KING DESIGN®
Reliability & Communication Testing Instruments
KING DESIGN INDUSTRIAL CO., LTD.
VIBRATION TEST LABORATORY
4F,NO. 3, Lane 270, Pei Shen Road Sec. 3,
Shen Keng Dist., New Taipei City, 222, Taiwan, R.O.C
TEL: 886-2-2662-5100 FAX: 886-2-2662-3094
http: //www.kdi.tw
http://www.vibration.com.tw
E-mail:service@kdi.tw

TESTING / INSPECTION REPORT

REPORT NO：VT-170606-2

COMPANY ：Apacer Technology Inc.
ADDRESS ：1F., No.32, Zhongcheng Rd., Tucheng Dist.,
New Taipei City 236, Taiwan (R.O.C)
TEL ：886-2-2267-8000
FAX ：886-2-2267-2261
SPECIMEN ：Compact Flash Card
DATE OF RECEIVED ：2017/05/23
DATE OF TESTED ：2017/06/01

TEST / INSPECTION ITEMS：Vibration / Shock

REMARKS：

- The laboratory is accredited by ISO/IEC 17025 General Requirements for the Competence of Calibration and Testing Laboratory.
- The results only apply to the device under test.
- This report is 26 pages, and no part of it may be abstracted or reproduced.

Test Engineer：Peter Peng	
Approval Signatory：2017.6.19 David Lee	Laboratory Head：Hsin Chang

金頓科技實驗室驗

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TESTING EQUIPMENT：

1.Vibration Tester	：KING DESIGN KD-9363EM-600F2K-50N120, S/N：KDS11054783
2.Controller	：VCS-913+, S/N：1312416
3.Control Accelerometer	：Wilcoxon Research WR-777, S/N：4208
4.Shock Testing System	：KING DESIGN DP-1200-60, S/N：R2110086489
5.Controller	：DAS-105, S/N：263210255
6.Accelerometer	：B&K 4398, S/N：2209044
7.Shock Testing System	：KING DESIGN DP-1200-18, S/N：KDS02197998
8.Controller	：DAS-105, S/N：263210255
9.Accelerometer	：DYTRAN Model：3200B6 S/N：8594

TEST ENVIRONMENT：

Temperature	：25℃ (25±10℃)
Relative Humidity	：65% RH (50±25% RH)

SPECIMEN：

Model	：Industrial CF6A / CF6A-M / CF6A-SL
Quantity	：1 unit

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TEST SPECIFICATION(1)：

Comply with MIL-STD 810G 514.6 category 7

Random Vibration test (Non-Operating)

Frequency	：15 Hz to 2,000 Hz
Accelerate	：4.02 g rms
P.S.D.	：0.01 g^2/Hz (15Hz)
	0.01 g^2/Hz (105.94Hz)
	+6 dB/Oct (105.94Hz to 150Hz)
	0.02 g^2/Hz (150Hz)
	0.02 g^2/Hz (500Hz)
	-6 dB/Oct (500Hz to 2,000Hz)
	0.0013 g^2/Hz (2,000Hz)
Test Axis	：X, Y, Z axis
Test Time	：1 hr (Each axis)
Total Test Time	：3 hrs

TEST SPECIFICATION(2)：

Comply with MIL-STD 810G 514.6 category 24

Random Vibration test (Operating)

Frequency	：20 Hz to 2,000 Hz
Accelerate	：7.69 g rms
P.S.D.	：0.04 g^2/Hz (20Hz to 1,000Hz)
	：-6 dB/Oct (1,000Hz to 2,000Hz)
Test Axis	：X, Y, Z axis
Test Time	：1 hr (Each axis)
Total Test Time	：3 hrs

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TESTING / INSPECTION REPORT

TEST SPECIFICATION(3)：

As per applicant's requirement

Wave Form	：Half sine wave (Non-Operating)
Acceleration	：1,500 g
Duration Time	：0.5 mS
No. of Shock	：Each axis 3 times
Shock Direction	：±X, ±Y, ±Z axis

TEST SPECIFICATION(4)：

As per applicant's requirement

Wave Form	：Half sine wave (Operating)
Acceleration	：50 g
Duration Time	：11 mS
No. of Shock	：Each axis 3 times
Shock Direction	：±X, ±Y, ±Z axis

TEST RESULT：

Describe	PASS	FAIL	Non-Judgment
Function judgment(1)	√	——	——
Appearance check(2)	√	——	——
(1)--Burn in function was normal after the test. (2)--No visible damages were found after the test.			

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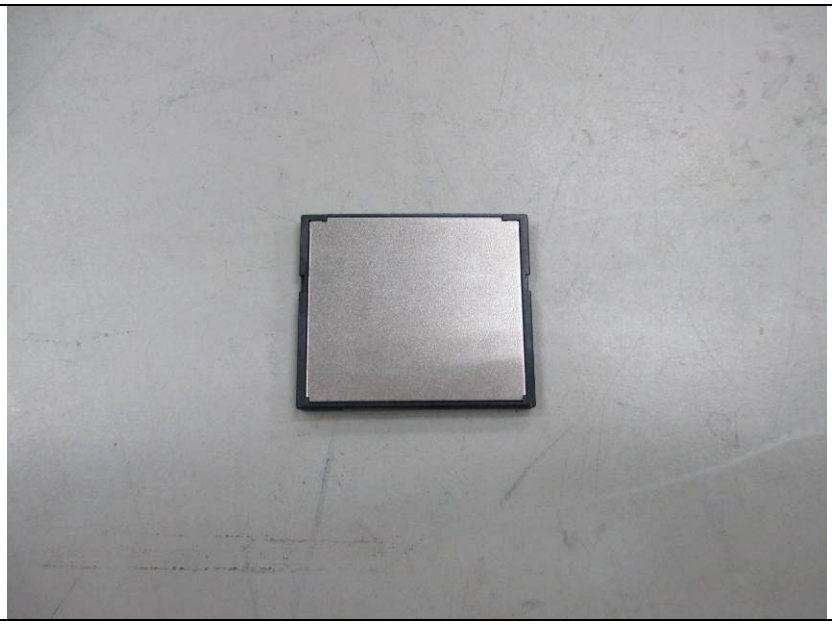
TESTING / INSPECTION REPORT

Sample photo before the test
Front

Back


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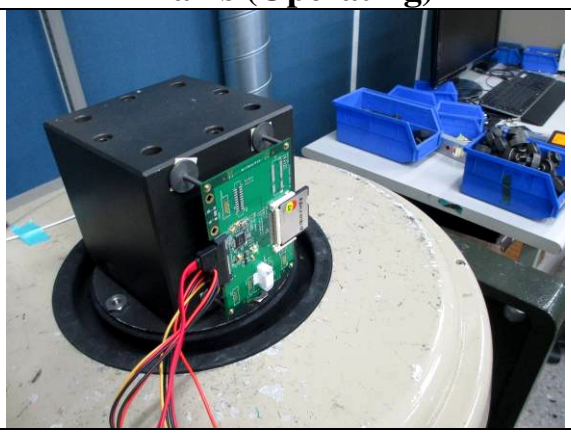
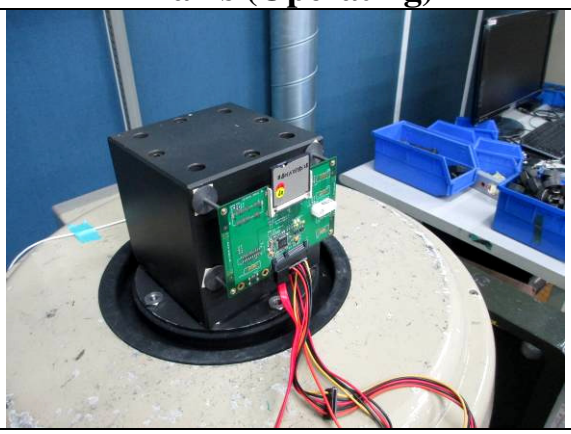
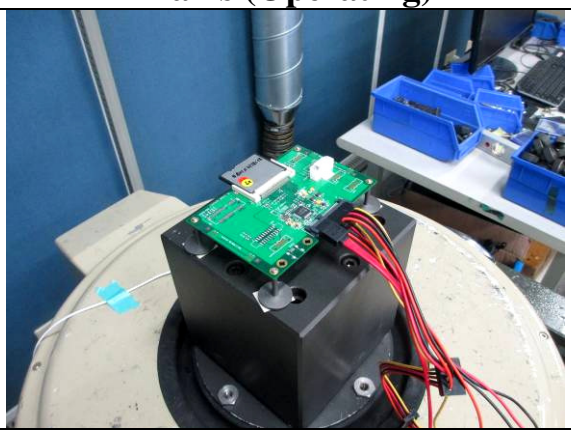
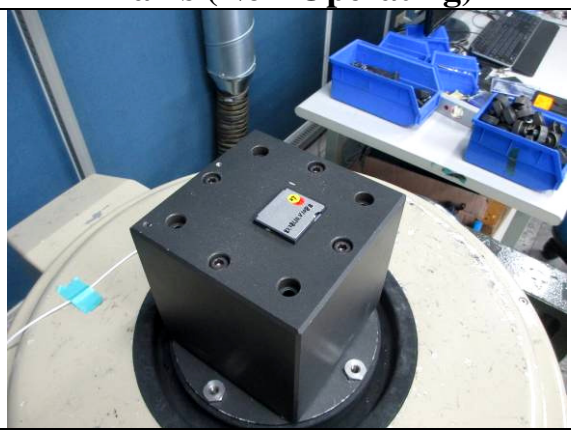
TESTING / INSPECTION REPORT

Vibration testing photos

X axis (Operating)	X axis (Non-Operating)
	
Y axis (Operating)	**Y axis (Non-Operating)**
	
Z axis (Operating)	**Z axis (Non-Operating)**
	

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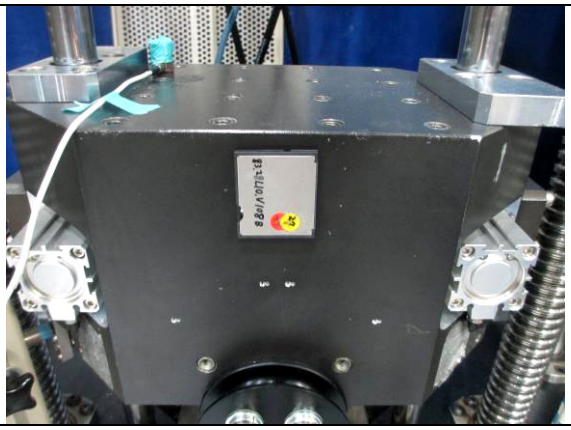
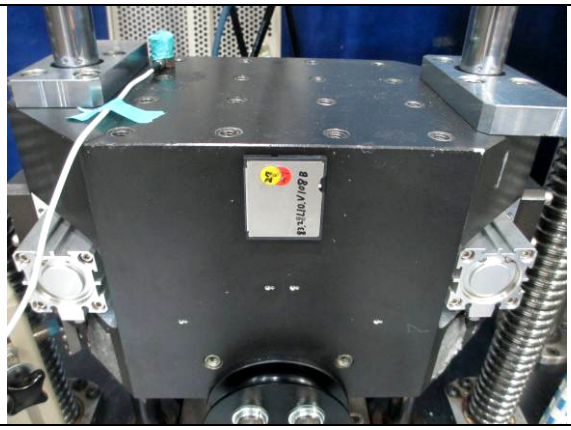
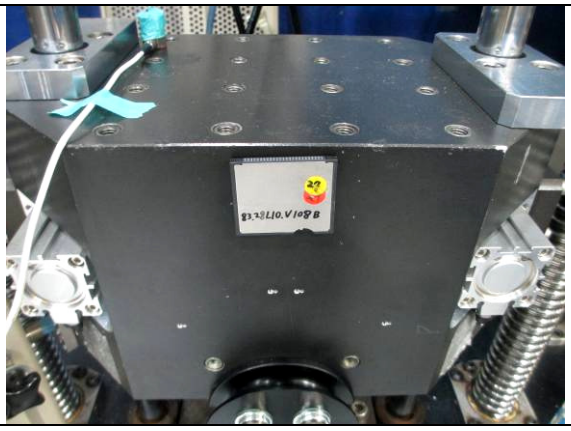
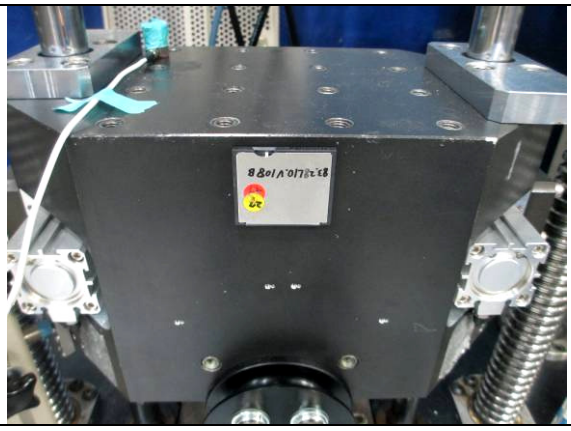
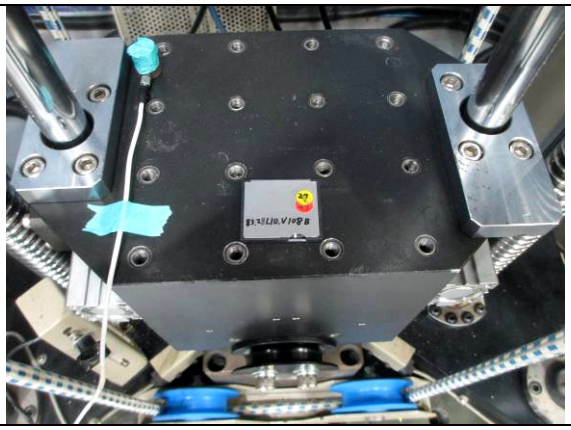
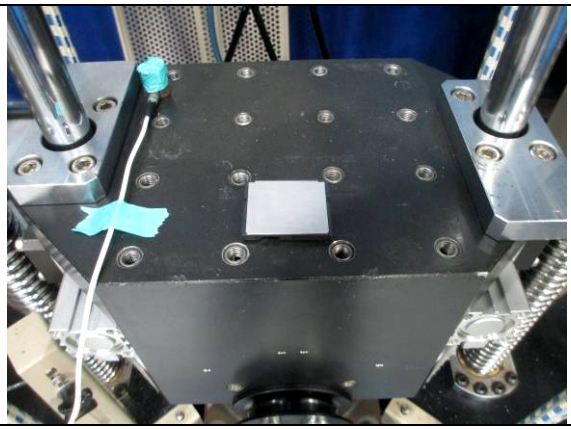
TESTING / INSPECTION REPORT

Shock testing photos (Non-operating)	
+X axis	-X axis
	
+Y axis	-Y axis
	
+Z axis	-Z axis
	

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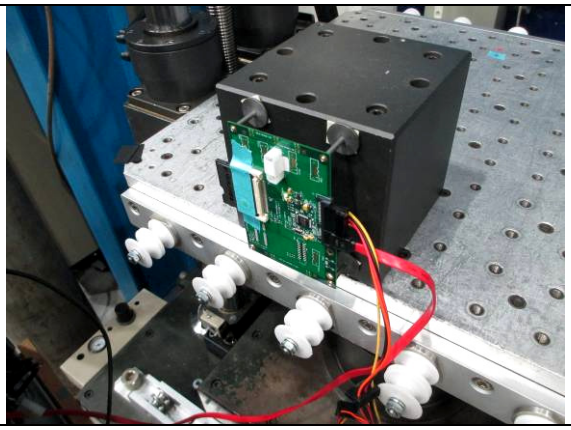
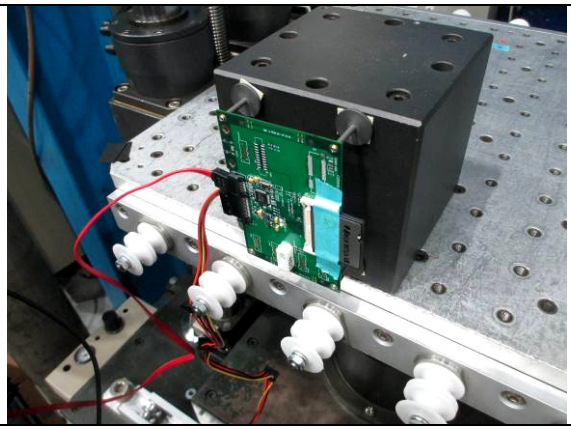
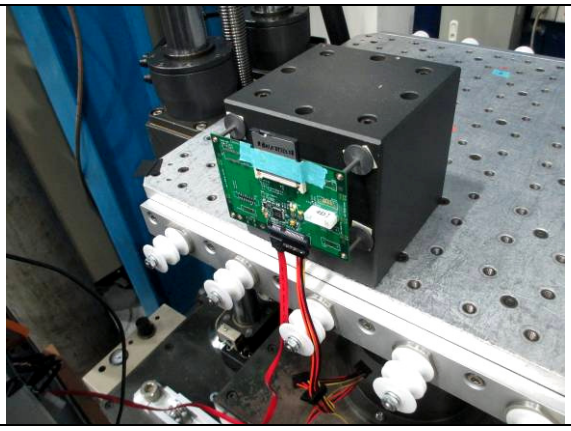
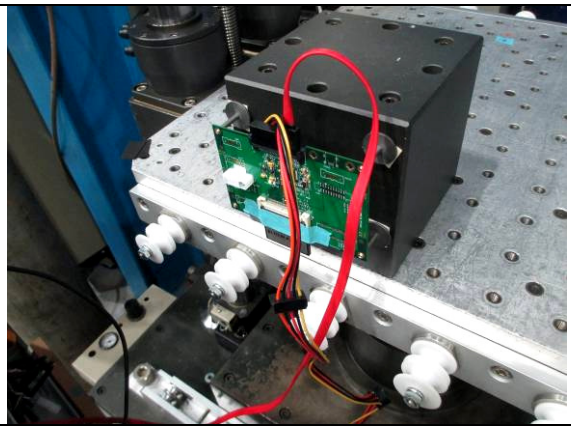
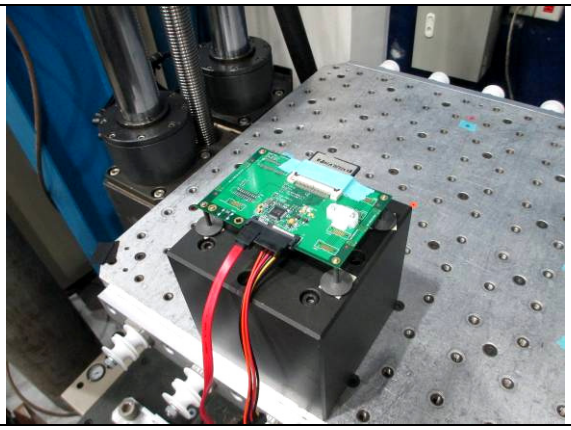
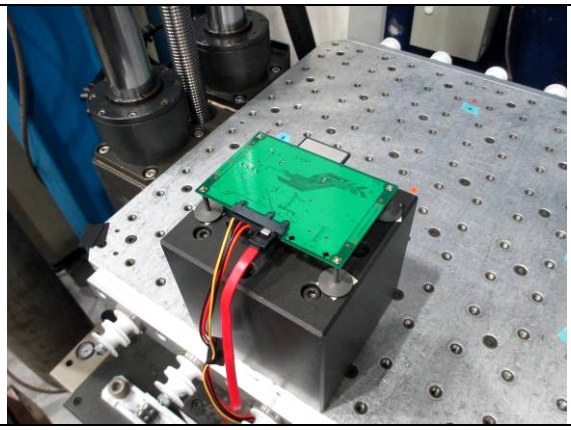
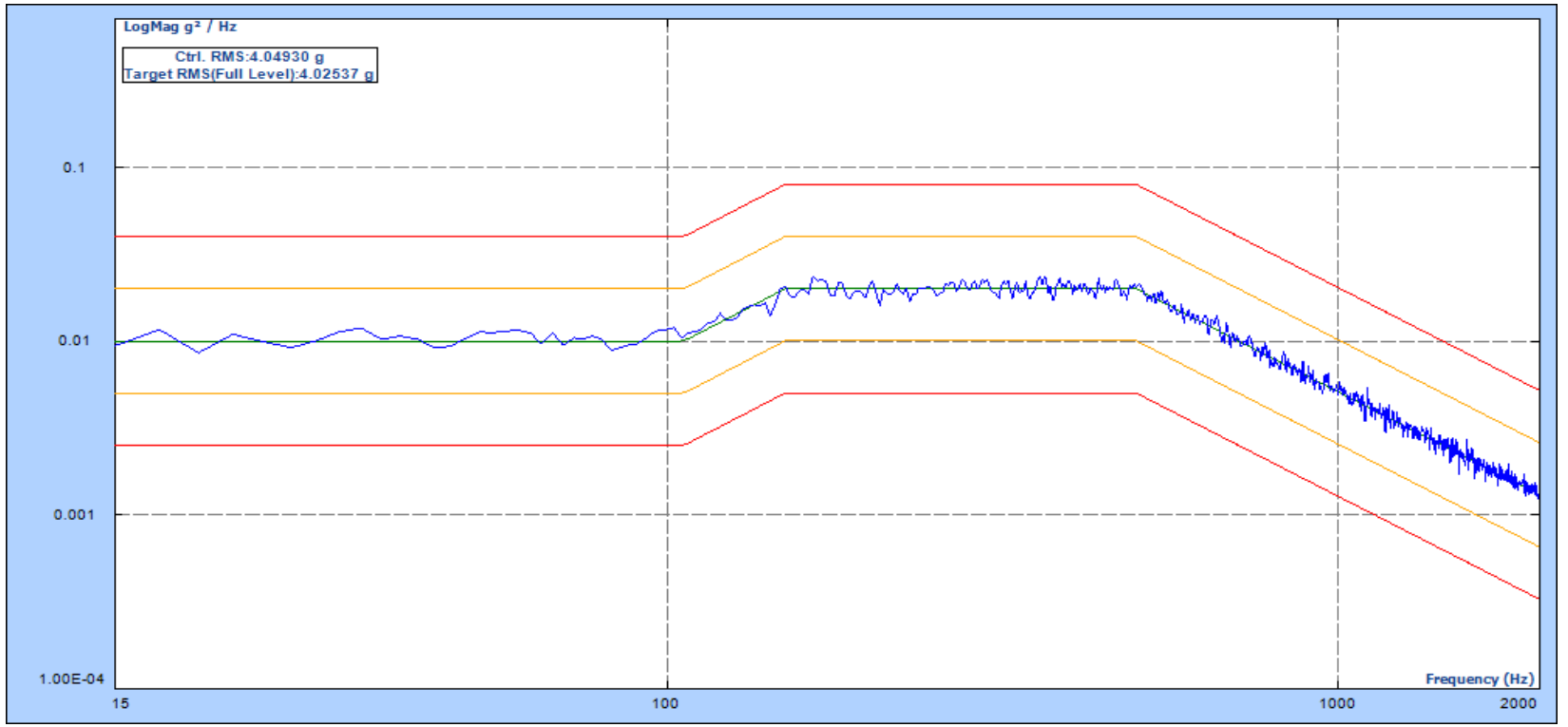
TESTING / INSPECTION REPORT

Shock testing photos (Operating)	
+X axis	-X axis
	
+Y axis	-Y axis
	
+Z axis	-Z axis
	

X axis

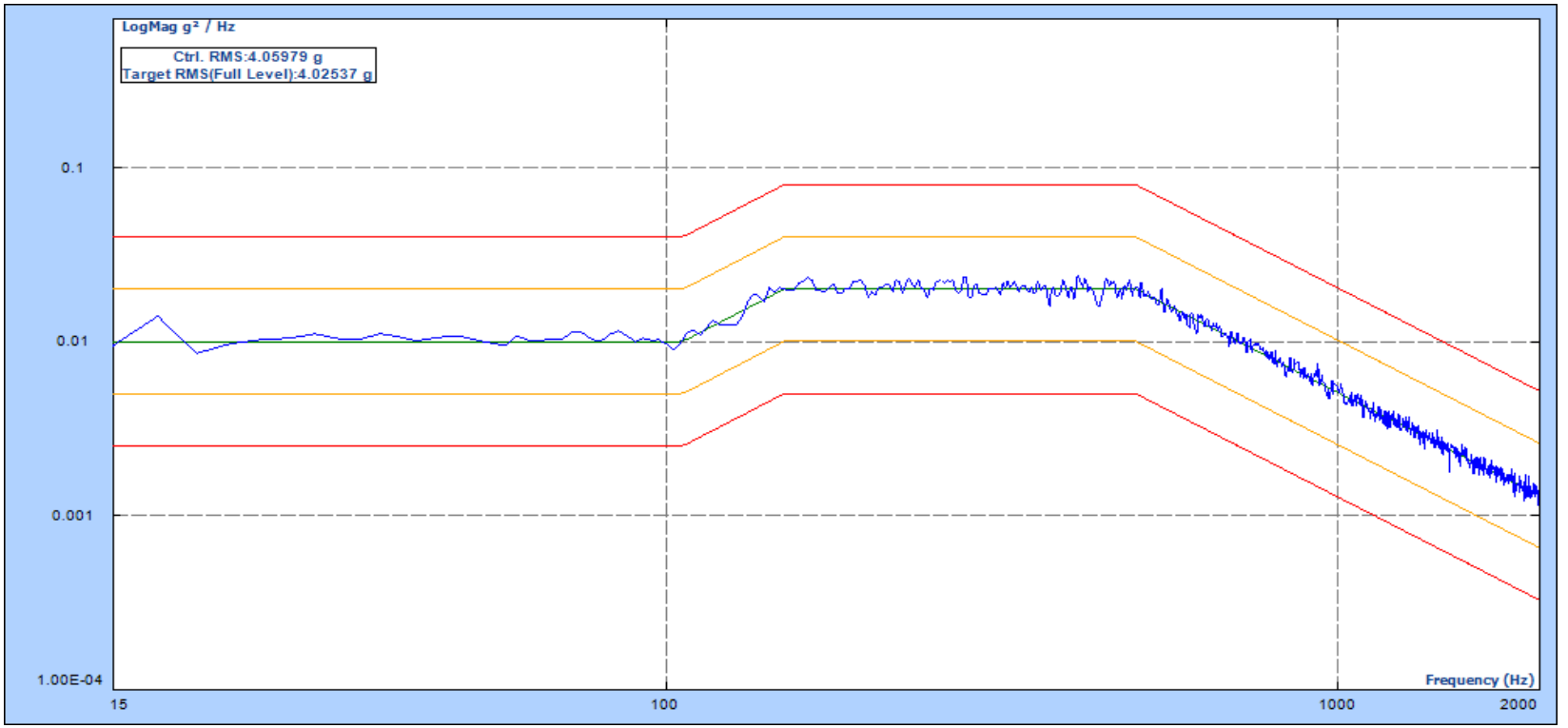


Level: 100.00 %
Velocity Pk: 0.132 m/s
Remaining: 00:00:00

Drive Pk: 1.129V
Control RMS: 4.049 g
Total Elapsed: 01:01:12

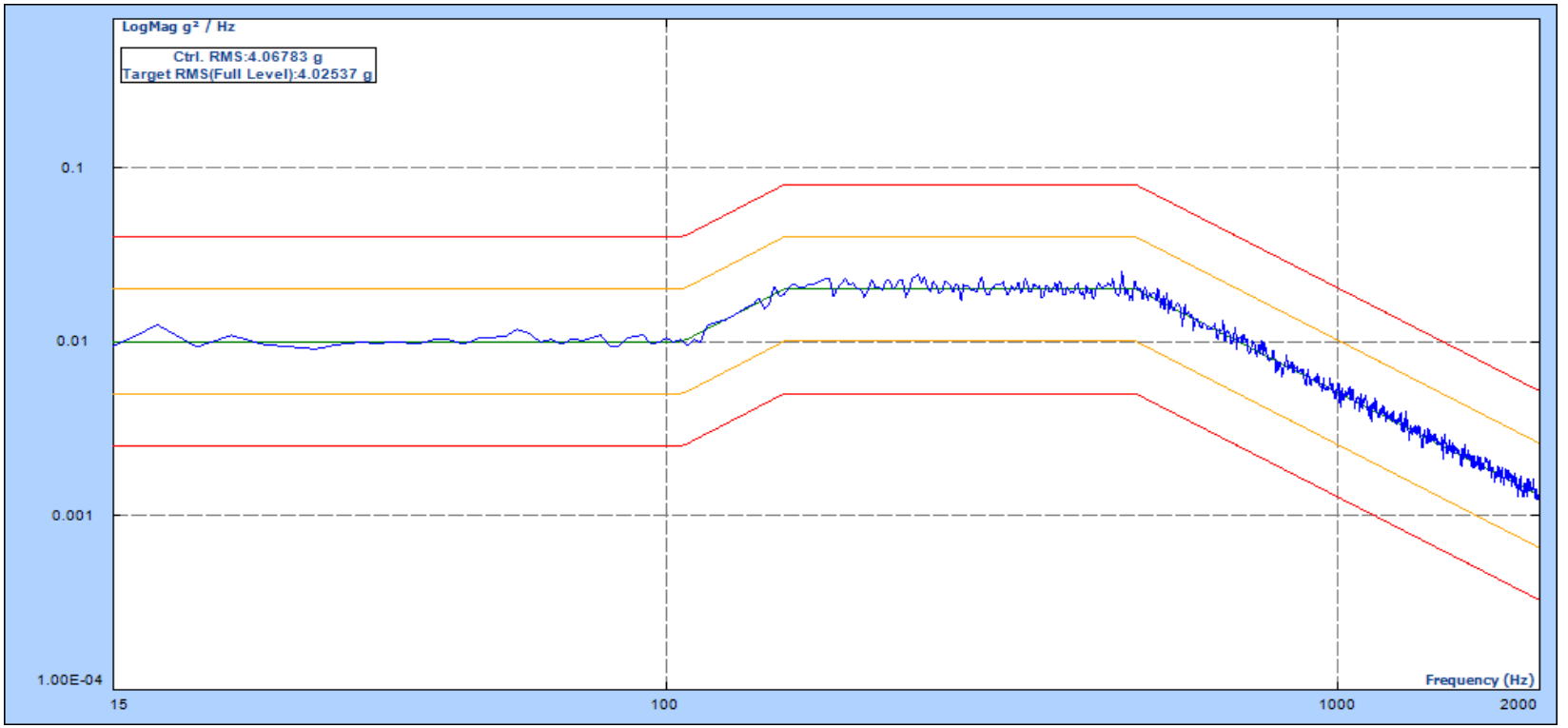
Est. Disp. : 0.067 in Pk-Pk
Target RMS: 4.020 g
Full Level Elapsed: 01:00:00

Y axis



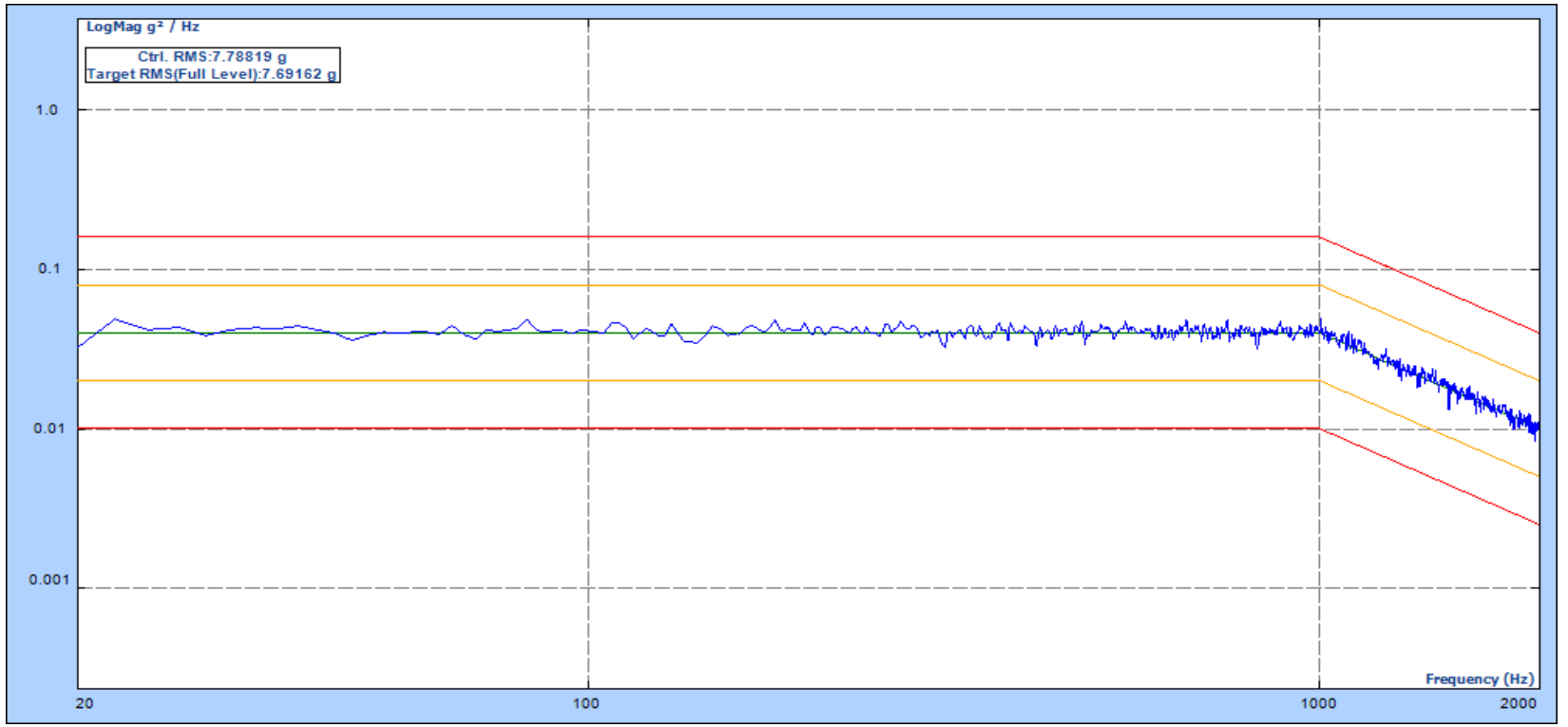
Level: 100.00 %
Drive Pk: 1.140V
Est. Disp. : 0.069 in Pk-Pk
Velocity Pk: 0.135 m/s
Control RMS: 4.059 g
Target RMS: 4.020 g
Remaining: 00:00:00
Total Elapsed: 01:01:11
Full Level Elapsed: 01:00:00

Z axis



Level: 100.00 %
Drive Pk: 1.007V
Est. Disp. : 0.067 in Pk-Pk
Velocity Pk: 0.132 m/s
Control RMS: 4.068 g
Target RMS: 4.020 g
Remaining: 00:00:00
Total Elapsed: 01:01:02
Full Level Elapsed: 01:00:00

X axis

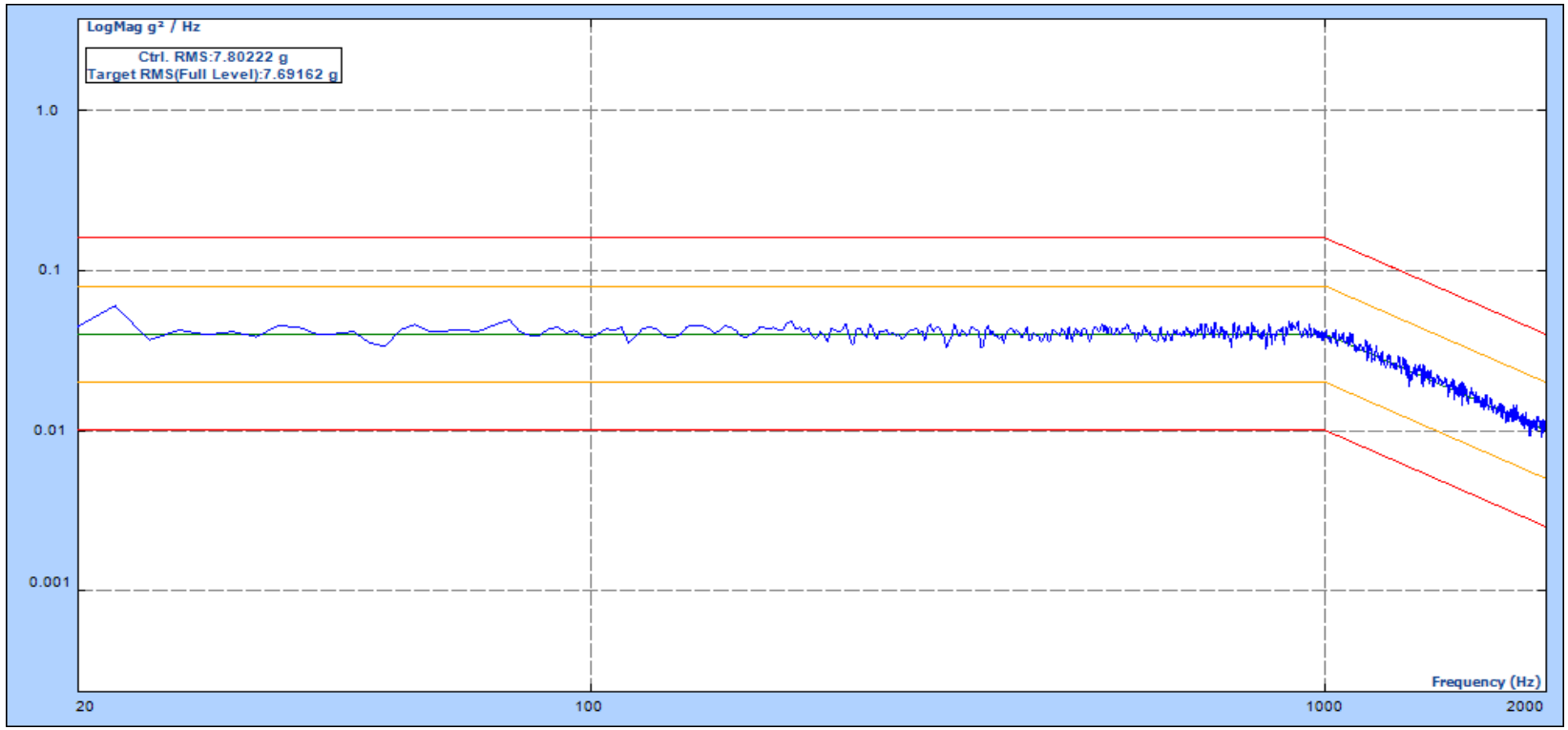


Level: 100.00 %
Velocity Pk: 0.218 m/s
Remaining: 00:00:00

Drive Pk: 2.428V
Control RMS: 7.788 g
Total Elapsed: 01:01:05

Est. Disp. : 0.084 in Pk-Pk
Target RMS: 7.690 g
Full Level Elapsed: 01:00:00

Y axis

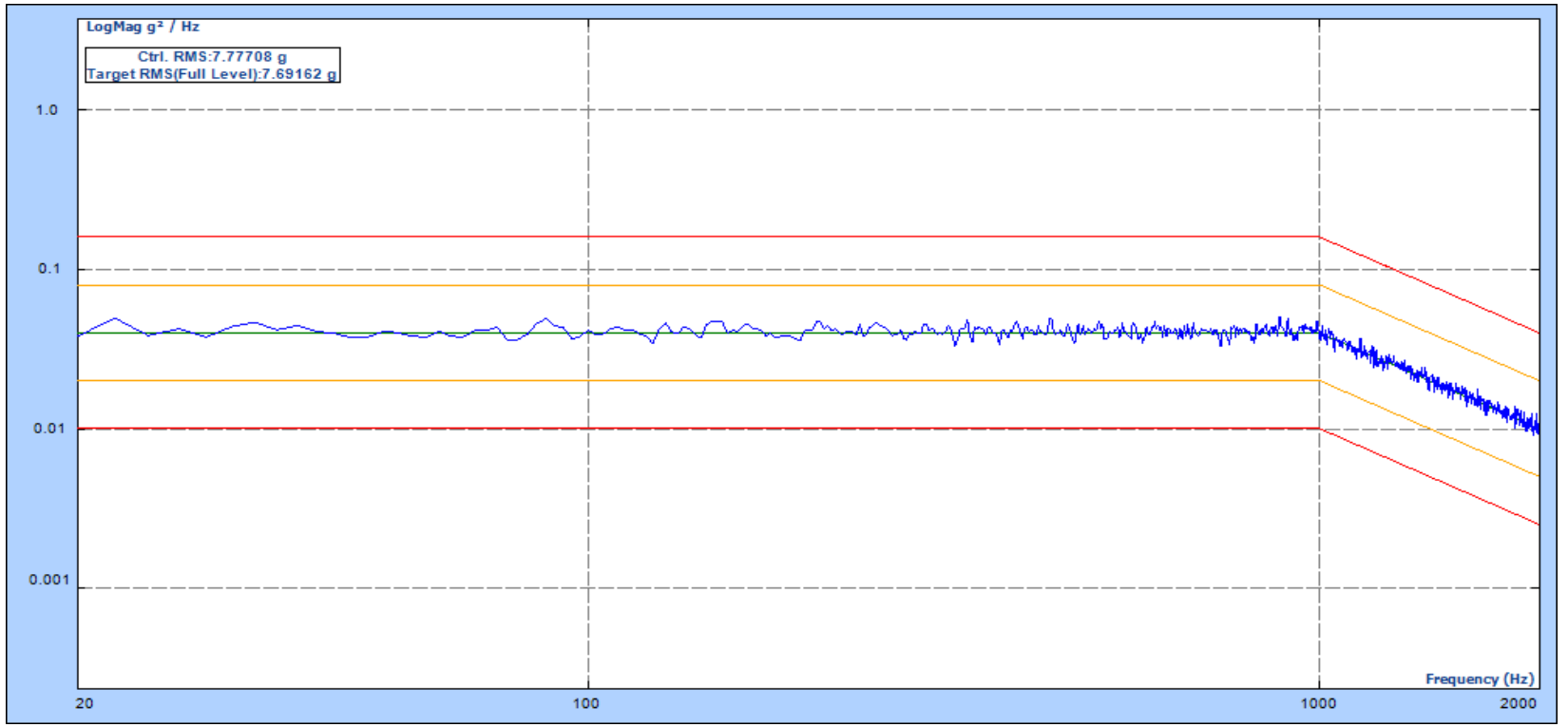


Level: 100.00 %
Velocity Pk: 0.224 m/s
Remaining: 00:00:00

Drive Pk: 2.532V
Control RMS: 7.804 g
Total Elapsed: 01:01:15

Est. Disp. : 0.089 in Pk-Pk
Target RMS: 7.690 g
Full Level Elapsed: 01:00:00

Z axis



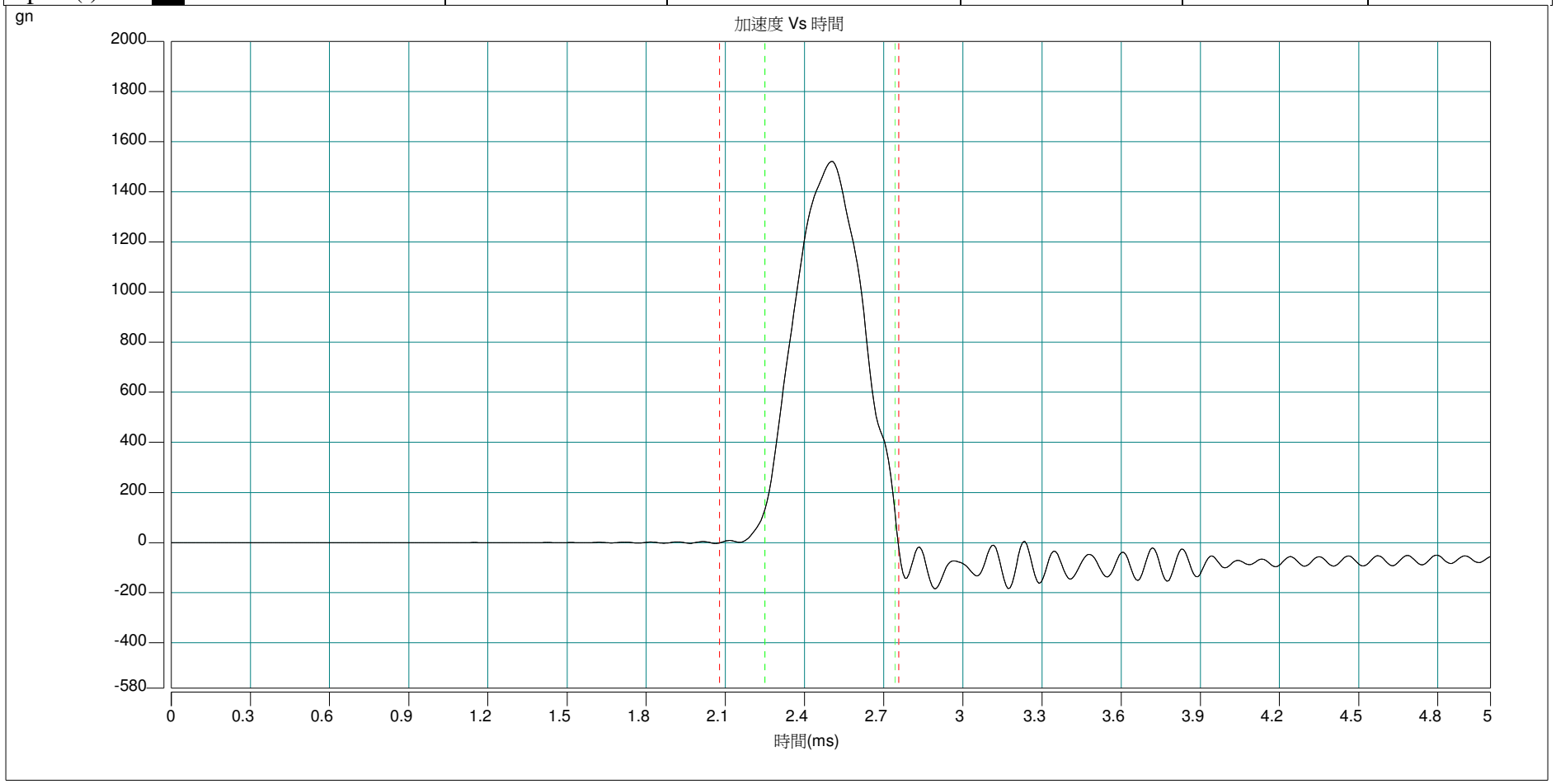
Level: 100.00 %
Velocity Pk: 0.219 m/s
Remaining: 00:00:00

Drive Pk: 2.634V
Control RMS: 7.777 g
Total Elapsed: 01:01:05

Est. Disp. : 0.086 in Pk-Pk
Target RMS: 7.690 g
Full Level Elapsed: 01:00:00

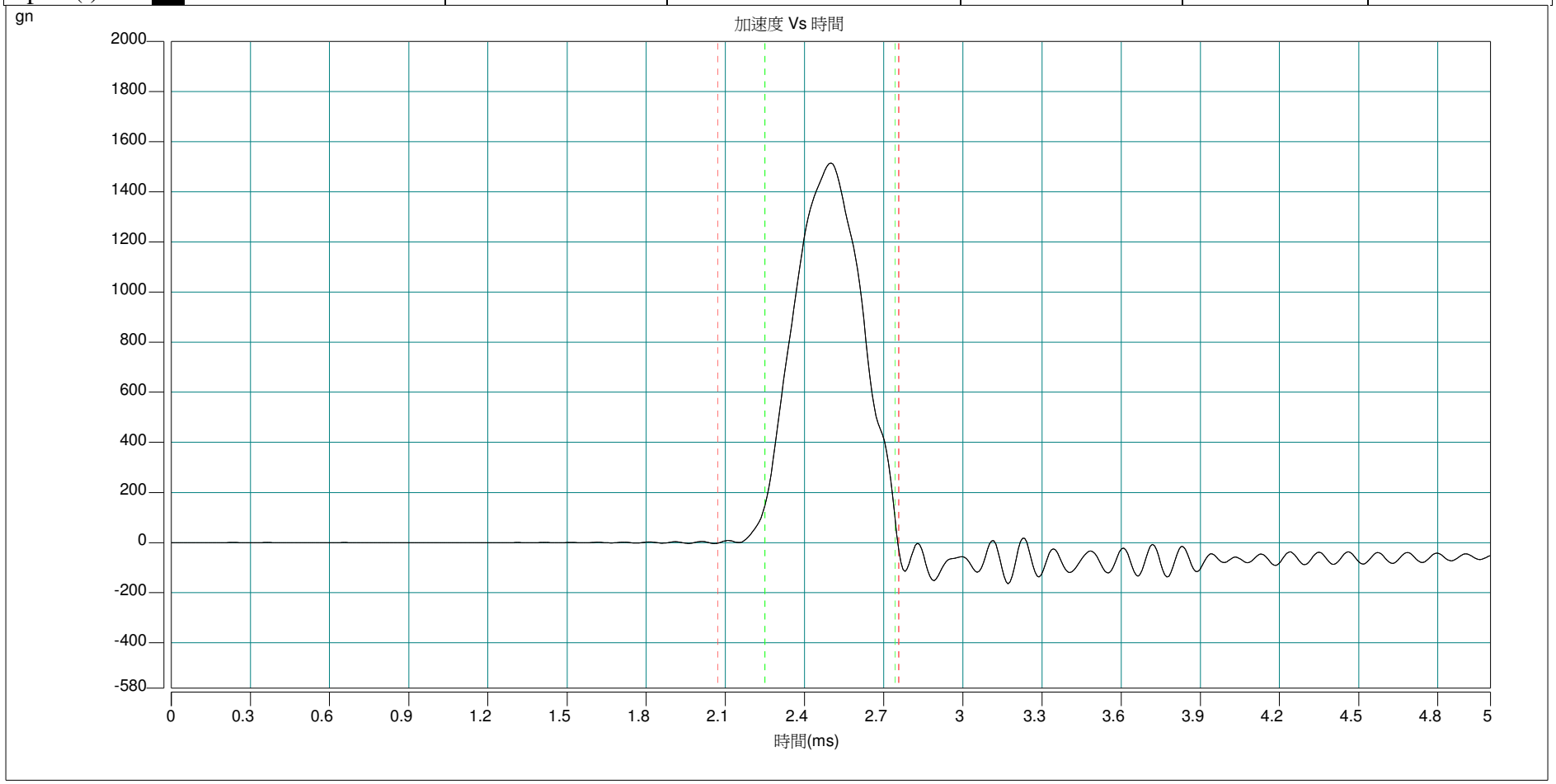
+X axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	1521.61	0.49	178.60	10000.00	1521.61	-184.18



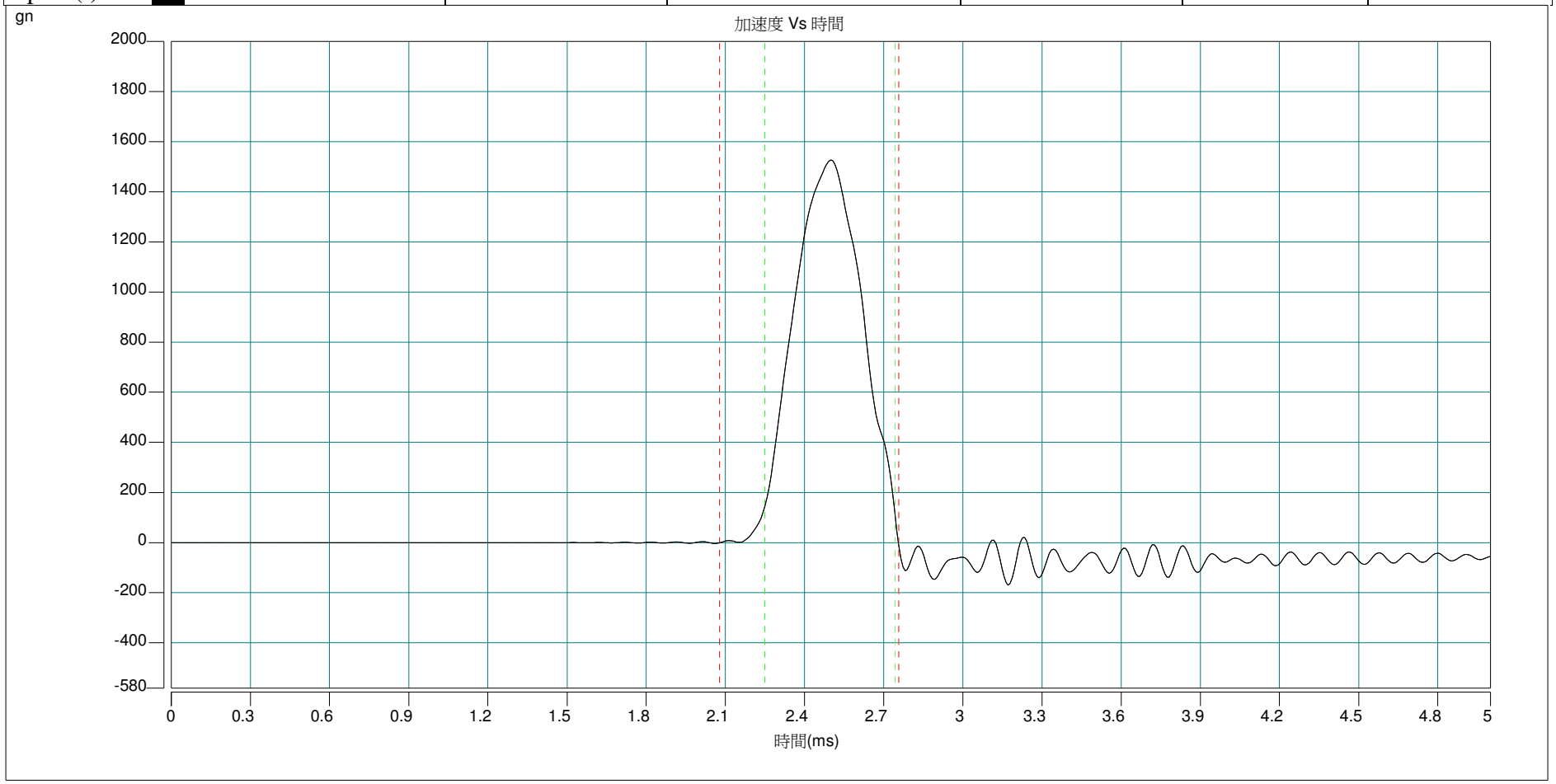
-X axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	1515.58	0.49	178.67	10000.00	1515.58	-164.03



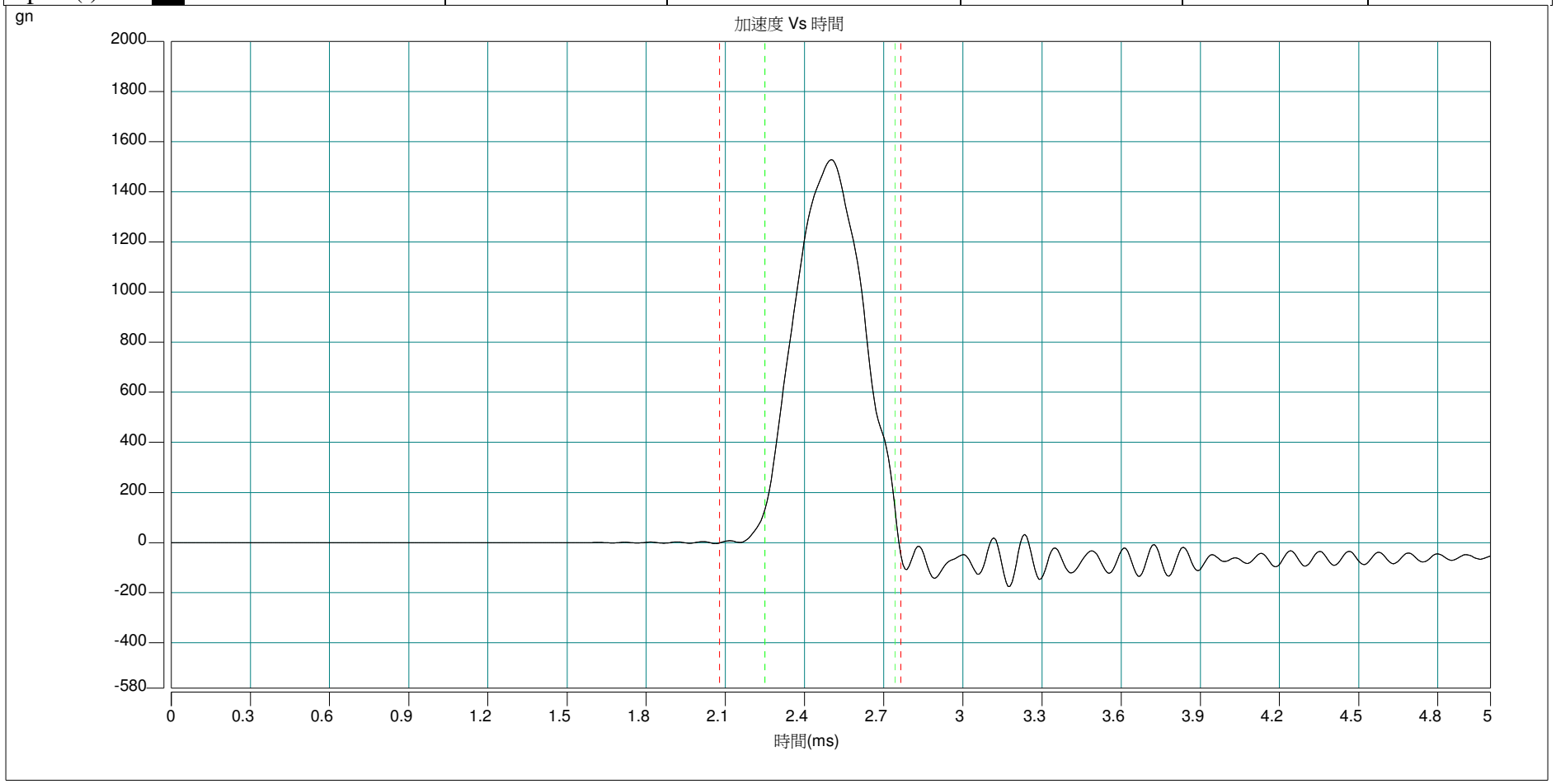
+Y axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	1519.72	0.49	179.90	10000.00	1519.72	-167.43



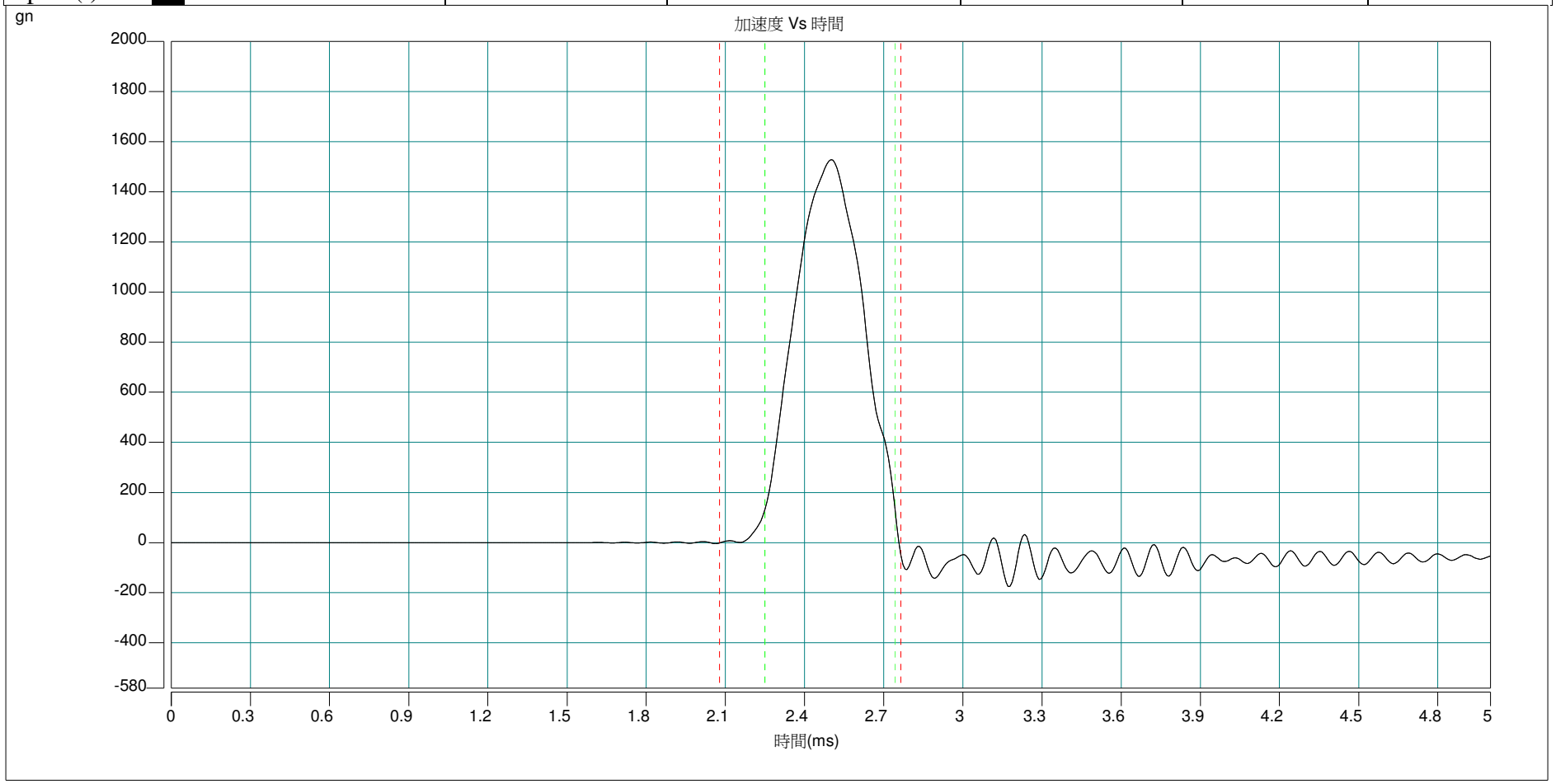
-Y axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	1539.29	0.49	179.79	10000.00	1539.29	-174.81



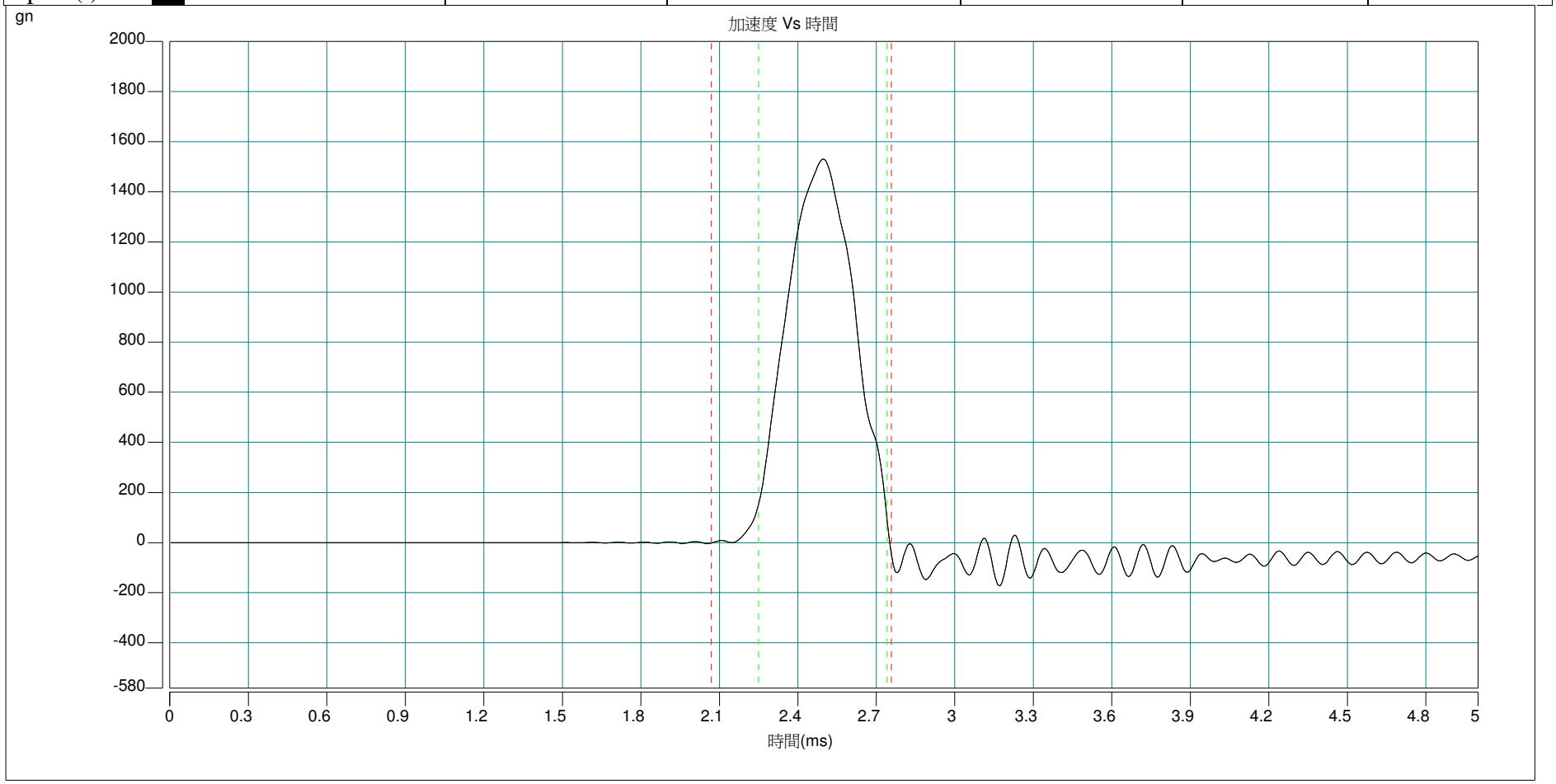
+Z axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	1528.59	0.49	179.79	10000.00	1528.59	-174.81



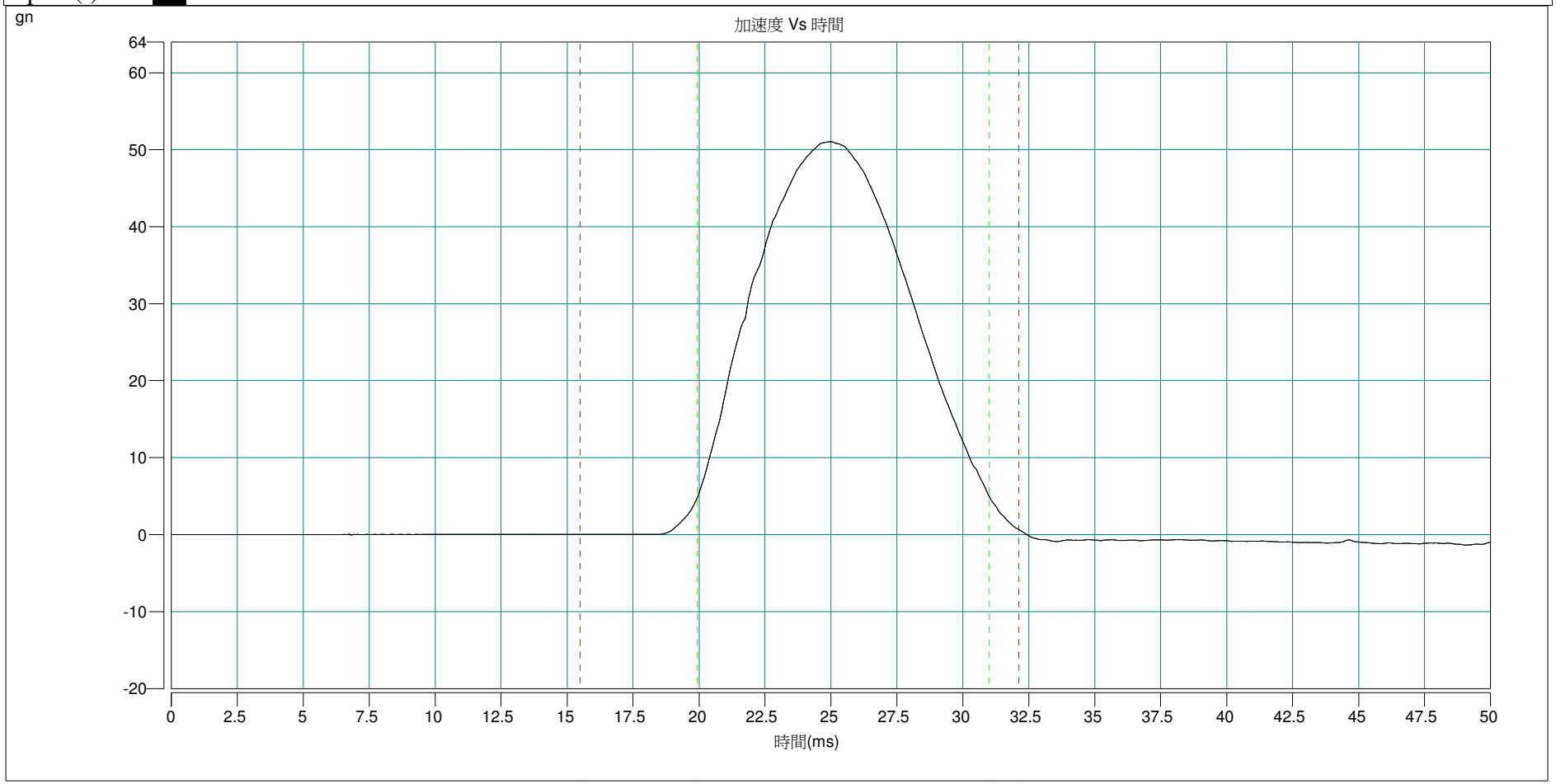
-Z axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	1531.13	0.49	179.65	10000.00	1531.13	-173.60



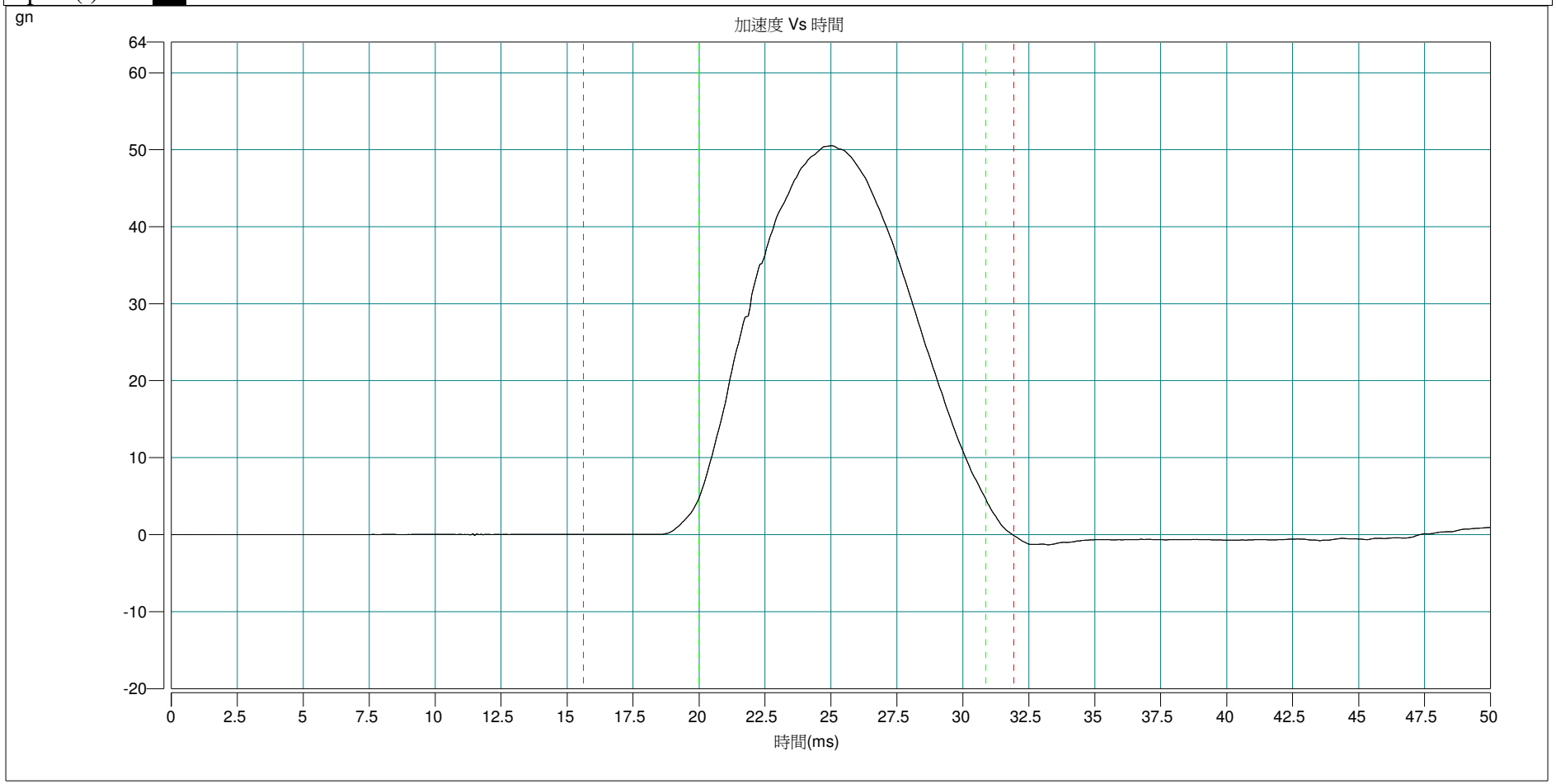
+X axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	51.06	11.01	3.51	500.00	51.06	-1.35



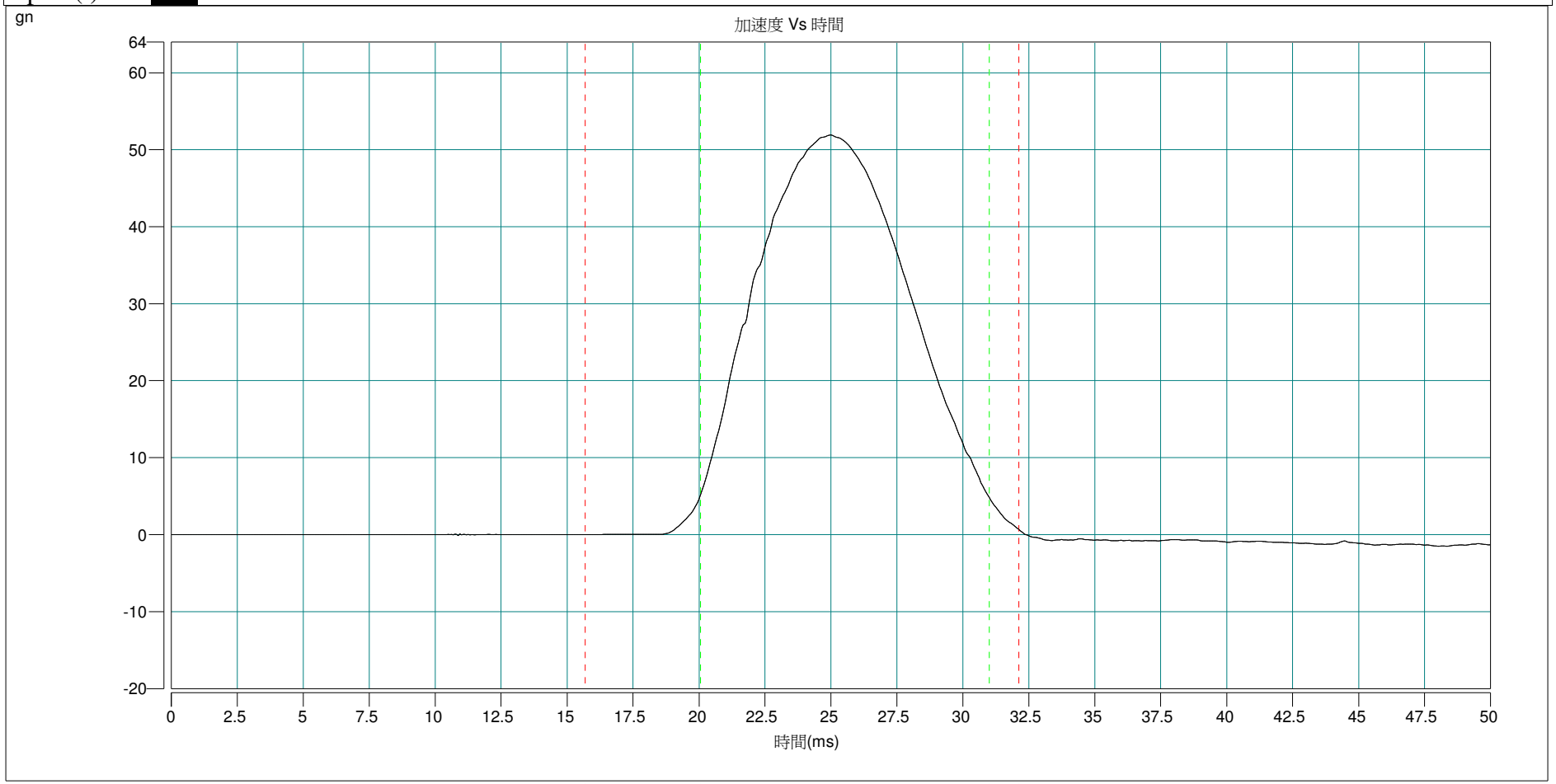
-X axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	■	50.52	10.78	3.42	500.00	50.52	-1.31



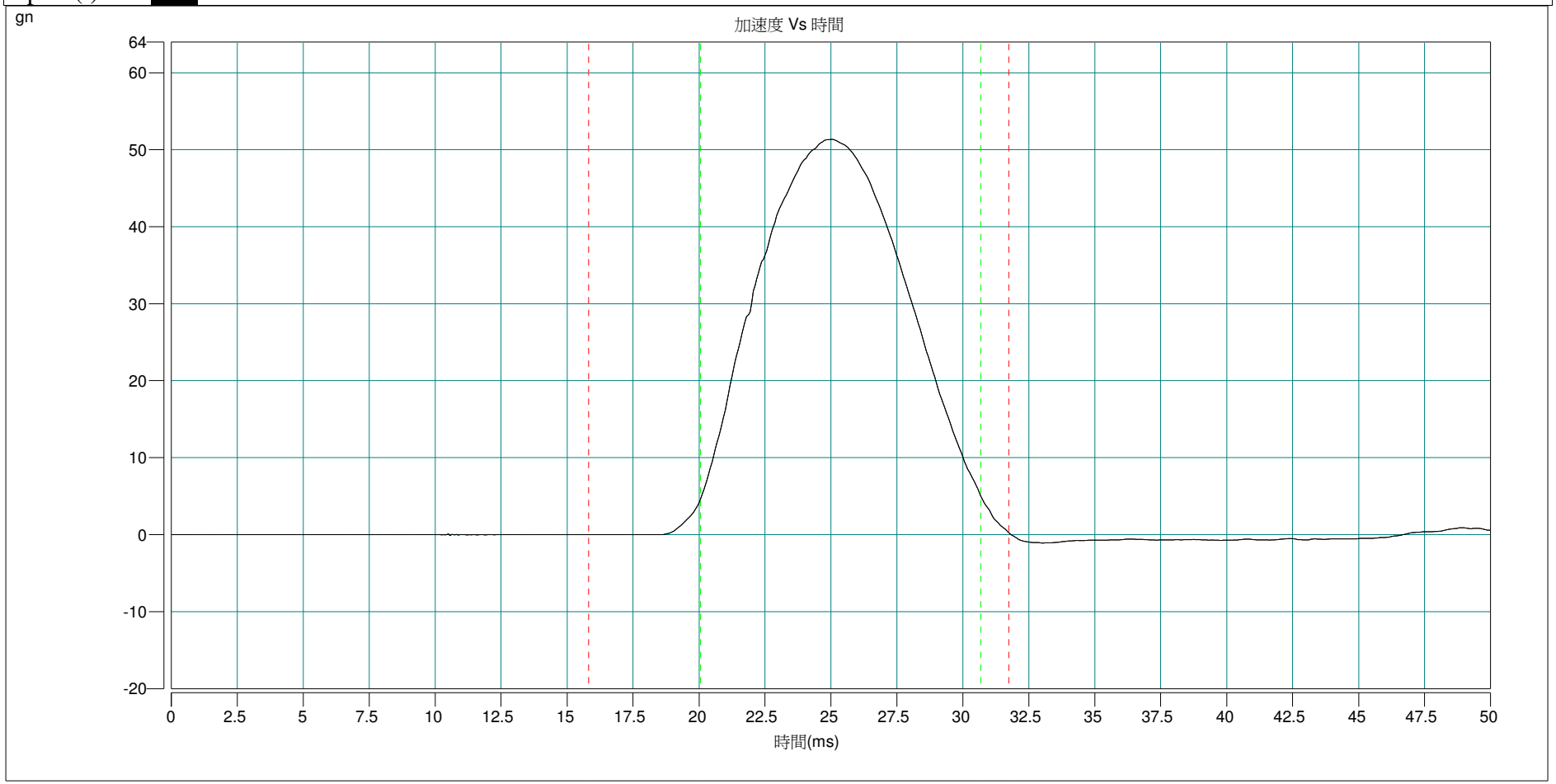
+Y axis

Signal	Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)	51.94	10.88	3.51	500.00	51.94	-1.52



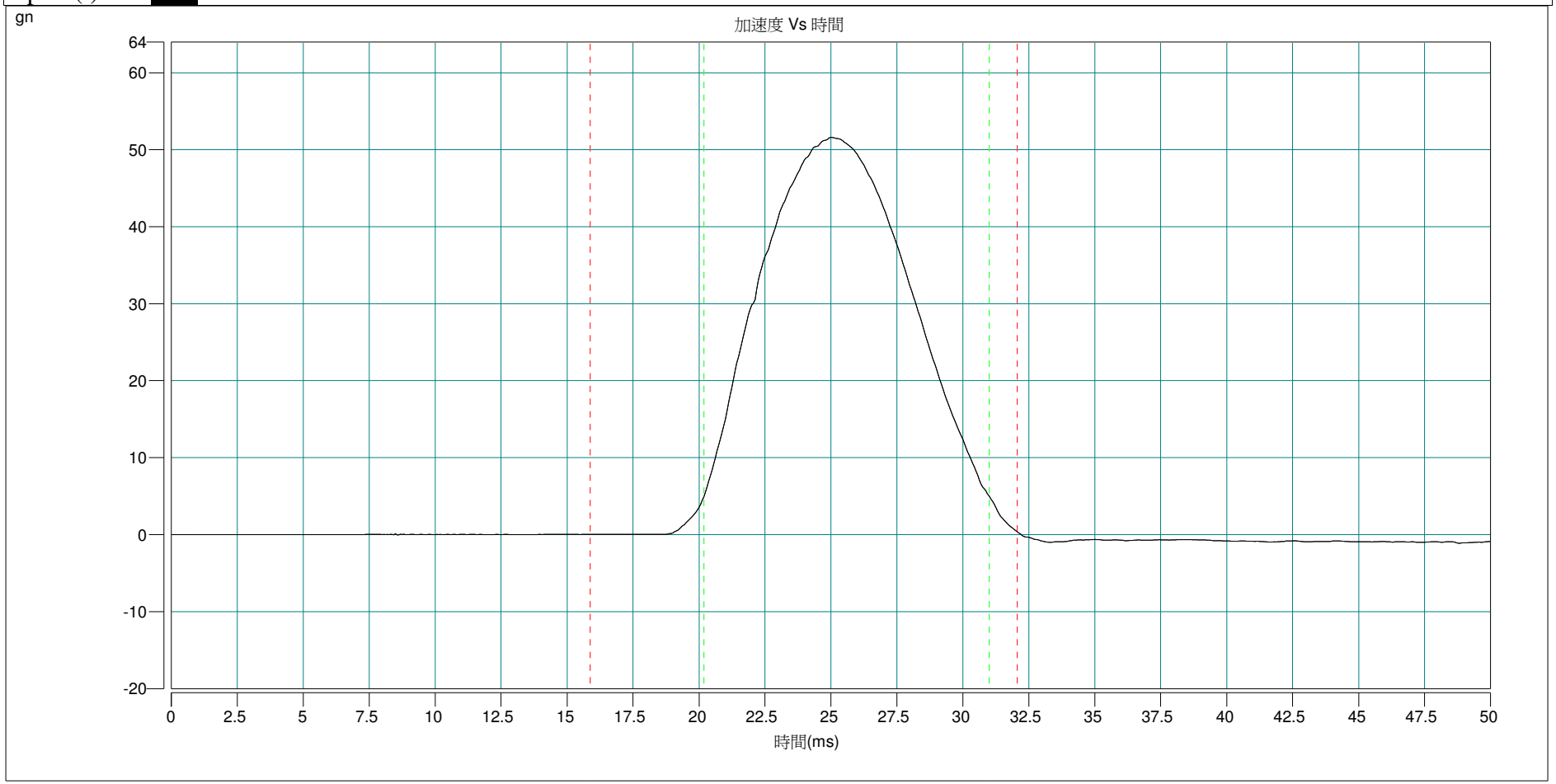
-Y axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)		51.35	10.55	3.41	500.00	51.35	-1.09



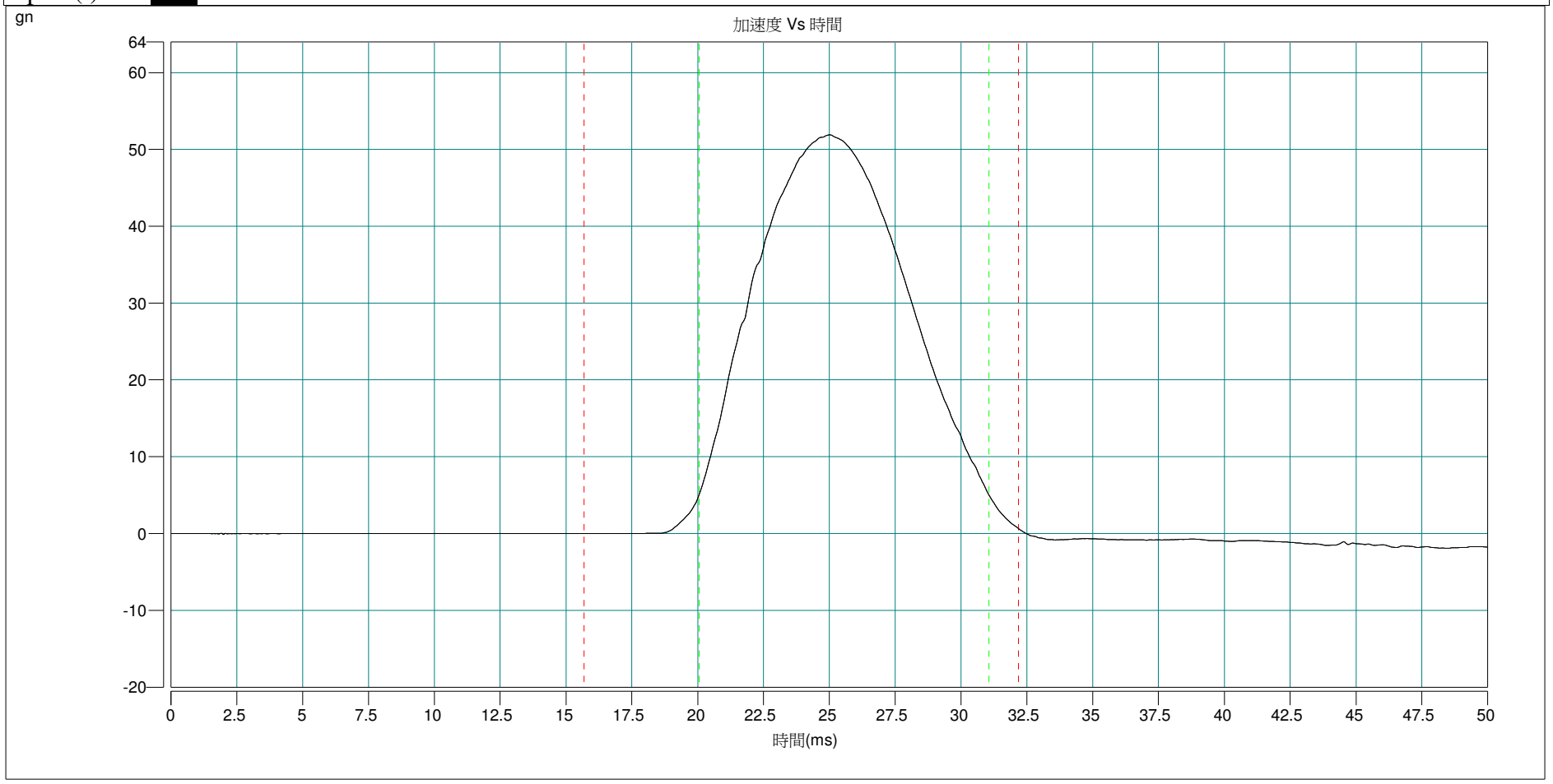
+Z axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)		51.63	10.75	3.47	500.00	51.63	-1.12



-Z axis

Signal		Acceleration (gn)	Duration (ms)	Velocity (In/s)	Filter (Hz)	Max Acc (gn)	Min Acc (gn)
Input1(t)		51.91	10.96	3.53	500.00	51.91	-1.92



-END-