

TEST REPORT

 CTK Co., Ltd. The Prime Leader of Global Regulatory Certification	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-2020-04214 Page (1) / (21) pages	
---	--	---	--

1. Applicant

Name : Hanwha Techwin Co., Ltd.
 Address : 6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
 Date of Receipt : 2020-10-05

2. Manufacturer

Name : Hanwha Techwin Co., Ltd.

3. Use of Report :

Quality control

4. Test sample / Model :

NETWORK CAMERA / XNP-9300RW

5. Date(s) of test :

2020-10-22

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.
This report shall not be reproduced except in full without the written approval of CTK

Approval	Tested by:	Technical Manager:
	WonHyeon Choi  (Signature)	YenHwang Jung  (Signature)

2020-10-26

CTK Co., Ltd.



 CTK Co., Ltd. The Prime Leader of Global Regulatory Certification	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-2020-04214 Page (2) / (21) pages	
---	---	---	--

Model description

Basic Model	XNP-9300RW
Series model	XNP-8300RW
Model differences	The same enclosure.

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

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

 CTK Co., Ltd. The Prime Leader of Global Regulatory Certification	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-2020-04214 Page (5) / (21) pages	
---	---	--	--

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

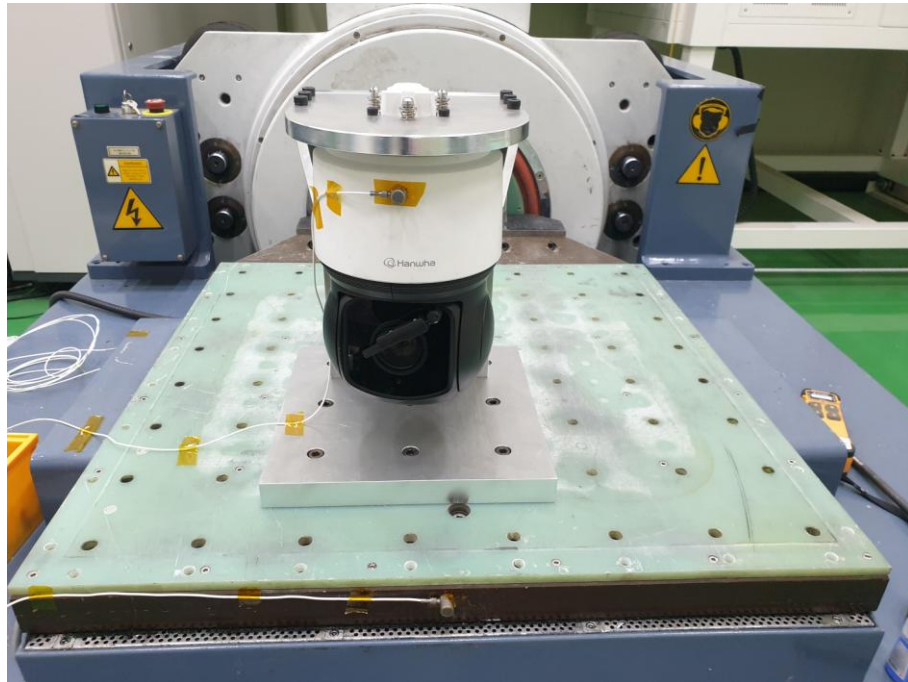
4.1. Products



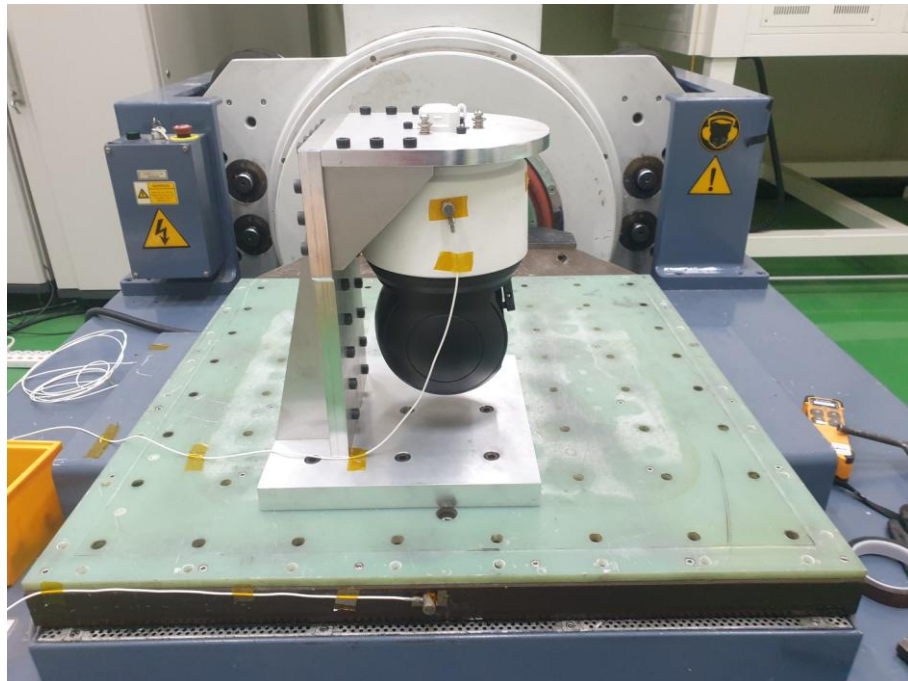


4.2. Test photos

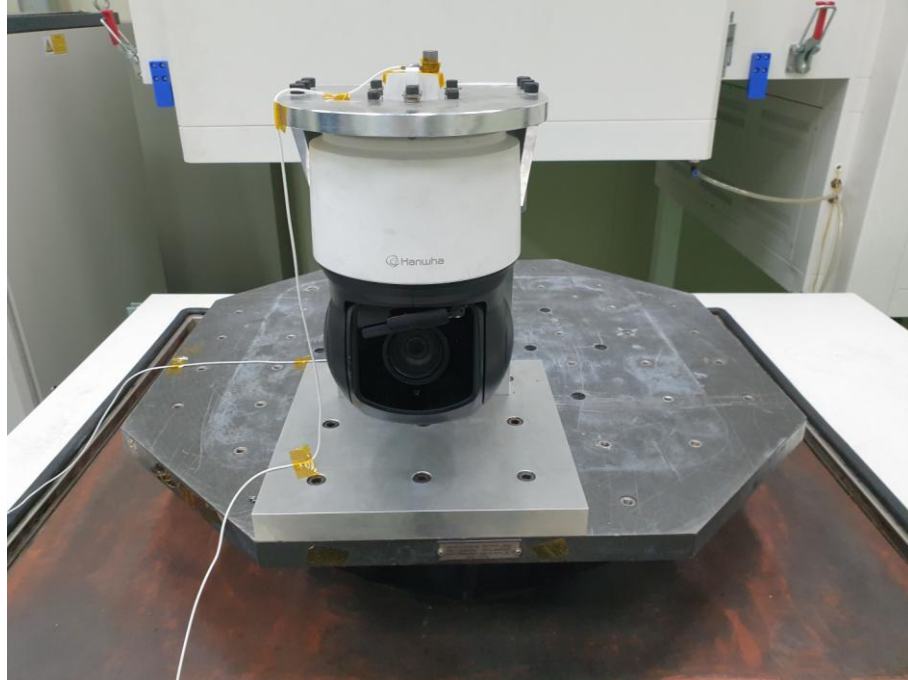
[X axis]



[Y axis]

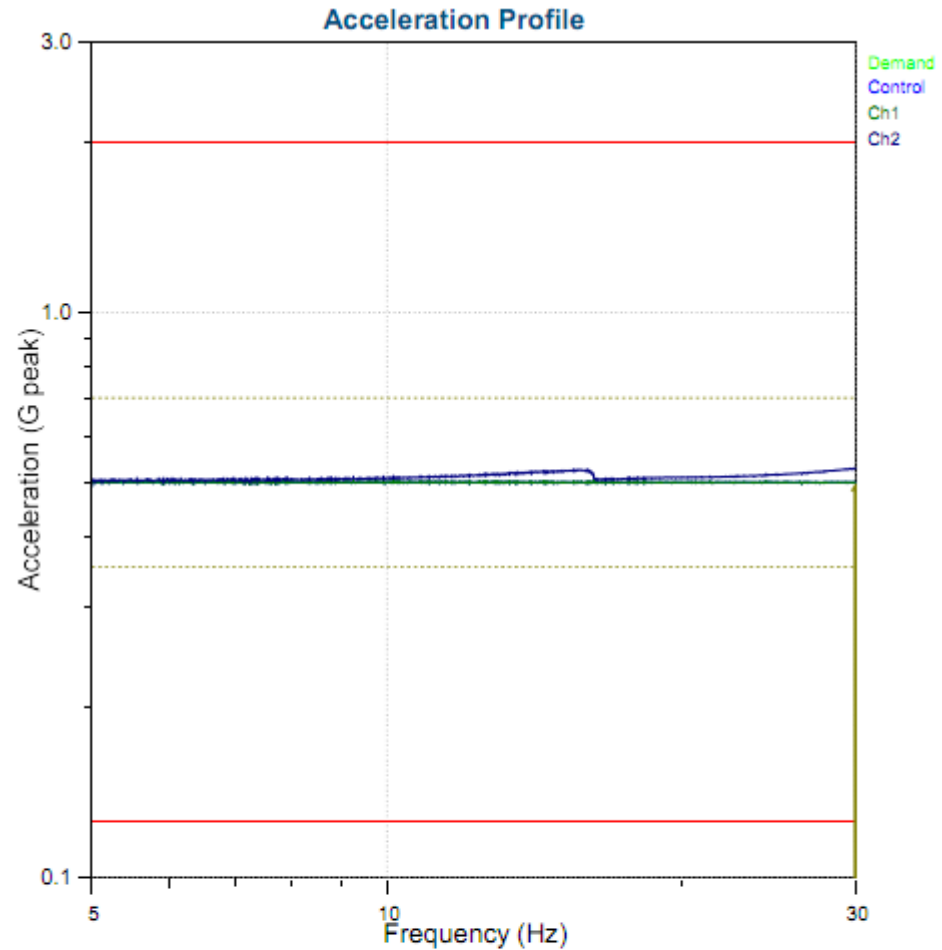


[Z axis]



4.3. Data

[Resonant search]



10/22, 2020 11:34:2 Level 1) 100 %

Output: 0.05161 Volts per 공진시

Demand: 0.5 G

Level Time: 0:12:3

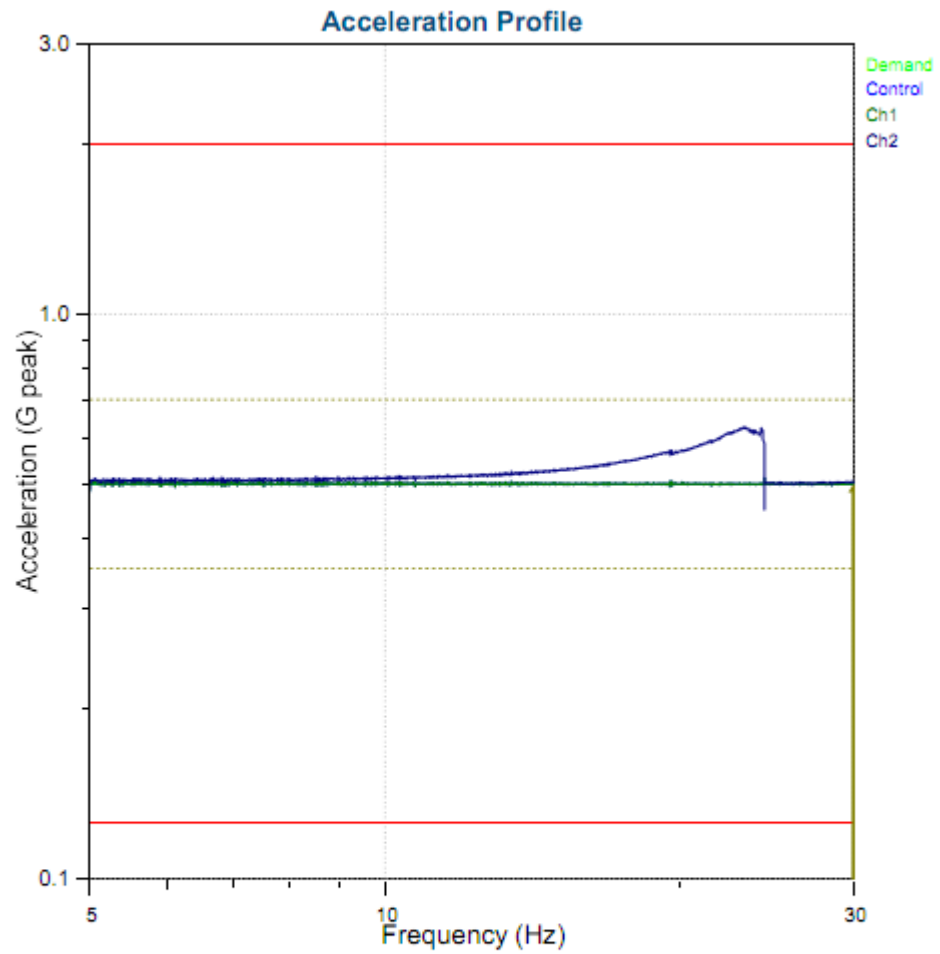
Frequency: 30 Hz

Control: 0.4996 G

Total Time: 0:12:4

End of Sweep Test

[X axis]



10/22, 2020 17:24:4 Level 1) 100 %

Output: 0.05143 Volts per 공진시

Demand: 0.5 G

Level Time: 0.12:3

Frequency: 30 Hz

Control: 0.501 G

Total Time: 0.12:4

End of Sweep Test

[Y axis]

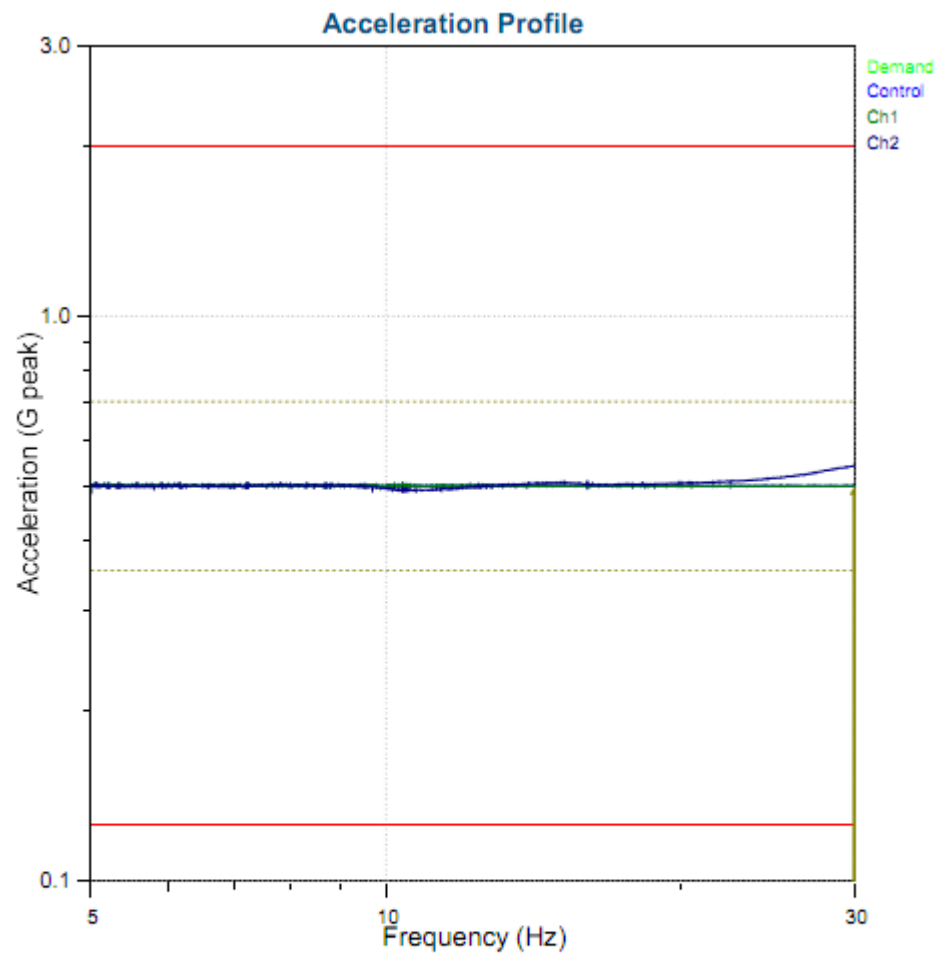


CTK Co., Ltd.
The Prime Leader of Global Regulatory Certification

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-2020-04214
Page (12) / (21) pages



10/22, 2020 20:56:4 Level 1) 100 %

Output: 0.04759 Volts per 공진시

Demand: 0.5 G

Level Time: 0.12:3

Frequency: 30 Hz

Control: 0.4998 G

Total Time: 0.12:4

End of Sweep Test
[Z axis]



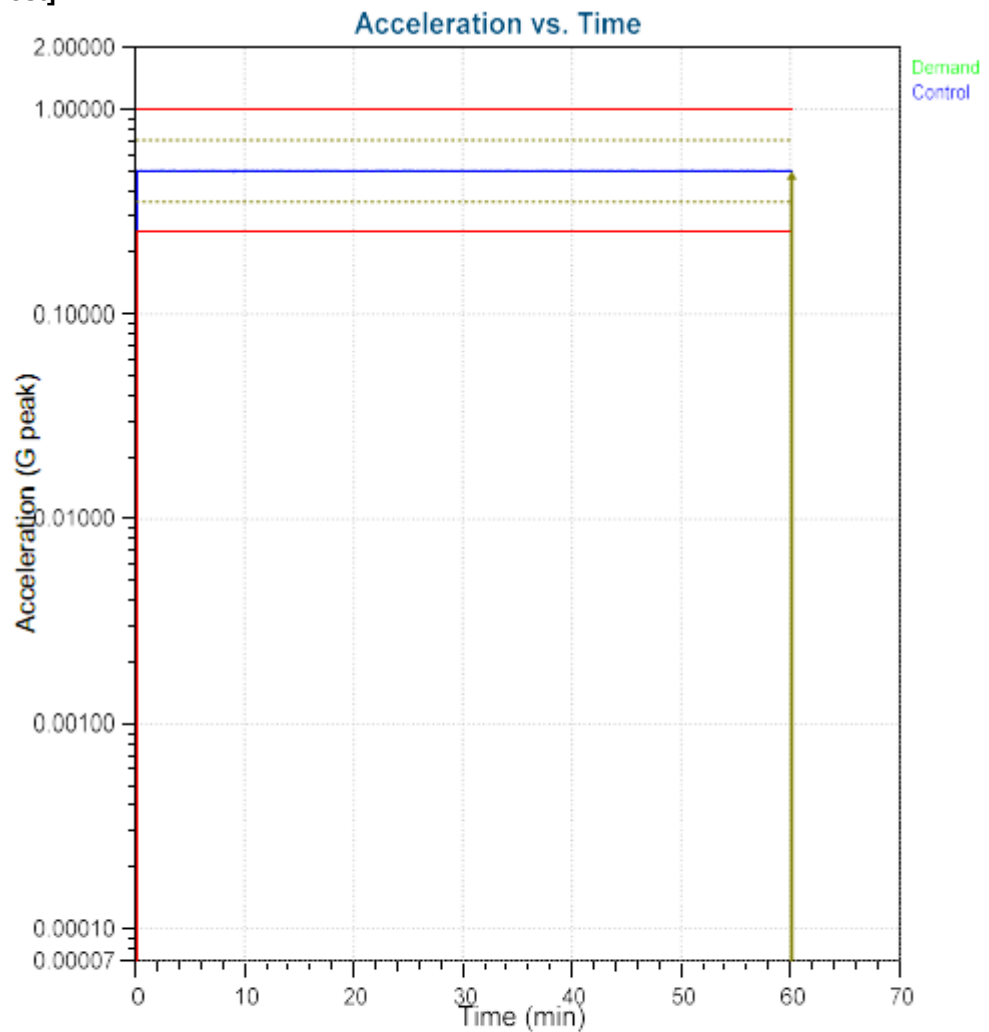
CTK Co., Ltd.
The Prime Leader of Global Regulatory Certification

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-2020-04214
Page (13) / (21) pages

[Endurance Test]

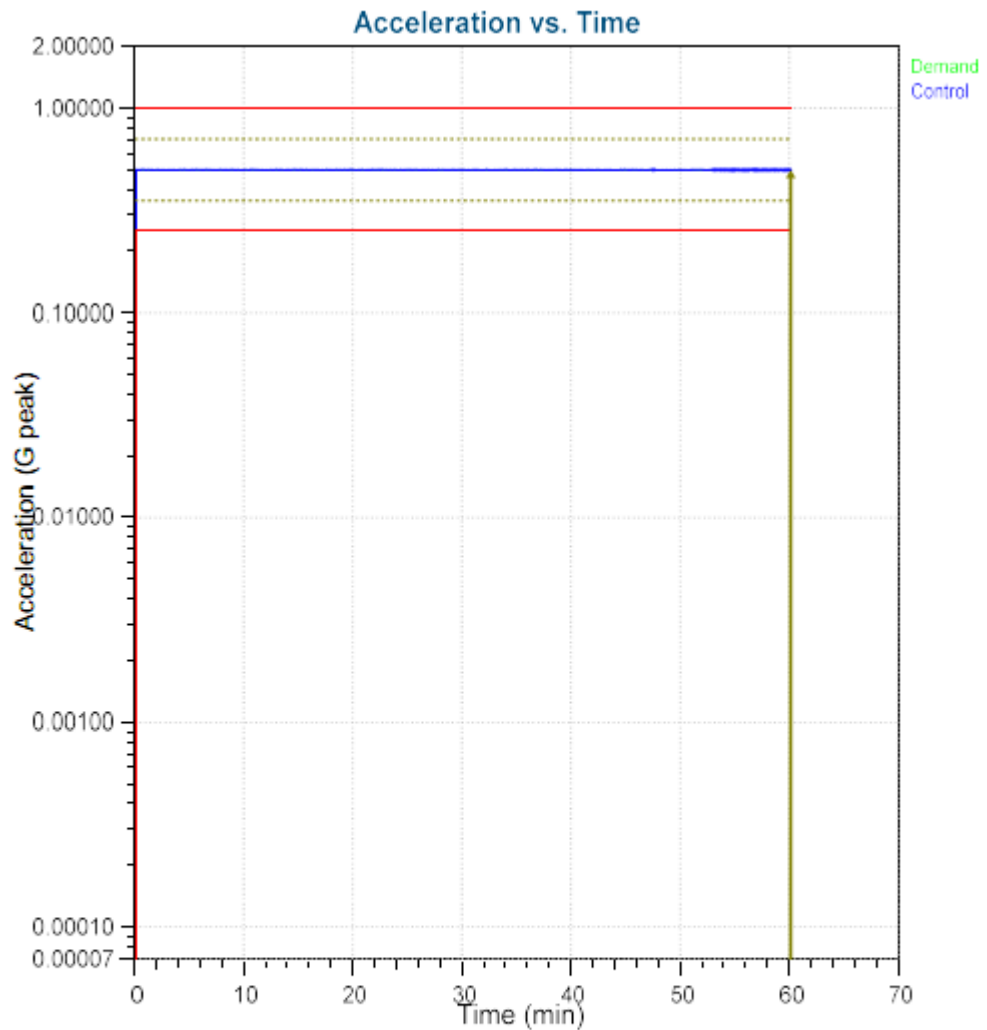


10 22, 2020 12:38:3 Level 1) 100 % at 30 Hz Output: 0.05147 Volts per 공진내

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

Control: 0.5003 G Total Time: 1:00:0 End of Timed Test

[X axis]

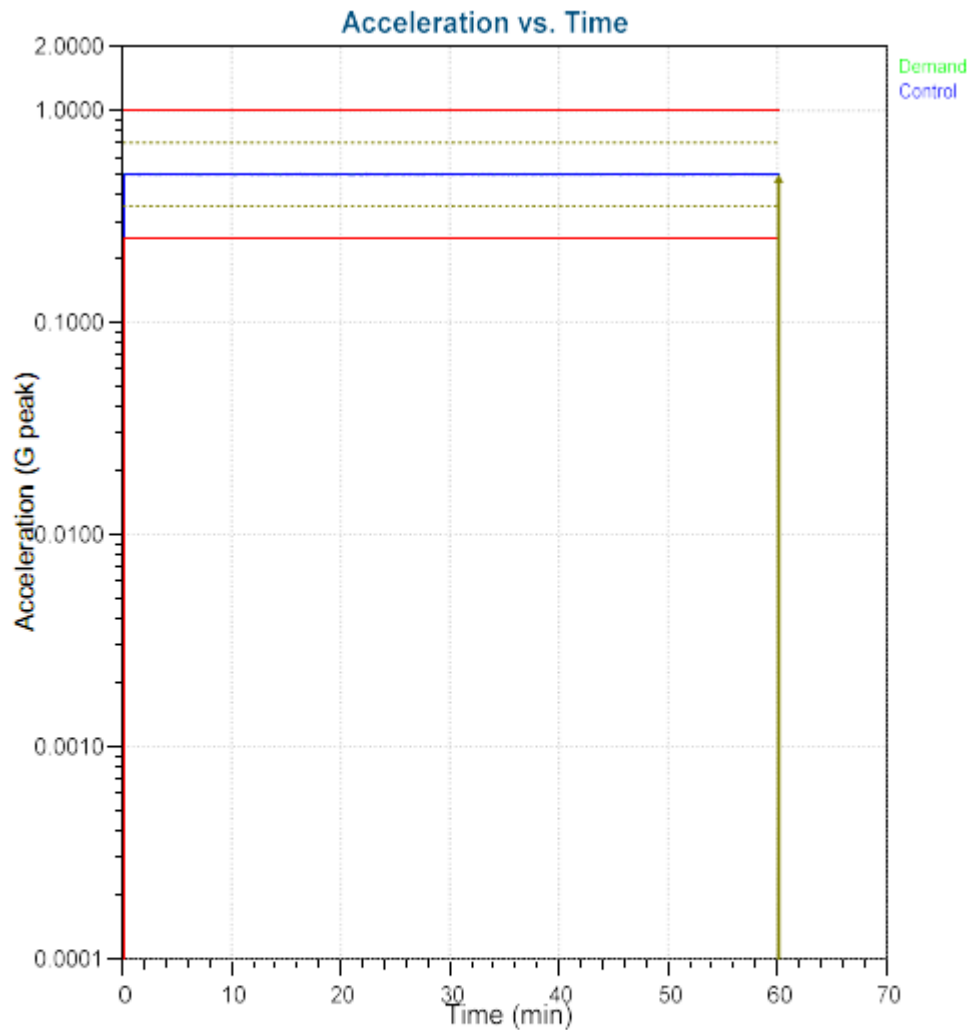


10 22, 2020 18:25:3 Level 1) 100 % at 30 Hz Output: 0.05137 Volts per g 공진내지

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

[Y axis]

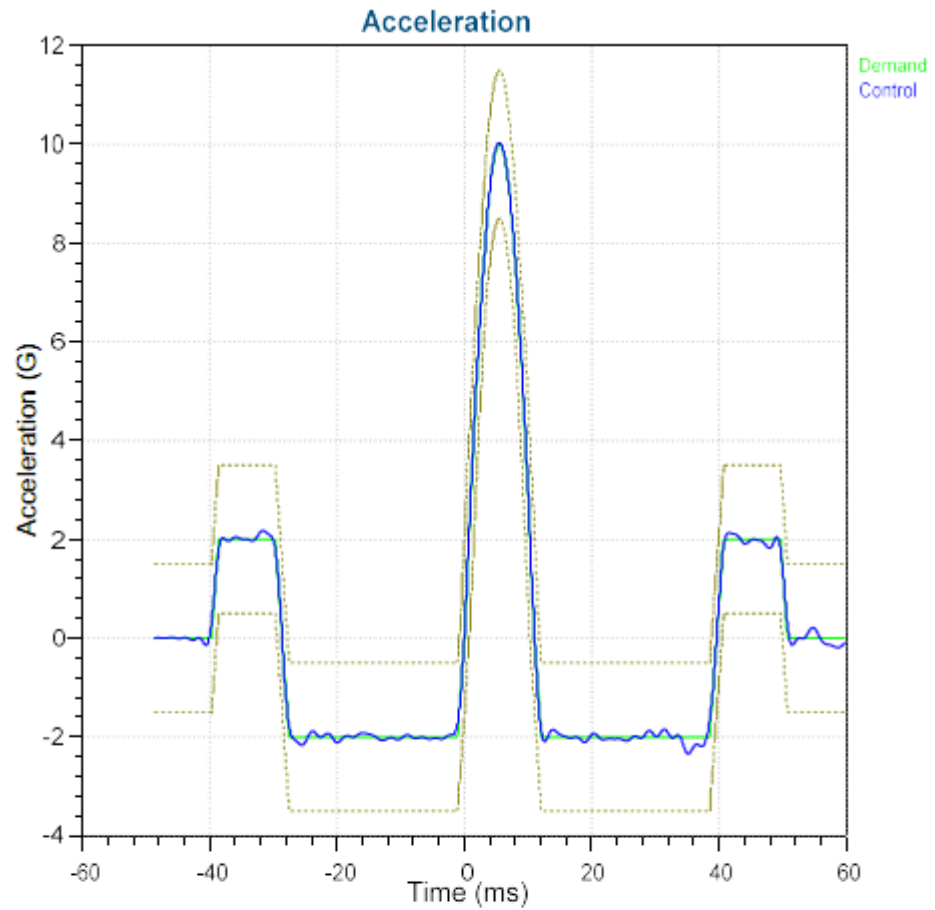


10 22, 2020 21:57:4 Level 1) 100 % at 30 Hz Output: 0.04755 Volts per g 공진내

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

Control: 0.4996 G Total Time: 1:00:0 End of Timed Test
[Z axis]

[Shock]



10 22, 2020 16:09:4 Level 1) 100 %

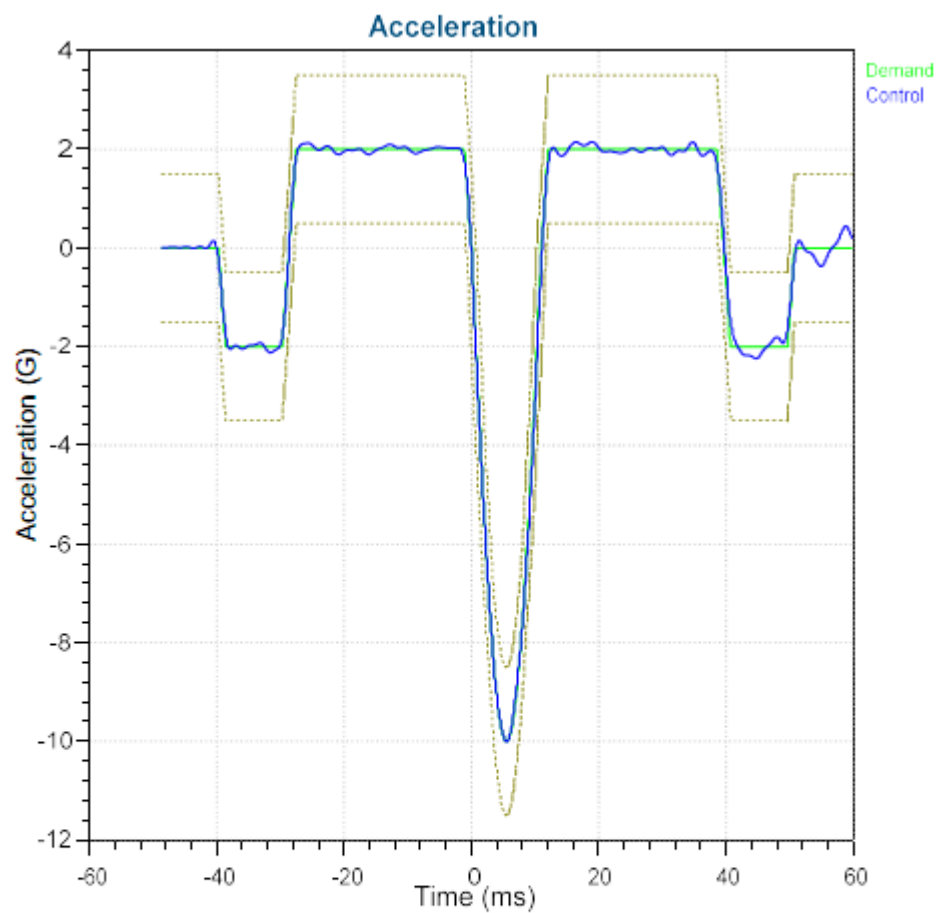
Output: 0.6709 Volts per 10g_11ms

Demand: 10 C

Control: 10.03 C Pulse: 1 of 1

Running

[X+ axis]



10 22, 2020 16:09:4 Level 2) 100 %

Output: 0.6712 Volts per: 10g_11ms

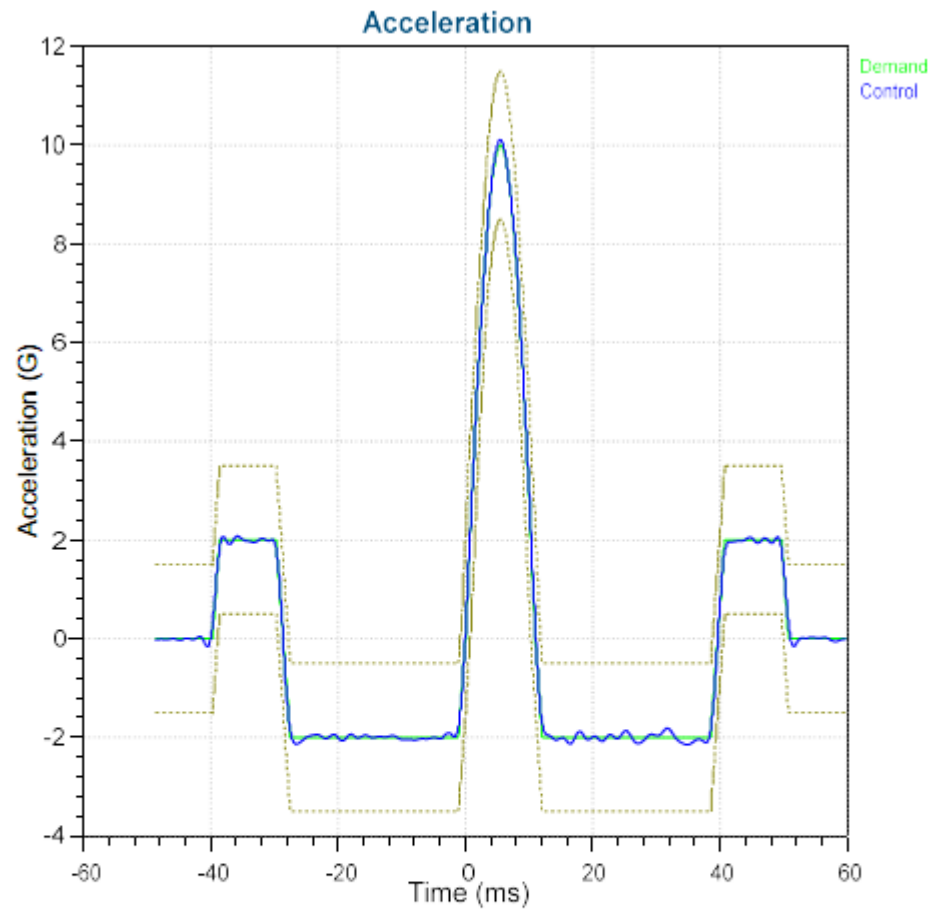
Demand: 10 C

Control: 10.01 C

Pulse: 1 of 1

End of Test

[X- axis]



10 22, 2020 18:59:0 Level 1) 100 %

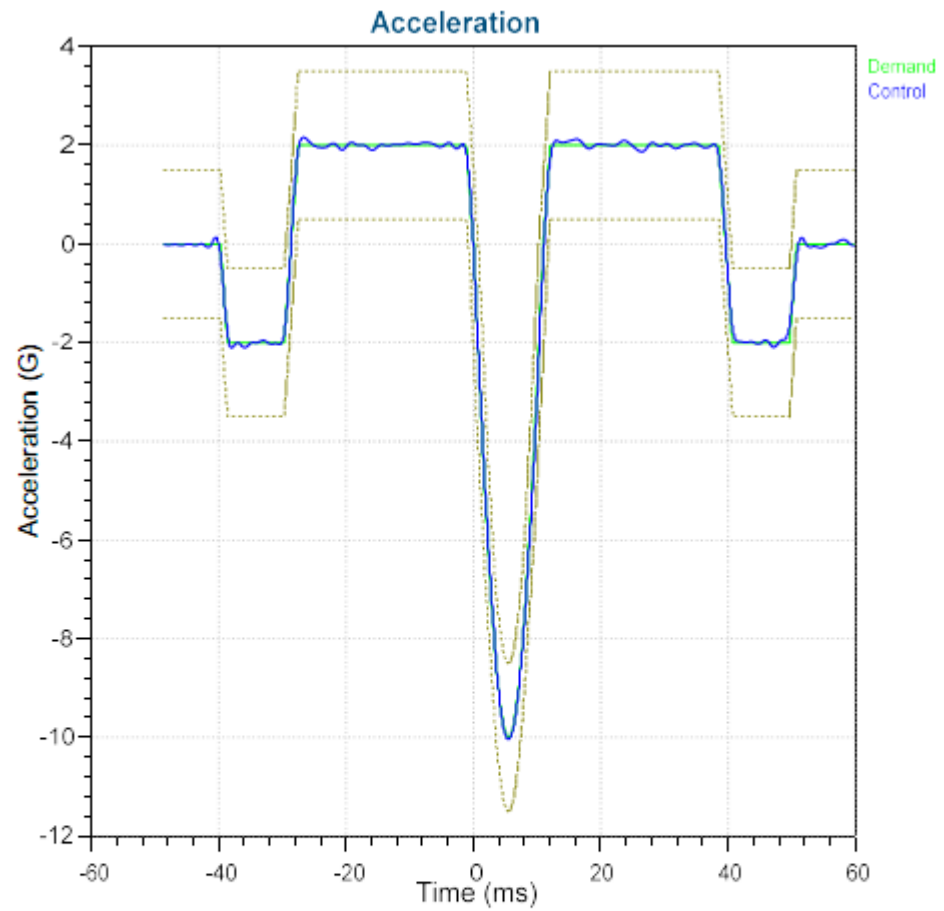
Output: 0.6765 Volts per: 10g_11ms

Demand: 10 C

Control: 10.12 C

Pulse: 1 of 1

Running
[Y+ axis]



10 22, 2020 18:59:0 Level 2) 100 %

Output: 0.677 Volts per 10g_11ms

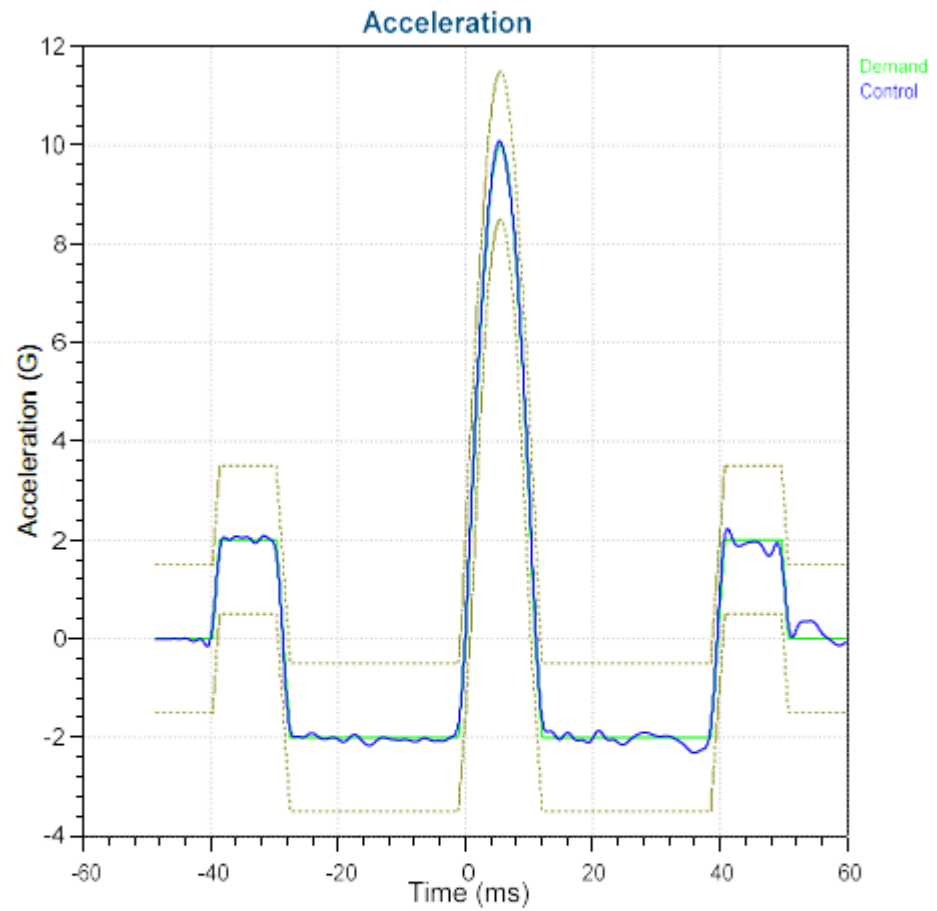
Demand: 10 C

Control: 10.04 C

Pulse: 1 of 1

End of Test

[Y- axis]



10 22, 2020 20:43:4 Level 1) 100 %

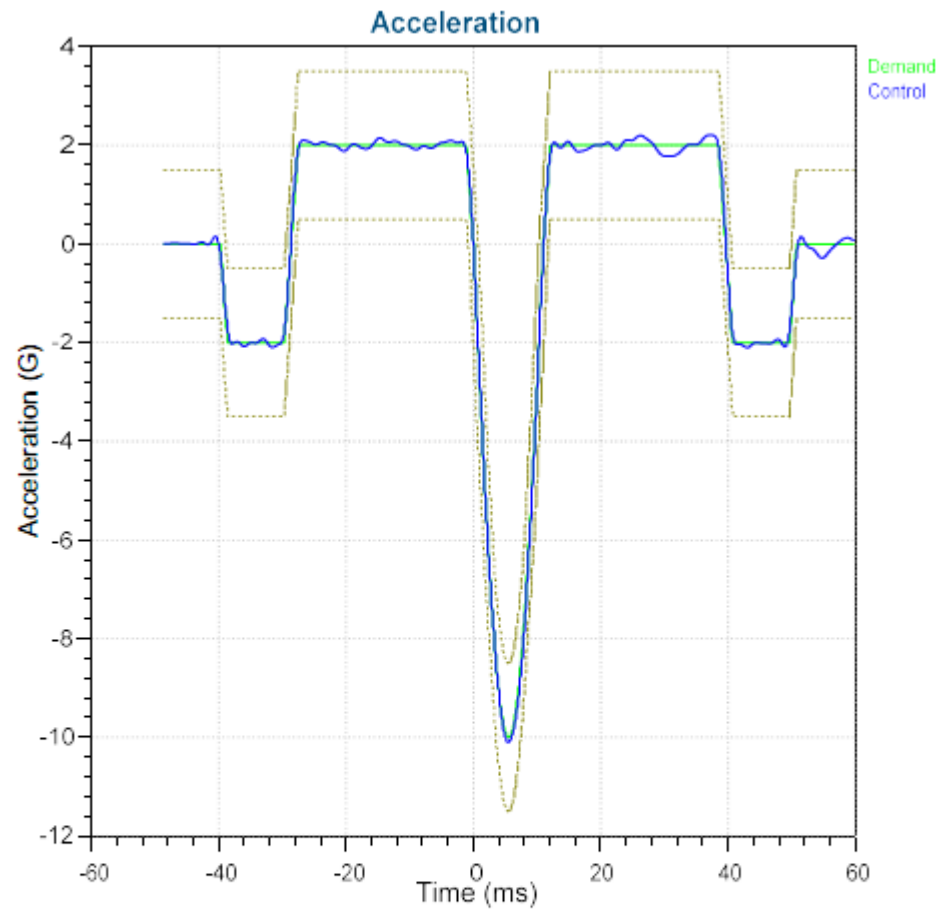
Output: 0.678 Volts per 10g_11ms

Demand: 10 C

Control: 10.09 C

Pulse: 1 of 1

Running
[Z+ axis]



10 22, 2020 20:43:5 Level 2) 100 %

Output: 0.6691 Volts per 10g_11ms

Demand: 10 C

Control: 10.1 C

Pulse: 1 of 1

End of Test

[Z- axis]