



NATIONAL TECHNICAL SYSTEMS

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Test Report Prepared
for
Digi-Pas



Issued: October 5, 2015

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JOB INFORMATION

CLIENT INFORMATION	
Company Name:	Digi-Pas
Company Contact:	Ming Yong
Street Address:	304 W. Main Street, Suite 120
City, State, Zip:	Avon, CT 06001
Purchase Order Number:	92820161
Purchase Order Date:	March 31, 2015
Test Item Description:	DWL5000XY Sensor Module
Test Item Part Number:	DWL-5000 XY
Test Item Serial Number:	13B50030
Test Specification:	Client E-mail

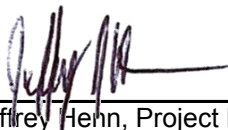
NTS CONTRACT INFORMATION	
NTS Project (PR) Number:	PR035989
NTS Quotation Number:	OP0165609
Quotation Revision:	01
Quotation Date:	February 11, 2015

REFERENCES
ISO/IEC 17025:2005(E), <i>General Requirements for the Competence of Testing and Calibration Laboratories</i> , May 15, 2005
Client e-mail from Ming Yong to Dan McGinnis, February 5, 2015, February 10, 2015 & April 23, 2015

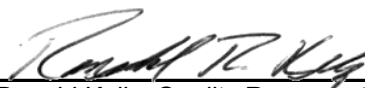
Rev. No.	Date	Page No.	Para. No.	Description
0	9/23/2015			Original
1	10/5/2015			Corrected per Client Email

Prepared by:


Michael McCouch, Technical Writer

Approved by:


Jeffrey Henn, Project Engineer

Reviewed by:


Ronald Kelly, Quality Representative

TEST SUMMARY

This report summarizes testing performed in accordance with the relevant contractual documentation listed on the Job Information Page. This document presents a clear overview of the test program and deviations. It is the responsibility of the NTS client to evaluate pass/fail criteria on test unit's functionality.

Deviations in testing range from out of tolerance conditions, unit failure, changes in test profiles or other instances that are not within the scope of the test specification, and would be detailed in this report as Notices of Deviations.

Test Profile Pages provide a detailed description of test levels and test results. Typically each test shall have its own Test Profile Page.

The Test Equipment List summarizes the equipment used for all testing. This list also contains calibration due dates. If a more detailed list is required containing range, accuracy etc., please contact your Program Manager at NTS.

The test sequence below summarizes the order in which testing was performed. Please refer to the product description on the Test Profile Page and/or Receiver Page.

Test	Test Description	Start Date	End Date
1	Shock - 50G, 500G, 1500G, 3000G & 6000G	9/10/2015	9/10/2015

NOTICE OF DEVIATION

TR-PR035989-15D Rev 1

Client:	Digi-Pas	Job #:	PR035989	NOD #:	D1
P. O. #:	92820161	Date of Deviation:	9/10/2015	CPAR #:	N/A
Notification Made To: (Client Contact)	Ming Yong	Notification Made By:	Miriam O'Hara		
If notification was not made, provide justification:	N/A				
Date:	9/10/15	Via:	E-mail		
Test:	6000G Shock	Test Item:	Sensor Module		
Specification:	Client Email 2/11/2015	Model or P/N:	DWL5000XYSERIES		
Revision/Date:	N/A	Serial Number:	13B50030		

REQUIREMENTS: (Reference paragraph or section of specification)

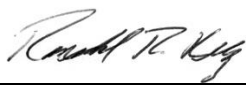

50g/500g/1500g/3000g/6000g 0.5 MS Half-Sine Shocks on 2 axes (X+ /-, Y+ /-), 5 shocks per direction.

DESCRIPTION OF DEVIATION

Testing was completed in both axes on the 50g/500g/1500g/3000g levels with no functional or physical damages noted. The unit was tested operational throughout testing. After completion of the first five shocks in the Y+ axis, (at 6000g) the unit stopped working. The unit was removed from its fixture and was noticed to have some rattling inside.

DISPOSITIONS/COMMENTS/RECOMMENDATIONS:

No further testing was completed on this unit.

				9/14/15
Client Test Witness (if applicable)	Date	Ronald Kelly,	NTS Quality Representative	Date
	9/10/15			
Clayton Forbes,				
NTS Project Engineer	Date	Government QAR (if applicable)	Date	

NOTE: IT IS THE CLIENT'S RESPONSIBILITY TO ANALYZE AND DISPOSITION DEVIATIONS ON CLIENT TEST PROGRAMS.

FOR NTS QA USE: Tracking Code: 3

1. Employee Error	2. Test Equipment Problem	3. Customer Item Problem	4. Weather	5. Power Failure	6. Equipment Limitations	7. Other
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TEST PROFILE

Customer Name:	Digi-Pas
Test Name:	50G Shock
Specification:	Client E-mail
Spec. Date:	April 23, 2015
From:	Ming Yong

Unit(s) Under Test:	DWL5000XY Sensor Module
Quantity:	1
P/N(s):	DWL-5000 XY
S/N(s):	13B50030

Amplitude (g's):	50
Duration (ms):	0.5
Pulse Shape:	Half Sine
Number of Pulses per Direction:	5
Number of Axes:	2
Total Number of Pulses:	20
Control Accel. Location:	One on Fixture

TEST SETUP AND RESULTS

Test Started:	9/10/2015	Test Completed:	9/10/2015
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Unit Under Test Information	Y	N	N/A	Comments
Tested in shipping container:		X		N/A
Operating during test:	X			N/A
Operated by client:		X		Operated by NTS technician.
Powered during testing:	X			N/A
Passes post-test functionals:	X			Performed after each axis was completed.
Physical damage noted:		X		N/A
Does unit(s) pass requirements:	X			N/A
Test profile checked:	X			N/A

COMMENTS:

The Sensor Module was subjected to the 50G shock profile in the X and Y axes only, and in both the positive and negative directions. The Sensor Module was powered on and monitored throughout all shock testing. No apparent physical damage or operational anomalies were noted after testing was completed. The Sensor Module moved onto the 500G shock profile next.

Test Technician:	Jeff Rodriguez
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TEST PROFILE

Customer Name:	Digi-Pas	Unit(s) Under Test:	DWL5000XY Sensor Module
Test Name:	500G Shock	Quantity:	1
Specification:	Client E-mail	P/N(s):	DWL-5000 XY
Spec. Date:	April 23, 2015	S/N(s):	13B50030
From:	Ming Yong		

Amplitude (g's):	500
Duration (ms):	0.5
Pulse Shape:	Half Sine
Number of Pulses per Direction:	5
Number of Axes:	2
Total Number of Pulses:	20
Control Accel. Location:	One on Fixture

TEST SETUP AND RESULTS

Test Started:	9/10/2015	Test Completed:	9/10/2015
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Unit Under Test Information	Y	N	N/A	Comments
Tested in shipping container:		X		N/A
Operating during test:	X			N/A
Operated by client:		X		Operated by NTS technician.
Powered during testing:	X			N/A
Passes post-test functionals:	X			Performed after each axis was completed.
Physical damage noted:		X		N/A
Does unit(s) pass requirements:	X			N/A
Test profile checked:	X			N/A

COMMENTS:

The Sensor Module was subjected to the 500G shock profile in the X and Y axes only, and in both the positive and negative directions. The Sensor Module was powered on and monitored throughout all shock testing. No apparent physical damage or operational anomalies were noted after testing was completed. The Sensor Module moved onto the 1500G shock profile next.

Test Technician:	Jeff Rodriguez
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TEST PROFILE

Customer Name:	Digi-Pas	Unit(s) Under Test:	DWL5000XY Sensor Module
Test Name:	1500G Shock	Quantity:	1
Specification:	Client E-mail	P/N(s):	DWL-5000 XY
Spec. Date:	April 23, 2015	S/N(s):	13B50030
From:	Ming Yong		

Amplitude (g's):	1500
Duration (ms):	0.5
Pulse Shape:	Half Sine
Number of Pulses per Direction:	5
Number of Axes:	2
Total Number of Pulses:	20
Control Accel. Location:	One on Fixture

TEST SETUP AND RESULTS

Test Started:	9/10/2015	Test Completed:	9/10/2015
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Unit Under Test Information	Y	N	N/A	Comments
Tested in shipping container:		X		N/A
Operating during test:	X			N/A
Operated by client:		X		Operated by NTS technician.
Powered during testing:	X			N/A
Passes post-test functionals:	X			Performed after each axis was completed.
Physical damage noted:		X		N/A
Does unit(s) pass requirements:	X			N/A
Test profile checked:	X			N/A

COMMENTS:

The Sensor Module was subjected to the 1500G shock profile in the X and Y axes only, and in both the positive and negative directions. The Sensor Module was powered on and monitored throughout all shock testing. No apparent physical damage or operational anomalies were noted after testing was completed. The Sensor Module moved onto the 3000G shock profile next.

Test Technician:	Jeff Rodriguez
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TEST PROFILE

Customer Name:	Digi-Pas
Test Name:	3000G Shock
Specification:	Client E-mail
Spec. Date:	April 23, 2015
From:	Ming Yong

Unit(s) Under Test:	DWL5000XY Sensor Module
Quantity:	1
P/N(s):	DWL-5000 XY
S/N(s):	13B50030

Amplitude (g's):	3000
Duration (ms):	0.5
Pulse Shape:	Half Sine
Number of Pulses per Direction:	5
Number of Axes:	2
Total Number of Pulses:	20
Control Accel. Location:	One on Fixture

TEST SETUP AND RESULTS

Test Started:	9/10/2015	Test Completed:	9/10/2015
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Unit Under Test Information	Y	N	N/A	Comments
Tested in shipping container:		X		N/A
Operating during test:	X			N/A
Operated by client:		X		Operated by NTS technician.
Powered during testing:	X			N/A
Passes post-test functionals:	X			Performed after each axis was completed.
Physical damage noted:		X		N/A
Does unit(s) pass requirements:	X			N/A
Test profile checked:	X			N/A

COMMENTS:

The Sensor Module was subjected to the 3000G shock profile in the X and Y axes only, and in both the positive and negative directions. The Sensor Module was powered on and monitored throughout all shock testing. No apparent physical damage or operational anomalies were noted after testing was completed. The Sensor Module moved onto the 6000G shock profile next.

Test Technician:	Jeff Rodriguez
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TEST PROFILE

Customer Name:	Digi-Pas
Test Name:	6000G Shock
Specification:	Client E-mail
Spec. Date:	April 23, 2015
From:	Ming Yong

Unit(s) Under Test:	DWL5000XY Sensor Module
Quantity:	1
P/N(s):	DWL-5000 XY
S/N(s):	13B50030

Amplitude (g's):	6000
Duration (ms):	0.5
Pulse Shape:	Half Sine
Number of Pulses per Direction:	5
Number of Axes:	1
Total Number of Pulses:	5
Control Accel. Location:	One on Fixture

TEST SETUP AND RESULTS

Test Started:	9/10/2015	Test Completed:	9/10/2015
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Unit Under Test Information	Y	N	N/A	Comments
Tested in shipping container:		X		N/A
Operating during test:	X			N/A
Operated by client:		X		Operated by NTS technician.
Powered during testing:	X			N/A
Passes post-test functionals:	X			Performed after each axis was completed.
Physical damage noted:		X		N/A
Does unit(s) pass requirements:	X			N/A
Test profile checked:	X			N/A

COMMENTS:

The Sensor Module was subjected to the 6000G shock profile in the Y+ axis only. The Sensor Module was powered on and monitored throughout all shock testing. After completion of the first five shocks, the unit was removed from its fixture for rotation and was tested for operation. The unit suffered a failure. No further testing was completed. See NOD D1 for details.

Test Technician:	Jeff Rodriguez
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**TEST EQUIPMENT LIST**

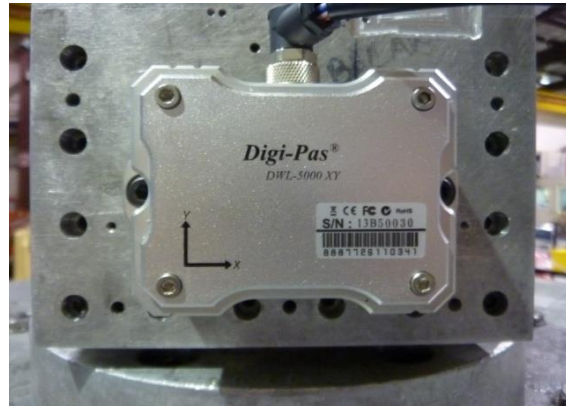
Work Center	Legacy ID	Manufacturer	Description	M/N	S/N	Range	Cal Interval	Cal Due
WC004617	BX0405	PCB Piezotronics	Shock Machine	IMPAC 66	9	Max. Acceleration:10,000G	NCR	NCR
WC002931	BX2615	PCB Piezotronics	Accelerometer	353B04/ACS-23	130699	10 mv/g, 1 to 7 kHz	6	12/12/2015
WC024697	BX4344	PCB Piezotronics	Signal Conditioner	483B17	140	12 Channel	12	03/02/2016
WC005173	BX0627	Spectral Dynamics	Vibration Controller, 4-Channel	2552B	2932-7633D	0 to 16VDC, $\pm 0.15\%$	6	11/20/2015
WC005166	BX0501	Spectral Dynamics	Vibration Control System, 4-Channel	2552-9715-1	2932-7776	0 to 20 kHz	12	02/23/2016
WC005871	BX3855	Unholtz-Dickie	Vibration Shaker (C), T-1000	T1000 AR	163	Freq. Range: 4 to 3,500 Hz; Force Rating: 19,000 lbf; Displacement: 1" p-p, Velocity: 90 in/s	NCR	NCR
WC004605	BX1612	PCB Piezotronics	Shock Accelerometer	M350B04	C8212	4 Hz to 10 kHz	12	01/08/2016
WC004171	BX0568	PCB Piezotronics	PCB Power Supply, 6-Channel	483A08	319	-15 VDC to 24 VDC	12	02/02/2016

NCR: No Calibration Required

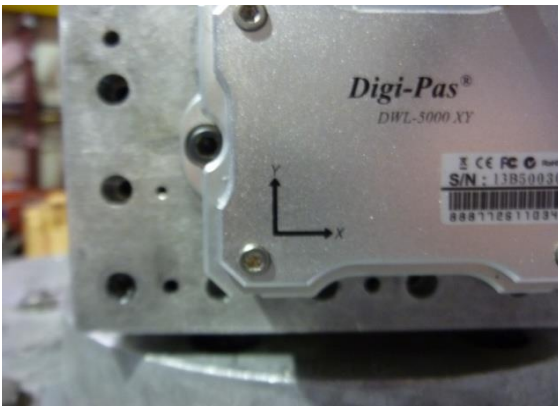
TEST PHOTOGRAPHS



UUT Identification Label



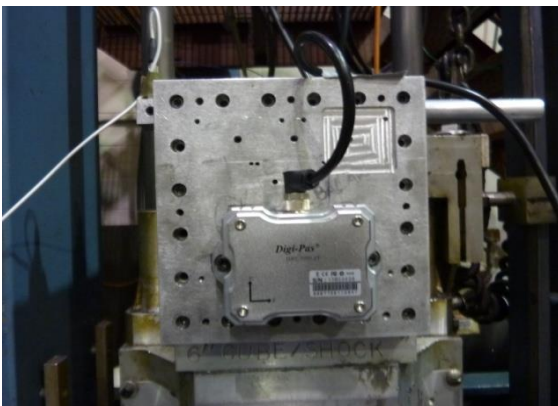
DWL500 XY Sensor Module



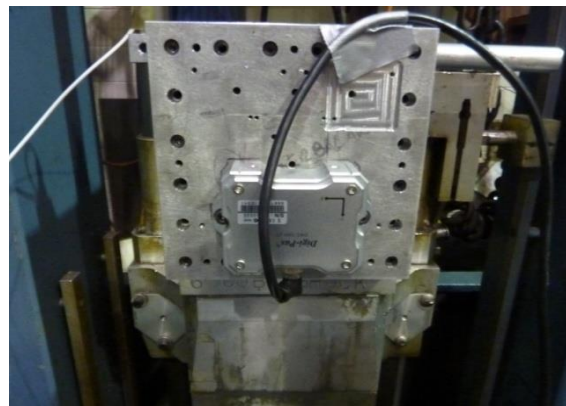
Axis Definitions



Customer Support Equipment

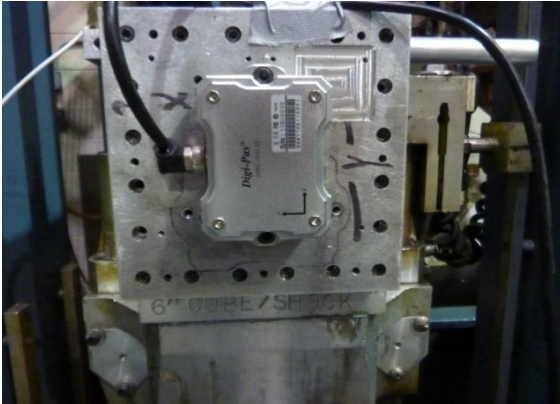


Y+ Shock Setup

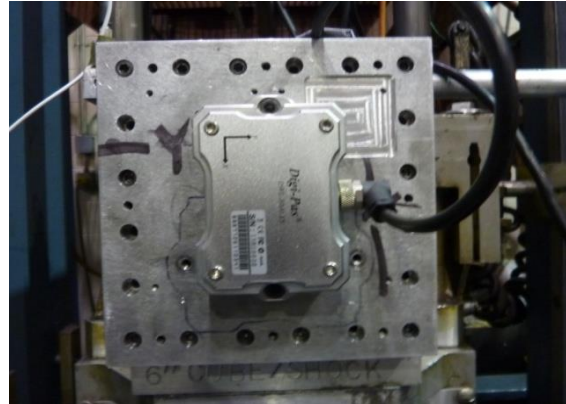


Y- Shock Setup

TEST PHOTOGRAPHS



X+ Shock Setup



X- Shock Setup

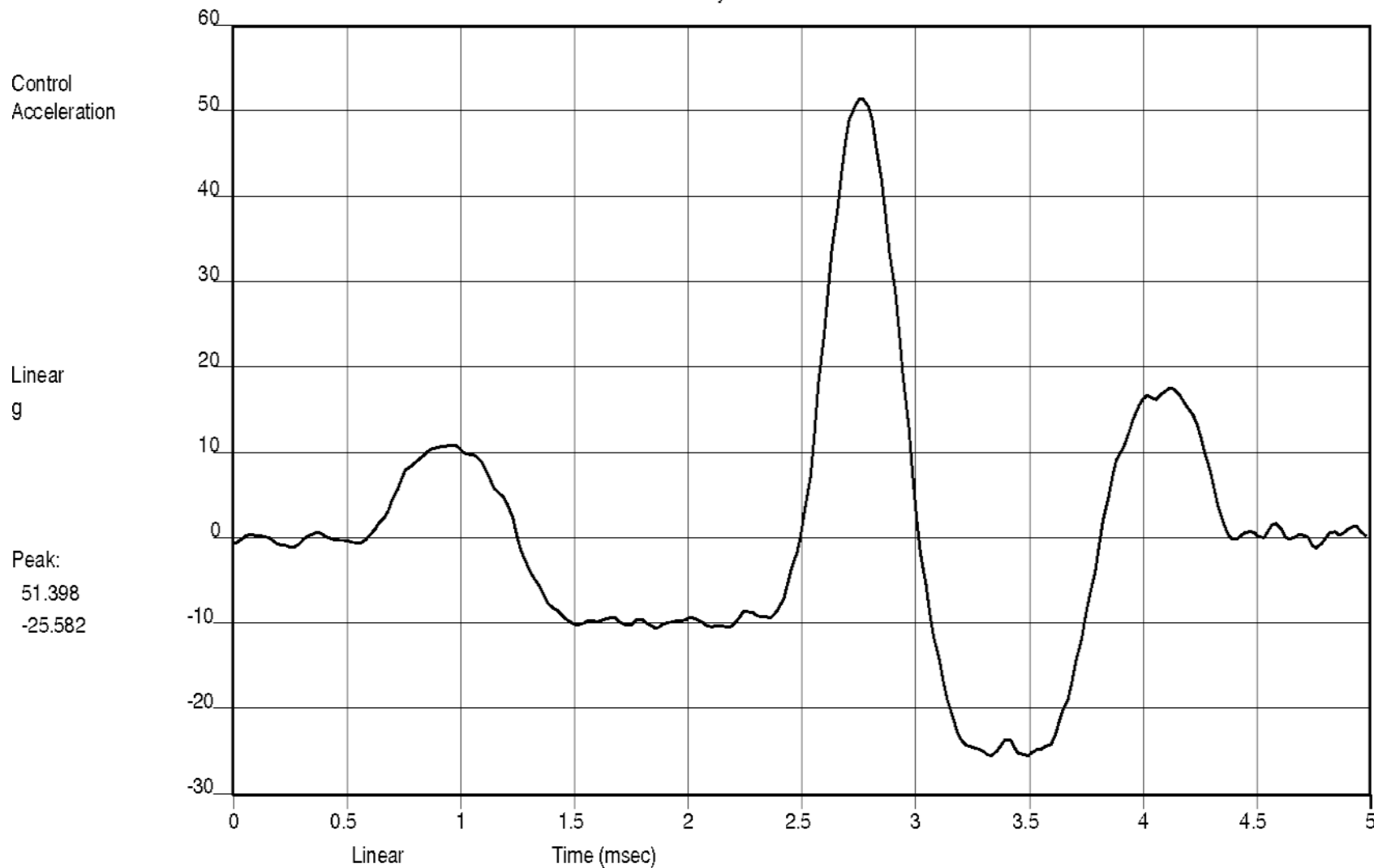


RECEIVER

Unit(s) Received by:		Jeff Rodriguez		Date:	9/10/2015
ITEM	QTY.	P/N	S/N	Description	Ready for Test
1	1	DWL-5000 XY	13B50030	DWL5000 XY Sensor Module	Yes

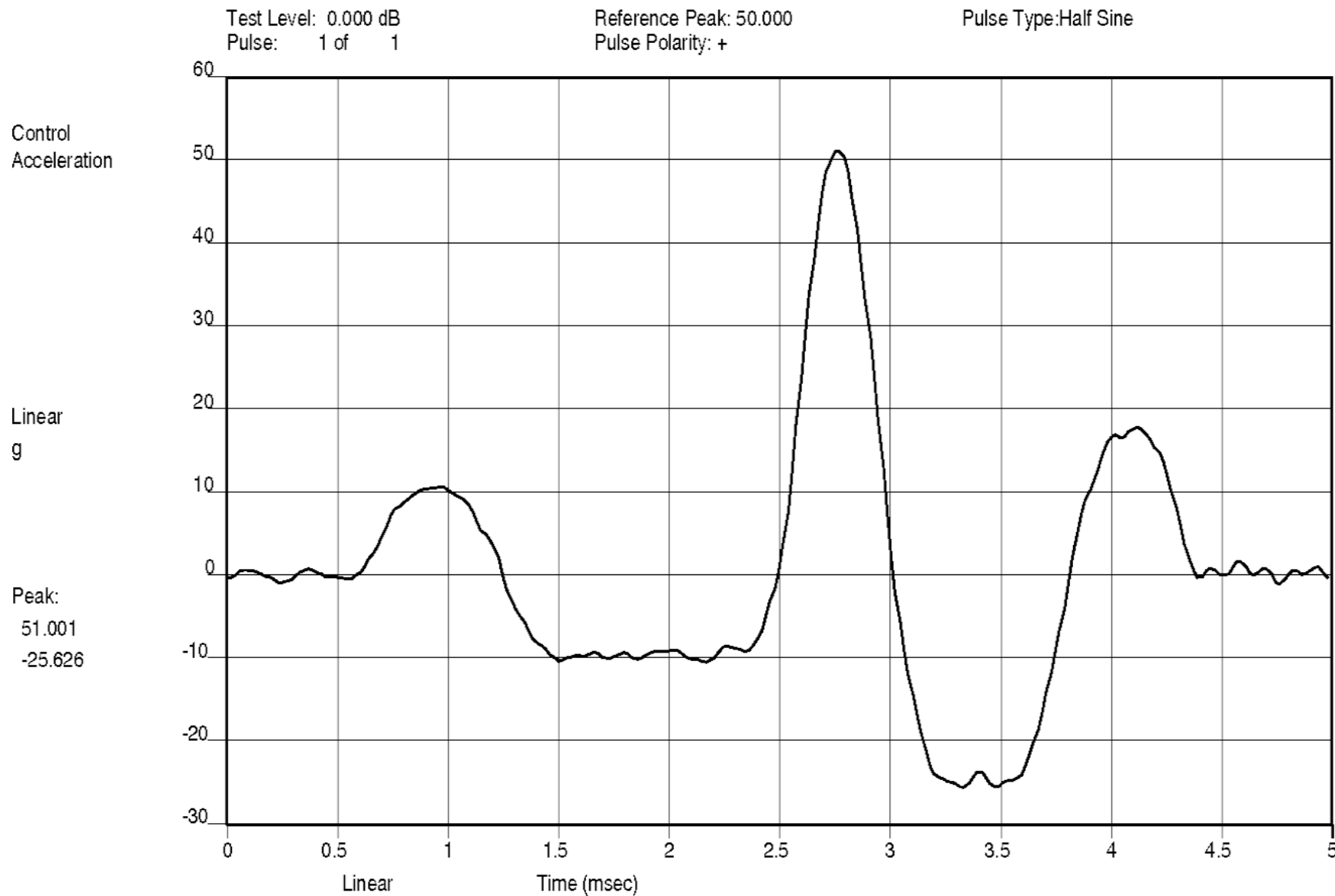
**Test 1 Y-axis Shock 50G**Test Level: 0.000 dB
Pulse: 1 of 1Reference Peak: 50.000
Pulse Polarity: +

Pulse Type: Half Sine



CONTROL 1

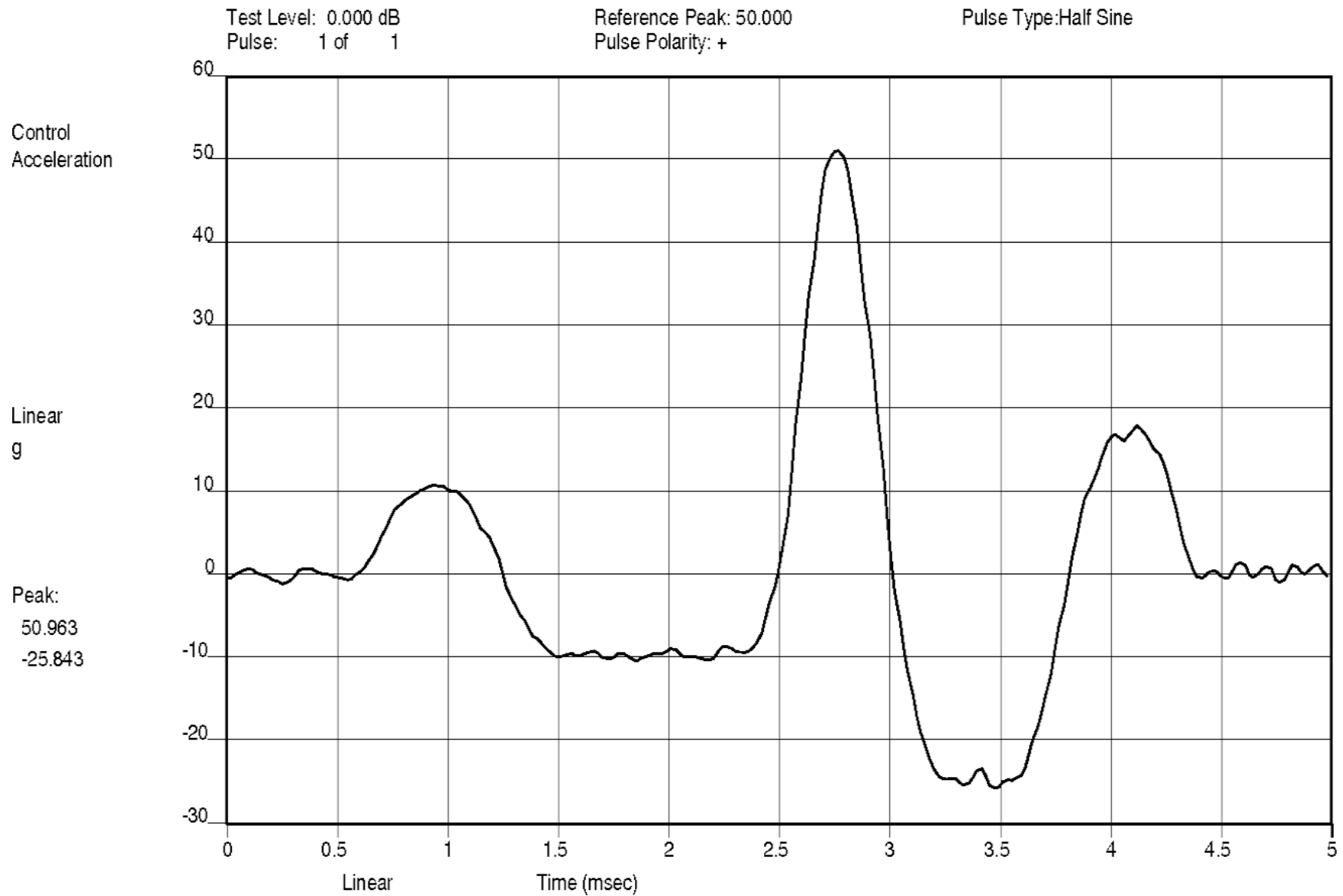
11:36:45.4
Thu Sep 10 2015PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (1 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023



CONTROL 1

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Thu Sep 10 2015

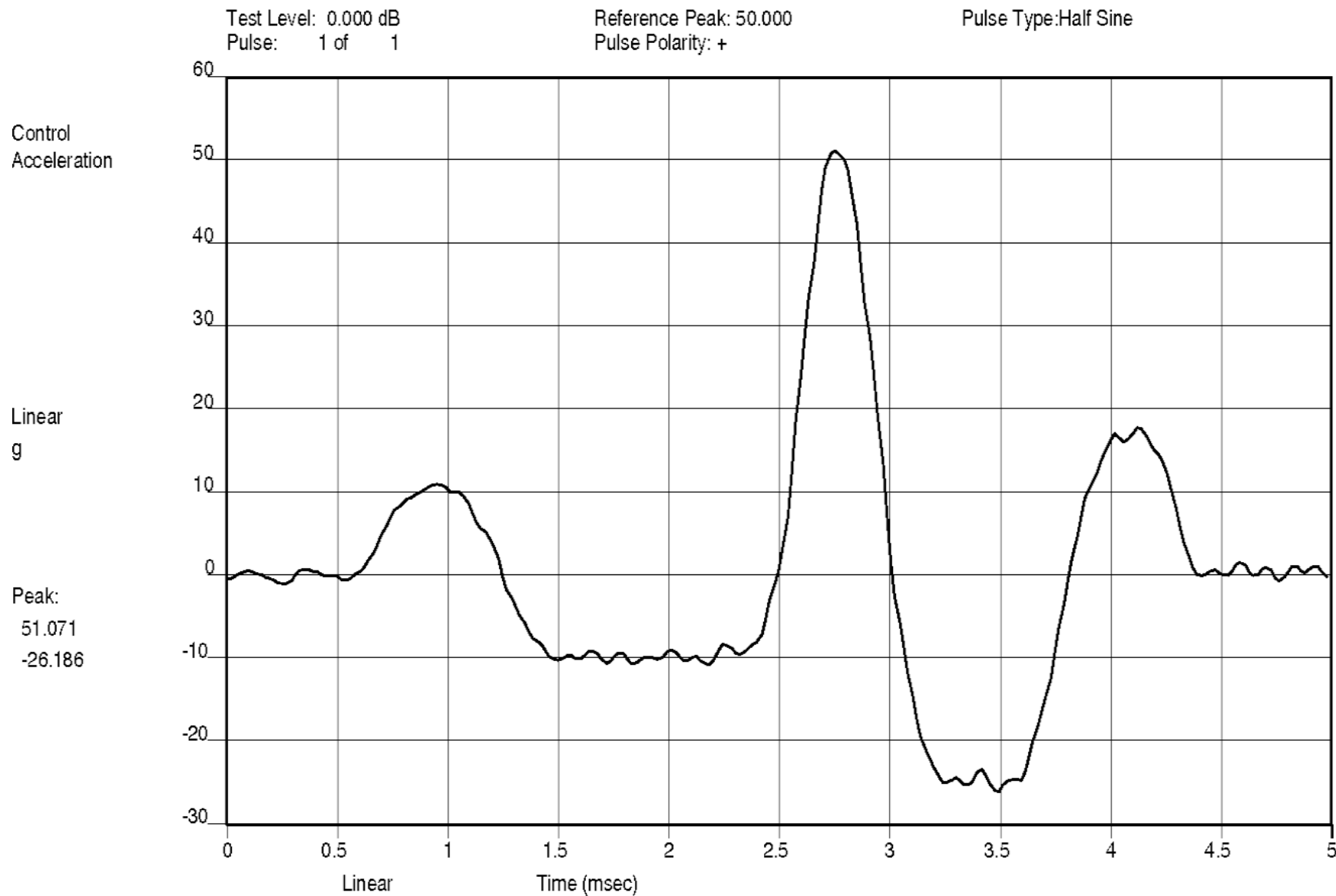
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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (2 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 15 of 99



CONTROL 1

11:37:13.5
Thu Sep 10 2015

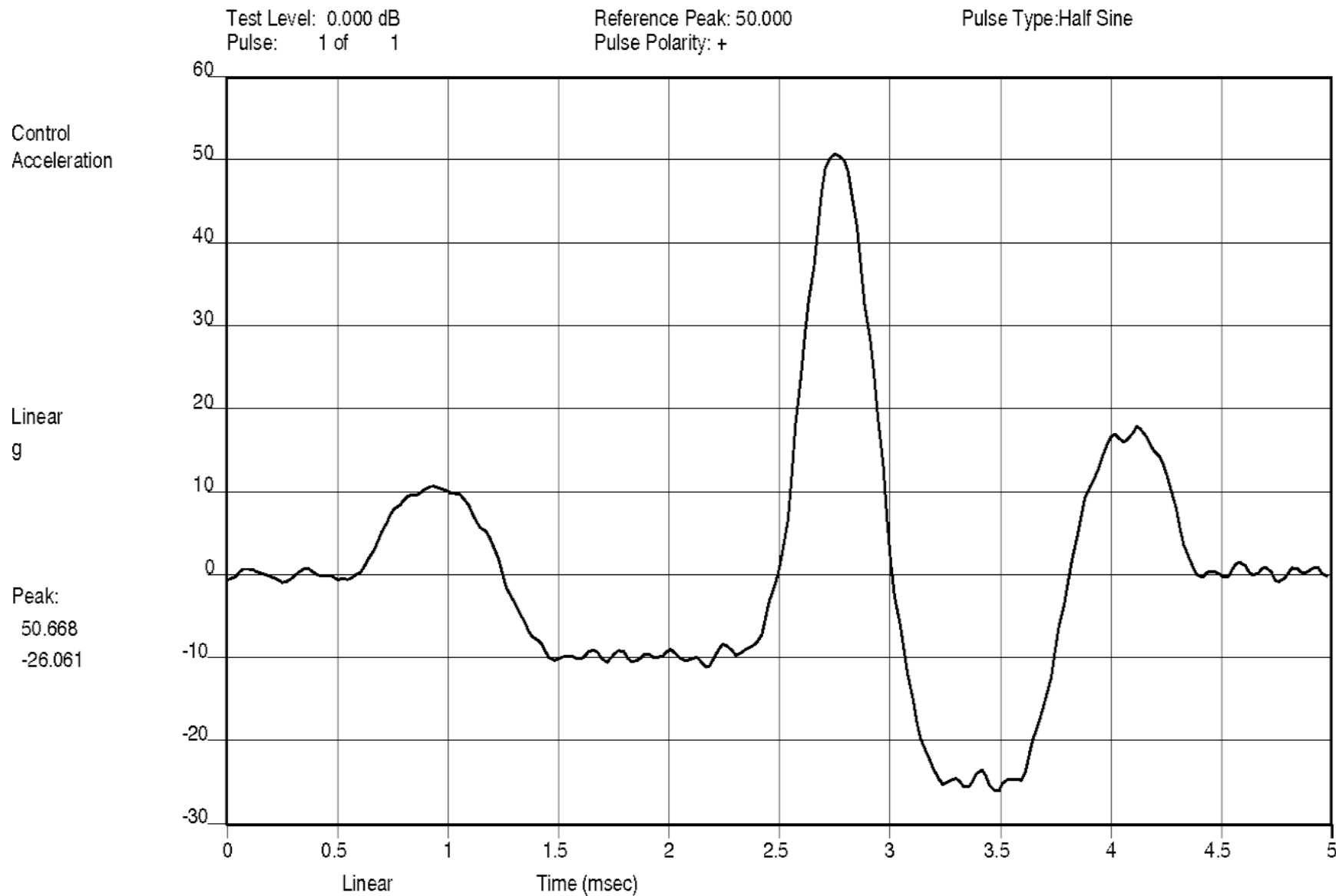
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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (3 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 16 of 99



CONTROL 1

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Thu Sep 10 2015

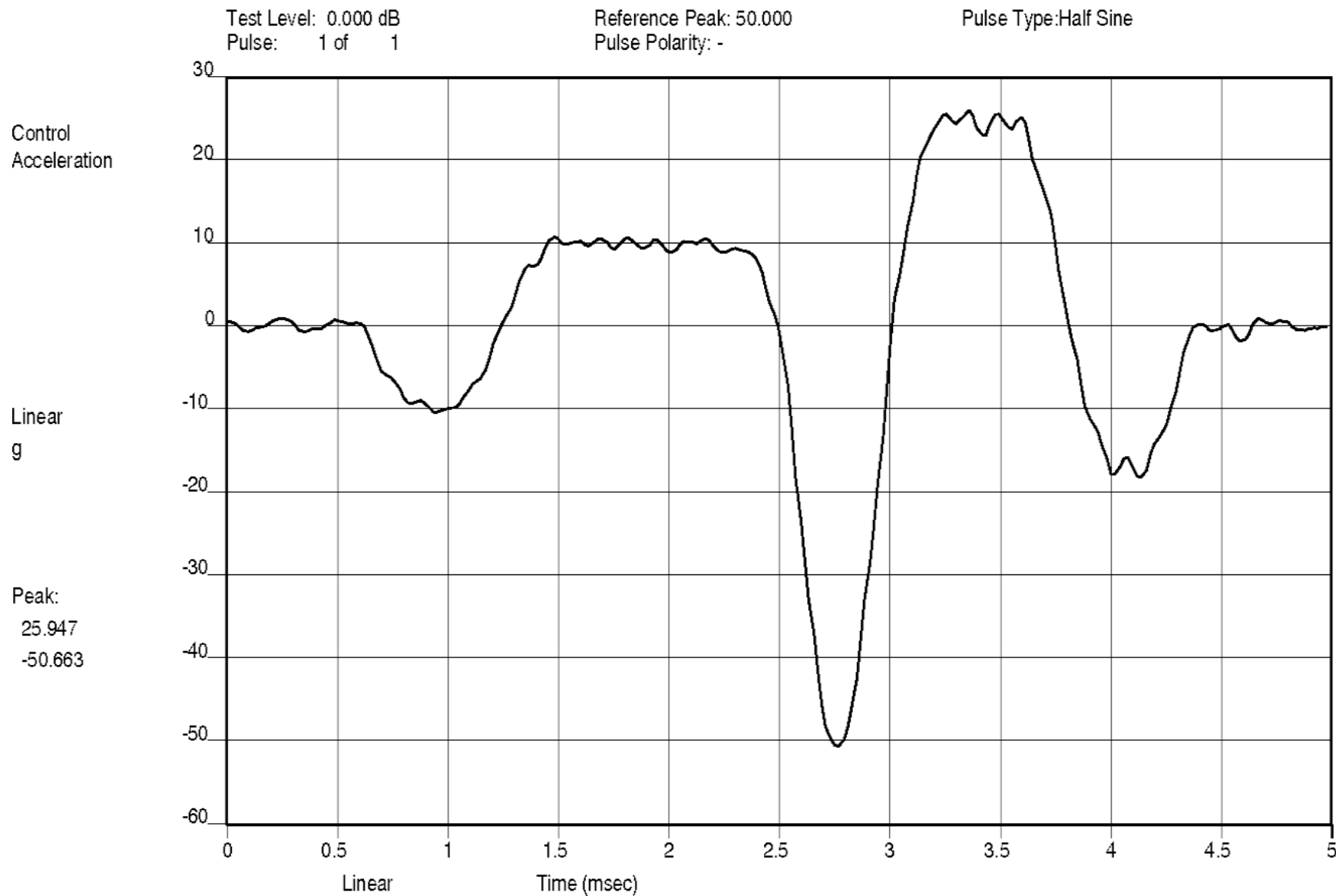
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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (4 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 17 of 99



CONTROL 1

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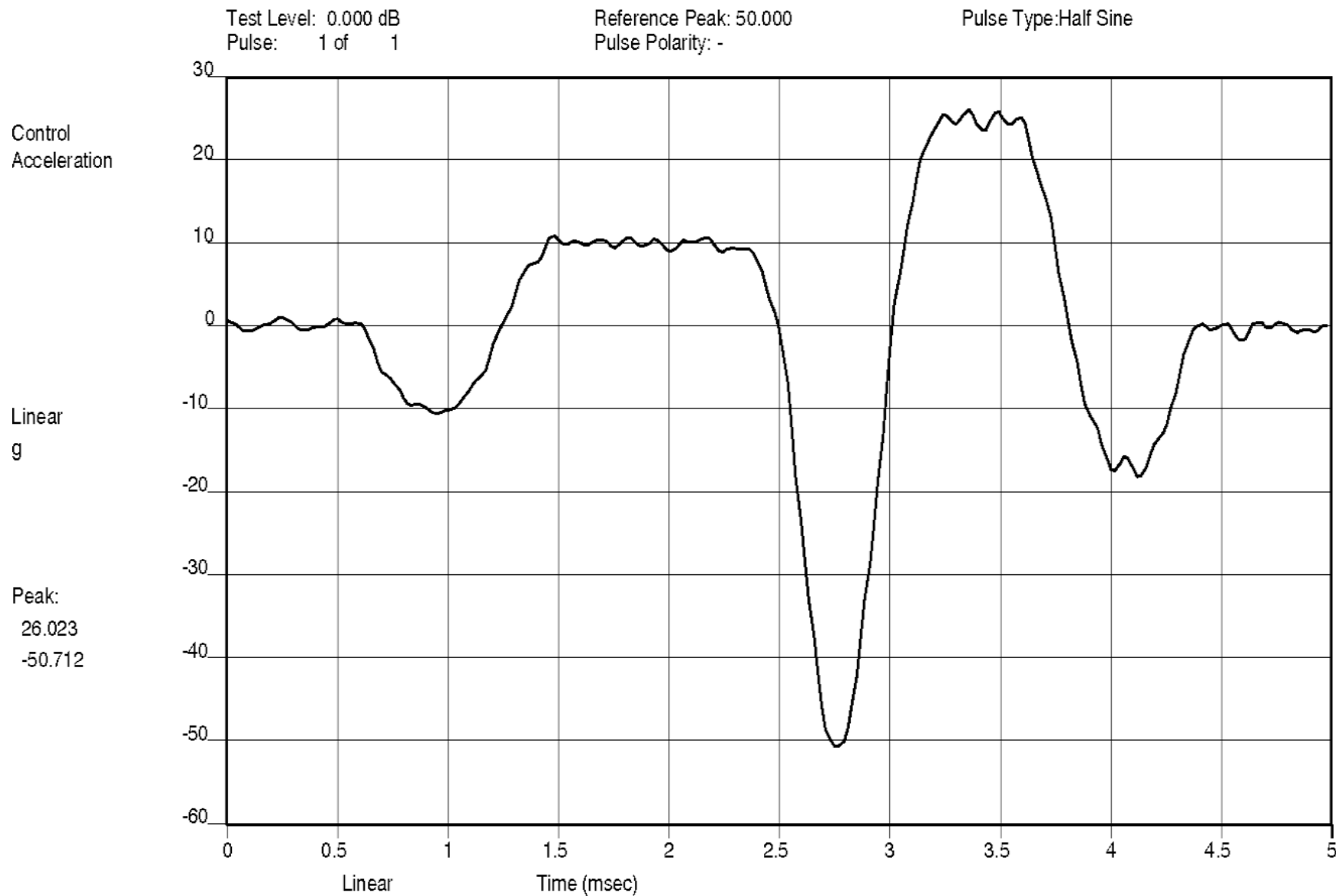
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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (5 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 18 of 99



CONTROL 1

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Thu Sep 10 2015

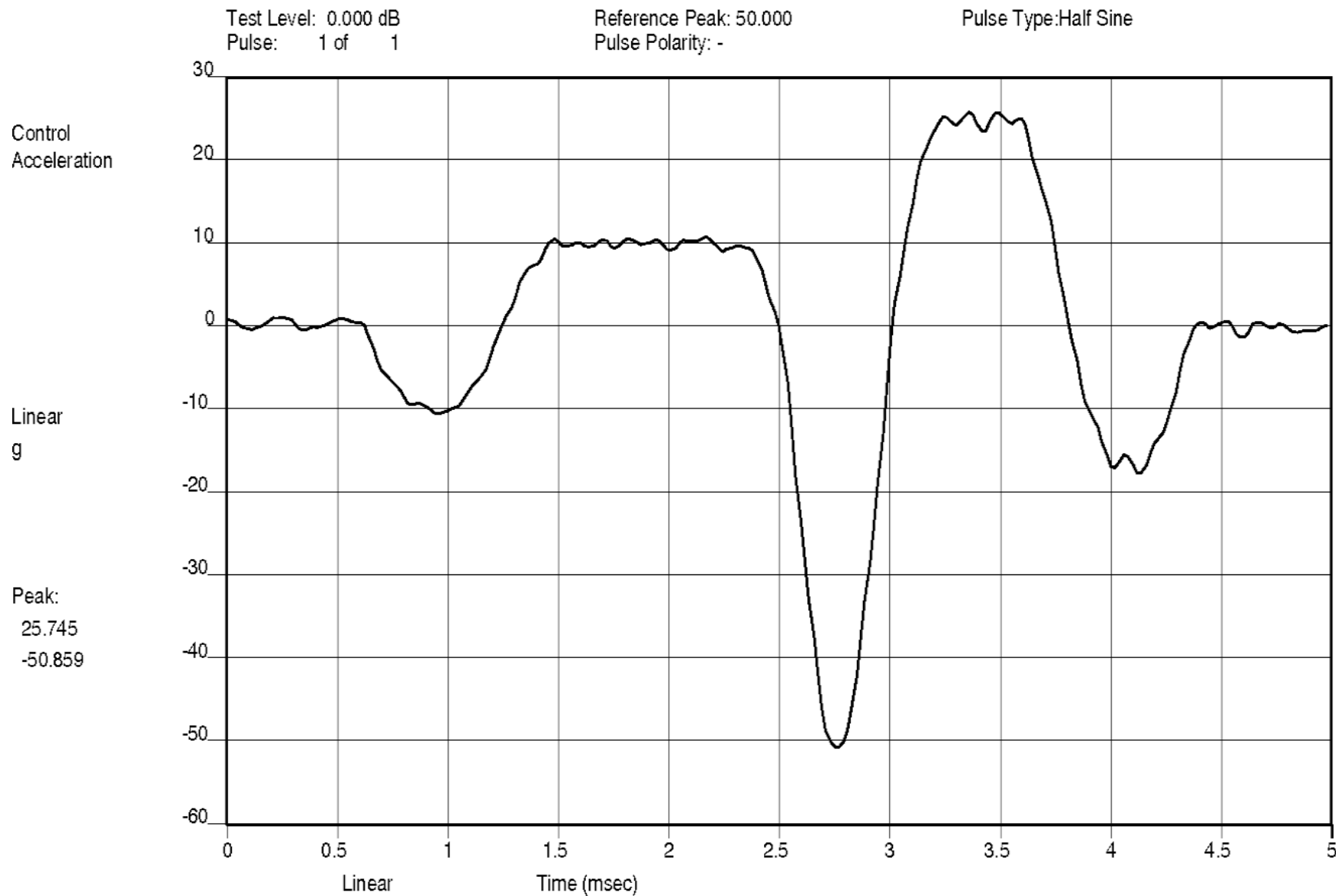
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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (1 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 19 of 99



CONTROL 1

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Thu Sep 10 2015

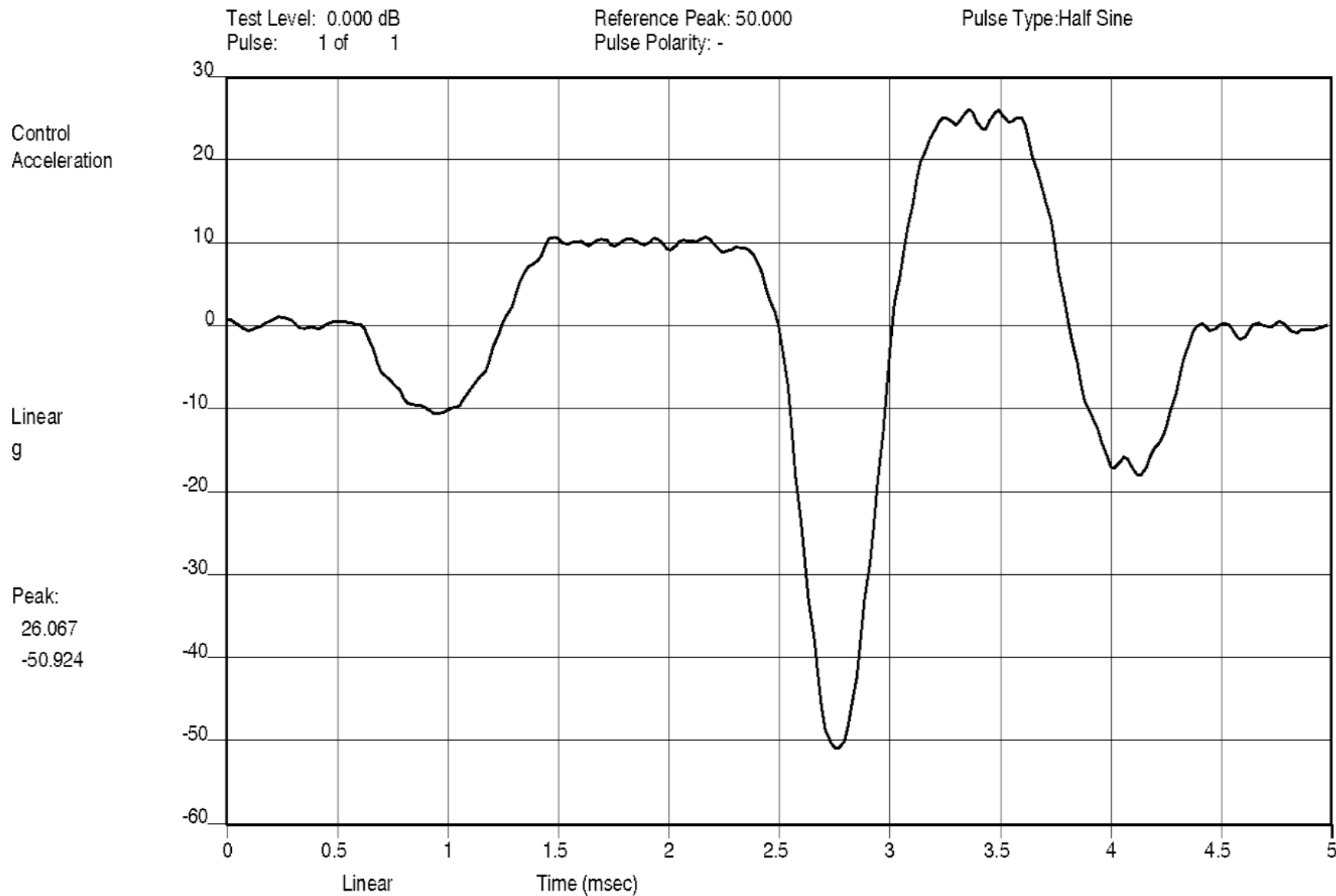
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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (2 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 20 of 99



CONTROL 1

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Thu Sep 10 2015

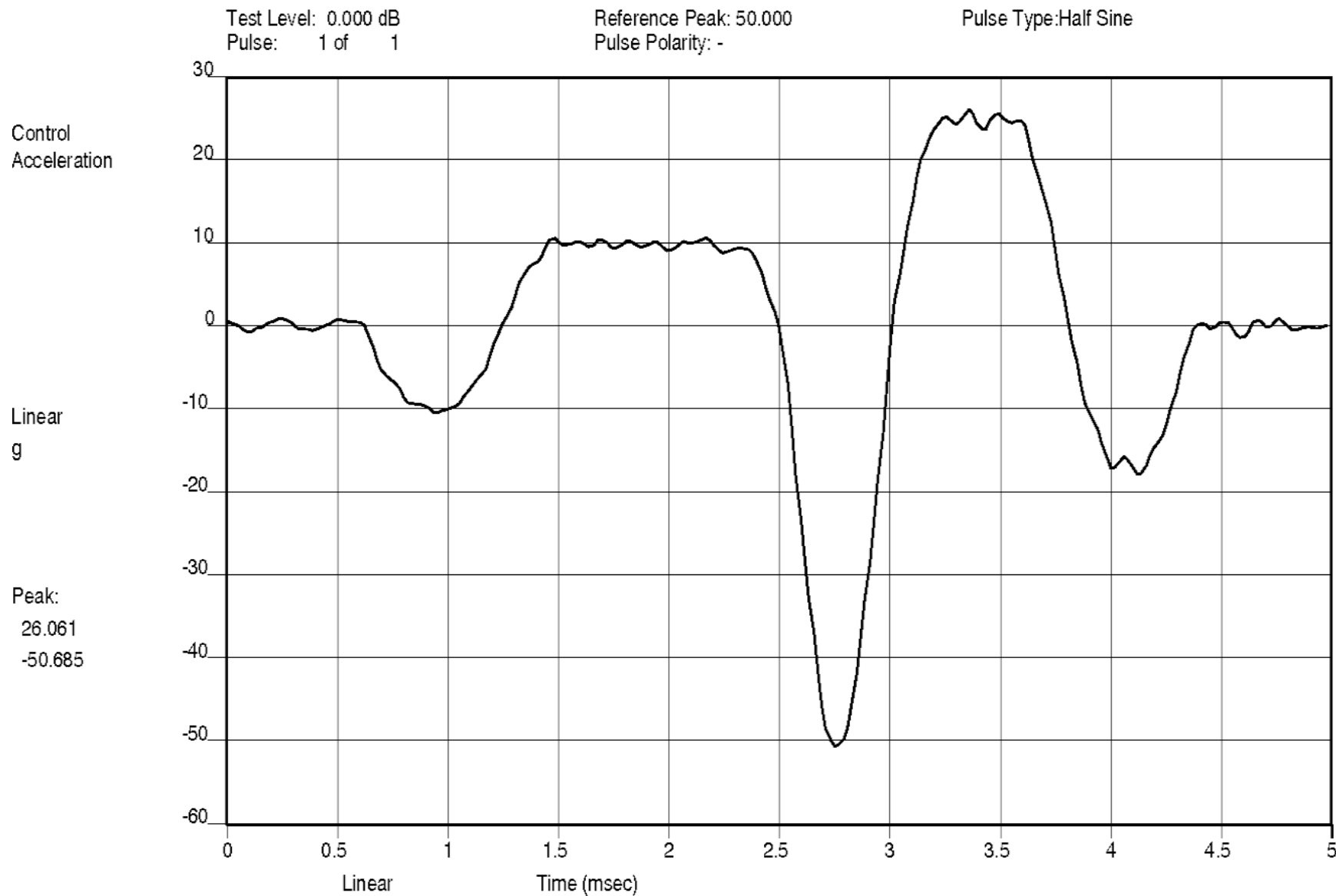
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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (3 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 21 of 99



CONTROL 1

11:37:54.6
Thu Sep 10 2015

PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (4 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 22 of 99



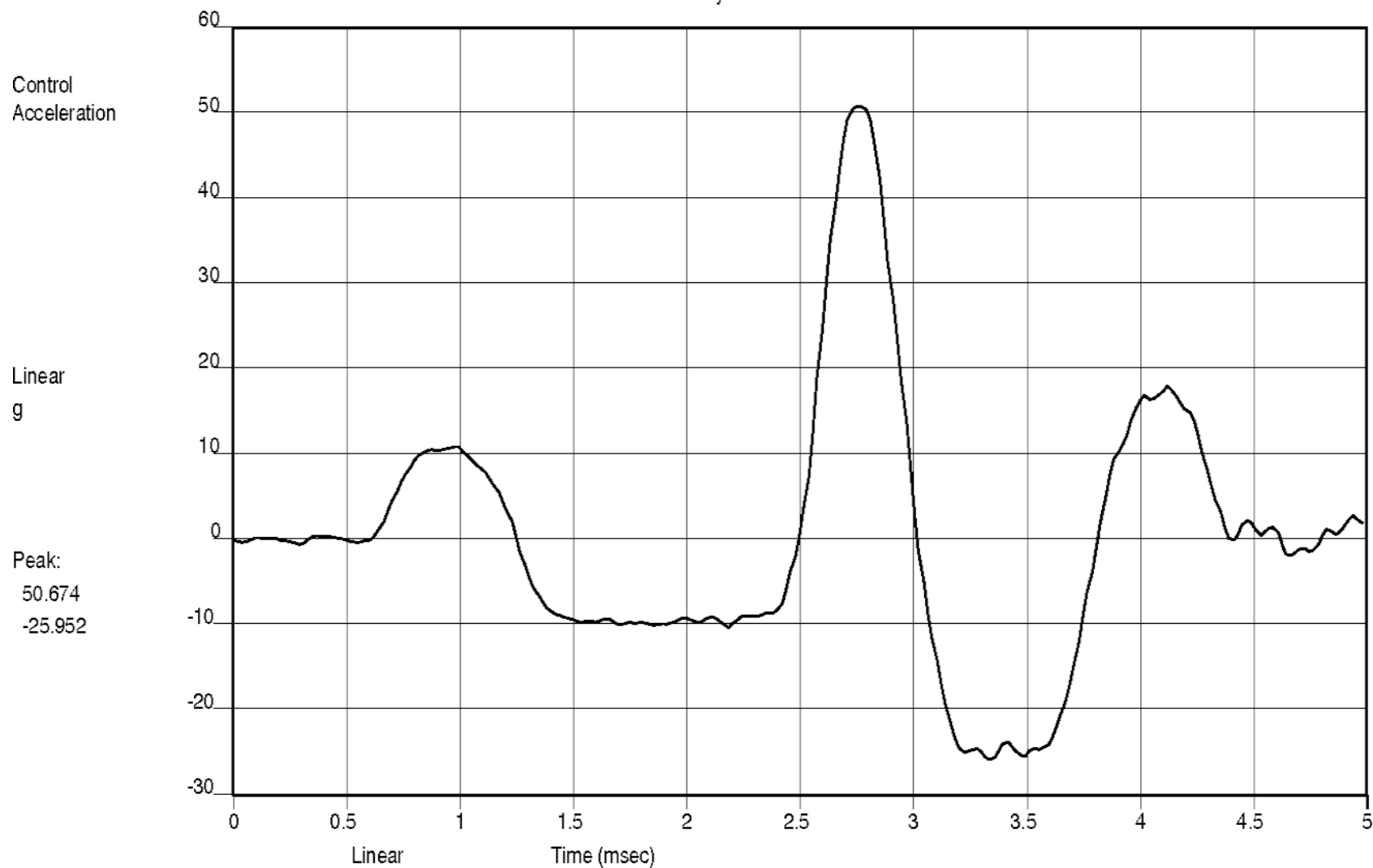
CONTROL 1

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Thu Sep 10 2015

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TEST#1 AXIS: Y SHOCK 50G 0.5MS HALF-SINE (5 OF 5)
Classical Shock Test Name: 50G_10MS_HS.023Page 23 of 99

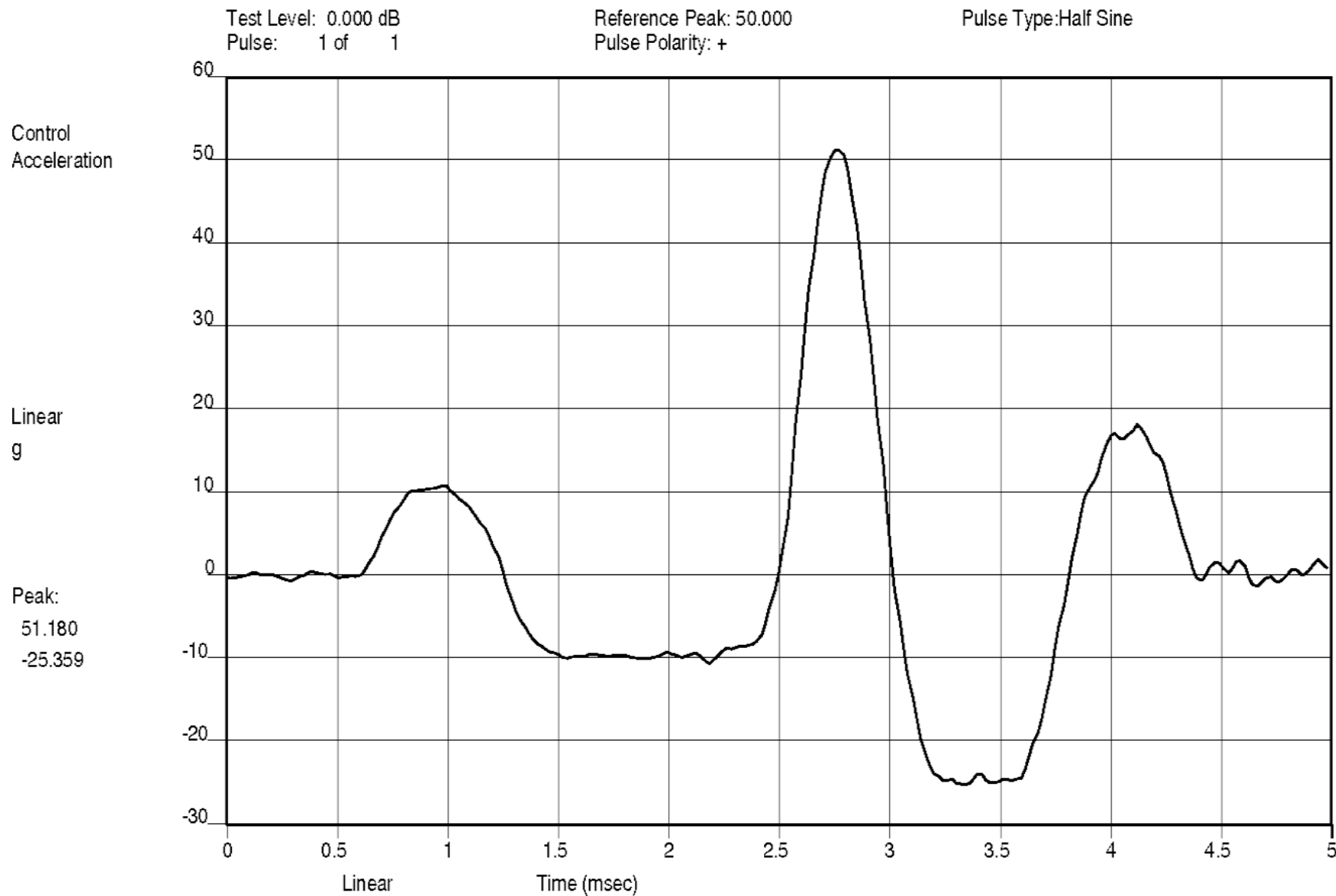
**Test 2 X-axis Shock 50G**Test Level: 0.000 dB
Pulse: 1 of 1Reference Peak: 50.000
Pulse Polarity: +

Pulse Type: Half Sine



CONTROL 1

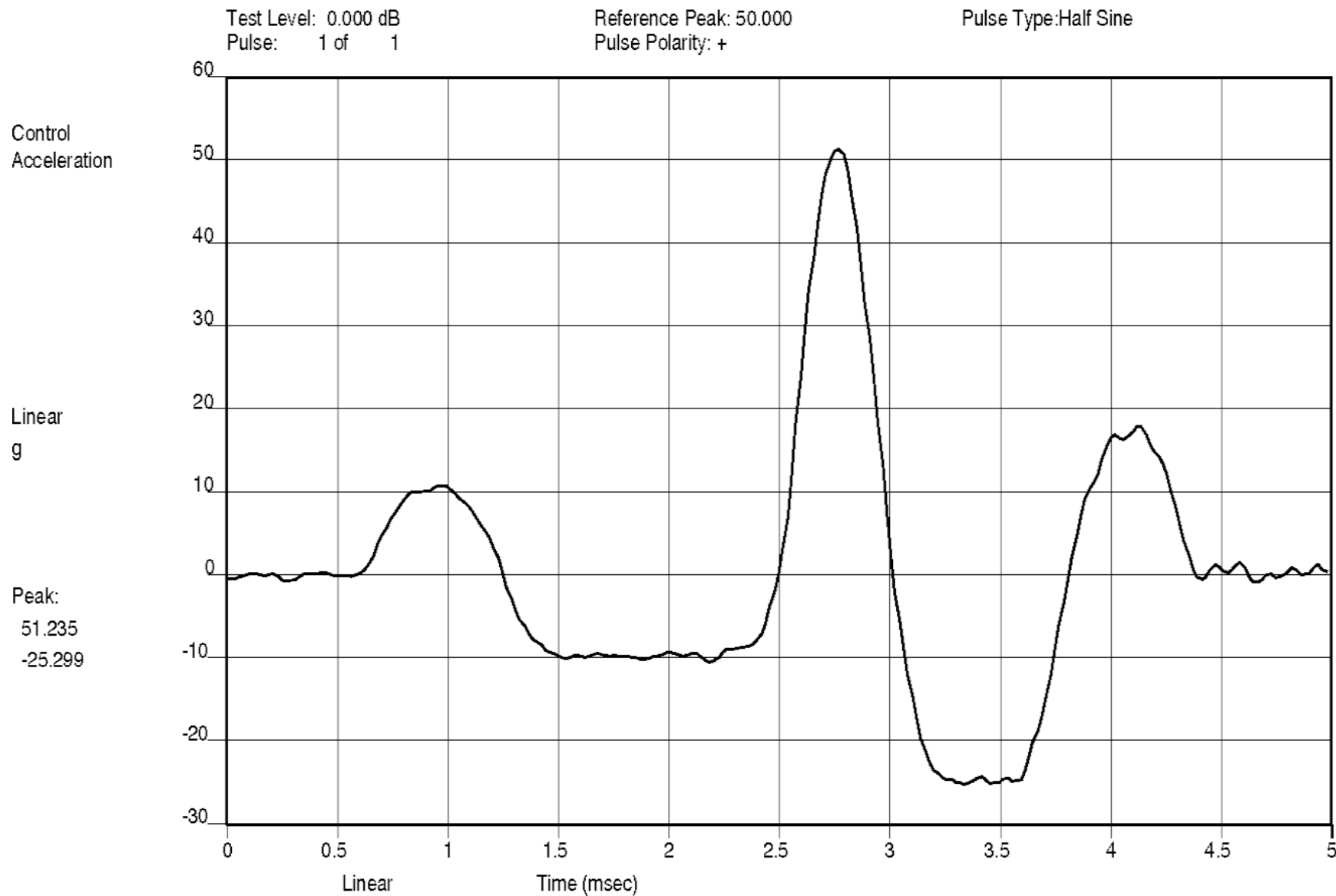
11:42:41.2
Thu Sep 10 2015PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (1 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024



CONTROL 1

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Thu Sep 10 2015

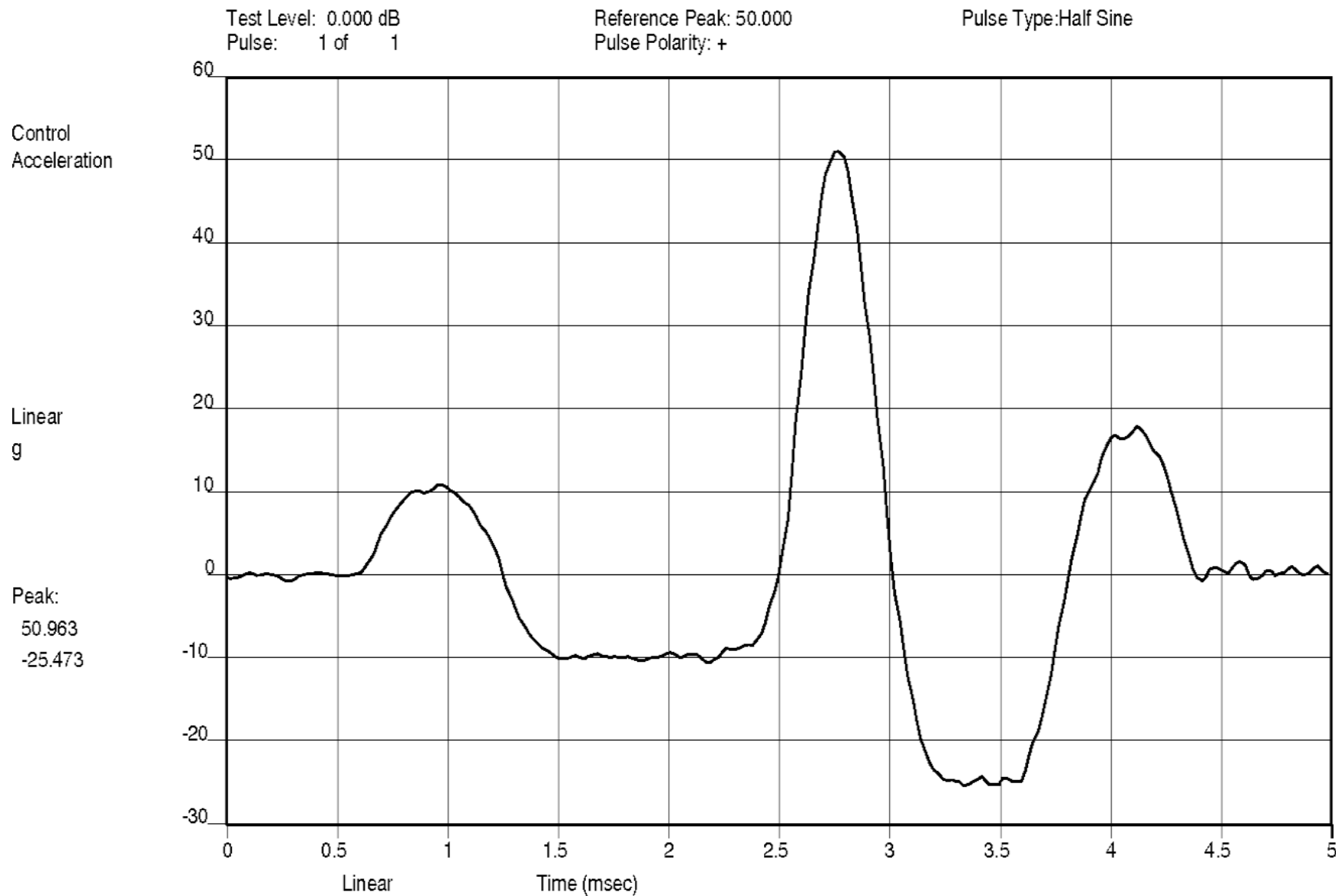
PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (2 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 25 of 99



CONTROL 1

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Thu Sep 10 2015

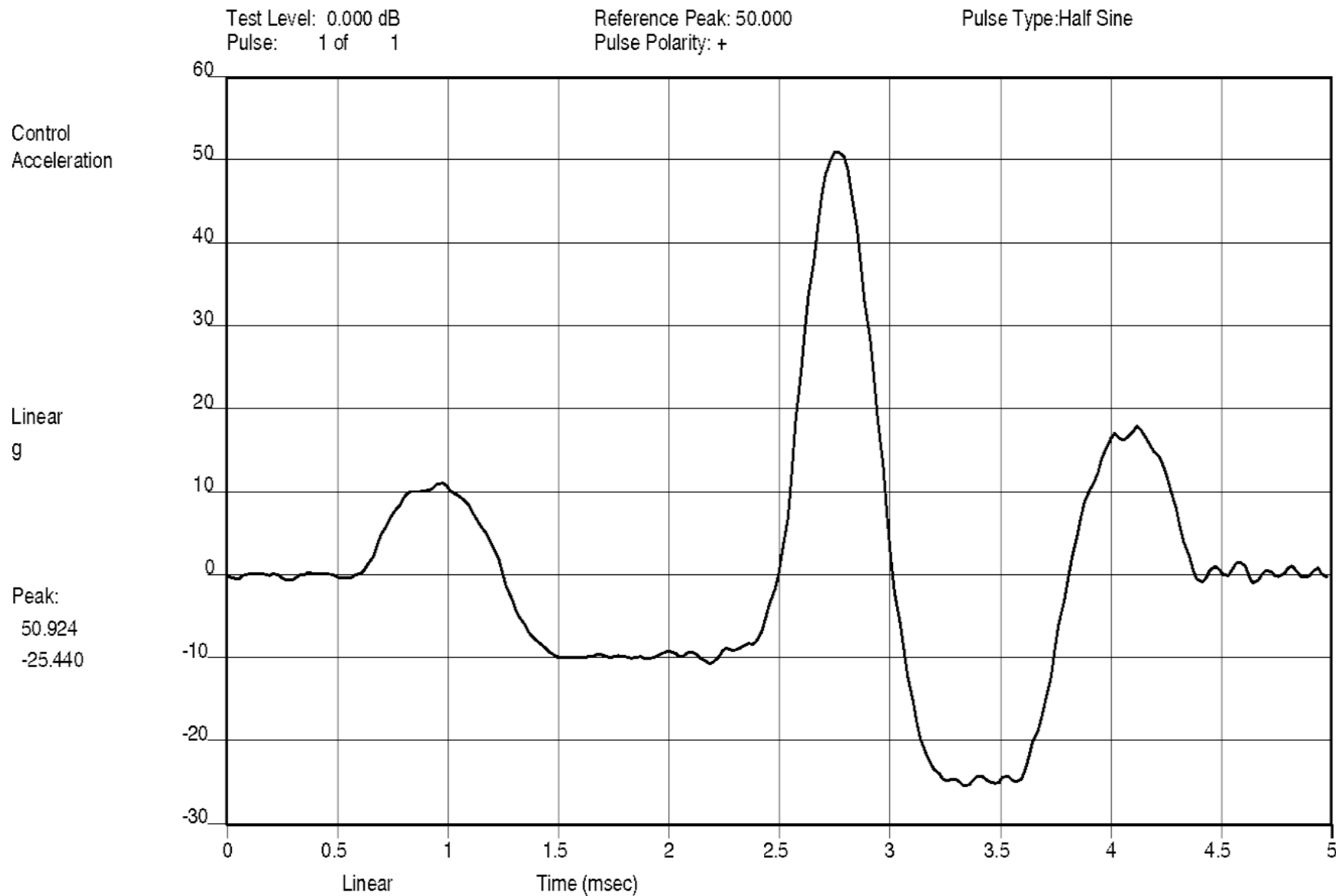
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TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (3 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 26 of 99



CONTROL 1

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Thu Sep 10 2015

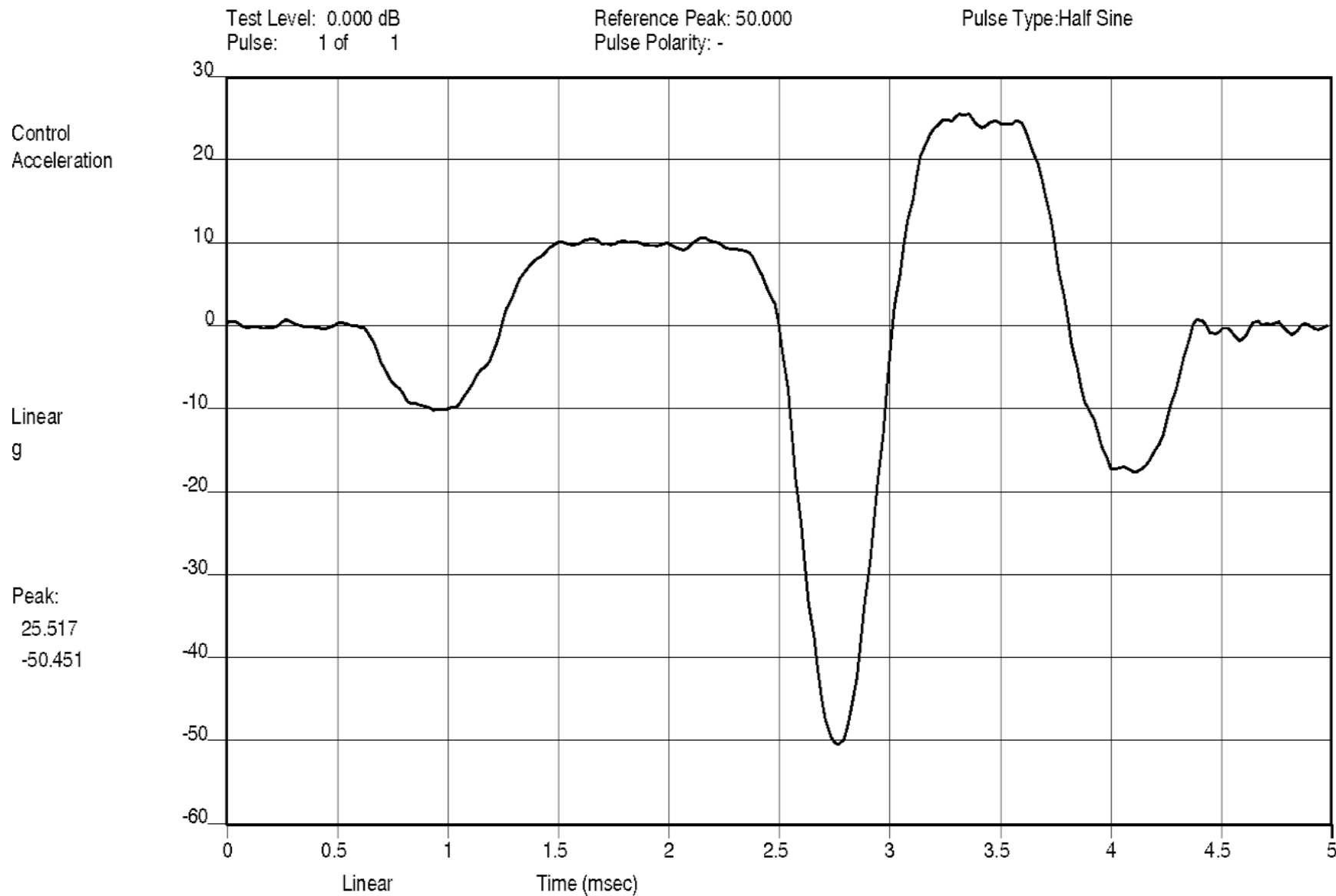
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TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (4 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 27 of 99



CONTROL 1

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Thu Sep 10 2015

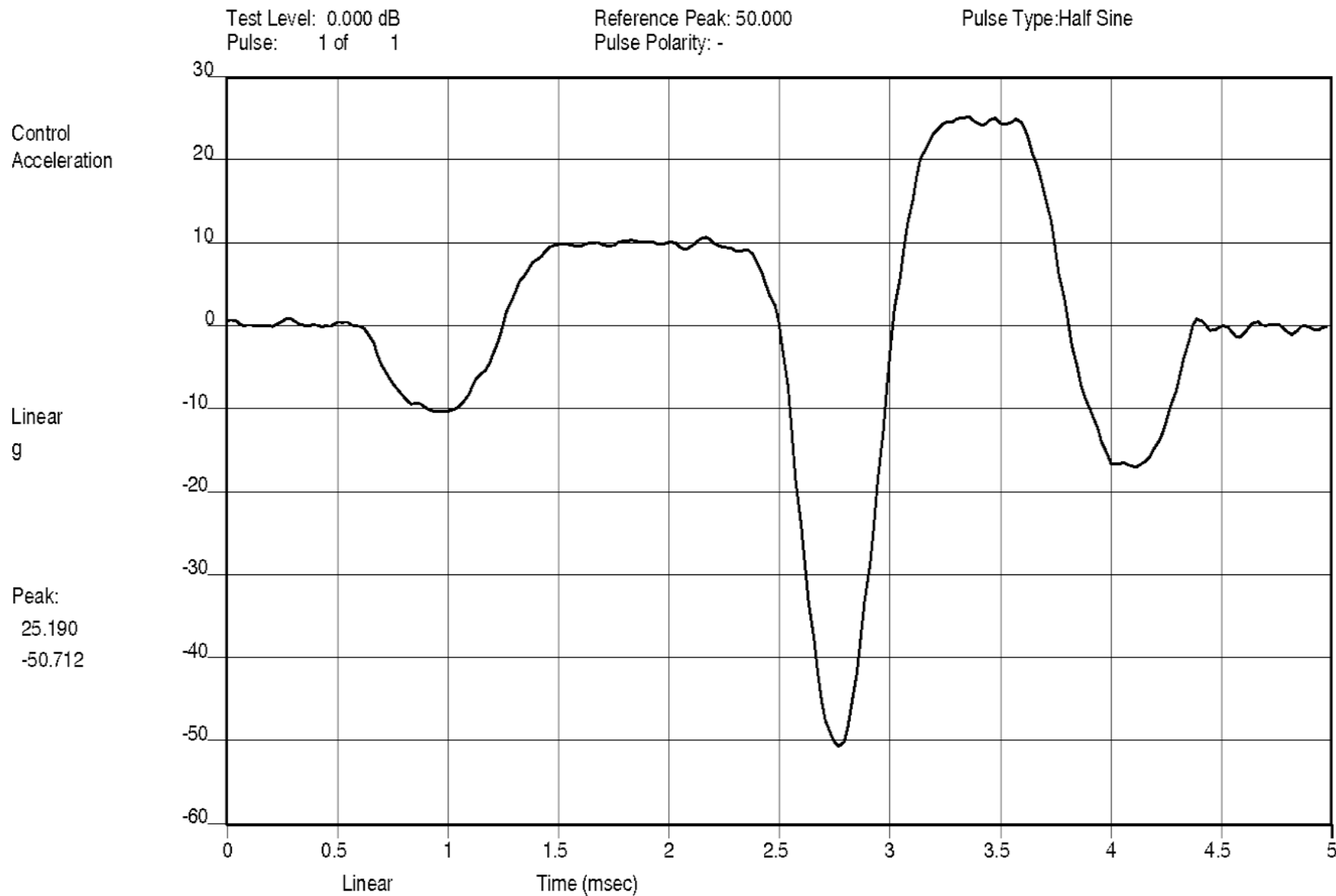
PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (5 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 28 of 99



CONTROL 1

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Thu Sep 10 2015

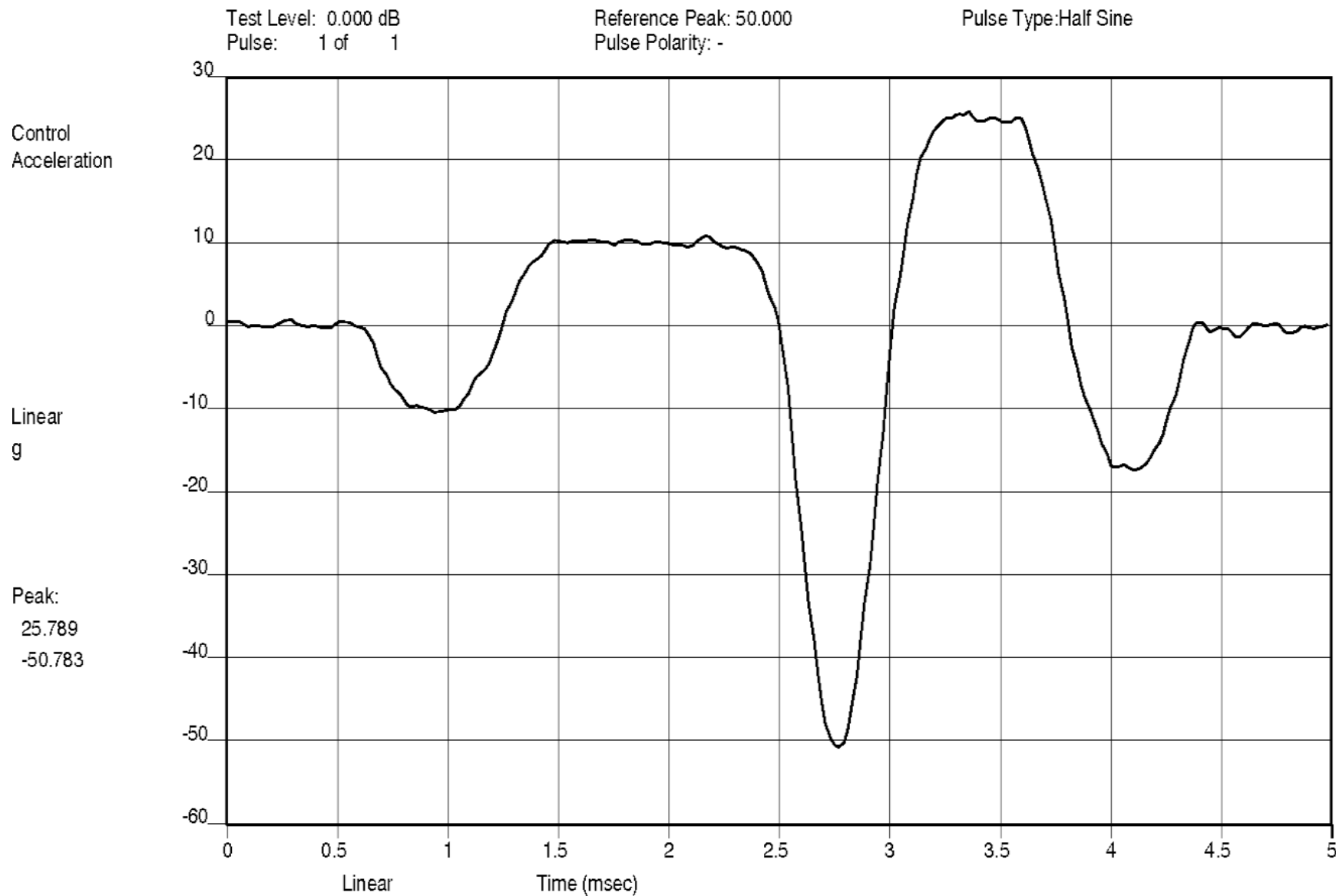
PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
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Classical Shock Test Name: 50G_10MS_HS.024Page 29 of 99



CONTROL 1

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Thu Sep 10 2015

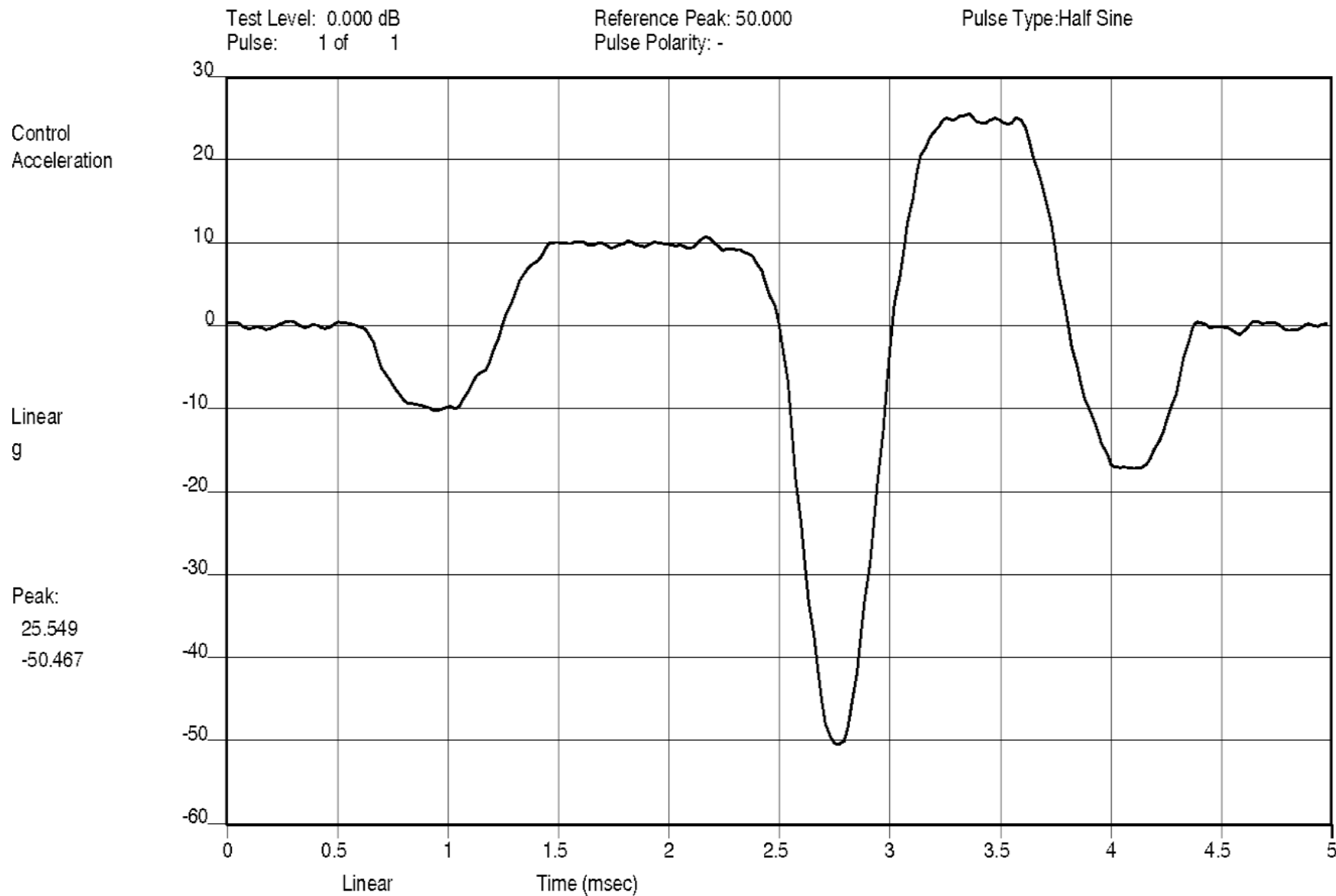
PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (2 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 30 of 99



11:43:30.2
Thu Sep 10 2015

PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (3 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 31 of 99

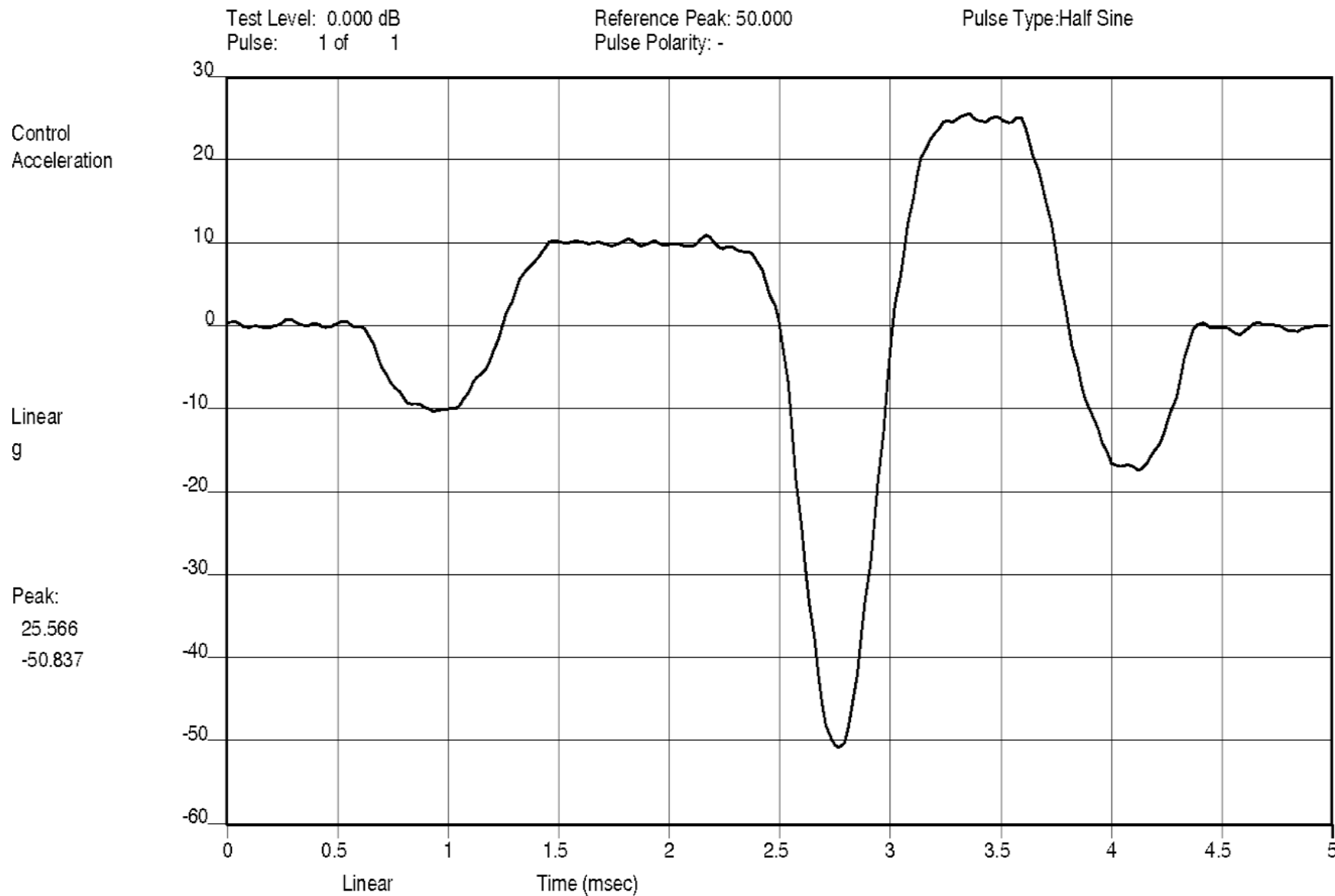
CONTROL 1



CONTROL 1

11:43:36.6
Thu Sep 10 2015

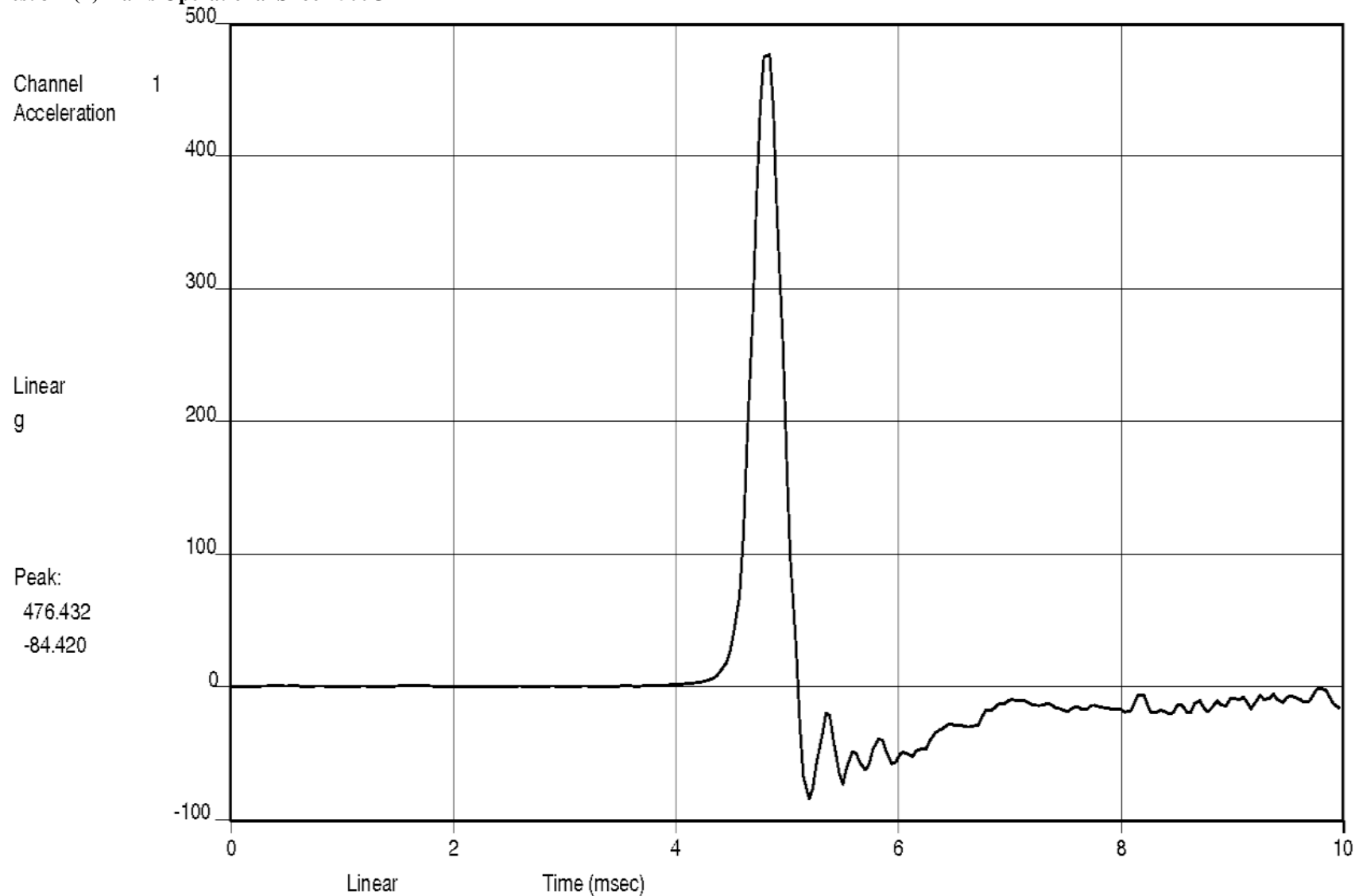
PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (4 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 32 of 99



11:43:42.7
Thu Sep 10 2015

PR035989 DIGI-PAS DWL-5000 XY MODULE S/N 13B50030.
TEST#2 AXIS: X SHOCK 50G 0.5MS HALF-SINE (5 OF 5)
Classical Shock Test Name: 50G_10MS_HS.024Page 33 of 99

CONTROL 1

**Test 3 (+)Y-axis Operational Shock 500G**

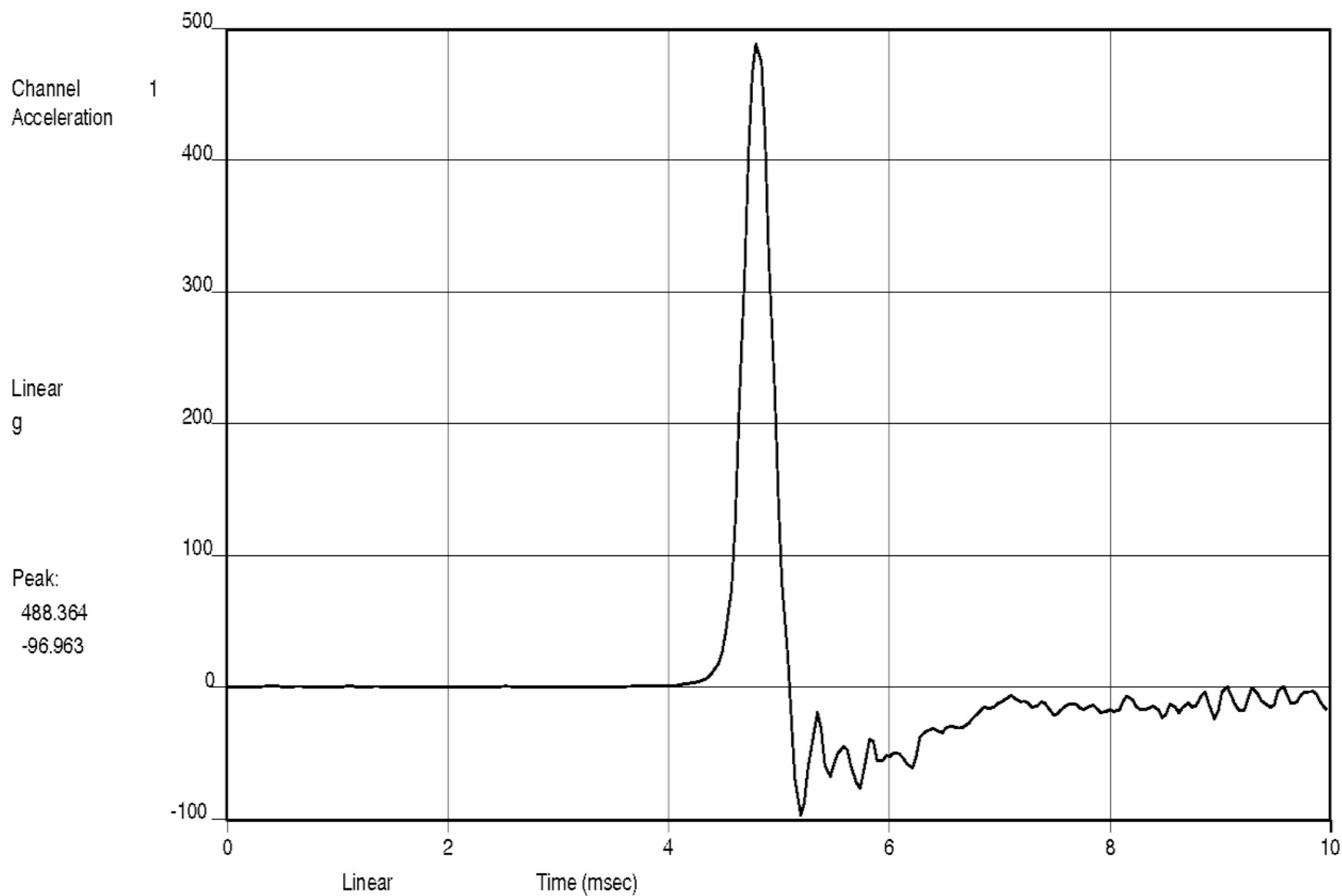
12:45:10.3
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (+) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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CONTROL



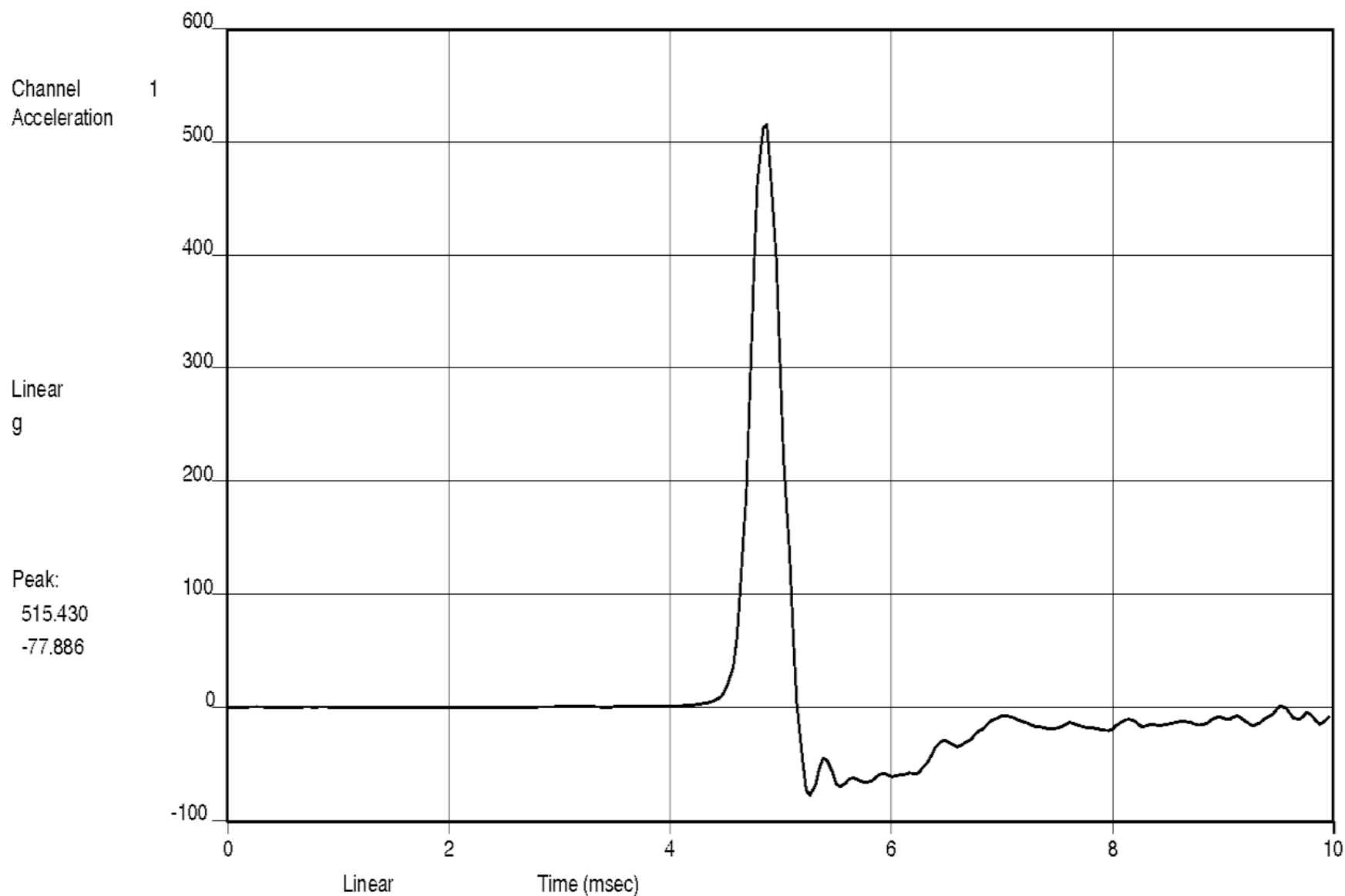
CONTROL

12:45:51.8
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (+) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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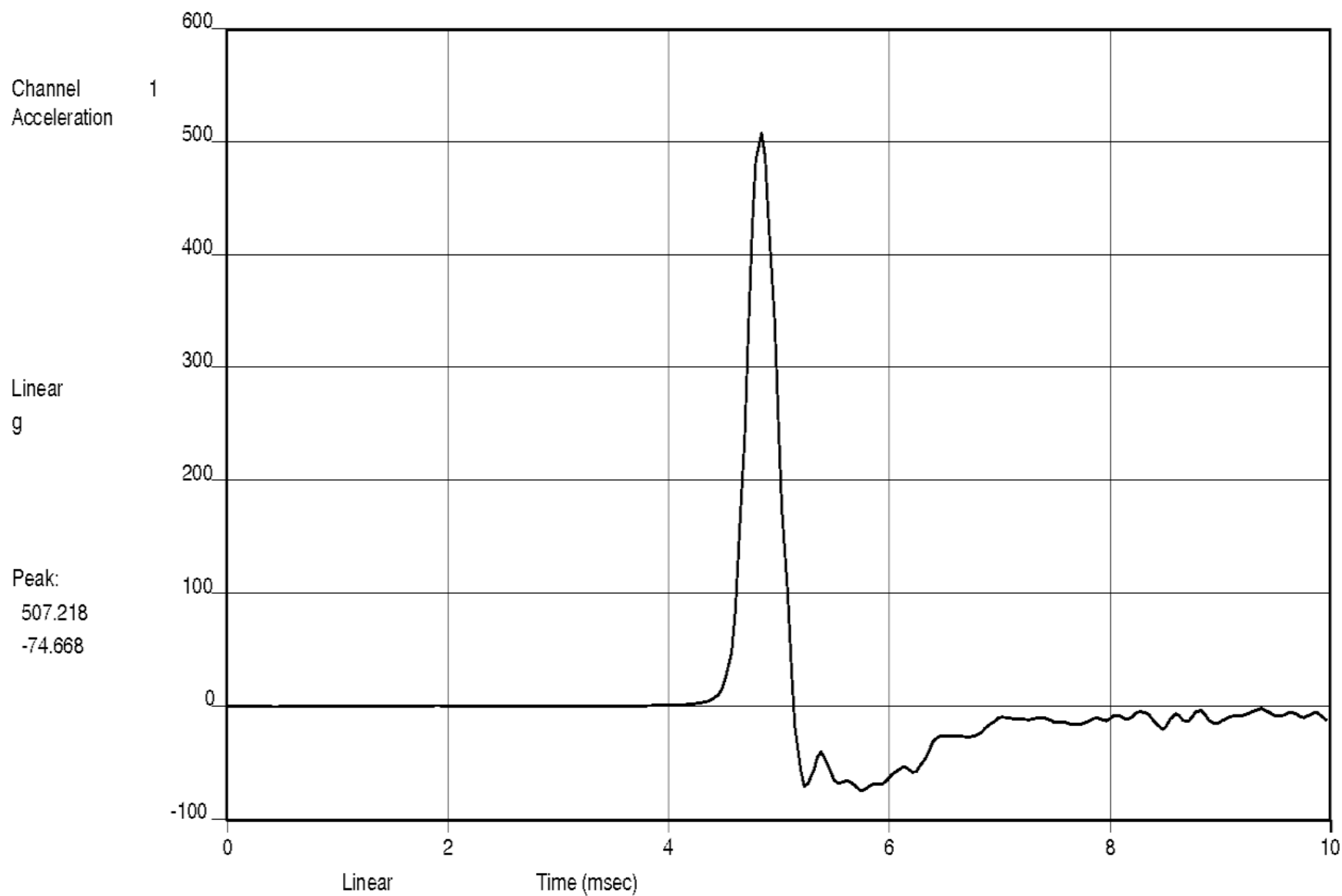
CONTROL

12:46:13.3
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (+) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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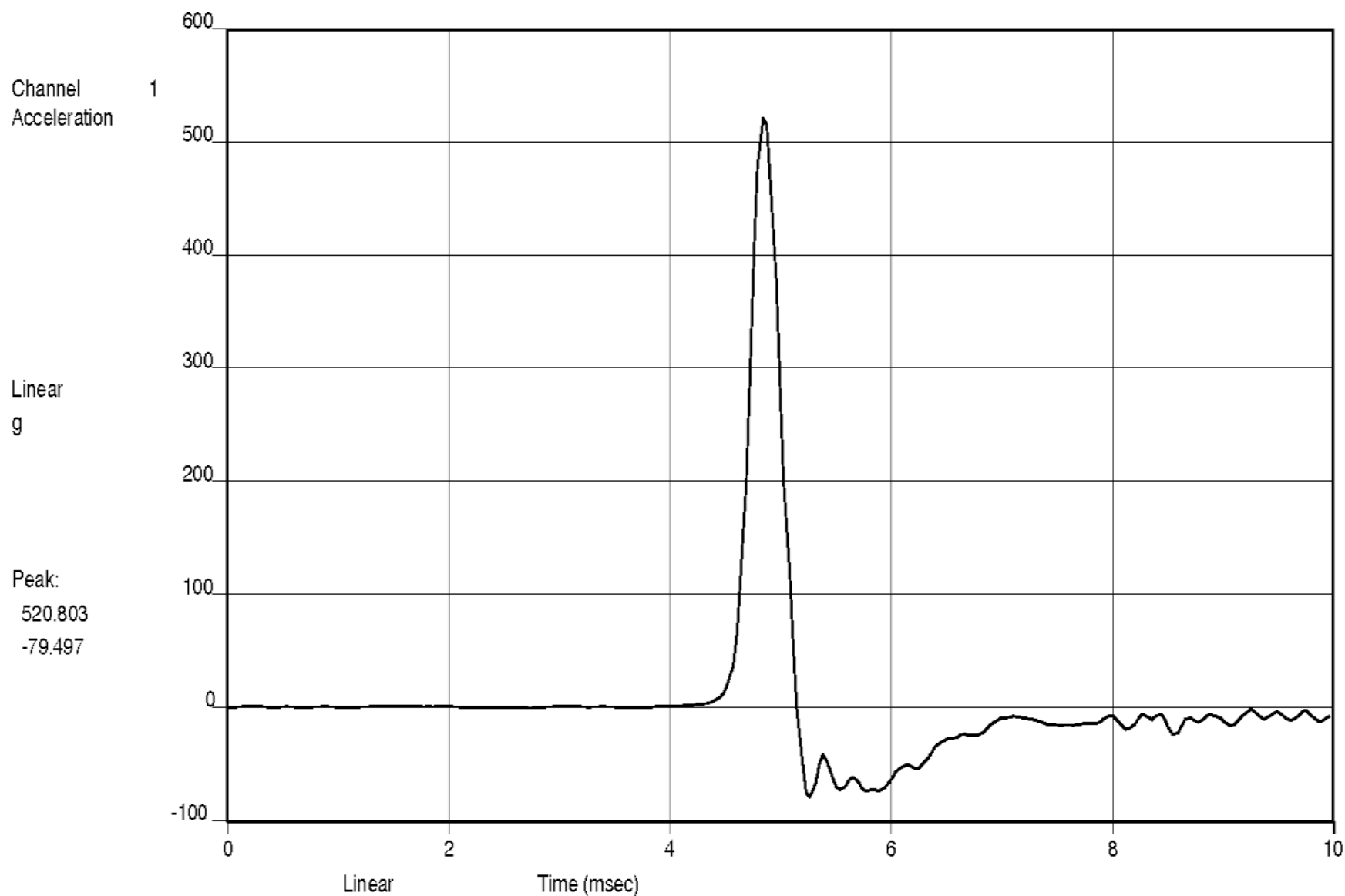
CONTROL

12:46:46.2
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (+) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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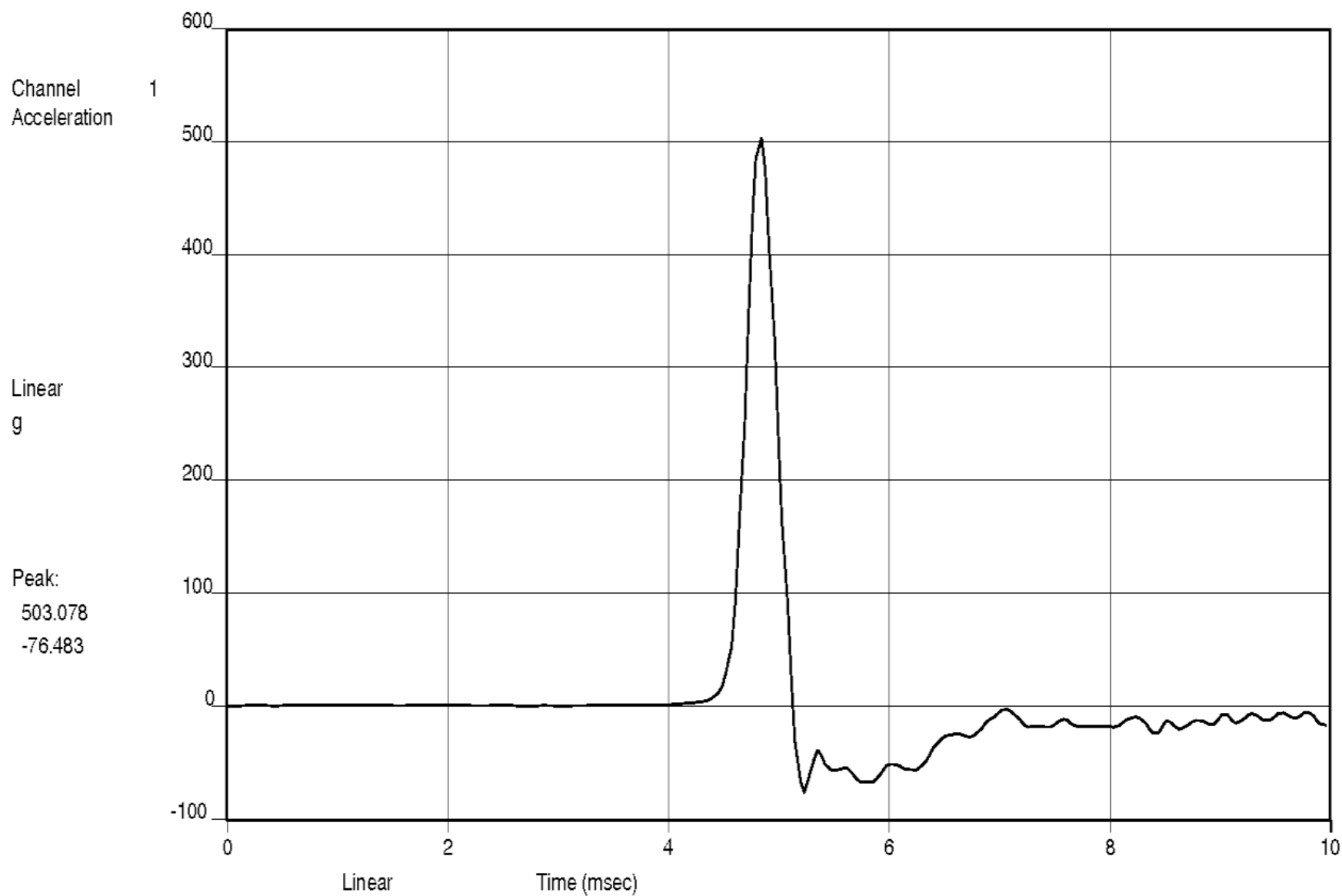
CONTROL

12:46:59.5
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (+) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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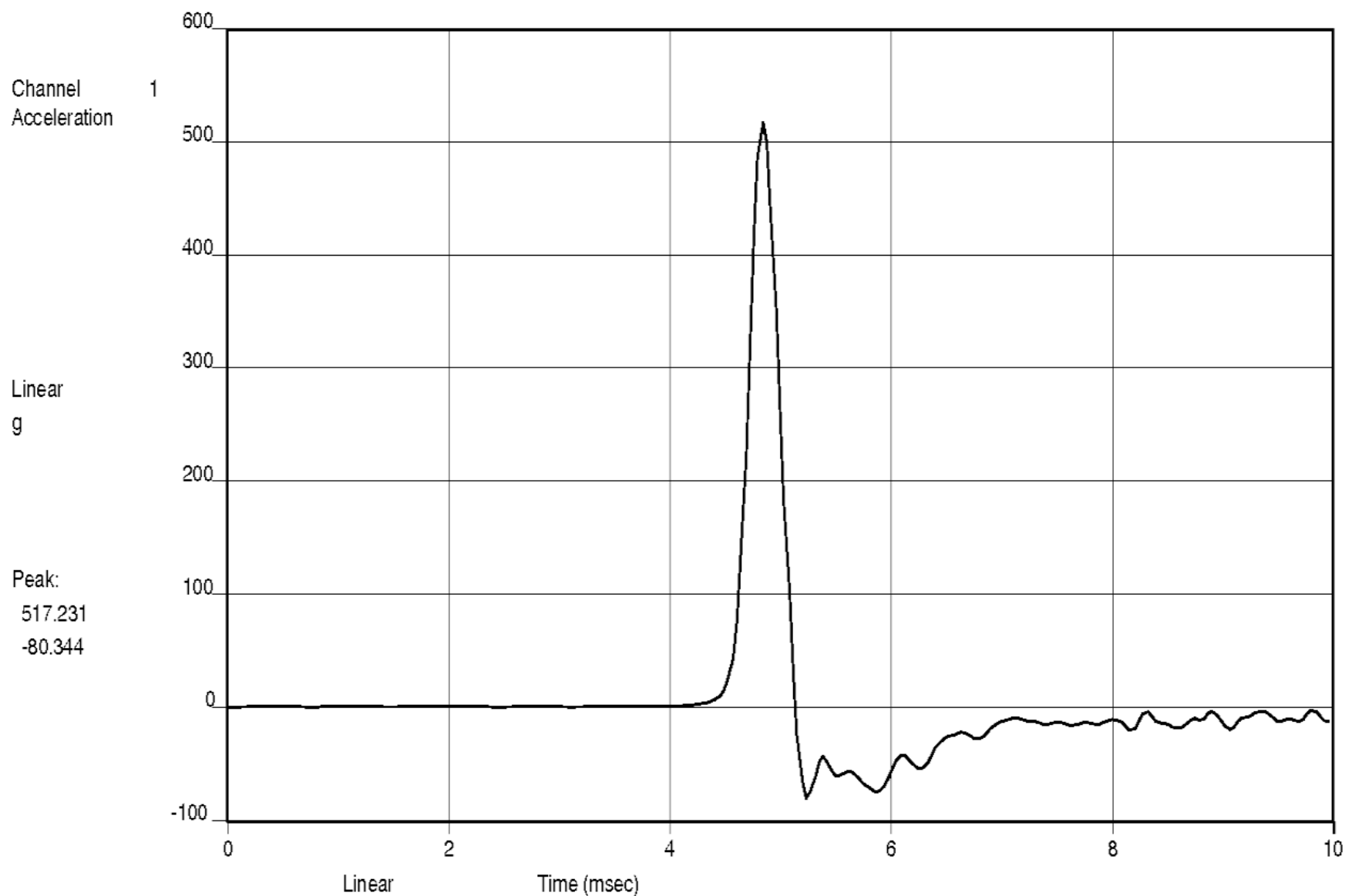
CONTROL

12:49:30.6
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (-) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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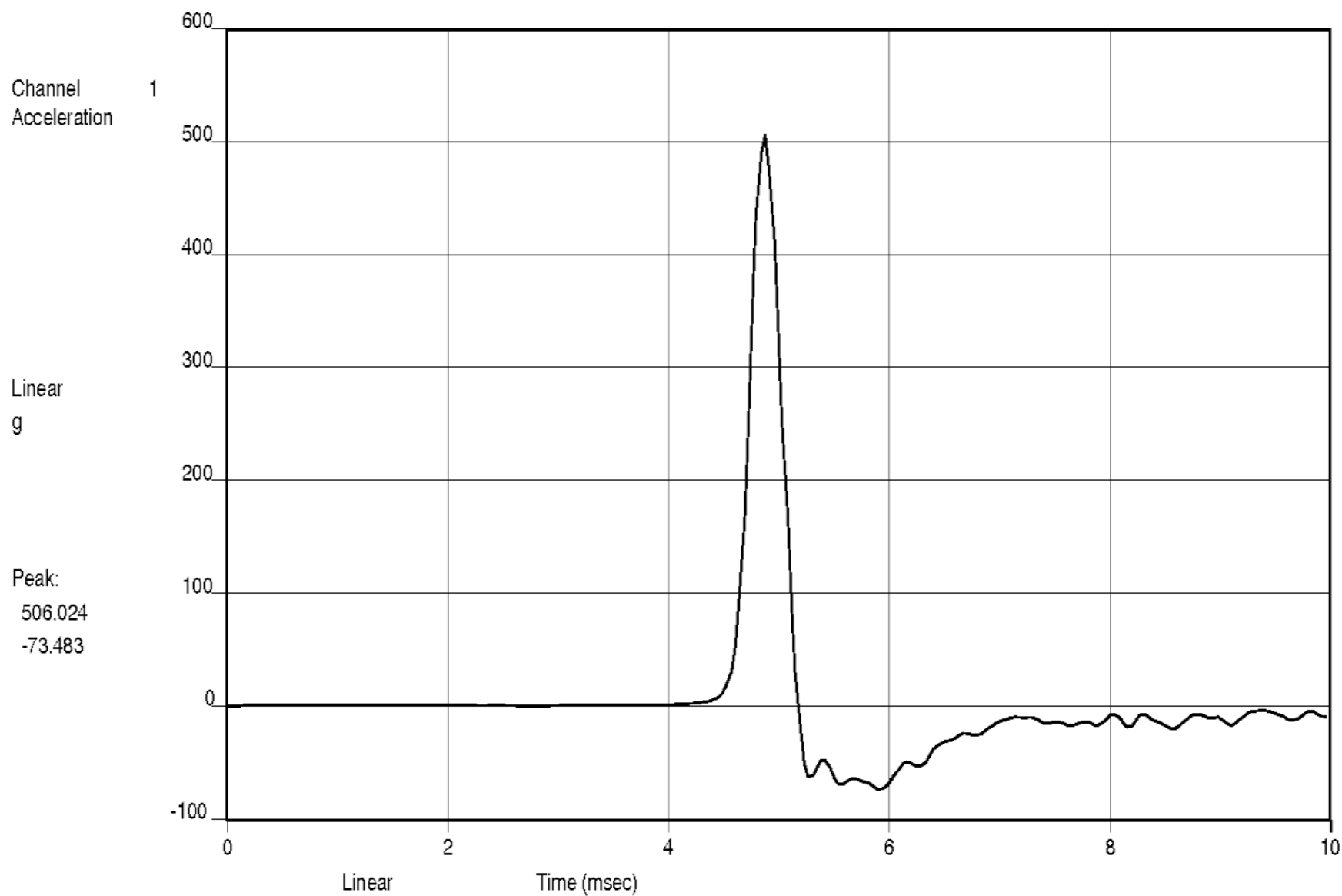
CONTROL

12:49:46.0
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (-) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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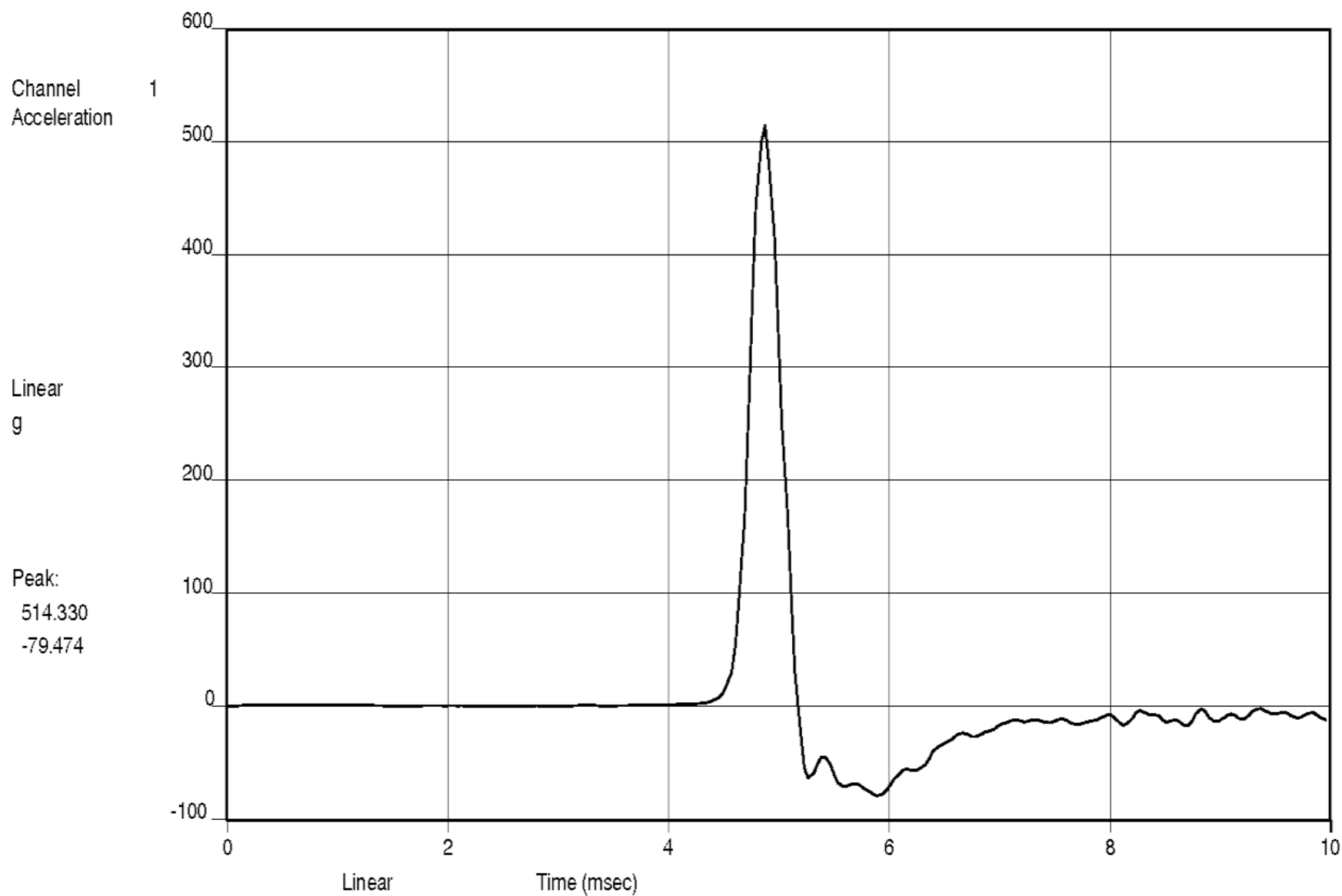
CONTROL

12:49:58.6
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (-) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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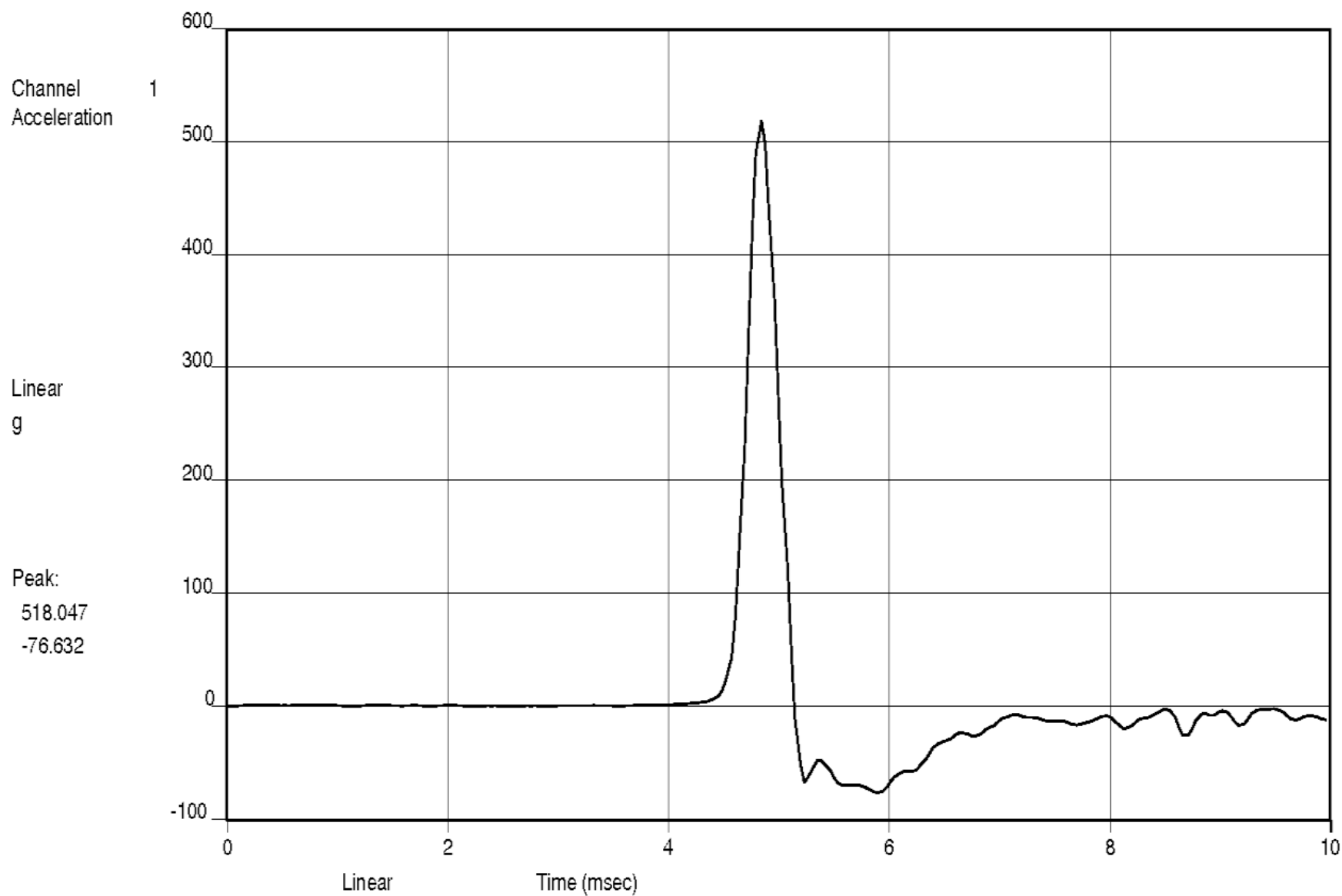
CONTROL

12:50:18.4
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (-) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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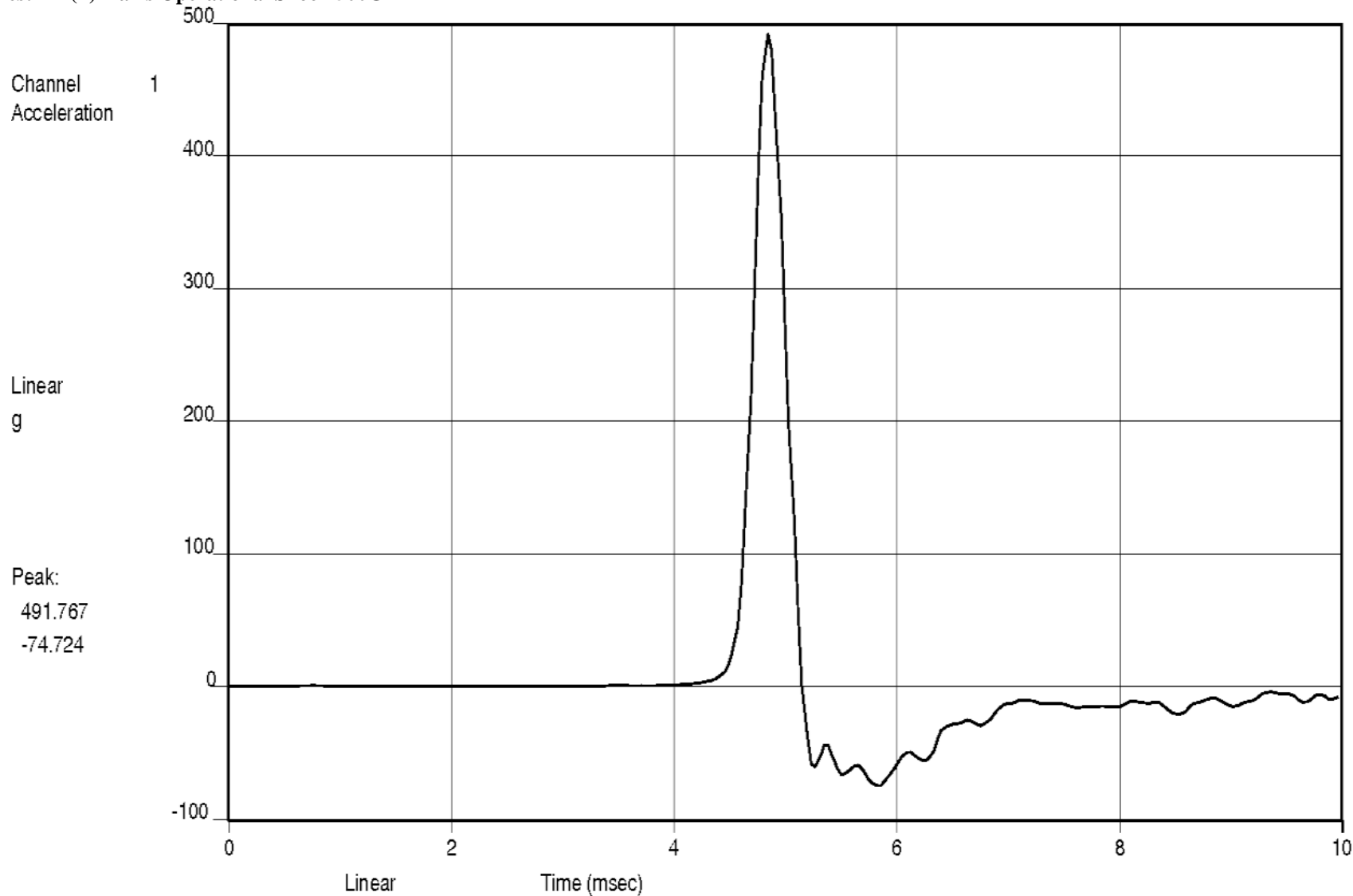
CONTROL

12:50:31.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#3 AXIS: (-) Y OPERATIONAL SHOCK - 500G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.013

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**Test 4 (+)X-axis Operational Shock 500G**

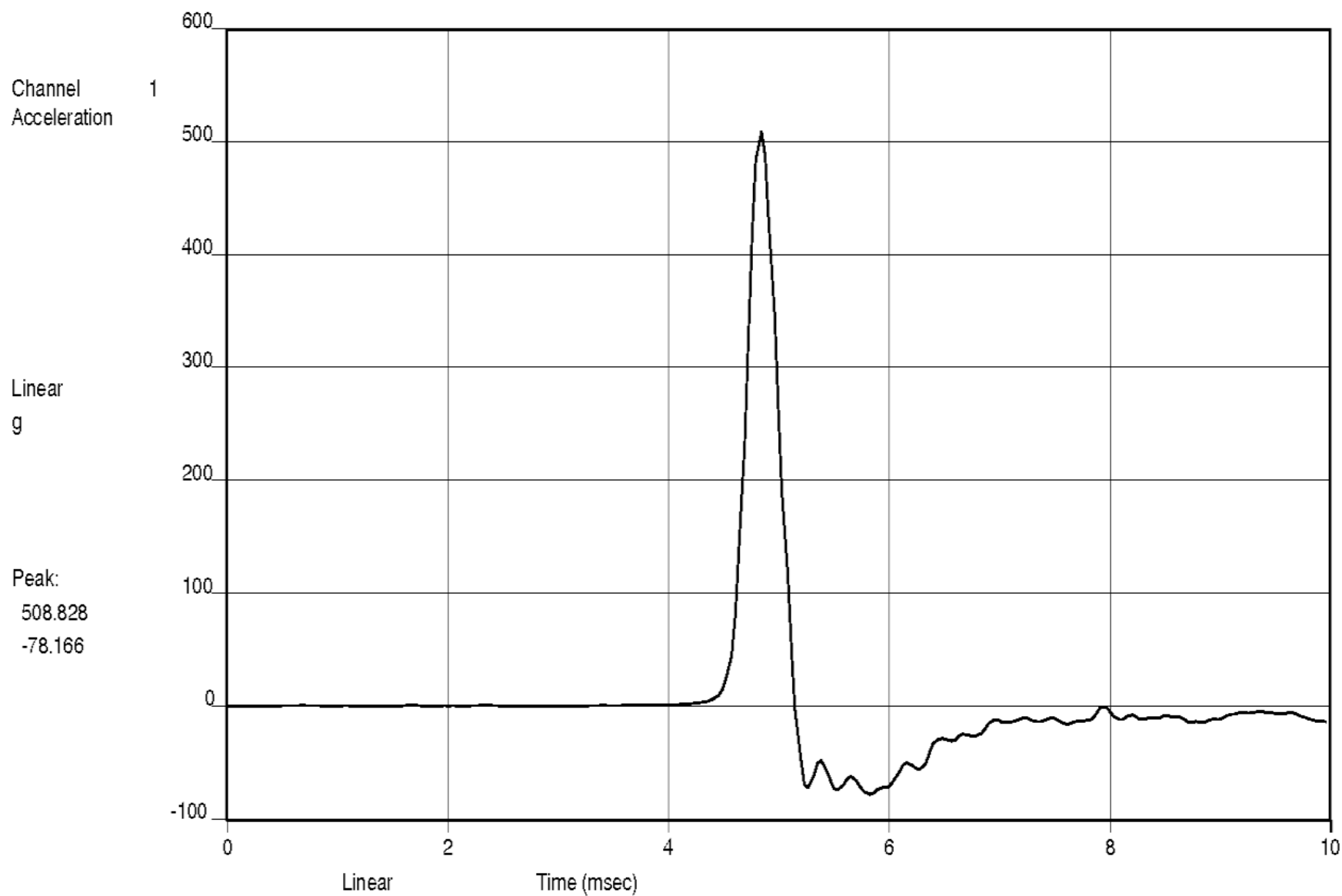
13:05:55.8
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (+) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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CONTROL



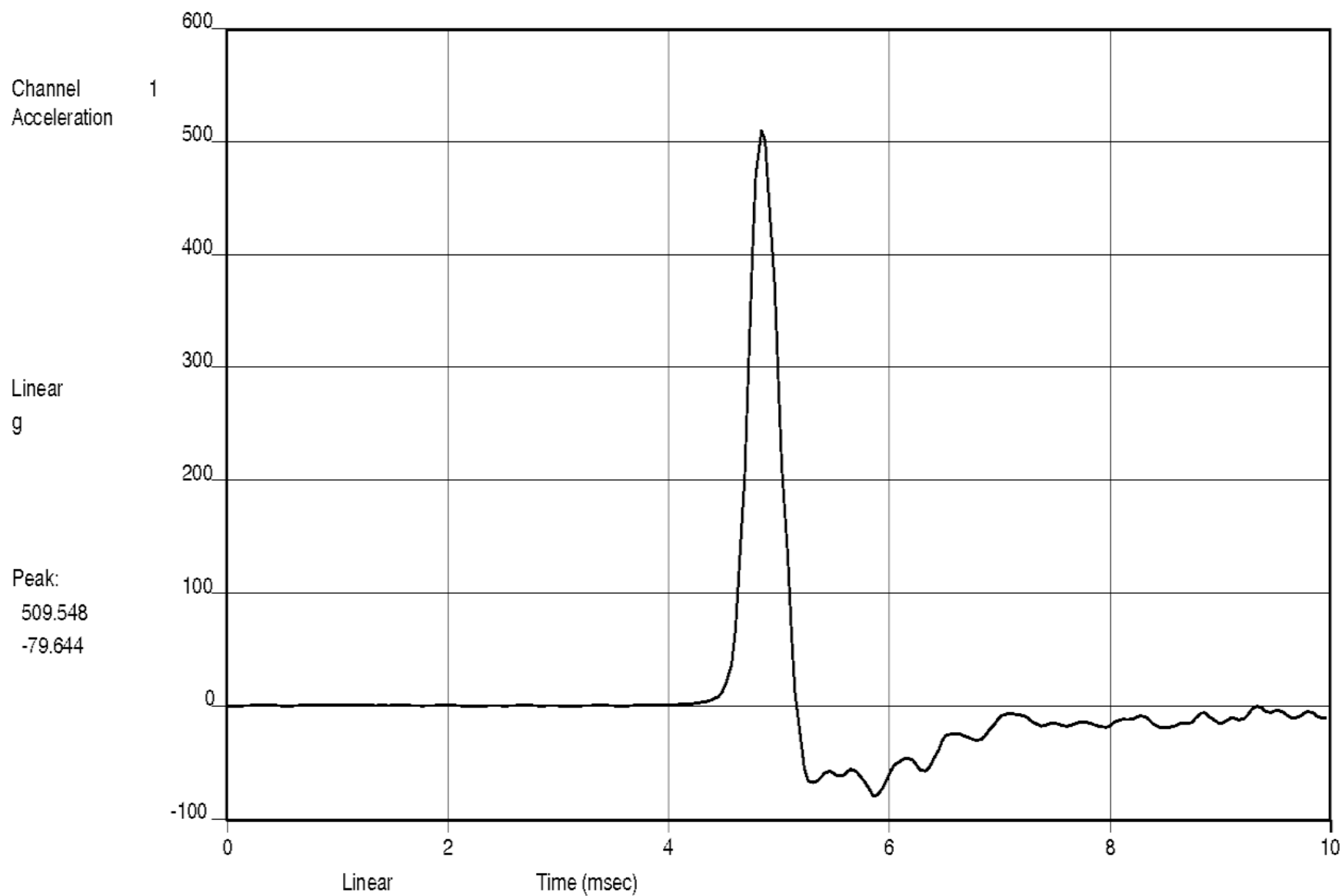
CONTROL

13:06:28.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (+) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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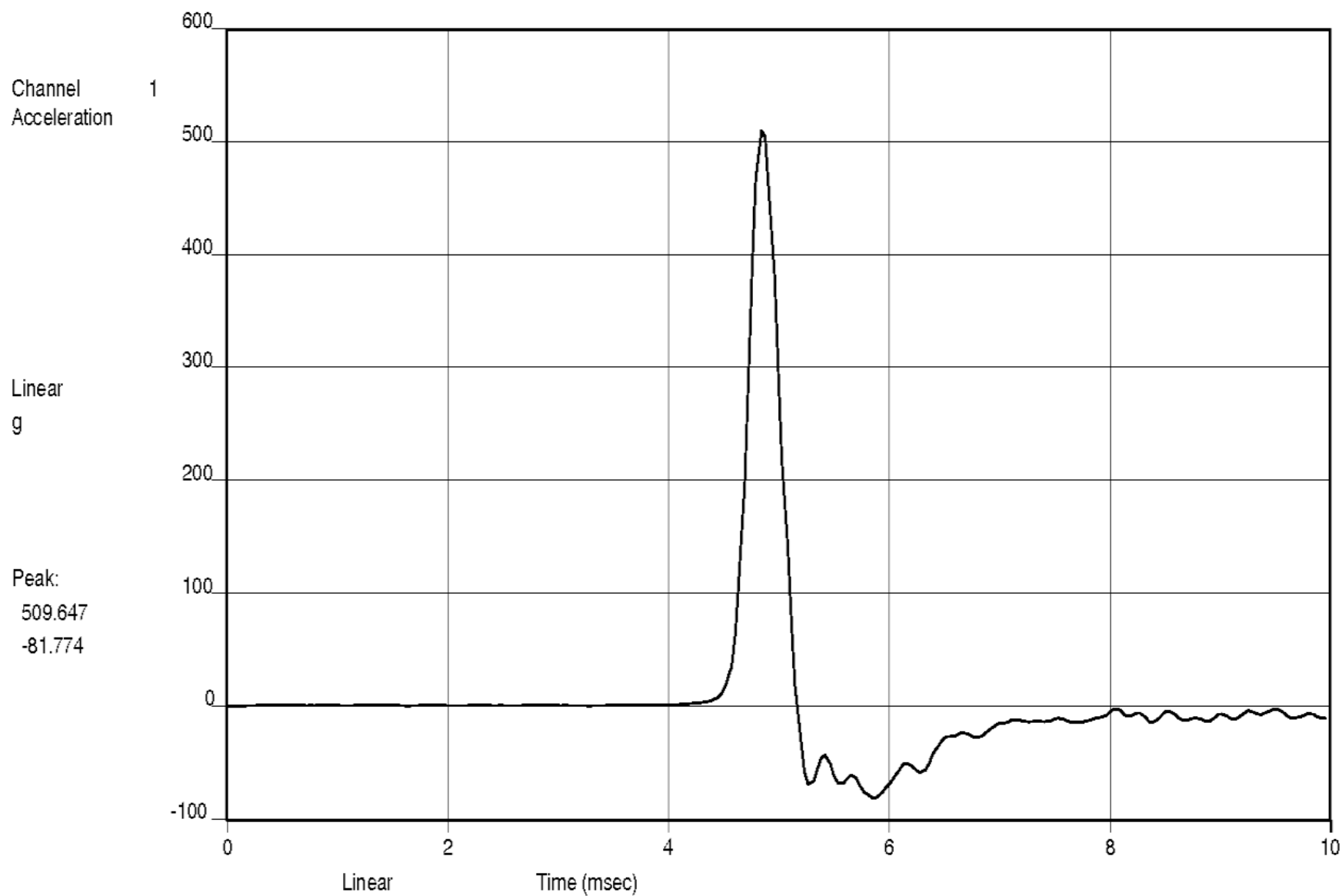


13:06:41.0
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (+) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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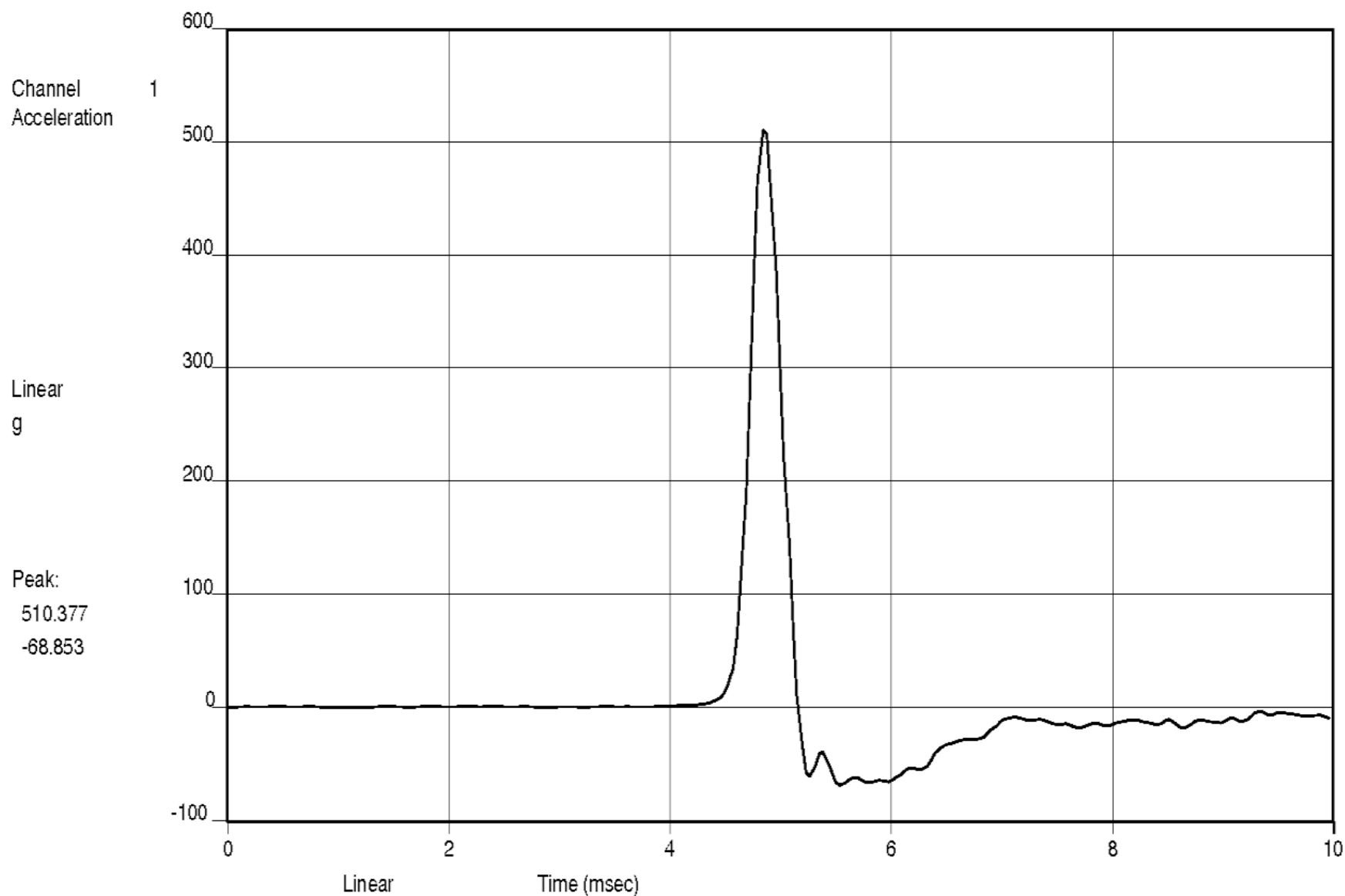
CONTROL

13:06:52.5
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (+) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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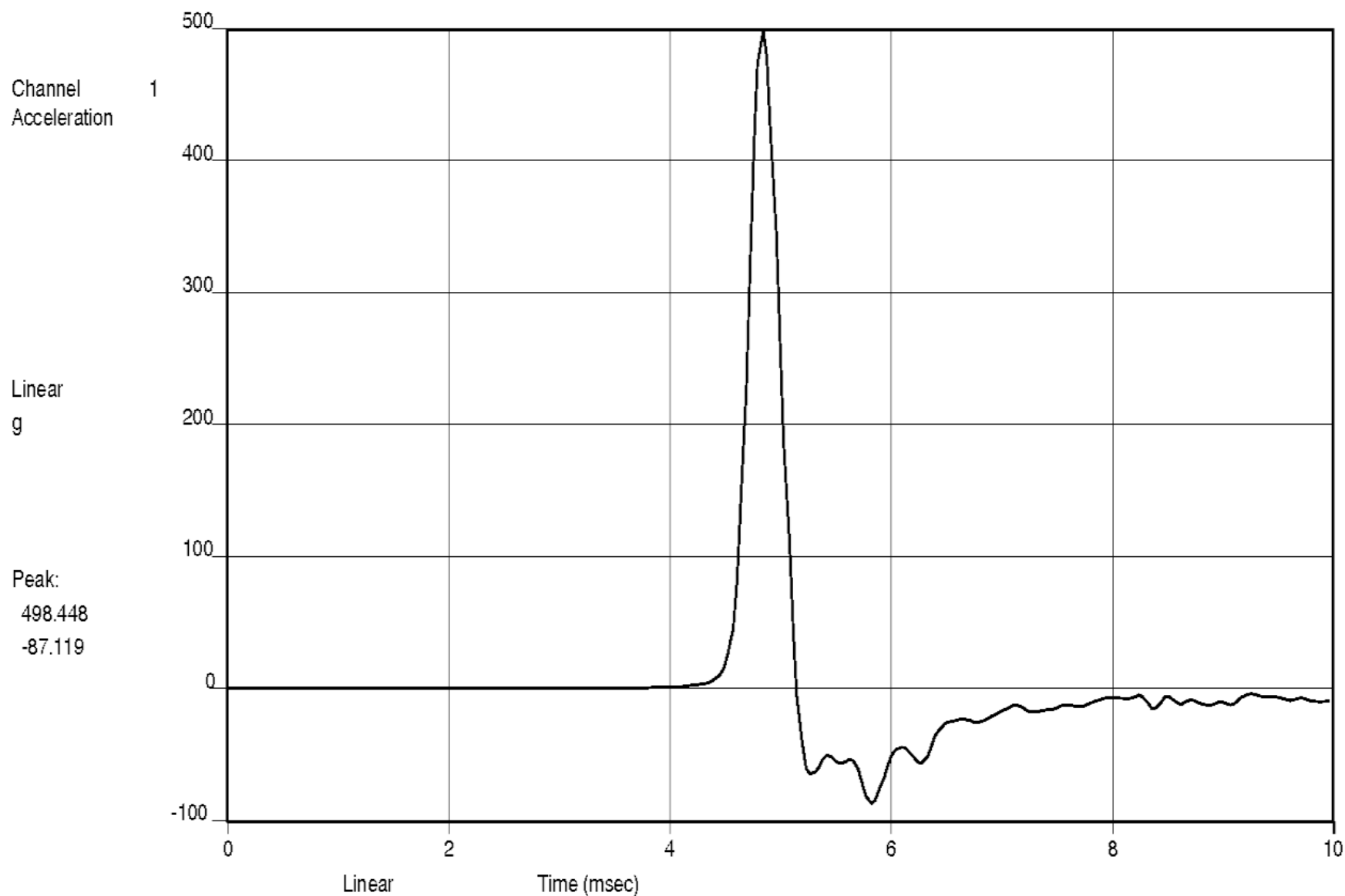
CONTROL

13:07:04.6
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (+) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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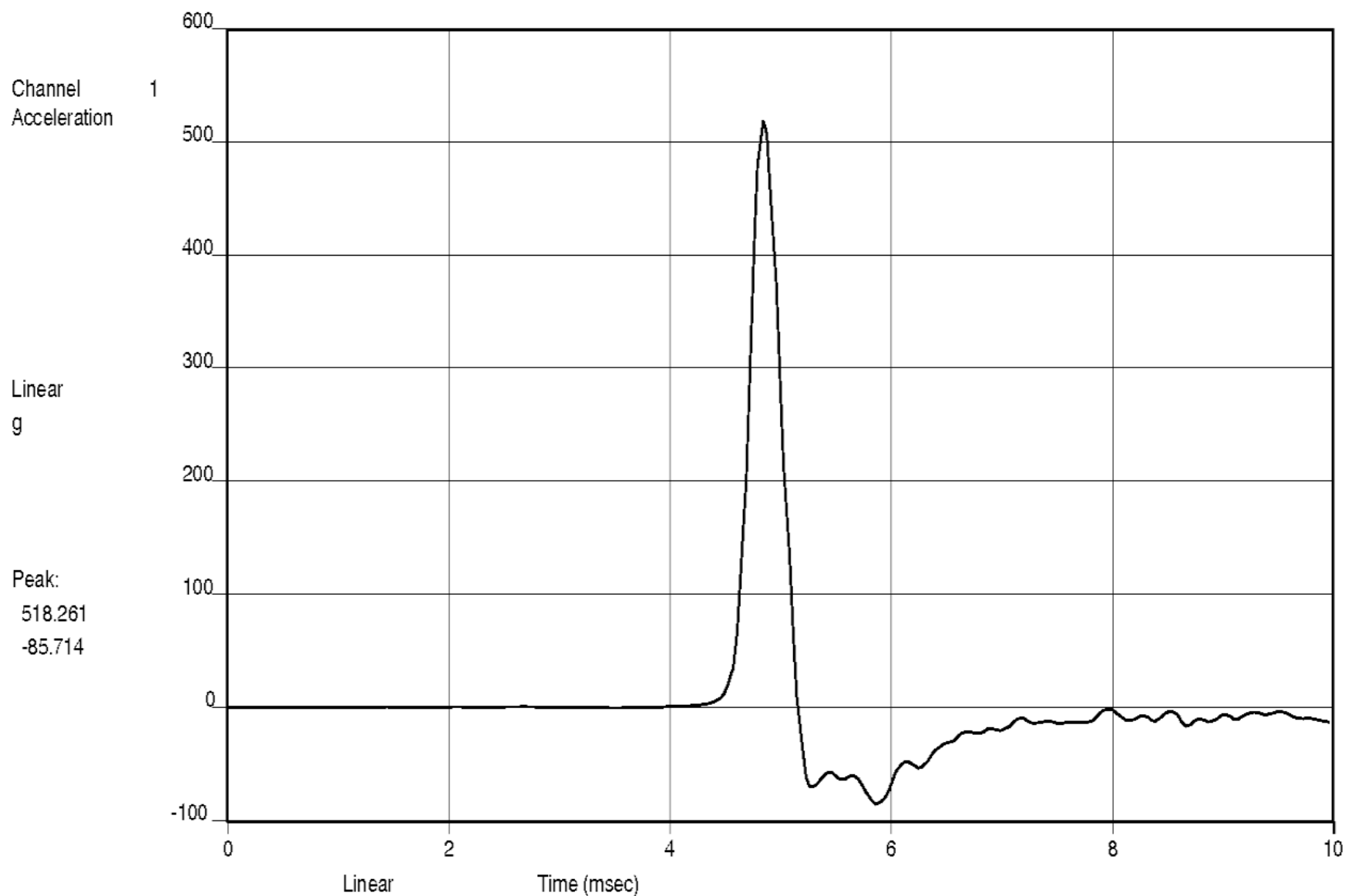
CONTROL

13:08:34.7
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (-) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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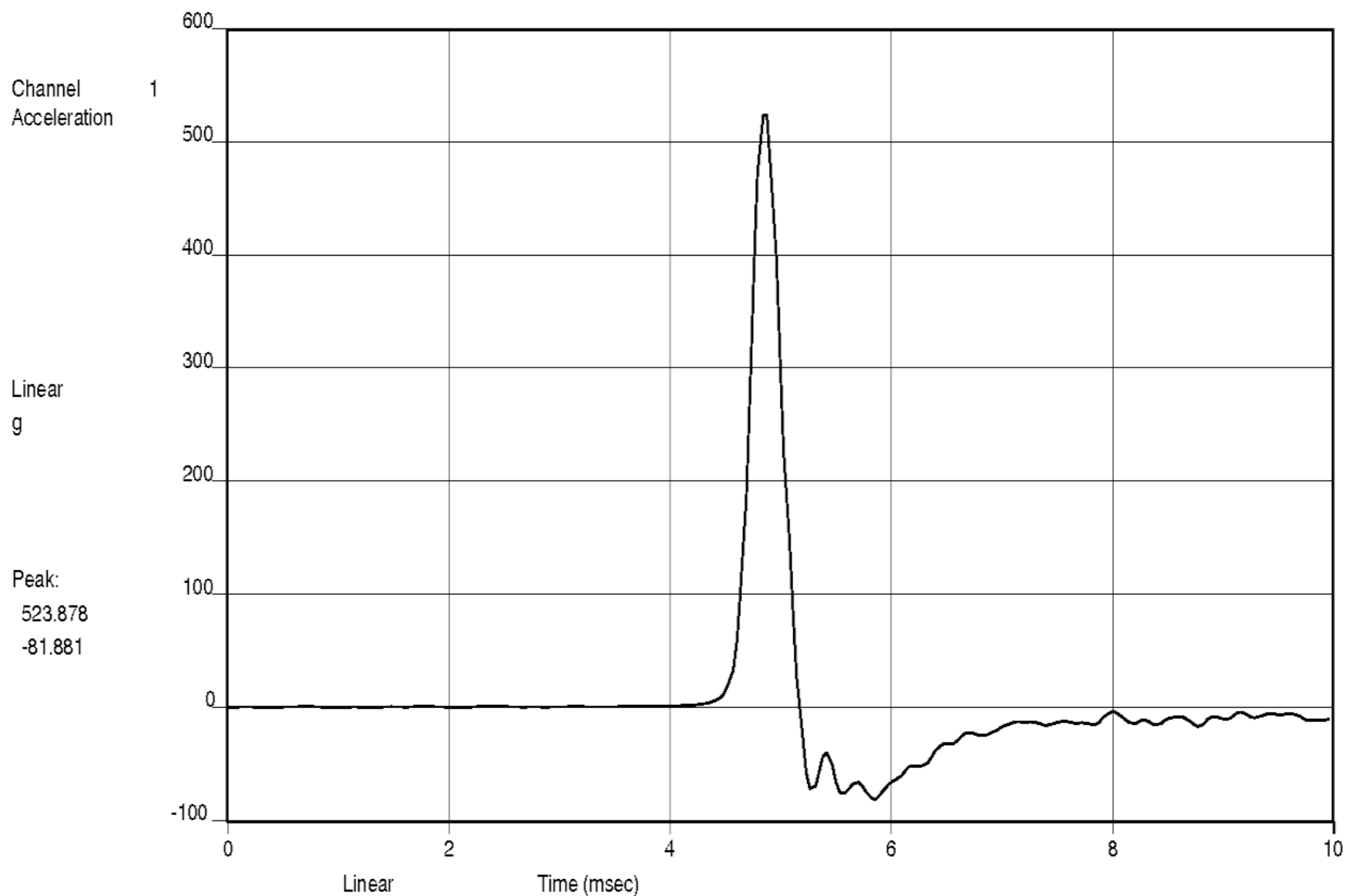
CONTROL

13:08:54.0
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (-) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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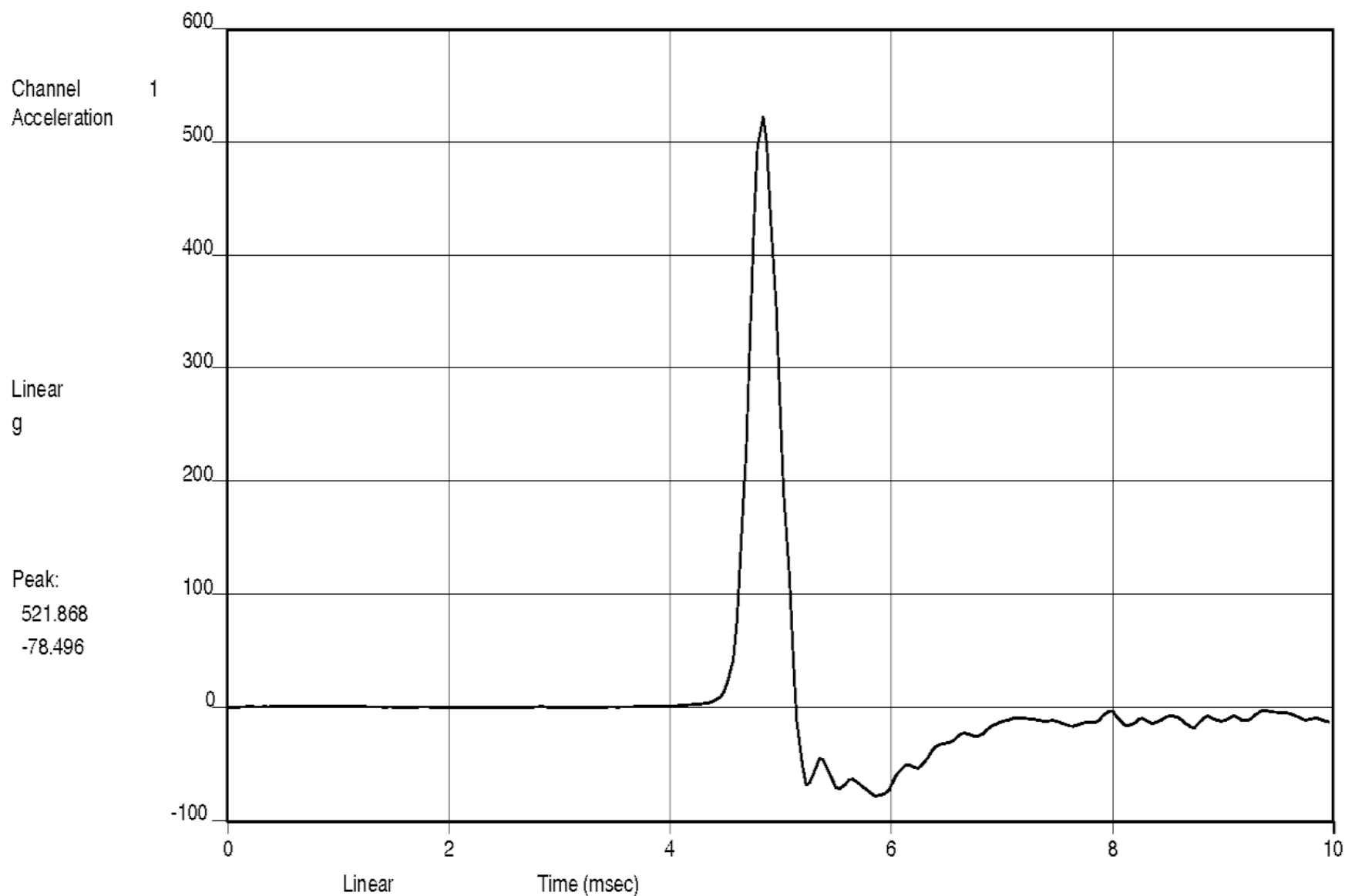
CONTROL

13:09:06.3
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (-) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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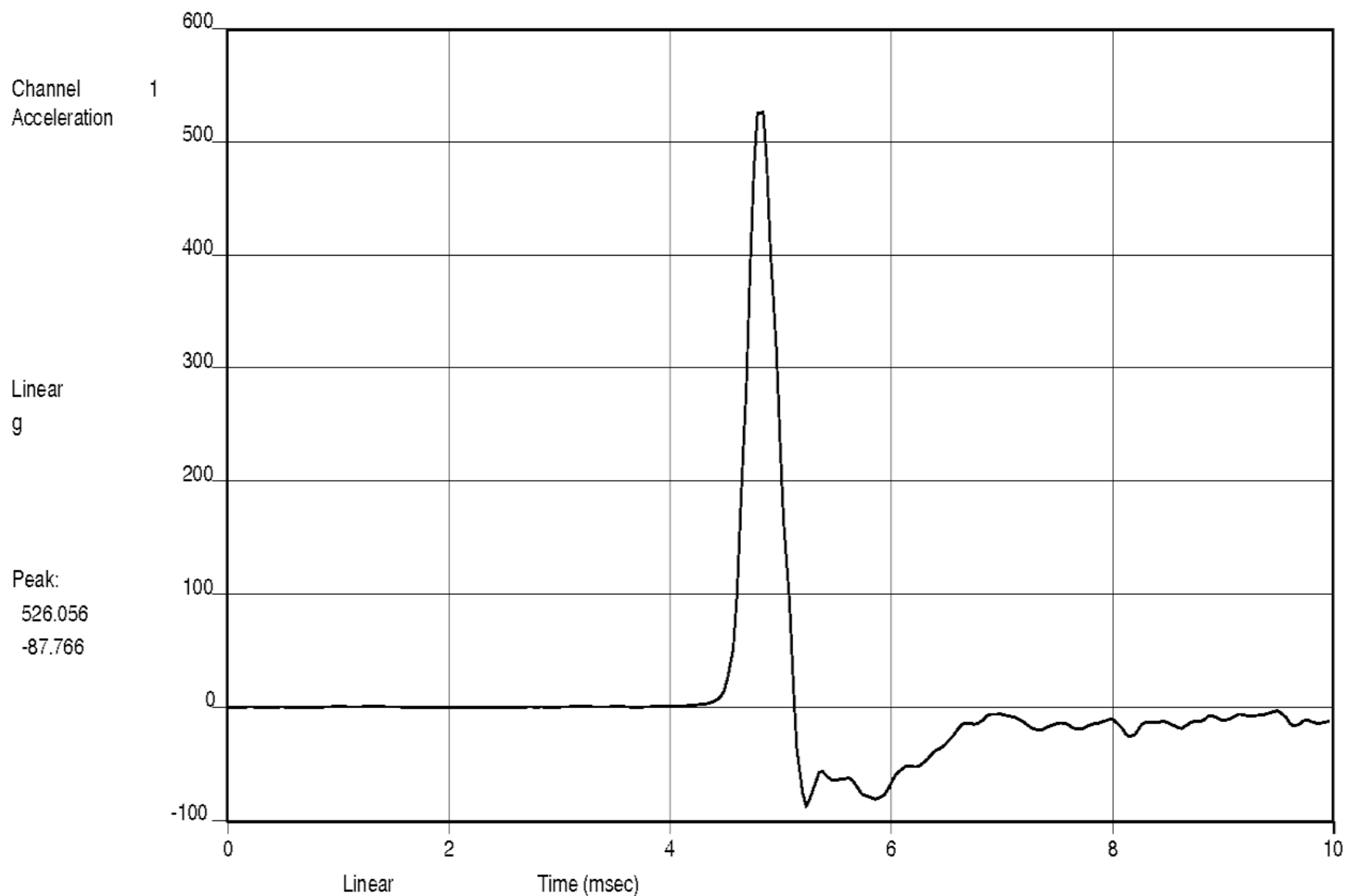
CONTROL

13:09:18.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (-) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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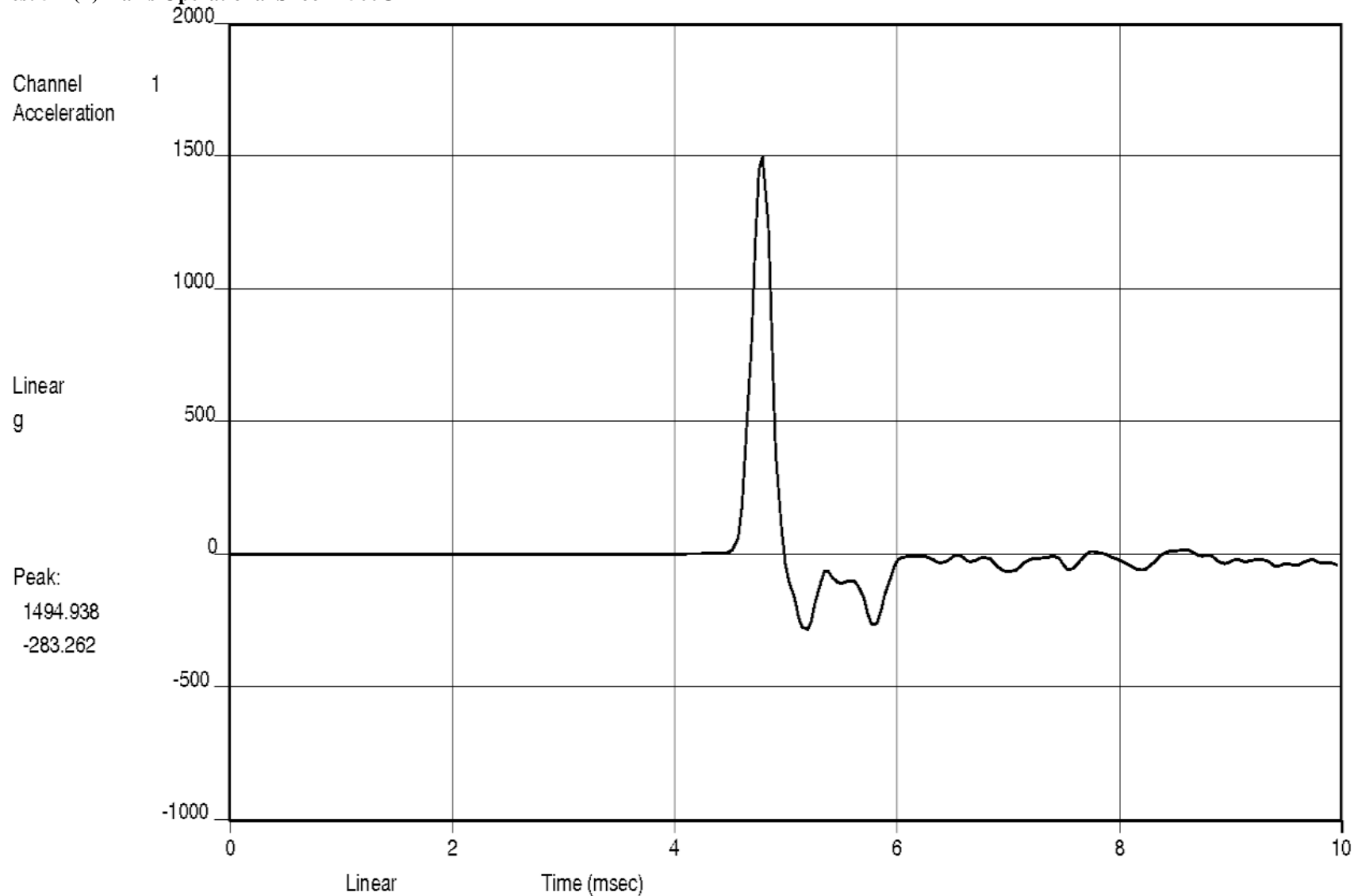
CONTROL

13:09:36.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#4 AXIS: (-) X OPERATIONAL SHOCK - 500G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.014

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**Test 5 (+)Y-axis Operational Shock 1500G**

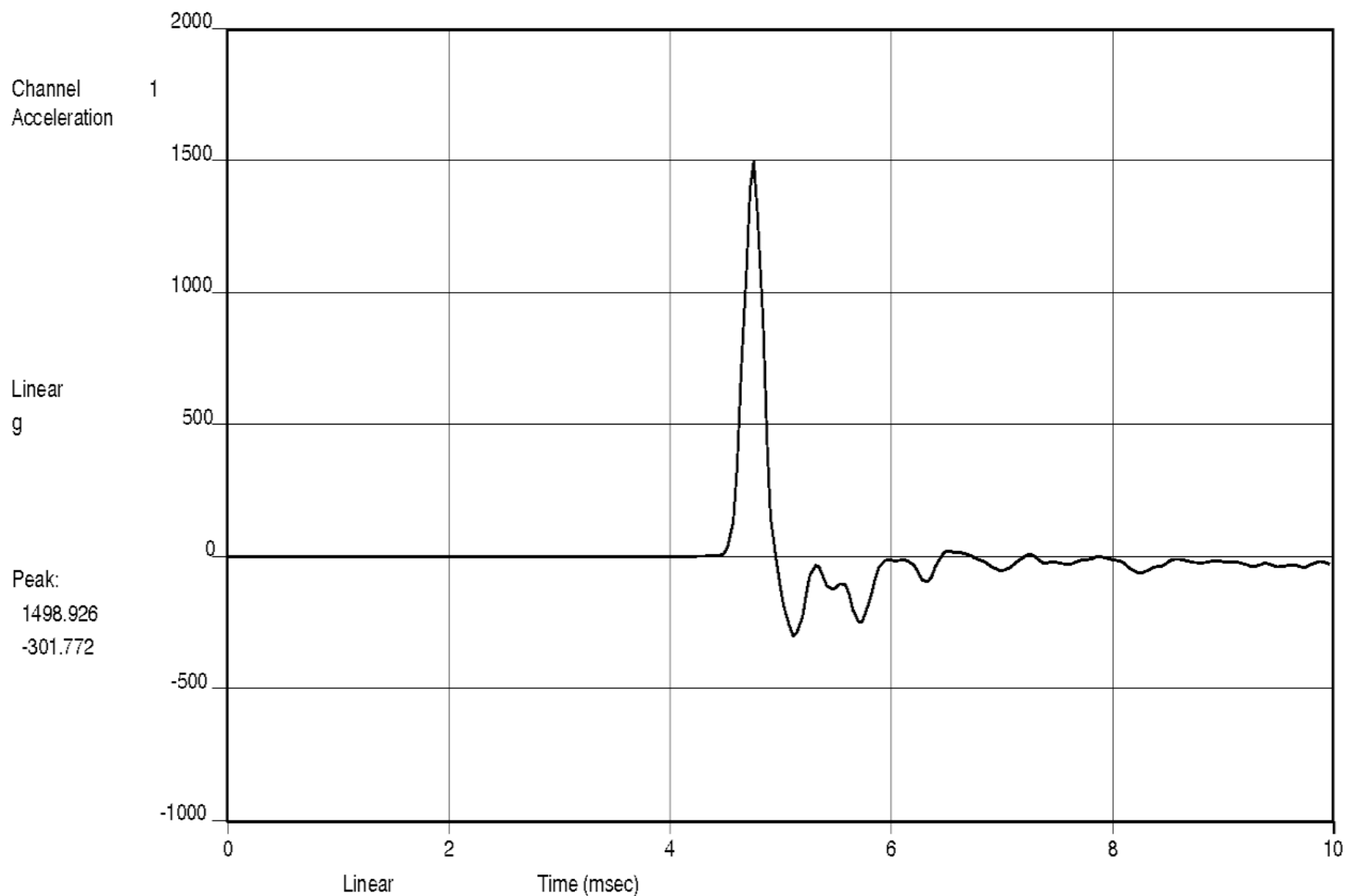
13:19:00.3
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (+) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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CONTROL



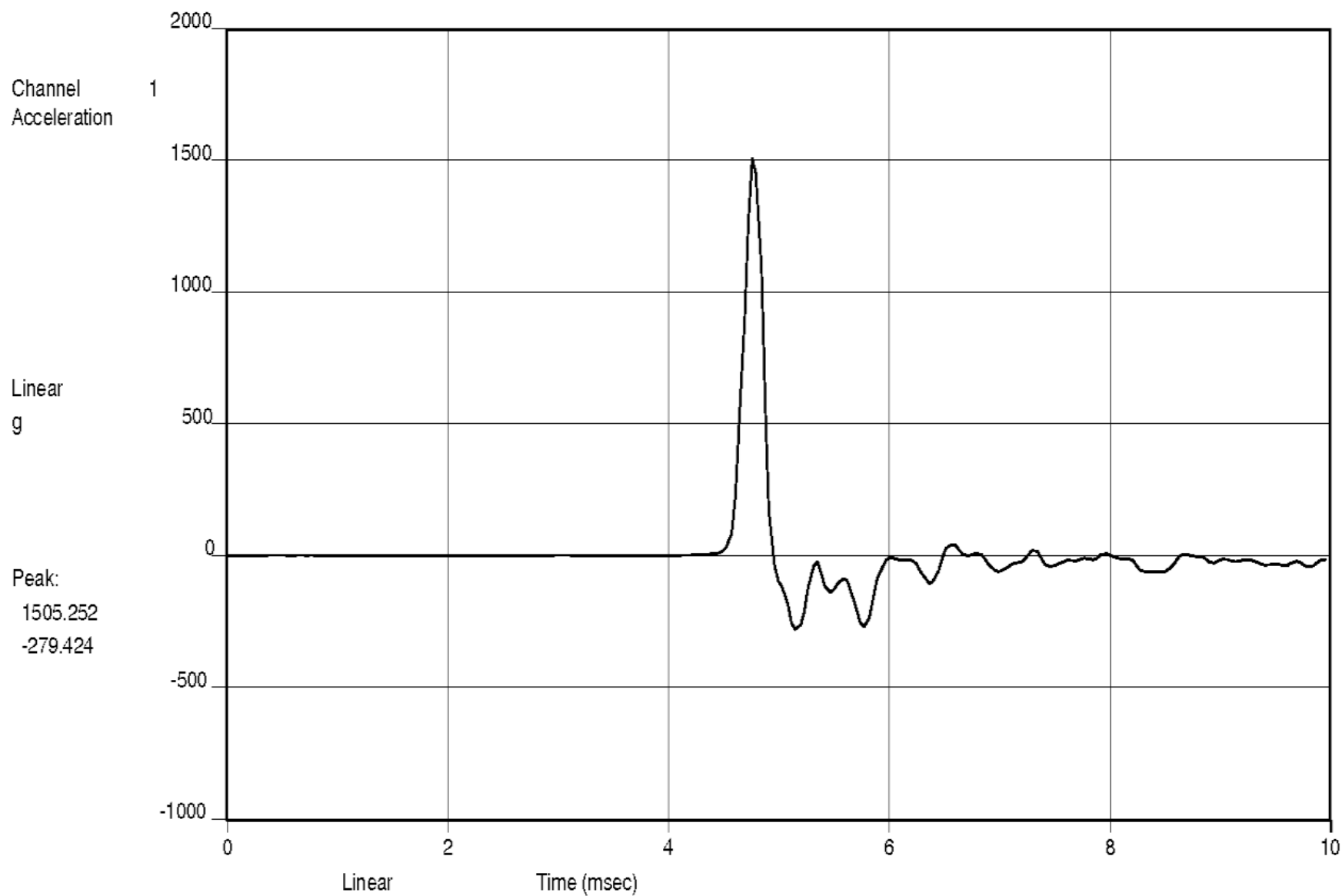
CONTROL

13:19:19.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (+) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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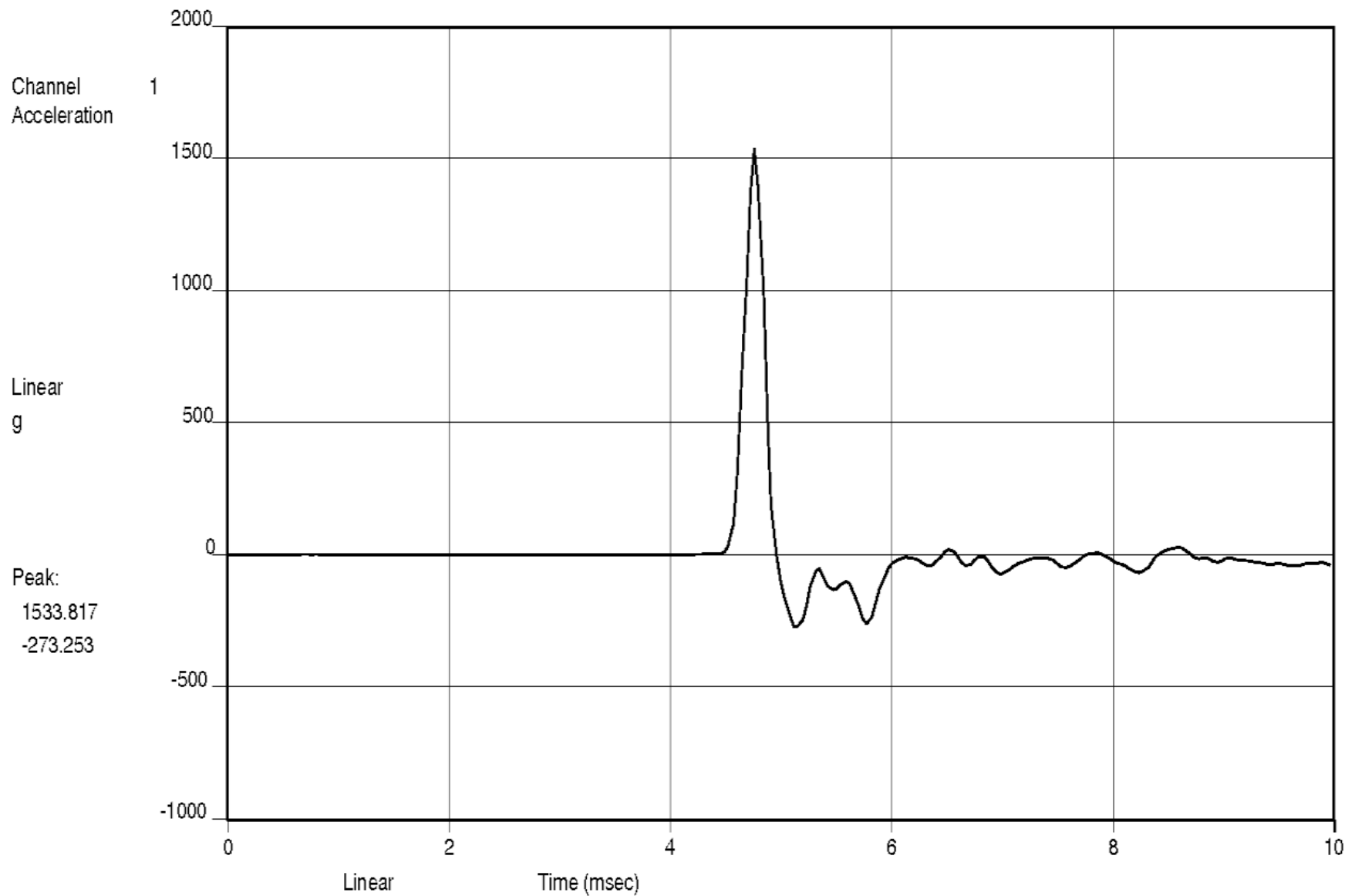
13:19:35.3
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (+) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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CONTROL



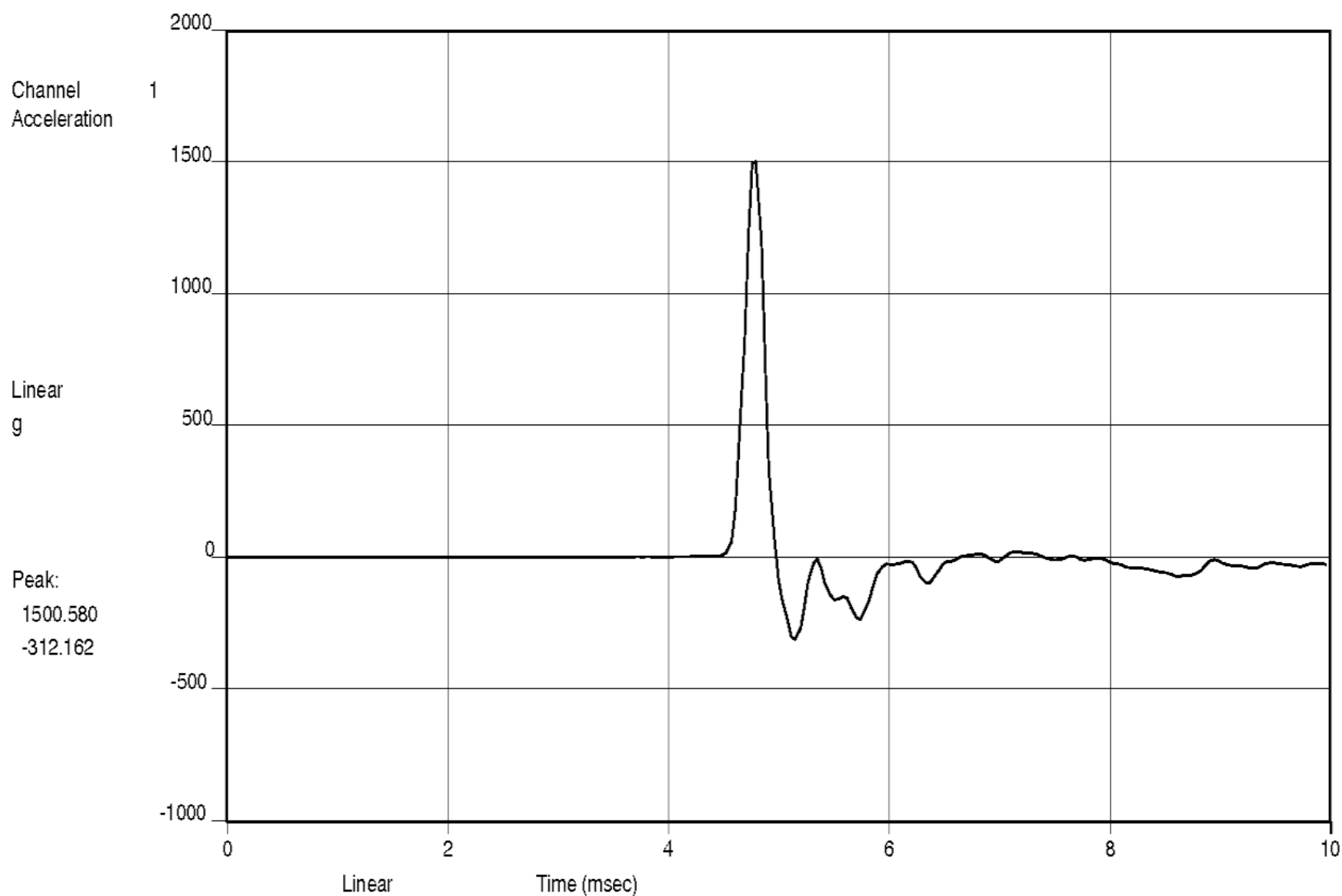
CONTROL

13:19:58.5
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (+) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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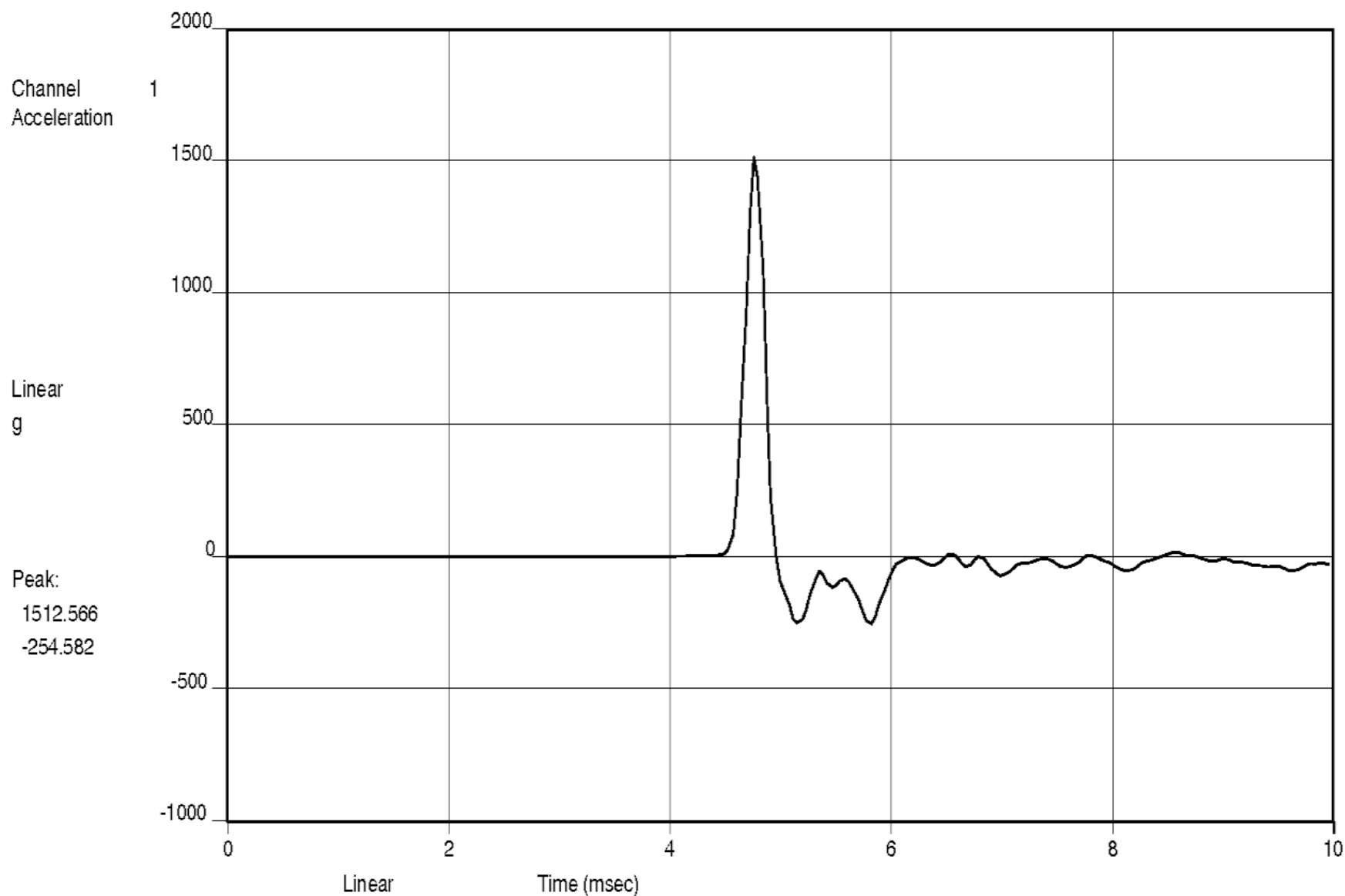
CONTROL

13:20:17.2
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (+) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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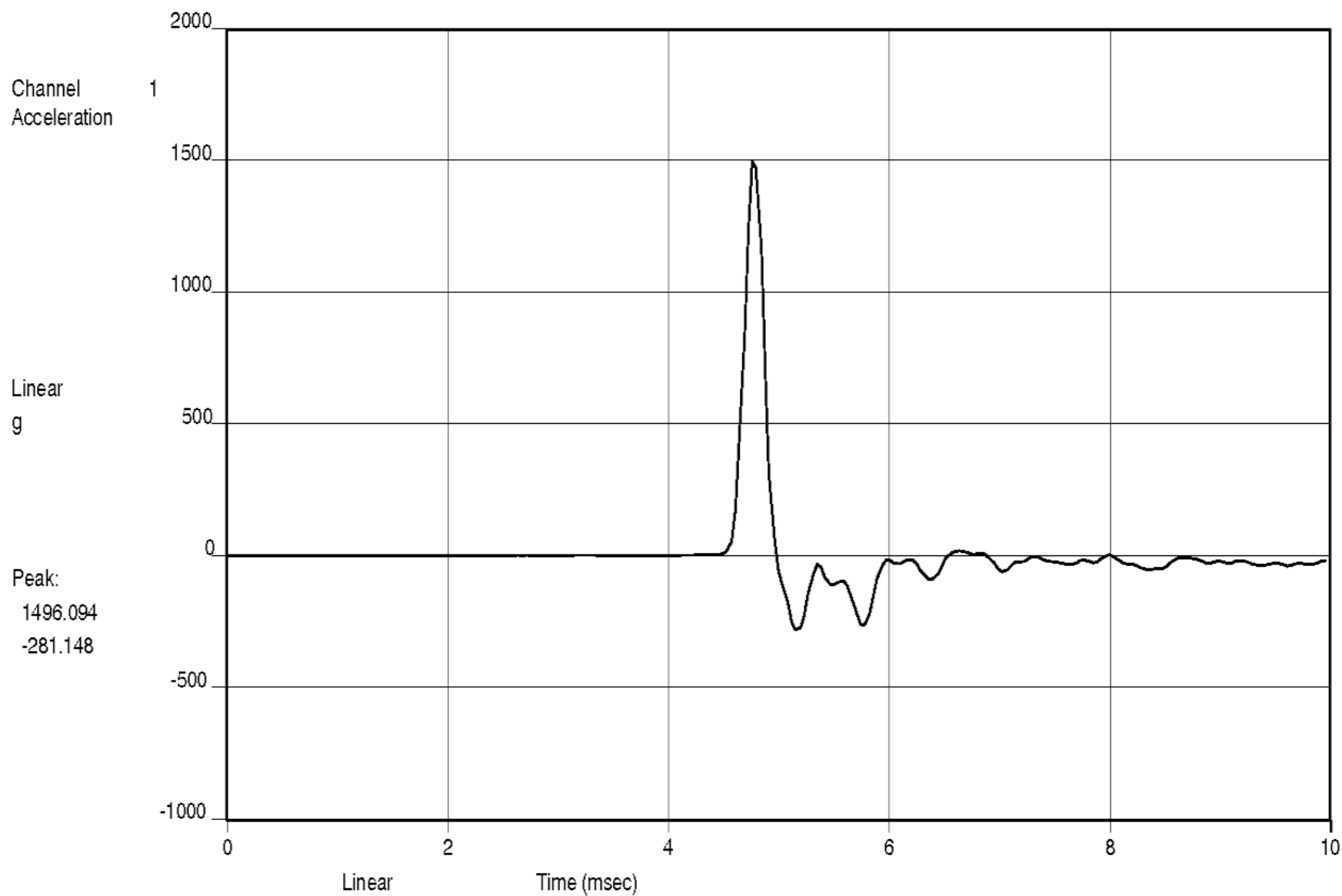
CONTROL

13:22:33.8
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (-) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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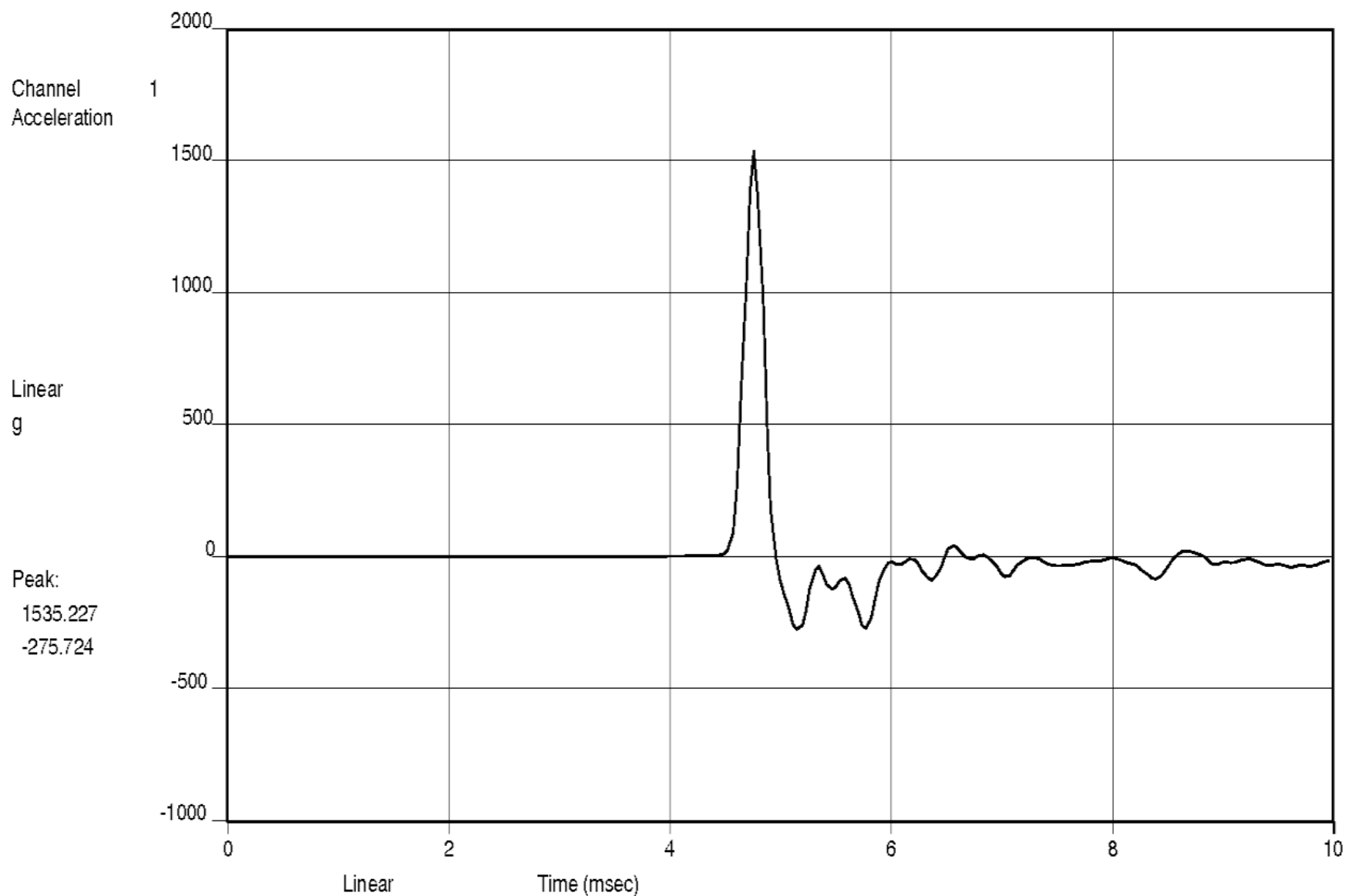
CONTROL

13:22:51.3
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (-) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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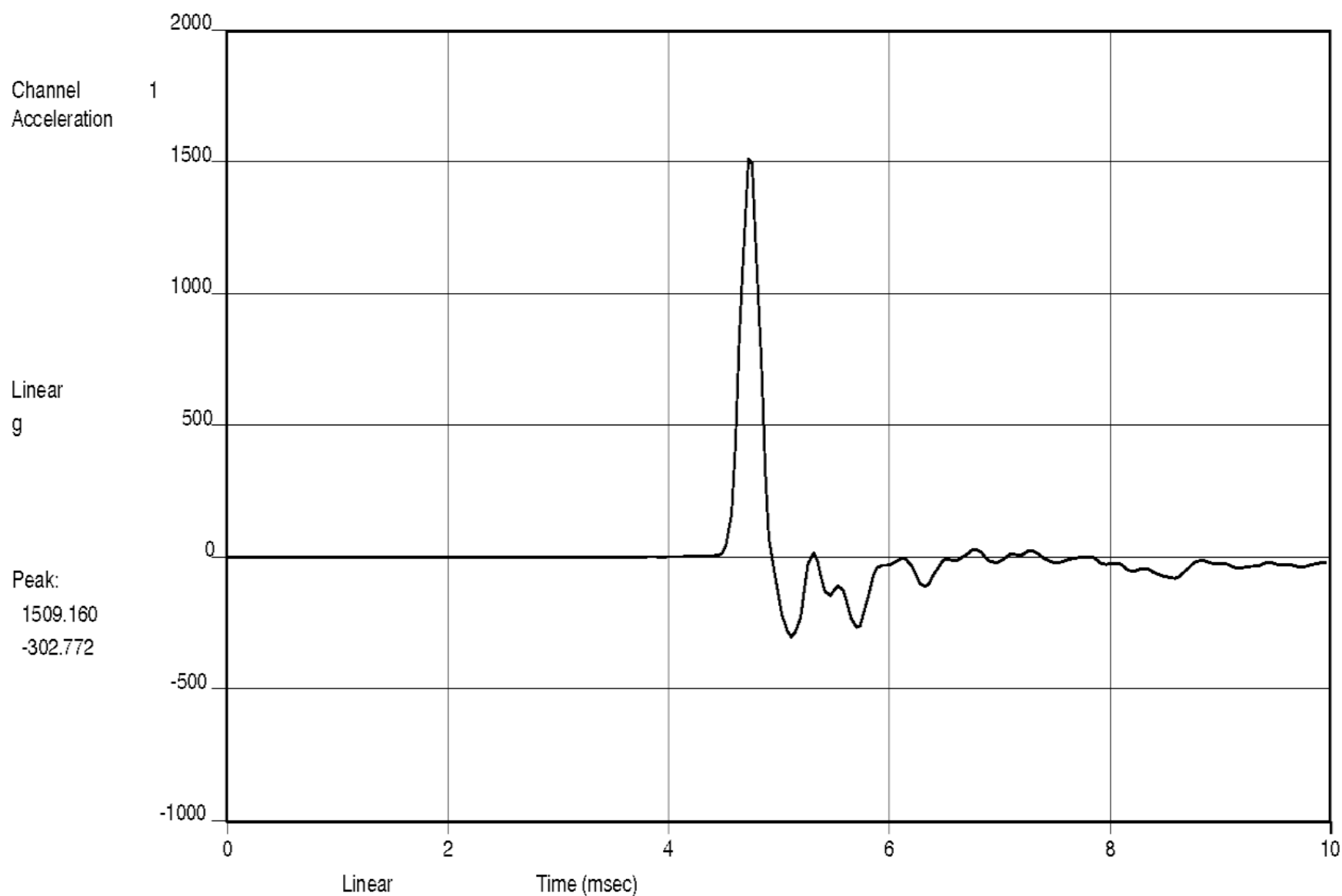
CONTROL

13:23:02.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (-) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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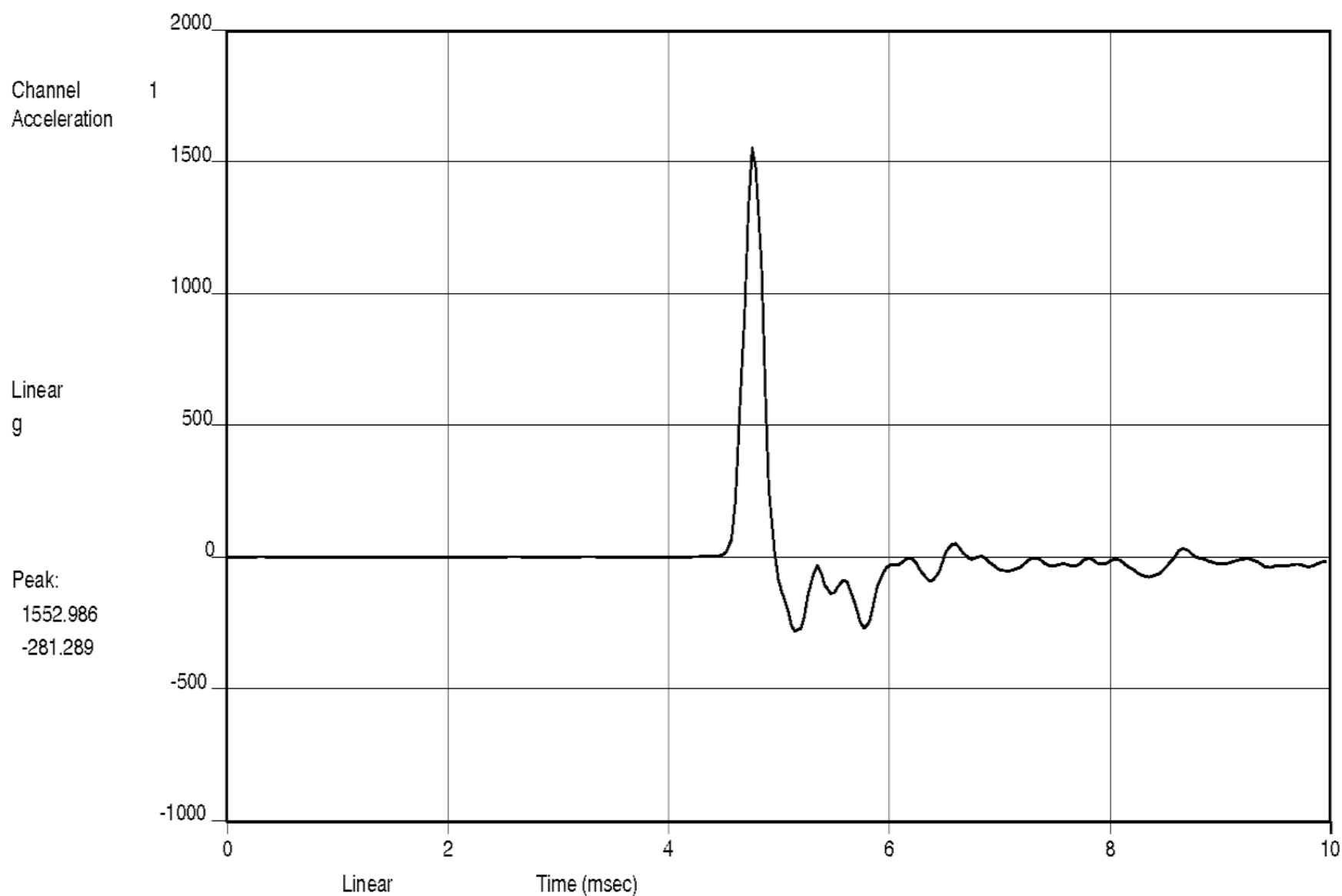
CONTROL

13:23:14.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (-) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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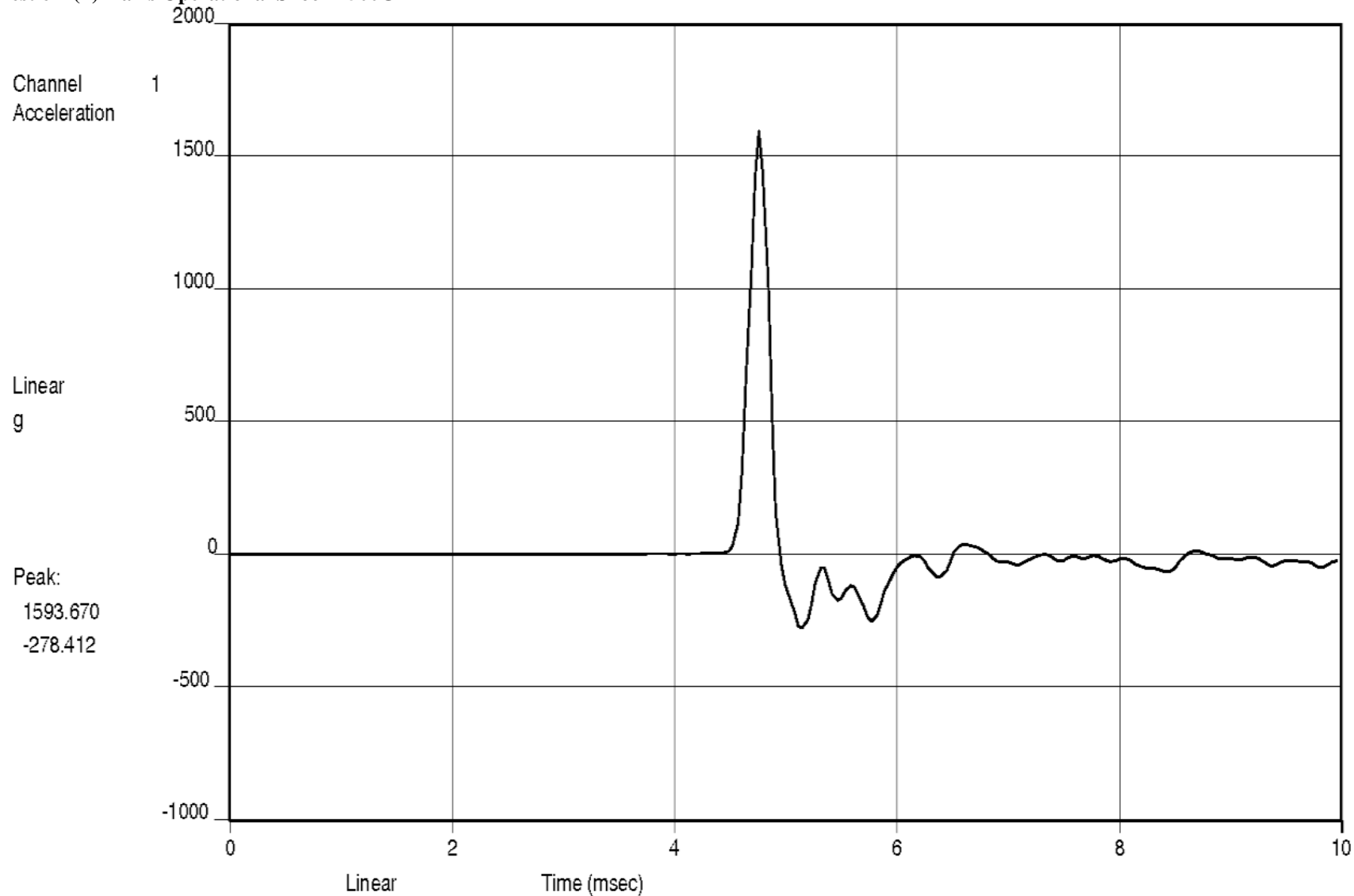
CONTROL

13:23:25.8
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#5 AXIS: (-) Y OPERATIONAL SHOCK - 1500G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.015

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**Test 6 (+)X-axis Operational Shock 1500G**

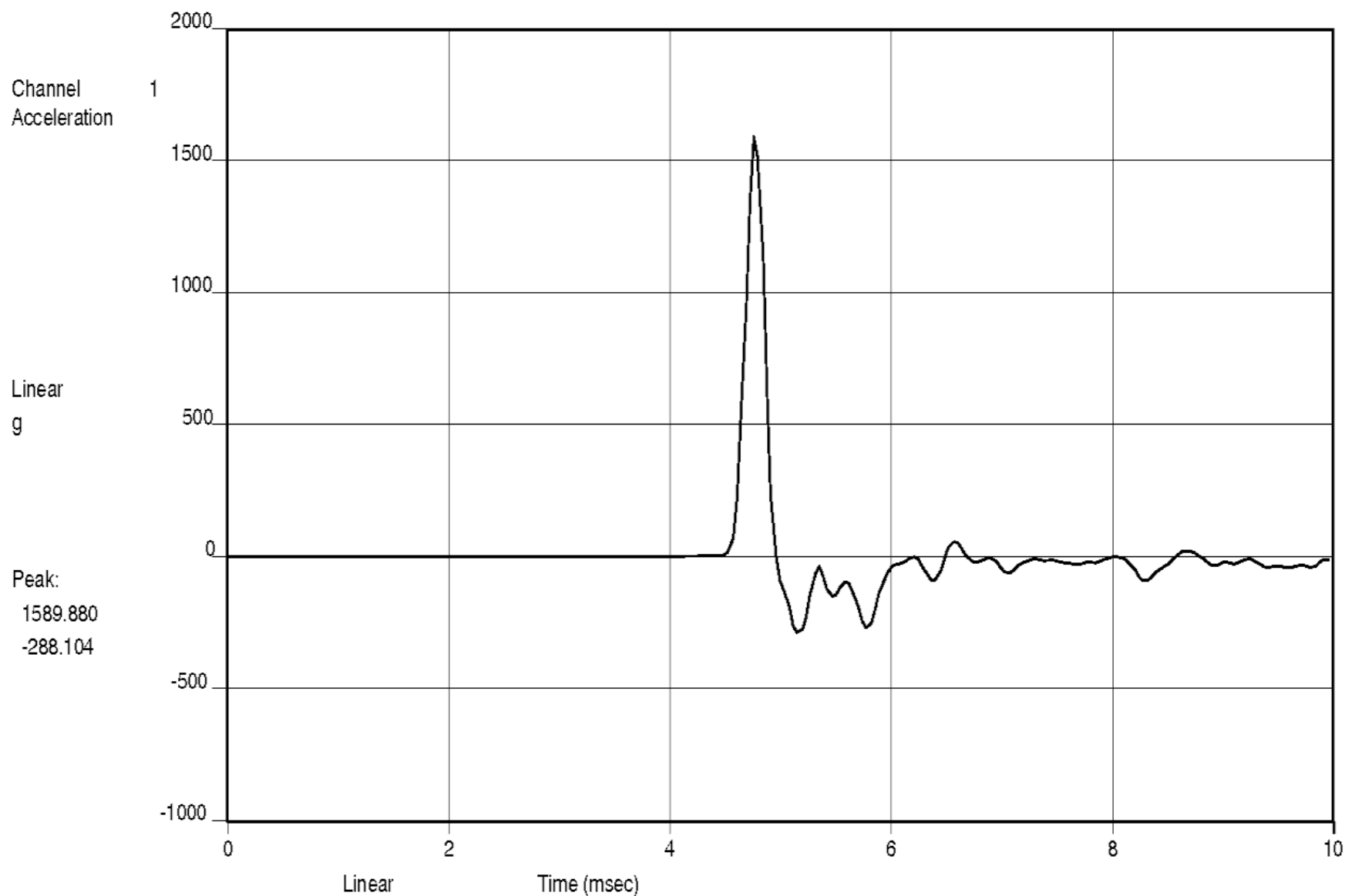
13:24:31.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (+) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.016

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CONTROL



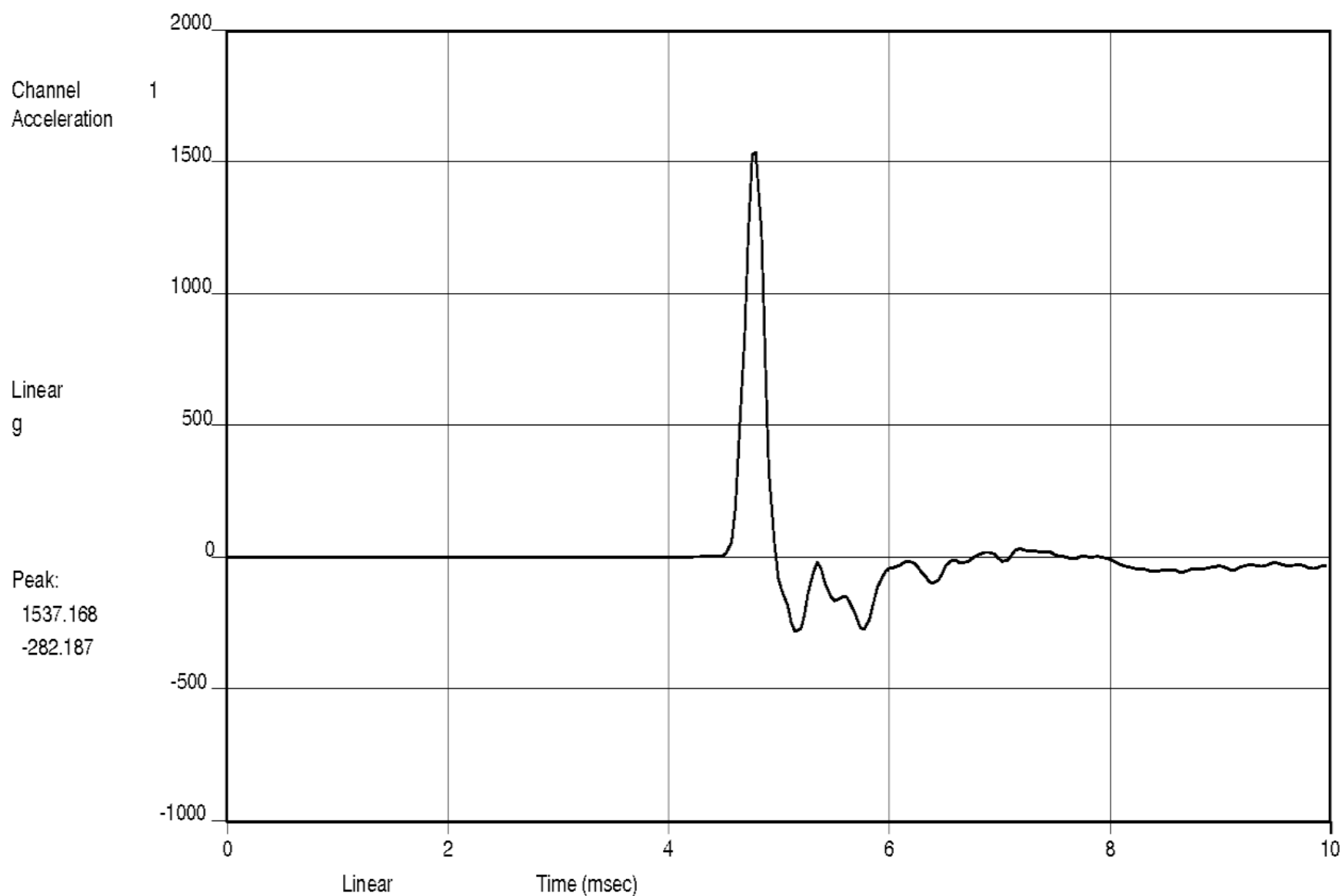
CONTROL

13:24:59.4
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (+) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.016

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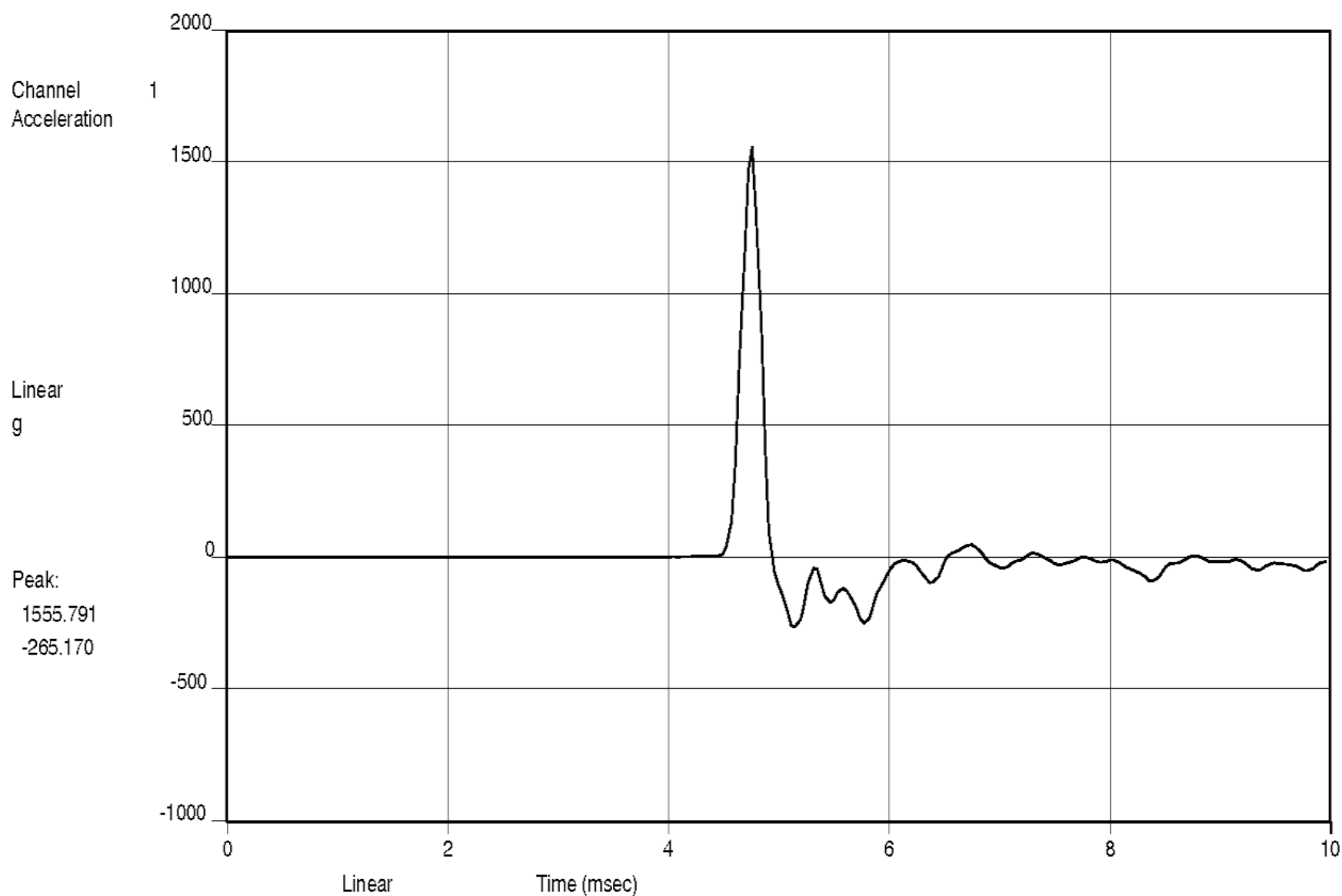
CONTROL

13:25:14.2
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (+) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.016

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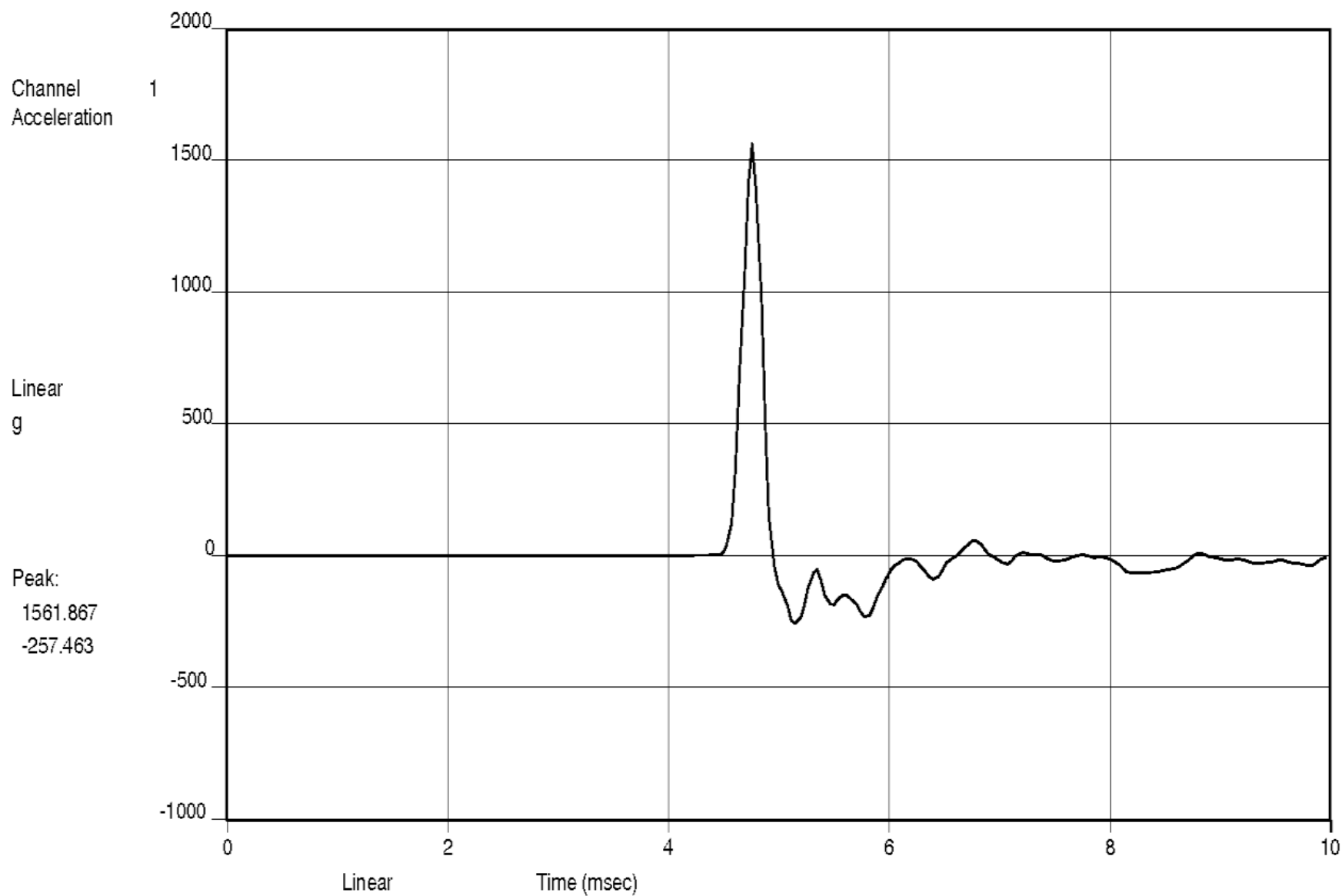
CONTROL

13:25:27.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (+) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.016

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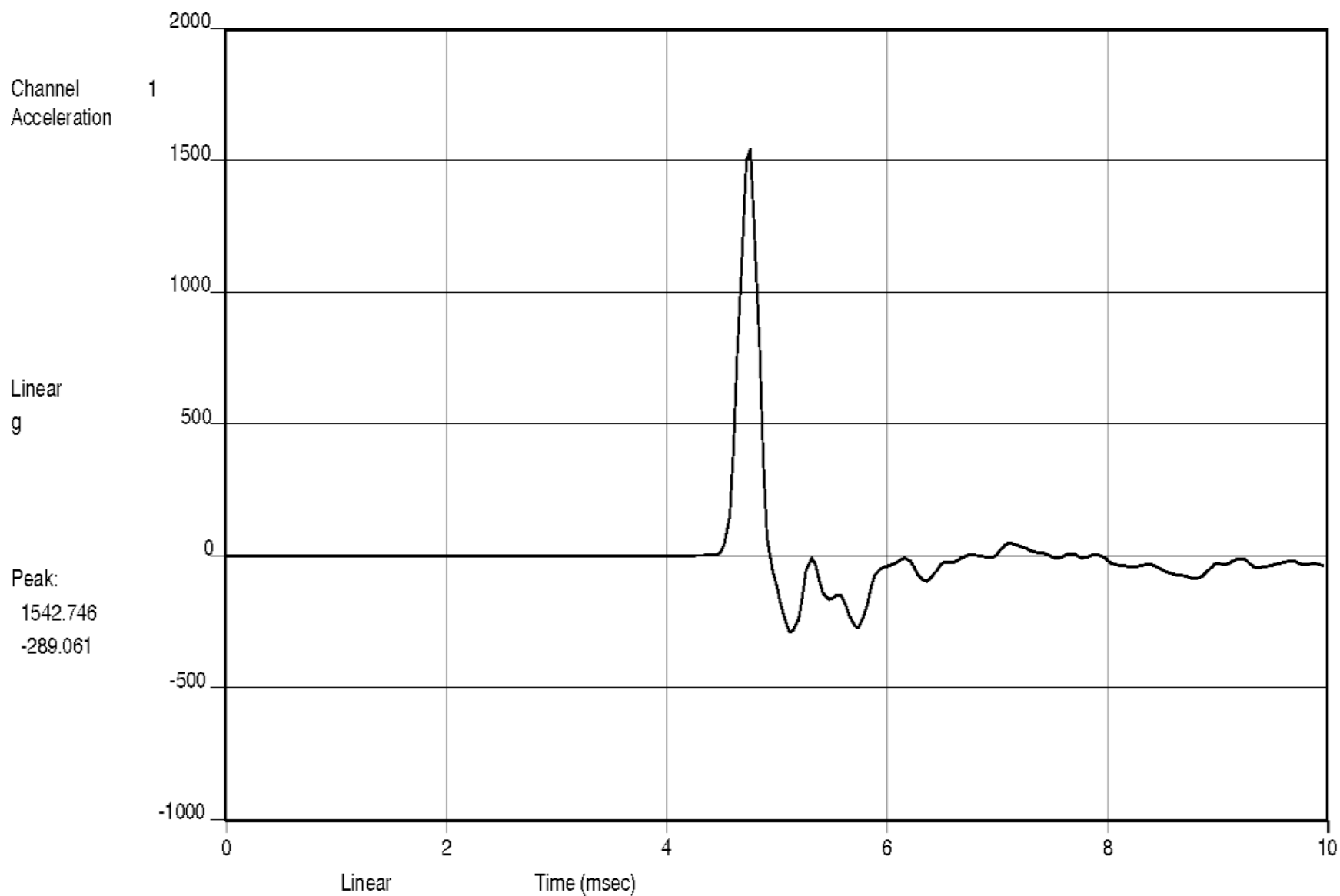
13:25:37.8
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (+) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.016

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CONTROL

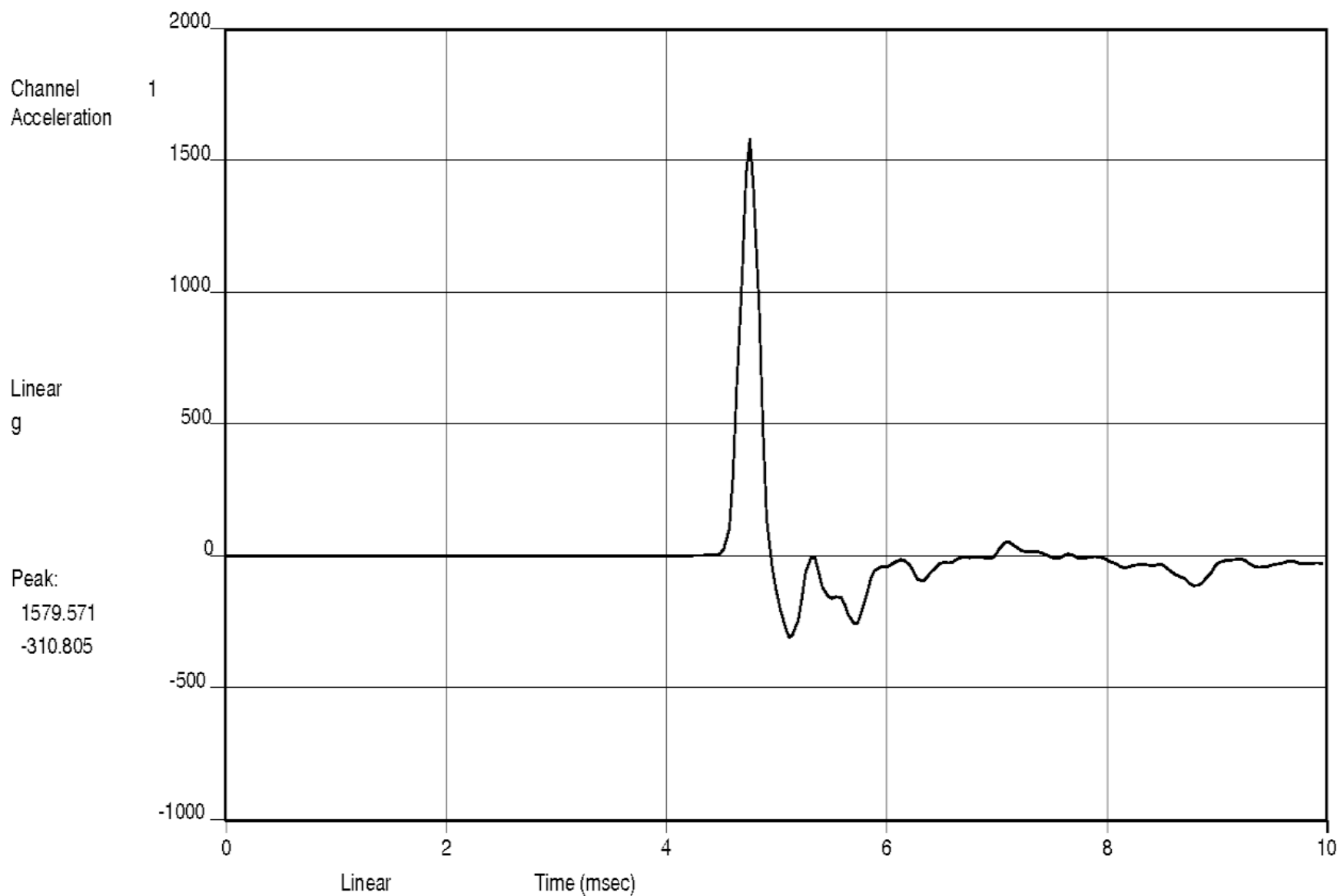


CONTROL

13:26:41.5
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (-) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (1 OF 5)

Data Review Name: DIGI-PAS_SHOCK.016 Page 69 of 99

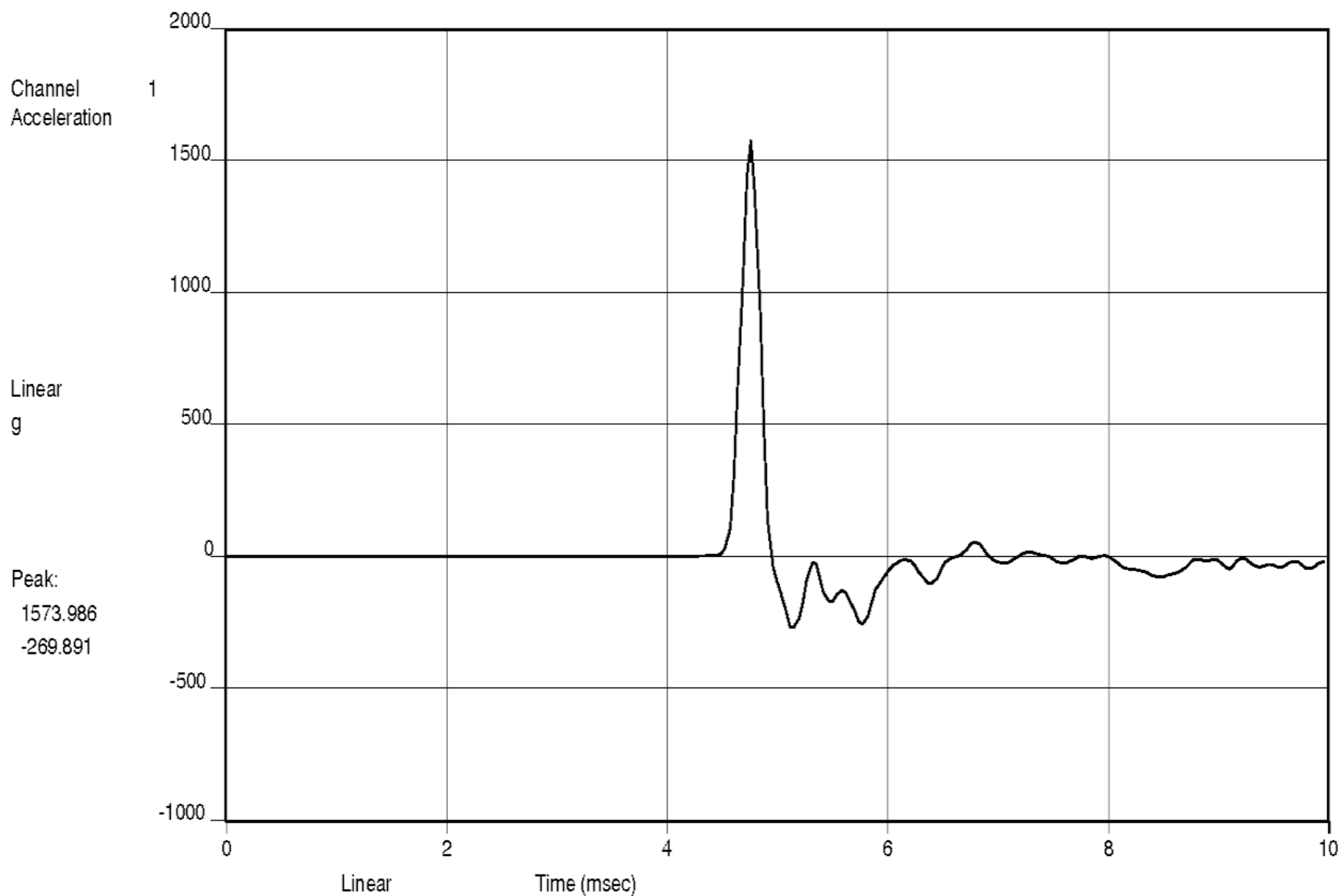


CONTROL

13:27:16.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (-) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (2 OF 5)

Data Review Name: DIGI-PAS_SHOCK.016 Page 70 of 99

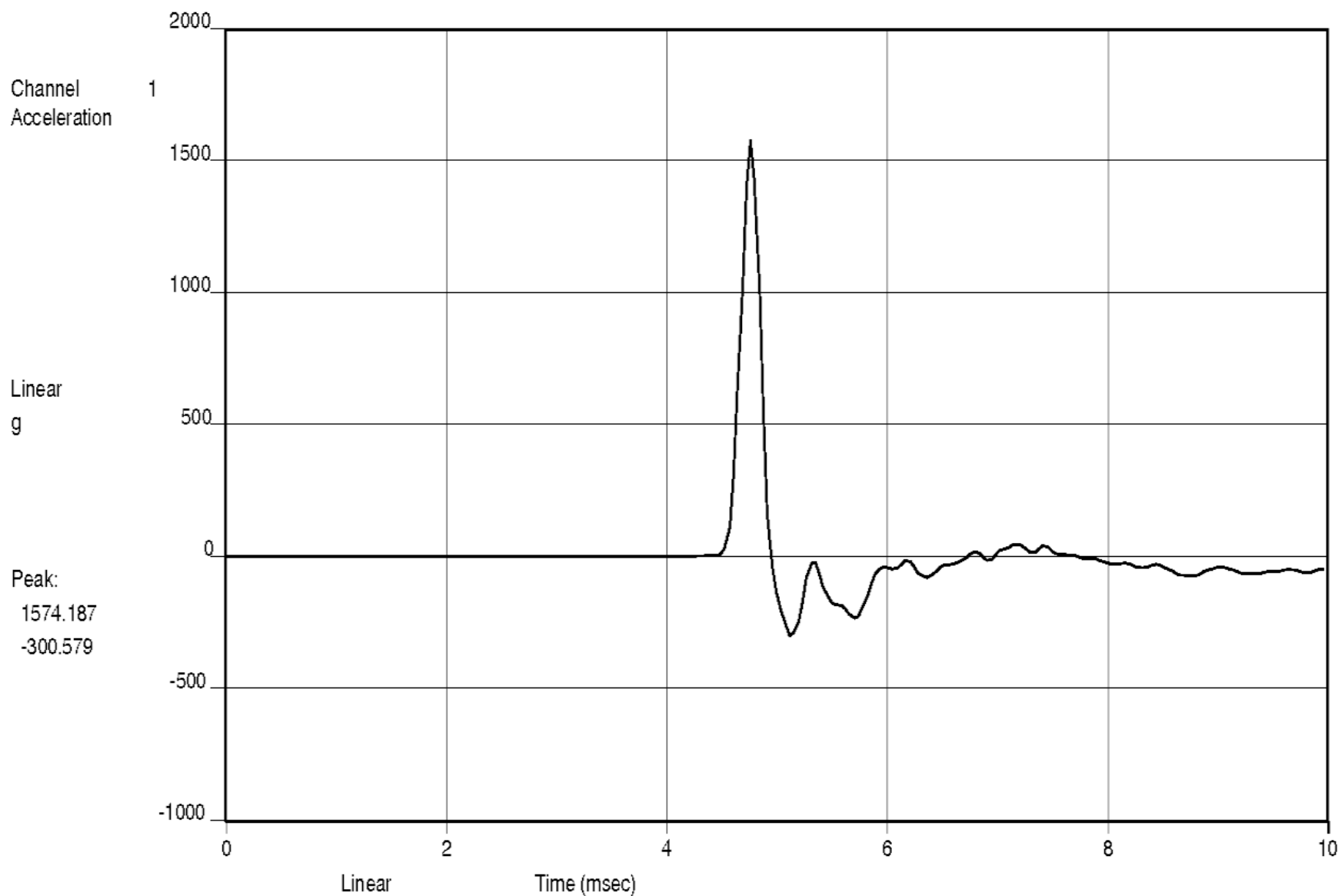


CONTROL

13:27:30.7
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (-) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (3 OF 5)

Data Review Name: DIGI-PAS_SHOCK.016 Page 71 of 99

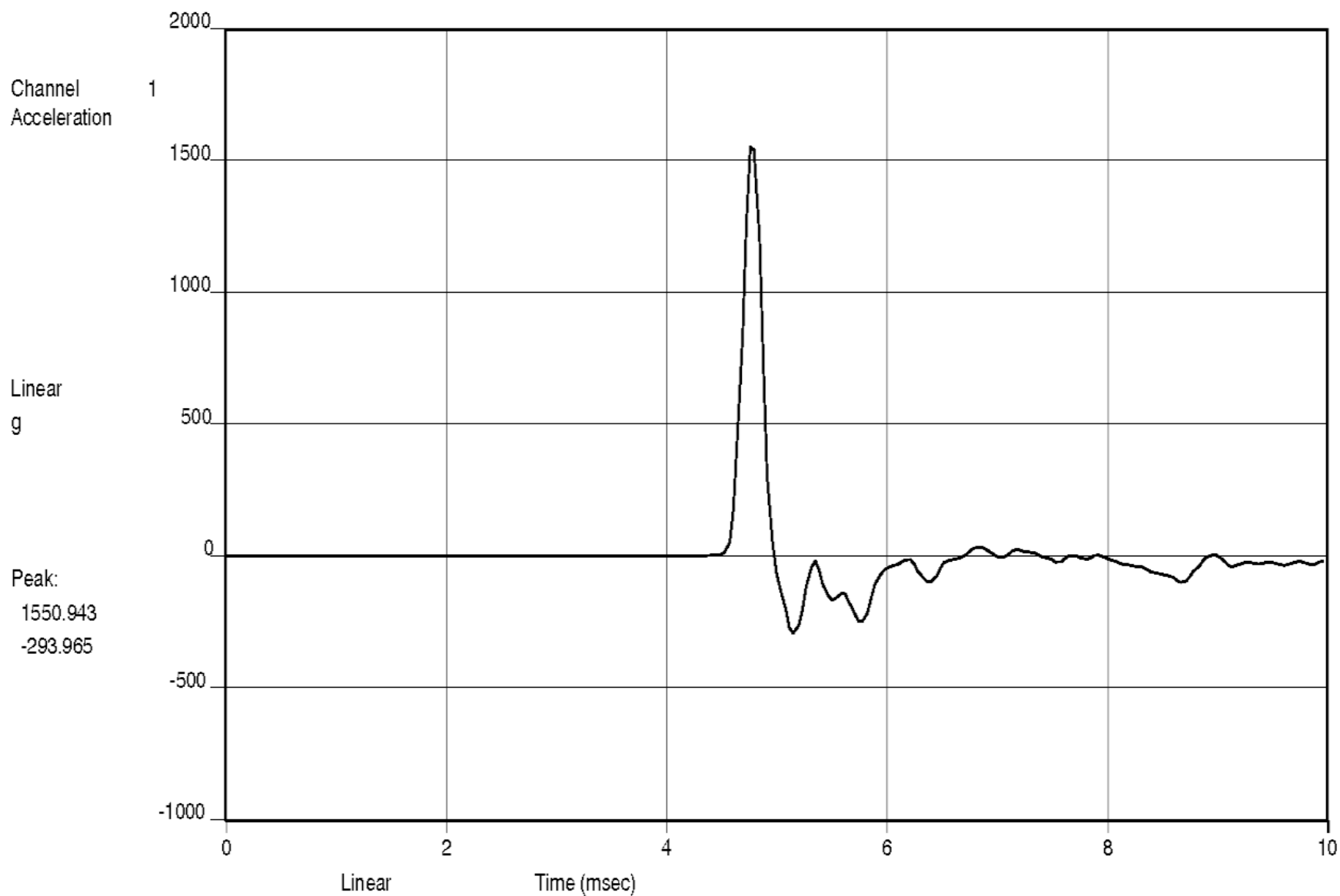


CONTROL

13:27:42.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (-) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (4 OF 5)

Data Review Name: DIGI-PAS_SHOCK.016 Page 72 of 99

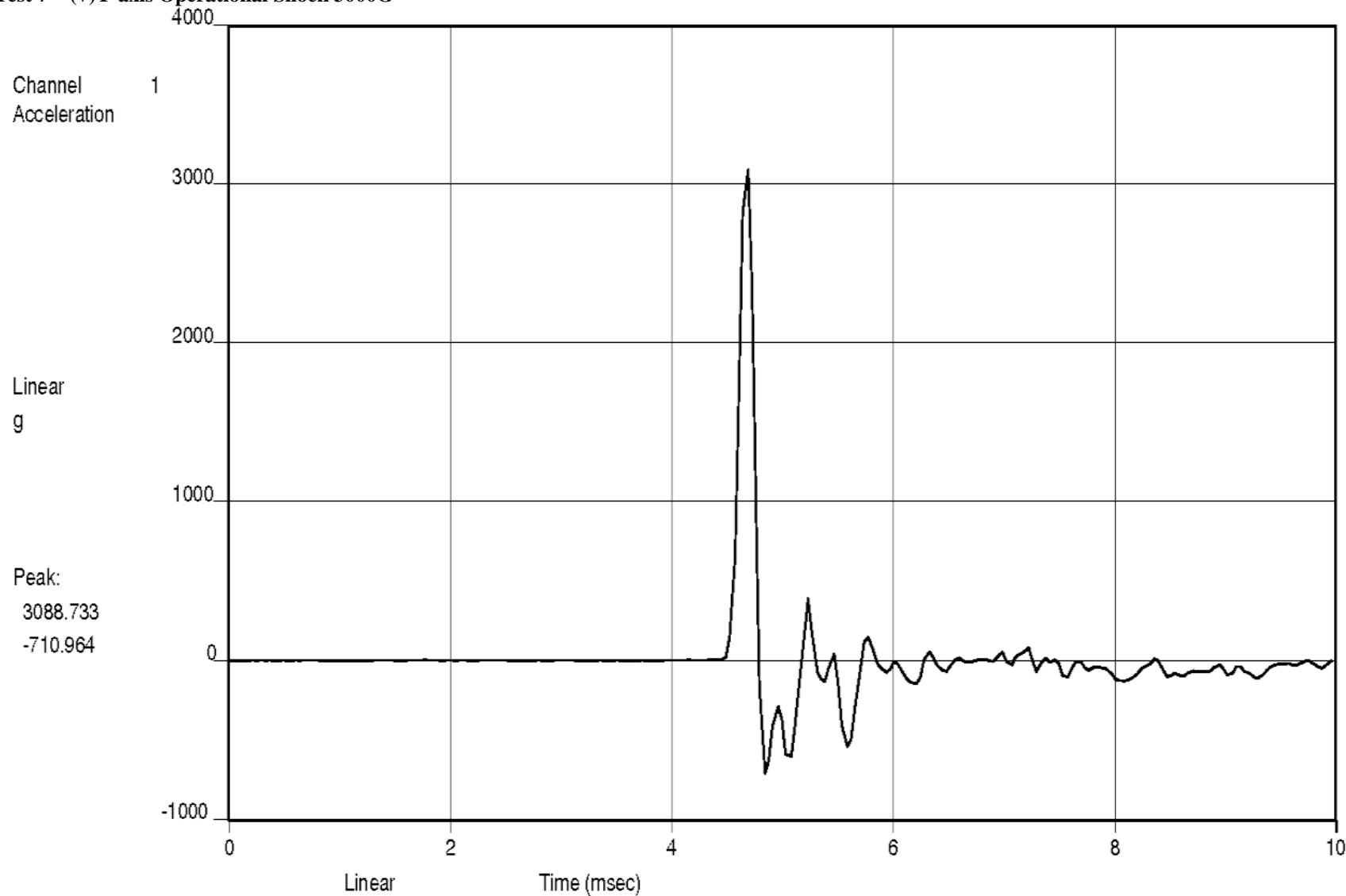


CONTROL

13:27:55.4
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#6 AXIS: (-) X OPERATIONAL SHOCK - 1500G, 0.5MS, HS (5 OF 5)

Data Review Name: DIGI-PAS_SHOCK.016 Page 73 of 99

**Test 7 (+)Y-axis Operational Shock 3000G**

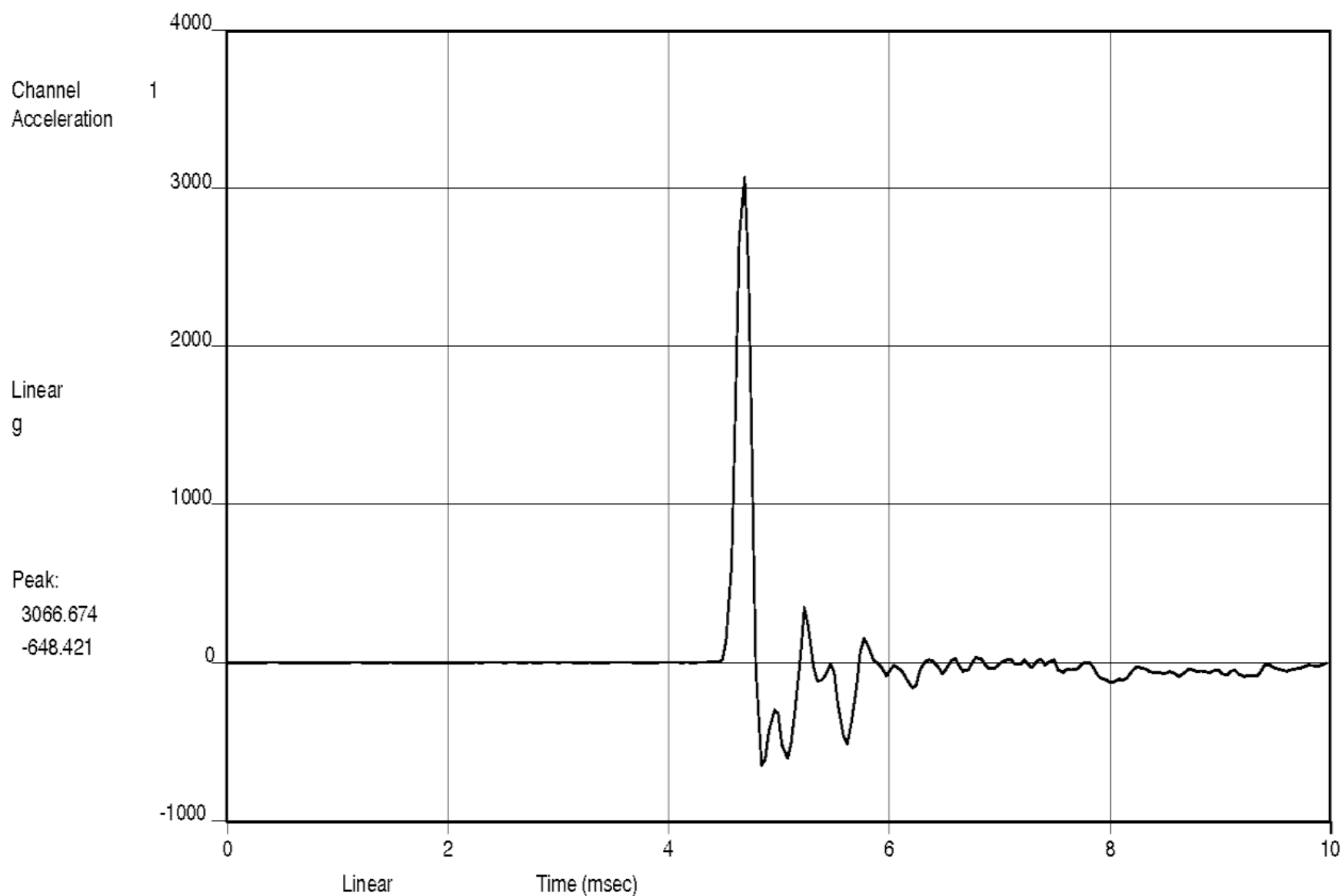
13:38:13.6
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (+) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.017

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CONTROL



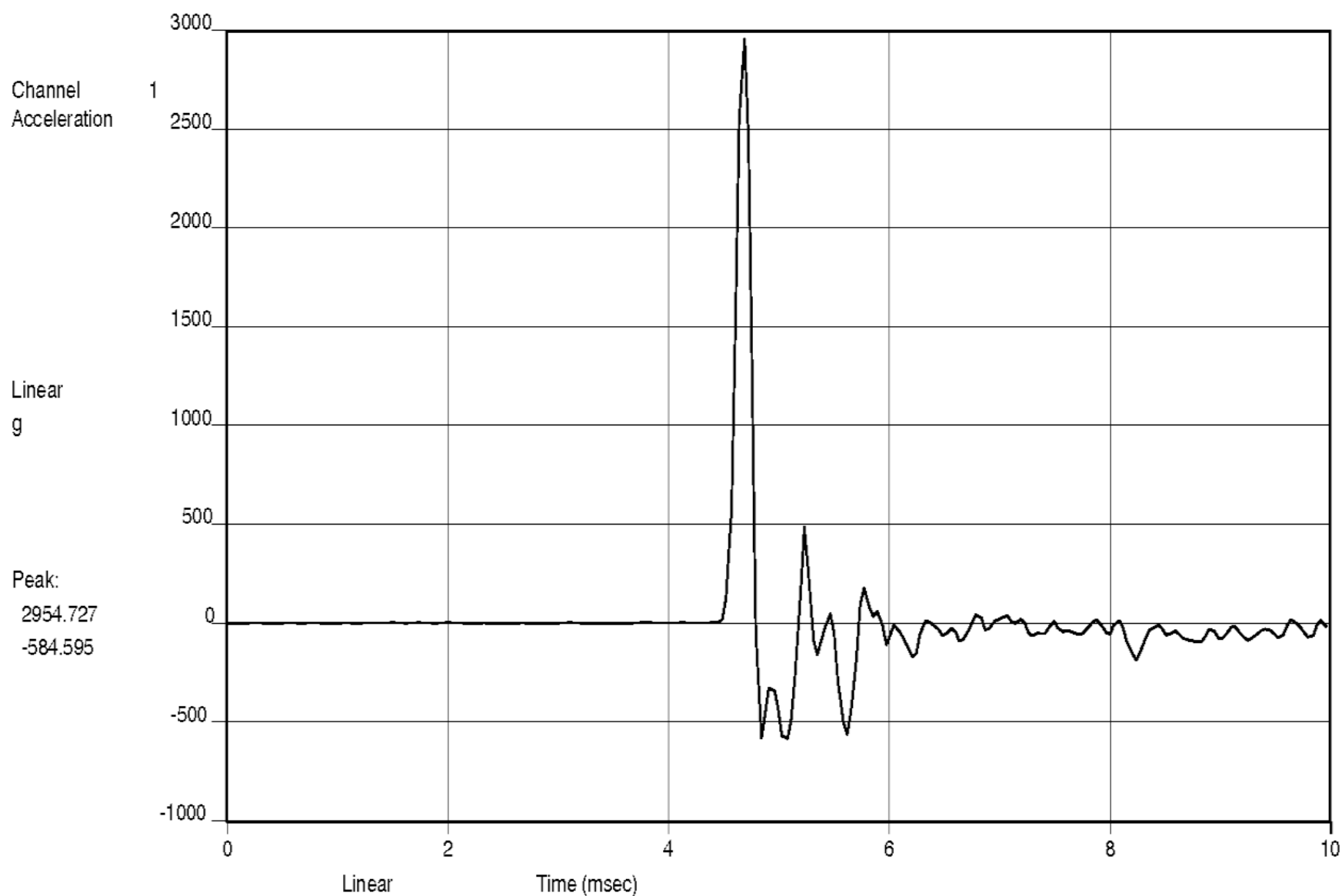
CONTROL

13:38:44.8
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (+) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.017

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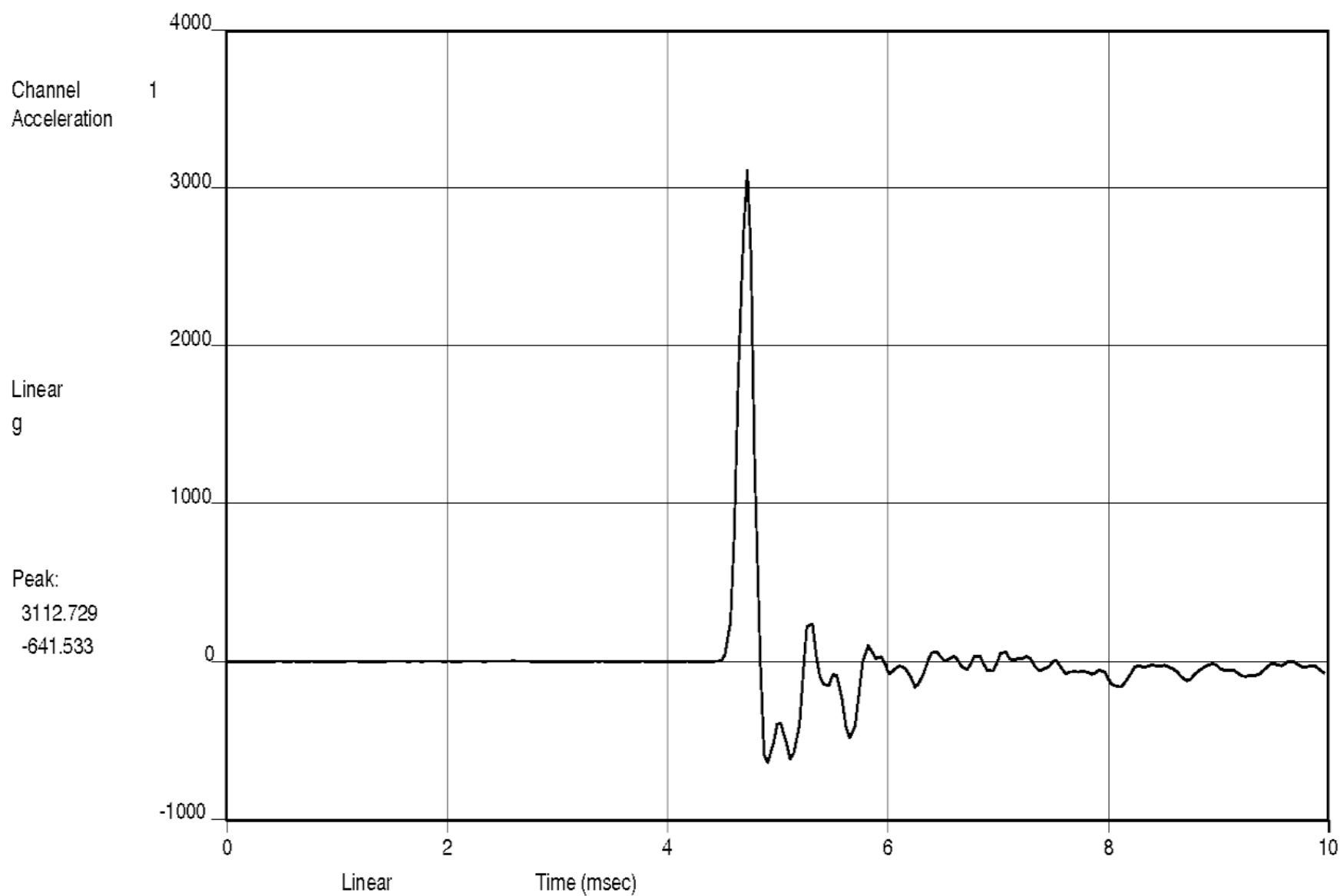
CONTROL

13:39:05.3
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (+) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.017

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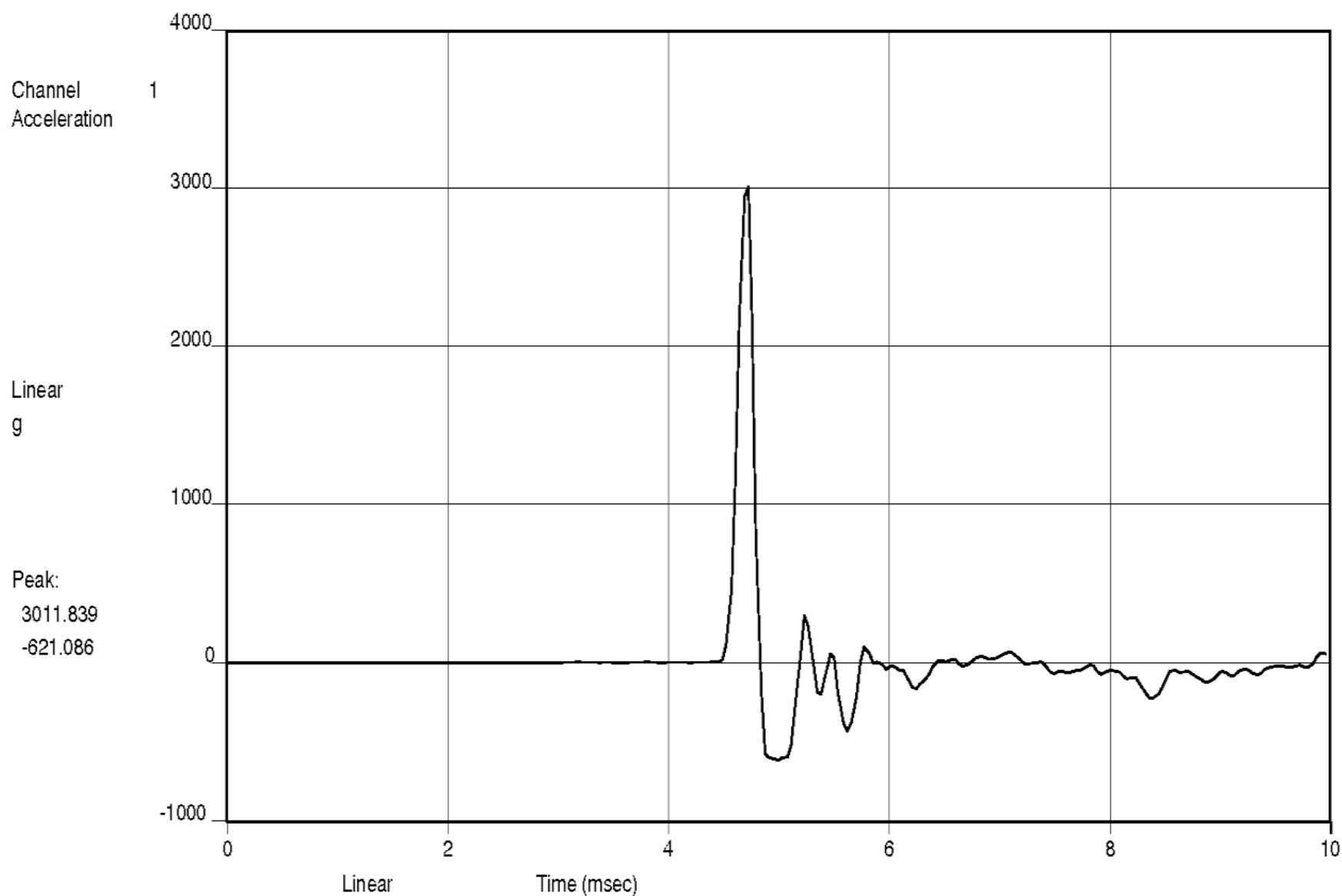
CONTROL

13:39:22.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (+) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.017

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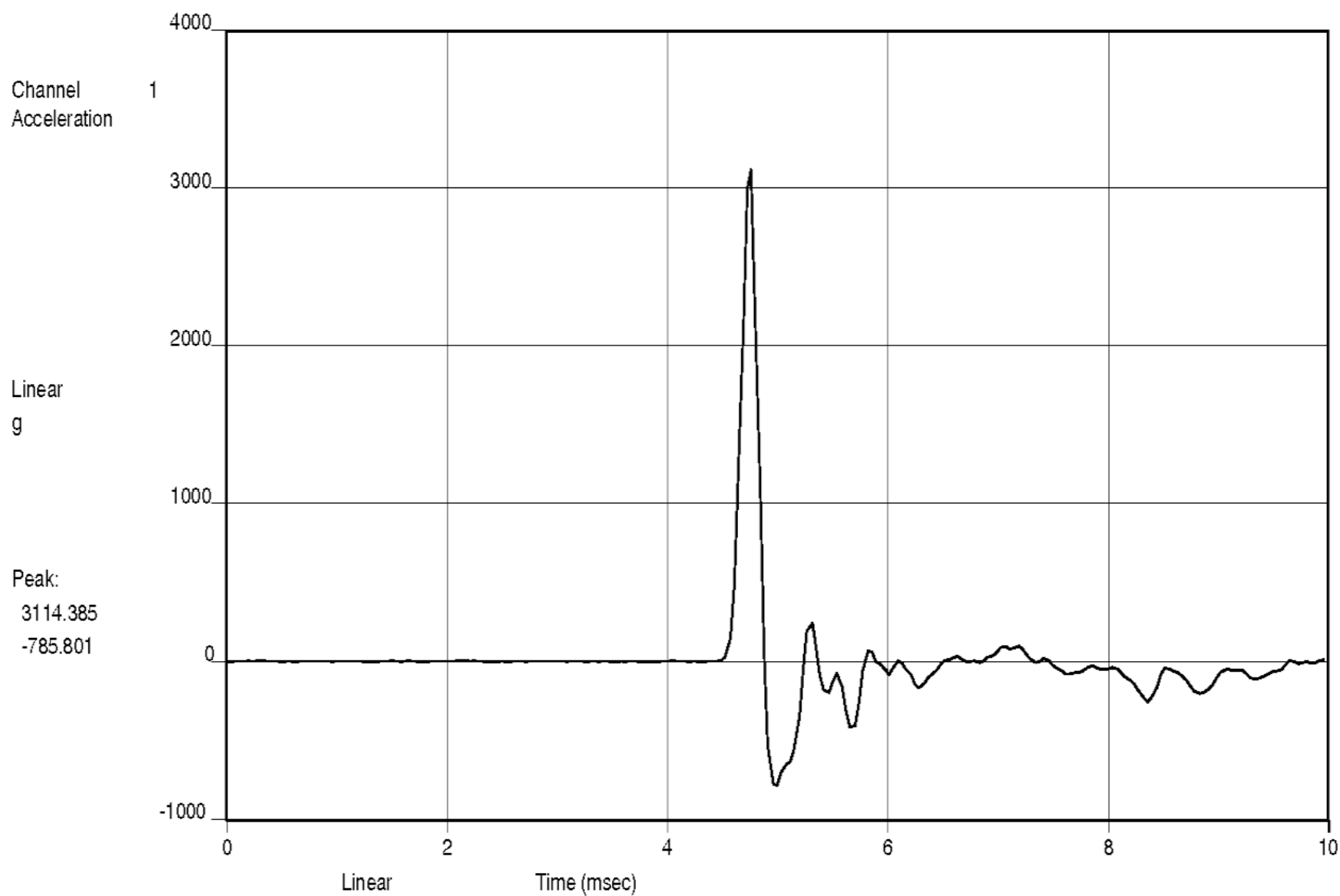


13:40:54.0
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (+) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.017

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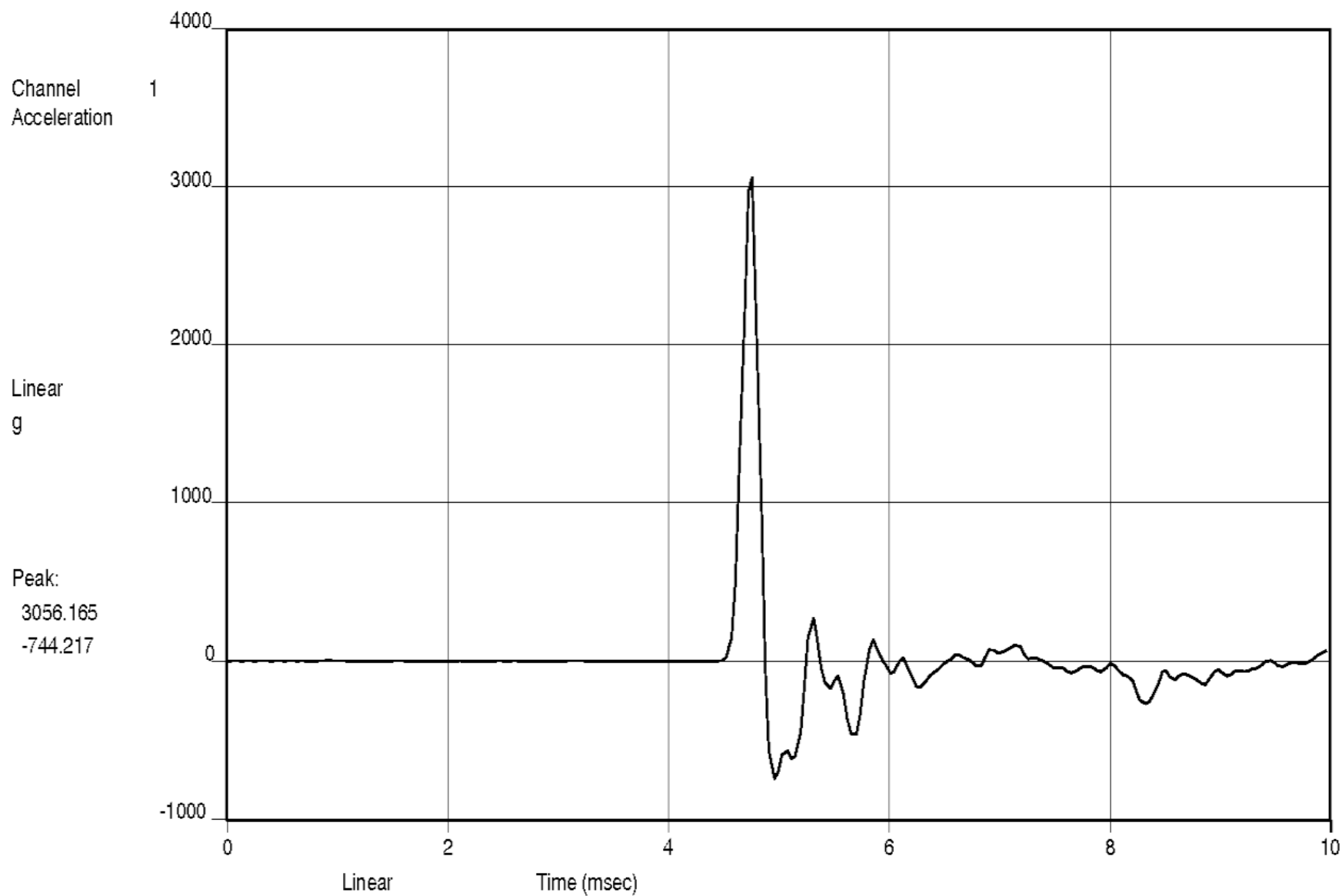
CONTROL

13:47:46.7
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (-) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.018

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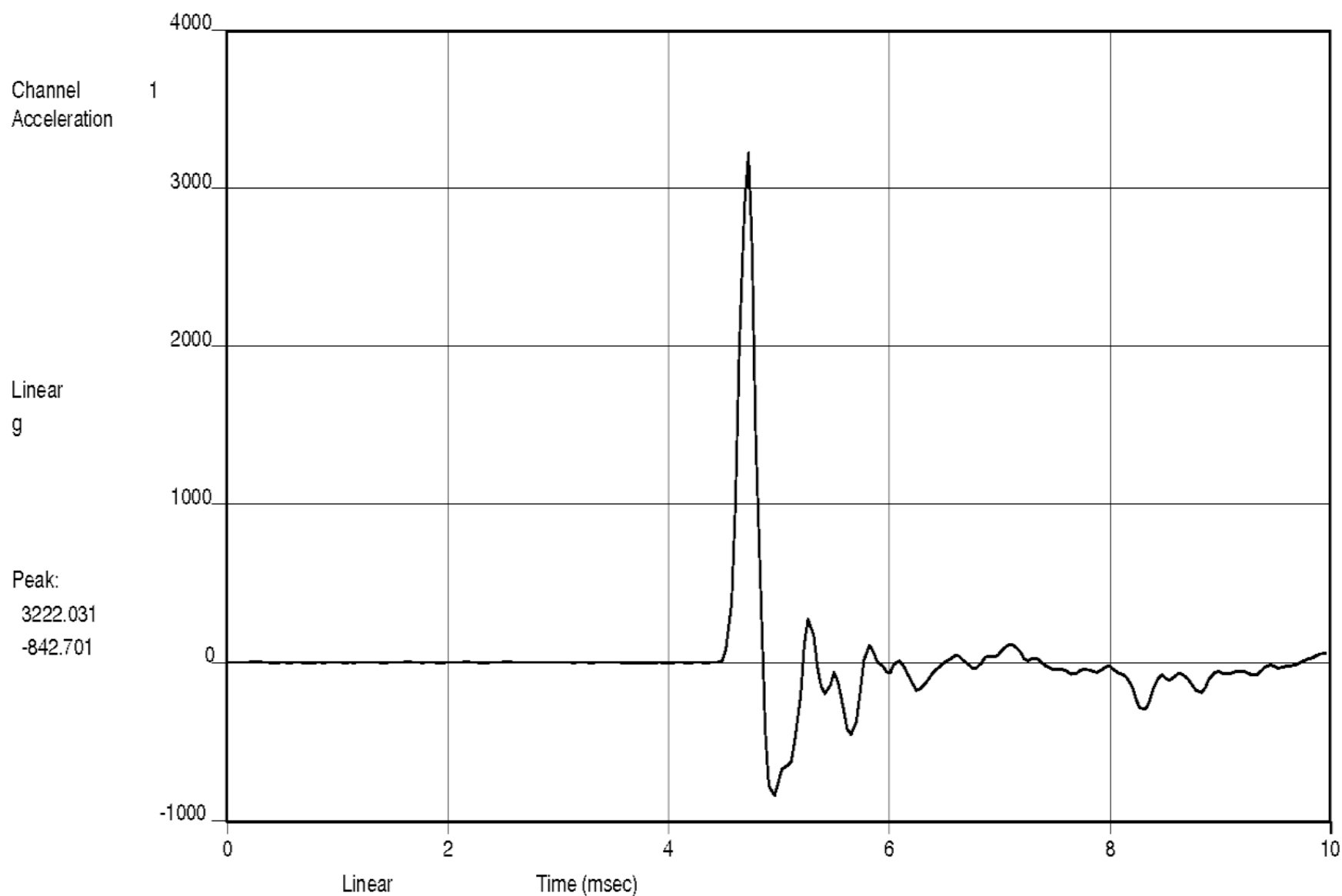
CONTROL

13:48:26.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (-) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.018

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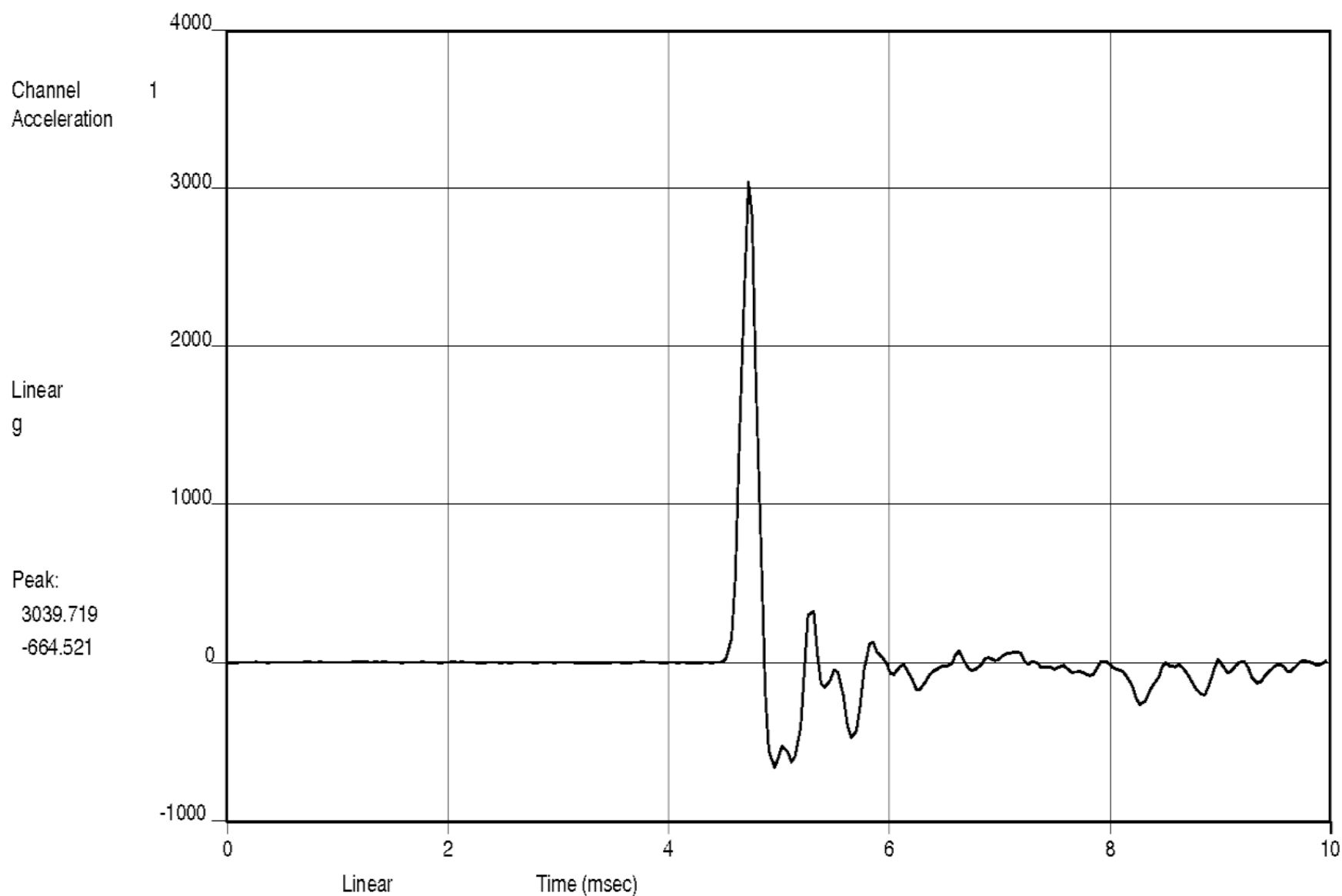
CONTROL

13:48:40.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (-) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.018

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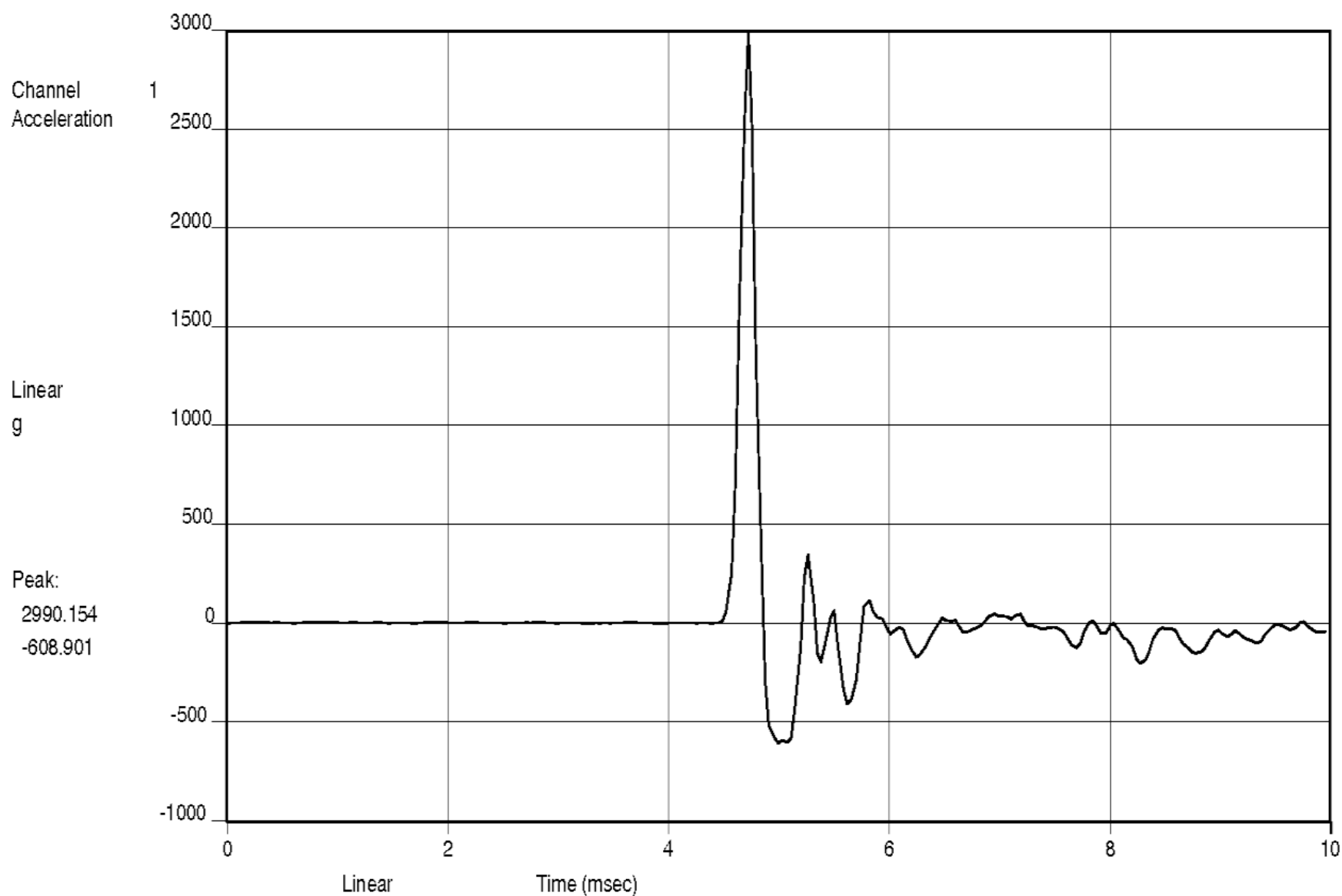
CONTROL

13:48:53.6
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (-) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.018

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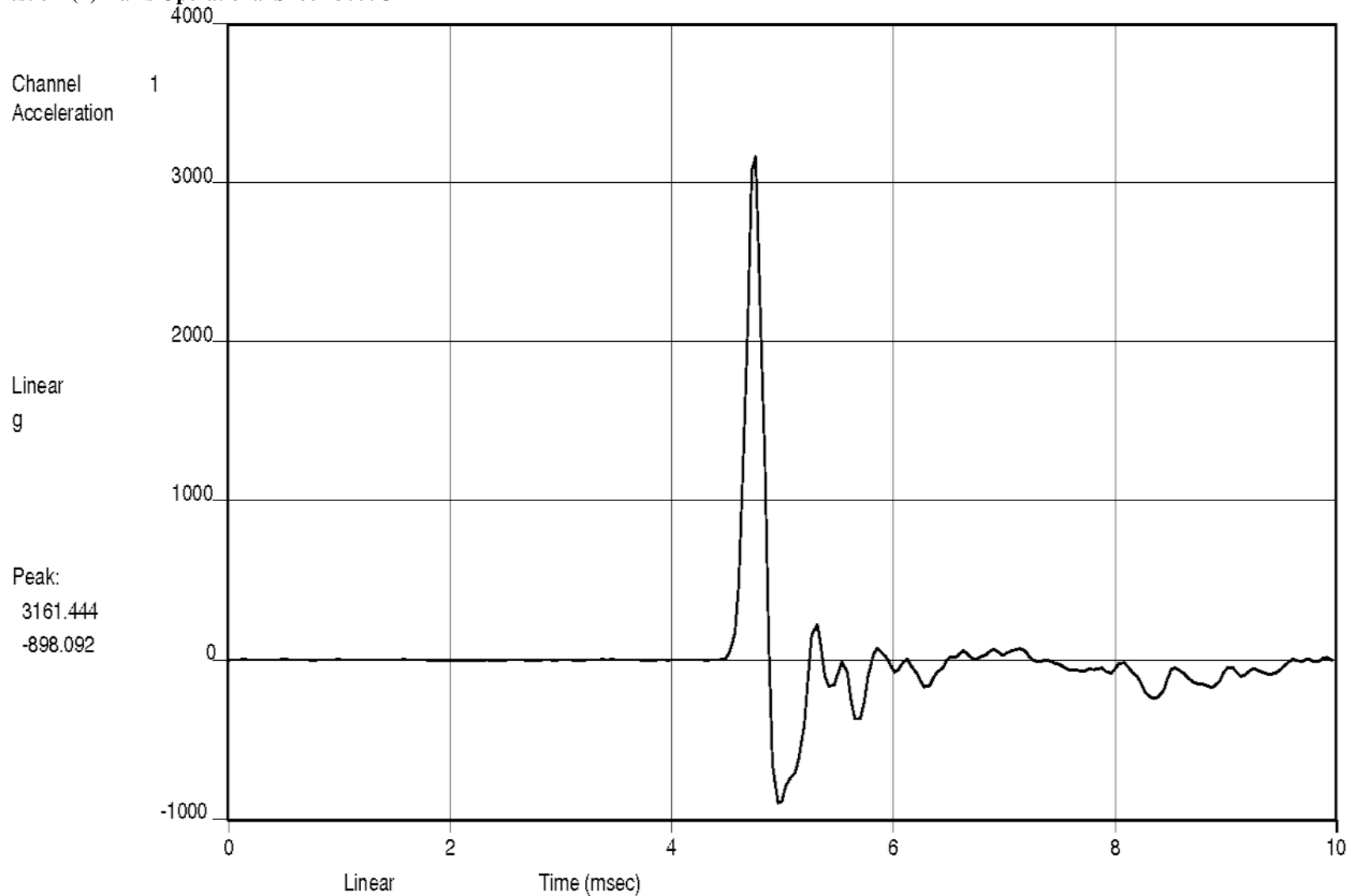
CONTROL

13:49:10.6
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#7 AXIS: (-) Y OPERATIONAL SHOCK - 3000G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.018

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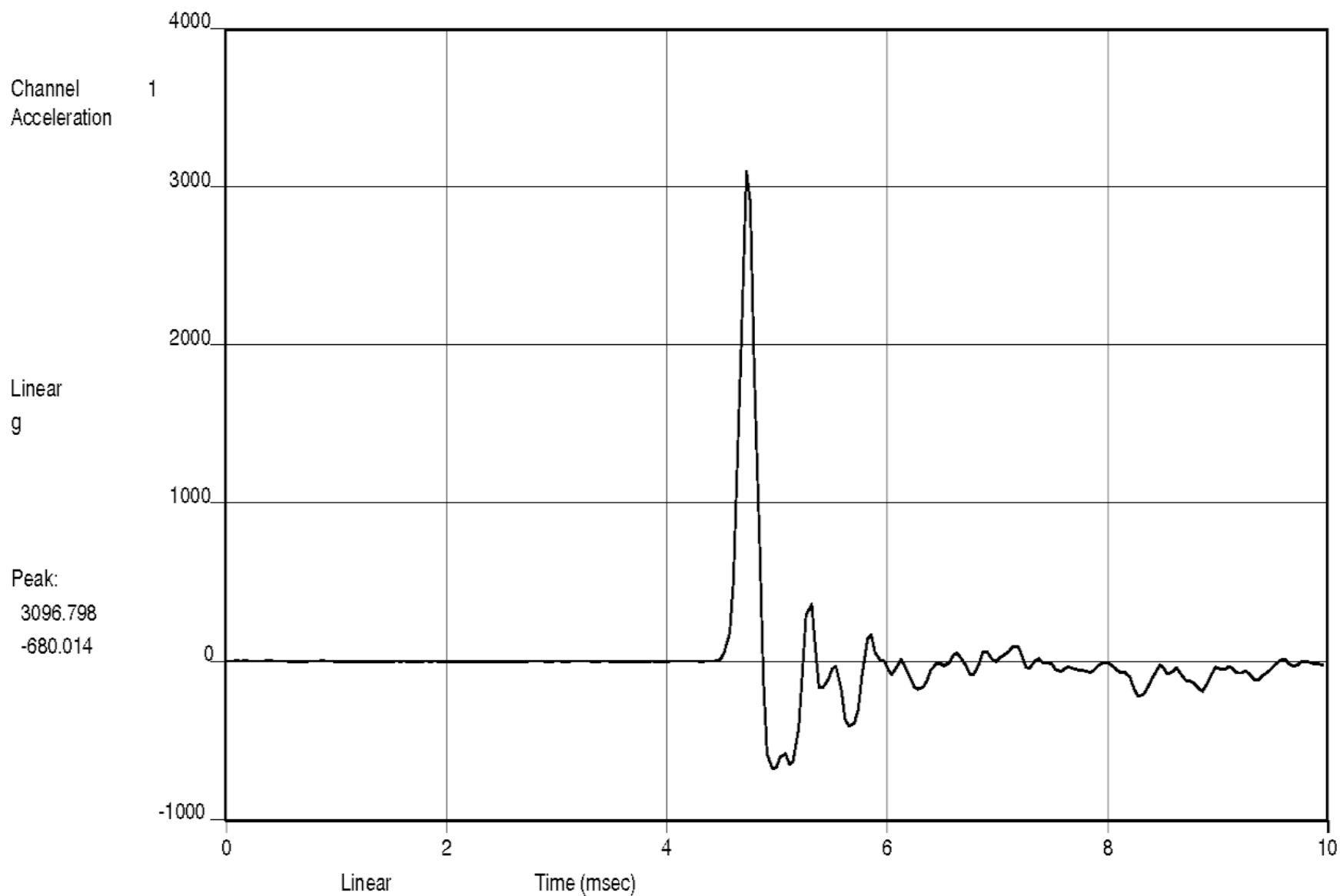
**Test 8 (+)X-axis Operational Shock 3000G**

13:50:17.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (+) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (1 OF 5)

Data Review Name: DIGI-PAS_SHOCK.018 Page 84 of 99

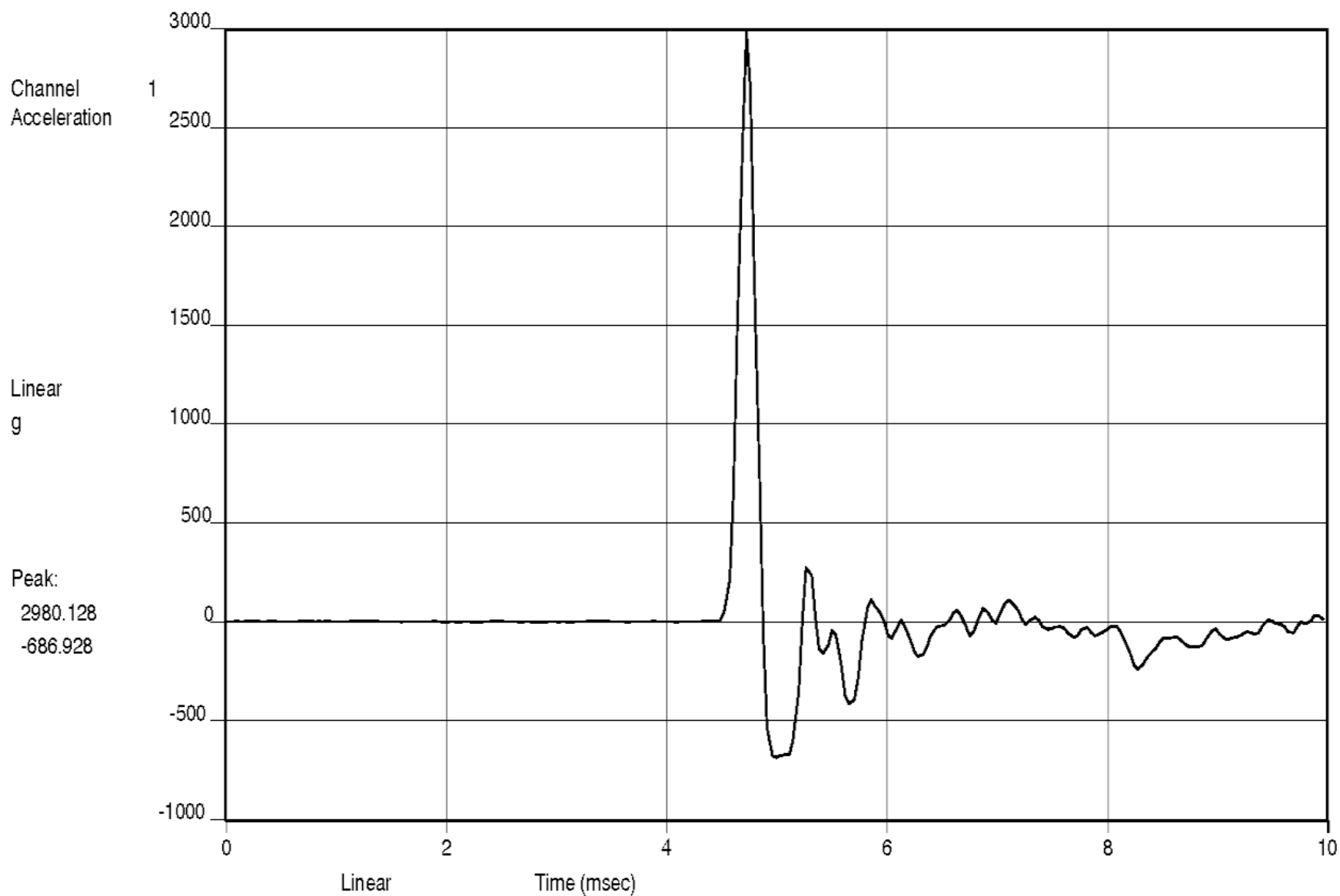
CONTROL



13:50:38.5
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (+) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (2 OF 5)

Data Review Name: DIGI-PAS_SHOCK.018 Page 85 of 99

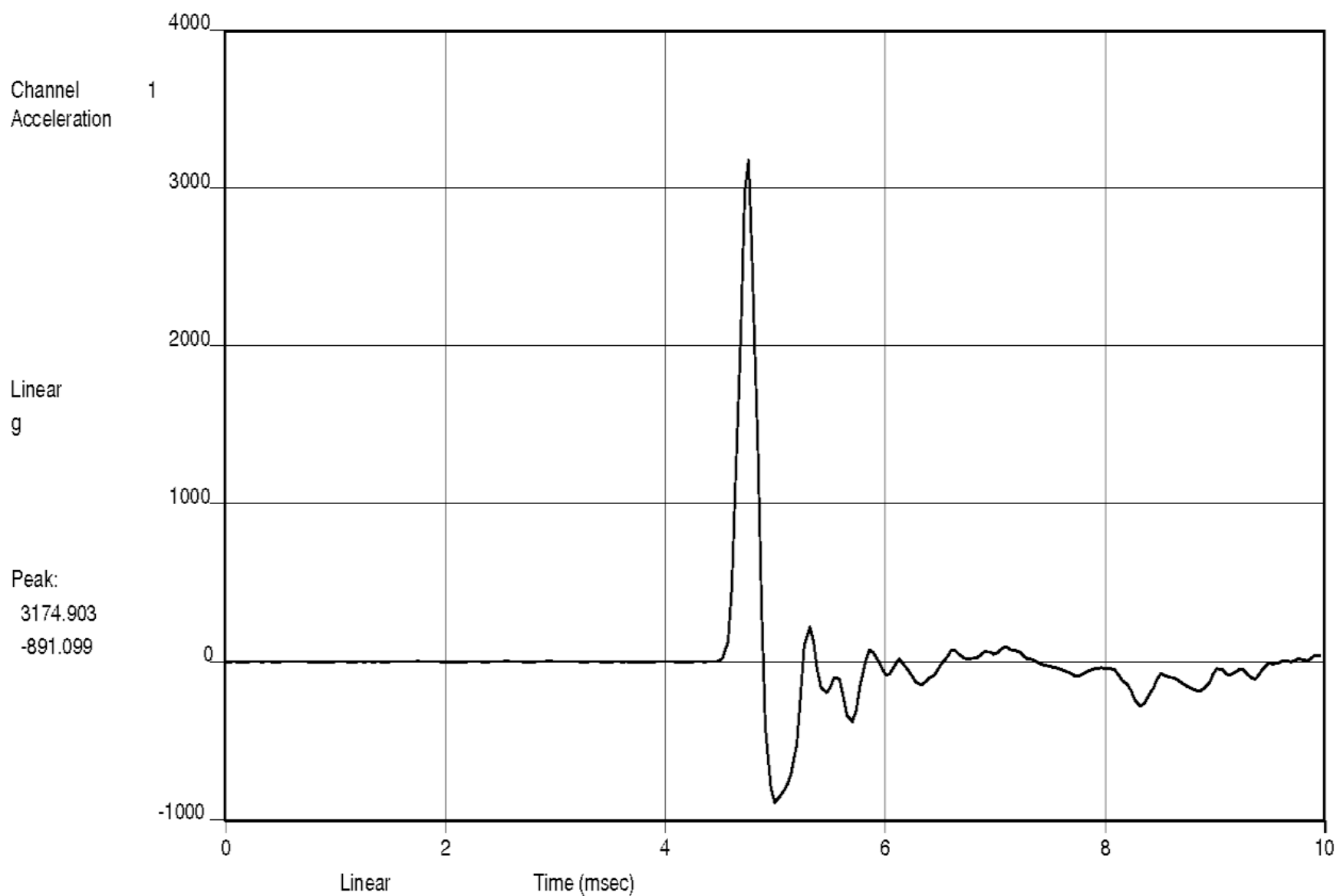


CONTROL

13:50:53.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (+) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (3 OF 5)

Data Review Name: DIGI-PAS_SHOCK.018 Page 86 of 99

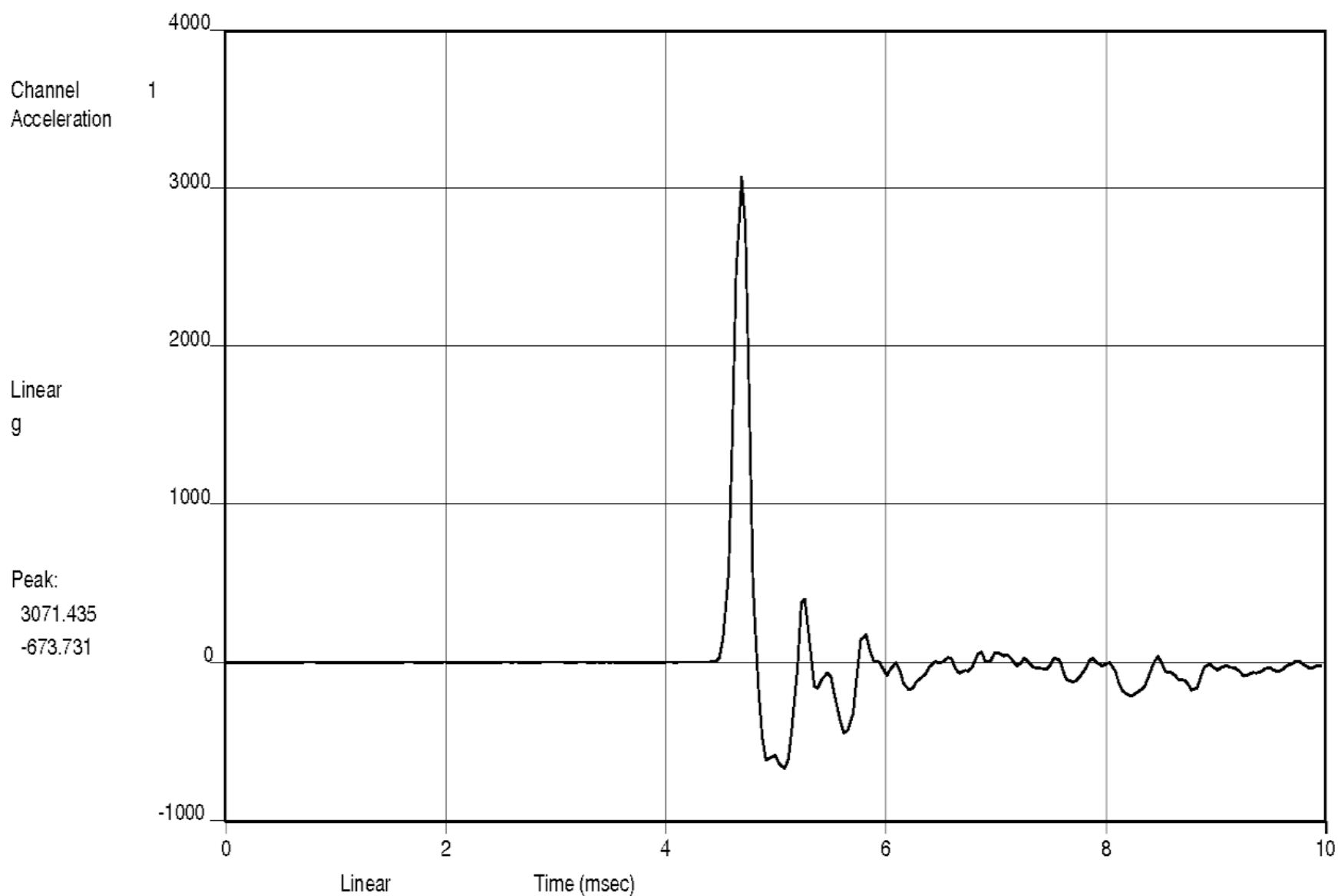


CONTROL

13:51:08.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (+) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (4 OF 5)

Data Review Name: DIGI-PAS_SHOCK.018 Page 87 of 99

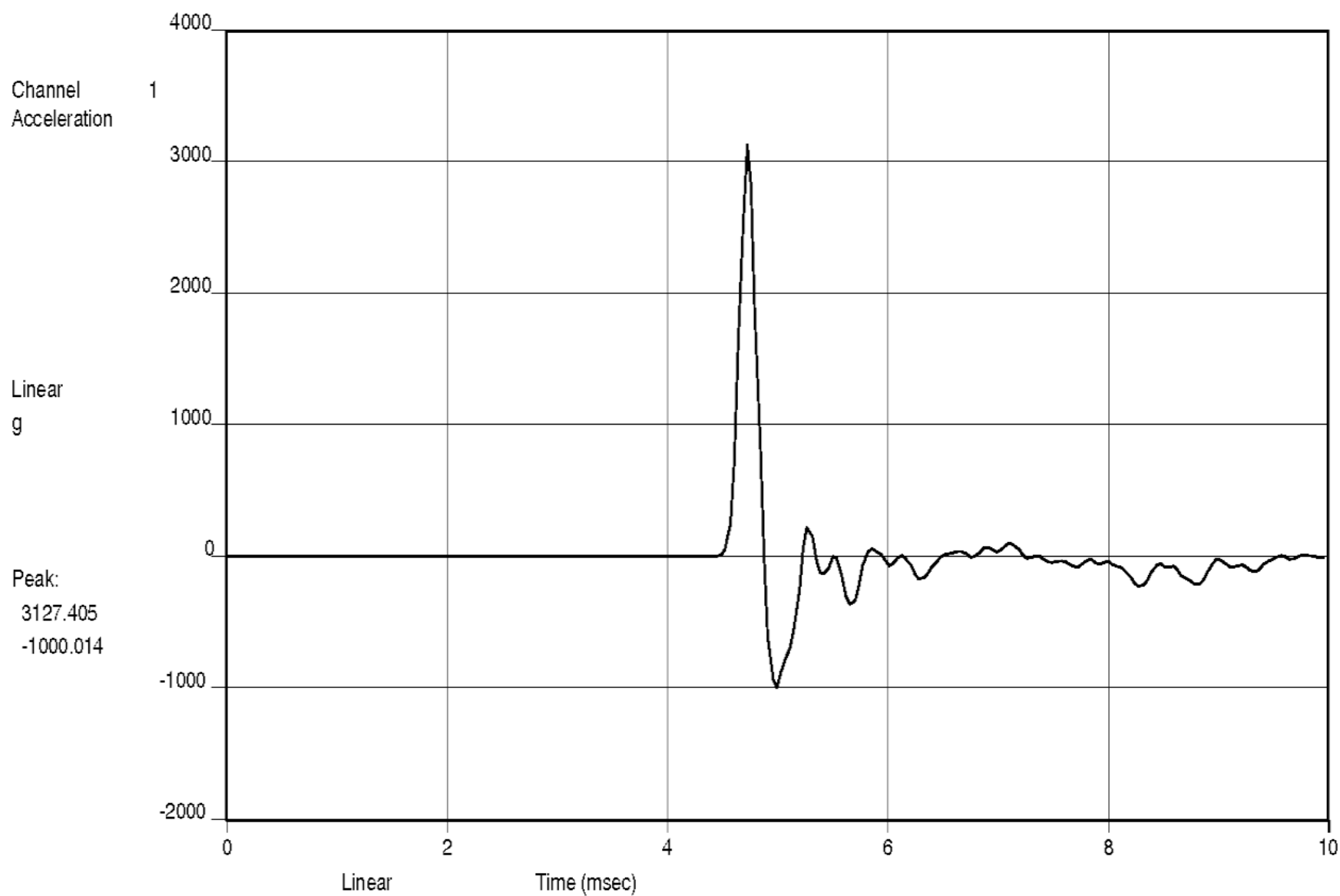


CONTROL

13:51:24.4
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (+) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (5 OF 5)

Data Review Name: DIGI-PAS_SHOCK.018 Page 88 of 99



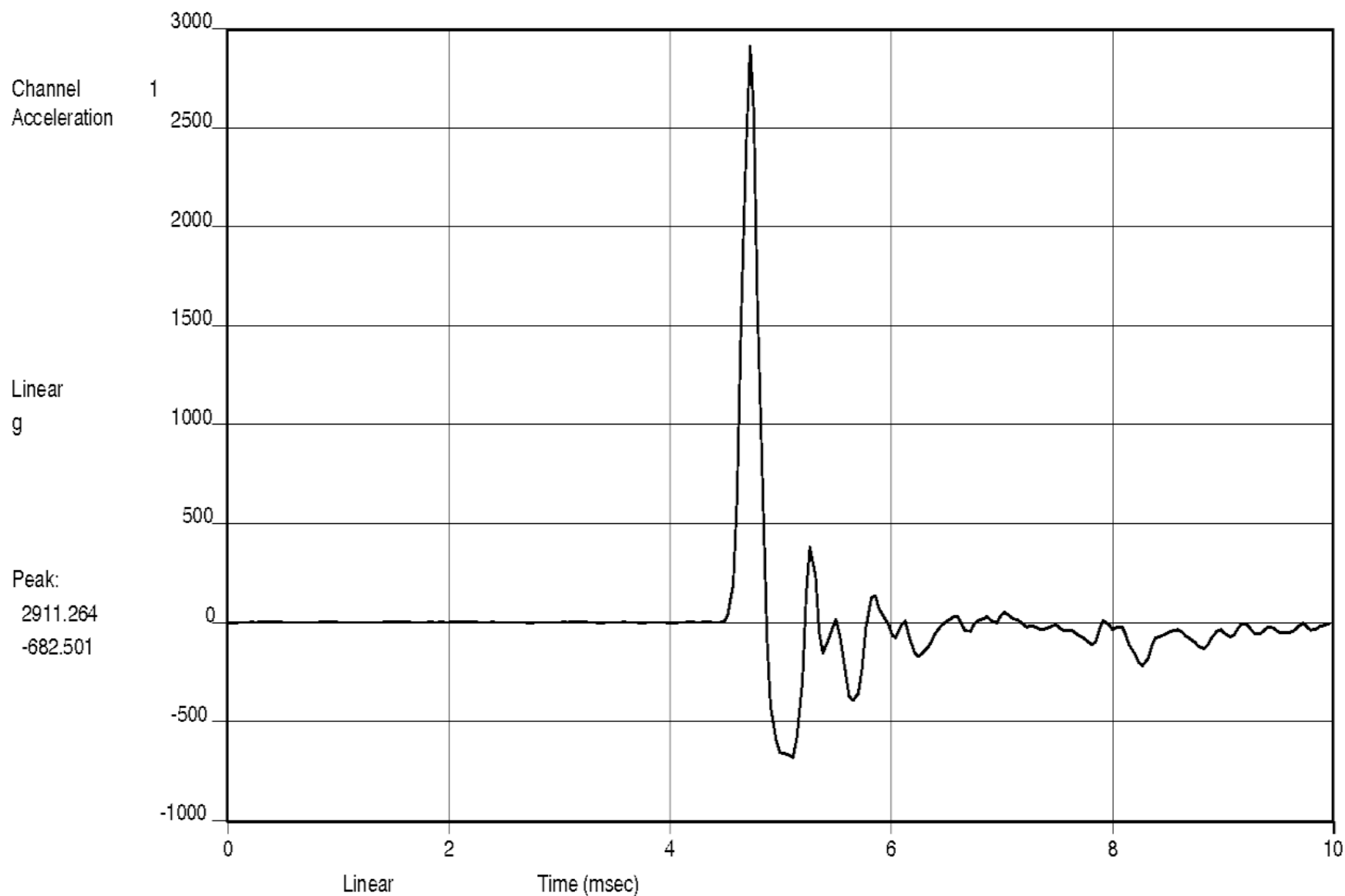
CONTROL

13:55:37.2
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (-) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.019

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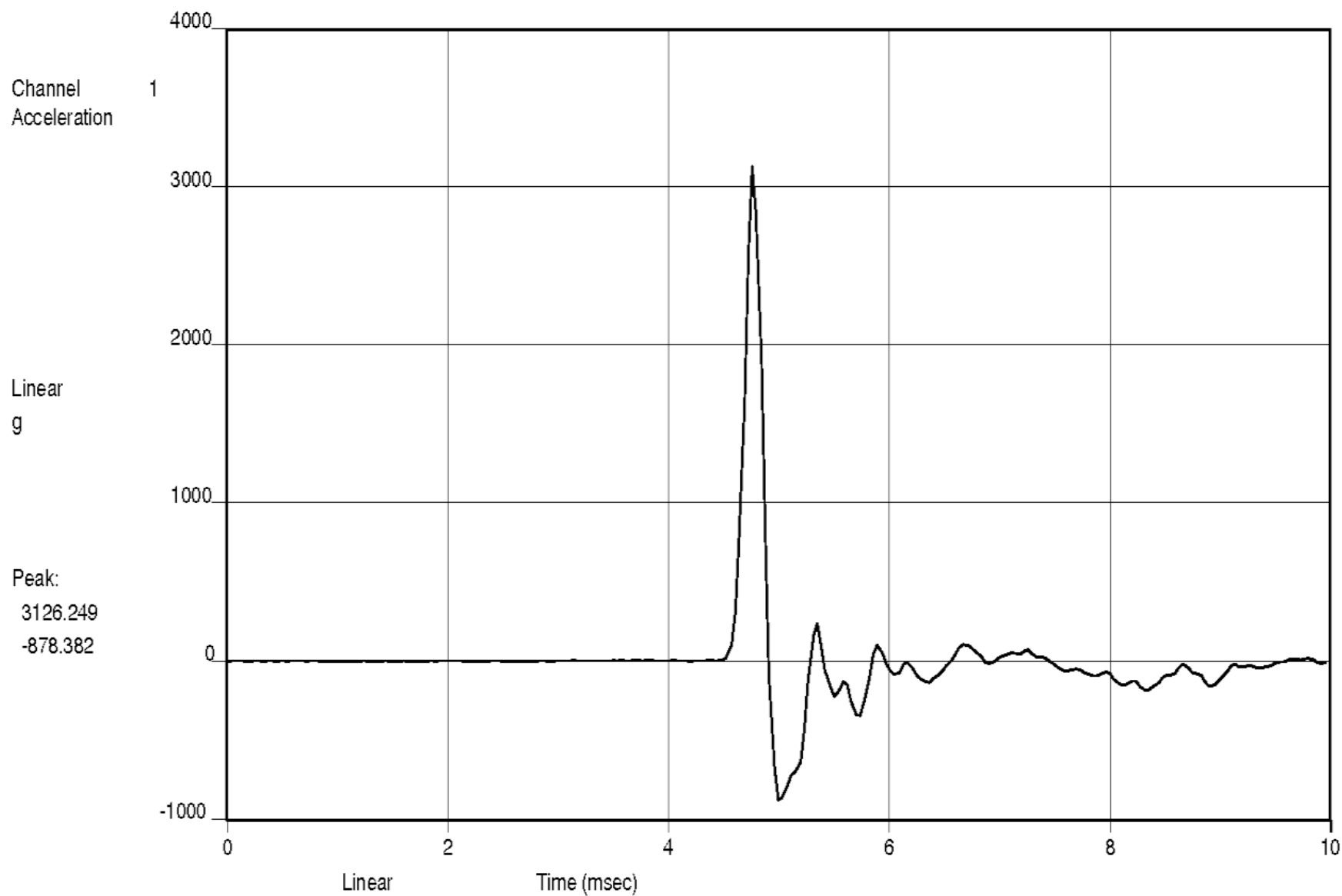
CONTROL

13:56:09.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (-) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.019

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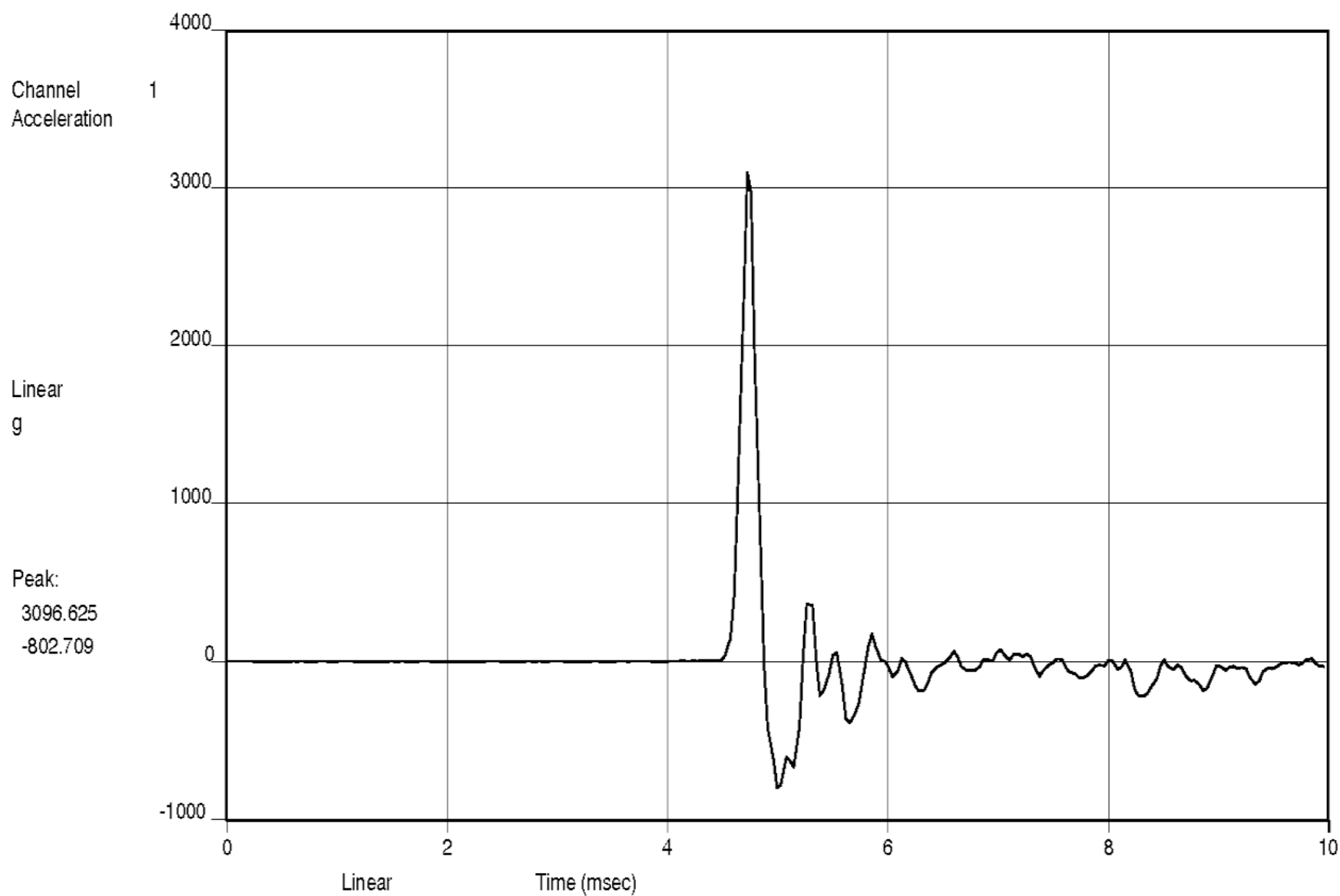
CONTROL

13:56:36.5
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (-) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.019

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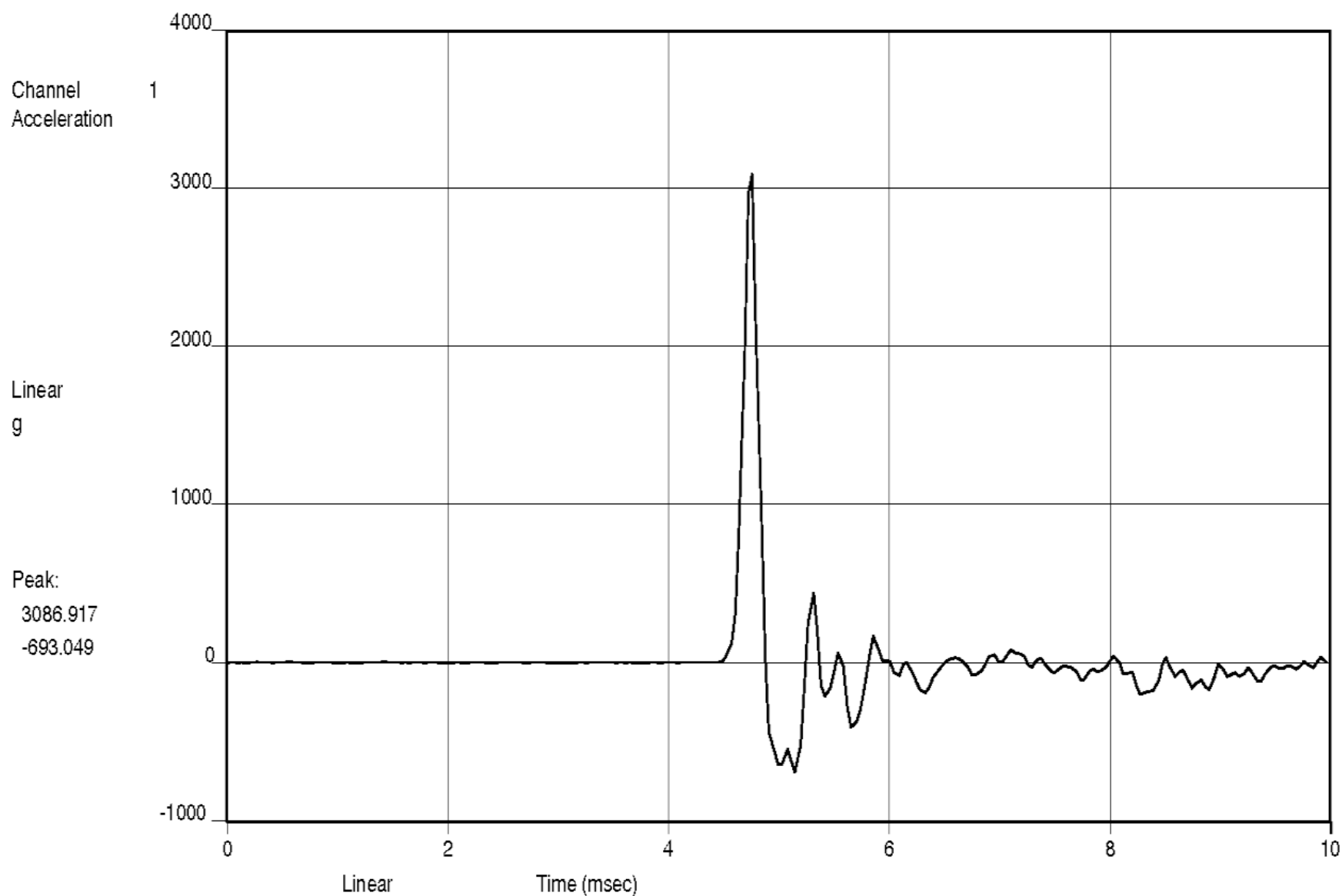
CONTROL

13:56:55.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (-) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.019

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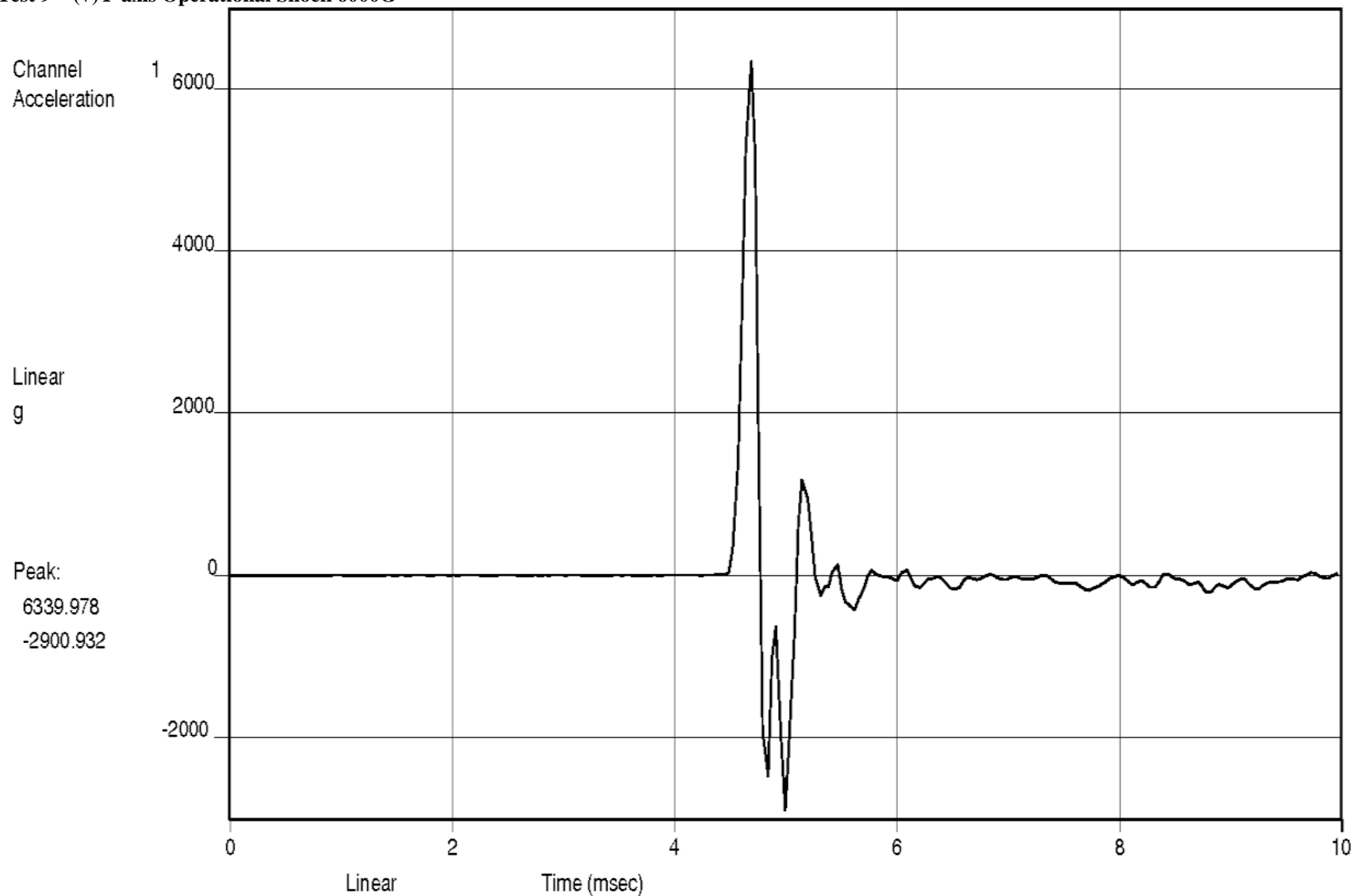
CONTROL

13:57:17.0
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#8 AXIS: (-) X OPERATIONAL SHOCK - 3000G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.019

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Test 9 (+)Y-axis Operational Shock 6000G


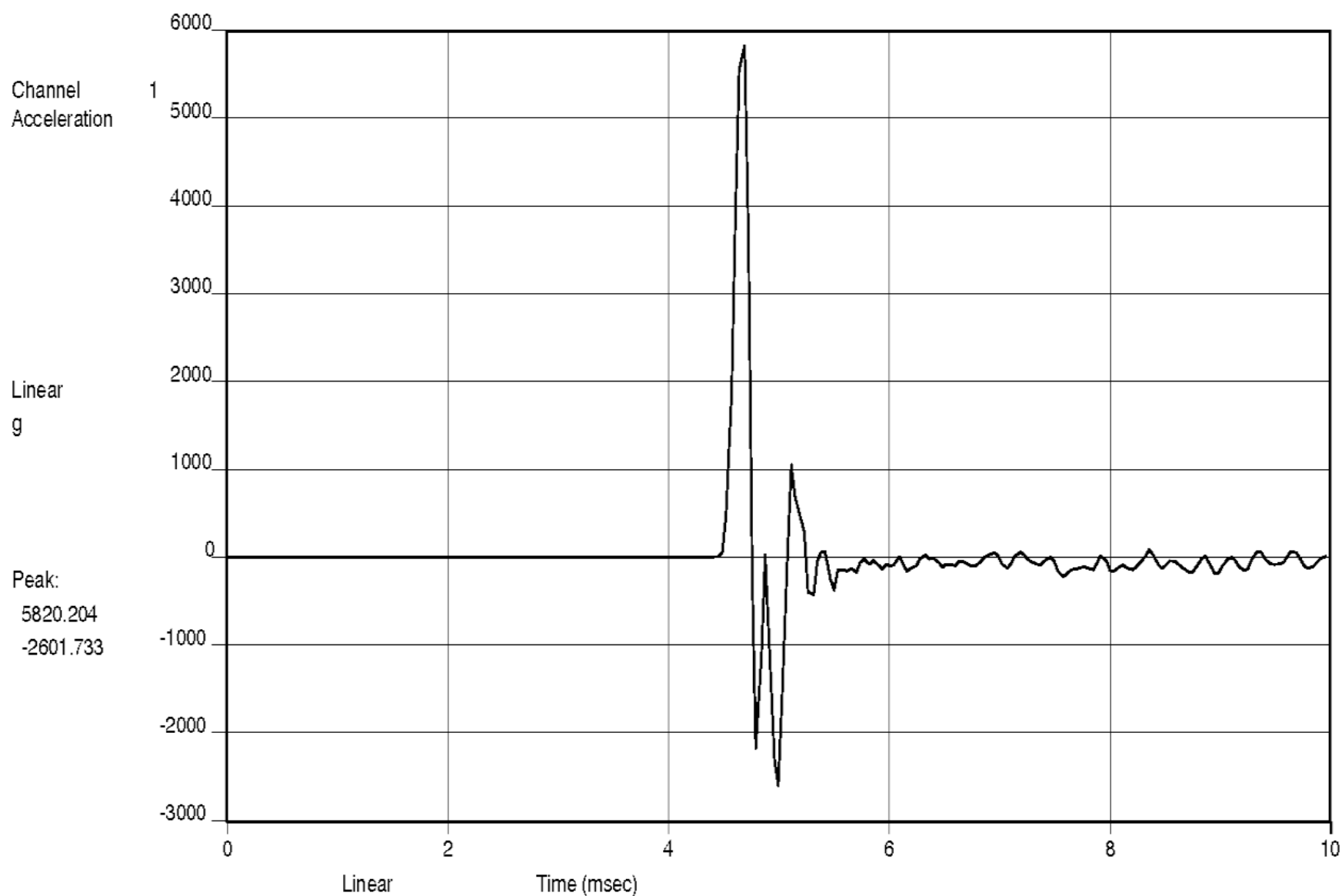
CONTROL

14:07:00.7
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#9 AXIS: (+) Y OPERATIONAL SHOCK - 6000G, 0.5MS, HS (1 OF 5)

Capture Name: DIGI-PAS_SHOCK.020

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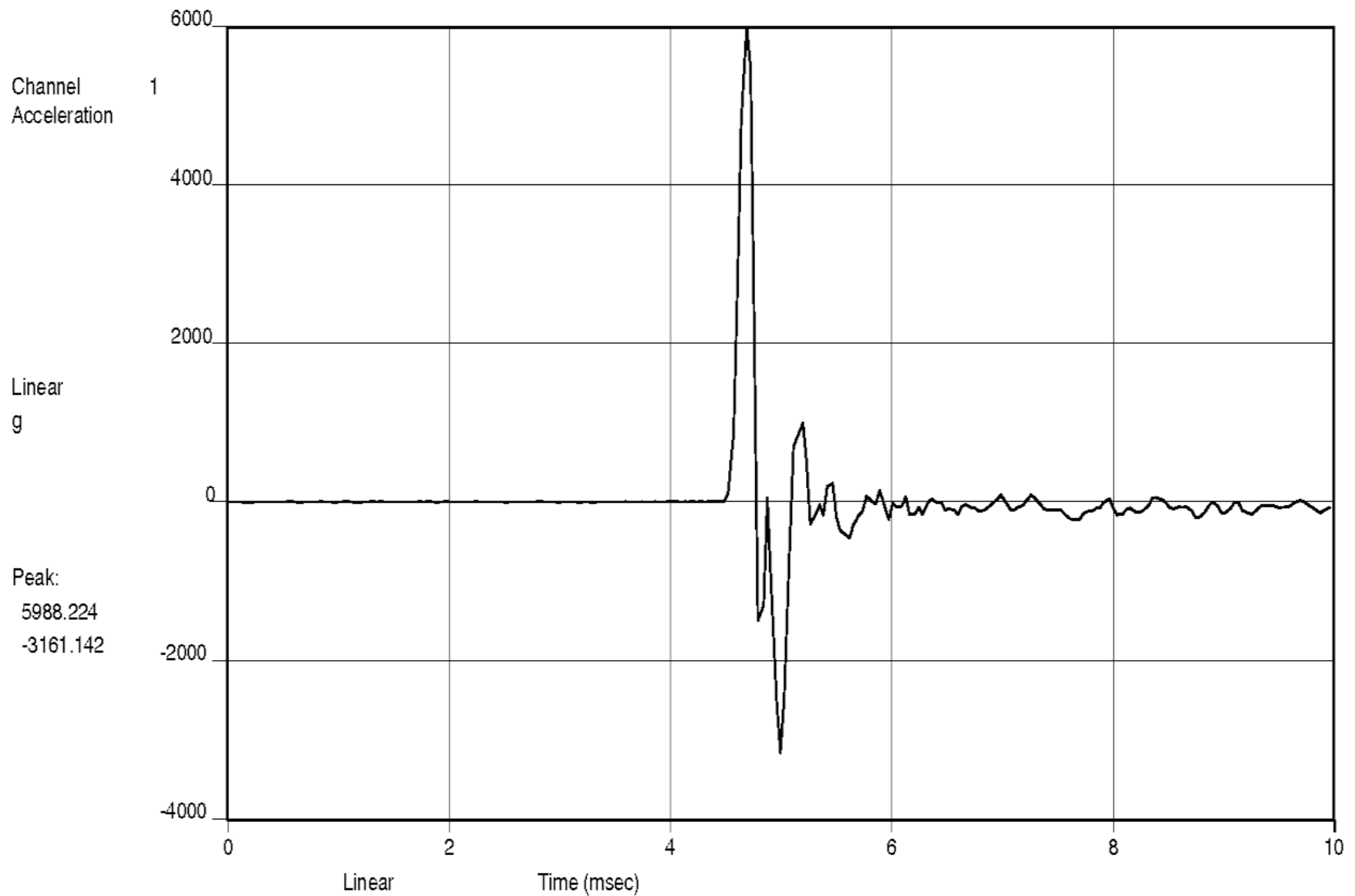
CONTROL

14:07:45.4
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#9 AXIS: (+) Y OPERATIONAL SHOCK - 6000G, 0.5MS, HS (2 OF 5)

Capture Name: DIGI-PAS_SHOCK.020

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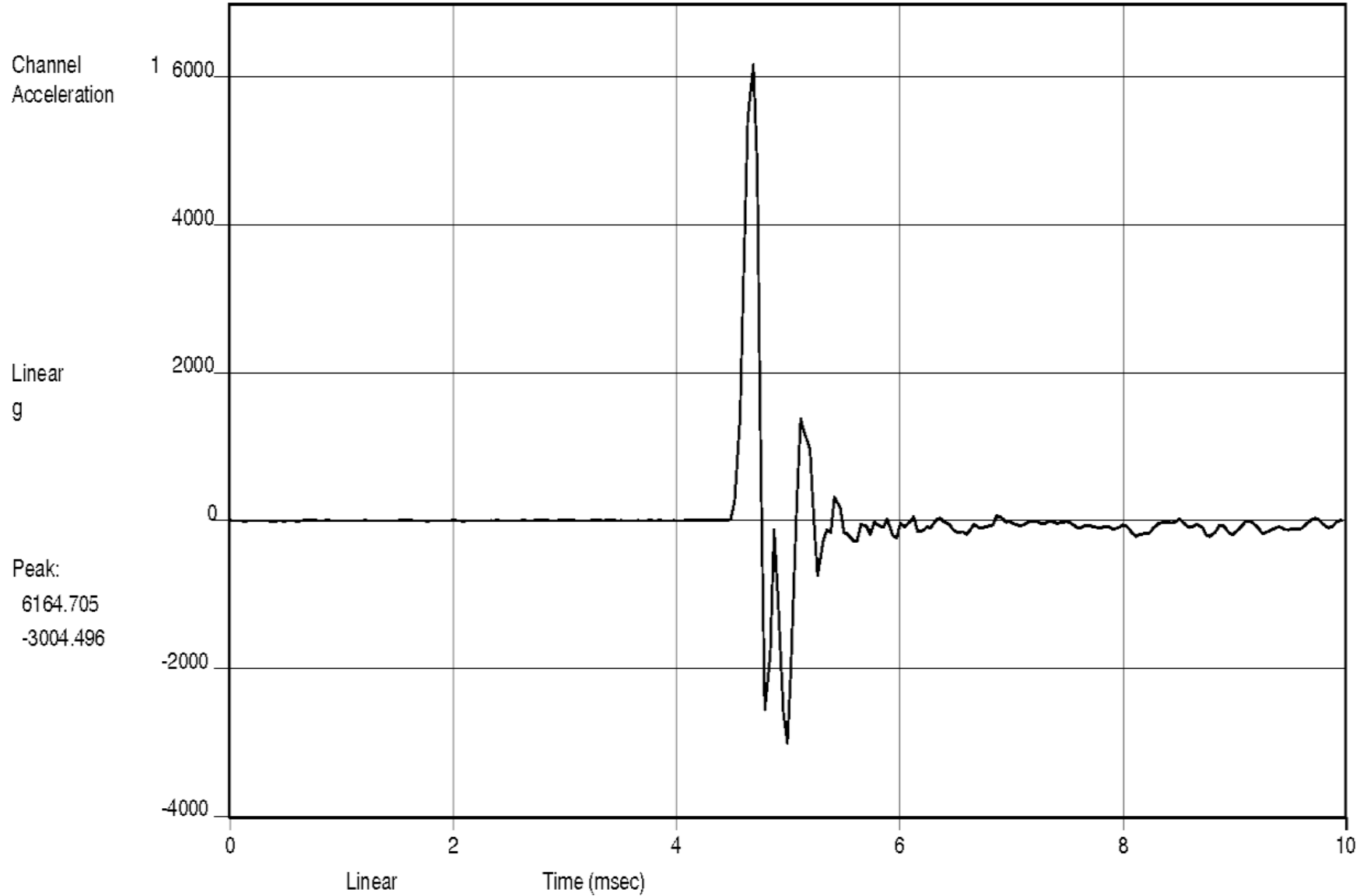
CONTROL

14:08:24.8
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#9 AXIS: (+) Y OPERATIONAL SHOCK - 6000G, 0.5MS, HS (3 OF 5)

Capture Name: DIGI-PAS_SHOCK.020

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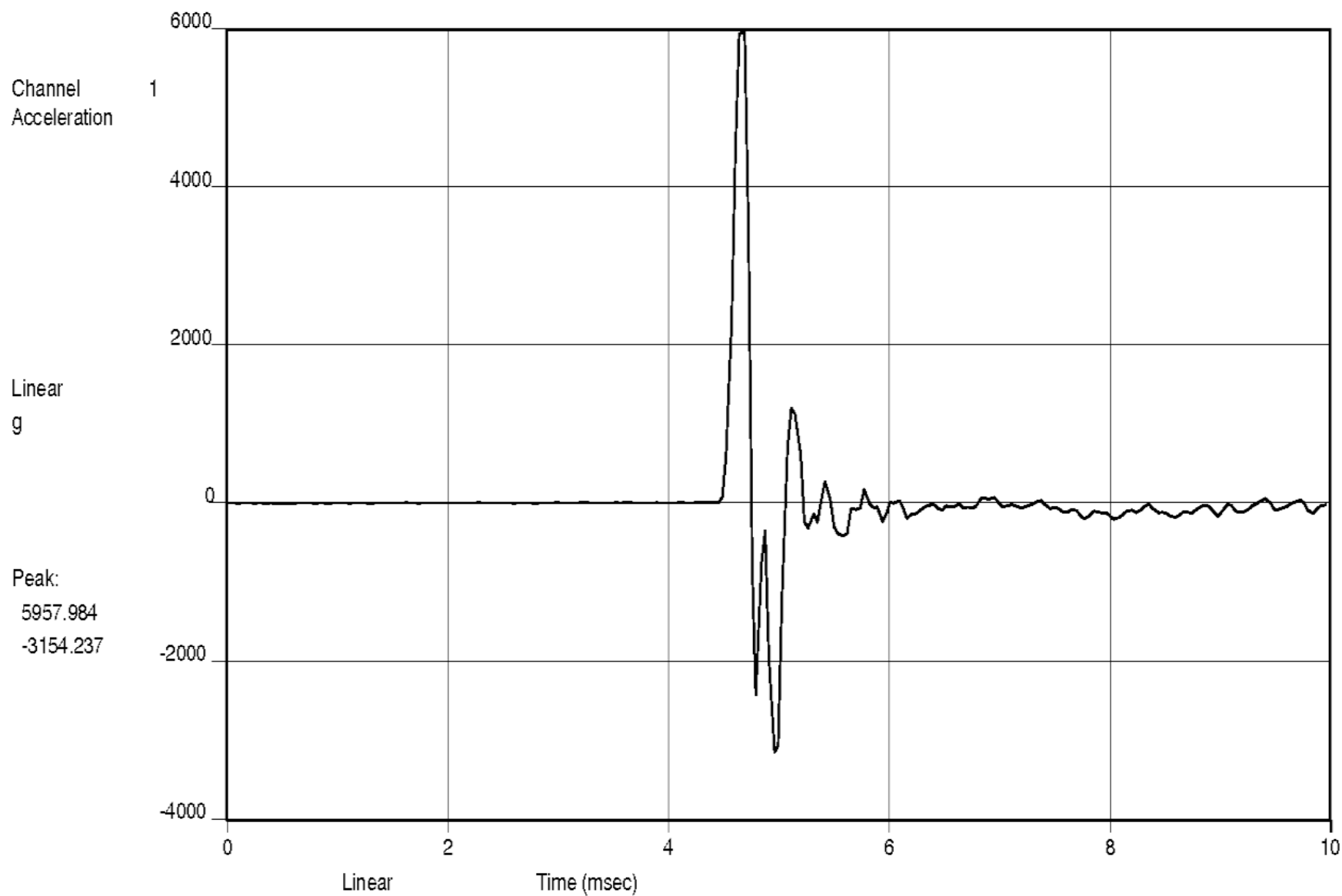
CONTROL

14:09:06.9
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#9 AXIS: (+) Y OPERATIONAL SHOCK - 6000G, 0.5MS, HS (4 OF 5)

Capture Name: DIGI-PAS_SHOCK.020

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CONTROL

14:09:25.1
Thu Sep 10 2015

PR035989 DIGI-PAS (1) DWL-5000XY SENSOR MODULE S/N 13B50030
TEST#9 AXIS: (+) Y OPERATIONAL SHOCK - 6000G, 0.5MS, HS (5 OF 5)

Capture Name: DIGI-PAS_SHOCK.020

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End of Report