


TEST REPORT

 CTK Co., Ltd. <small>The Prime Leader of Global Regulatory Certification</small>	CTK Co., Ltd. (Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-shi Gyeonggi-do KOREA, REPUBLIC OF Tel: +82-31-339-9970 Fax: +82-31-624-9501	Report No.: CTK-2020-04439 Page (1) / (20) pages	
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1. Applicant

Name : Hanwha Techwin Co., Ltd.
 Address : 6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
 Date of Receipt : 2020-11-06

2. Manufacturer

Name : Hanwha Techwin Co., Ltd.

3. Use of Report :

Quality control

4. Test sample / Model :

NETWORK CAMERA / XNP-6400R

5. Date(s) of test :

2020-11-12 to 2020-11-13

6. Test Standard (Method) used :

Specifications presented by the sponsor
(reference NEMA TS 2.2.8, 2.2.9)



7. Testing Environment :

Temperature: (25.0 ± 10.0) °C, Humidity: (50 ± 25) %R.H.,
 Air Pressure: (96.0 ± 10.0) kPa

8. Results :

Reference test results


The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
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Approval	Tested by: WonHyeon Choi  (Signature)	Technical Manager: YenHwang Jung  (Signature)
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2020-11-13

CTK Co., Ltd.



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Model description

Basic Model	XNP-6400R
Series model	XNP-6400
Model differences	Use of the same external shape and materials (case, finishing material, PCB, cable, etc.), differences in electronic parts inside the product.

1. Resonant search

1.1. Test equipment


Test equipment	Model	manufacturer	Serial
Vibration testing system	GT1000M	FAMTECH	D1803072-1
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	30Hz
Y	none	30Hz
Z	none	30Hz

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2. Endurance Test

2.1. Test equipment

Test equipment	Model	manufacturer	Serial
Vibration testing system	GT1000M	FAMTECH	D1803072-1
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

3. Shock

3.1. Test equipment

Test equipment	Model	manufacturer	Serial
Vibration testing system	GT1000M	FAMTECH	D1803072-1
Acceleration sensor	8703A250M5	KISTLER	5241941

3.2. Test condition

- Acceleration : 10 G
- Test axis : $\pm X$, $\pm Y$, $\pm Z$
- Number of impacts : 1 per direction (total 6)

3.3. Check Item

- No mechanical damage.

3.4. Test Result

- Pass

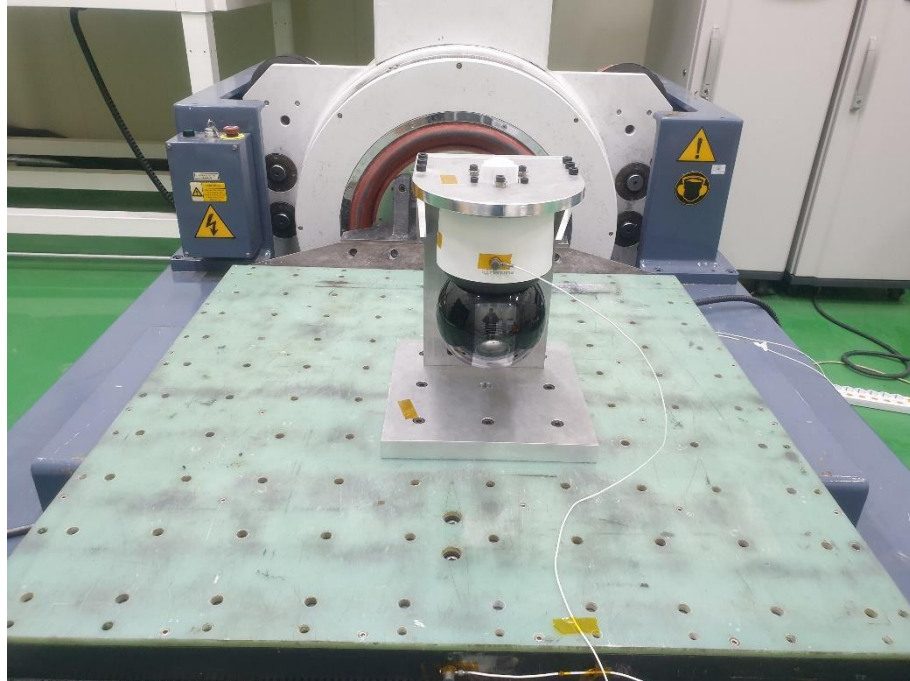
4. APPENDIX

4.1. Products

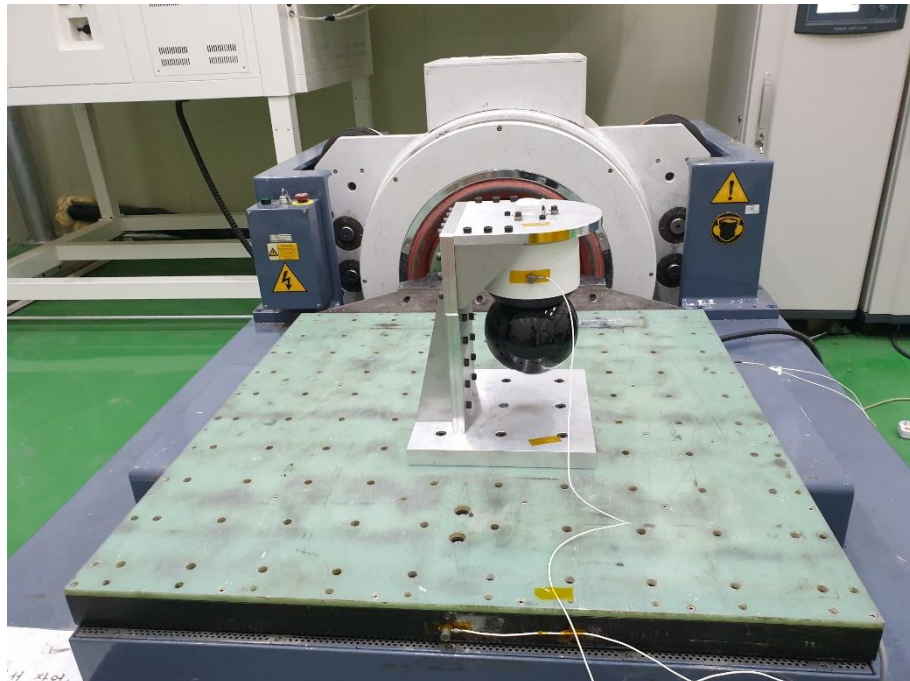


4.2. Test photos

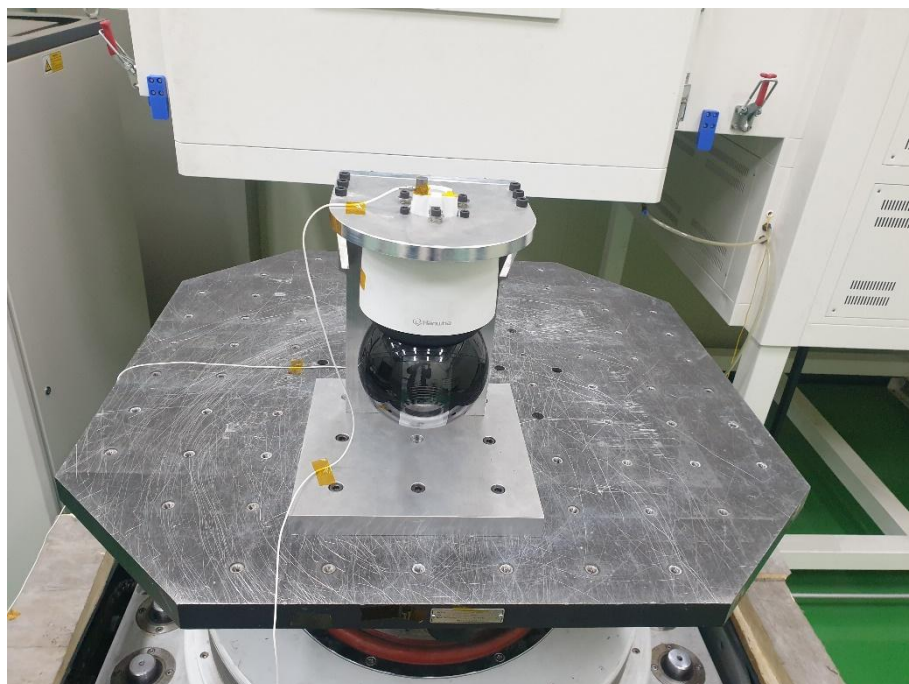
[X axis]



[Y axis]

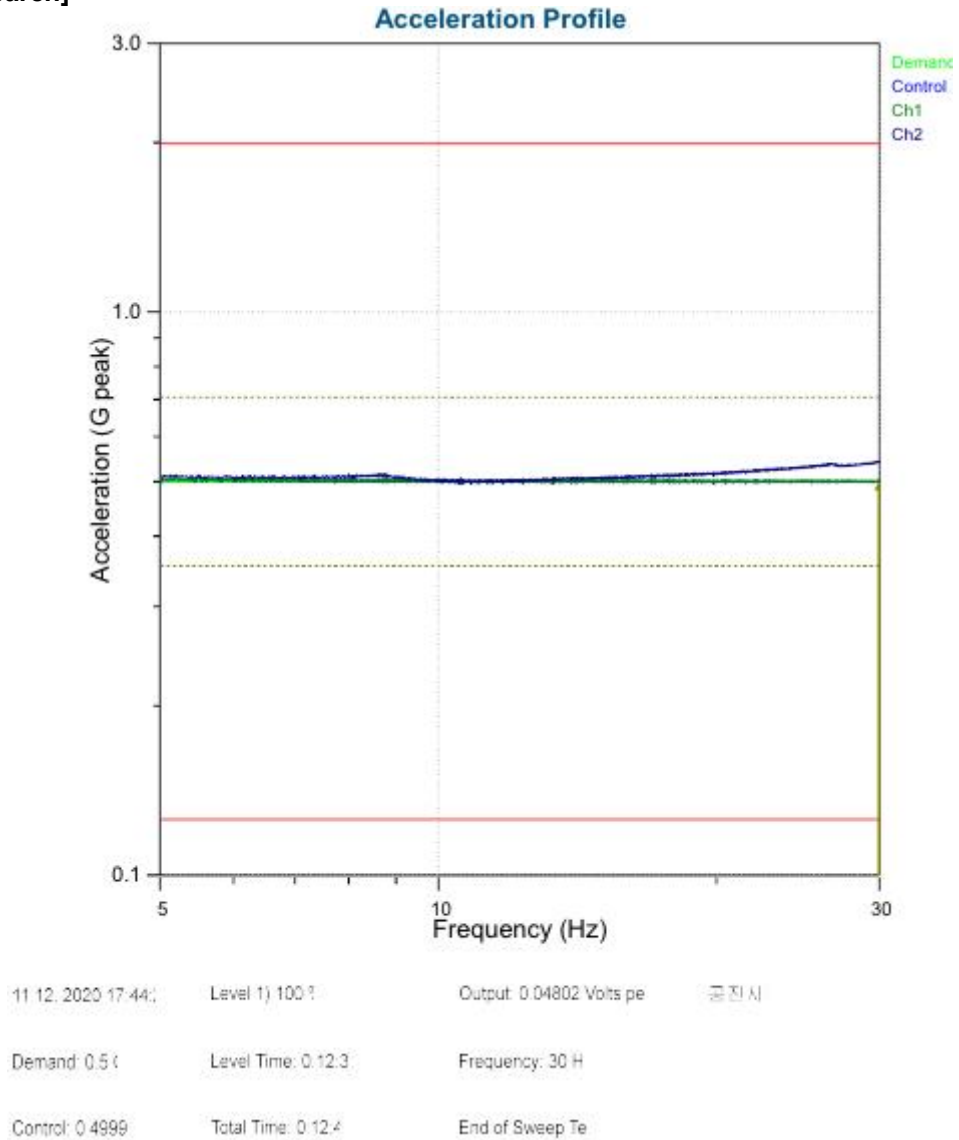


[Z axis]

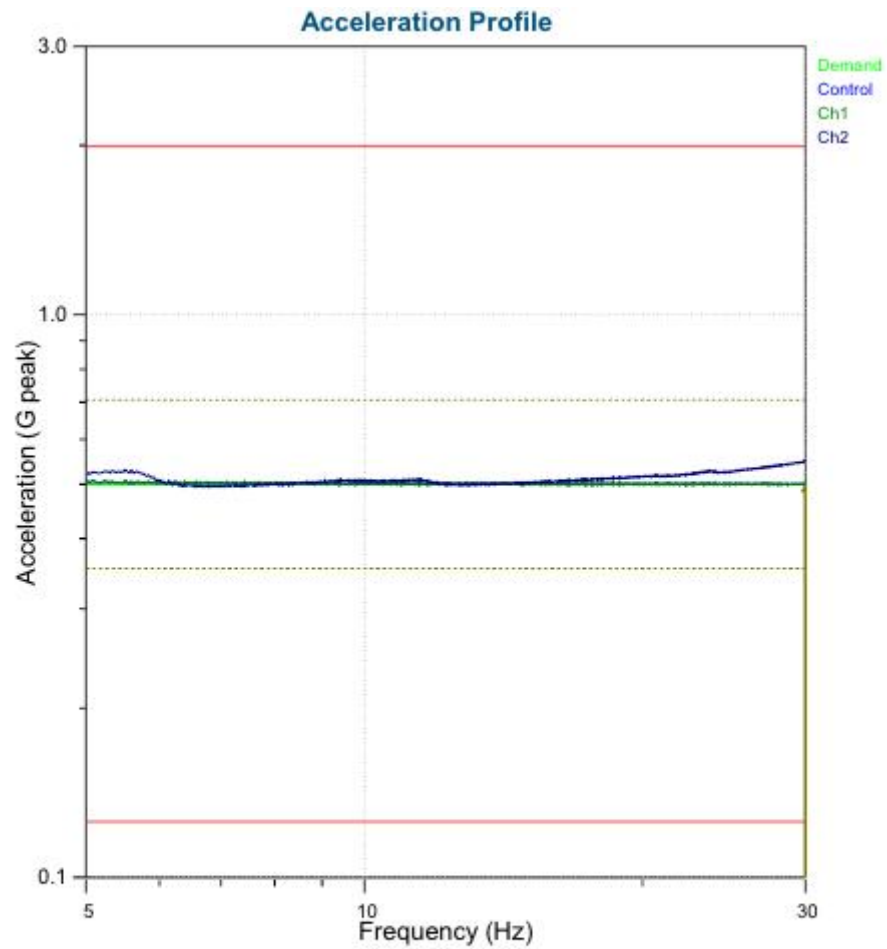


4.3. Data

[Resonant search]

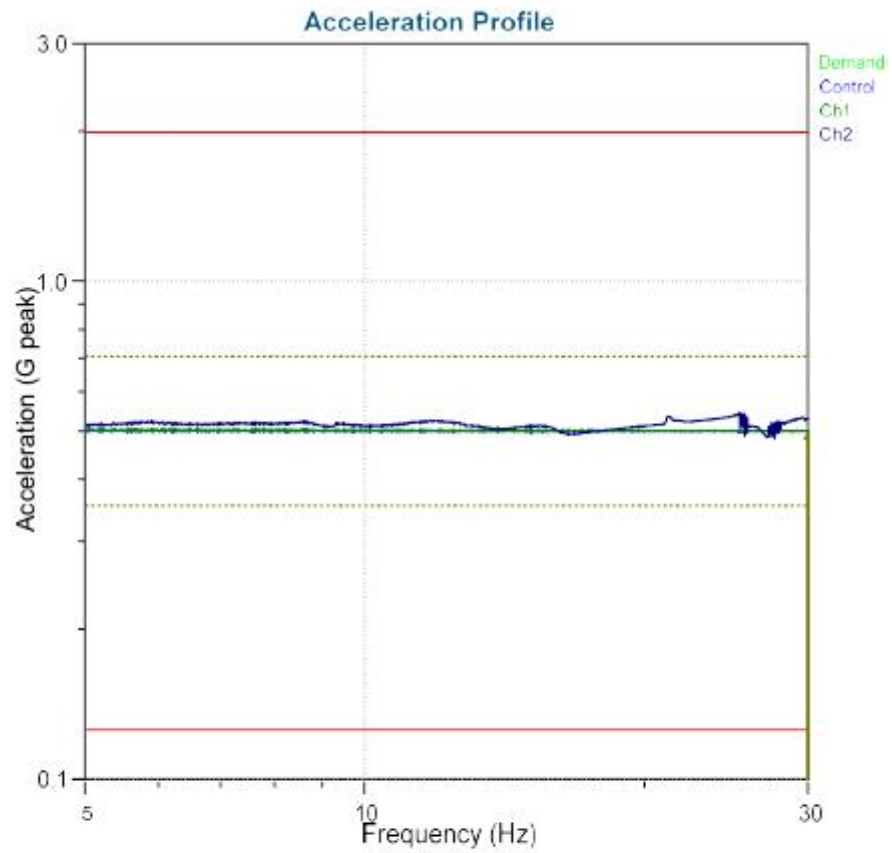


[X axis]



11/12/2020 16:18:	Level 1) 100%	Output: 0.04773 Volts pe	공진시
Demand: 0.5 G	Level Time: 0.12.3	Frequency: 30 Hz	
Control: 0.5011	Total Time: 0.12.4	End of Sweep Test	

[Y axis]



11/13/2020 09:34:5 Level 1) 100 %

Output: 0.04842 Volts per 공진시

Demand: 0.5 G

Level Time: 0:12:3

Frequency: 30 Hz

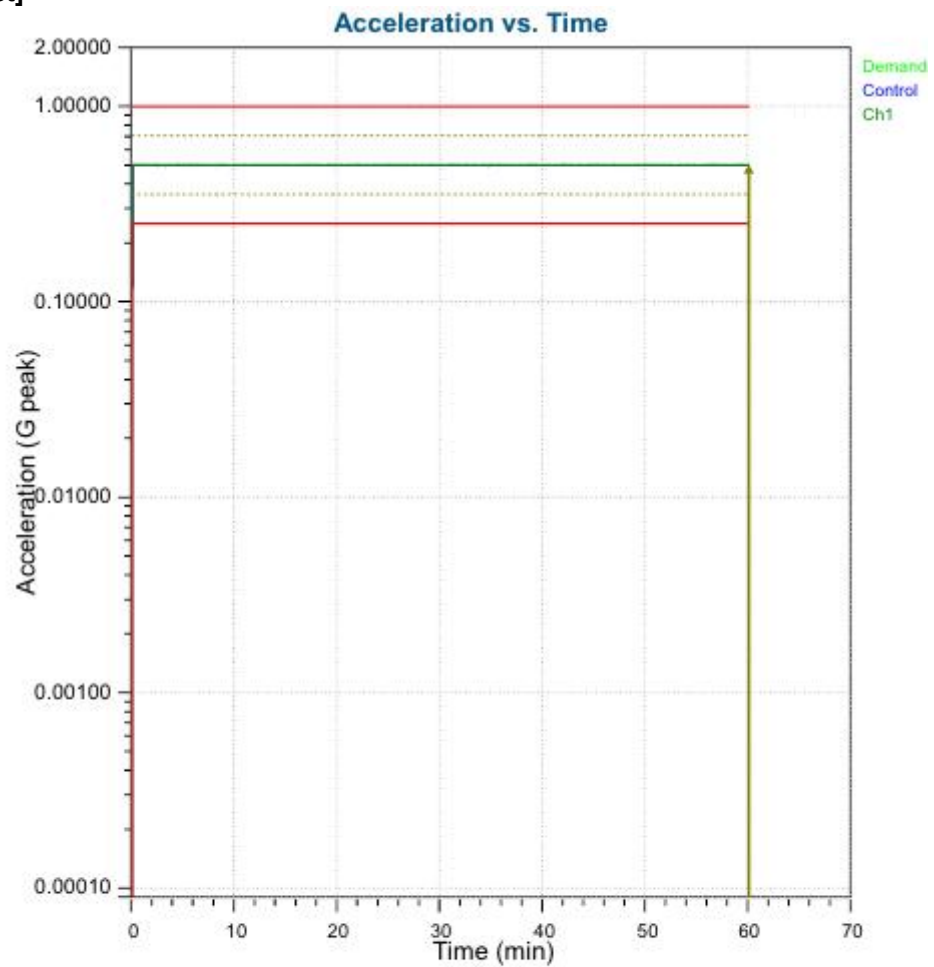
Control: 0.4995 G

Total Time: 0:12:4

End of Sweep Test

[Z axis]

[Endurance Test]

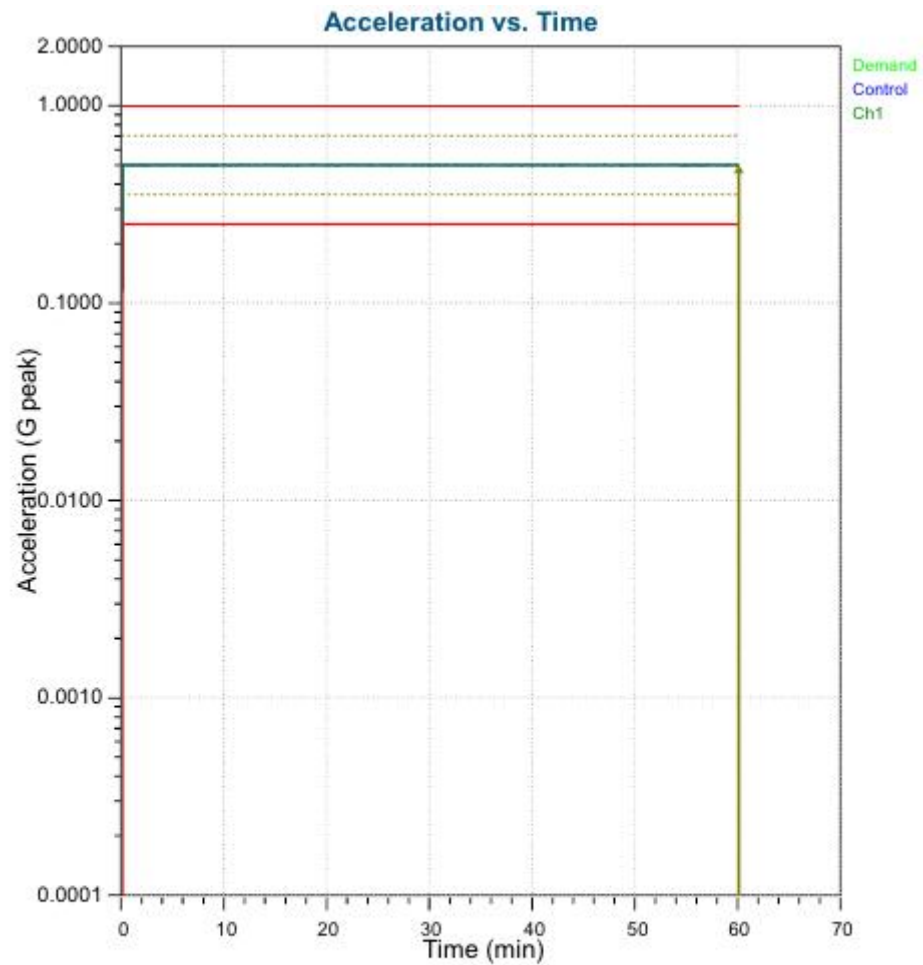


11.12.2020 18:45:11 Level 1) 100 % at 30 Hz Output: 0.04784 Volts per 공진내

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

Control: 0.5005 G Total Time: 1:00:00 End of Timed Test

[X axis]

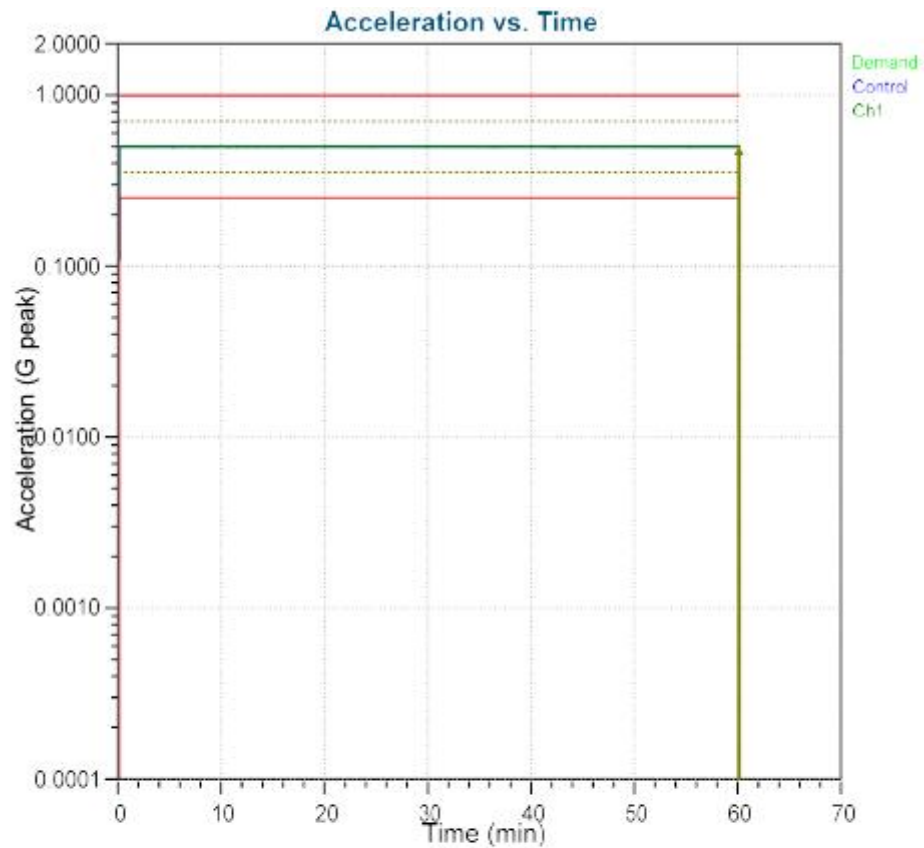


11 12 2020 17:24:0 Level 1) 100 % at 30 Hz Output: 0.04756 Volts per 공진 내

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

Control: 0.4998 C Total Time: 1:00:00 End of Timed Test

[Y axis]

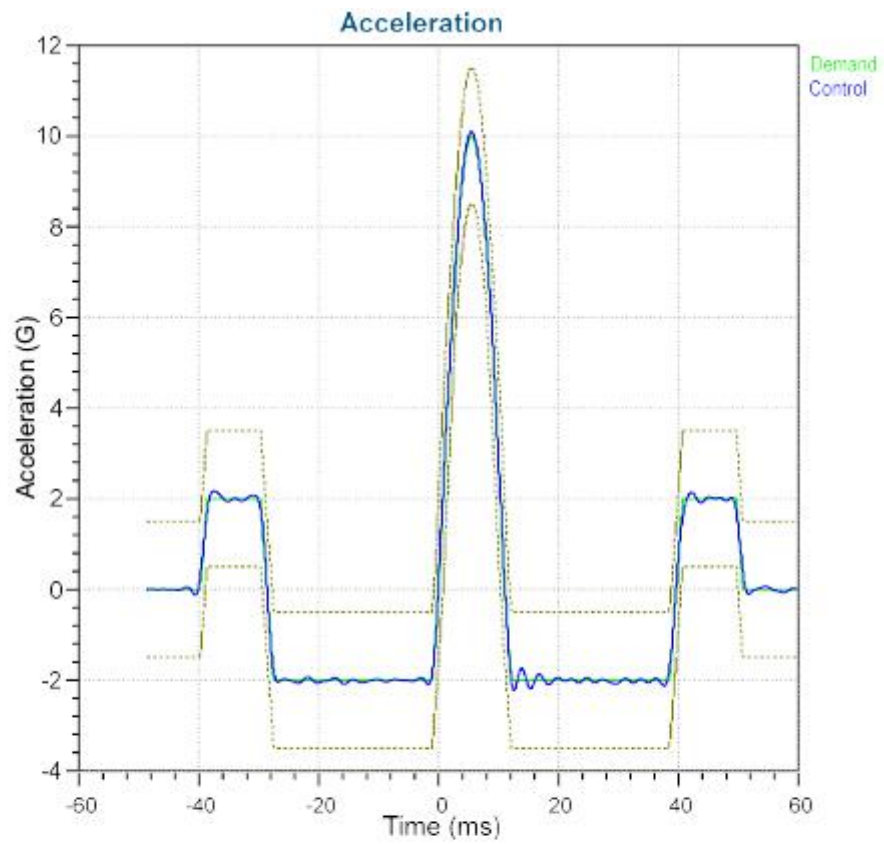


11/13/2020 10:35:55 Level 1) 100 % at 30 Hz Output: 0.04856 Volts per g 공진내:

Demand: 0.5 G Level Time: 1:00:0 Frequency: 30 Hz

Control: 0.5008 G Total Time: 1:00:0 End of Timed Test
[Z axis]

[Shock]



11 13, 2020 09:02:21 Level 1) 100 %

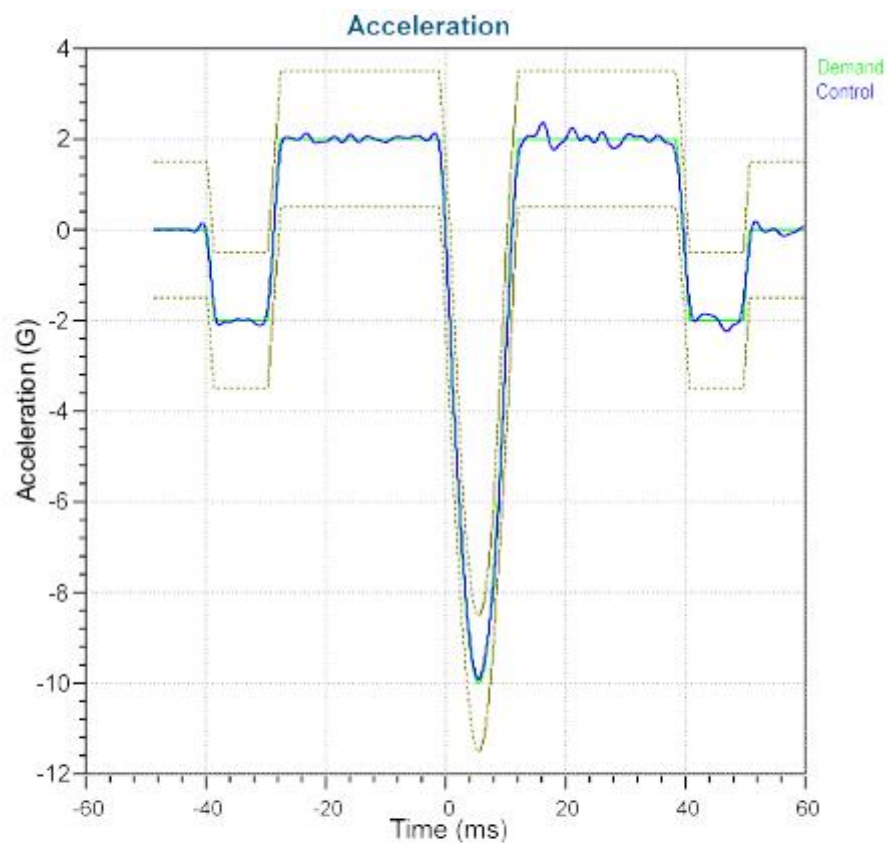
Output: 0.6948 Volts per 10G_11ms

Demand: 10 G

Control: 10.1 G

Pulse: 1 of 1

Running
[X+ axis]



11 13, 2020 09:02:21 Level 2) 100 %

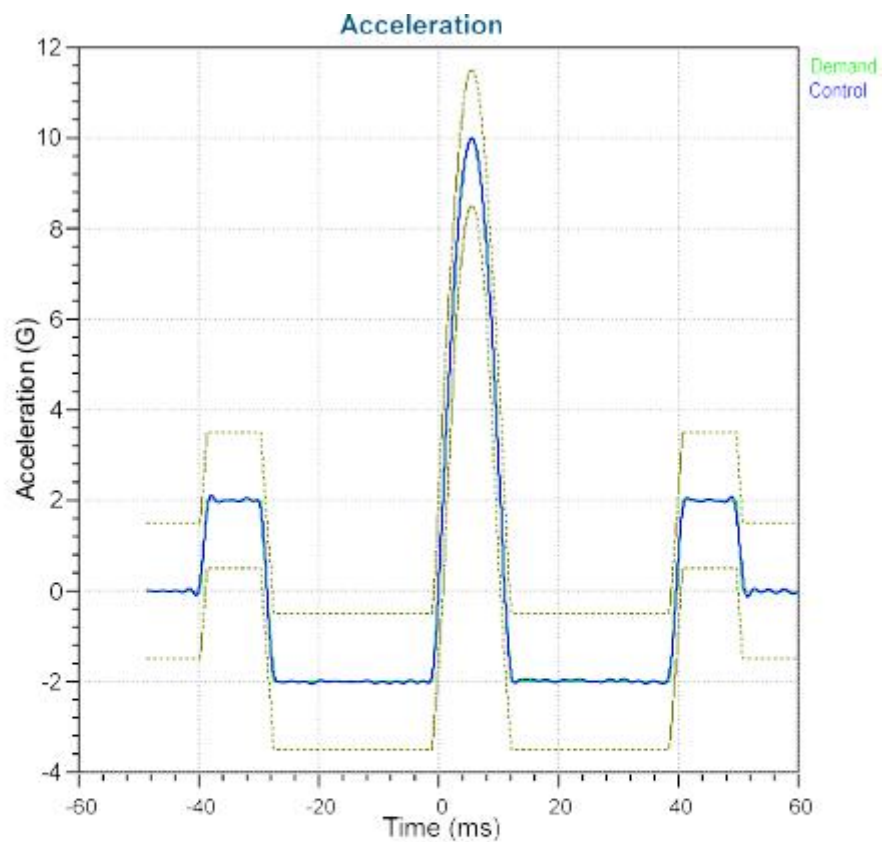
Output: 0.6941 Volts per 10G_11ms

Demand: 10 G

Control: 9.918 G

Pulse: 1 of 1

End of Test
[X-axis]



11 12, 2020 17:26:11 Level 1) 100 %

Output: 0.6785 Volts per 10G_11ms

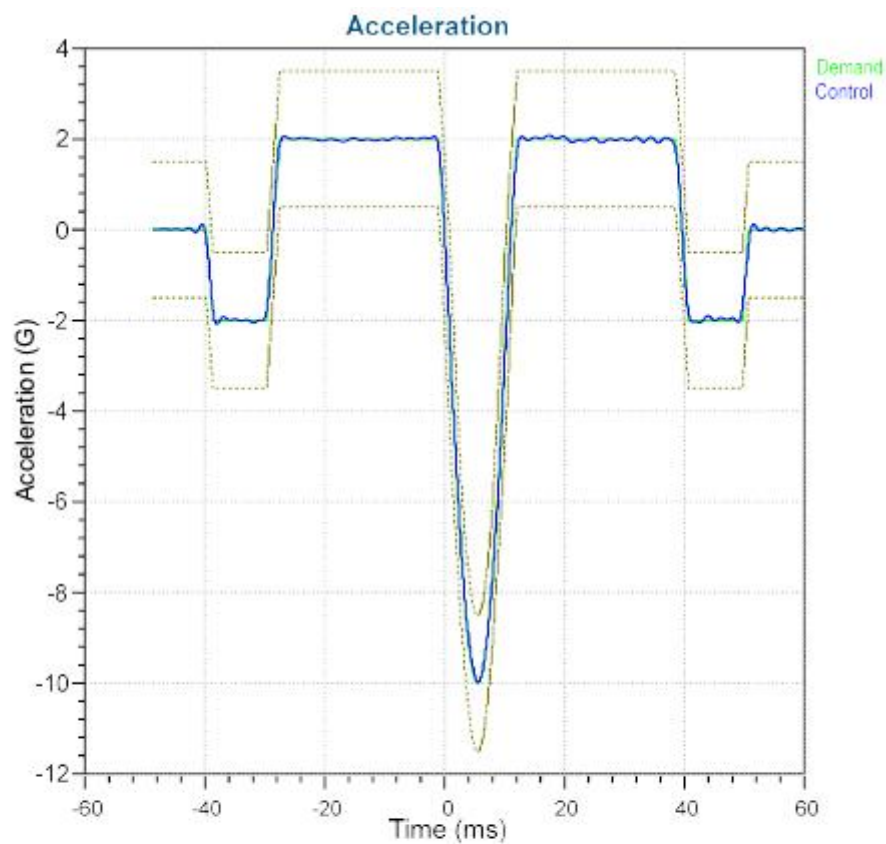
Demand: 10 G

Control: 9.994 G

Pulse: 1 of 1

Running

[Y+ axis]



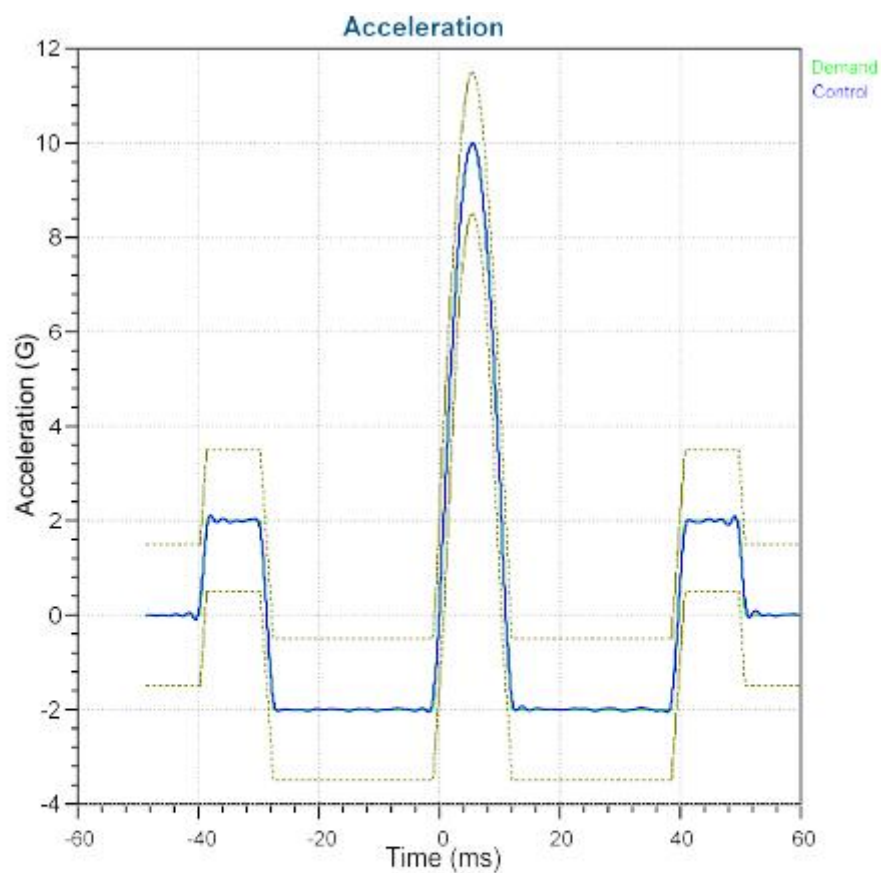
11 12, 2020 17:26:11 Level 2) 100 %

Output: 0.6778 Volts per 10G_11ms

Demand: 10 G

Control: 9.987 G Pulse: 1 of 1

End of Test
[Y- axis]



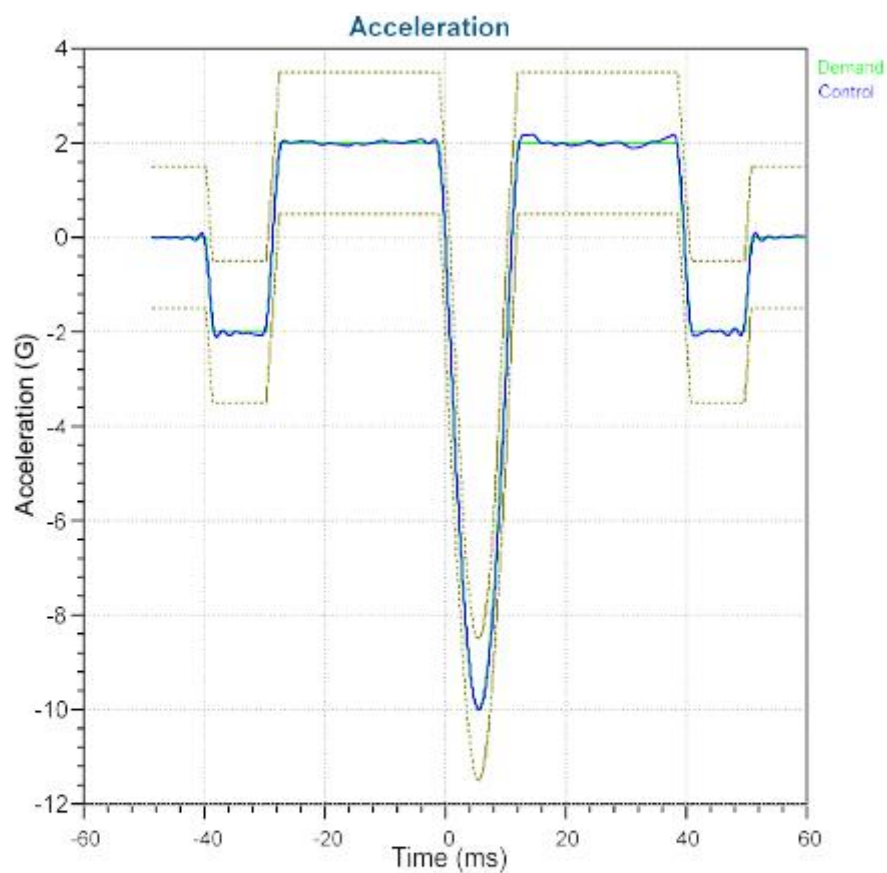
11/13, 2020 11:18:31 Level 1) 100 %

Output: 0.6858 Volts peak @ 11ms

Demand: 10 G

Control: 9.997 G Pulse: 1 of 1

Running
[Z+ axis]



11/13, 2020 11:18:30 Level 2) 100 %

Output: 0.6855 Volts peak @ 11ms

Demand: 10 G

Control: 10.01 G Pulse: 1 of 1

End of Test

[Z- axis]