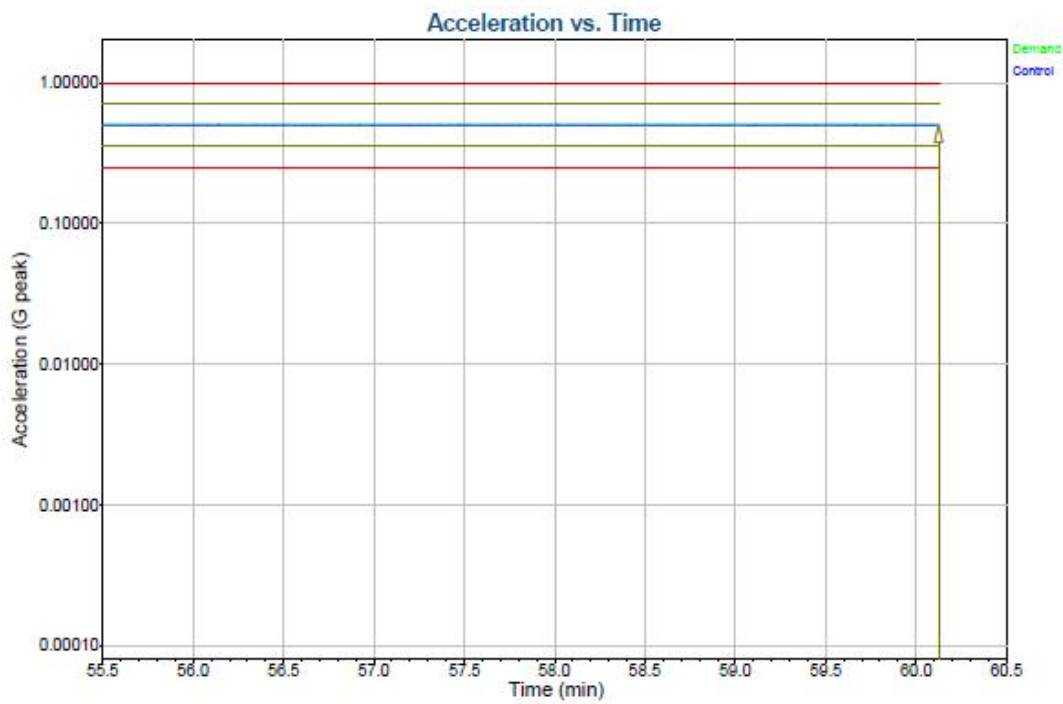
10 13, 2023 11:23:37    Level 1) 100 % at previous frequency    Demand: 0.06495 Volts peak    NEMA TS-2 2.2.8 규정

Demand: 0.5 G                      Level Time: 1:00:00                      Frequency: 30 Hz

Control: 0.5004 G                      Total Time: 1:00:08                      End of Timed Test

[X axis]

[Endurance Test]



10/14/2023 16:54:36    Level 1) 100 % at previous frequency    Demand: 0.05764 Volts peak    NEMA TS-2 2.2.2.8 규정

Demand: 0.5 G    Level Time: 1:00:00    Frequency: 13.75 Hz

Control: 0.4974 G    Total Time: 1:00:07    End of Timed Test

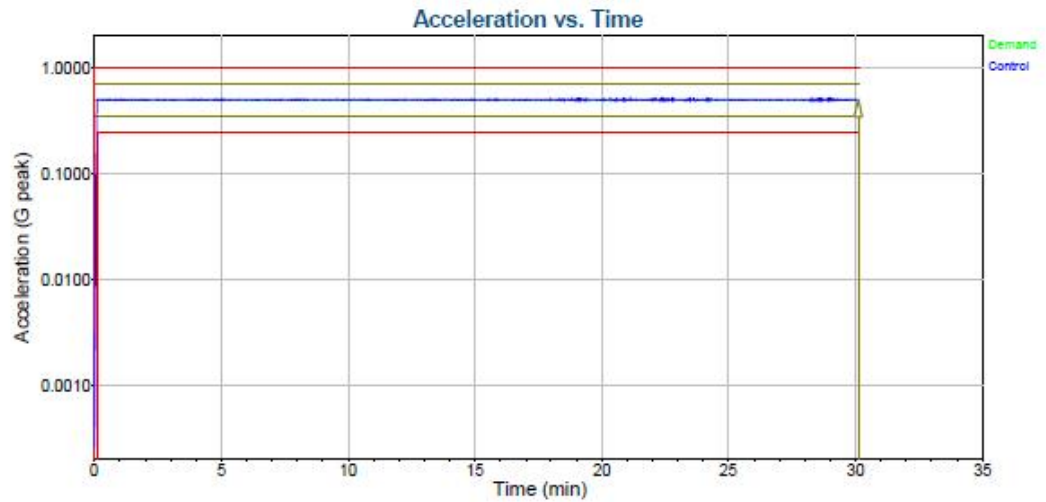
[Y axis]



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**[Endurance Test]**



10 15, 2023 16:56:53

Level 1) 100 %

Output: 0.03881 Volts peak

NEMA TS-2 2.2.8 내구

Demand: 0.5 G

Level Time: 0:30:00

Frequency: 27.14 Hz

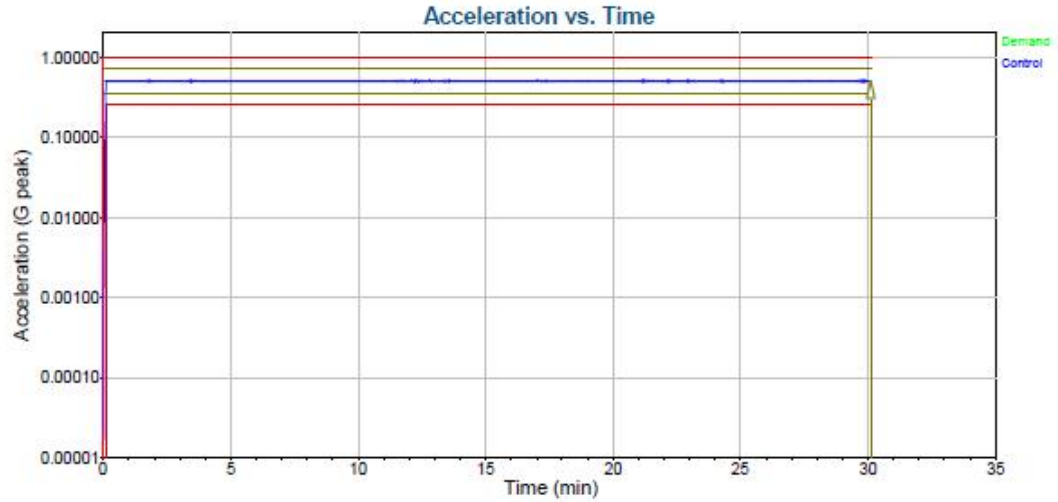
Control: 0.4988 G

Total Time: 0:30:07

End of Timed Test

**[Z axis]**

**[Endurance Test]**



10 15, 2023 17:41:39

Level 1) 100 %

Output: 0.03858 Volts peak

NEMA TS-2 2.2.8 내구

Demand: 0.5 G

Level Time: 0:30:00

Frequency: 27.41 Hz

Control: 0.499 G

Total Time: 0:30:07

End of Timed Test

**[Z axis]**

- End -