

TEST REPORT



CTK Co., Ltd.
The Prime Leader of Global Regulatory Certification

CTK Co., Ltd.

(Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-shi
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Fax: +82-31-624-9501

Report No.:
CTK-2020-04440
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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-6400RW

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:	Technical Manager:
	WonHyeon Choi  (Signature)	YenHwang Jung  (Signature)

2020-11-13

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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



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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



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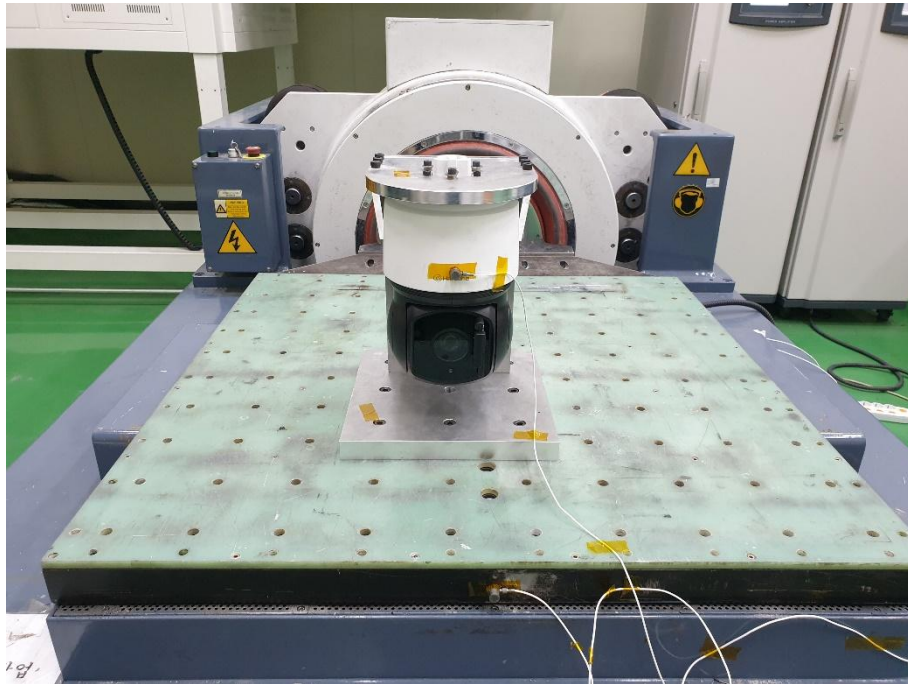
4. APPENDIX

4.1. Products

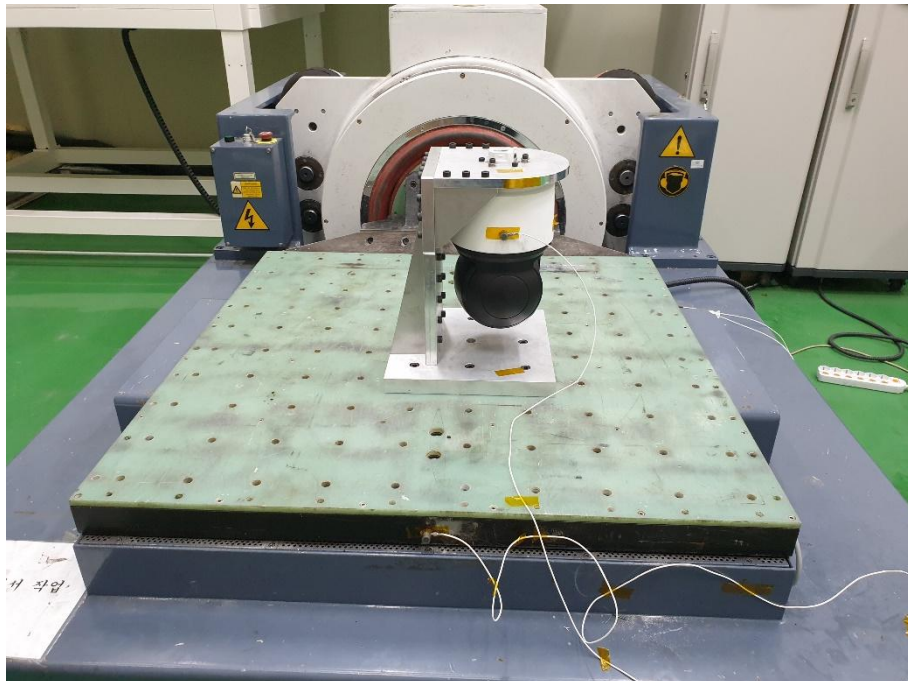


4.2. Test photos

[X axis]



[Y axis]



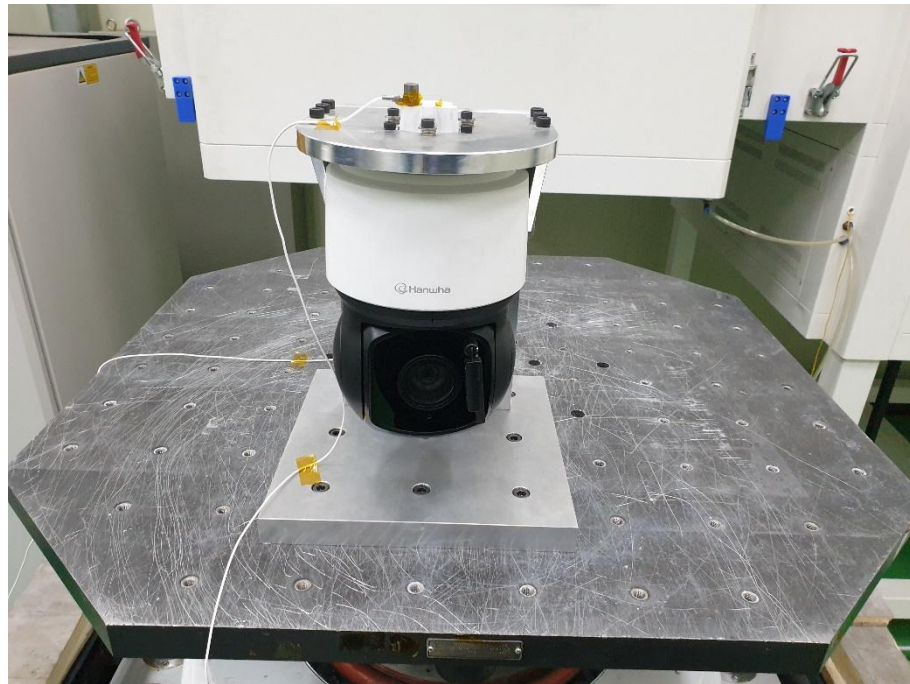


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[Z axis]



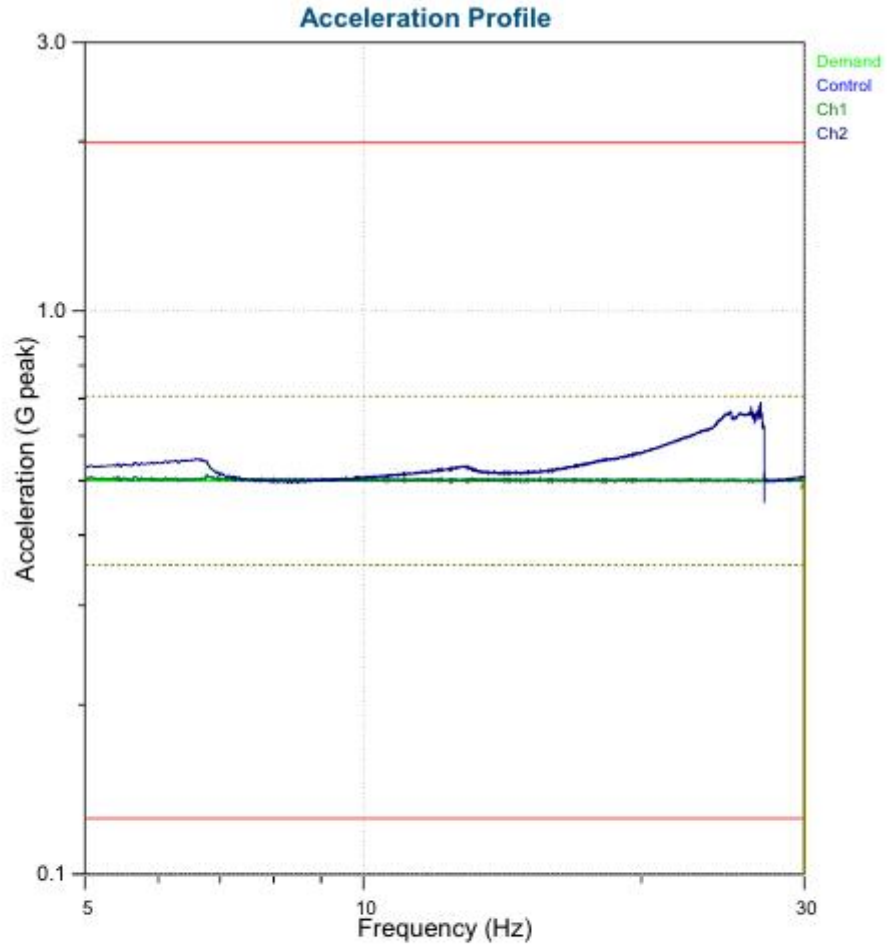


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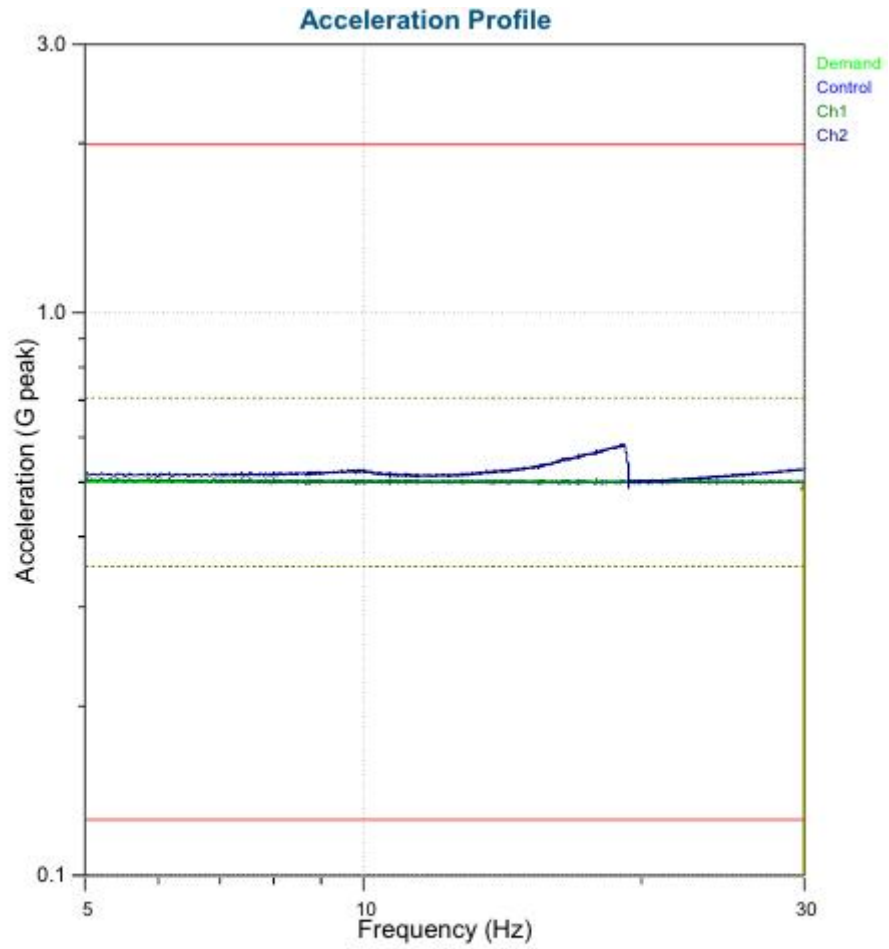
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4.3. Data [Resonant search]



11/12/2020 12:16:	Level 1) 100 ?	Output: 0.04861 Volts pe	공진시
Demand: 0.5 G	Level Time: 0.12.3	Frequency: 30 Hz	
Control: 0.5005	Total Time: 0.12.4	End of Sweep Te	

[X axis]

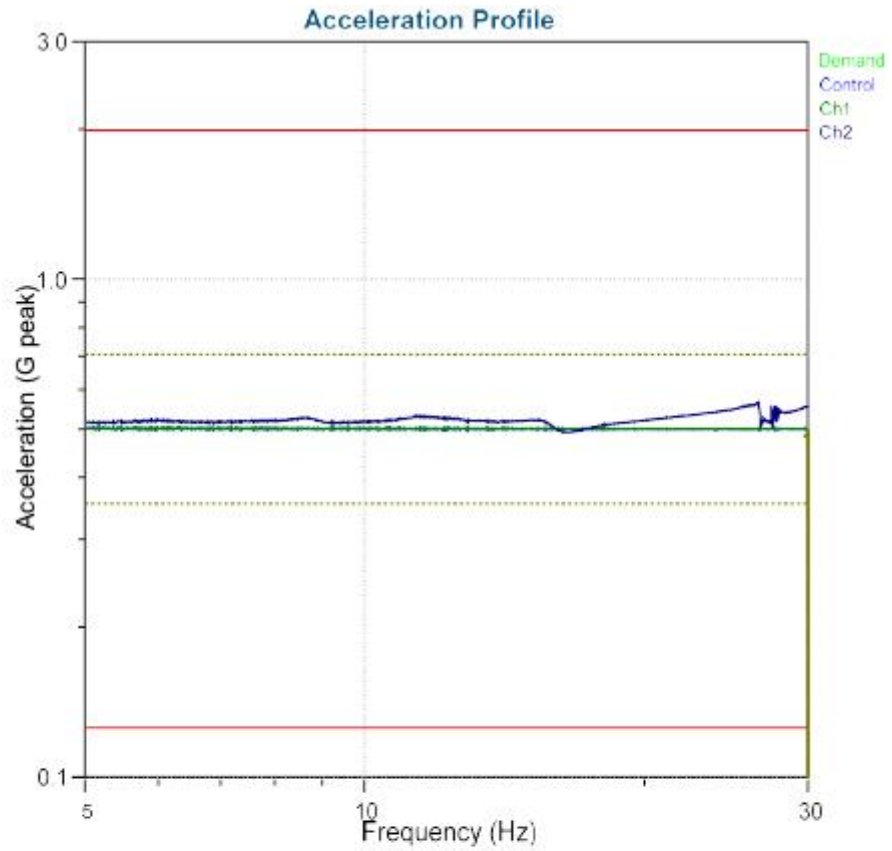


11/12/2020 14:30: Level 1) 100% Output: 0.04833 Volts pe 공진시

Demand: 0.5 Level Time: 0.12.3 Frequency: 30 H

Control: 0.5011 Total Time: 0.12.4 End of Sweep Te

[Y axis]



11/13/2020 13:58:3 Level 1) 100 %

Output: 0.04841 Volts per: 공진세진

Demand: 0.5 G

Level Time: 0:12:3

Frequency: 30 Hz

Control: 0.4999 G

Total Time: 0:12:4

End of Sweep Test

[Z axis]



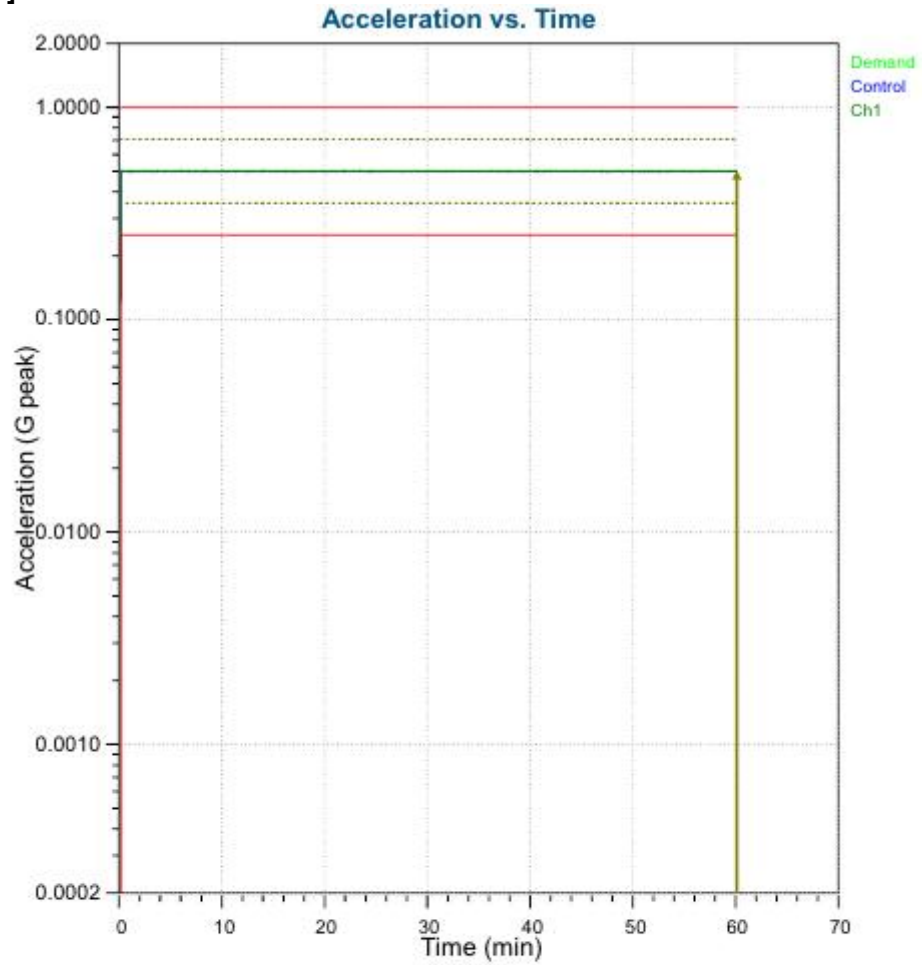
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[Endurance Test]

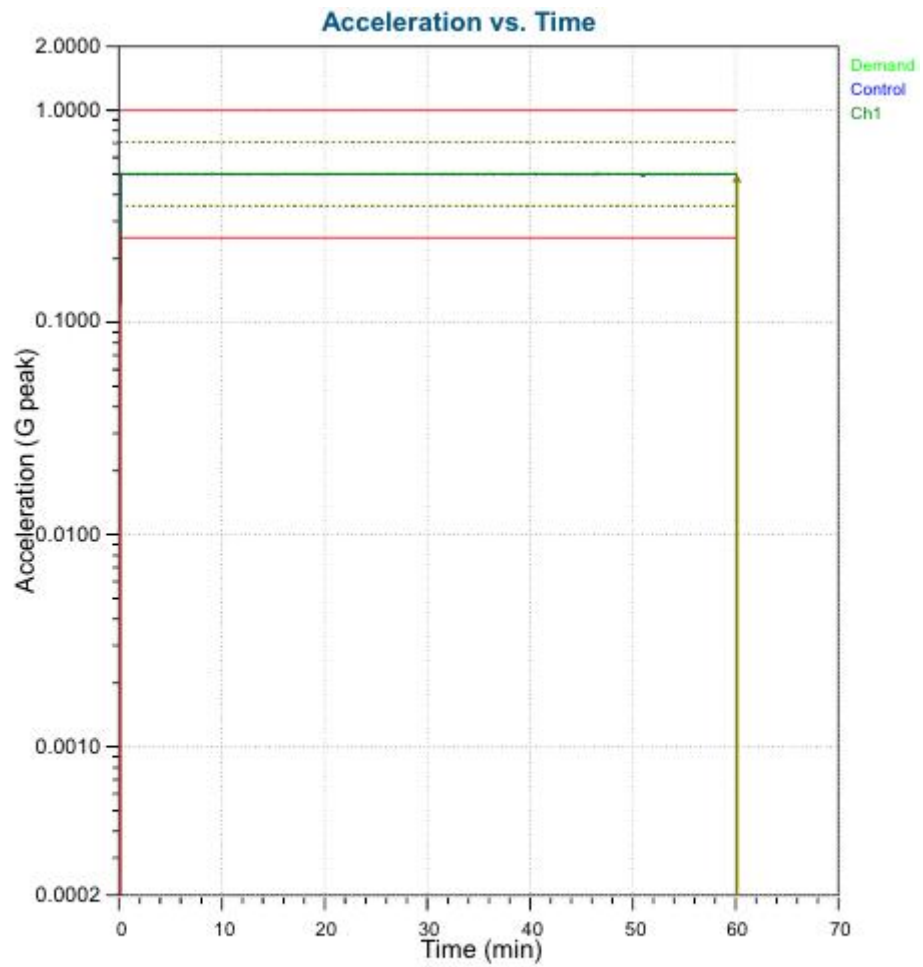


11.12.2020 13:57:11 Level 1) 100 % at 30 Hz Output: 0.04827 Volts per 공진내

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

Control: 0.5019 G Total Time: 1:00:00 End of Timed Test

[X axis]



11.12.2020 15:34:3 Level 1) 100 % at 30 Hz Output: 0.04768 Volts per 공진내

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

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

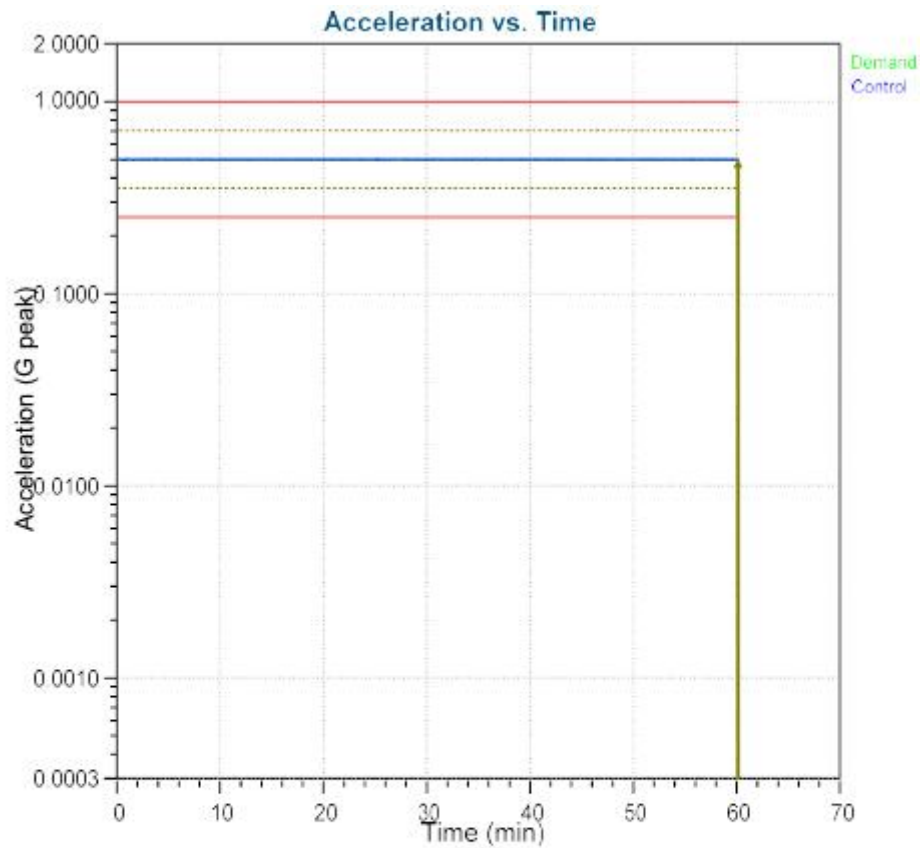
[Y axis]



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11/13/2020 15:02:5 Level 1) 100 % at 30 Hz Output: 0.04839 Volts per 공진내

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

Control: 0.4998 G Total Time: 1:00:0 End of Timed Test

[Z axis]

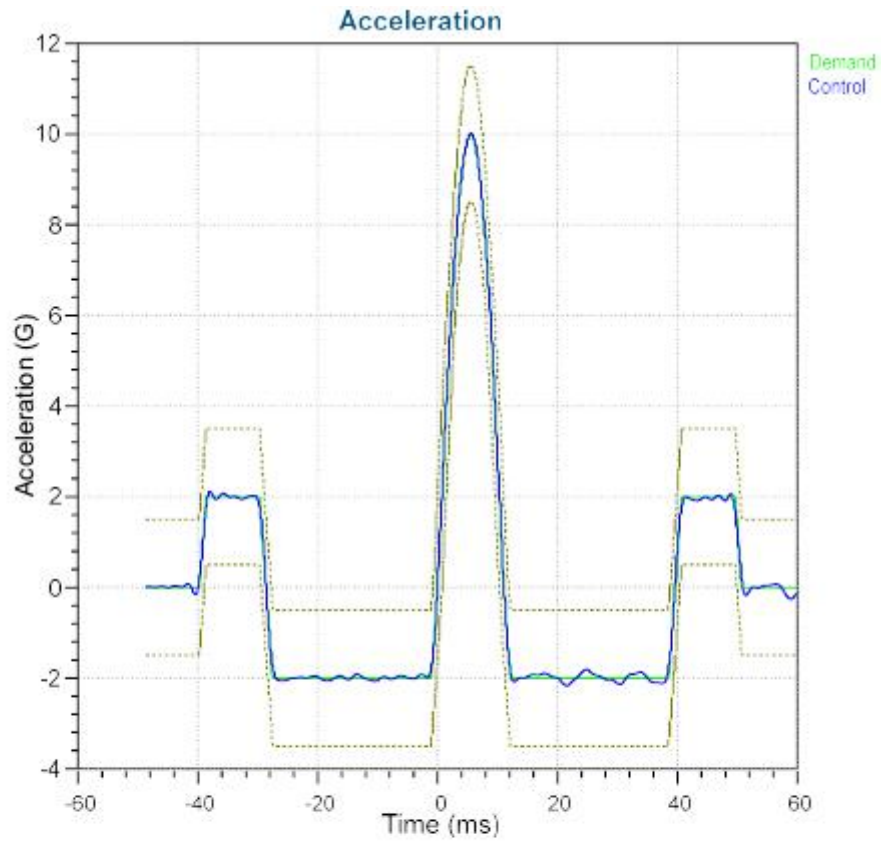


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[Shock]



11 12, 2020 14:04:4! Level 1) 100 %

Output: 0.6891 Volts peá 10G_11ms

Demand: 10 C

Control: 10.02 C Pulse: 1 of 1

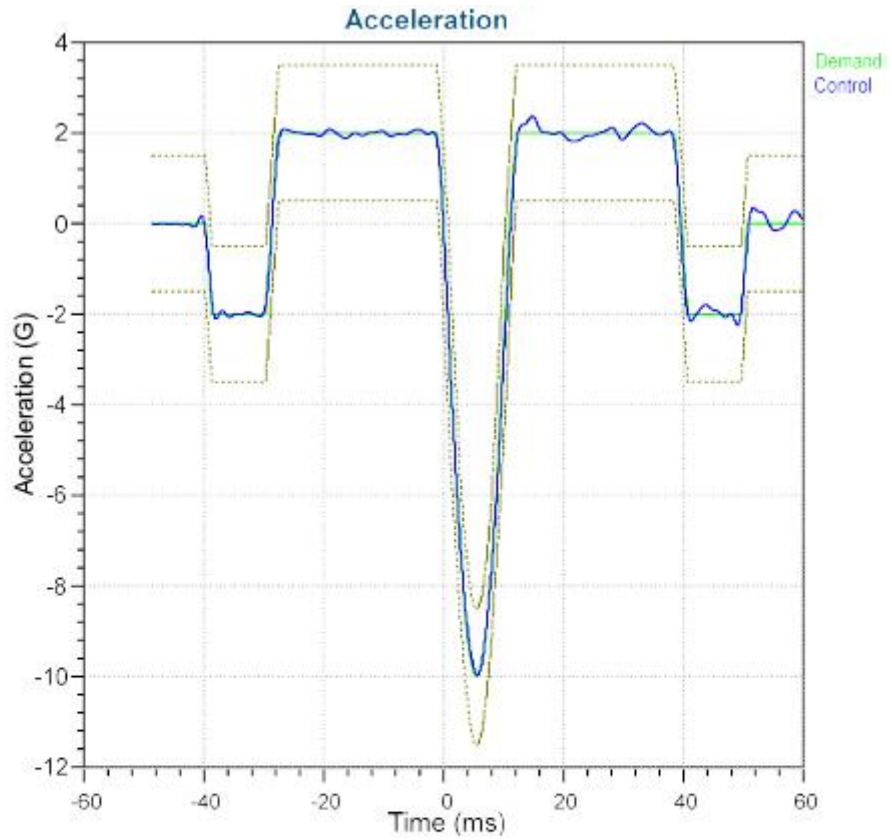
Running
[X+ axis]



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11 12, 2020 14:04:41 Level 2) 100 %

Output: 0.6892 Volts per 10G_11ms

Demand: 10 G

Control: 9.978 G

Pulse: 1 of 1

End of Test

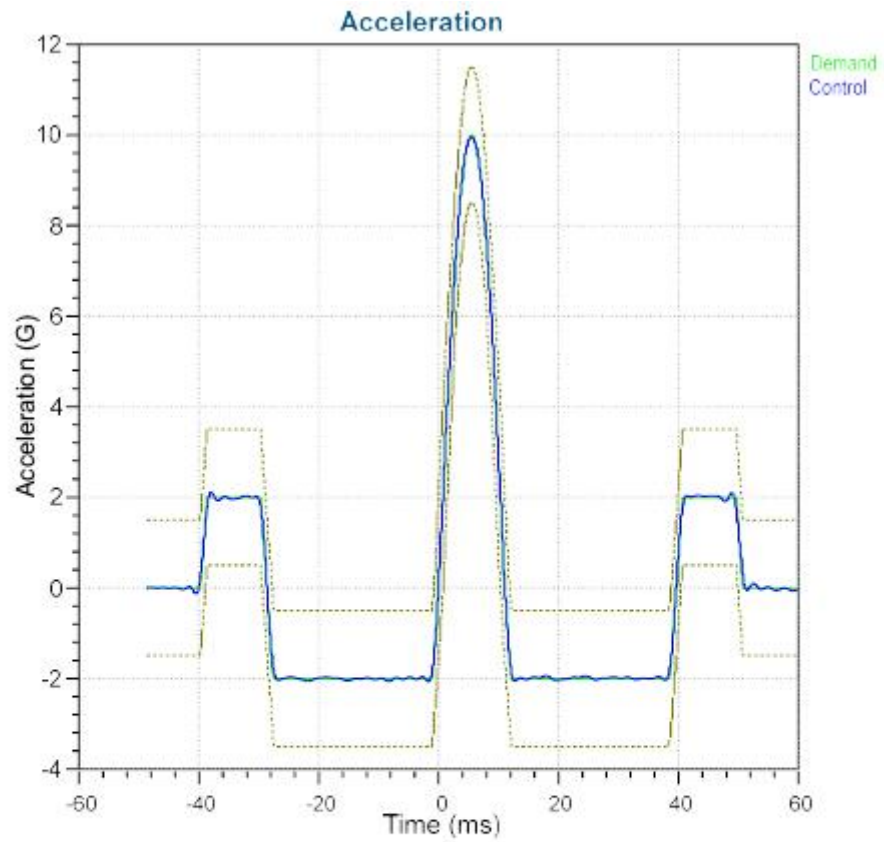
[X- axis]



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11 12, 2020 15:41:11 Level 1) 100 %

Output: 0.6848 Volts per 10G_11ms

Demand: 10 G

Control: 9.956 G Pulse: 1 of 1

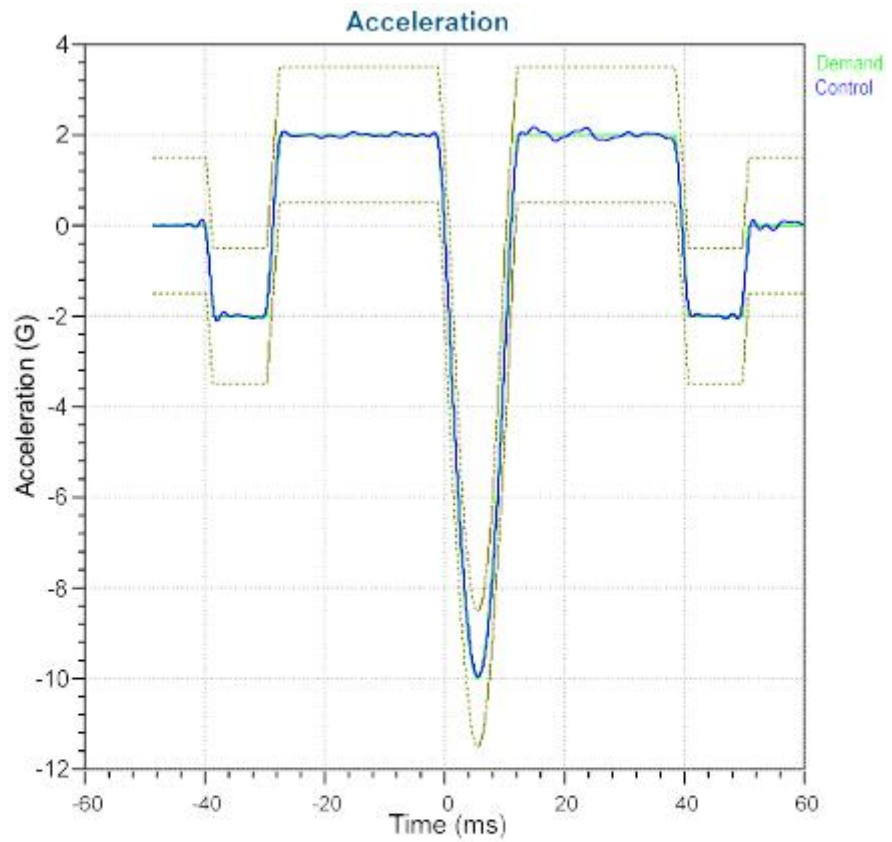
Running
[Y+ axis]



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11 12, 2020 15:41:1: Level 2) 100 %

Output: 0.6831 Volts per 10G_11ms

Demand: 10 G

Control: 9.957 G

Pulse: 1 of 1

End of Test

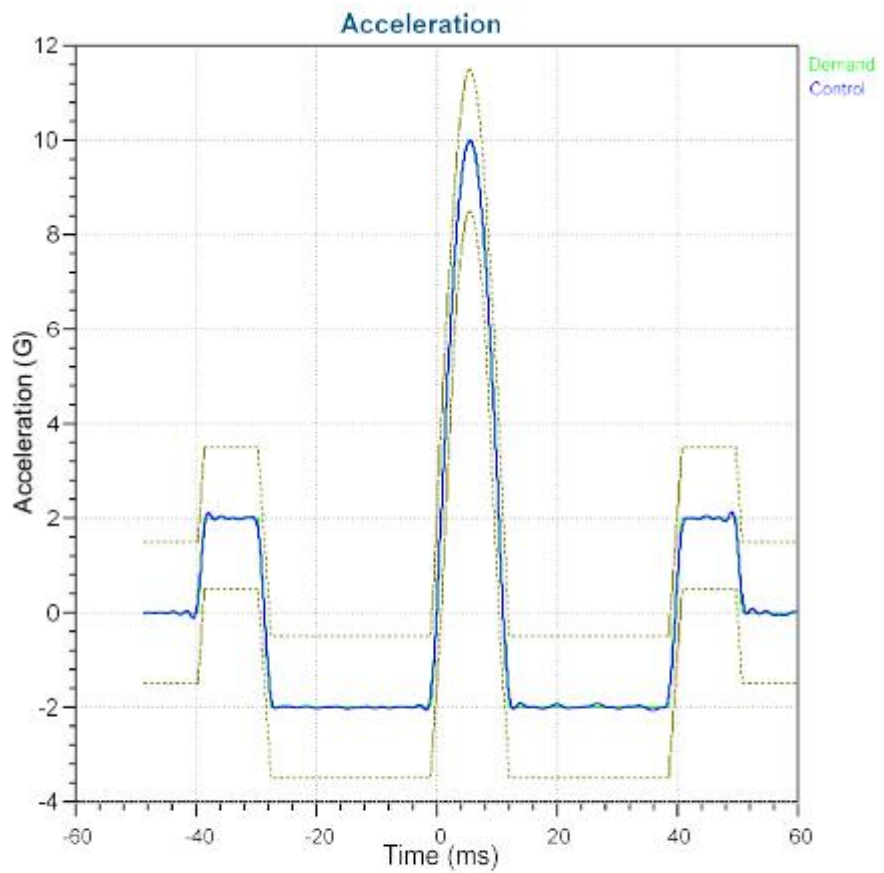
[Y- axis]



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11/13, 2020 15:06:11 (level 1) 100 %

Output: 0.696 Volts peak10g_11ms

Demand: 10 G

Control: 9.992 G Pulse: 1 of 1

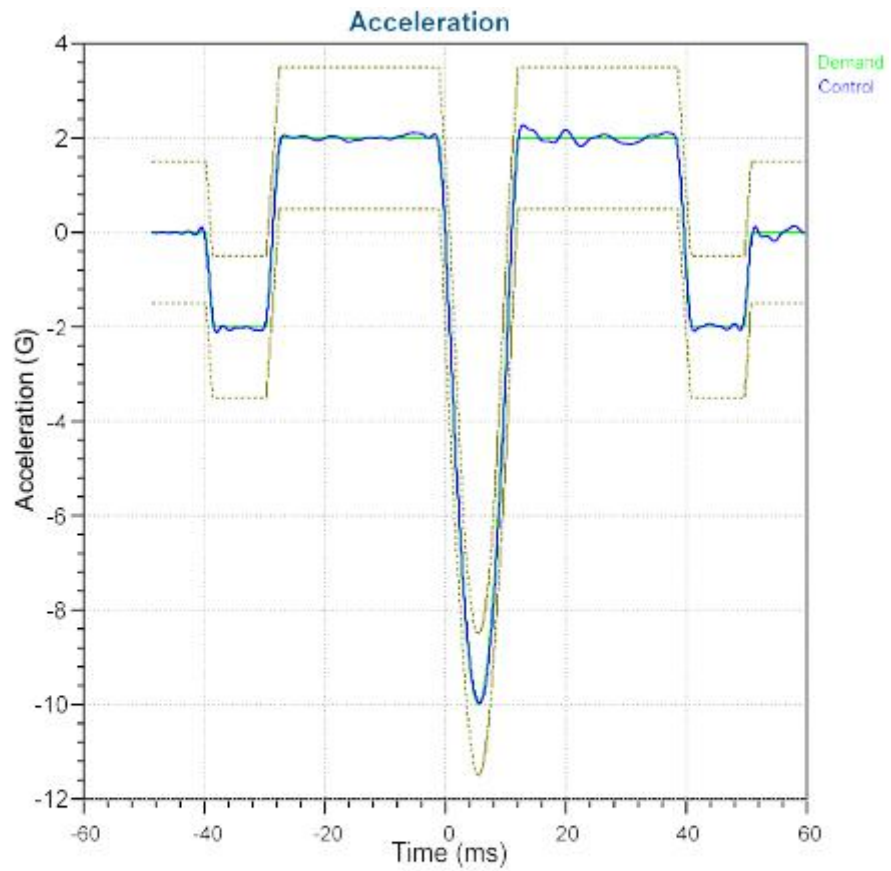
Running
[Z+ axis]



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11 13, 2020 15:06:13 (Level 2) 100 %

Output: 0.6937 Volts peak @ 11ms

Demand: 10 G

Control: 9.967 G Pulse: 1 of 1

End of Test
[Z- axis]