


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-2021-02220-1 Page (1) / (13) pages	
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1. Applicant

- Name..... : Hanwha Techwin Co., Ltd.
- Address..... : Hanwha Techwin R&D center, 6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
- Date of Receipt..... : 2021-05-04

2. Manufacturer

- Name..... : Hanwha Techwin Co., Ltd

3. Use of Report : Quality control

4. Test sample / Model..... : NETWORK CAMERA / TNO-7180R



5. Date(s) of test : 2021-05-29 to 2021-05-31

6. Test Standard (Method) used.... : Specifications presented by the sponsor (reference NEMA TS 2.2.9)

7. Testing Environment..... : Temperature: (25.0 ± 10.0) °C, Humidity: (50 ± 25) %R.H., Air Pressure: (99.0 ± 2) kPa

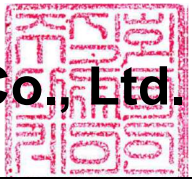
8. Results : Refer to each test items


The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
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Approval	Tested by: Min-Gi Mun  (Signature)	Technical Manager: Sang Wook Woo  (Signature)
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2022-11-07


CTK Co., Ltd.



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Test place

Institution name	CTK Co., Ltd.
Address	142, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea

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1. Shock

1.1. Test equipment

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

1.2. Test condition

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

1.3. Check Item

- No mechanical damage.

1.4. Test Result

- Pass

Model description

Basic Model	TNO-7180R
Series model	TNO-7180RLP
Model differences	The model TNO-7180RLP is identical to TNO-7180R except model designation.

2. APPENDIX


2.1. Products

< Photo 1 > Product External view



< Photo 2 > Product External view



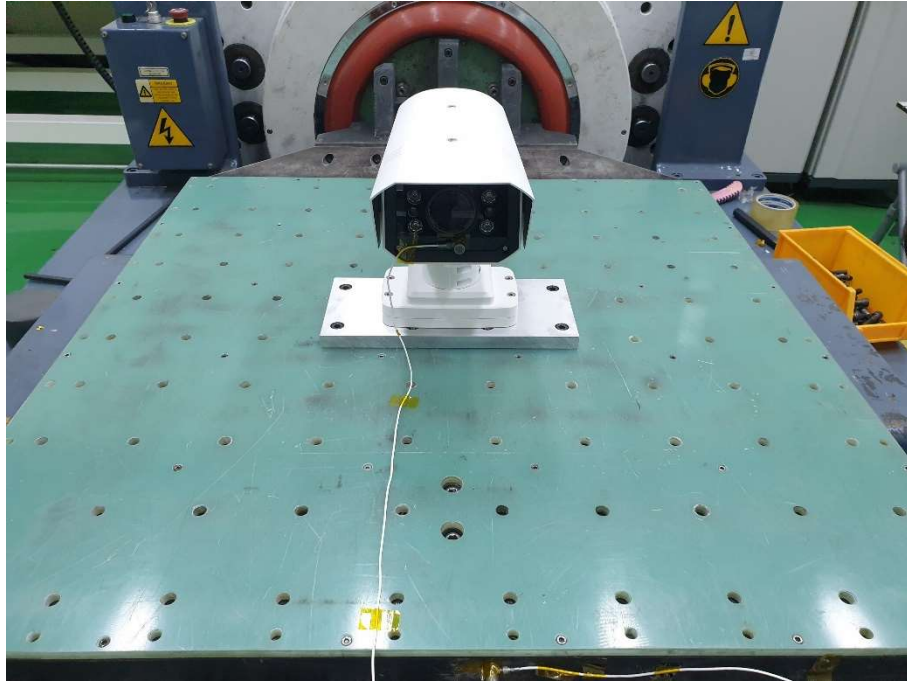
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< Photo 3 > Product label

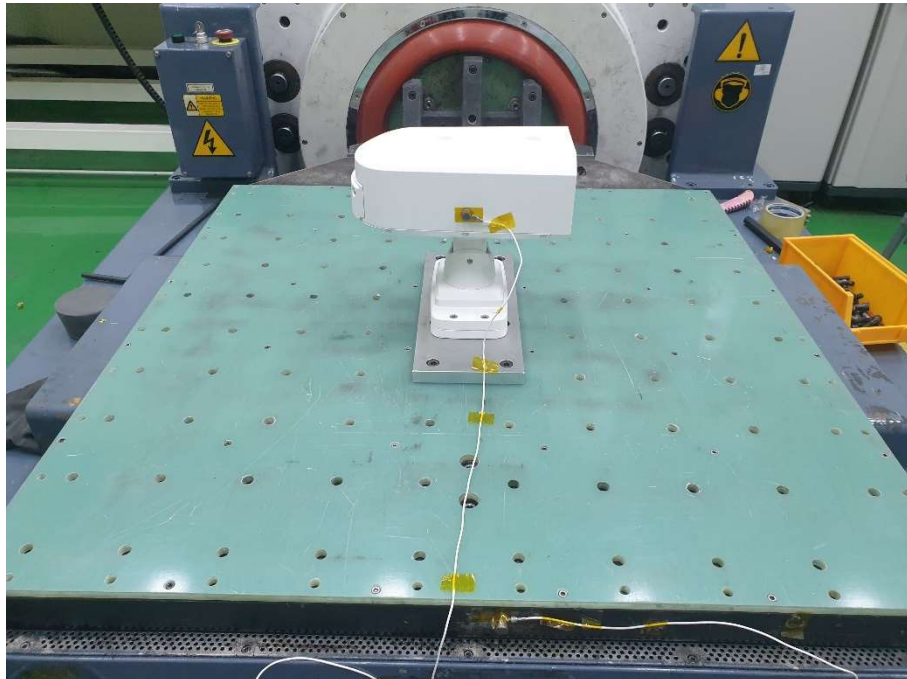


2.2. Test photos

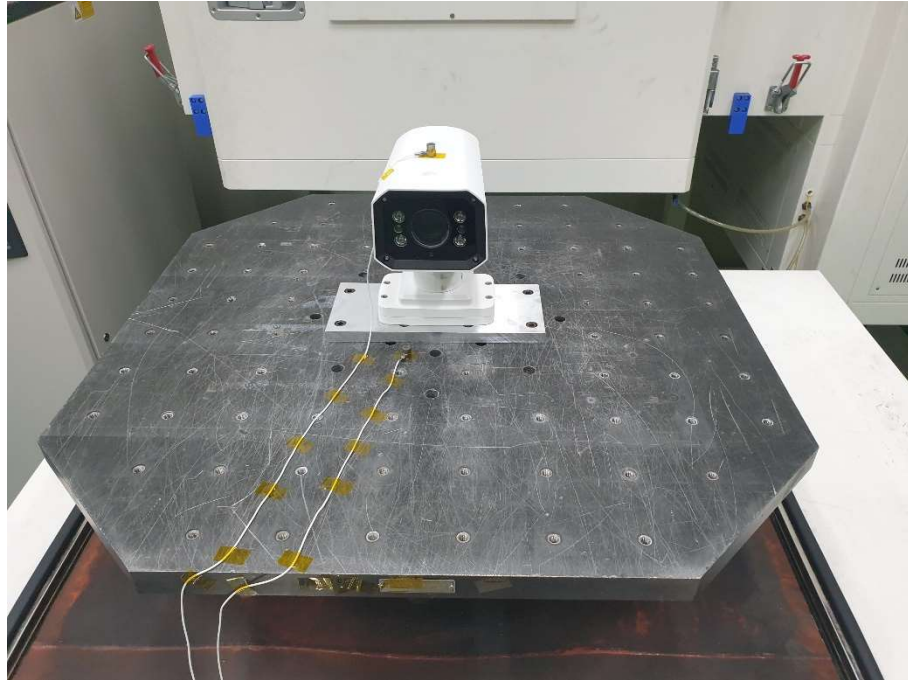
[X axis]



[Y axis]

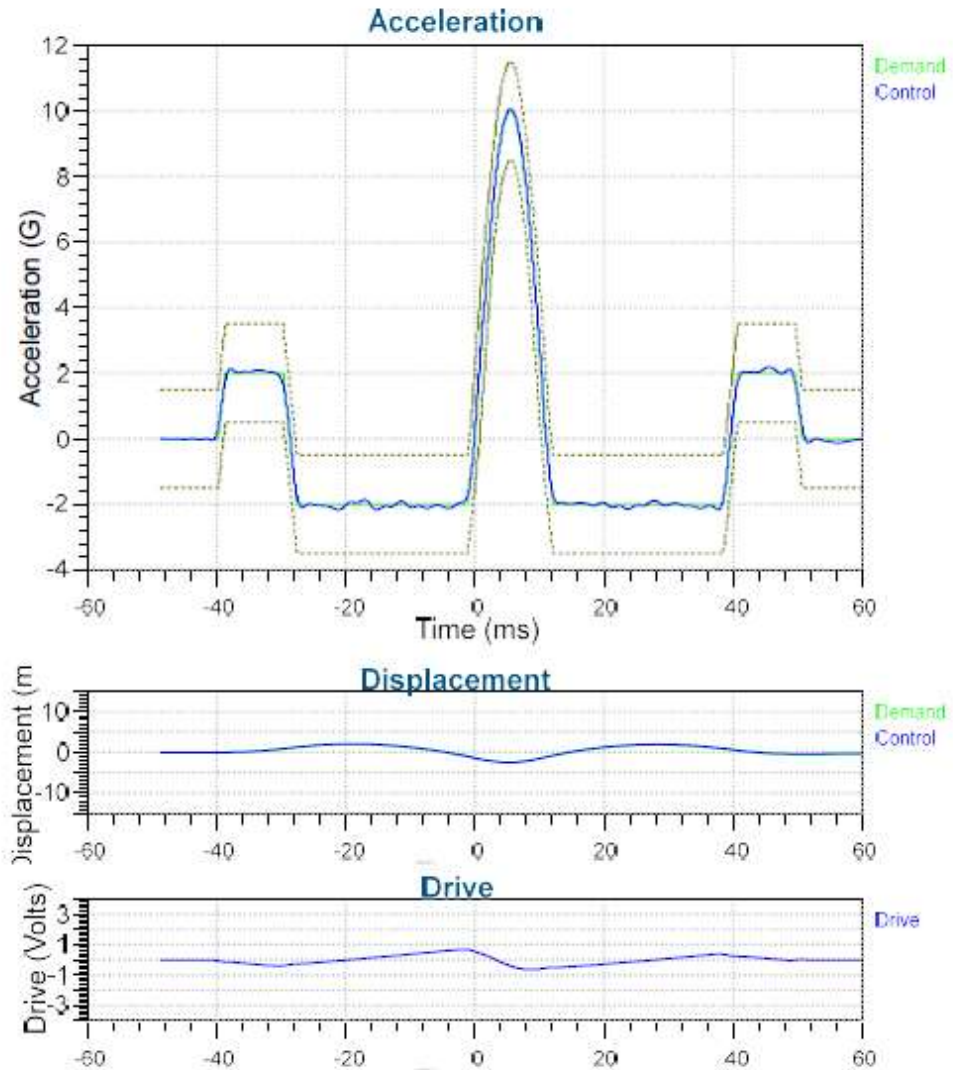


[Z axis]



2.3. Data

[Shock]



5/29/2021 11:12:3 Level 1) 100 %

Output: 0.6825 Volts per 10G_11ms

Demand: 10 G

Control: 10.07 G

Pulse: 1 of 1

Running

[X+ axis]



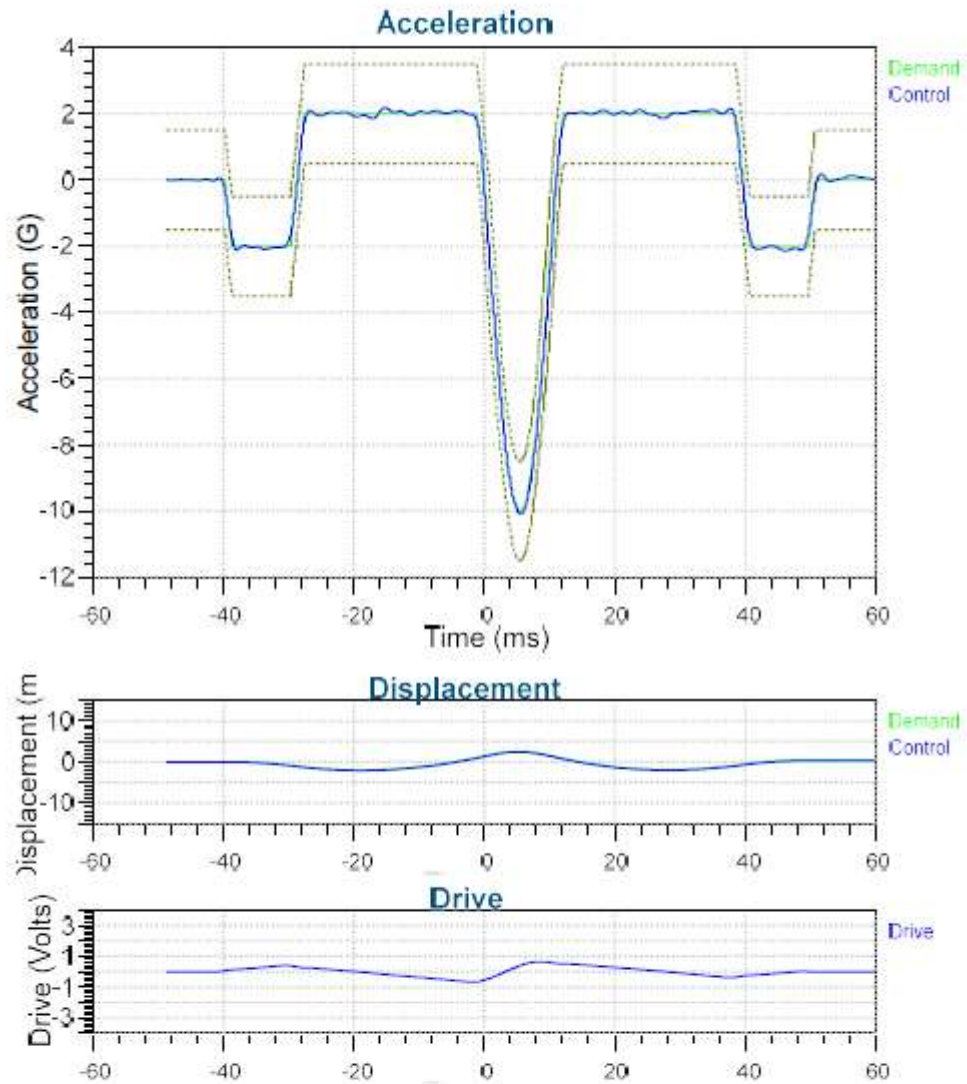
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[Shock]



5/29/2021 11:12:31 Level 2) 100 %

Output: 0.6805 Volts per 10G_11ms

Demand: 10 G

Control: 10.08 G

Pulse: 1 of 1

End of Test

[X-axis]



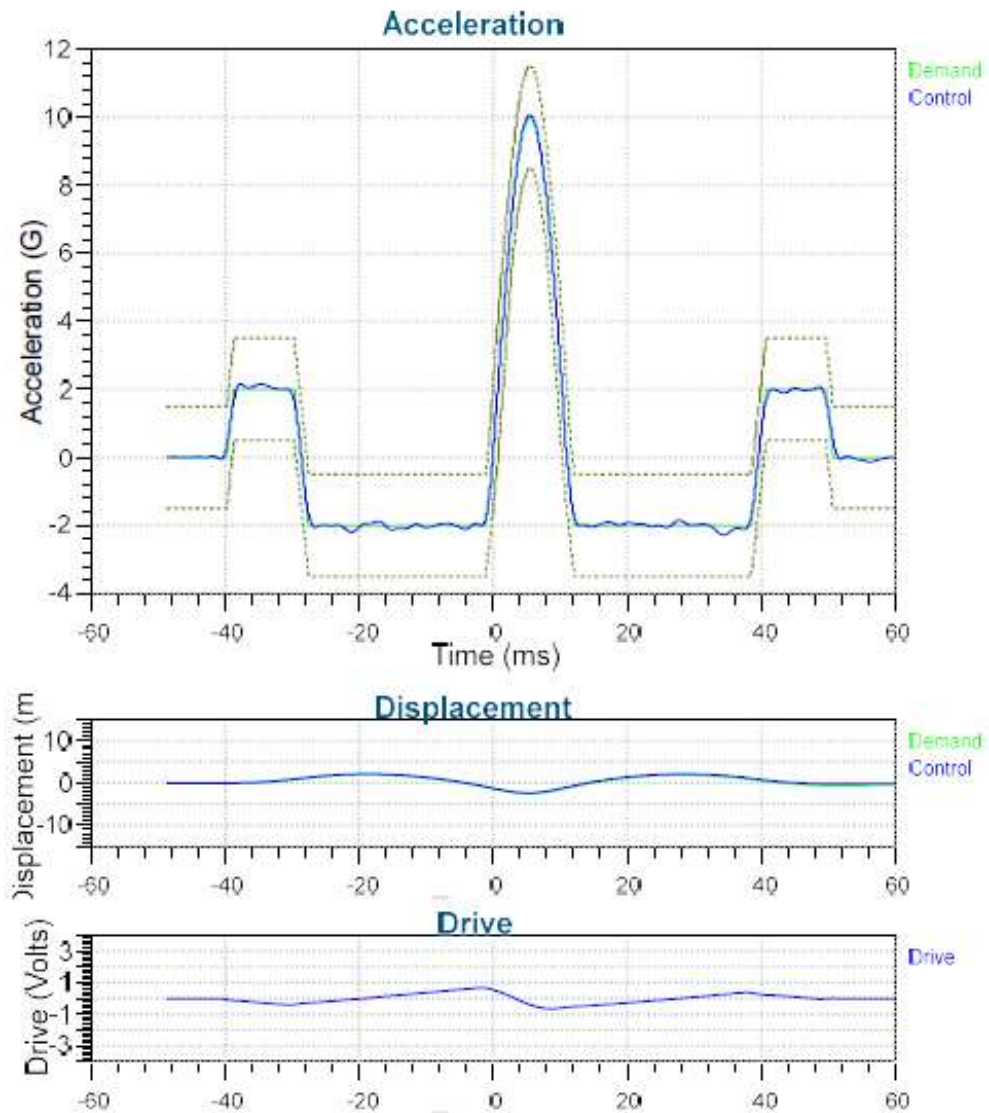
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[Shock]



5/29/2021 12:29:55 Level 1) 100%

Output: 0.6767 Volts per 10G_11ms

Demand: 10 G

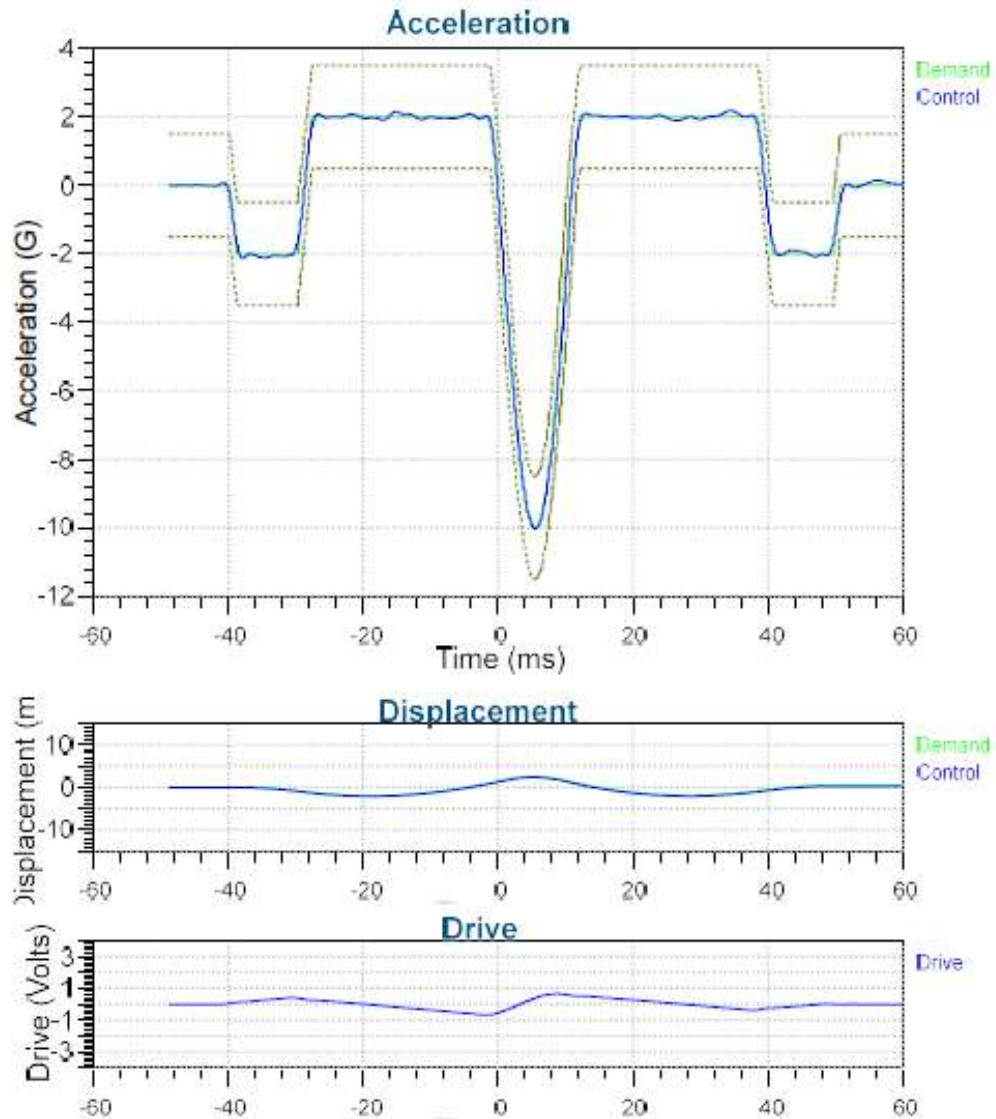
Control: 10.06 G

Pulse: 1 of 1

Running

[Y+ axis]

[Shock]



5/29/2021 12:29:51 Level 2) 100 %

Output: 0.6782 Volts per 10G_11ms

Demand: 10 G

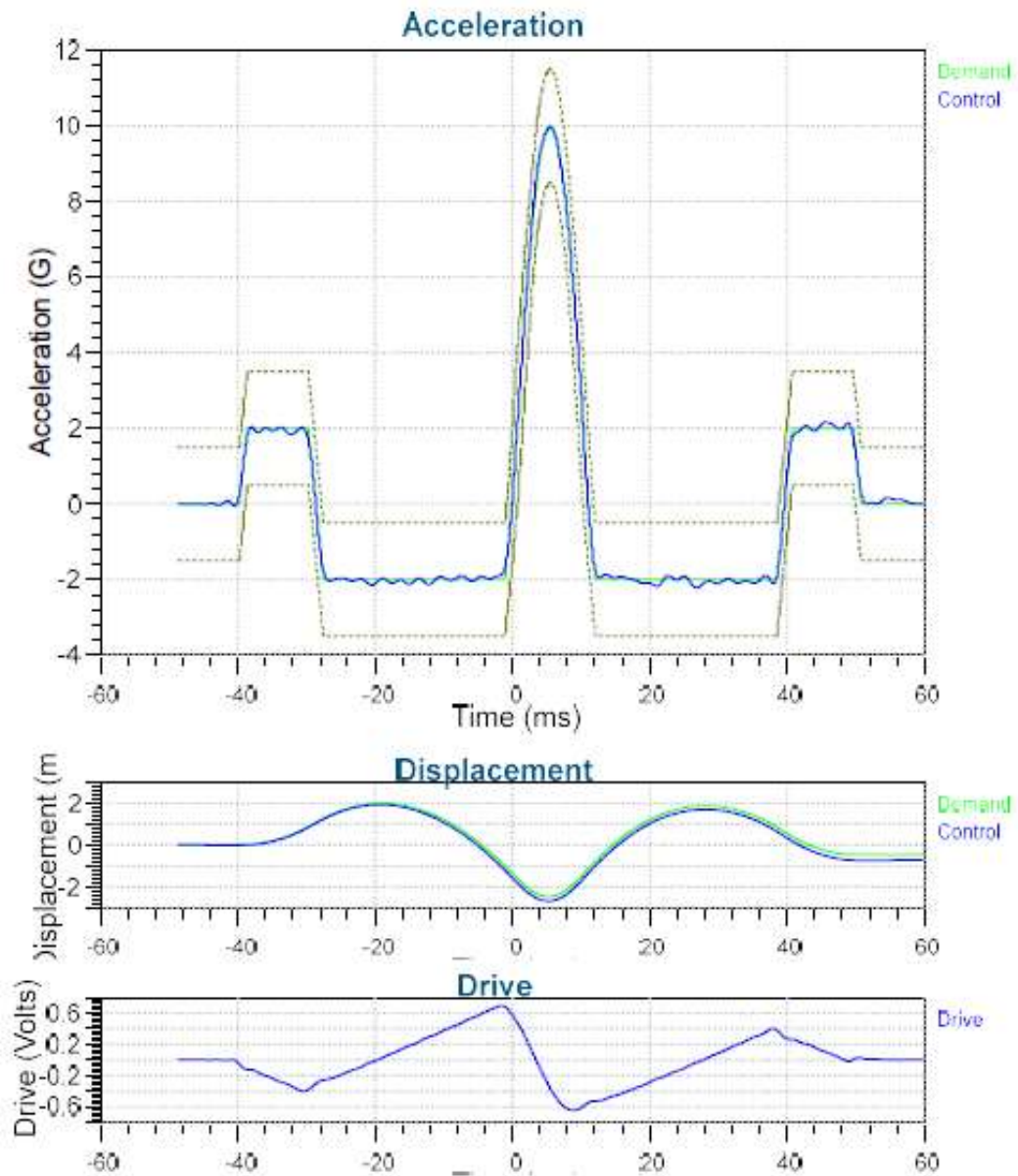
Control: 10.02 G

Pulse 1 of 1

End of Test

[Y-axis]

[Shock]



5/31/2021 08:14:22 Level 1) 100%

Output: 0.6916 Volts per 10g_11ms

Demand: 10 G

Control: 9.941 G Pulse: 1 of 1

Running

[Z+ axis]



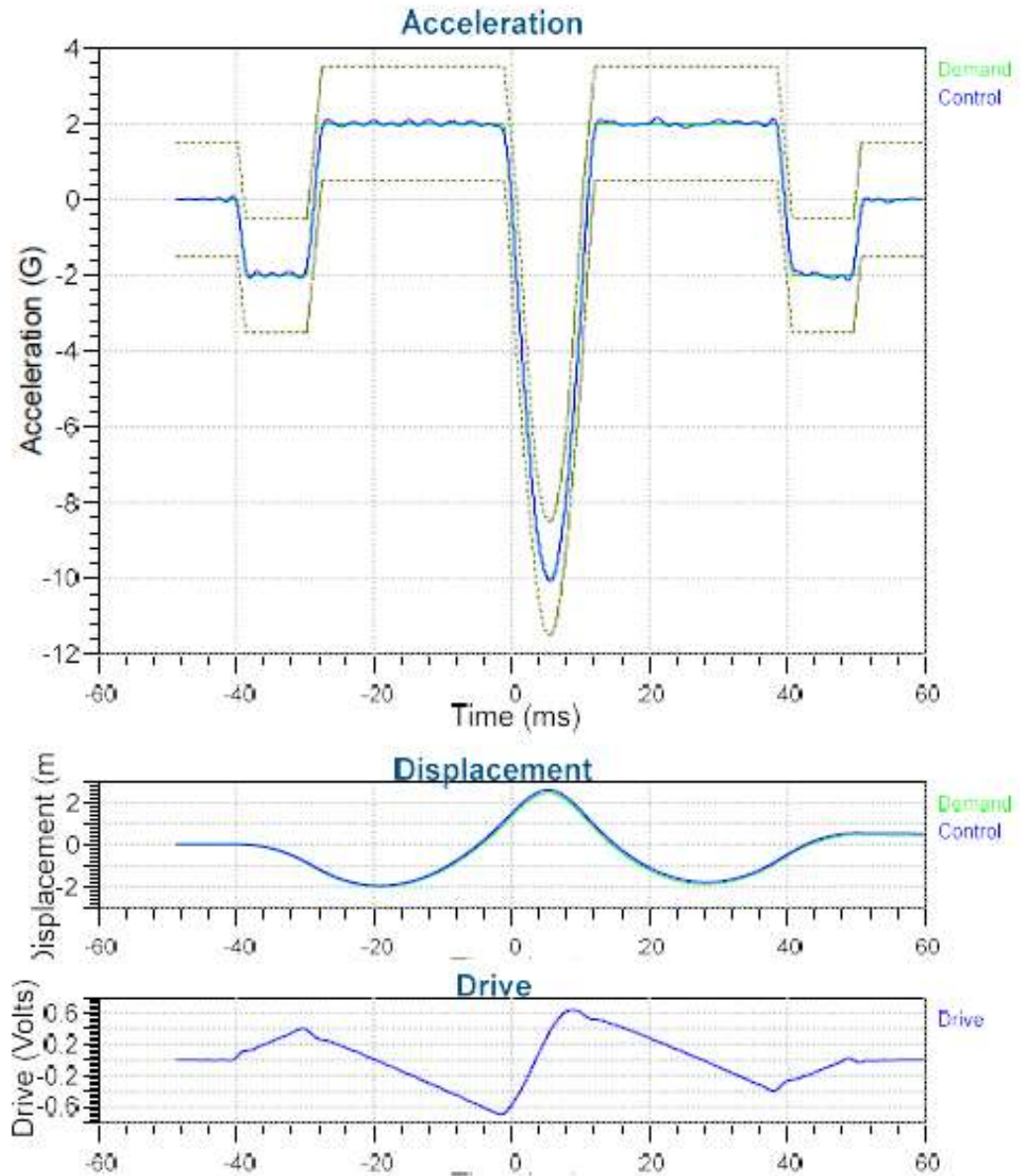
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[Shock]



5 31, 2021 08:14:2 Level 2) 100 %

Output: 0.6898 Volts per 10g_11ms

Demand: 10 C

Control: 10.08 C

Pulse: 1 of 1

End of Test

[Z- axis]