Vehicle Research and Test Center

Oblique Side Pole Impact

SID-IIs - (Build Level D)

2007 Nissan Quest

TRC Inc. Test Number: 070517

Prepared By:

Transportation Research Center Inc.

10820 State Route 347

P. O. Box B-67

East Liberty, OH 43319

Final Report

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Prepared For

Vehicle Research and Test Center

P. O. Box 37

East Liberty, OH 43319

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Section 1.0

Purpose and Test Procedure

Purpose

This side impact test is part of the proposed FMVSS 214 Side Impact Protection. It was conducted for the National Highway Traffic Safety Administration (NHTSA) and Vehicle Research and Test Center (VRTC) by Transportation research Center Inc. (TRC Inc.). The purpose of this test was to evaluate side impact protection of a 2007 Nissan Quest MPV with the rigid pole. The test was conducted in accordance with the National Highway Traffic Safety Administration's Notice of Proposed Rulemaking (Docket No. NHTSA-2004-17694, May 17, 2004).

Section 2.0

Side Impact Test

Summary of Side Impact Test

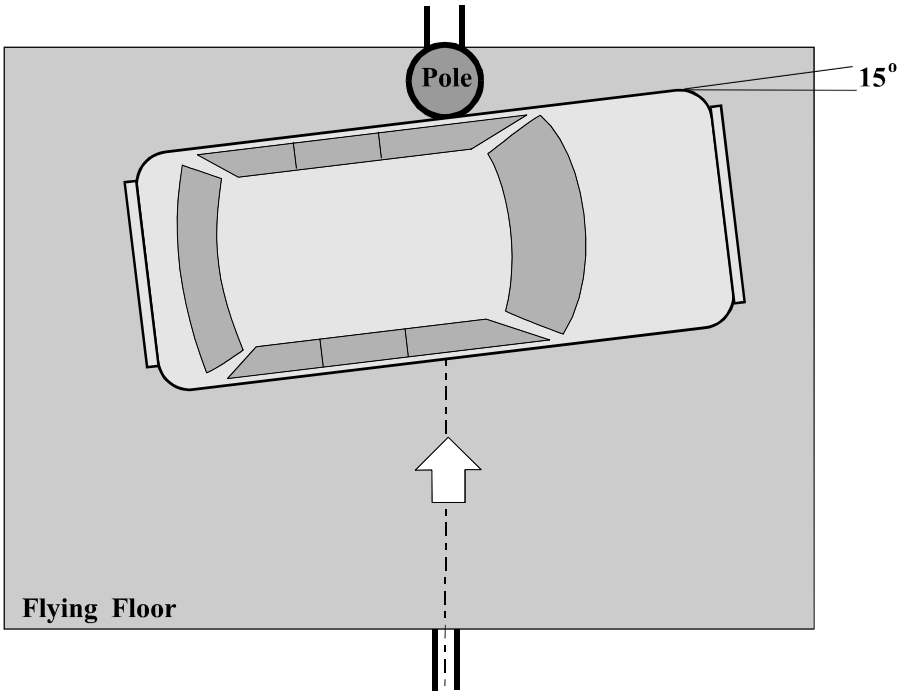
A 2007 Nissan Quest MPV impacted an oblique rigid pole barrier at an angle of 285°, at a velocity of 32.0 km/h (19.9 mph). The pole was aligned with the dummy's head center of gravity. The side impact test was conducted by Transportation Research Center Inc. in East Liberty, Ohio on May 17, 2007. Pre-test and post-test photographs of the test vehicle, the rigid pole barrier, and the side impact dummy (SID-IIs Build Level D) are included in Appendix A.

One restrained Side Impact Dummy (SID-IIs Build Level D) was placed in the driver (Pos. #1) designated seating position according to the instructions specified in the NHTSA Draft Side Impact Laboratory Test Procedure (TP-214P-00, dated May 2004). The side impact test was documented by one (1) real-time camera and nine (9) high-speed digital cameras. Camera locations and other pertinent camera information are included in this report.

The SID-IIs Build Level D was instrumented with triaxial head, shoulder, upper spine, lower spine and pelvis oriented to measure longitudinal, lateral, and vertical accelerations. The dummy was also instrumented with 6-axis channel upper neck moment and force load cells, shoulder, iliac, and acetabulum load cells, five rib lateral accelerometers, and rib and shoulder displacement potentiometers.

A summary of the side impact dummy (SID-IIs Build Level D) configuration and verification test data can be found in Appendix C. A total of 79 channels of data were recorded. Appendix B contains the vehicle, barrier, and dummy response data traces.

TEST RESULT SUMMARY



The following table summarizes the results of the test.

	Front SID-IIs (#056)
HIC36 (g) CFC 1000	5694
Upper Rib Deflection (mm) CFC 180	
Rib 1	34 mm
Rib 2	42 mm
Rib 3	50 mm
Lower Rib Deflection (mm) CFC 180	
Rib 1	56 mm
Rib 2	46 mm
Lower Spine Resultant (g) CFC 180	79 g
Combined Iliac/Acetabulum Force (N) CFC 600	5786 N

	2007 Nissan Quest
Vehicle Test Weight	2095.8 kg (lbs)
Impact Point (Horizontal - from Front Axle)	939 mm
Maximum Crush	433 mm Level 2
Impact Speed	19.9 mph

Data Acquisition Explanations

The driver dummy's upper neck force X-axis data channel, 11NECKUP00S2FOXA, exceeded full-scale capacity at approximately 60 milliseconds and recorded no valid data thereafter.

The driver dummy's upper neck force Z-axis data channel, 11NECKUP00S2FOZA, exceeded full-scale capacity at approximately 59 milliseconds and recorded questionable data thereafter.

The vehicle's left side sill at front seat Y-axis acceleration data channel, 14SILBFR0000ACYA, exceeded full-scale capacity at approximately 86 milliseconds and recorded no valid data thereafter. The velocity and displacement were also affected.

The vehicle's left front seat track Y-axis acceleration data channel, 11SETRFR0000ACYA, recorded questionable data throughout.

The vehicle's front door upper centerline Y-axis acceleration data channel, 14DOOR000003ACYA, recorded questionable data after approximately 50 milliseconds.

The vehicle's top of engine X-axis acceleration data channel, 12ENGNTP0000ACXA, recorded questionable data after approximately 75 milliseconds.

The vehicle's top of engine Y-axis acceleration data channel, 12ENGNTP0000ACYA, recorded questionable data after 82 milliseconds.

Section 3

Summary of Test Results

Table 1 General Test Vehicle Parameter Data

Test Vehicle: 2007 Nissan Quest Test Date: 05/17/07

TEST VEHICLE INFORMATION

Make	Nissan
Model	Quest
Body Style	MPV
VIN	5N1BV28U87N105519
Color	Silver
Odometer Reading	510 miles
Transmission	5-Speed Automatic
Final Drive	Front wheel drive
Number of Cylinders	6
Engine Displacement	3.5 L
Engine Placement	Lateral
Air Conditioning	Yes
Power Windows	Yes
Power Seats	Driver only
Cruise Control	Yes
Tinted Glass	Yes
Keyless Entry	Yes

TEST VEHICLE OPTIONS

Driver Front Airbag	Yes
Driver Side Curtain Airbag	Yes
Driver Side Torso Airbag	Yes
Rear Passenger Side/Curtain Airbag	Yes
Rear Passenger Side Torso Airbag	Yes
Power Steering	Yes
Power Door Locks	Yes
Tilt Wheel	Yes
Anti-lock Brakes	Yes
Traction Control	No
Bucket Seats	Yes
Rear Defroster	Yes
2-Door/4-Door	4
AM/FM Radio	Yes
CD Player	Yes
Sun Roof	No
Telescoping Steering Wheel/Column	No

DATA FROM CERTIFICATION LABEL

Manufactured By	Nissan Motor Company
Date of Manufacture	06/06

GVWR (kg)	2640
GAWR Front (kg)	1320
GAWR Rear (kg)	1340

Measured Parameter	Front	Mid	Rear	Total
Type of Seats	Bucket	Split Bench	Split Bench	
Number Of Occupants	2	3	2	7
Capacity Wt. (VCW)				546
Cargo Wt. (RCLW) (kg)				70

Table 1 General Test Vehicle Parameter Data, Continued

Test Vehicle: 2007 Nissan Quest Test Date 05/17/07

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW) (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total
Left	kg	566.6	417.0		582.4	474.0	
Right	kg	566.2	415.0		561.8	477.6	
Ratio	%	57.7	42.3		54.6	45.4	
Totals	kg	1132.8	832.0	1964.8	1144.2	951.6	2095.8

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1964.8
Weight of SIDIIs ATD	kg	61.0
Rated Cargo/Luggage Weight (RCLW)	kg	70.0
Calculated Vehicle Target Weight (TVTW)	kg	2095.8

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG(aft of front axle)
As Delivered	mm	729	728	738	740	1334
As Tested	mm	N/A	N/A	N/A	N/A	1430
Fully Loaded	mm	728	729	726	722	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheelbase	mm	3150
Total Vehicle Length at Left Side	mm	4990
Total Vehicle Length at Centerline	mm	5170
Total Vehicle Length at Right Side	mm	4990
Weight of Ballast in Rear Cargo Area	kg	74.8
Amount of Stoddard Solvent in Fuel Tank	liters	70.4

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Impact Reference Line From Front Axle	mm	936
Impact Point	mm	939
Impact Point Difference	mm	3 mm Rearward

Table 1 General Test Vehicle Parameter Data, Continued

Test Vehicle: 2007 Nissan Quest Test Date 05/17/07

SID IIs RIDING POSITION

The driver and passenger seat back is positioned to the manufacturer's designated angle.

Driver: Total Number of detents: N/A

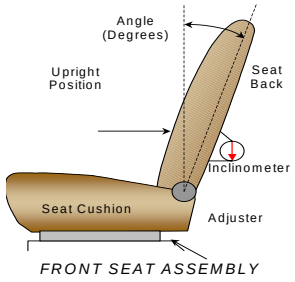
Test detent (with the forward-most detent defined as 0): 0

Passenger: Total Number of detents: Fixed

Test detent (with the forward-most detent defined as 0): N/A

Driver seat back angle: The back was adjusted to 23.6° measured at the head restraint.

Passenger seat back angle: Fixed

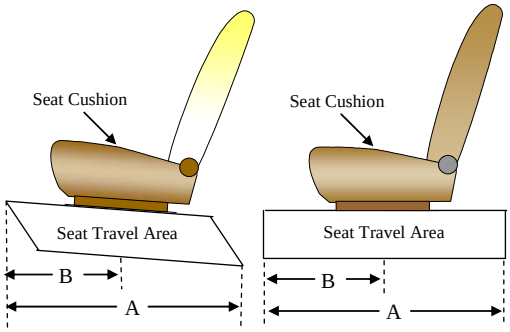


SEAT FORE/AFT POSITIONS

The total seat travel was measured from forward most position to rearmost position, irrespective of vertical seat height in those positions. The seat was set at the longitudinal mid position with vertical adjustment at the lowest position obtainable for both the driver and passenger.

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position No.
Driver Seat	235 mm	Full forward
Rear Seat	N/A	N/A



SEAT BELT UPPER ANCHORAGE

	Total No. of Positions	Placed in Position No.
Driver Seat	5	Full down
Rear Seat	N/A	N/A

Position number one is the uppermost adjustment position.

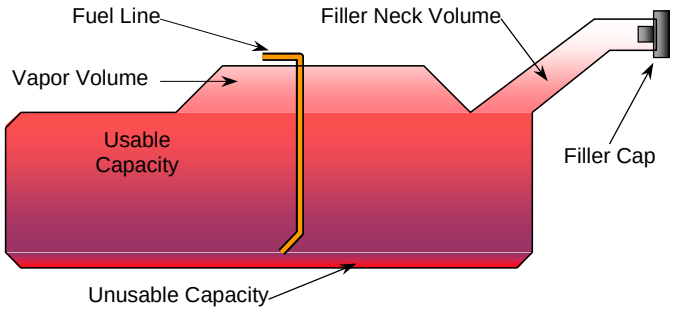
Table 1 General Test Vehicle Parameter Data, Continued

Test Vehicle: 2007 Nissan Quest Test Date 05/17/07

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	75.7
Usable Capacity used for FMVSS301	75.7
Actual Amount of Solvent used	70.4

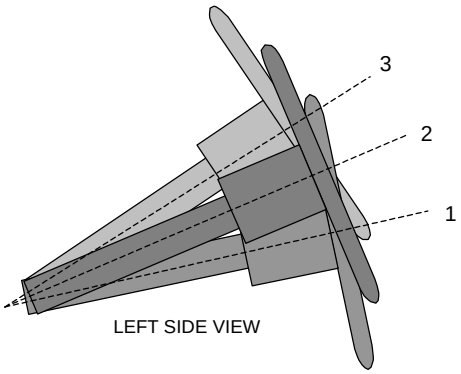
The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies the area under the rear seat.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed on the plate and the angle is measured.



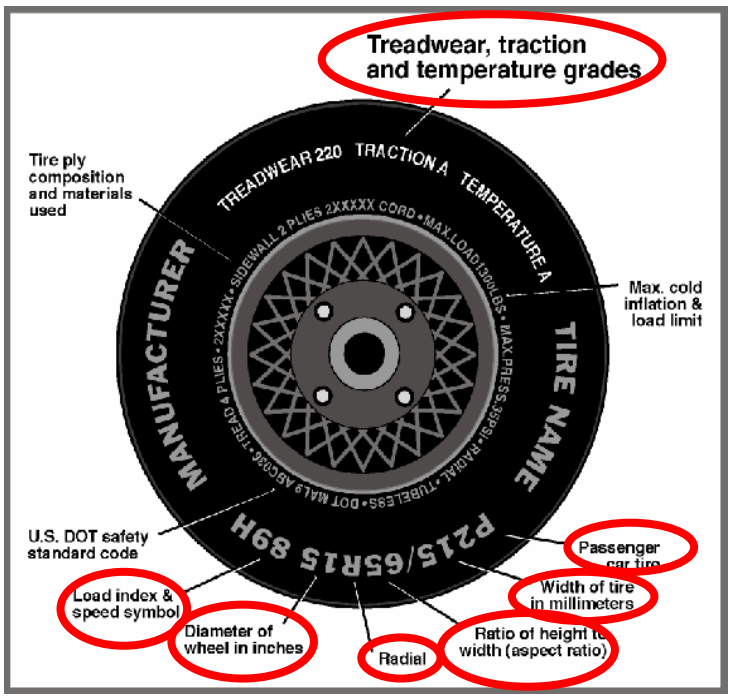
STEERING COLUMN ASSEMBLY

STEERING WHEEL/COLUMN POSITIONS

	Degrees	Fore/Aft Position, mm
Lowermost Position	21.3°	Fixed
Geometric Center Position	30.2°	Fixed
Uppermost Position	39.1°	Fixed

Table 2 Test Vehicle Tire Information

Test Vehicle: 2007 Nissan Quest Test Date 05/17/07



DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold / Test Pressure (kPa)	240	240
Recommended Tire Size	P225/65R16	P225/65R16
Tire Size on Vehicle	P225/65R16	P235/70R16
Tire Manufacturer	Goodyear	Goodyear
Tire Name	Eagle LS	Eagle LS
Radial	R	R
Wheel Diameter	16	16
Load Index & Speed Symbol	99H	99H
Treadwear	400	400
Traction Grade	A	A
Temperature Grade	A	A

Table 3 Post-Test Observations

Test Vehicle: 2007 Nissan Quest Test Date 05/17/07

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID IIs
Dummy Type / Serial No.	SID IIs / 056
Head Contact	Side curtain airbag
Upper Torso Contact	Door panel
Lower Torso Contact	Door panel
Left Knee Contact	Door panel
Right Knee Contact	None

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Locked/Unlocked Doors	Unlocked	Unlocked
Left Side Door Opening	Jammed & Latched	Jammed & Latched
Right Side Door Opening	Close & Latched	Closed & Latched
Seat Movement	None	None
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	Did not separate from vehicle
Sill Separation	Did not separate from vehicle
Windshield Damage	Broken
Window Damage	Left front window shattered
Other Notable Effects	None

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 01	
	Installed	Operation
Front Airbag	Yes	No
Side Airbag	Yes	Yes
Head Airbag	Yes	Yes
Curtain Airbag	Yes	Yes
Seat Belt Pretensioner	Yes	Unknown
Seat Belt Load Limiter	No	N/A

Section 4

Occupant and Vehicle Information

Table 4 SID-IIs Instrumentation Data

Vehicle: 2007 Nissan Quest MPV

Test Number: 070517 Driver Dummy Serial Number: 056

		Positive Direction		Negative Direction	
		Max.	Time	Max.	Time
Location		(g)	(ms)	(g)	(ms)
Head Acceleration	X	177.7	59.4	8.3	61.1
	Y	553.4	59.4	2.7	193.0
	Z	51.7	61.0	178.0	59.2
	R	601.6	59.4		
Neck Force[1]	X	----	----	----	----
	Y	1583.5	59.5	4694.8	59.2
	Z	----	----	----	----
Neck Moment	X	17.6	55.4	62.8	62.2
	Y	26.1	85.8	37.8	66.8
	Z	6.6	89.0	9.0	59.8
Shoulder Acceleration	X	118.0	34.8	111.0	50.4
	Y	464.9	34.7	115.1	35.4
	Z	122.5	96.3	207.0	32.8
	R	474.2	34.8		
Shoulder Force	X	347.6	104.4	603.8	52.6
	Y	1434.8	54.3	302.5	29.7
	Z	633.5	57.7	116.6	191.6
Shoulder Displacement	Y	31.0	59.1	2.9	33.3
Upper Spine Acceleration	X	32.4	59.7	7.9	103.9
	Y	50.2	57.0	7.9	102.7
	Z	11.5	60.6	17.1	65.7
	R	59.0	59.8		
Left Thorax Rib 1 Displacement	Y	33.6	59.3	0.0	23.8
Left Thorax Rib 2 Displacement	Y	42.1	45.8	0.0	0.4
Left Thorax Rib 3 Displacement	Y	49.5	45.4	0.6	105.0

[1] See Data Acquisition Explanations.

Table 4 SID-IIs Instrumentation Data, Continued

Vehicle: 2007 Nissan Quest MPV

Test Number: 070517 Driver Dummy Serial Number: 056

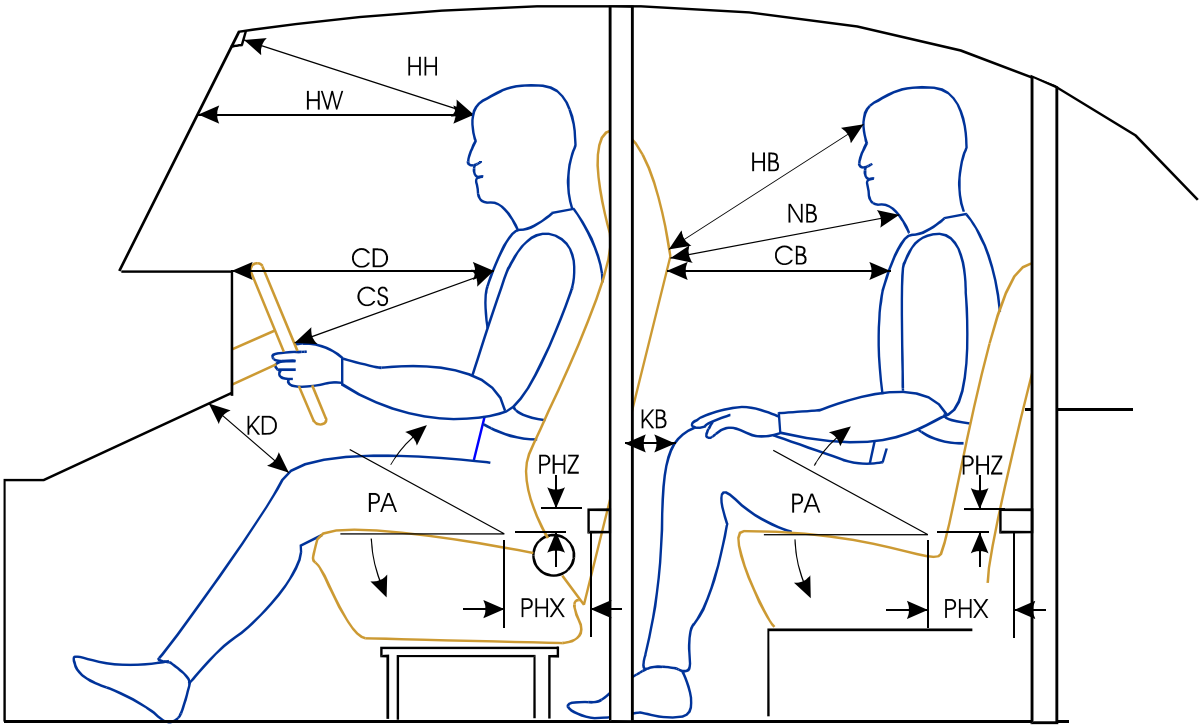
		Positive Direction		Negative Direction	
		Max.	Time	Max.	Time
Location		(g)	(ms)	(g)	(ms)
Left Abdomen Rib 1 Displacement	Y	56.5	57.9	0.0	30.2
Left Abdomen Rib 2 Displacement	Y	46.0	54.2	0.0	14.1
Left Thorax Rib 1 Acceleration	Y	347.2	52.7	92.3	46.4
Left Thorax Rib 2 Acceleration	Y	519.4	52.0	133.4	45.6
Left Thorax Rib 3 Acceleration	Y	661.5	51.8	215.3	45.4
Left Abdomen Rib 1 Acceleration	Y	320.9	52.4	355.2	51.6
Left Abdomen Rib 2 Acceleration	Y	240.8	45.2	220.1	48.5
Lower Spine Acceleration	X	16.8	50.8	22.0	54.7
	Y	74.9	53.8	10.8	99.2
	Z	22.1	60.3	21.8	53.0
	R	78.9	53.9		
Left Iliac Wing Force	Y	2358.5	52.4	25.7	70.3
Left Acetabulum Force	Y	3441.5	51.9	119.6	67.5
Pelvis Acceleration	X	10.5	65.9	4.3	147.5
	Y	103.4	52.0	9.5	80.1
	Z	10.6	52.9	13.5	61.8
	R	104.3	52.0		

Positive Direction
Longitudinal: Forward
Lateral: Rightward
Vertical: Downward

Negative Direction
Longitudinal: Rearward
Lateral: Leftward
Vertical: Upward

Figure 1 SID-IIs Longitudinal Clearance Dimensions

Vehicle: 2007 Nissan Quest MPV



Left Side View

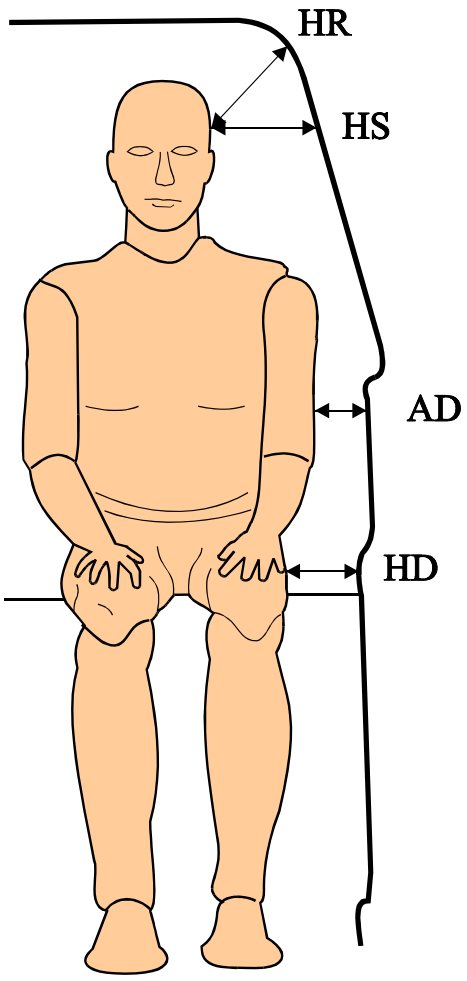
Note: All measurements are in millimeters with tolerance of ±0.1 mm

Measurement	Driver SID-IIs # 056
HH	306
HW	670
HZ	234
NR	196
CD	332
CS	123
KDL(KDA°)	38/(40.8°)
KDR(KDA°)	N/A
PA°	N/A
PHX	484
PHZ	82

Note: 2-door vehicle shown. Rear dummy PHX and PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

Figure 2 SID-IIs Lateral Clearance Dimensions

Vehicle: 2007 Nissan Quest MPV

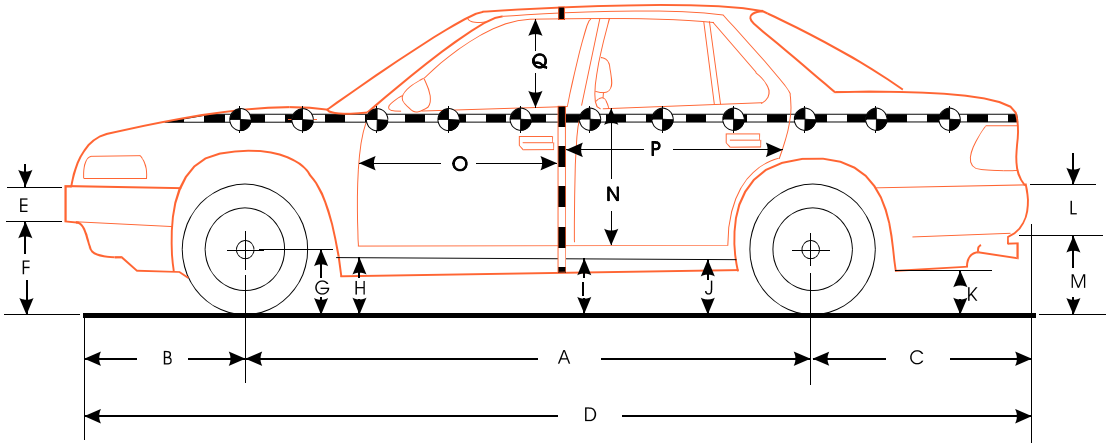


Note: All measurements are in millimeters with tolerance of ±0.1 mm

Measurement	Driver SID-IIs # 056
HR	271
HS	361
AD	Lower: 181 Upper: 176
HD	115

Figure 3 Vehicle Pre-Test And Post-Test Measurements

Vehicle: 2007 Nissan Quest MPV



Left Side View

Note: All dimensions are in millimeters with tolerance of ±0.1 mm

	Pre-Test (as delivered)	Pre-Test (as tested)	Post-Test (as tested)	Change
A	3150	3150	3150	0
B	935	935	957	-22
C	1085	1085	1085	0
D	5170	5170	5190	-20
E	168	168	168	0
F	408	419	440	-21
G	322	329	317	12
H	258	263	270	-7
I	254	259	285	-26
J1	211	198	225	-27
J2	254	243	270	-27
K	318	296	319	-23
L	180	180	180	0
M	414	388	396	-8
N	913	913	909	4
O	438	438	298	140
P	1854	1854	1722	132
Q	516	516	488	28
R	4990	4990	4986	4
S	4990	4990	5005	-15
T	1455	1455	1399	56

D = Length at centerline E and L = Bumper Thickness R = Right Side Length
S = Left Side Length T = Width at B-pillar J1 = To Pinch Weld J2 = To Sill

Table 5 Vehicle Structural Measurements[1,2]

	Elements	Pre-Test
1	Total Length	5170
2	Total Width	1962
3	Bumper Top Height	515
4	Bumper Bottom Height	403
5	Longitudinal Member Top Height	511
6	Longitudinal Member Bottom Height	406
7	Distance Between Longitudinal Members	1094
7´	Longitudinal Member Width	78
8	Engine Top Height	910
9	Engine Bottom Height	203
10	Engine and Gearbox Width	830
11	Front Bumper - Engine Distance	378
12	Front Shock Absorber Fixing Height	900
13	Bonnet Leading Edge Height	771
14	Front Shock Absorber Fixing Width	1250
15	Front Bumper - Front Axle Distance	935
16	Front Axle - A Pillar Distance	465
17	A Pillar - B Pillar Distance	1040
18	B Pillar - Rear Axle Distance	1605
19	B Pillar - C Pillar Distance	1120
20	Roof Sill Bottom Height	1524
21	Roof Sill Top Height	1570
22	Floor Sill Bottom Height	342
23	Floor Sill Top Height	355

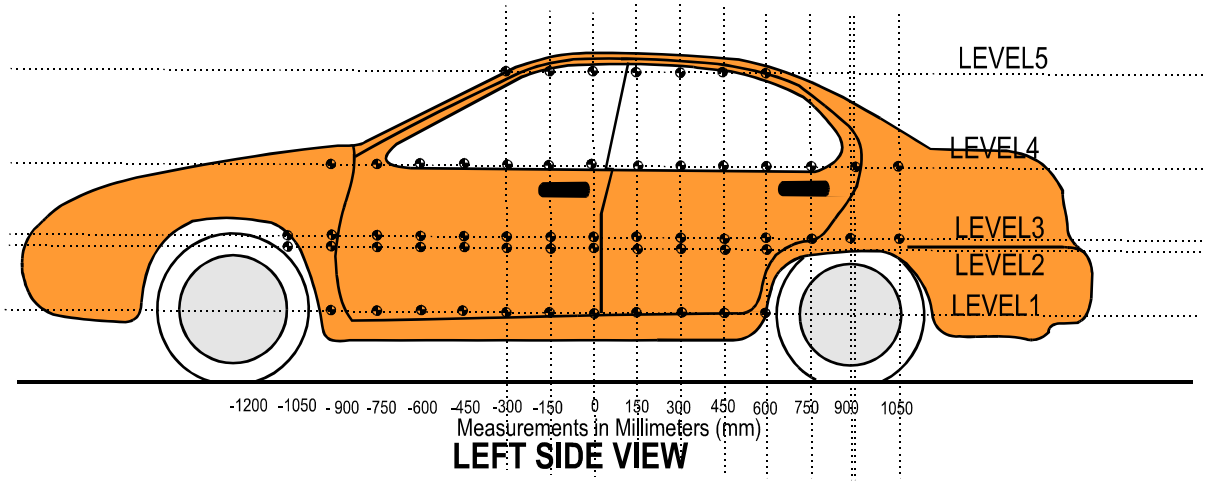
All distance measurements are in millimeters.

[1] Taken from INSIA report, “Structural Survey of Cars, Methodology of the Main Resistant Elements in the Car Body”, March 1999. This report is included in Appendix E.

[2] The vertical measurements from the ground are adjusted based on the test vehicle’s pre-test attitude measurements.

Figure 4 Vehicle Side Measurements

Vehicle: 2007 Nissan Quest MPV



Measurements are taken when the vehicle is in the "As Tested" configuration.

Measurements along the vertical 750 mm line shown above.

Measurements vehicle forward of the impact line are negative.

All measurements below in mm.

Level	Measurement Description	Height Above Ground
5	Window	1660
4	Window Sill	998
3	Mid Door	685
2	Occupant H-Point	725
1	Sill Top	270

Table 6 Vehicle Exterior Crush Profiles - All Levels

Vehicle: 2007 Nissan Quest MPV

Location	Height		(mm) From Impact Point													
			-1261	-1111	-961	-811	-661	-511	-361	-211	-61	89	239	389	539	689
Level 1 Side Sill	270	Pre						920	909	910	910	911	912	912	913	913
		Post						880	787	698	592	564	651	766	822	852
		Crush						40	122	212	318	347	261	146	91	61
Level 2 H-Point	725	Pre	933	970		980	976	963	967	971	975	979	982	985	988	990
		Post	1014	1026		988	958	919	814	705	587	546	647	778	880	945
		Crush	-81	-56		-8	18	44	153	266	388	433	335	207	108	45
Level 3 Mid-Door	685	Pre	52				980	964	967	971	975	978	981	984	987	989
		Post	1124				959	916	812	703	587	547	651	781	885	943
		Crush	-172				21	48	155	268	388	431	330	203	102	46
Level 4 Window Sill	998	Pre	803	825	842	860	873	886	904	922	928	940	946	953	961	965
		Post	911	910	904	892	874	870	787	690	577	540	641	755	859	926
		Crush	-108	-85	-62	-32	-1	16	117	232	351	400	305	198	102	39
Level 5 Window Top	1660	Pre				847	830	799	774	746	716	698	685	679	681	679
		Post				878	827	755	683	608	530	474	526	577	630	667
		Crush				-31	3	44	91	138	186	224	159	102	51	12

All measurements were recorded using TRC Inc.'s FARO Arm with a tolerance of ± 0.1 mm.

Note: Negative measurements are vehicle forward of the impact point.
The crush profile grid is established prior to test day based on an estimated impact point. The final distance to impact is determined after final dummy positioning. The pole is aligned with the center of gravity of the head.

Table 6 Vehicle Exterior Crush Profiles - All Levels, Continued

Vehicle: 2007 Nissan Quest MPV

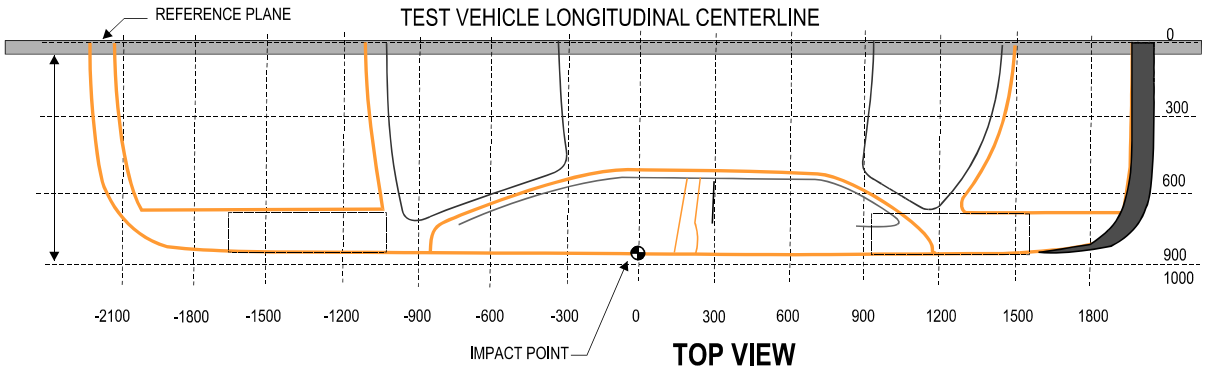
Location	Height		(mm) From Impact Point											
			839	989	1139	1289	1439	1589	1739	1889	2039	2189	2339	2489	2639
Level 1 Side Sill	270	Pre	913	914	914										
		Post	872	887	897										
		Crush	41	27	17										
Level 2 H-Point	725	Pre	990	990	989										
		Post	951	957	963										
		Crush	39	33	26										
Level 3 Mid-Door	685	Pre	989	988	987										
		Post	949	955	961										
		Crush	40	33	26										
Level 4 Window Sill	998	Pre	959	969	696										
		Post	925	940	946										
		Crush	34	29	23										
Level 5 Window Top	1660	Pre	678	675	672										
		Post	669	671	672										
		Crush	9	4	0										

All measurements were recorded using TRC Inc.'s FARO Arm with a tolerance of ± 0.1 mm.

Figure 5 Vehicle Damage Profile Distances

Test Vehicle: 2007 Nissan Quest Test Date: 05/17/07

NOTE: All measurements were recorded using TRC Inc.'s FARO Arm with a tolerance of plus or minus 0.1 mm.



MEASUREMENT CONVENTIONS:
Forward of the impact point (towards front of vehicle) is considered negative (-)
Rearward of the impact point (towards rear end of vehicle) is considered positive (+)

DAMAGE PROFILE DISTANCES

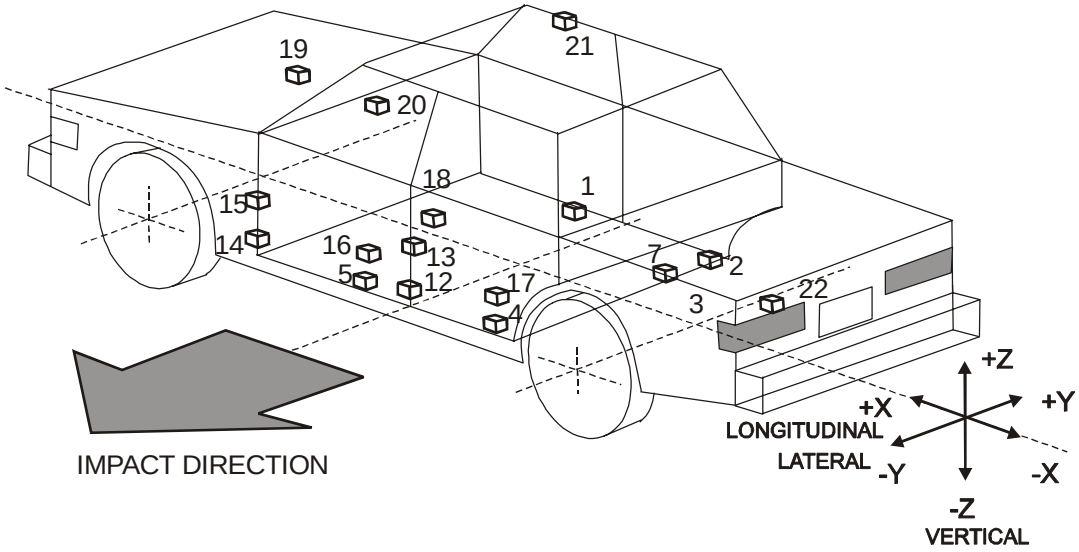
DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max. Static Crush (mm)
1	1139 mm	3	987	961	26
2	839 mm	3	989	949	40
3	389 mm	2	985	778	207
4	89 mm	2	979	546	433
5	-211 mm	3	971	703	268
6	-511 mm	3	964	916	48

Reference plane is parallel to test vehicle longitudinal centerline.

Given dimensions = Reference plane to car body.

Figure 6 Test Vehicle Accelerometer Locations and Data Summary

Vehicle: 2007 Nissan Quest MPV



1-Right Front Side Sill
2-Right Side Sill at Rear Seat
3-Rear Floorpan above Axle
4-Left Side Sill at Rear Seat
5-Left Front Side Sill
6-Left Front Door on Centerline
7-Right Rear Occupant Compartment
8-Left Front Door Mid Rear
9-Left Front Door Upper Centerline
10-Left Rear Door Mid Rear
11-Left Rear Door Upper Centerline
12-Left Side Lower B-pillar
13-Left Side Middle B-pillar
14-Left Side Lower A-pillar
15-Left Side Middle A-pillar
16-Left Side Front Seat Track at H-point
17-Left Rear Seat Track at H-point
18-Vehicle Center of Gravity
19-Top of Engine
20-Firewall
21-Right Side Roof Rail
22-Rear Deck Behind Rear Axle

Table 7 Test Vehicle Accelerometer Locations and Data Summary

Vehicle: 2007 Nissan Quest MPV

Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
	X	Y	Z	Max. (g)	Time (ms)	Max. (g)	Time (ms)
1 Right Side Sill at Front Seat	4055	740	336				
Longitudinal				6.7	28.5	1.5	33.0
Lateral				16.2	13.6	1.4	286.7
Vertical				9.3	28.6	6.7	32.8
Resultant				17.4	13.8		
2 Right Side Sill at Rear Seat	2555	750	353				
Longitudinal				4.4	26.5	0.6	218.1
Lateral				11.8	53.4	0.7	259.4
Vertical				5.7	28.7	3.0	45.4
Resultant				12.1	53.5		
3 Rear Floorpan Above Axle	1520	20	479				
Longitudinal				3.7	74.6	1.3	42.4
Lateral				8.9	55.4	1.1	201.3
Vertical				5.3	71.7	4.7	40.6
4 Left Side Sill at Rear Seat	2610	740	350				
Longitudinal							
Lateral				14.6	49.4	0.8	260.0
Vertical							
Resultant							
5 Left Side Sill at Front Seat	4060	780	333				
Longitudinal							
Lateral[1]				----	----	----	----
Vertical							
Resultant							

[1] See Data Acquisition Explanations.

Table 7 Test Vehicle Accelerometer Locations and Data Summary, Continued

Vehicle: 2007 Nissan Quest MPV

Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
	X	Y	Z	Max. (g)	Time (ms)	Max. (g)	Time (ms)
6 Left Front Door on Centerline	3880	825	744				
Longitudinal							
Lateral[1]				142.9	9.2	87.3	20.2
Vertical							
Resultant							
7 Right Rear Occupant Compartment	2440	695	415				
Longitudinal							
Lateral				11.3	54.2	0.8	227.4
Vertical							
Resultant							
8 Left Front Door Mid-Rear	3425	825	744				
Longitudinal							
Lateral				60.5	15.4	28.1	19.8
Vertical							
Resultant							
9 Left Front Door Upper Centerline	3805	820	1019				
Longitudinal							
Lateral[1]				117.8	12.1	17.3	48.4
Vertical							
Resultant							

[1] See Data Acquisition Explanations.

Table 7 Test Vehicle Accelerometer Locations and Data Summary, Continued

Vehicle: 2007 Nissan Quest MPV

Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
				Max.	Time	Max.	Time
	X	Y	Z	(g)	(ms)	(g)	(ms)
10 Left Rear Door Mid Rear	2360	855	757				
Longitudinal							
Lateral				42.3	39.9	13.4	52.7
Vertical							
Resultant							
11 Left Rear Door Upper Centerline	2700	855	1134				
Longitudinal							
Lateral				21.6	45.8	8.7	31.8
Vertical							
Resultant							
12 Left Lower B-Pillar	3345	810	448				
Longitudinal							
Lateral				39.7	13.2	12.3	28.2
Vertical							
Resultant							
13 Left Middle B-Pillar	3270	820	835				
Longitudinal							
Lateral				28.3	14.6	1.9	29.3
Vertical							
Resultant							
14 Left Lower A-Pillar	4315	922	639				
Longitudinal							
Lateral				25.7	35.0	33.6	63.3
Vertical							
Resultant							

Table 7 Test Vehicle Accelerometer Locations and Data Summary, Continued

Vehicle: 2007 Nissan Quest MPV

Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
	X	Y	Z	Max. (g)	Time (ms)	Max. (g)	Time (ms)
15 Left Middle A-Pillar	4335	910	948				
Longitudinal							
Lateral				27.4	34.9	37.5	62.2
Vertical							
Resultant							
16 Left Front Seat Track	3620	630	489				
Longitudinal							
Lateral[1]				57.0	38.6	63.6	31.8
Vertical							
Resultant							
17 Left Rear Seat Track	2400	630	529				
Longitudinal							
Lateral				10.9	46.6	2.3	207.9
Vertical							
Resultant							
18 Vehicle CG	3353	0	370				
Longitudinal[1]				17.2	63.4	7.4	78.1
Lateral[1]				28.1	64.4	29.4	100.7
Vertical				23.1	135.4	22.9	53.0
Resultant				33.9	100.7		
19 Top of Engine	5630	50	905				
Longitudinal				7.0	232.4	21.3	90.6
Lateral				28.2	49.0	6.9	299.2
Vertical							
Resultant							

[1] See Data Acquisition Explanations.

Table 7 Test Vehicle Accelerometer Locations and Data Summary, Continued

Vehicle: 2007 Nissan Quest MPV

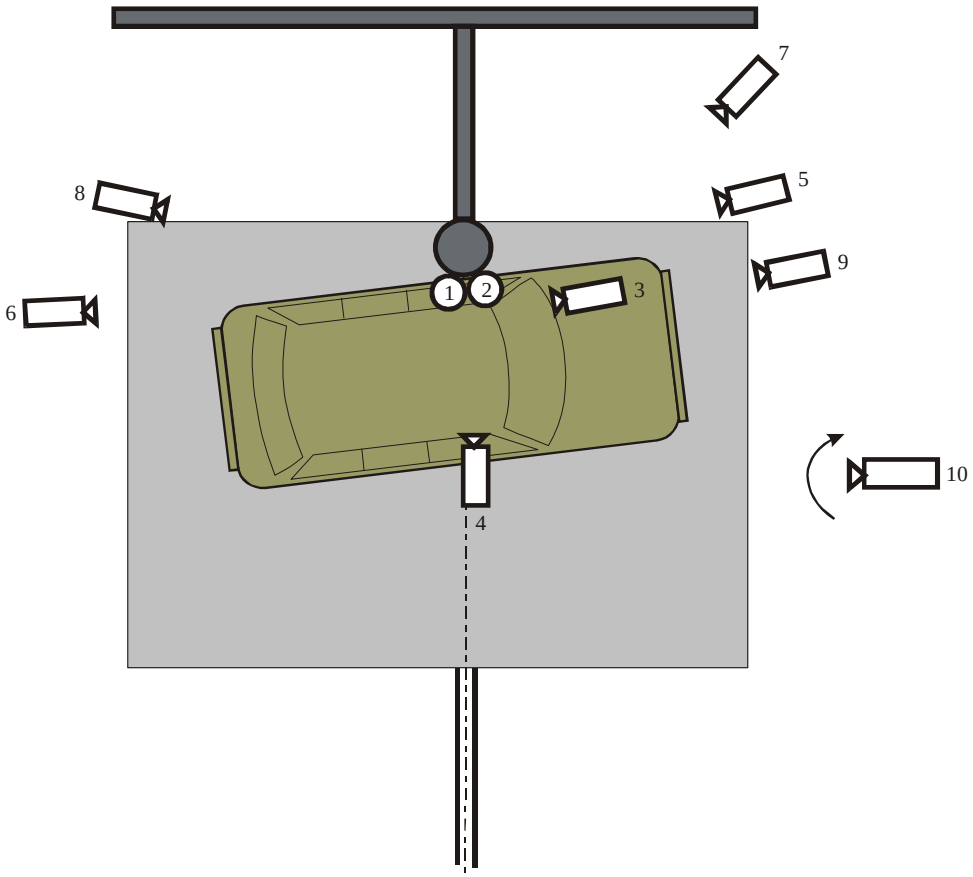
Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
	X	Y	Z	Max. (g)	Time (ms)	Max. (g)	Time (ms)
20 Firewall	5490	20	994				
Longitudinal				13.7	49.1	4.3	42.3
Lateral				17.9	36.7	3.7	42.9
Vertical							
Resultant							
21 Right Side Roof Rail	3785	640	1108				
Longitudinal				8.1	32.7	10.9	62.7
Lateral				16.1	48.8	1.1	283.4
Vertical							
Resultant							
22 Rear Deck Behind Rear Axle	775	0	458				
Longitudinal				6.2	48.5	5.3	44.6
Lateral				8.1	93.5	2.1	200.2
Vertical				4.2	47.8	2.6	124.1

Reference: X: + Forward from rear bumper
Y: + Rightward from vehicle centerline
Z: + Downward from ground level

For acceleration data sign convention see Report Sign Convention in Appendix D.

Figure 7 High-Speed Camera Locations and Data Summary

Vehicle: 2007 Nissan Quest MPV



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Speed (fps)
		X	Y	Z			
1	Overhead Wide	350	0	-5350	90.0	12.5	1000
2	Overhead Tight	0	0	-5350	90.0	25	1000
3	Onboard Front - Driver	500	10500	-1430	0.8	12.5	1000
4	Onboard Side Front	1800	0	-1300	4.2	6.5	1000
5	Front Vehicle to Pole	0	5555	-1320	0.8	12.5	1000
6	Rear Vehicle to Pole	0	7400	-1310	0.3	12.5	1000
7	Left Front Angled	1100	5255	-1300	0.4	25	1000
8	Left Rear Angled	3320	5450	-1330	1.1	25	1000
9	Vehicle Front on Driver	290	5140	-2260	4.7	50	1000
10	Panning					Zoom	30

+X: Forward (referenced to Pole) from impact point
+Y: Rightward (referenced to Pole) from impact point
+Z: Downward from ground level
Vehicle was at a 15° angle to the rigid pole.

Appendix A

Photographs

Figure A-1 Pre-Test Front View

Figure A-2 Post-Test Front View

Figure A-3 Pre-Test Left Front View

Figure A-4 Post-Test Left Front View

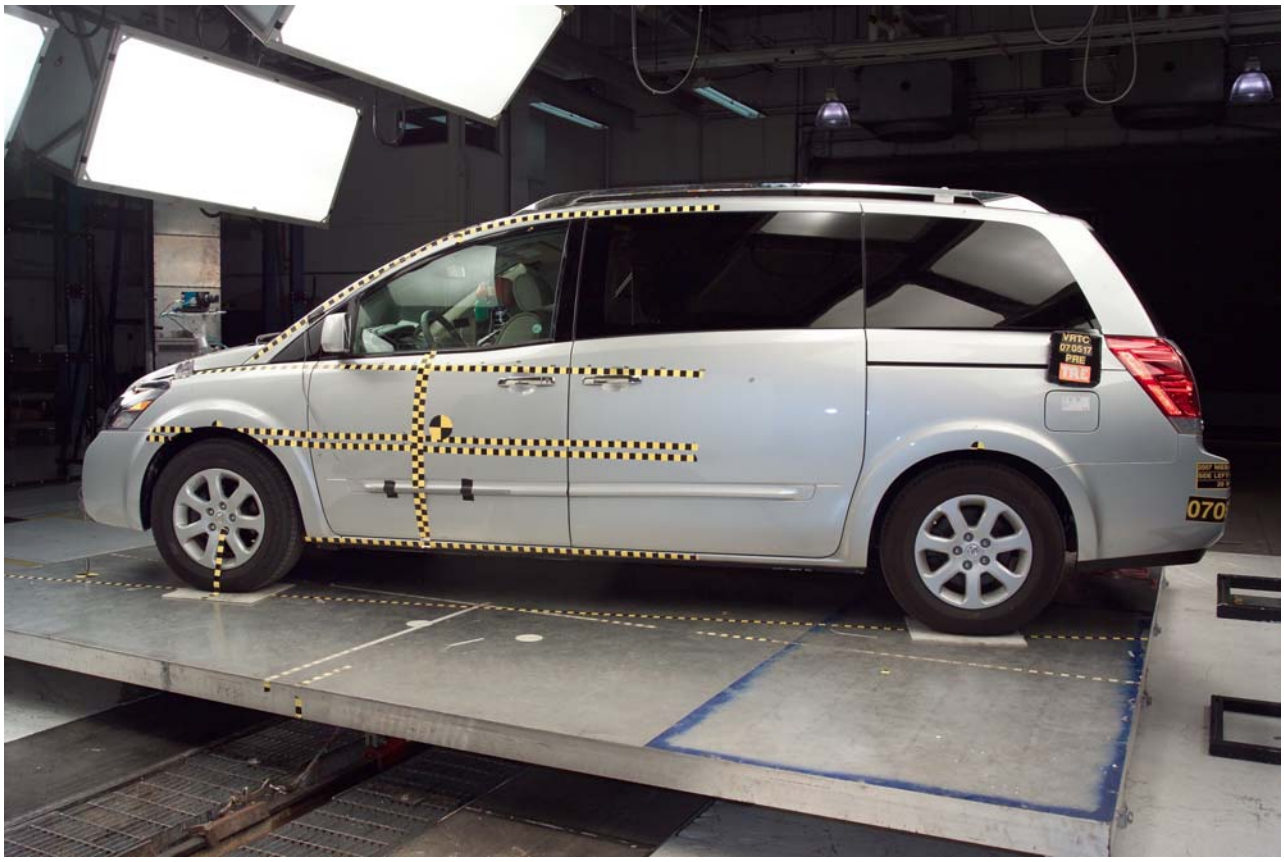


Figure A-5 Pre-Test Left Side View

Figure A-6 Post-Test Left Side View

Figure A-7 Pre-Test Left Rear View

Figure A-8 Post-Test Left Rear View

Figure A-9 Pre-Test Rear View

Figure A-10 Post-Test Rear View

Figure A-11 Pre-Test Right Rear View

Figure A-12 Post-Test Right Rear View

Figure A-13 Pre-Test Right Side View

Figure A-14 Post-Test Right Side View

Figure A-15 Pre-Test Right Front View

Figure A-16 Post-Test Right Front View

Figure A-17 Pre-Test Overhead View

Figure A-18 Post-Test Overhead View

Figure A-19 Pre-Test Impact Point Alignment View

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Figure A-20 Pre-Test Impact Point View

Figure A-21 Post-Test Impact Point View

Figure A-22 Pre-Test Fuel Filler Cap View

Figure A-23 Post-Test Fuel Filler Cap View

Figure A-24 Pre-Test Pole Barrier Front View

Figure A-25 Post-Test Pole Barrier Front View

Figure A-26 Pre-Test Pole Barrier Side View

Figure A-27 Post-Test Pole Barrier Side View

Figure A-28 Pre-Test Driver Dummy Side View

Figure A-29 Post-Test Driver Dummy Side View

Figure A-30 Pre-Test Right Side Dummy Occupant Compartment View

Figure A-31 Post-Test Right Side Dummy Occupant Compartment View

Figure A-32 Pre-Test Driver Dummy and Door Clearance View

Figure A-33 Post-Test Driver Dummy and Door Clearance View

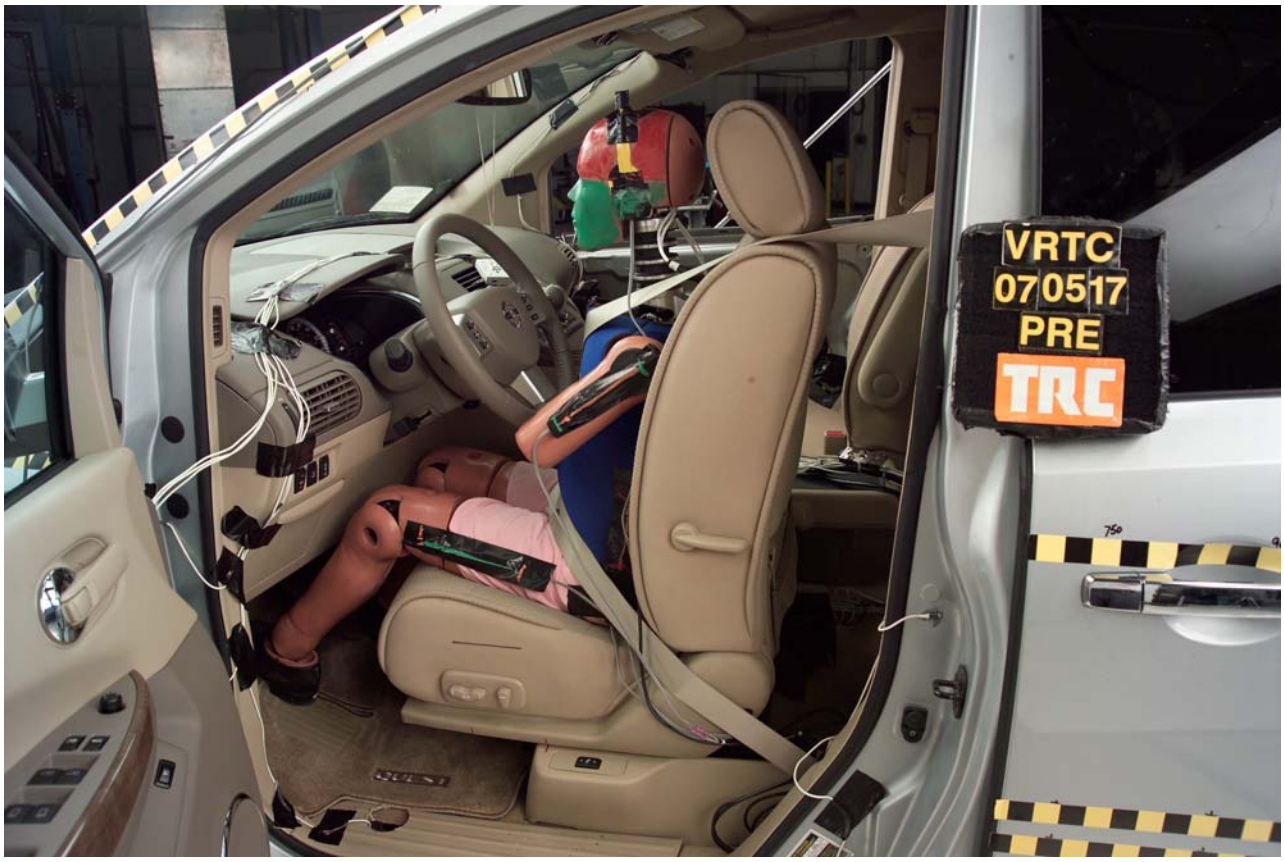


Figure A-34 Pre-Test Driver Dummy Showing Belts, Chalking, and Contact Switches

Intentionally Left Blank

Figure A-35 Pre-Test Driver Door Panel View

Figure A-36 Post-Test Driver Door Panel View

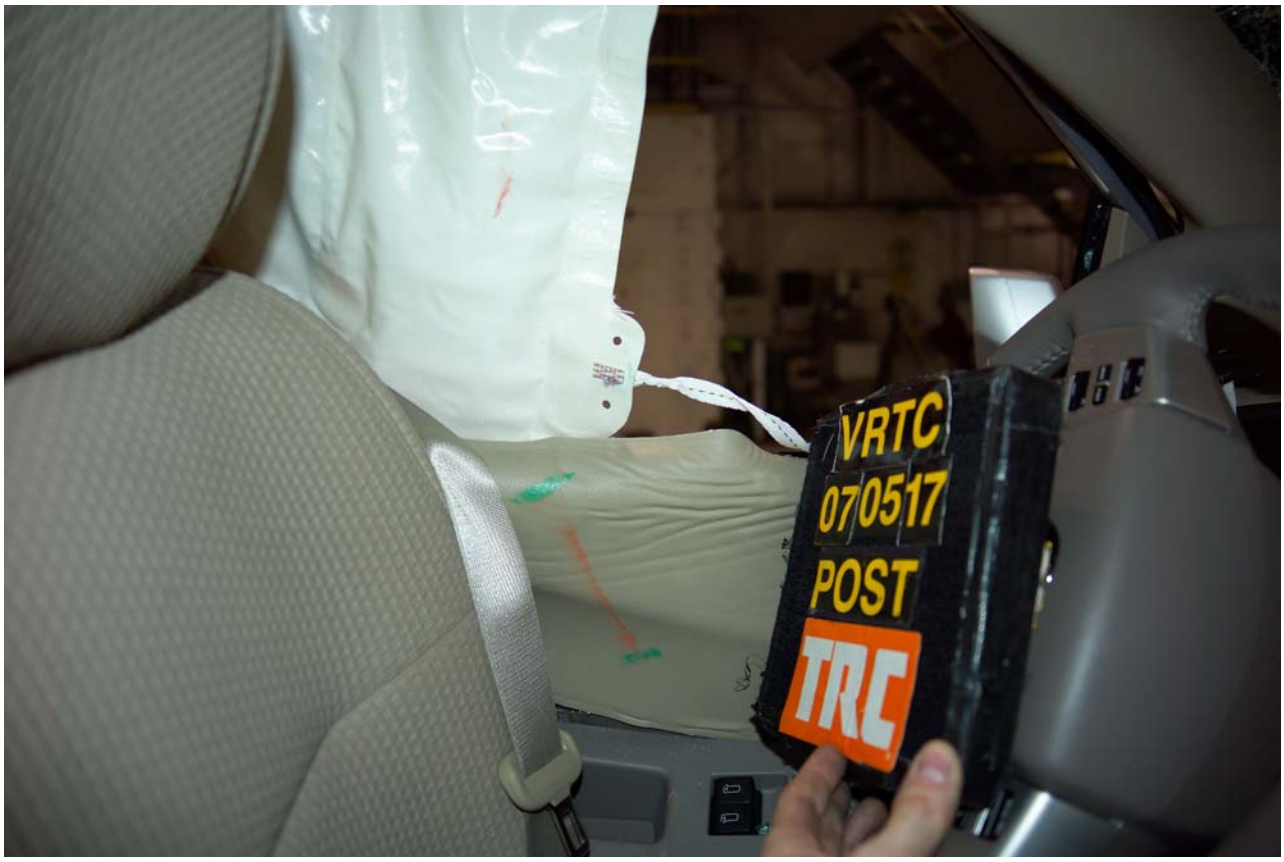


Figure A-37 Post-Test Driver Dummy Contact View

Intentionally Left Blank

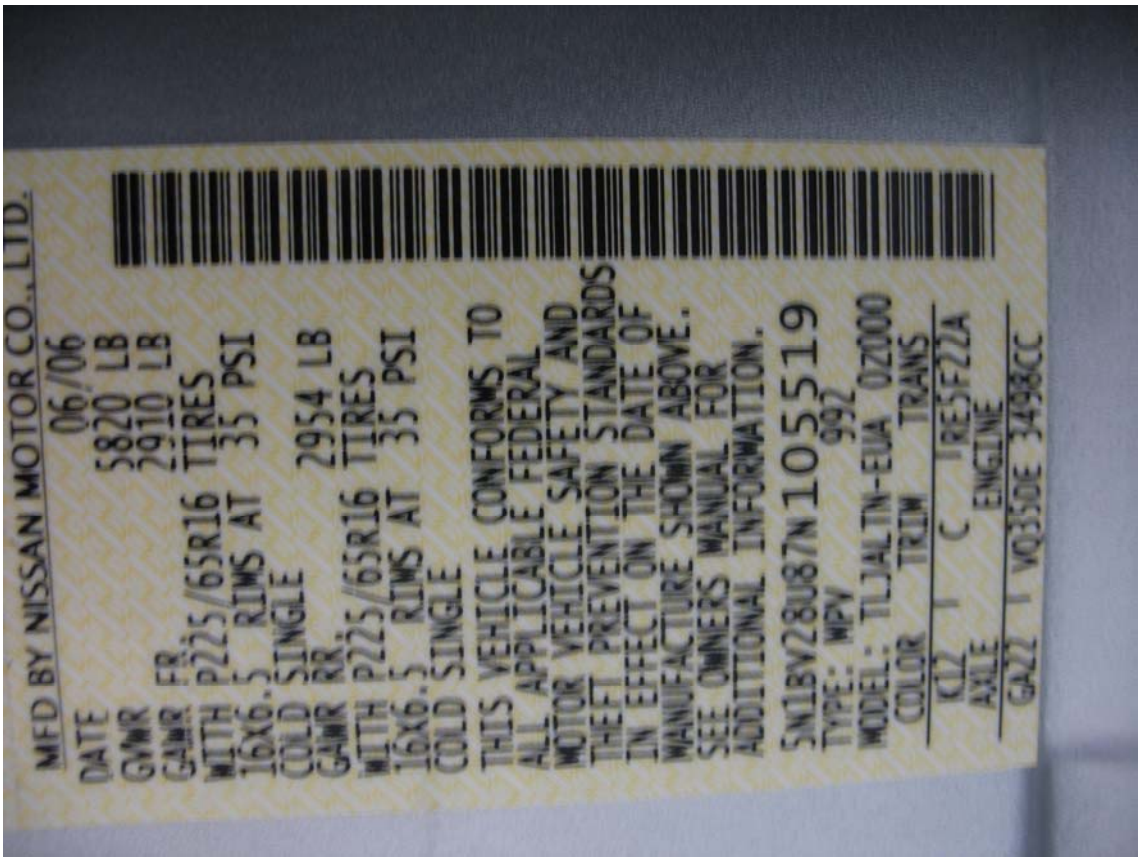


Figure A-38 Certification and Recommended Tire Pressure Label View

Figure A-39 Pre-Test Ballast View

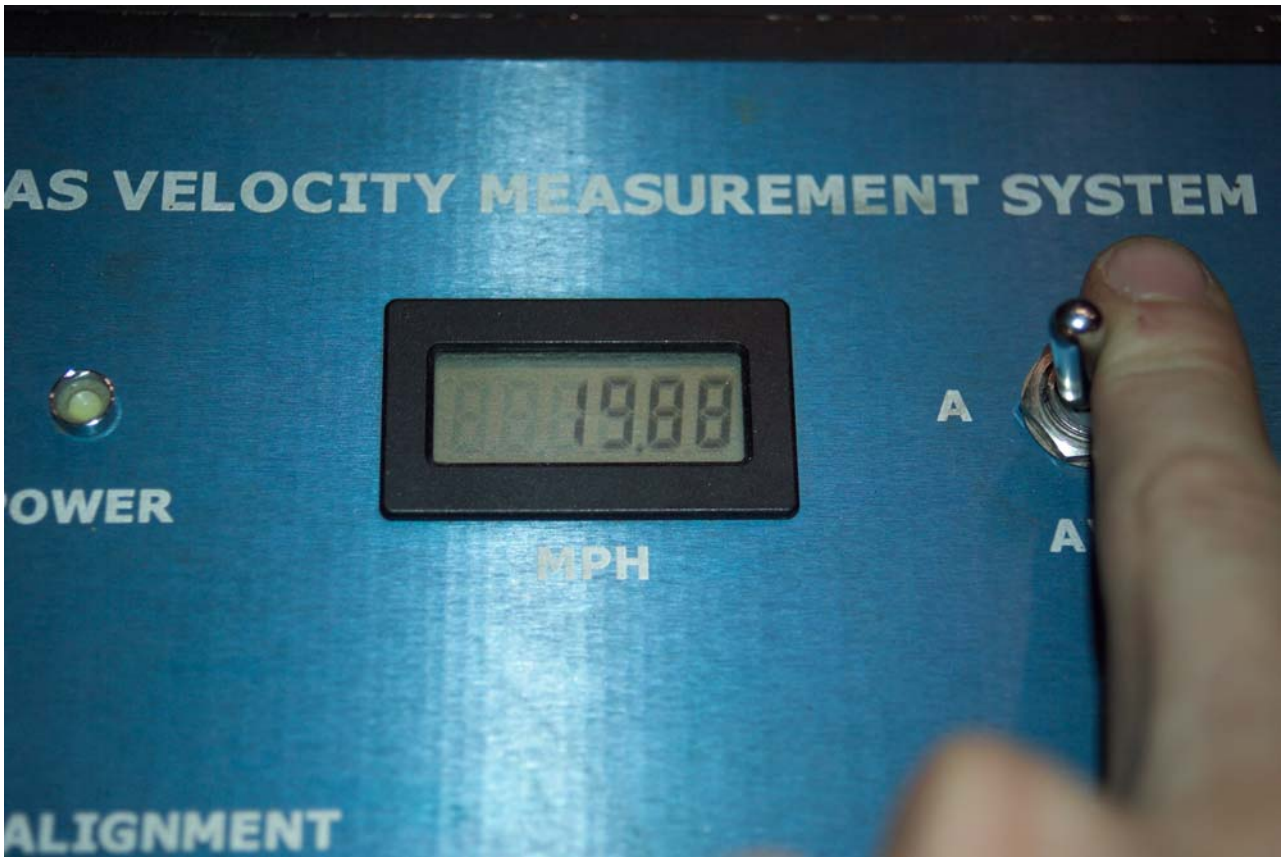


Figure A-40 Post-Test Digital Light Trap Read-Out - View 1

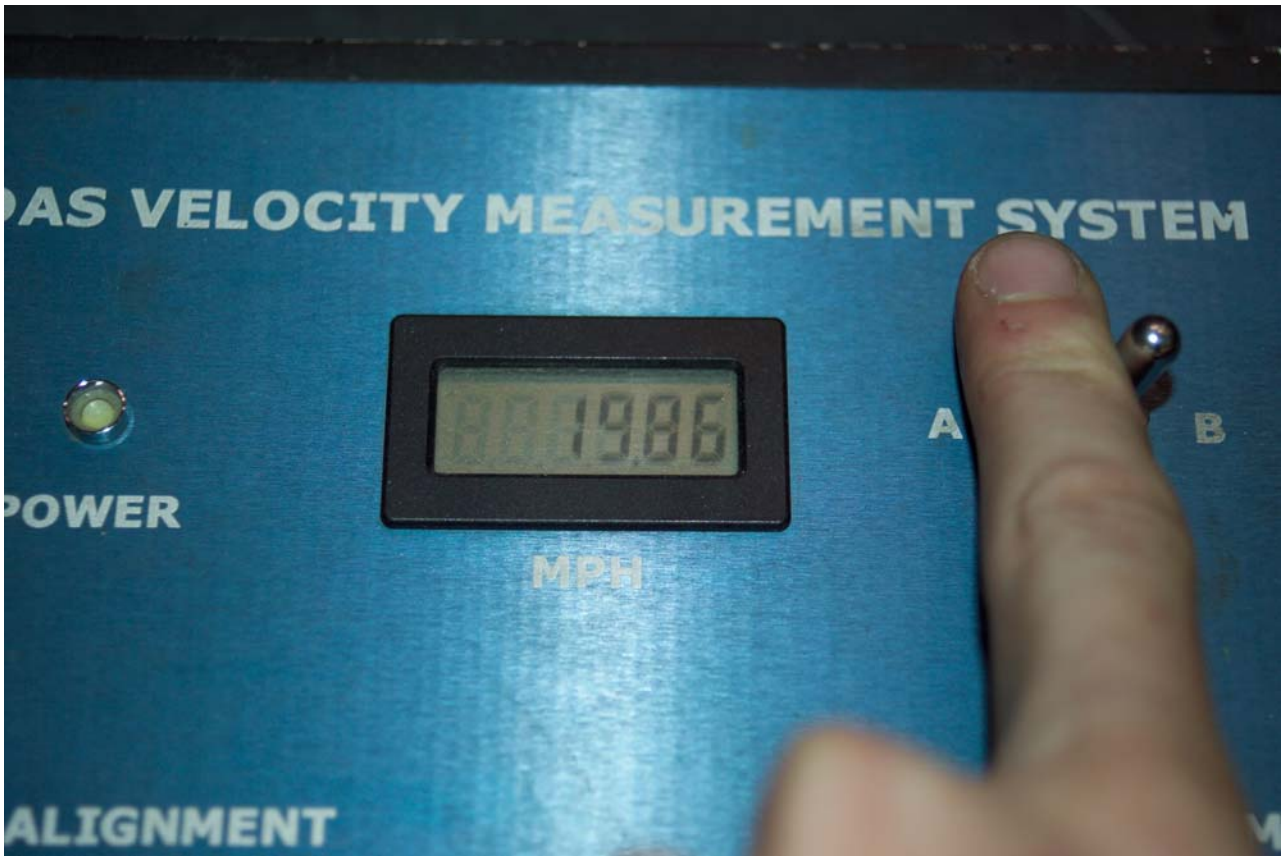


Figure A-41 Post-Test Digital Light Trap Read-Out - View 2

Appendix B

Data Plots

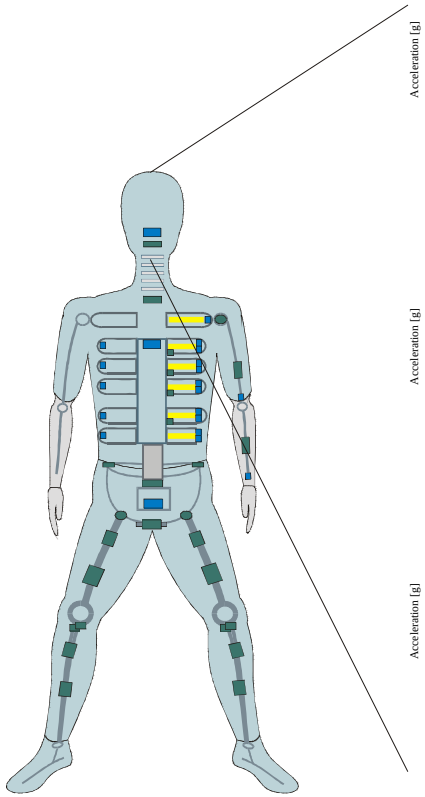
2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

Head Injury Criterion (HIC)

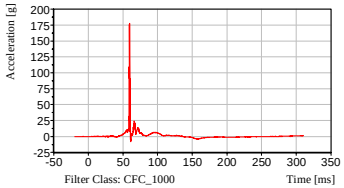
Date: 05/17/2007
Time: 15:05

Customer: VRTC

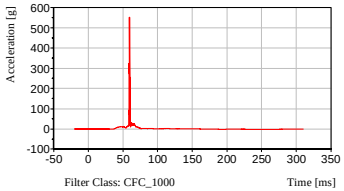
TRC Inc. Test Lab: CTF
Test Number: 070517



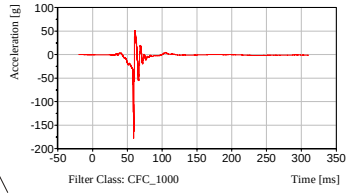
11HEADCG00S2ACXA



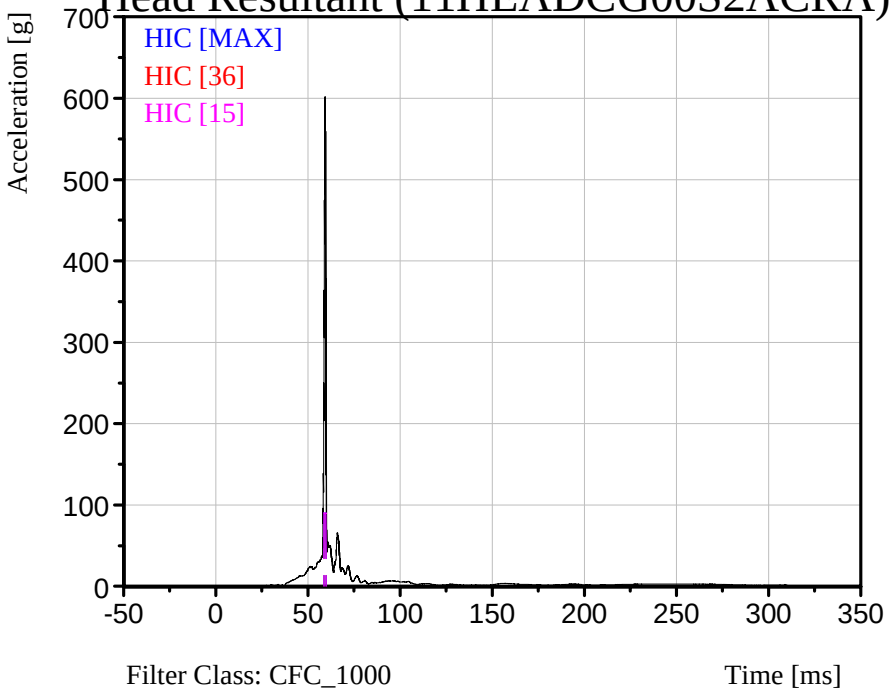
11HEADCG00S2ACYA



11HEADCG00S2ACZA



Head Resultant (11HEADCG00S2ACRA)



	T1 (Begin)	T2 (End)	Avg. g T1 to T2
HIC [Max.] = 5,693.97	58.80 ms	59.84 ms	481.26 g
HIC [36] = 5,693.97	58.80 ms	59.84 ms	481.26 g
HIC [15] = 5,693.97	58.80 ms	59.84 ms	481.26 g

Dummy:SID IIs
Seating Position:
Driver

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16)

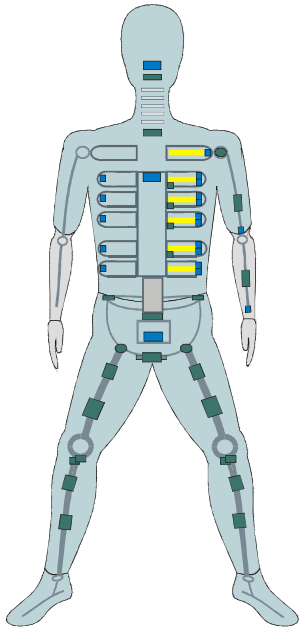
2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

Resultant (Spine)

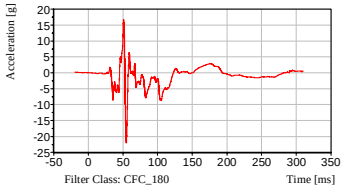
Date: 05/17/2007
Time: 15:05

Customer: VRTC

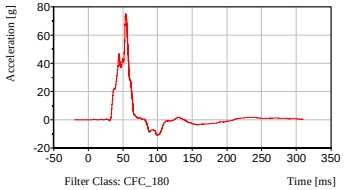
TRC Inc. Test Lab: CTF
Test Number: 070517



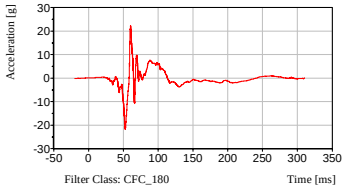
11SPIN1200S2ACXC



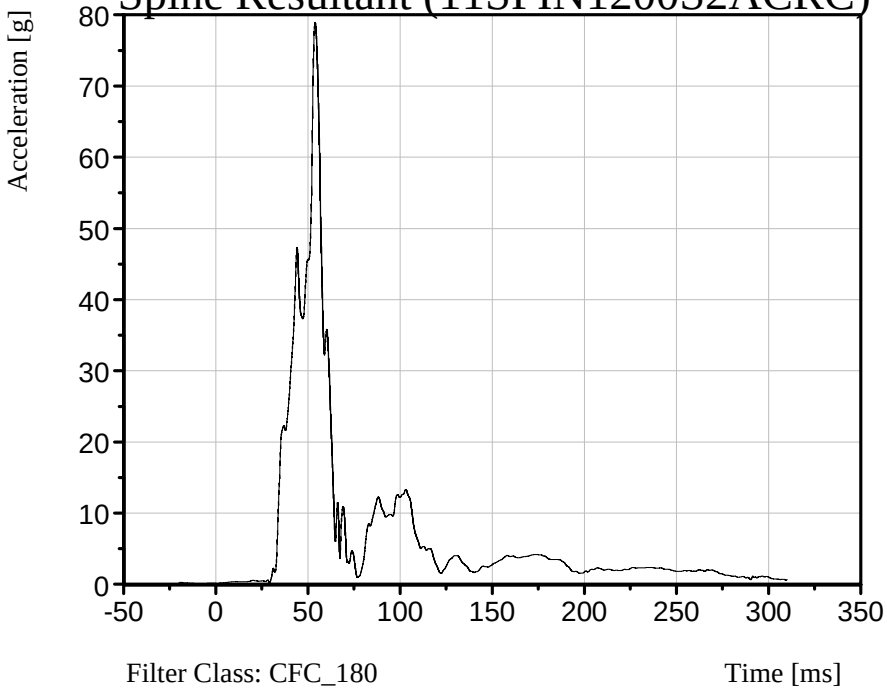
11SPIN1200S2ACYC



11SPIN1200S2ACZC



Spine Resultant (11SPIN1200S2ACRC)



Dummy:SID IIs
Seating Position:
Driver

[Max.] 78.92 g at 53.92 ms
[Min.] 0.06 g at -8.64 ms

Resultant Source Code : Sqrt(11SPIN1200S2ACXC^2 + 11SPIN1200S2ACYC^2 + 11SPIN1200S2ACZC^2)

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

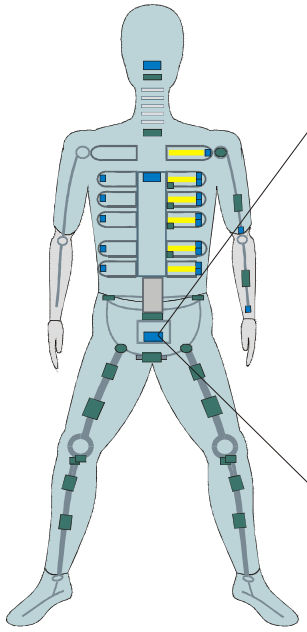
Pelvis(LE) Summation

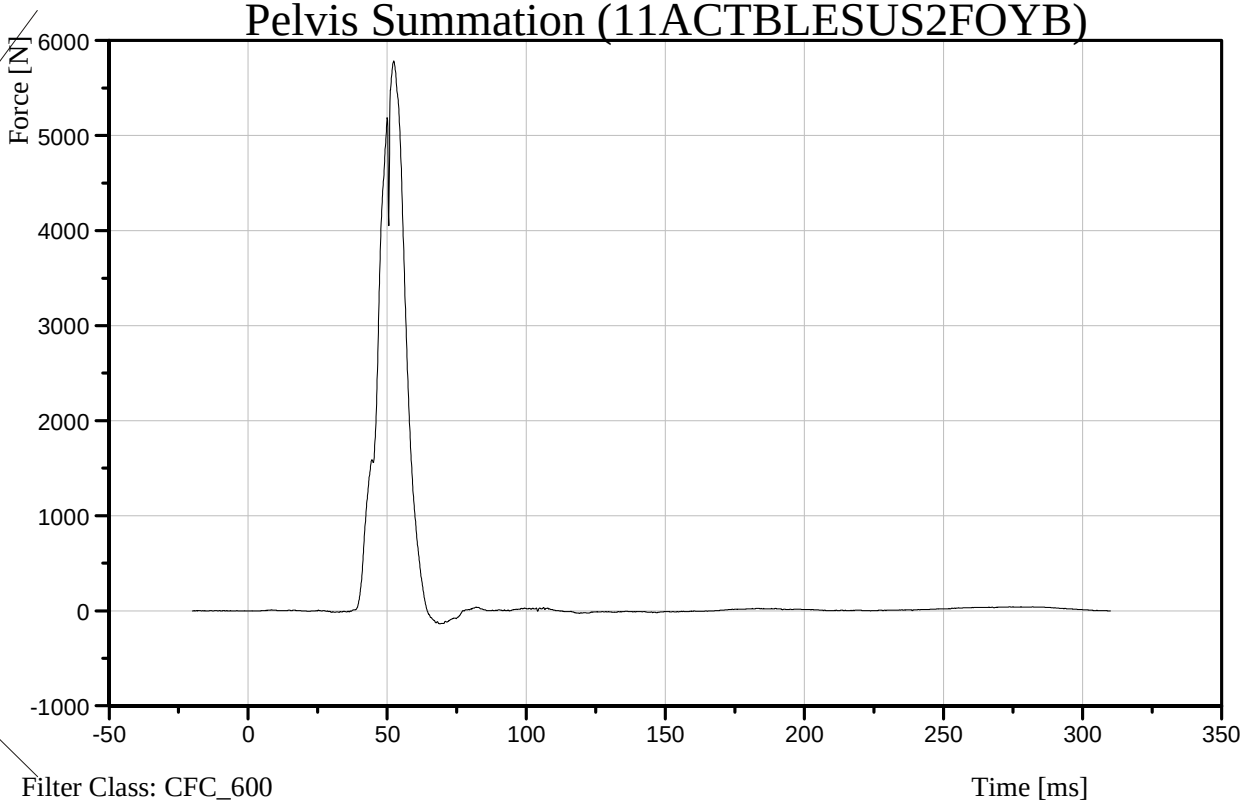
Date: 05/17/2007
Time: 15:05

Customer: VRTC

TRC Inc. Test Lab: CTF
Test Number: 070517

Test Orientation = Side





Filter Class: CFC_600

Dummy:SID IIs
Seating Position:
Driver

[Max.] 5,785.71 N at 52.32 ms
[Min.] -136.86 N at 69.12 ms

Pelvis Summation Source Code : Summation of Channels 11ILACLE00S2FOYB,11ACTBLE00S2FOYB

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

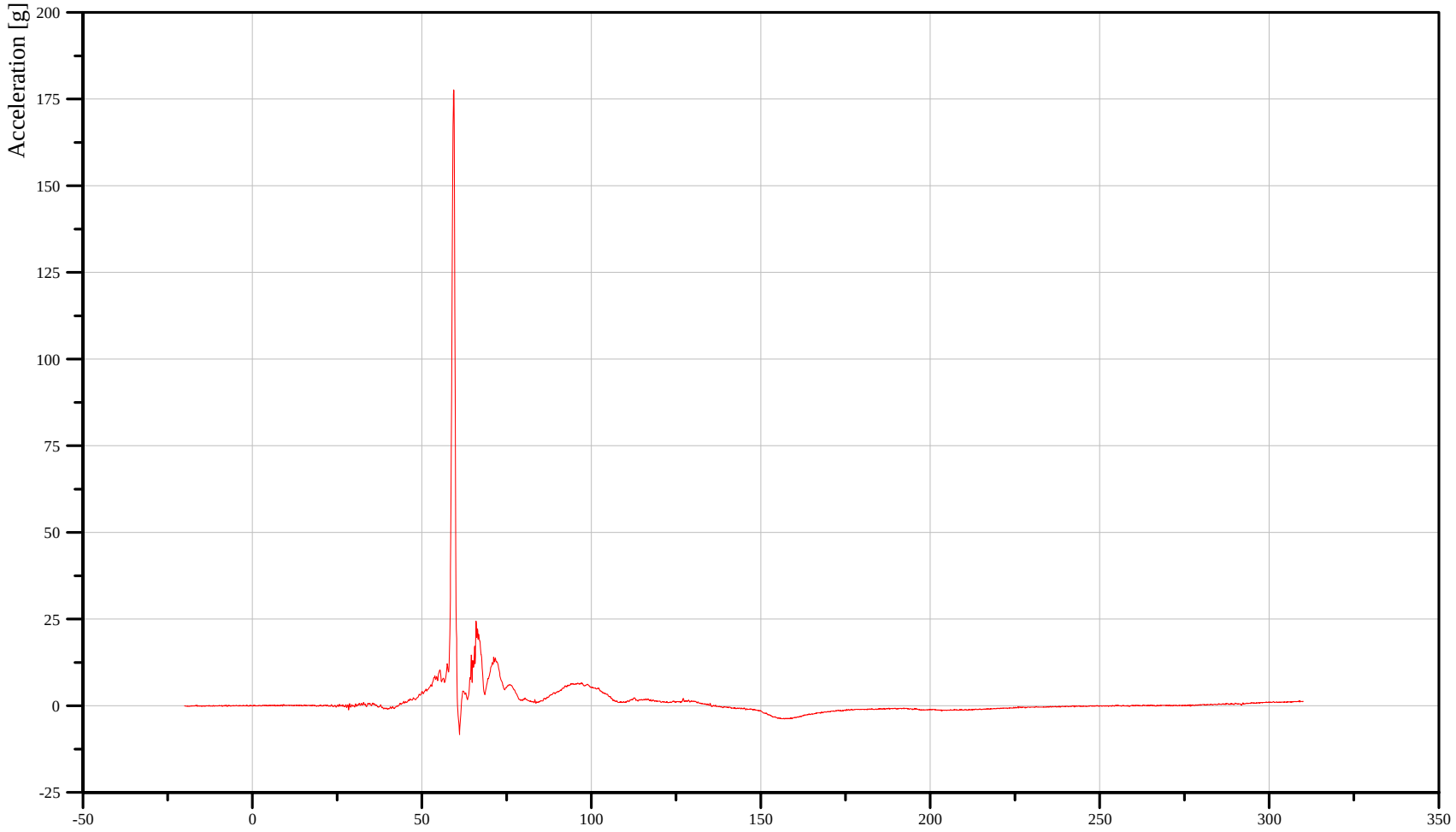
Head X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11HEADCG00S2ACXA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-8.28 g at 61.12 ms

Max. Value
177.72 g at 59.44 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

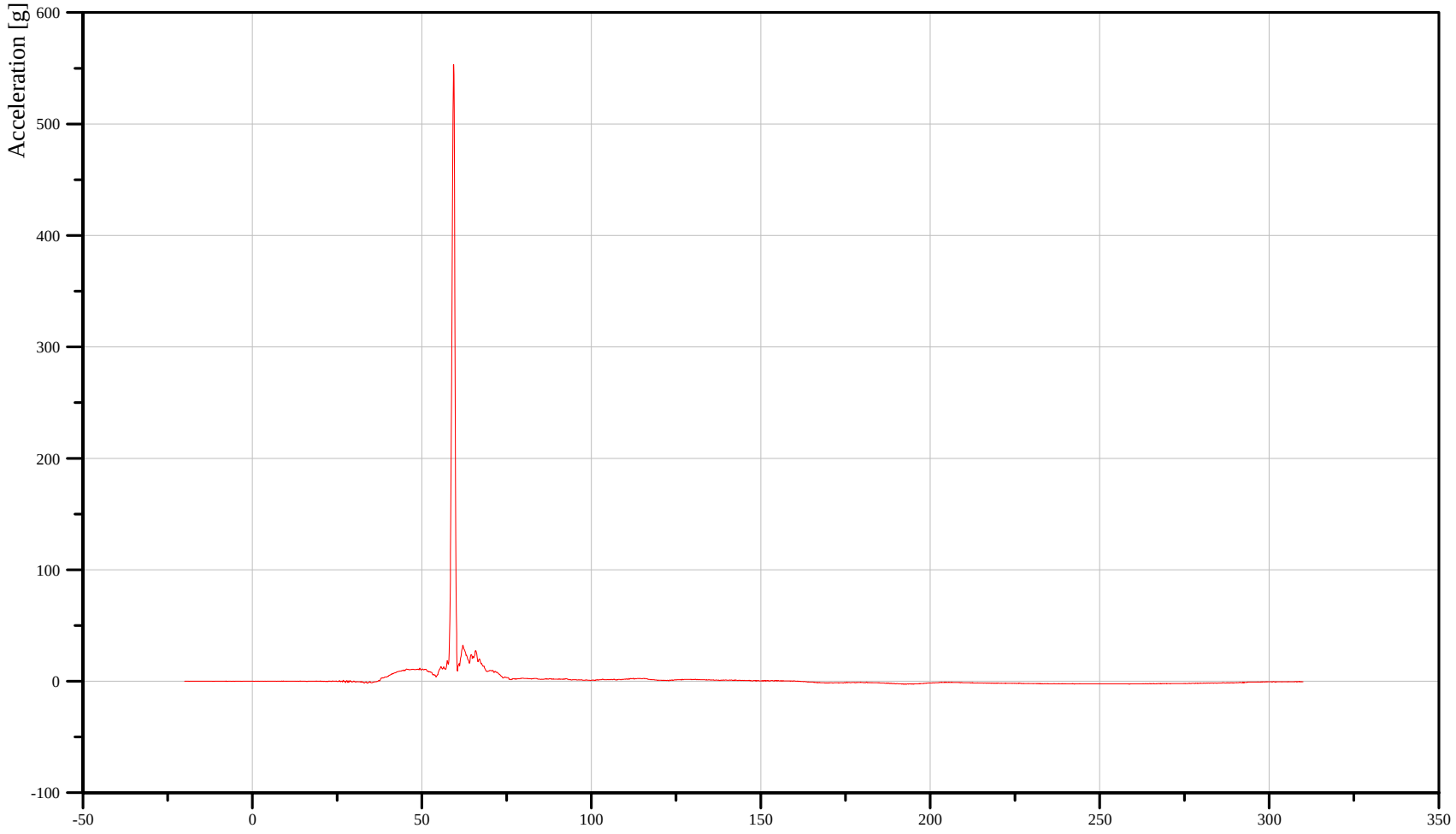
Head Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11HEADCG00S2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-2.70 g at 192.96 ms

Max. Value
553.40 g at 59.44 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

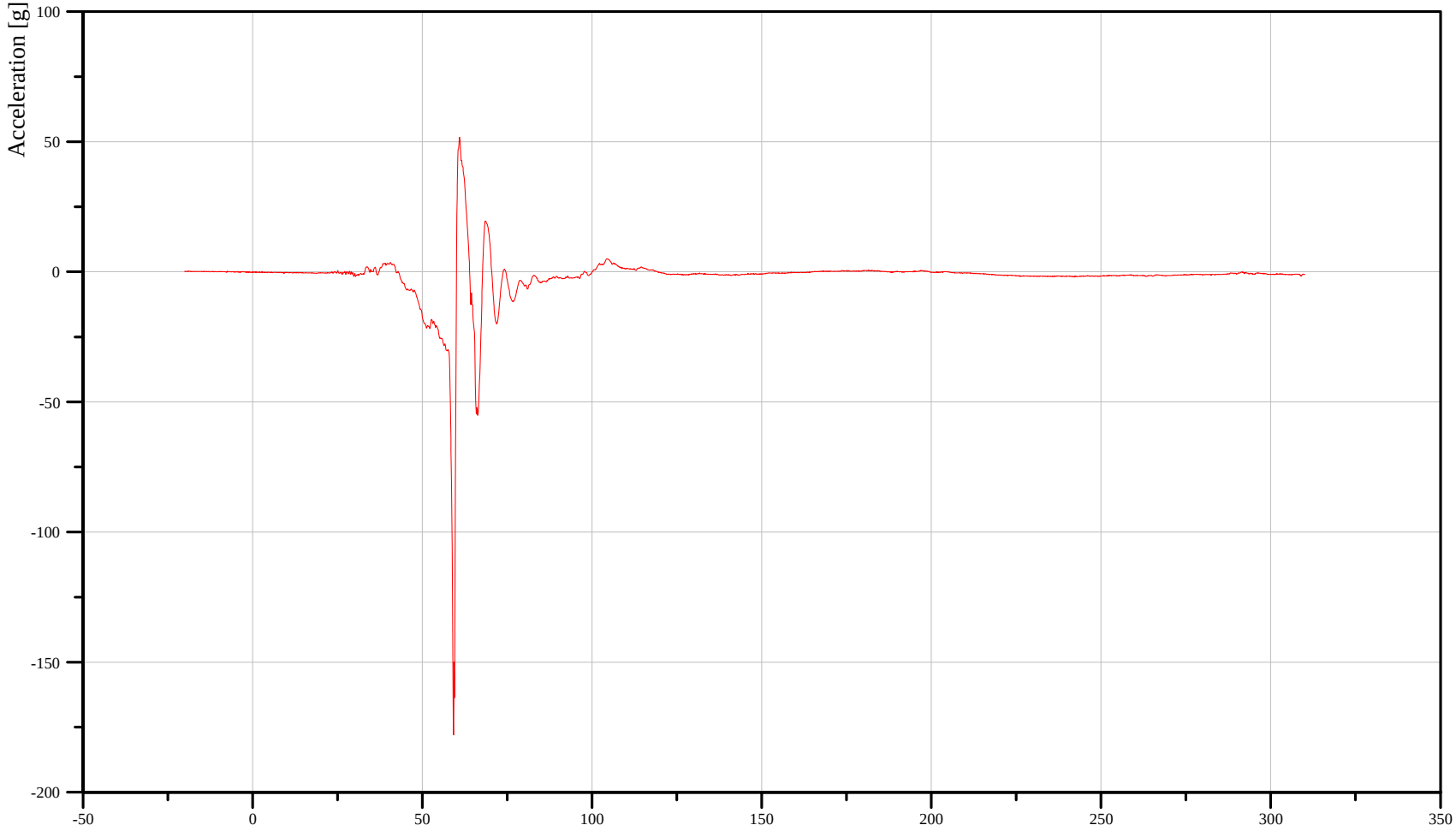
Head Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11HEADCG00S2ACZA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-177.96 g at 59.20 ms

Max. Value
51.73 g at 60.96 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

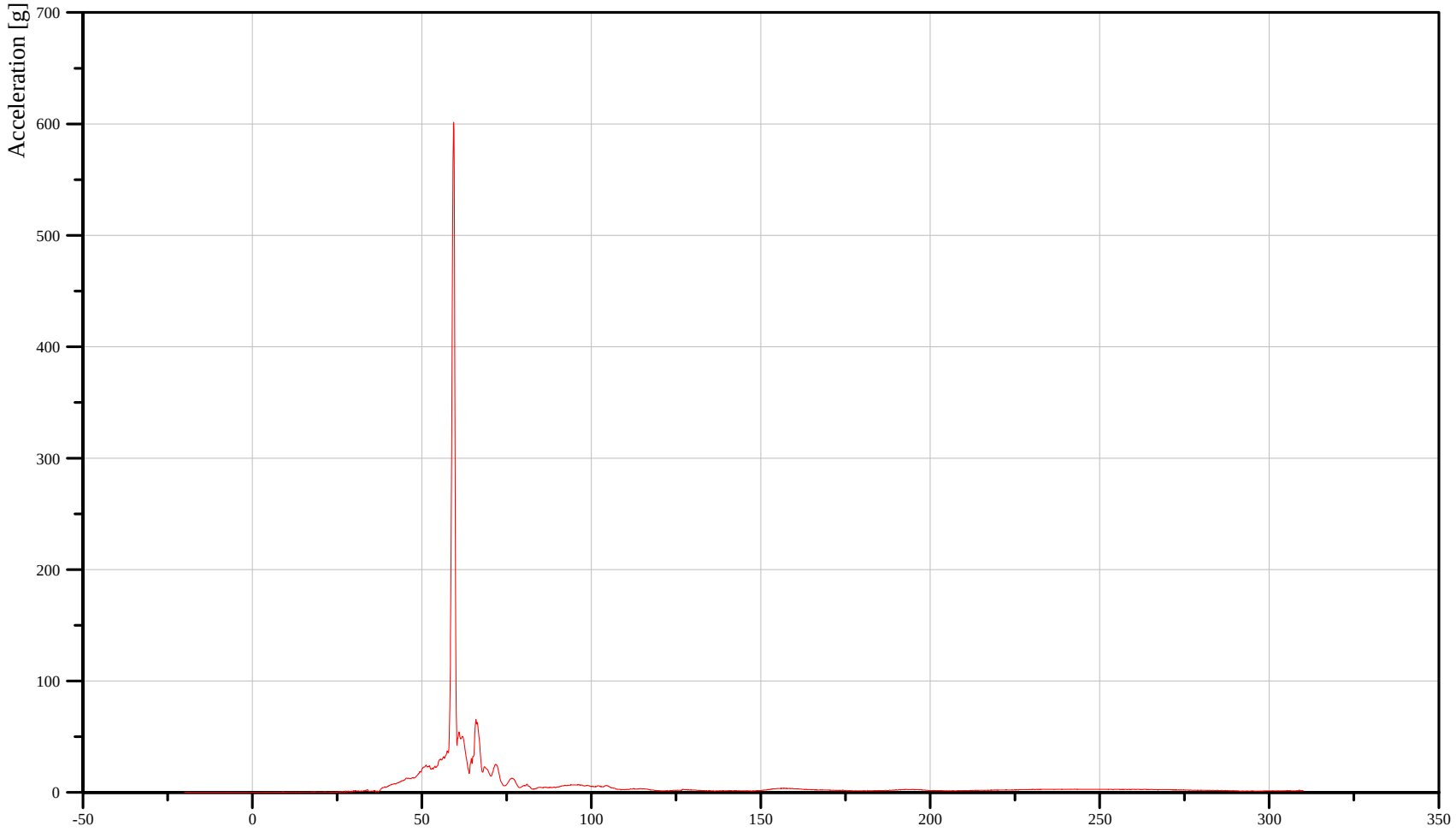
Head Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11HEADCG00S2ACRA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
0.03 g at -10.88 ms

Max. Value
601.62 g at 59.44 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

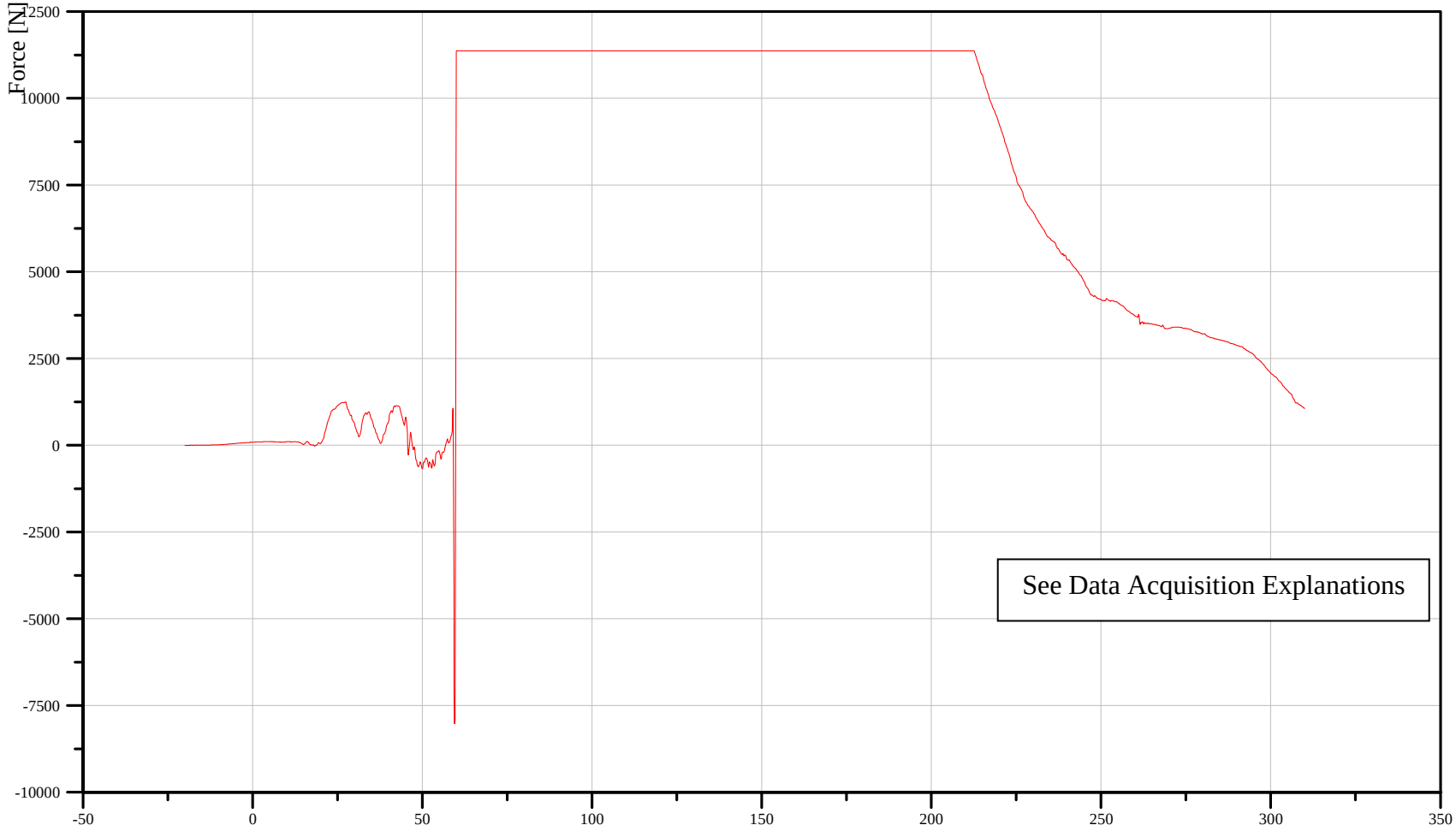
Upper Neck X-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11NECKUP00S2FOXA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-8,015.53 N at 59.44 ms

Max. Value
11,371.26 N at 60.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

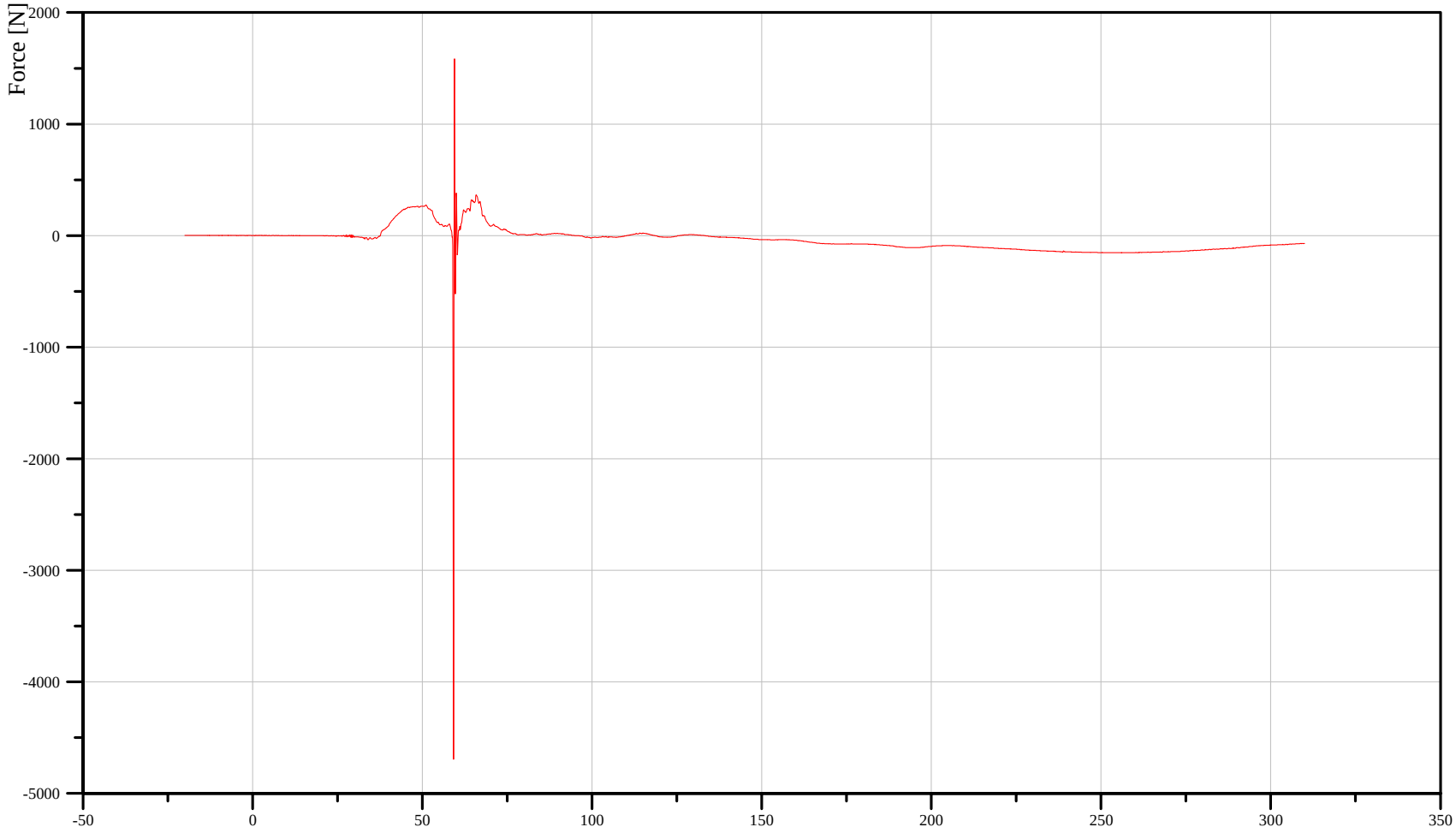
Upper Neck Y-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11NECKUP00S2FOYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-4,694.85 N at 59.20 ms

Max. Value
1,583.48 N at 59.52 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

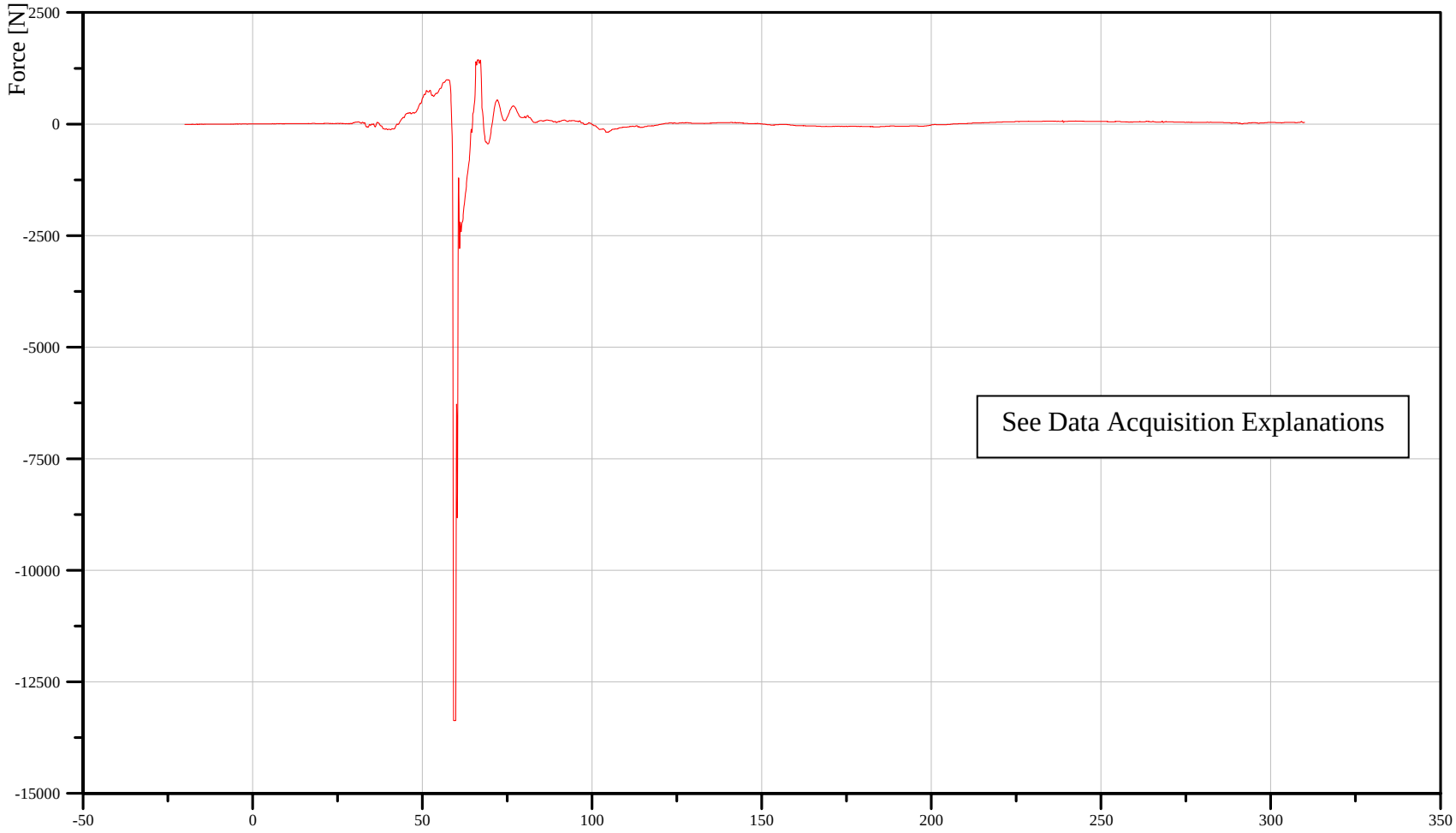
Upper Neck Z-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11NECKUP00S2FOZA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-13,364.03 N at 59.20 ms

Max. Value
1,441.36 N at 66.56 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

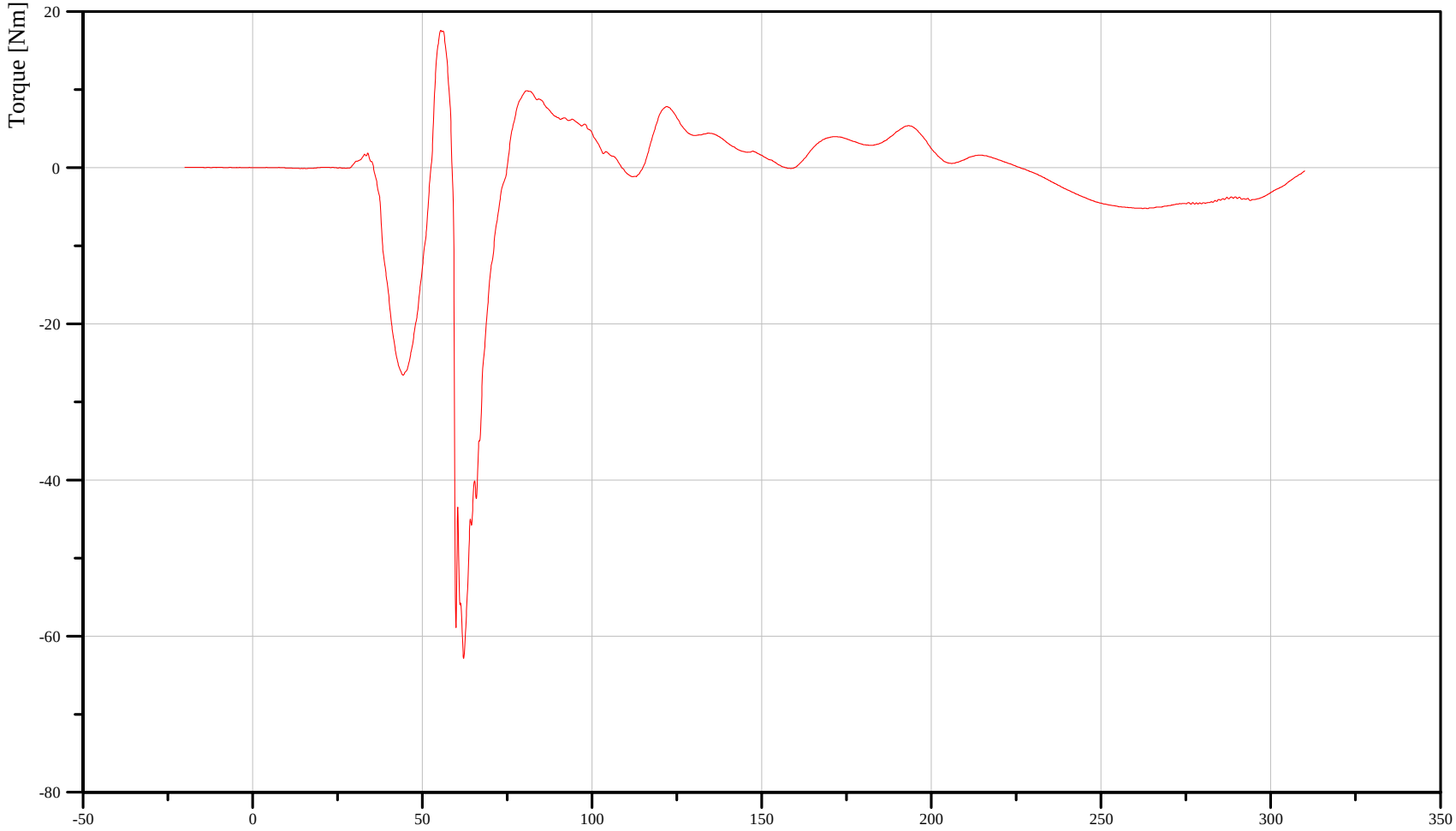
Upper Neck Moment About X Axis

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11NECKUP00S2MOXB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value
-62.83 Nm at 62.24 ms

Max. Value
17.60 Nm at 55.44 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

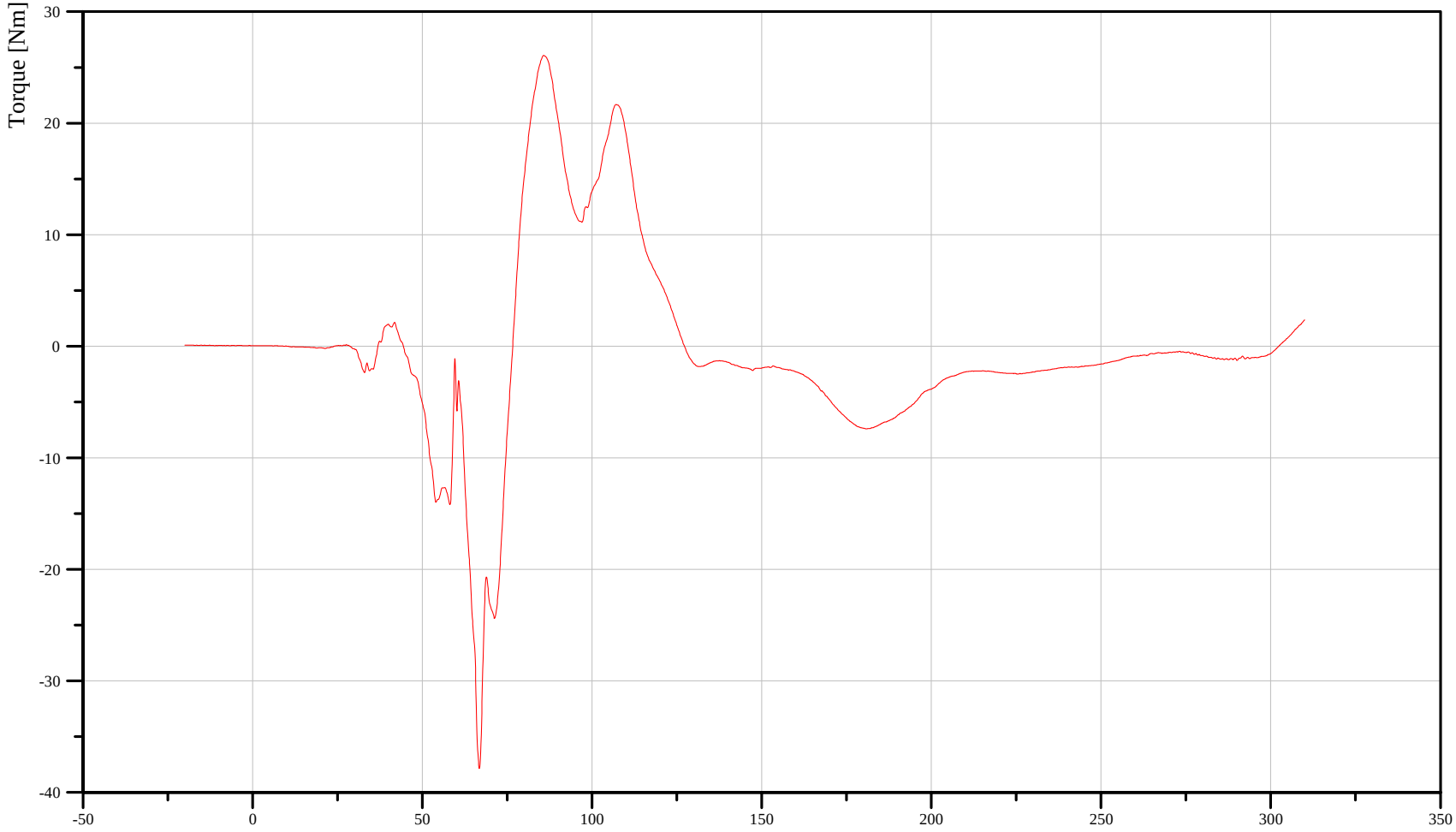
Upper Neck Moment About Y Axis

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11NECKUP00S2MOYB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value
-37.85 Nm at 66.80 ms

Max. Value
26.08 Nm at 85.76 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

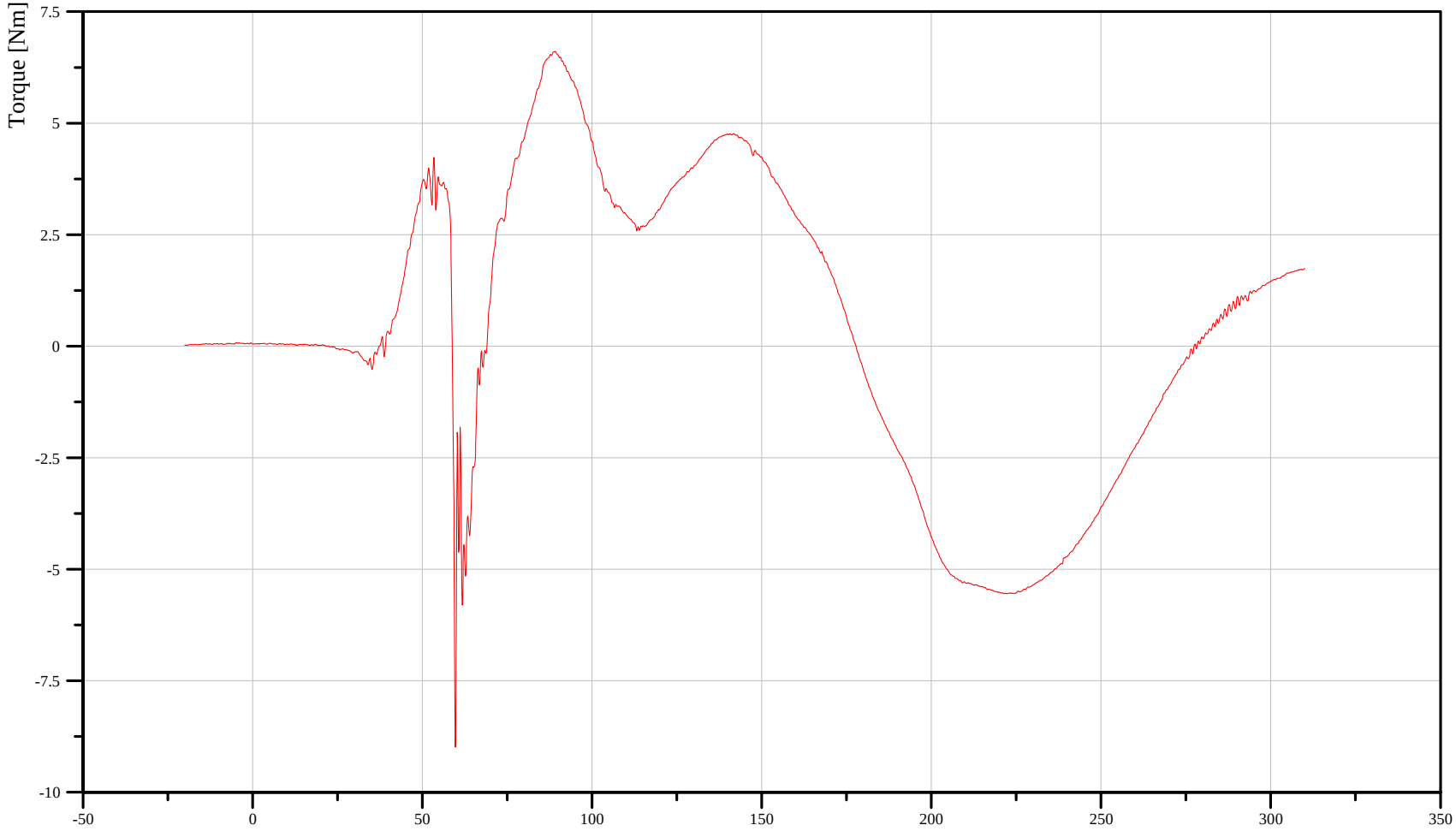
Upper Neck Moment About Z Axis

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11NECKUP00S2MOZB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value
-8.99 Nm at 59.76 ms

Max. Value
6.61 Nm at 89.04 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

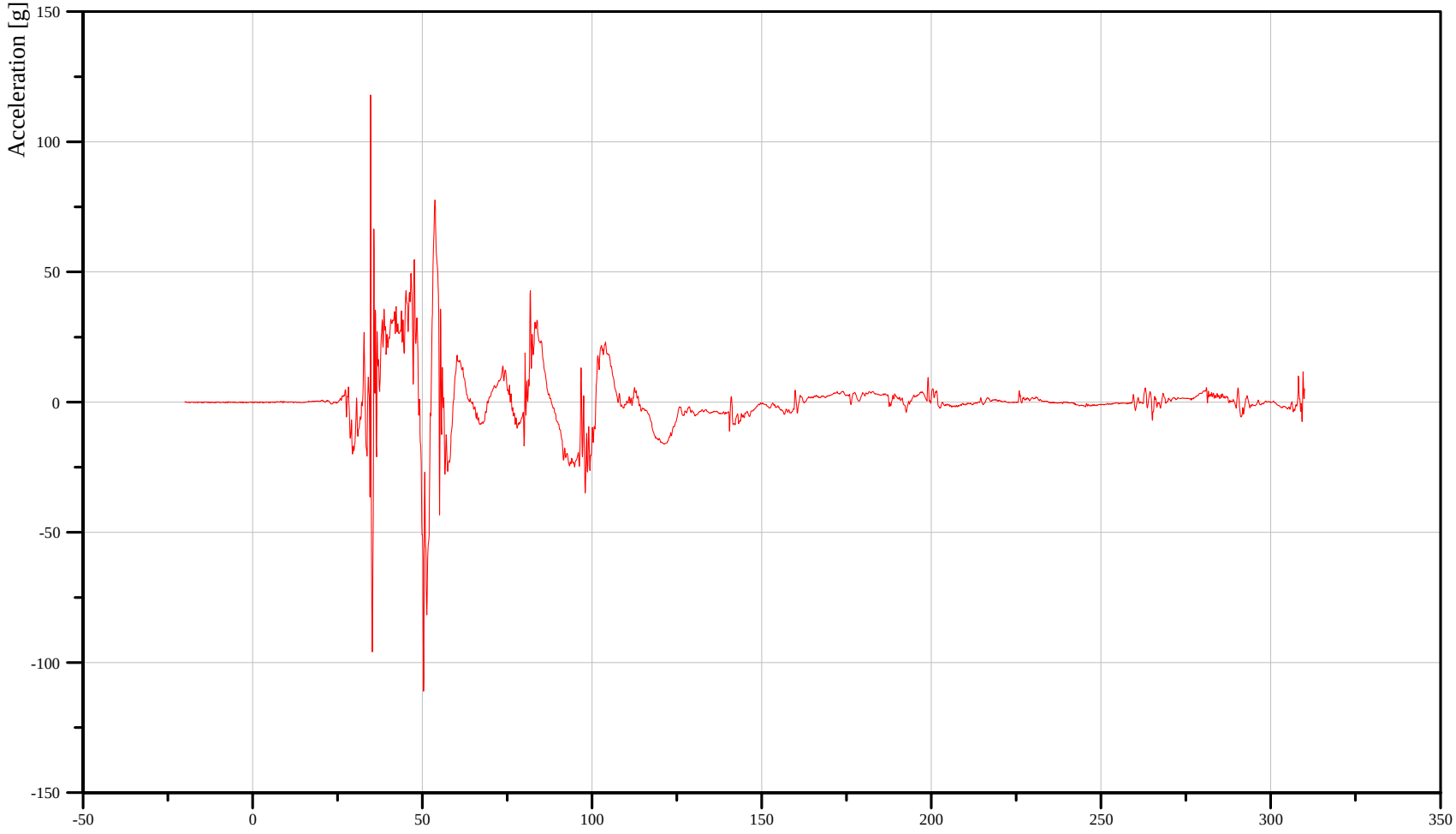
Shoulder X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHLDLE00S2ACXA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-110.95 g at 50.40 ms

Max. Value
118.02 g at 34.80 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

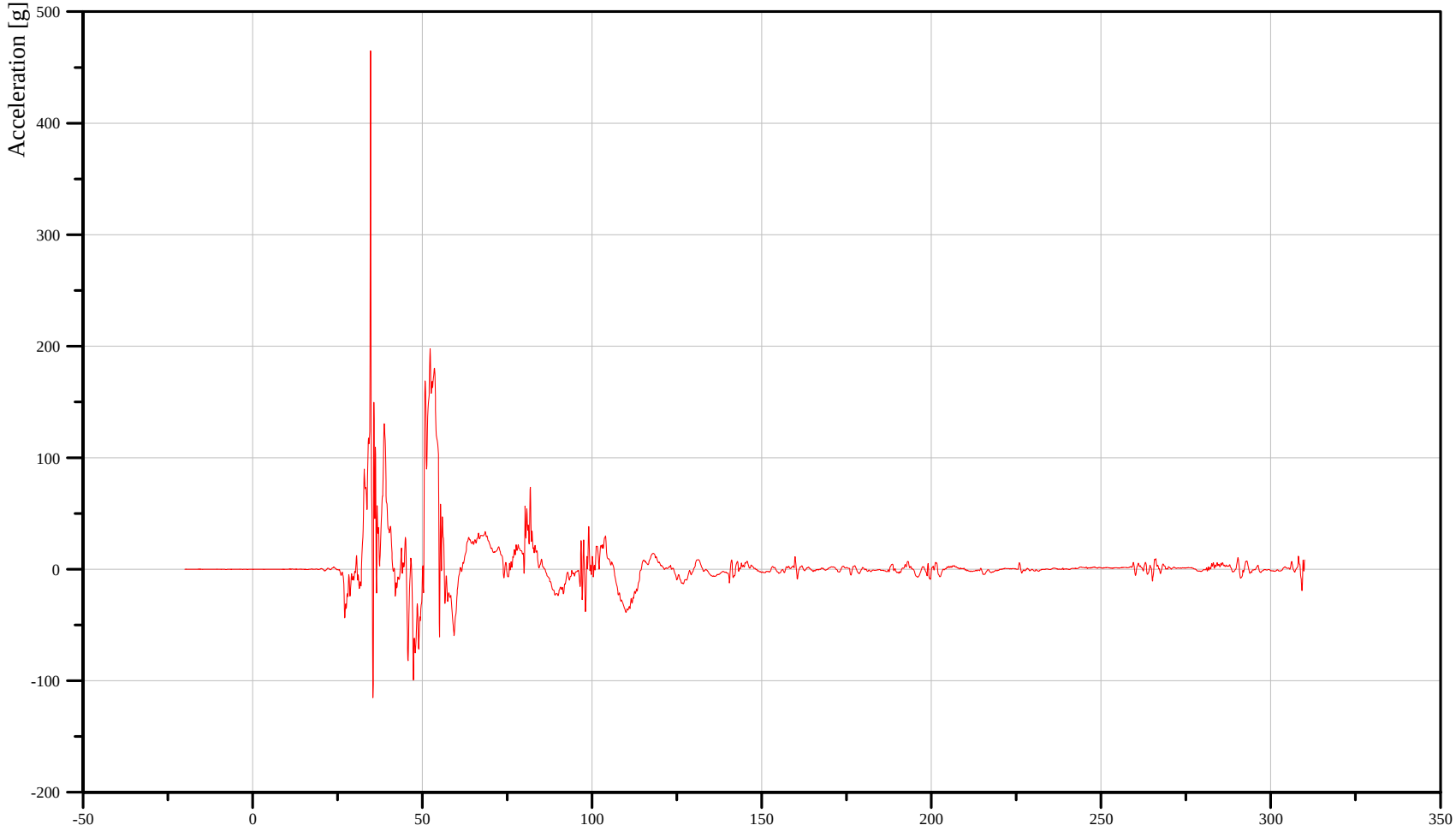
Shoulder Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHLDLE00S2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-115.11 g at 35.44 ms

Max. Value
464.87 g at 34.72 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

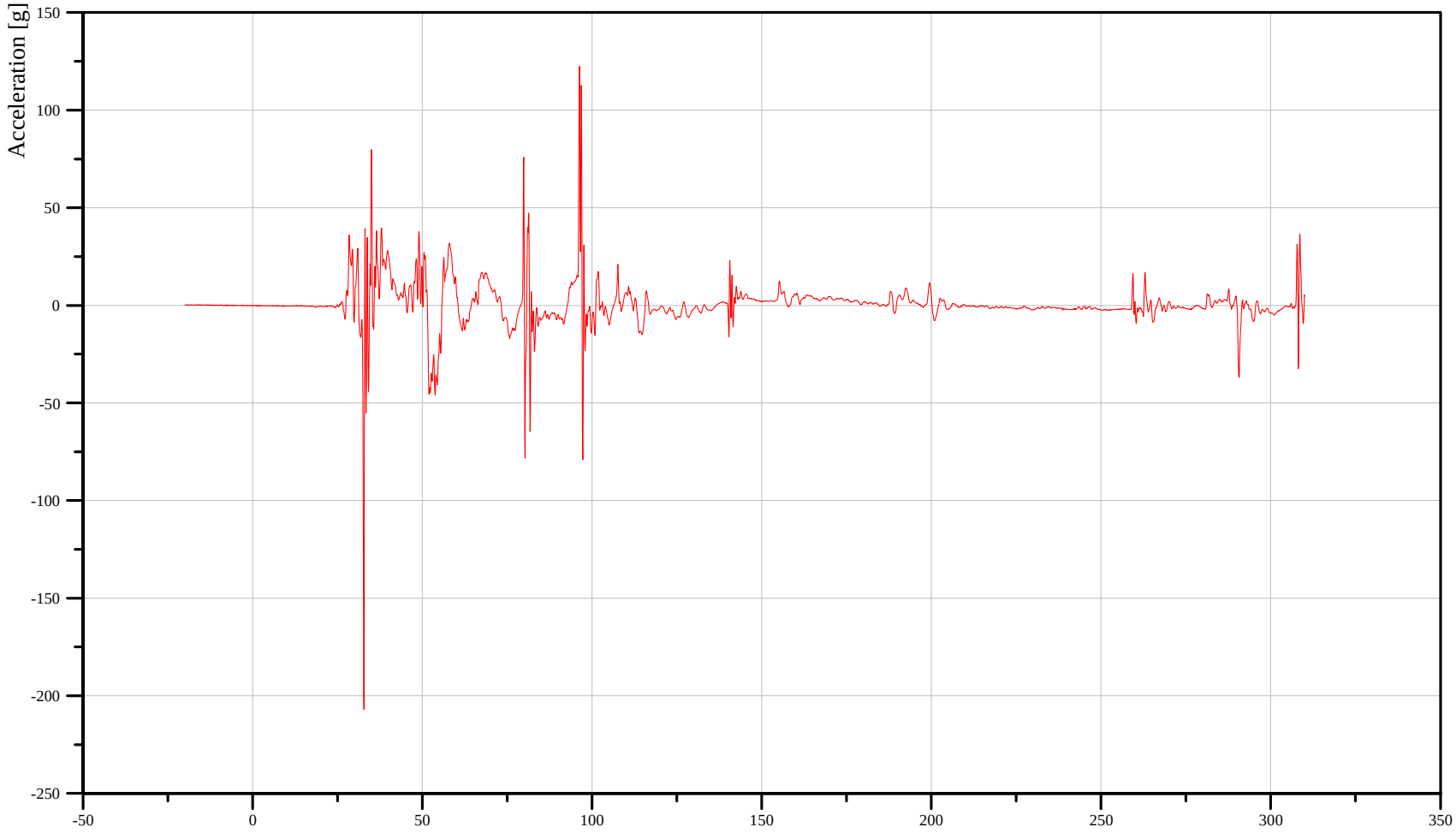
Shoulder Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHLDLE00S2ACZA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-207.04 g at 32.80 ms

Max. Value
122.47 g at 96.32 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

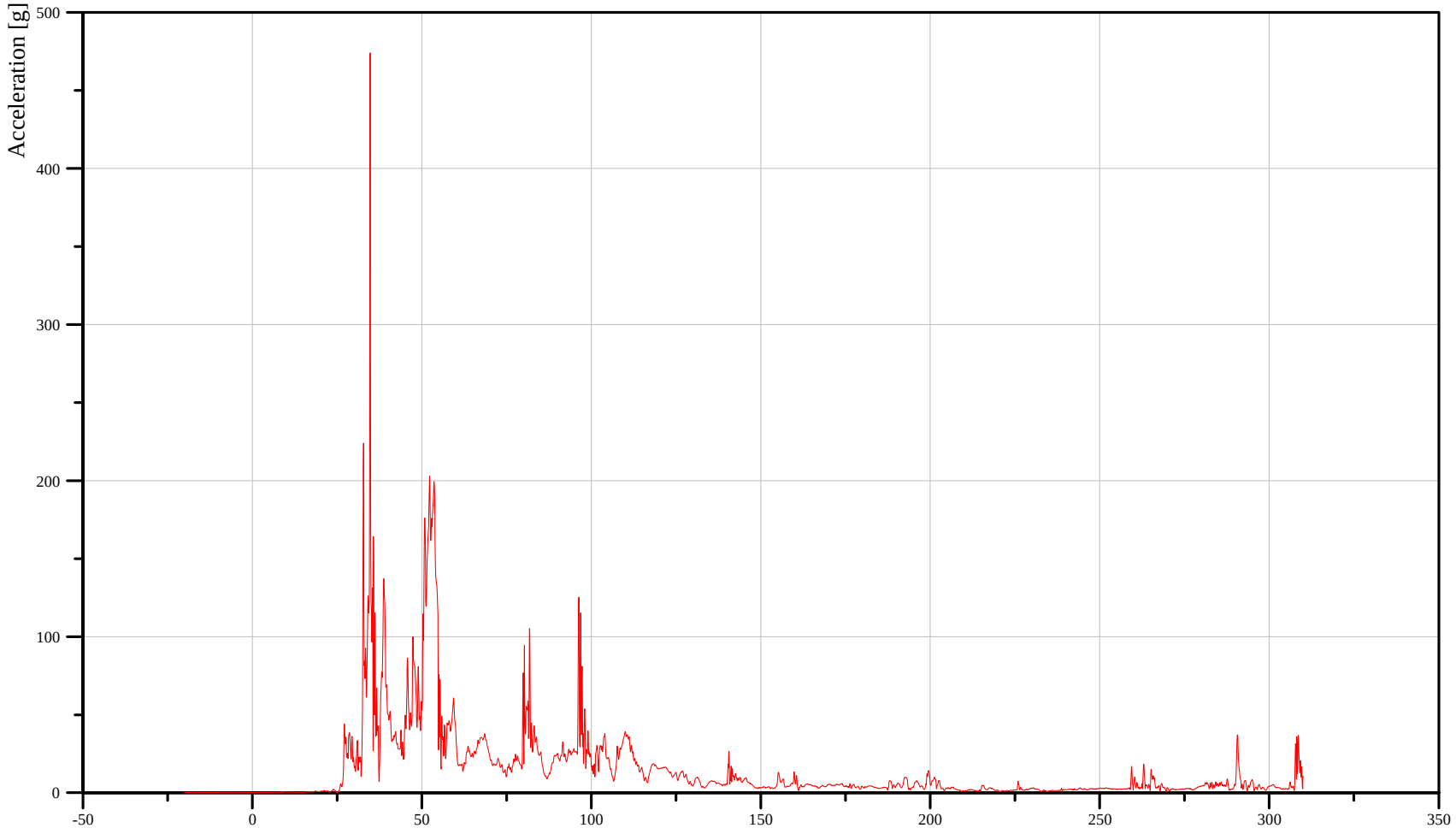
Shoulder Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHLDLE00S2ACRA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
0.01 g at -14.88 ms

Max. Value
474.21 g at 34.80 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

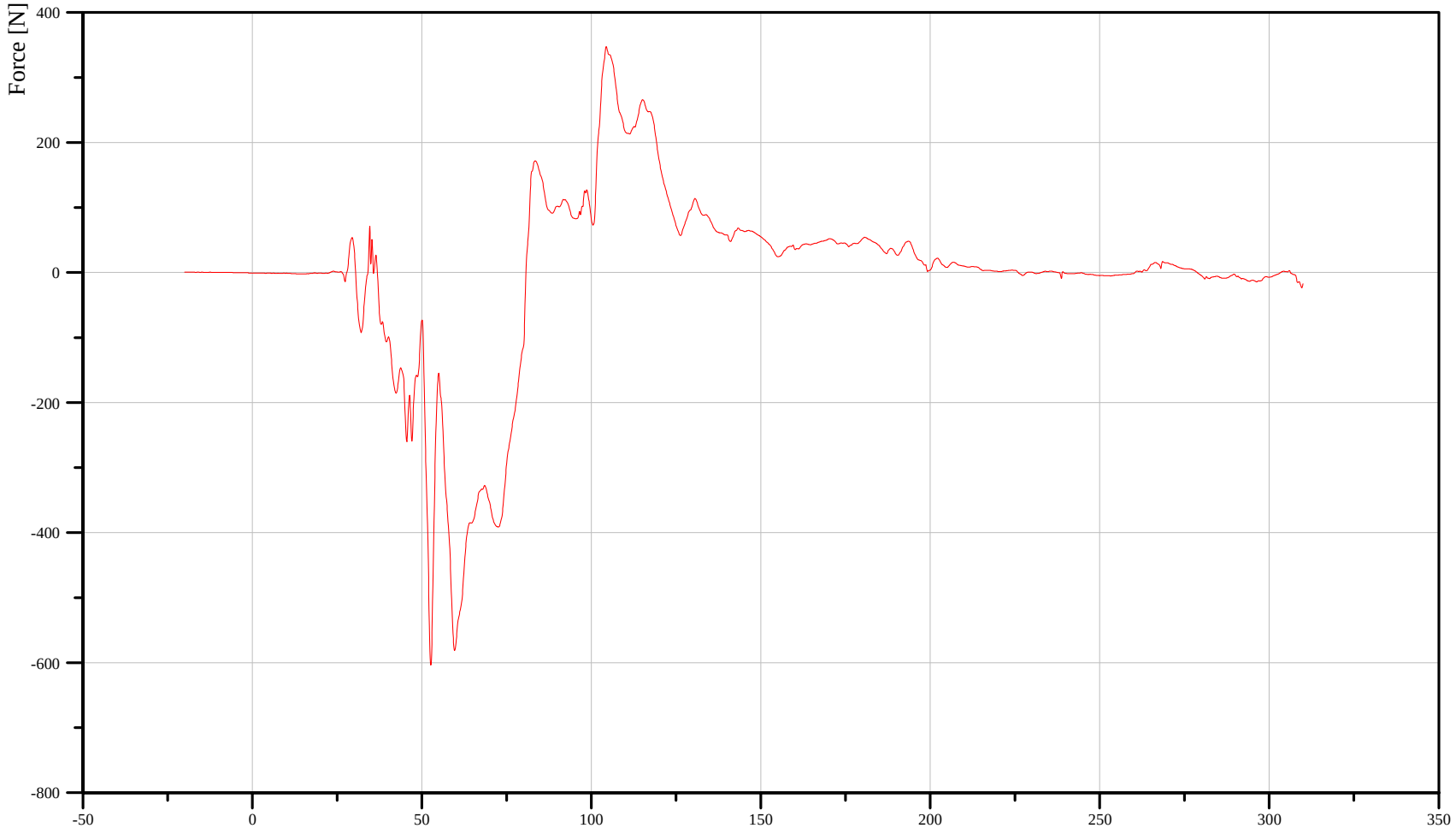
Shoulder X-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHLDLE00S2FOXB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value
-603.82 N at 52.64 ms

Max. Value
347.61 N at 104.40 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

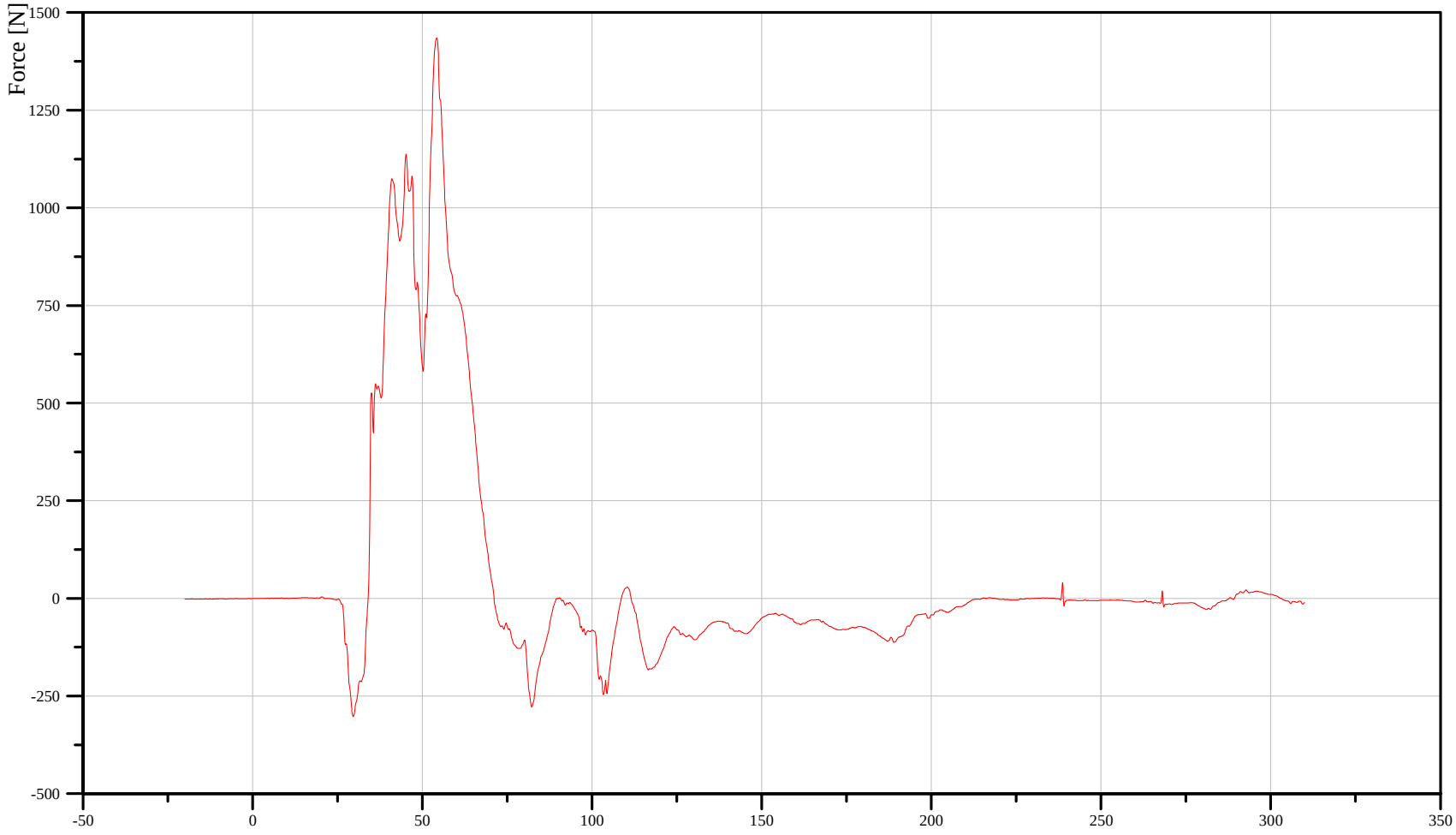
Shoulder Y-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHLDLE00S2FOYB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value
-302.45 N at 29.68 ms

Max. Value
1,434.82 N at 54.32 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

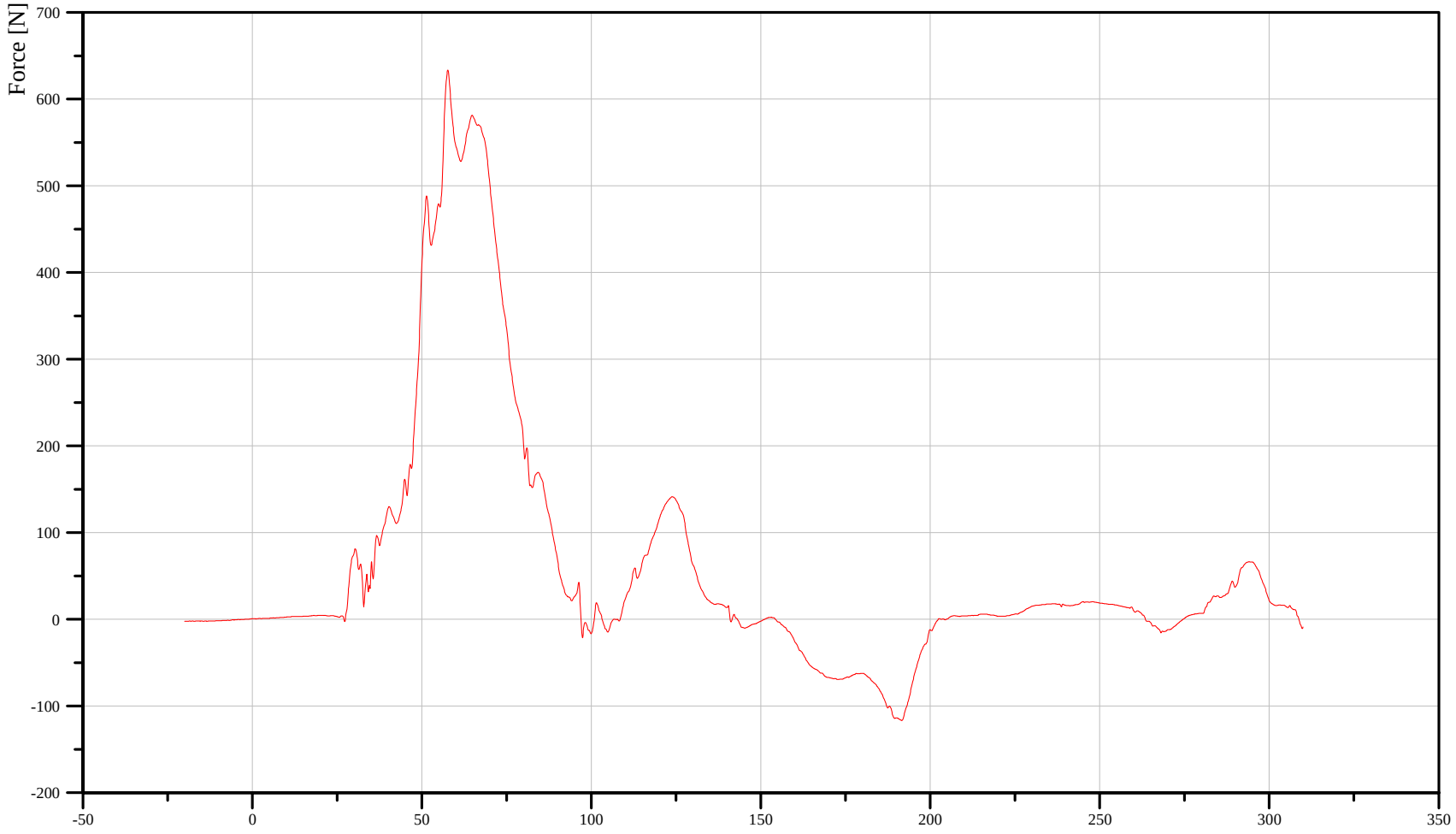
Shoulder Z-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHLDLE00S2FOZB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value
-116.61 N at 191.60 ms

Max. Value
633.51 N at 57.68 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

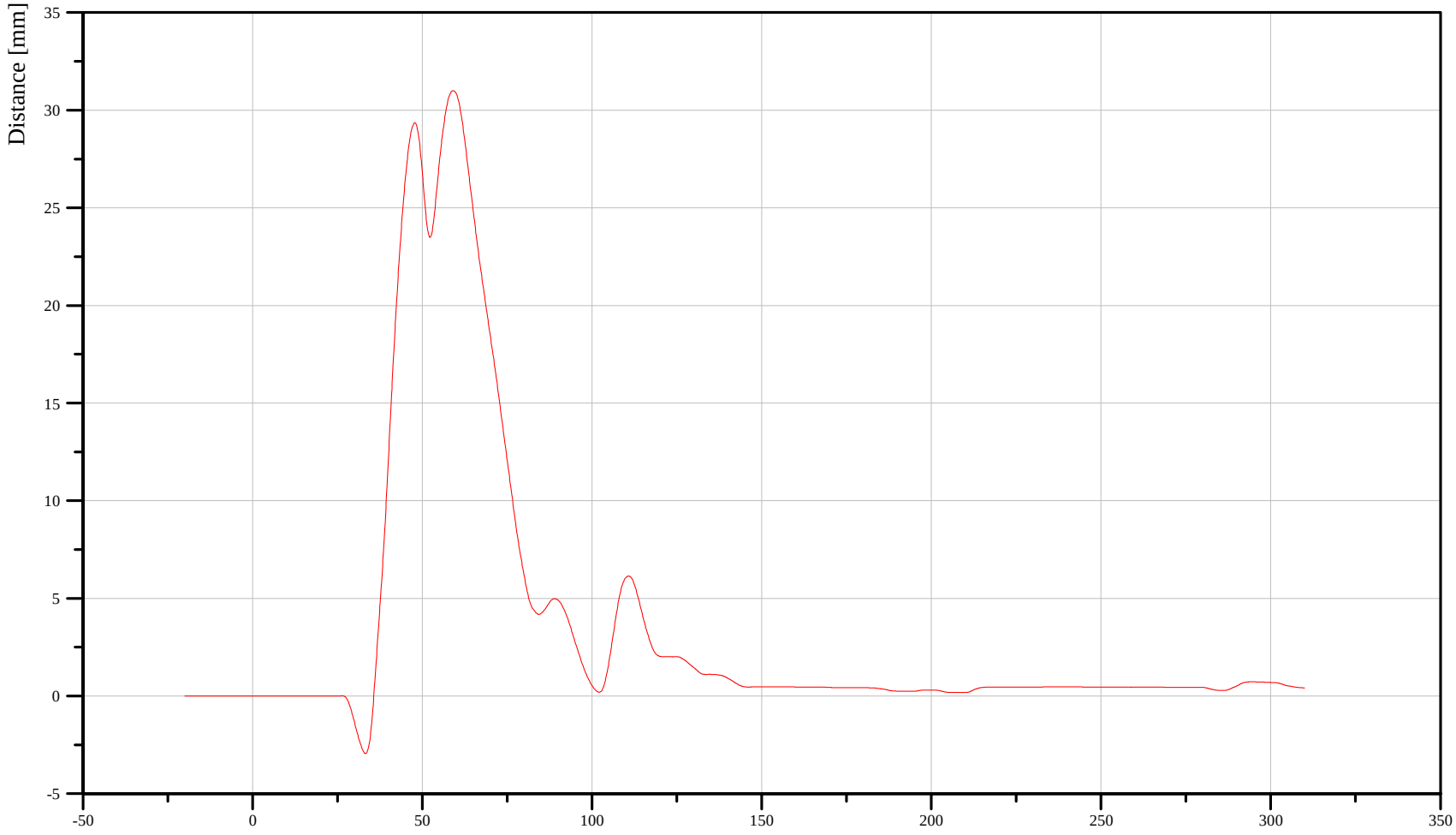
Shoulder Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SHRILE00S2DSYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-2.94 mm at 33.28 ms

Max. Value
30.99 mm at 59.12 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

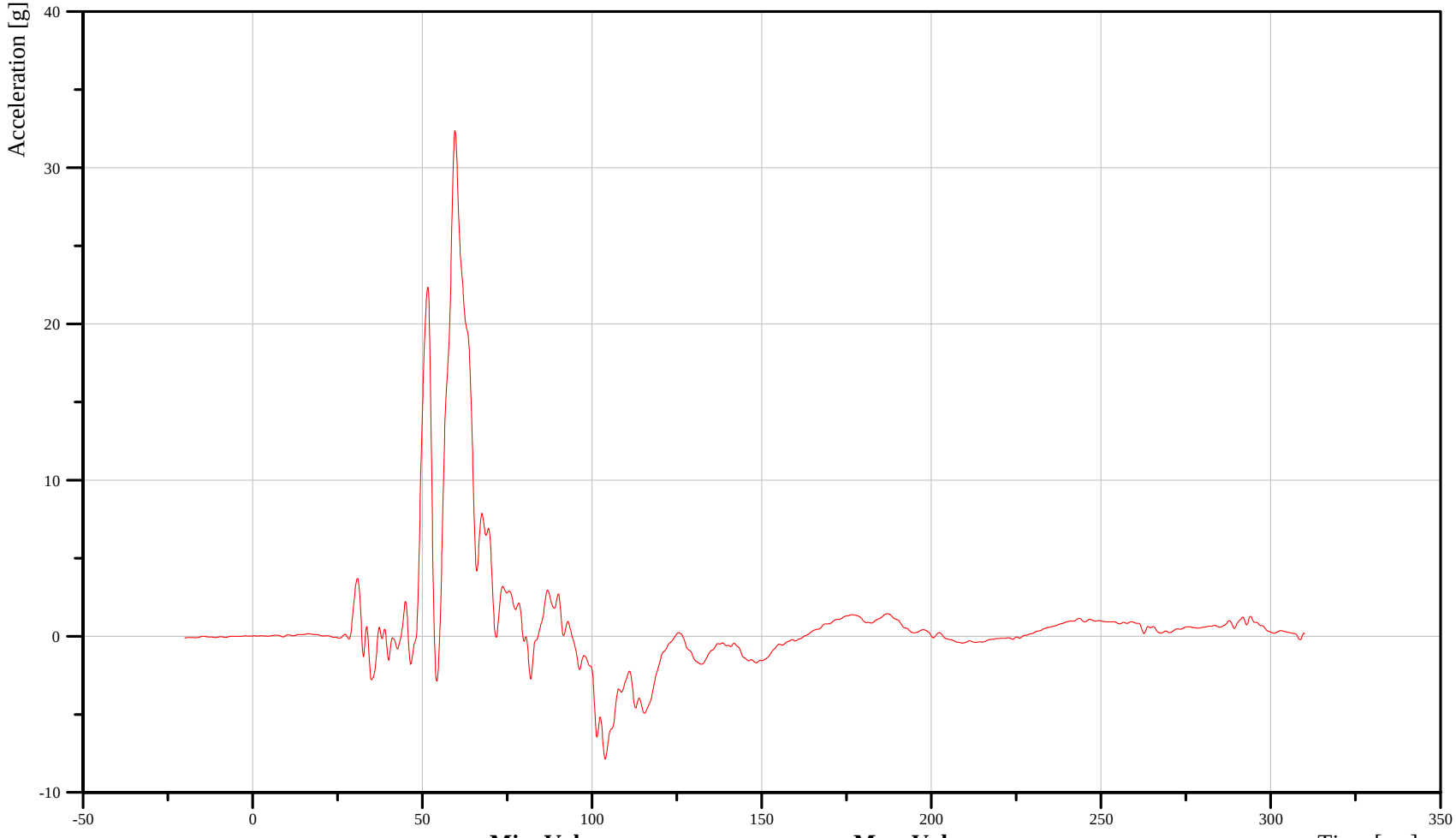
Upper Spine X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN0100S2ACXC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-7.87 g at 103.92 ms

Max. Value
32.38 g at 59.68 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

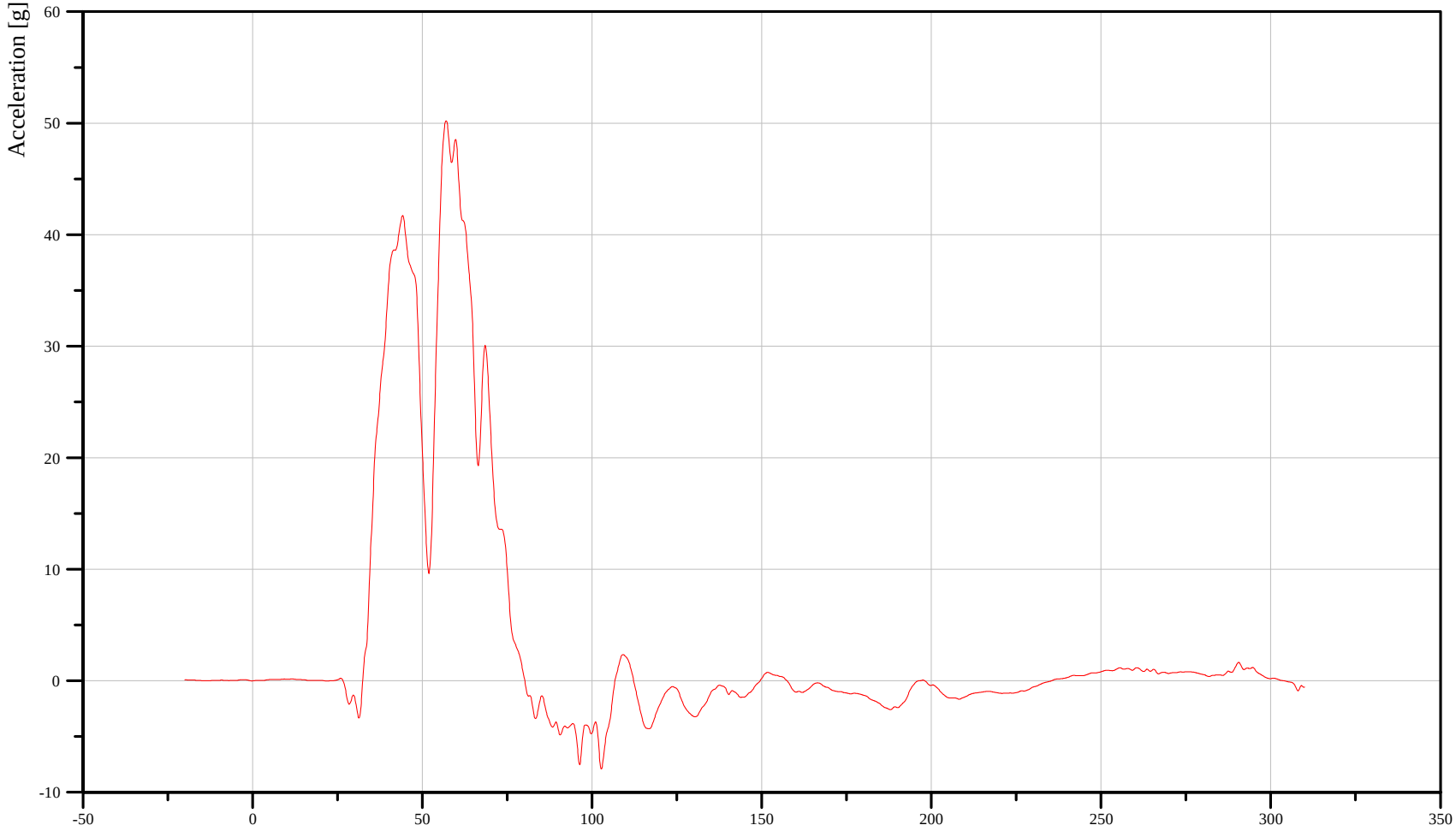
Upper Spine Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN0100S2ACYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-7.90 g at 102.72 ms

Max. Value
50.21 g at 57.04 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

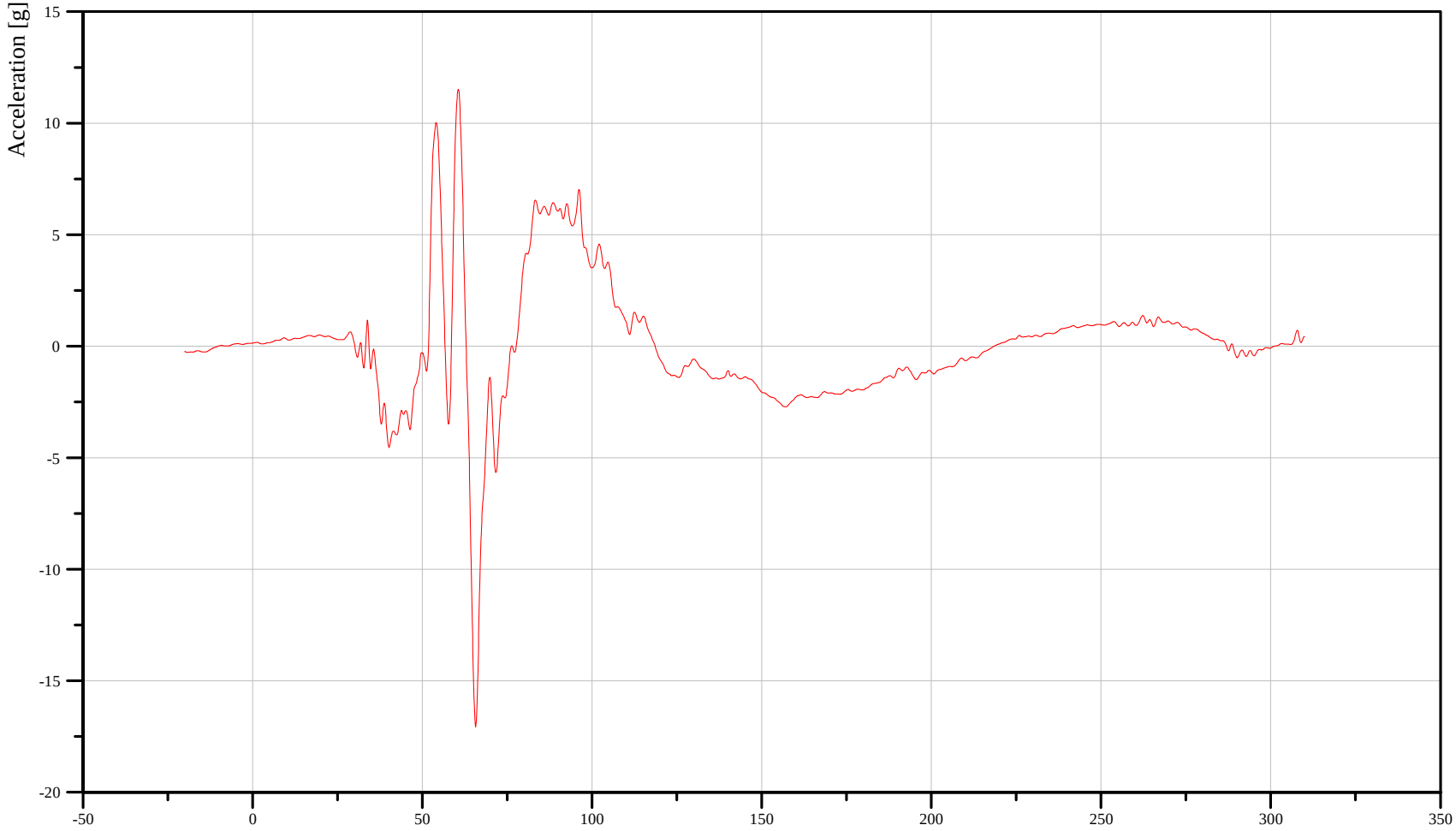
Upper Spine Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN0100S2ACZC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-17.07 g at 65.68 ms

Max. Value
11.52 g at 60.64 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

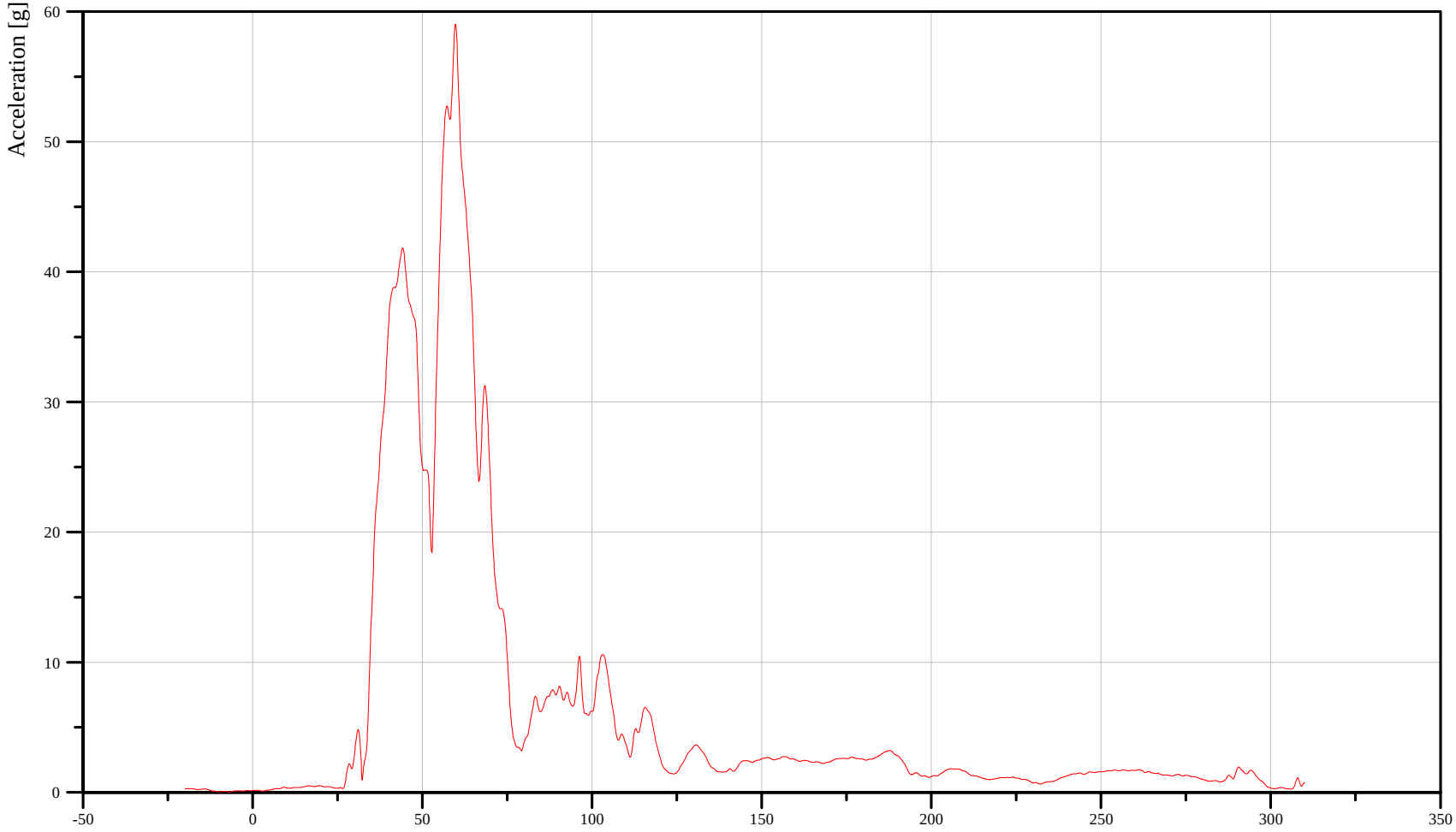
Upper Spine Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN0100S2ACRC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
0.03 g at -6.96 ms

Max. Value
59.03 g at 59.76 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

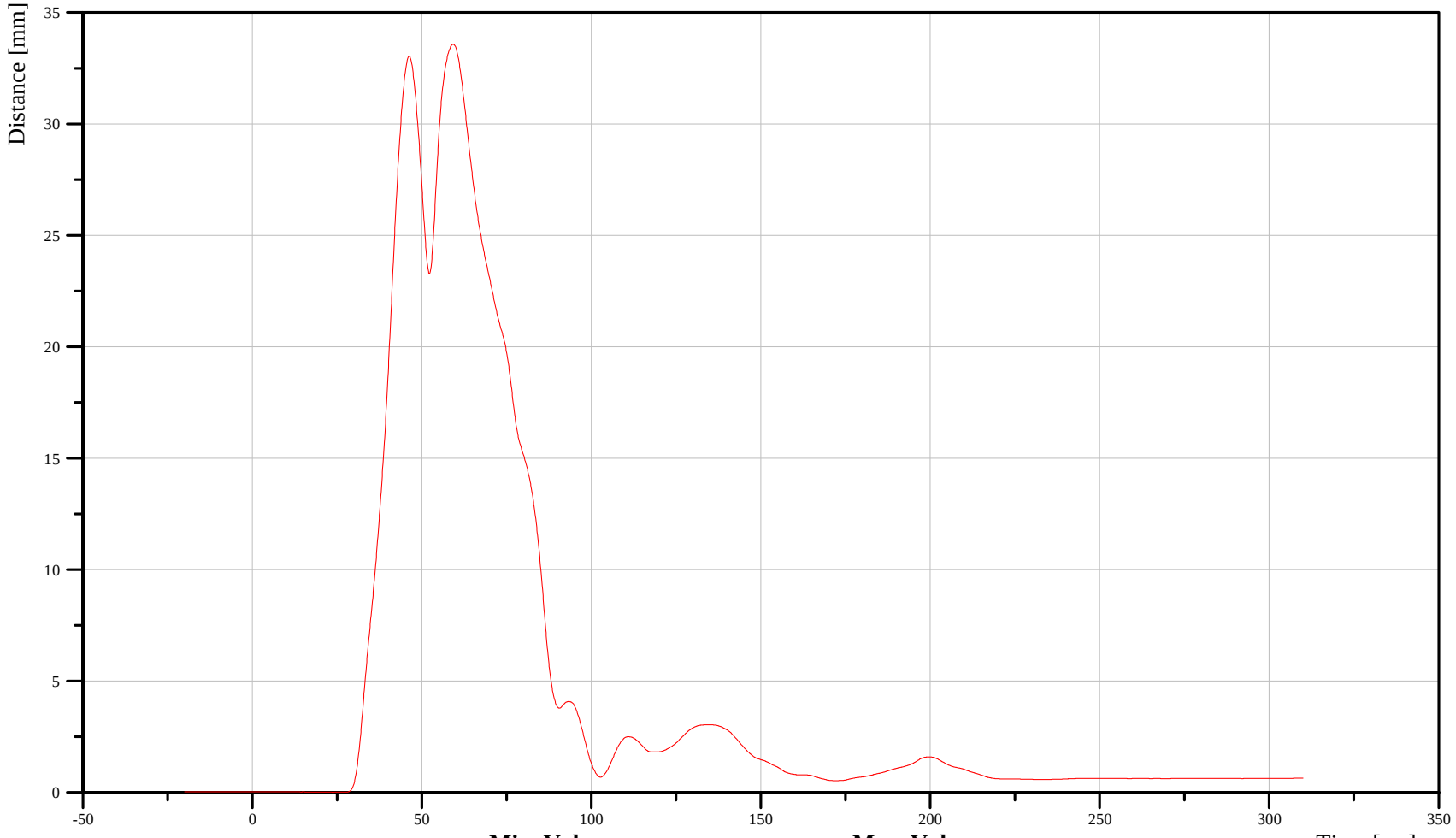
Left Thorax Rib 1 Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11TRRI01LES2DSYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
0.01 mm at 23.84 ms

Max. Value
33.58 mm at 59.28 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

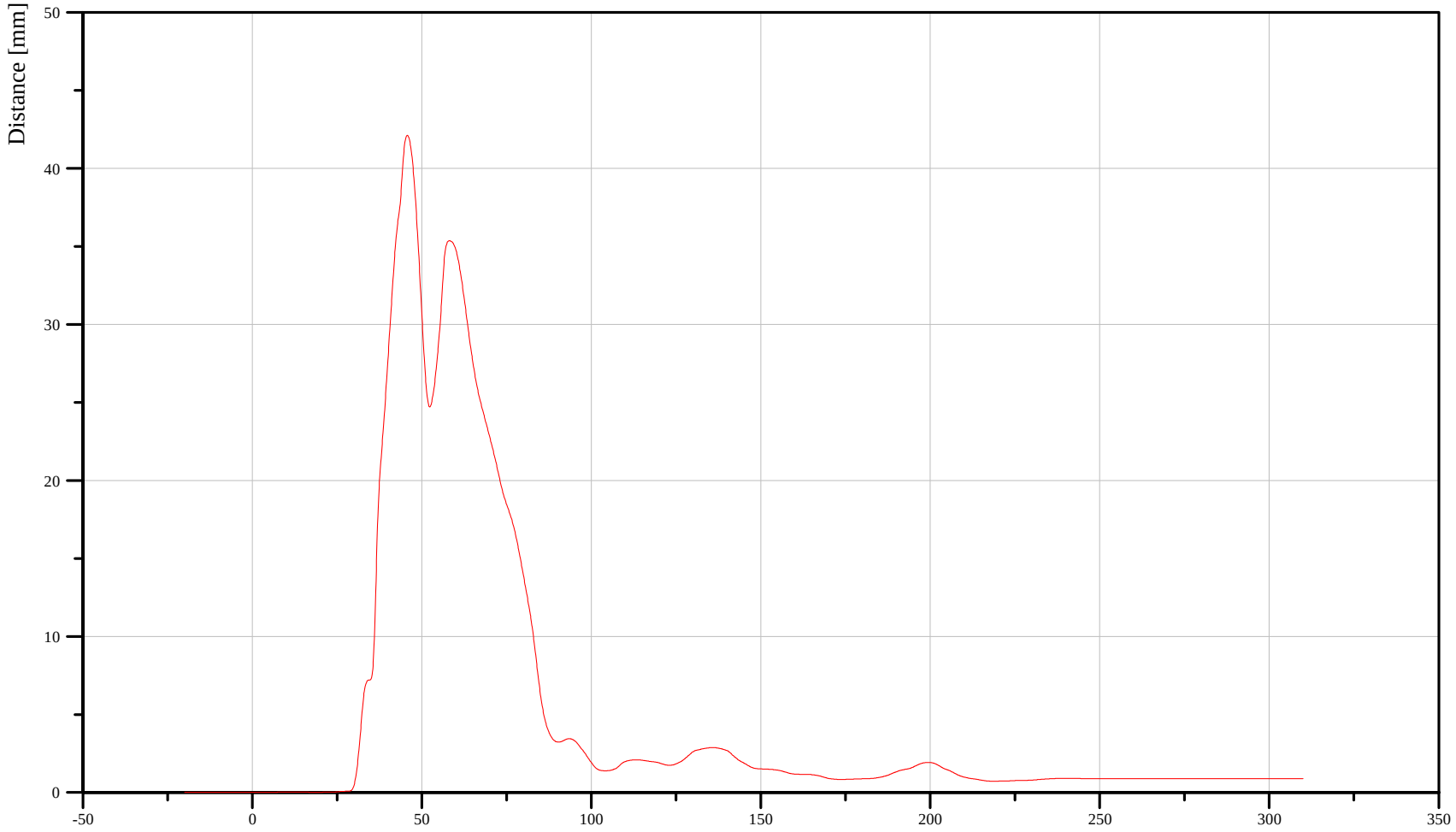
Left Thorax Rib 2 Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11TRRI02LES2DSYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
0.01 mm at 0.40 ms

Max. Value
42.13 mm at 45.76 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

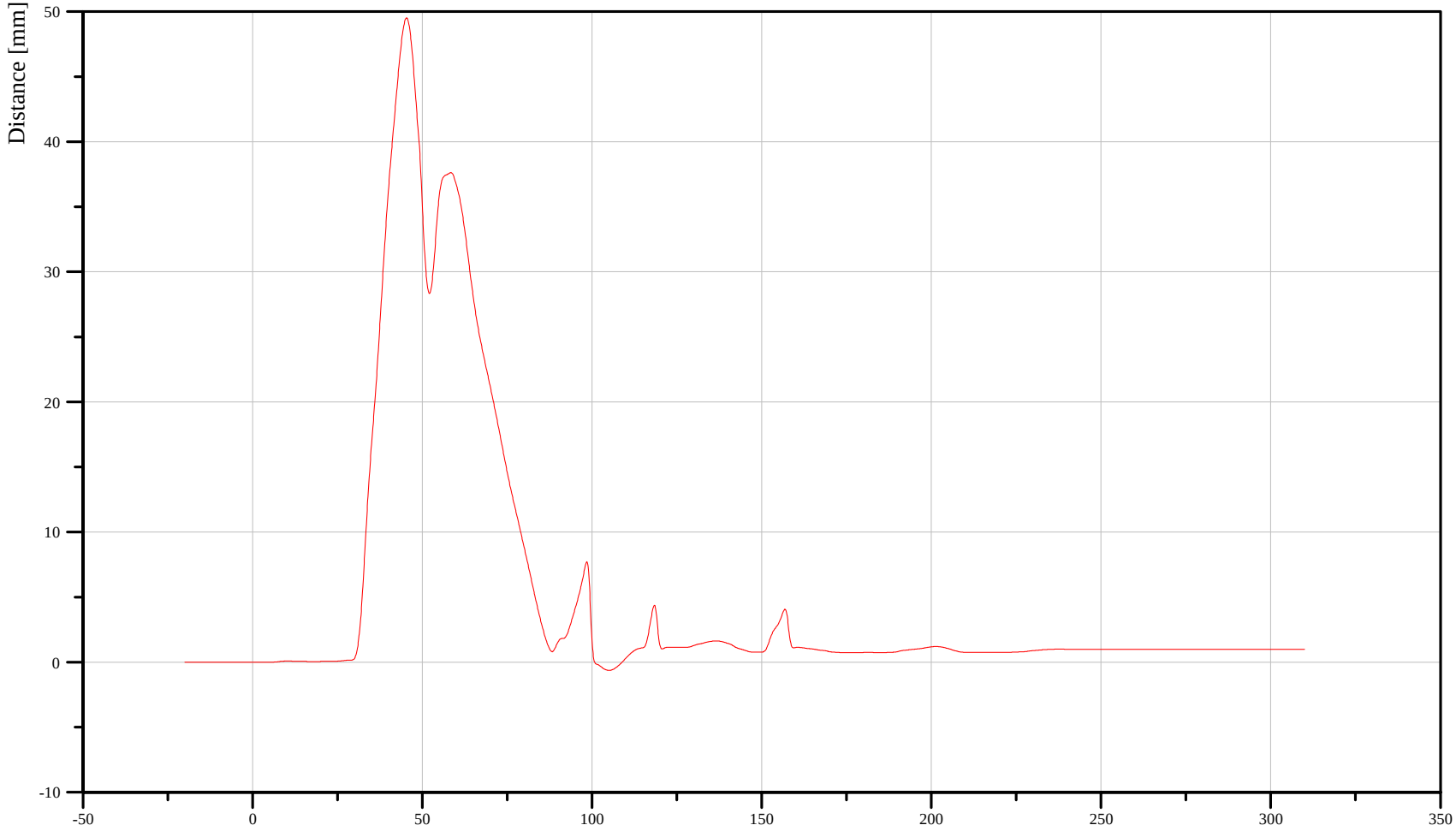
Left Thorax Rib 3 Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11TRRI03LES2DSYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-0.62 mm at 105.04 ms

Max. Value
49.52 mm at 45.36 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

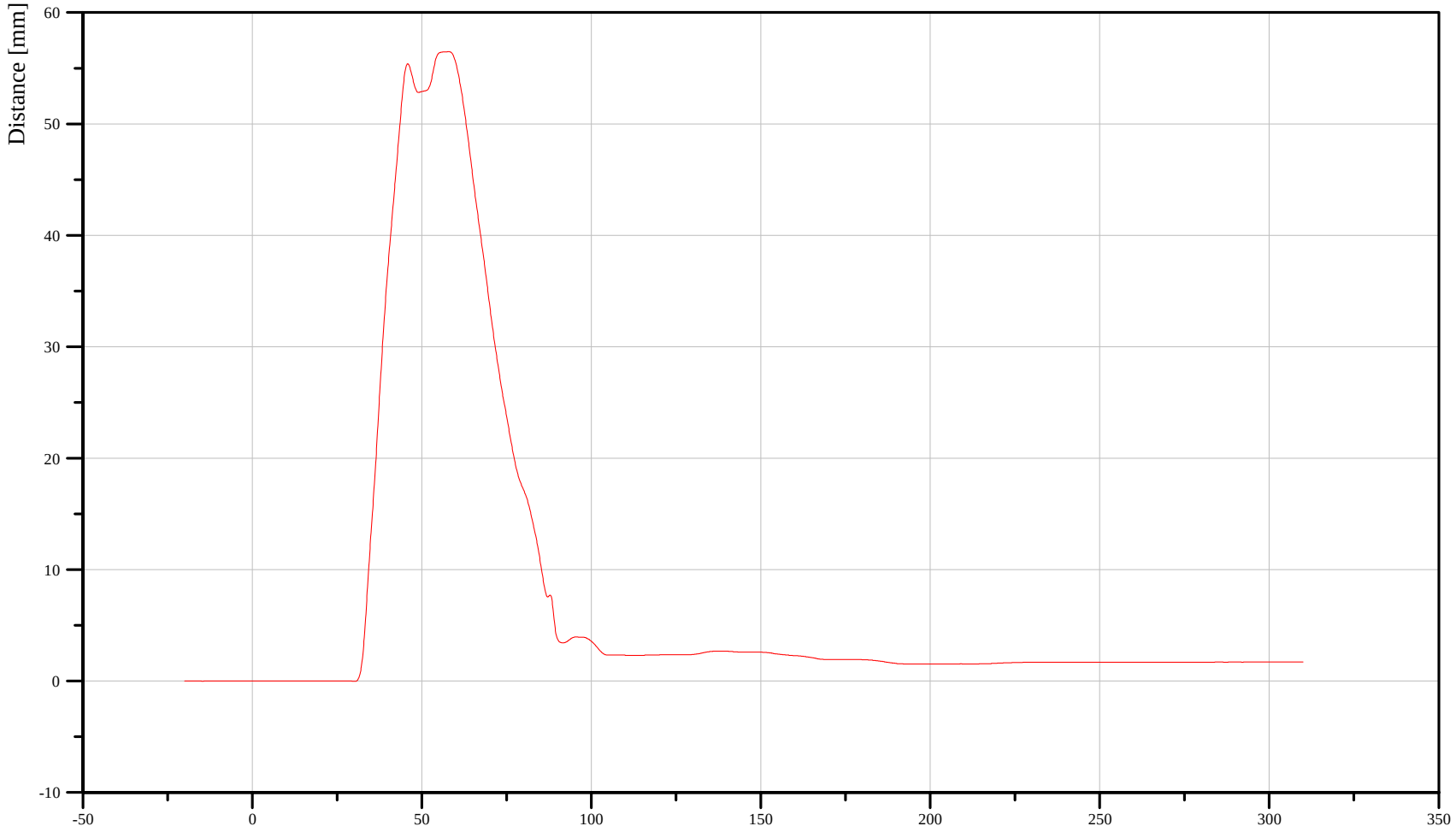
Left Abdomen Rib 1 Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11ABRI01LES2DSYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-0.03 mm at 30.24 ms

Max. Value
56.48 mm at 57.92 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

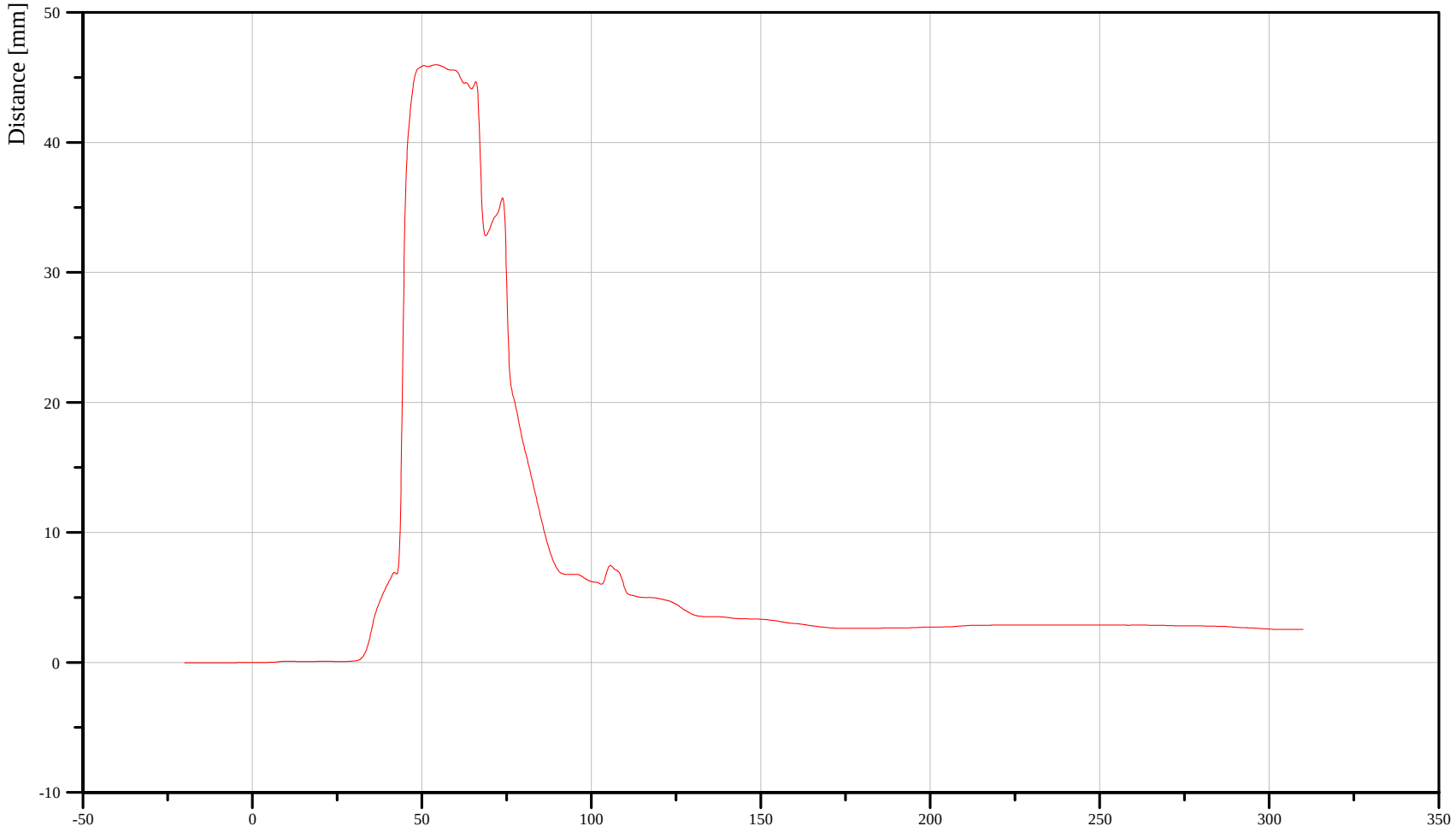
Left Abdomen Rib 2 Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11ABRI02LES2DSYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-0.02 mm at -14.08 ms

Max. Value
45.99 mm at 54.24 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

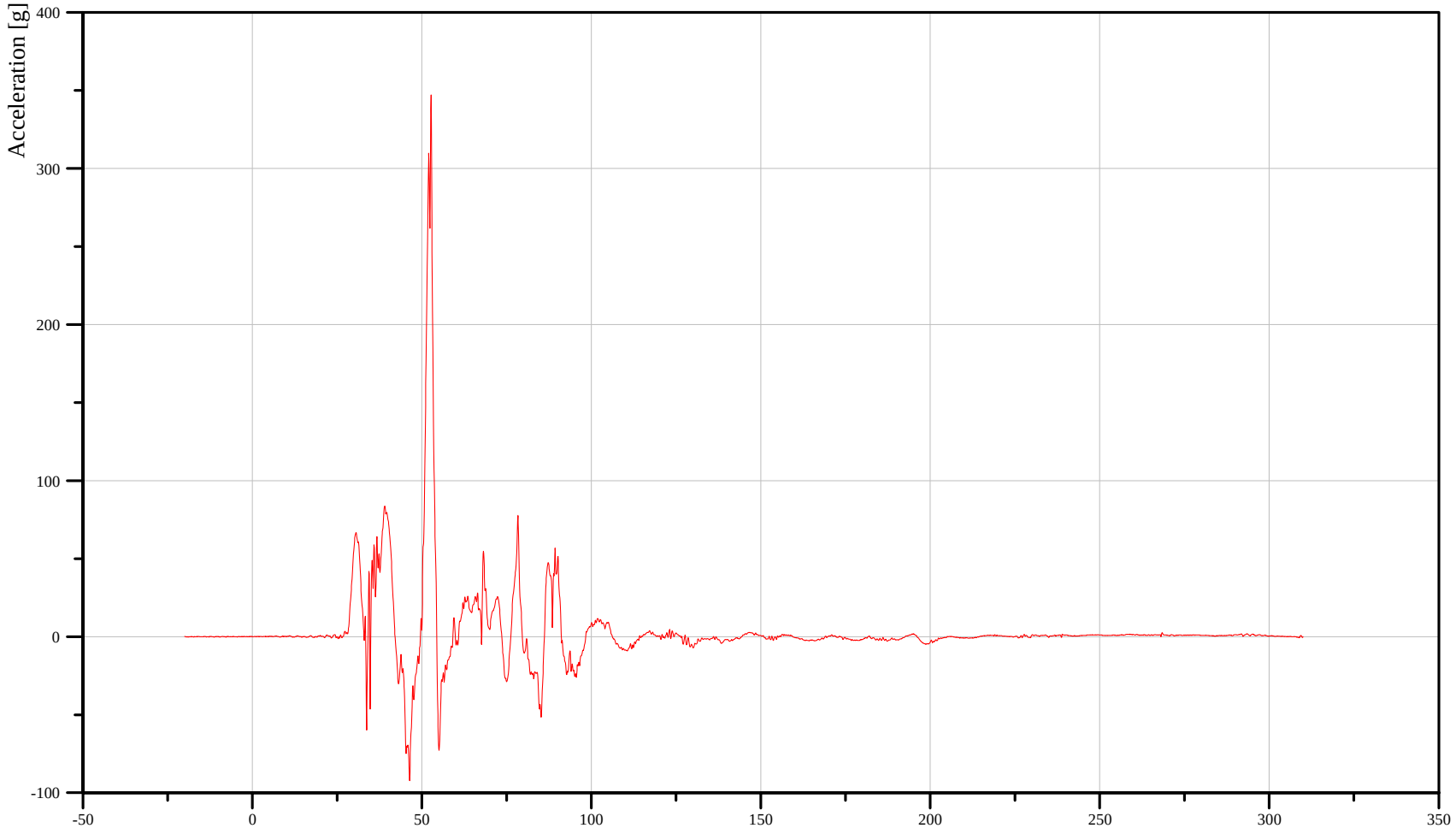
Left Thorax Rib 1 Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11TRRI01LES2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-92.26 g at 46.40 ms

Max. Value
347.20 g at 52.72 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

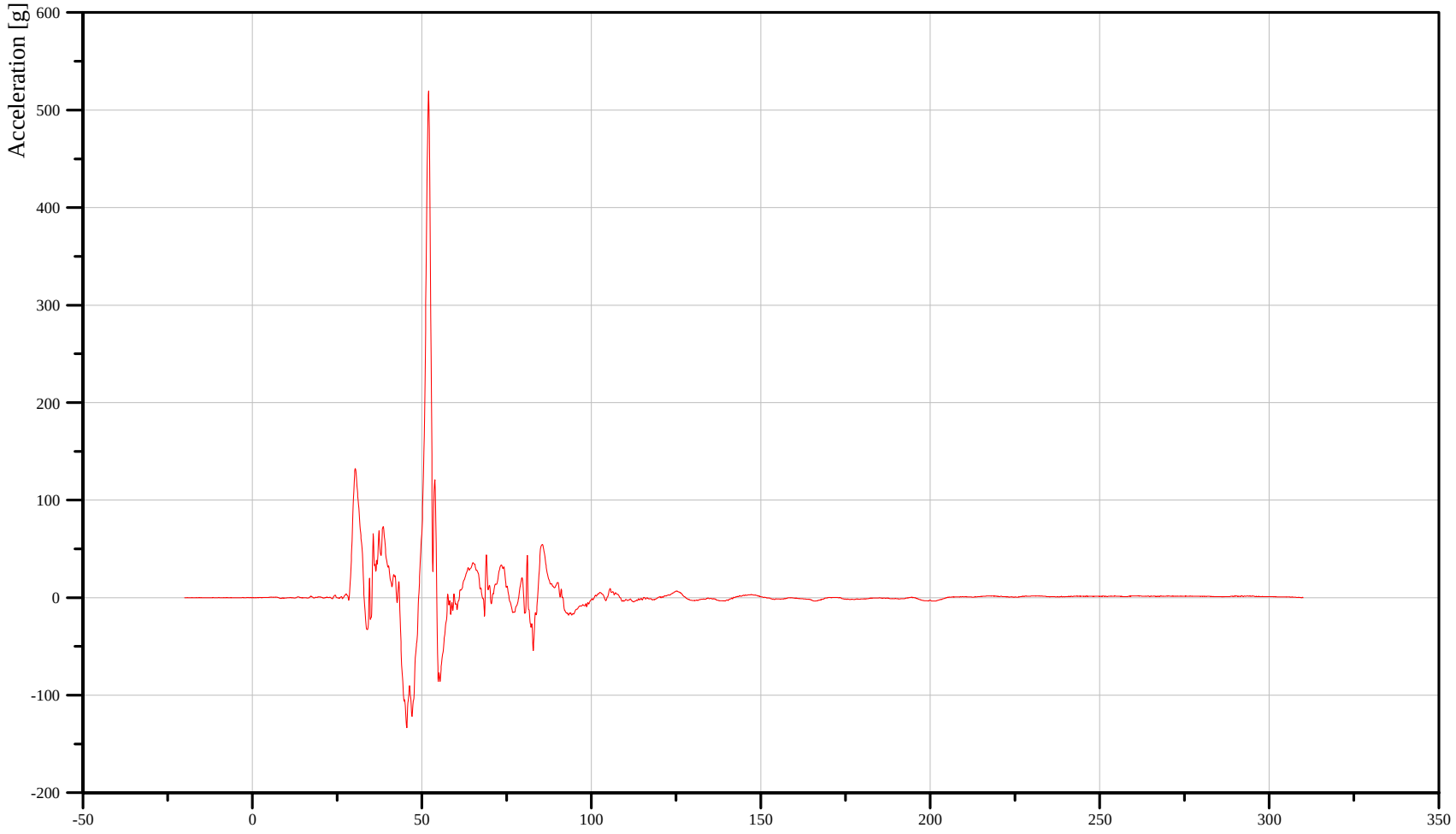
Left Thorax Rib 2 Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11TRRI02LES2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-133.41 g at 45.60 ms

Max. Value
519.42 g at 52.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

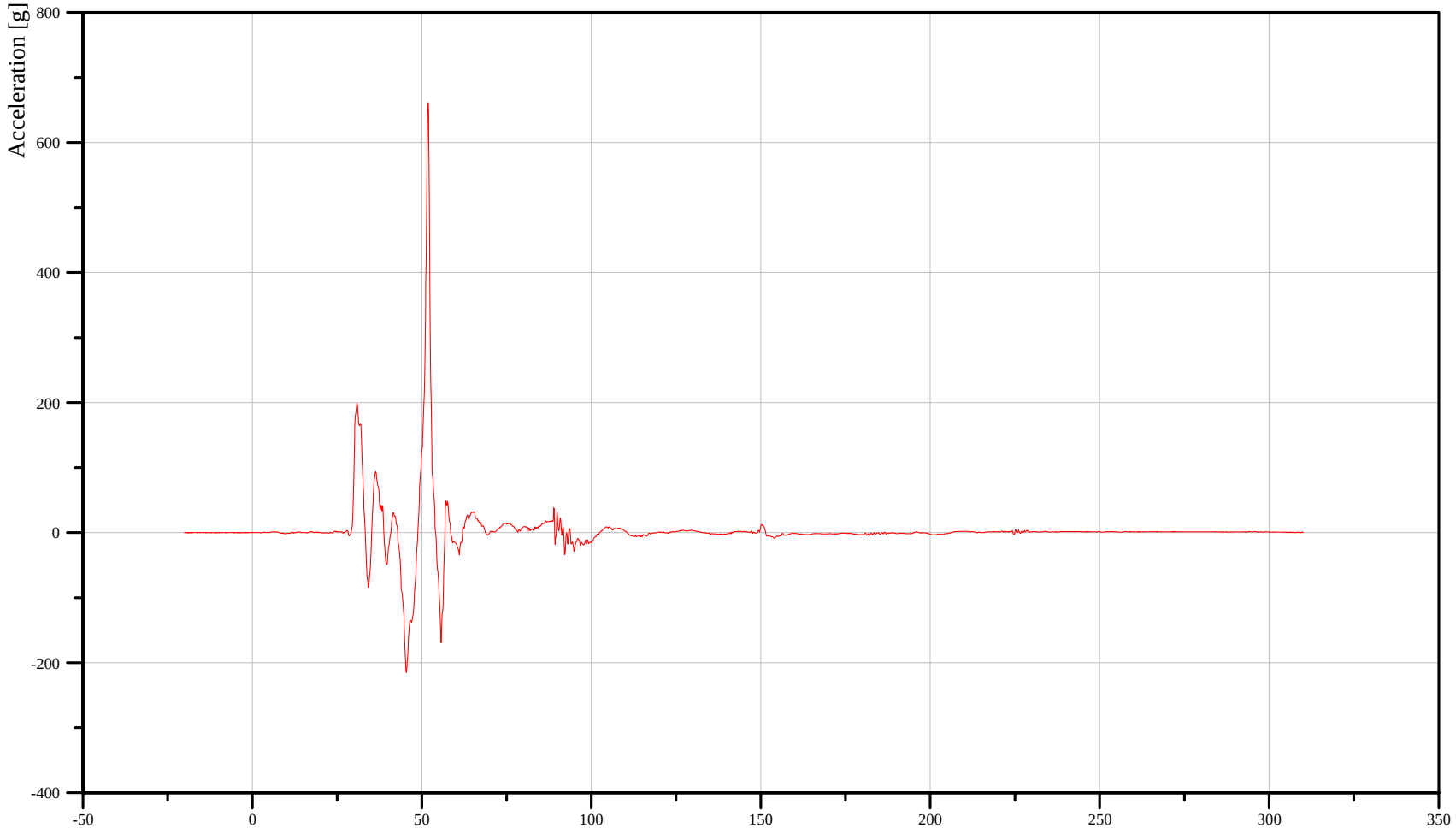
Left Thorax Rib 3 Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11TRRI03LES2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-215.26 g at 45.44 ms

Max. Value
661.46 g at 51.84 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

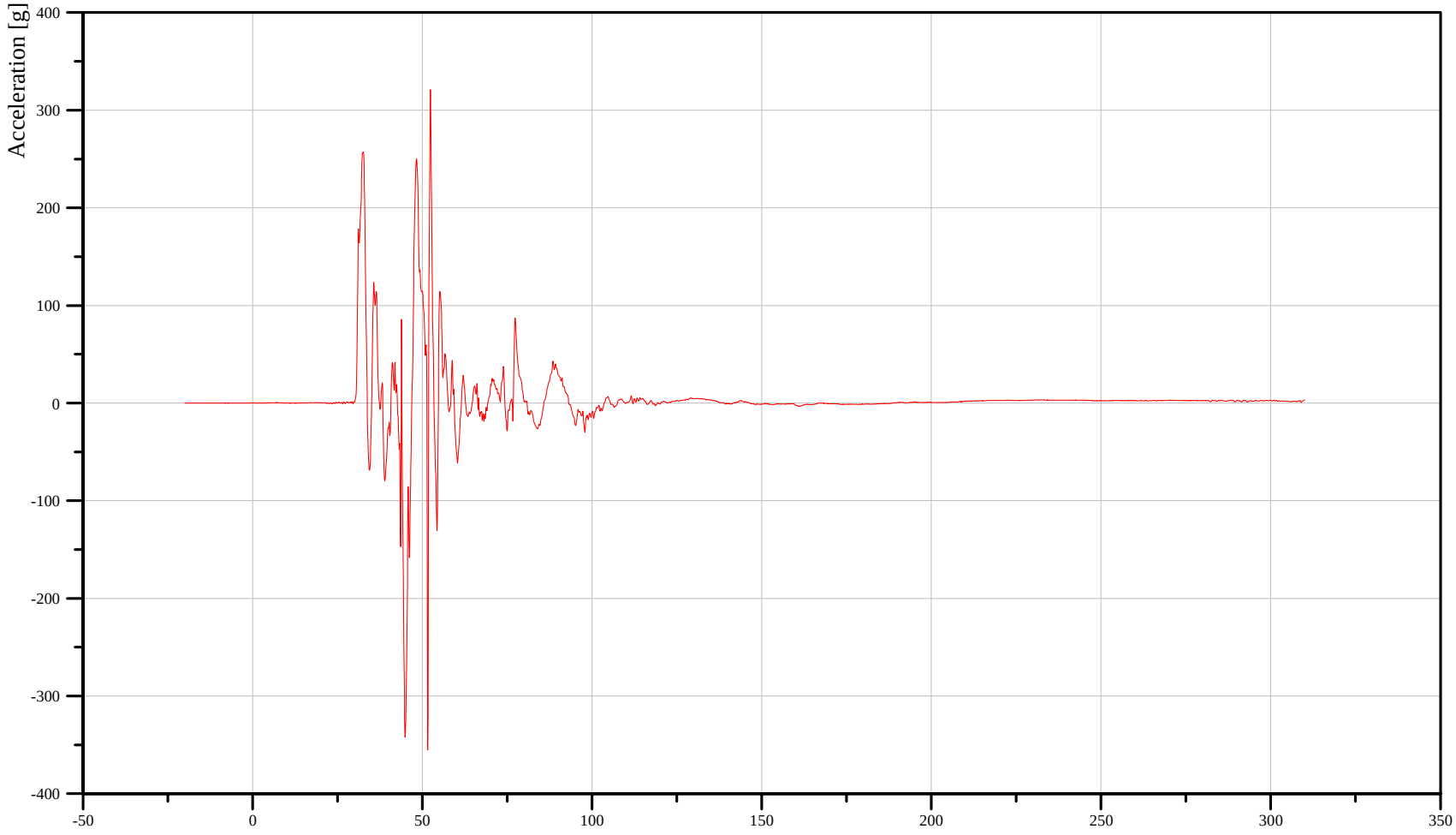
Left Abdomen Rib 1 Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11ABRI01LES2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-355.18 g at 51.60 ms

Max. Value
320.92 g at 52.40 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

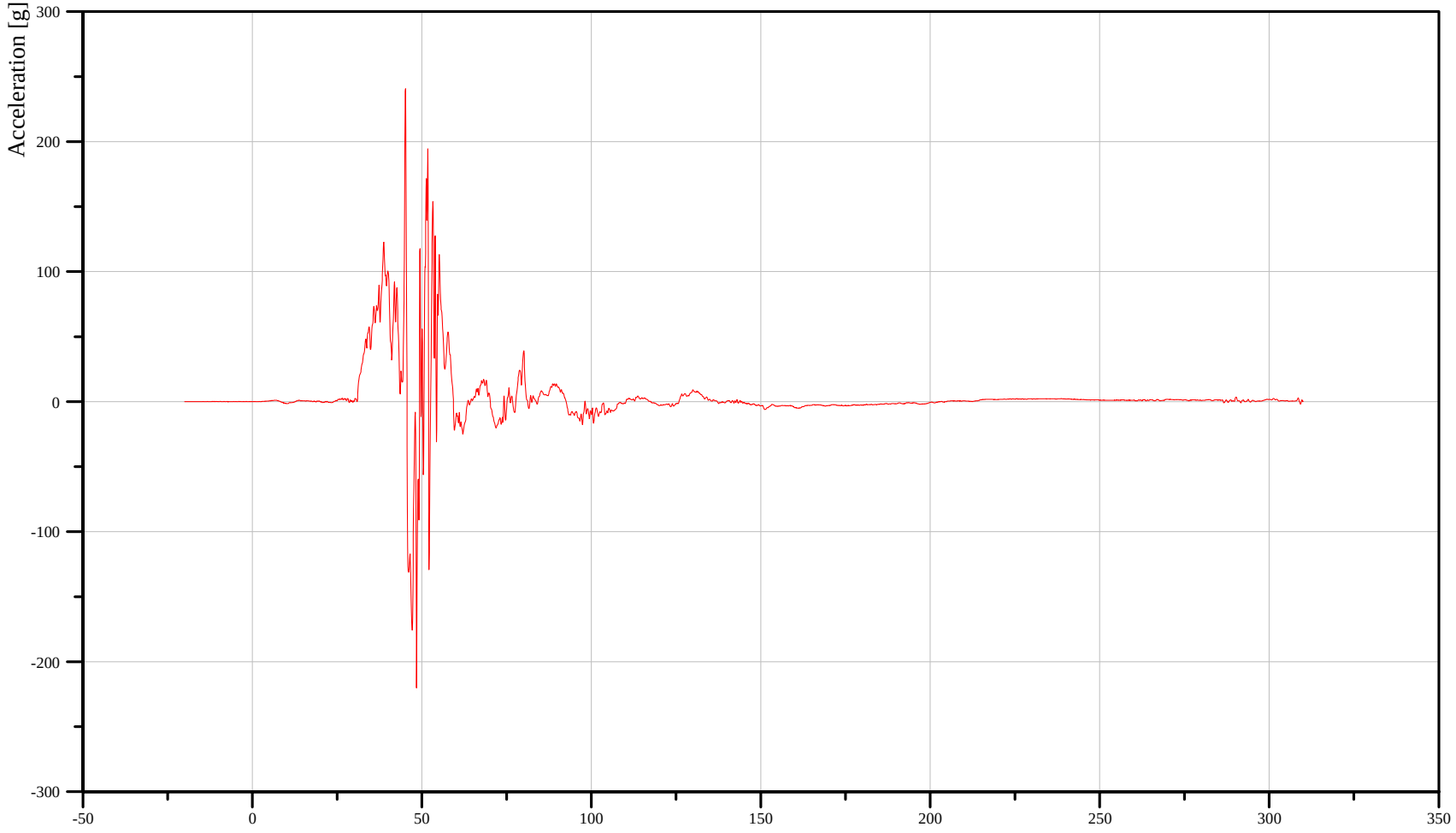
Left Abdomen Rib 2 Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11ABRI02LES2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-220.12 g at 48.48 ms

Max. Value
240.84 g at 45.20 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

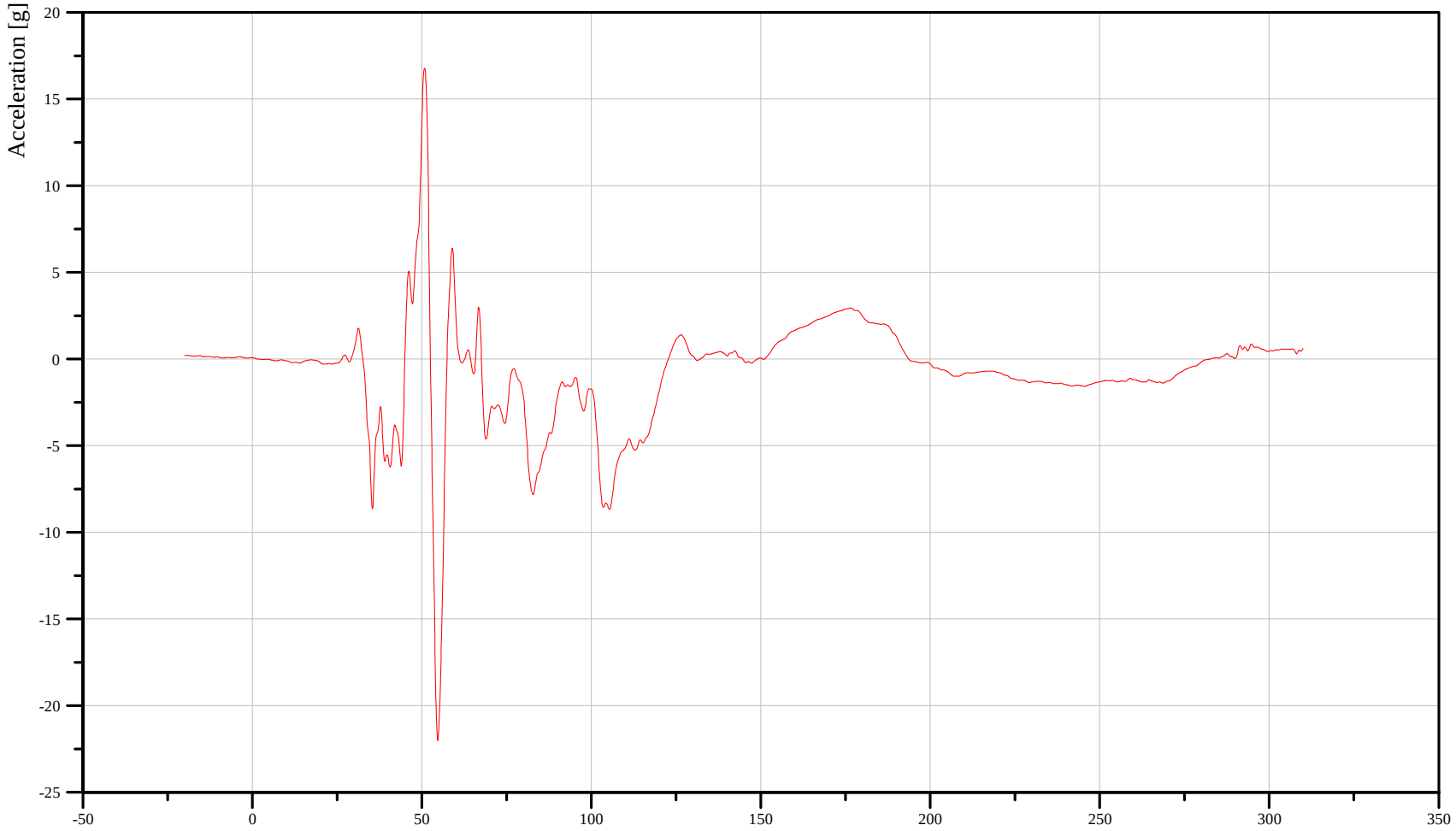
Lower Spine X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN1200S2ACXC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-22.01 g at 54.72 ms

Max. Value
16.78 g at 50.80 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

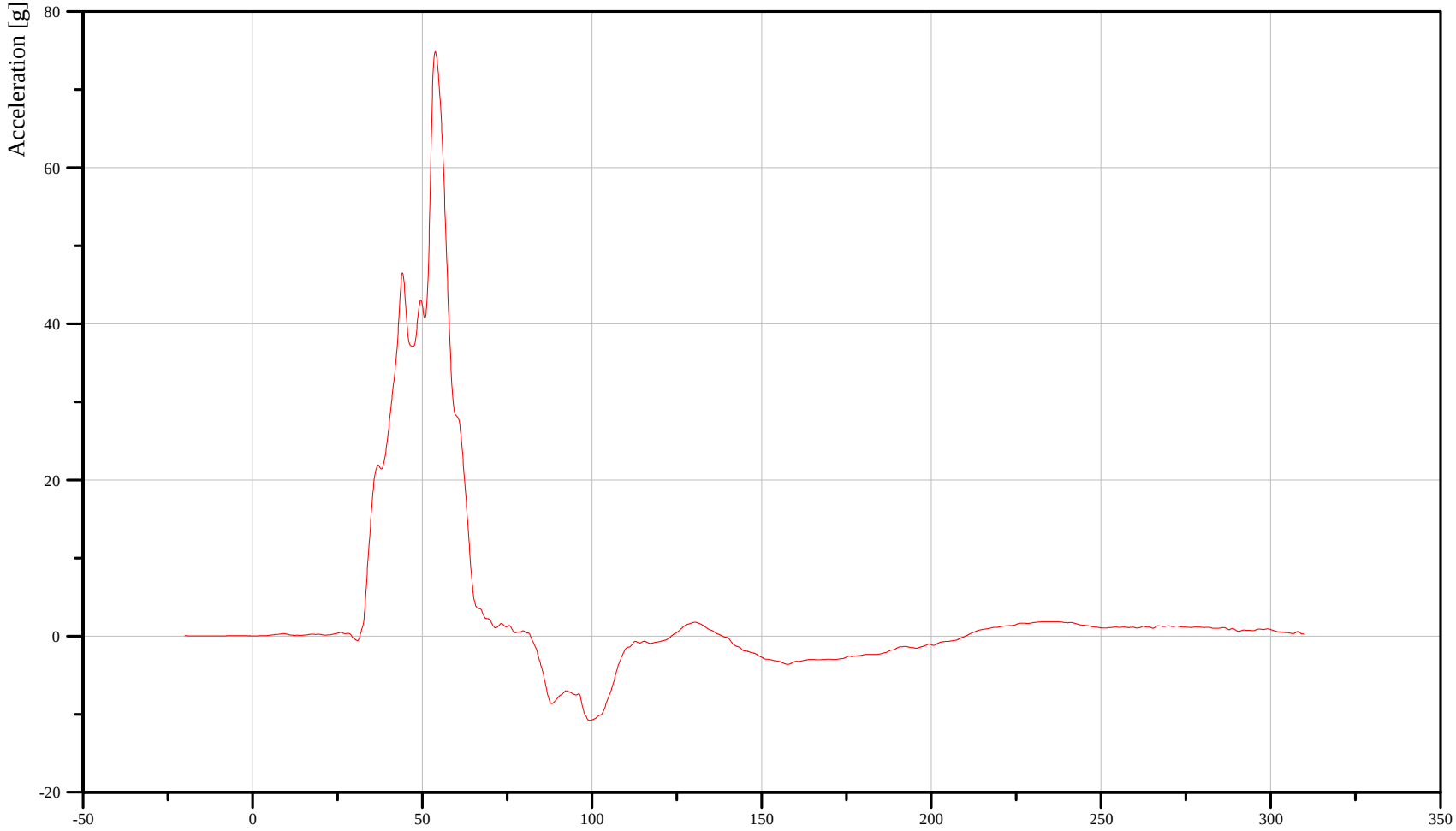
Lower Spine Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN1200S2ACYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-10.80 g at 99.20 ms

Max. Value
74.90 g at 53.84 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

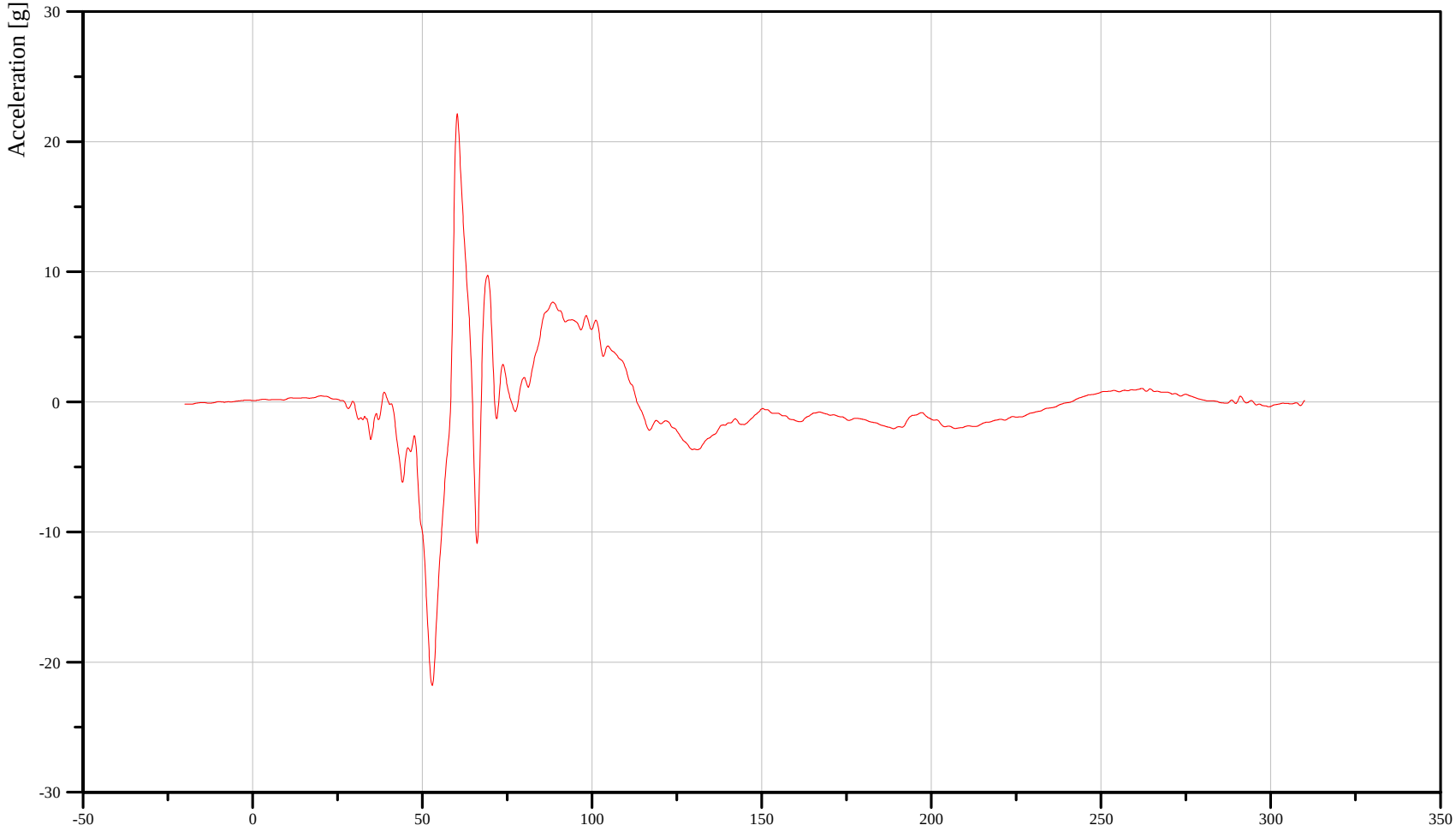
Lower Spine Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN1200S2ACZC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-21.79 g at 52.96 ms

Max. Value
22.15 g at 60.32 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

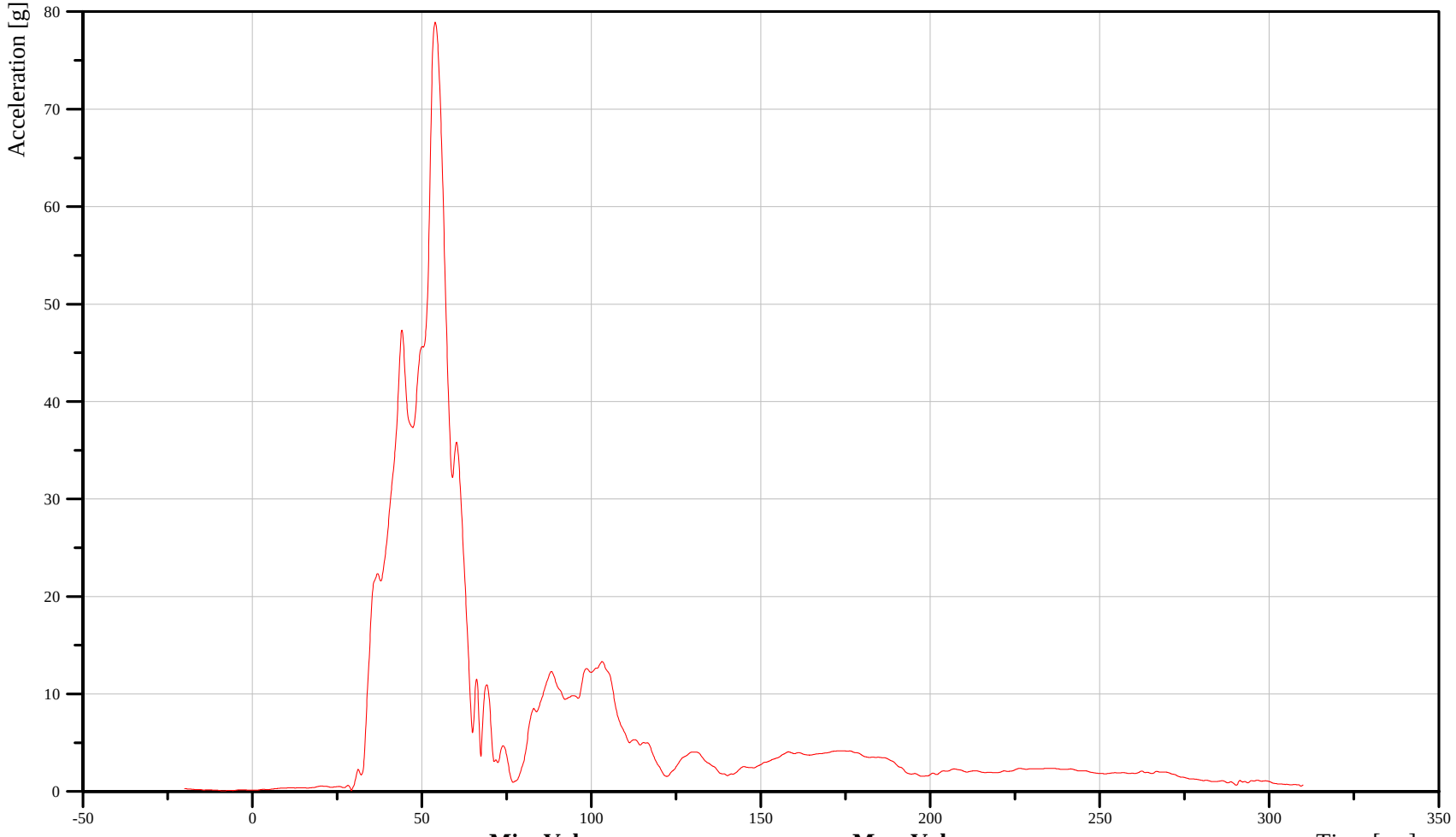
Lower Spine Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SPIN1200S2ACRC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
0.06 g at -8.64 ms

Max. Value
78.92 g at 53.92 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

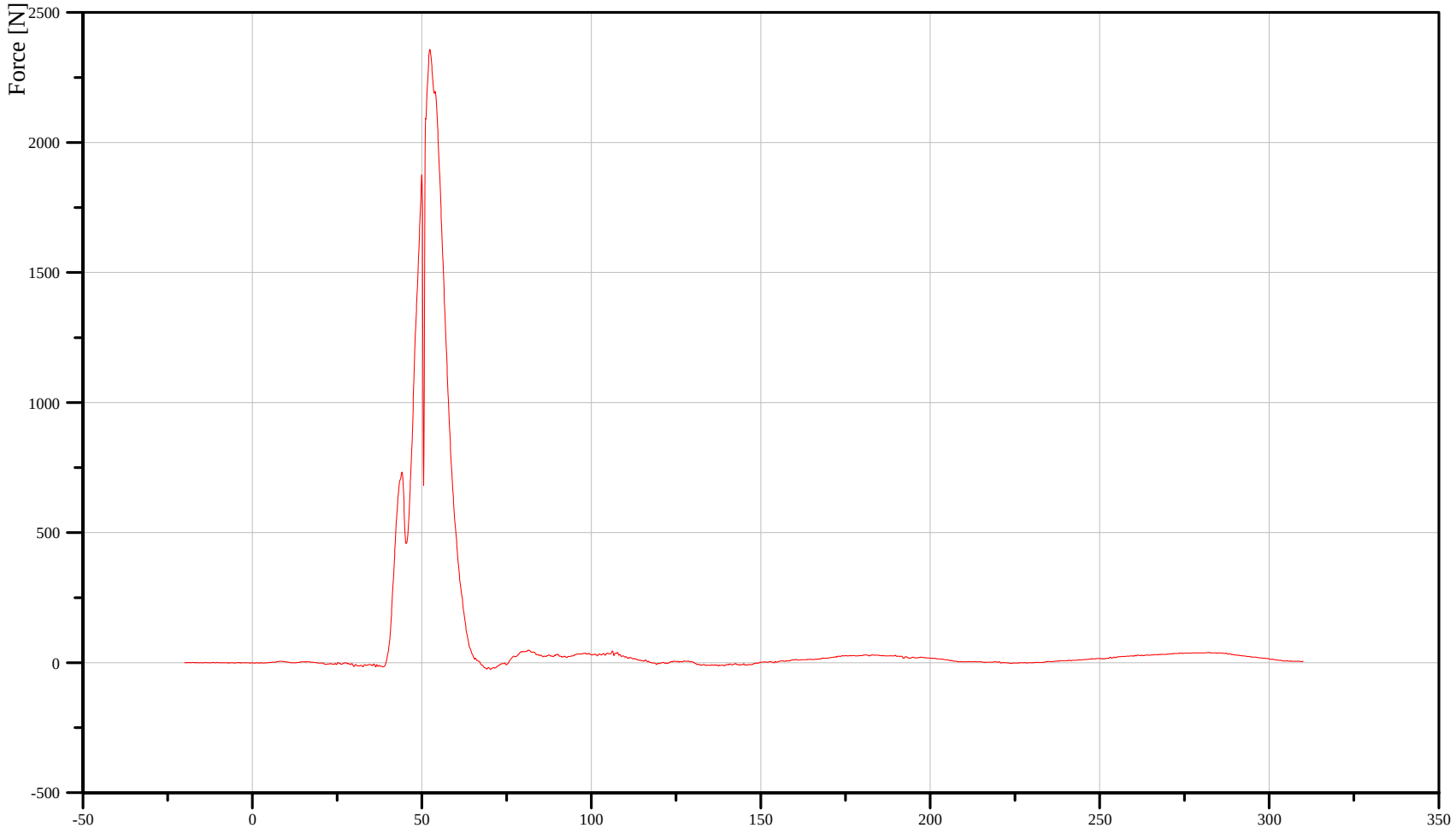
Left Iliac Wing Y-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11ILACLE00S2FOYB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value	Max. Value
-25.74 N at 70.32 ms	2,358.54 N at 52.40 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

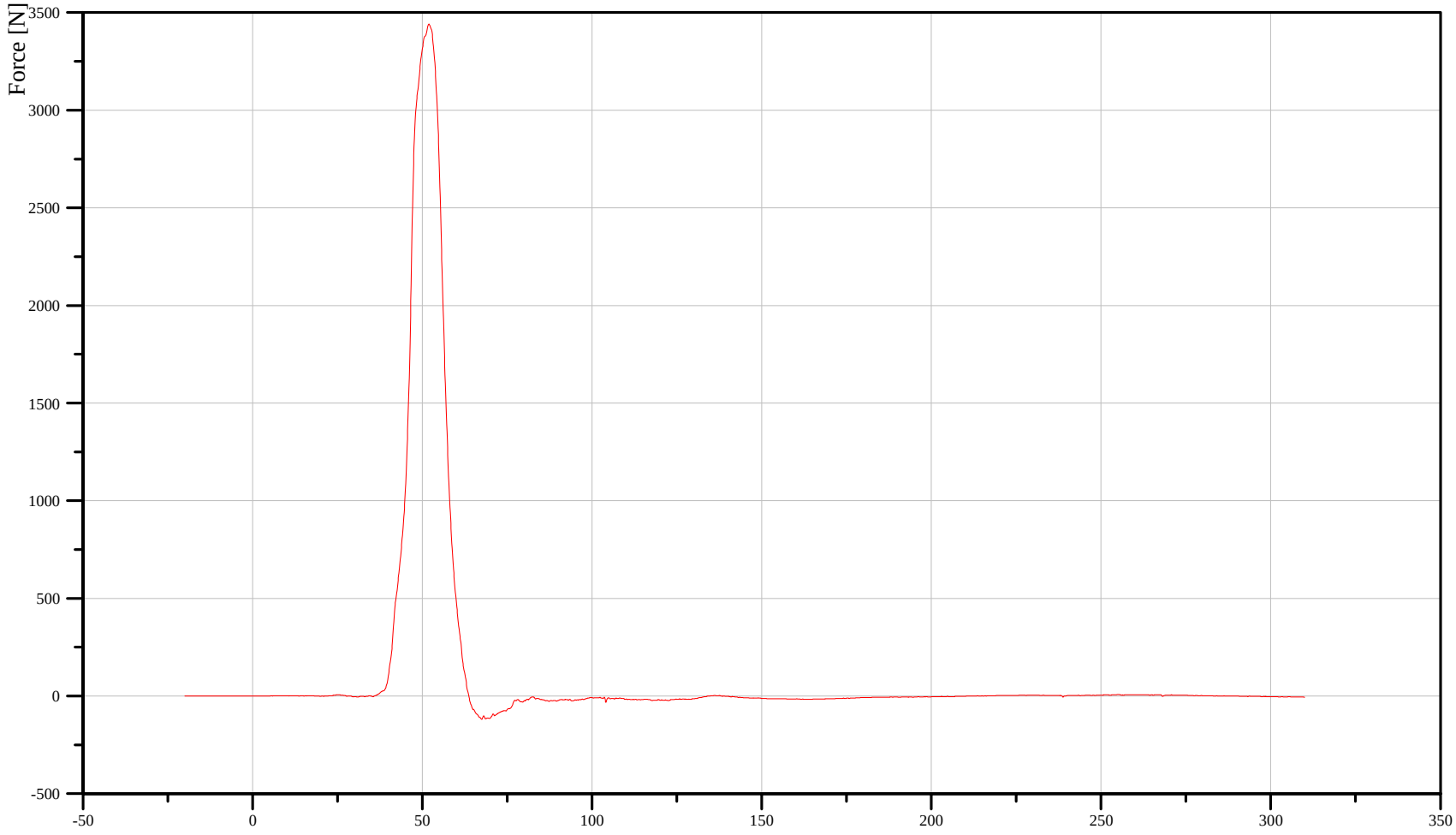
Left Acetabulum Y-Axis Force

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11ACTBLE00S2FOYB

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_600

Min. Value
-119.59 N at 67.52 ms

Max. Value
3,441.55 N at 51.92 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

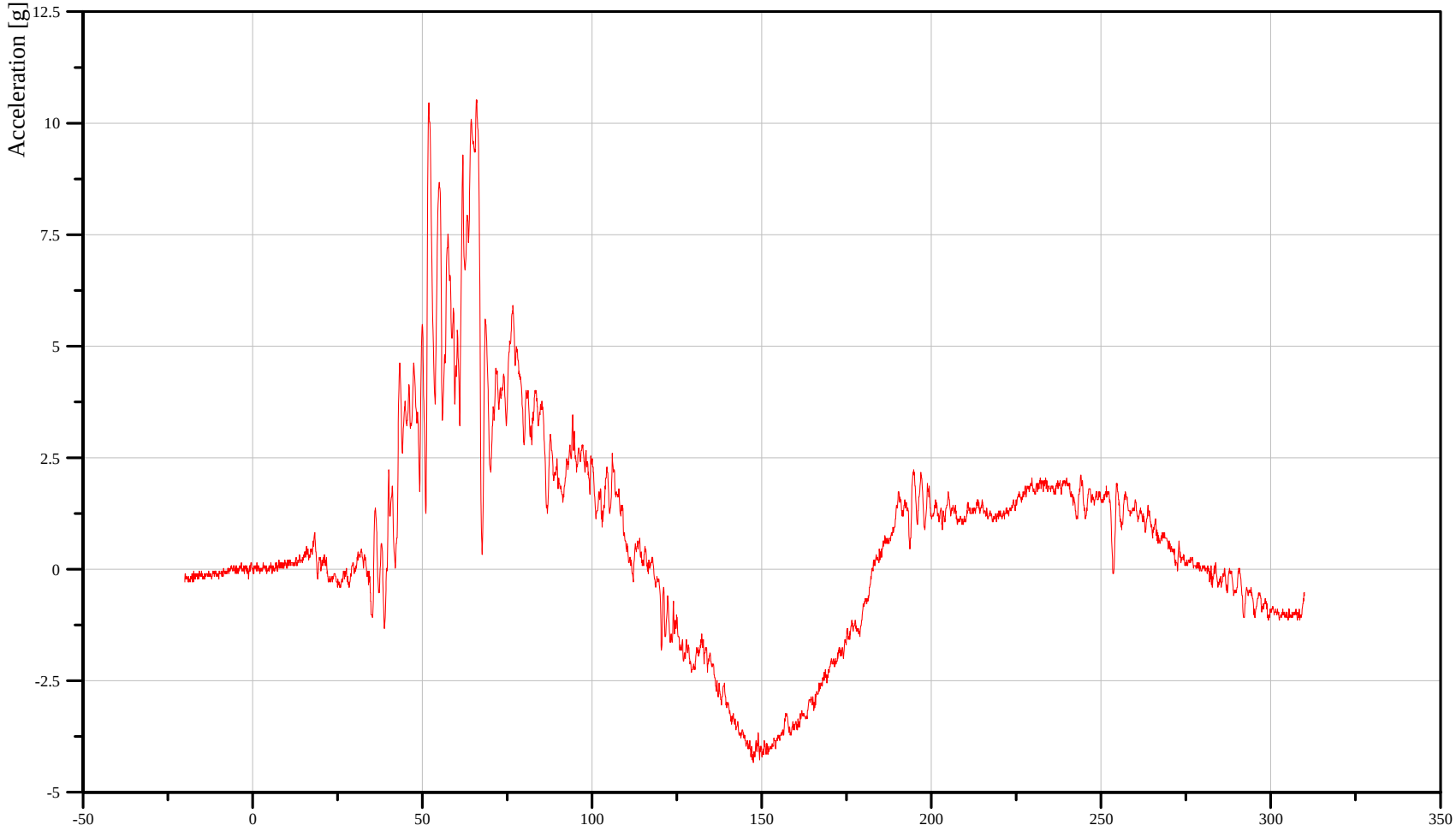
Pelvis X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11PELVCG00S2ACXA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-4.33 g at 147.52 ms

Max. Value
10.52 g at 65.92 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

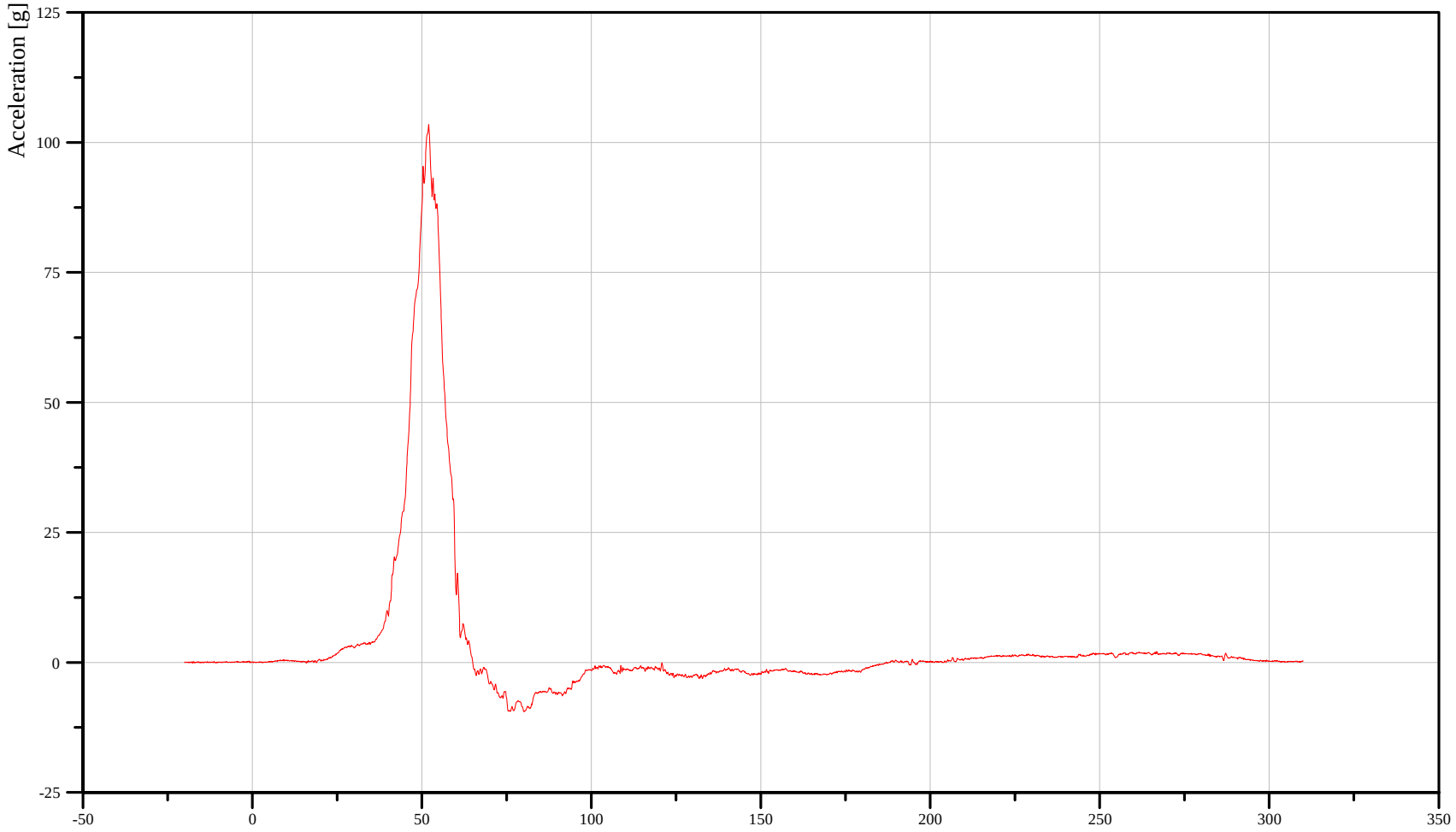
Pelvis Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11PELVCG00S2ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-9.46 g at 80.08 ms

Max. Value
103.45 g at 52.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

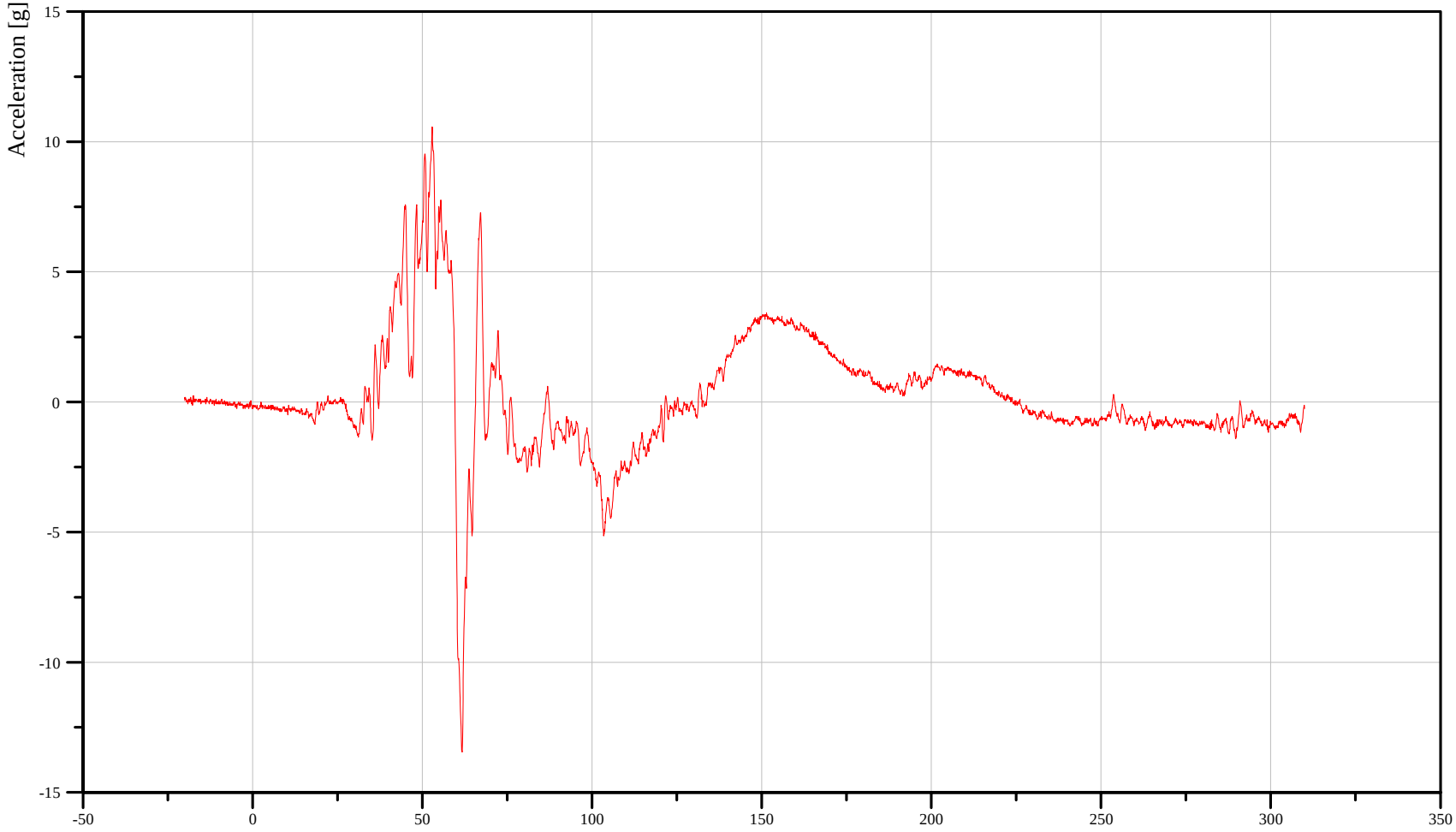
Pelvis Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11PELVCG00S2ACZA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-13.45 g at 61.76 ms

Max. Value
10.57 g at 52.88 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

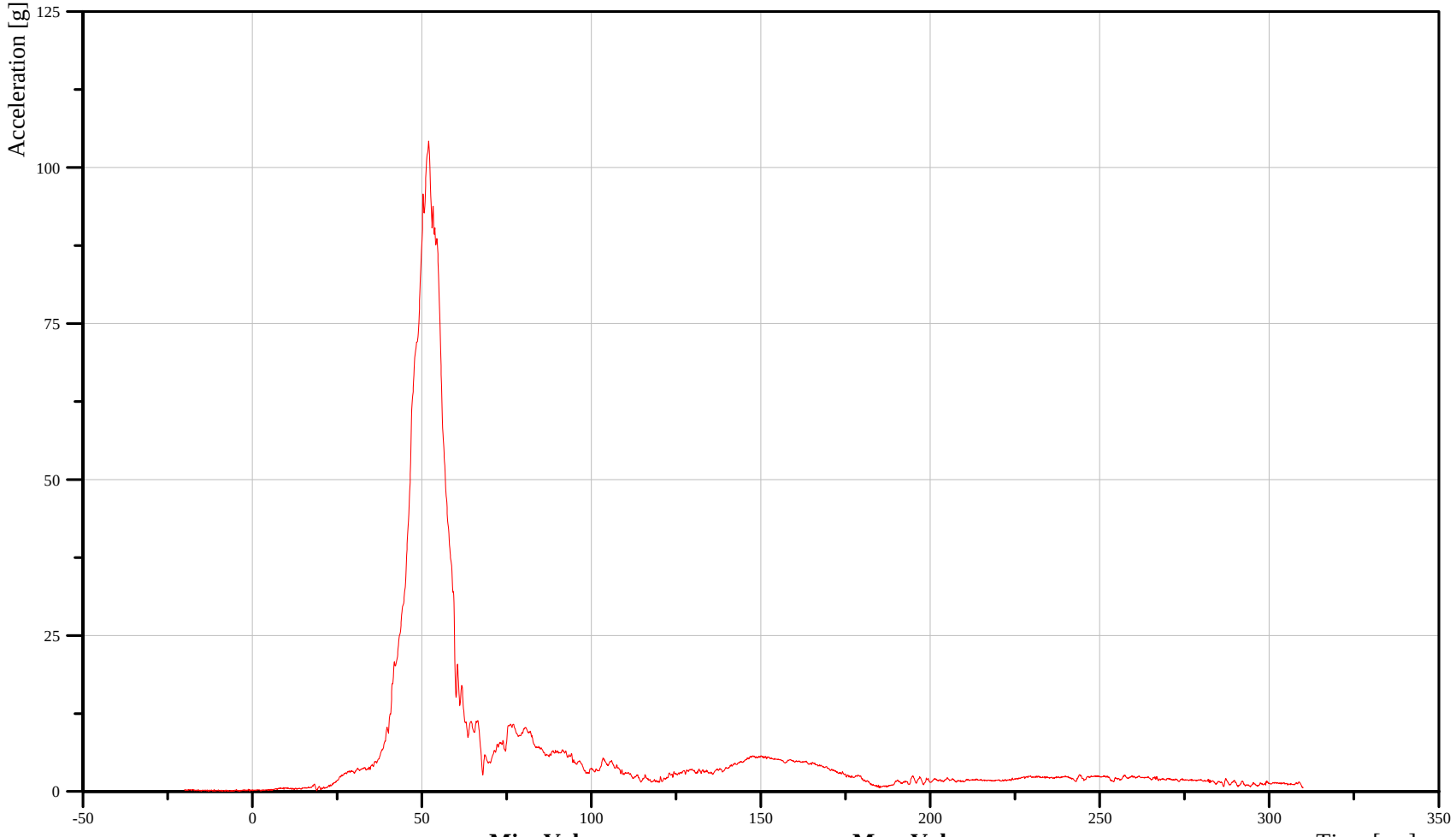
Pelvis Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11PELVCG00S2ACRA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
0.04 g at -12.96 ms

Max. Value
104.26 g at 52.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

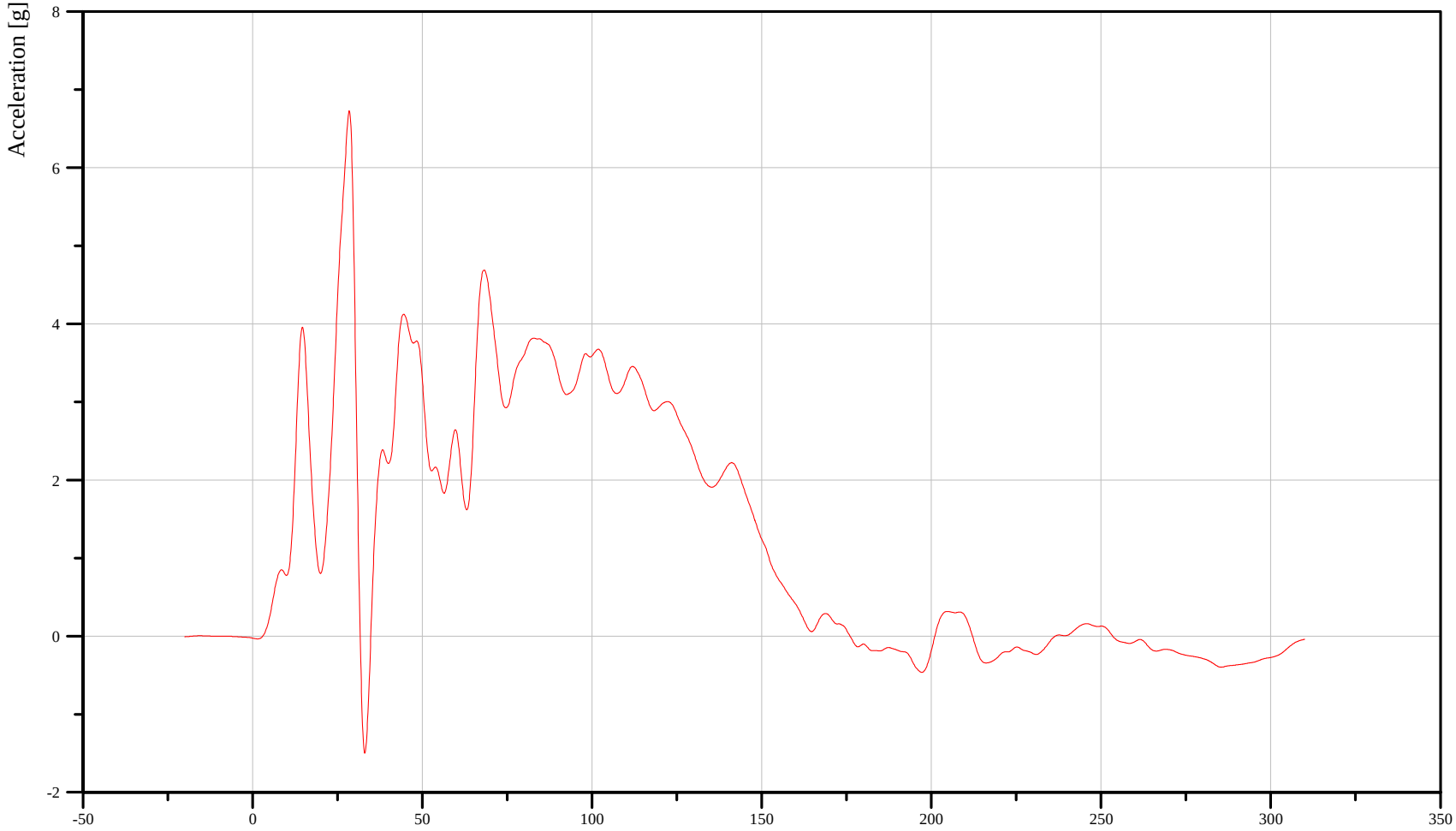
Right Side Sill at Front Seat X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-1.50 g at 33.04 ms

Max. Value
6.73 g at 28.48 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

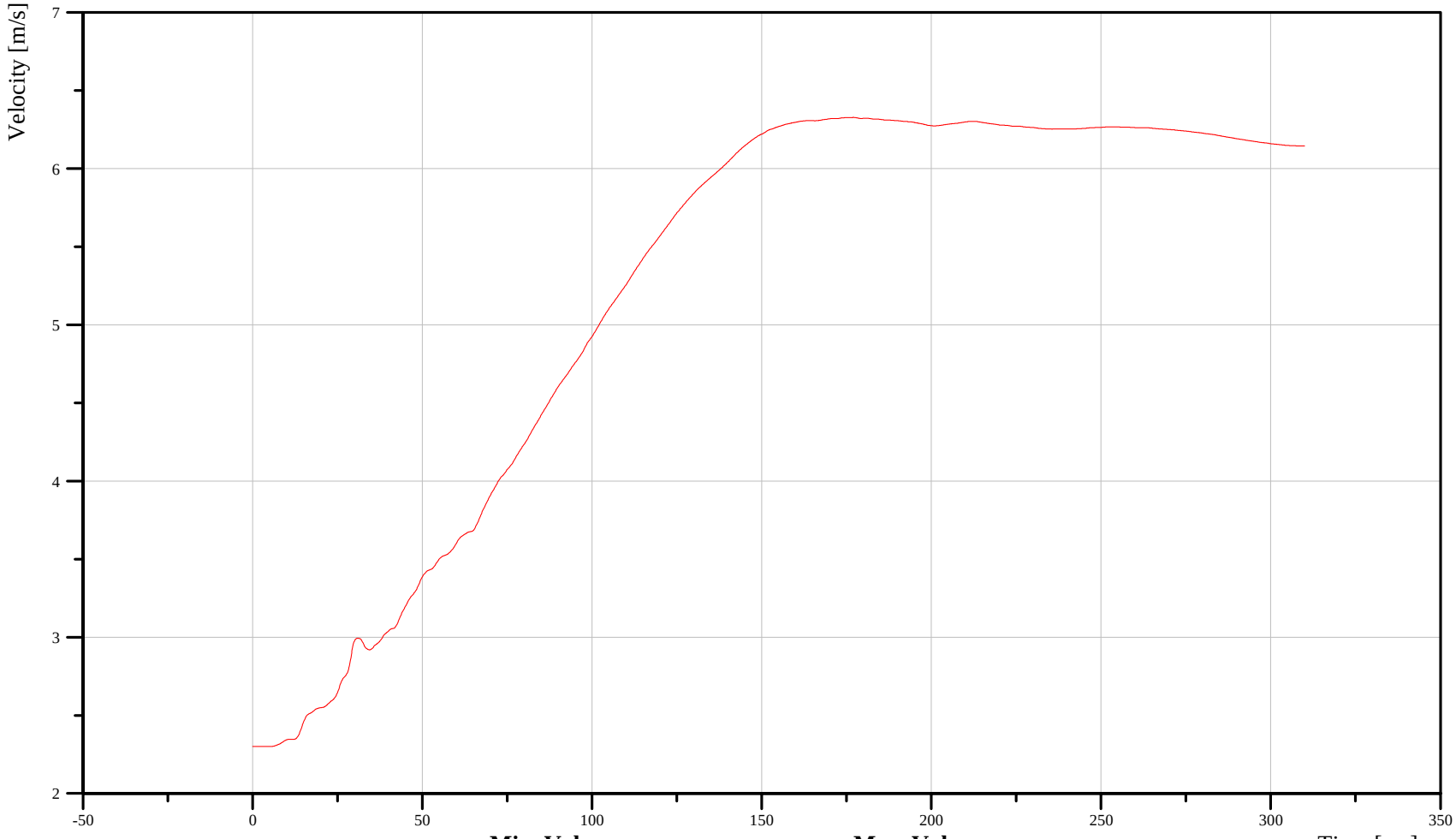
Right Side Sill at Front Seat X-Axis Velocity

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
2.30 m/s at 3.28 ms

Max. Value
6.33 m/s at 177.04 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

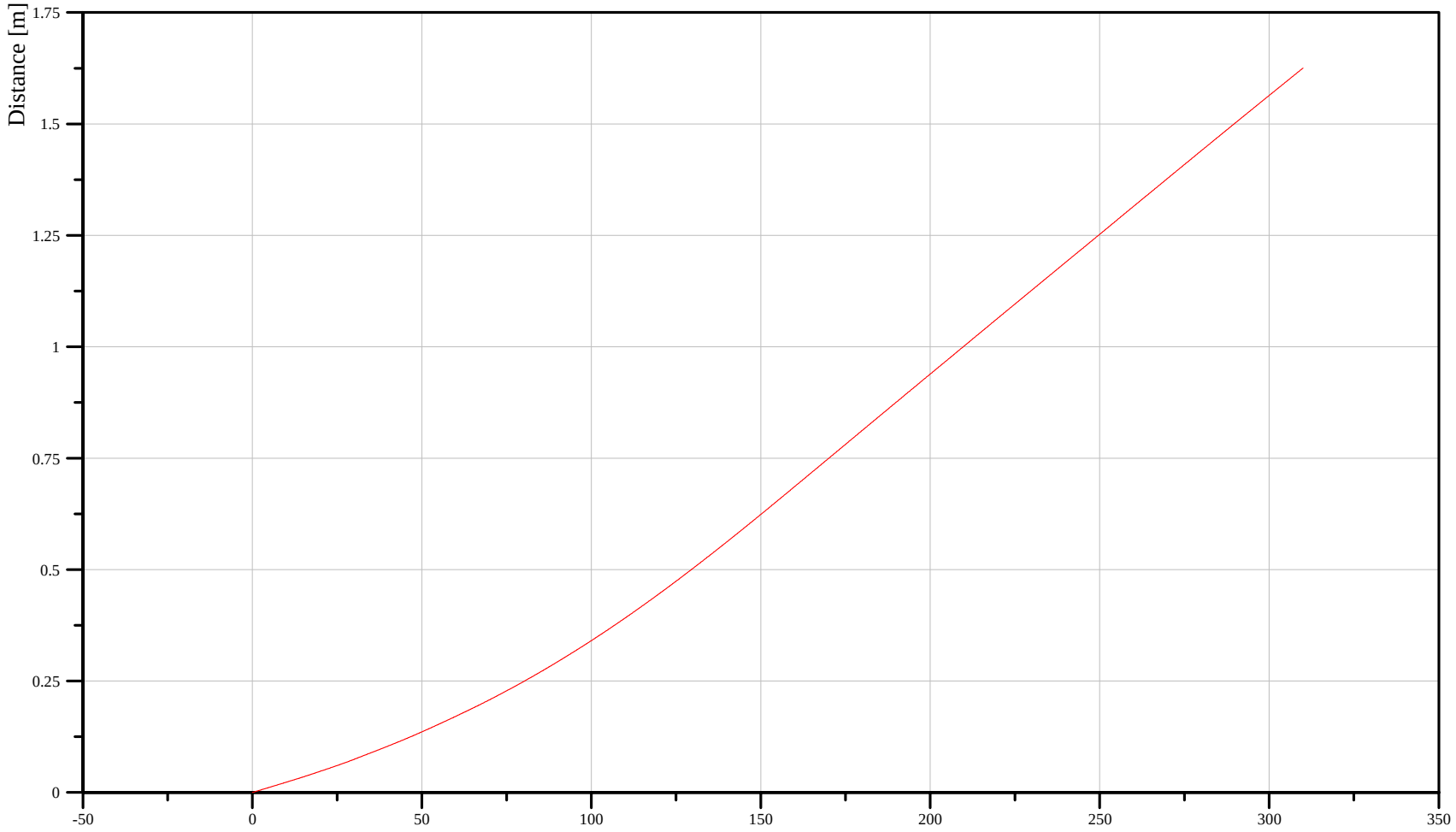
Right Side Sill at Front Seat X-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000DCXC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
0.00 m at 0.00 ms

Max. Value
1.63 m at 310.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

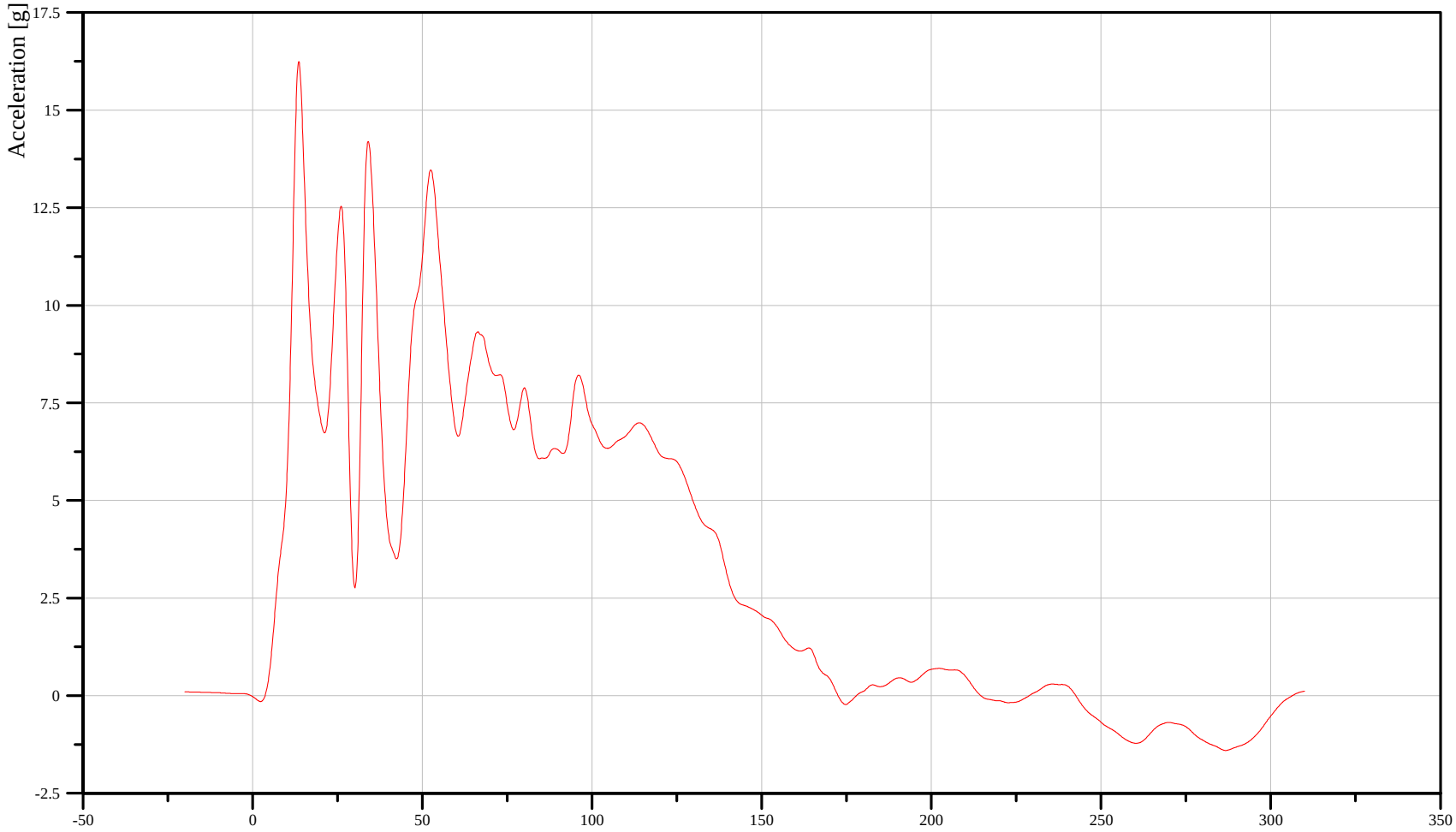
Right Side Sill at Front Seat Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-1.40 g at 286.72 ms

Max. Value
16.25 g at 13.60 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

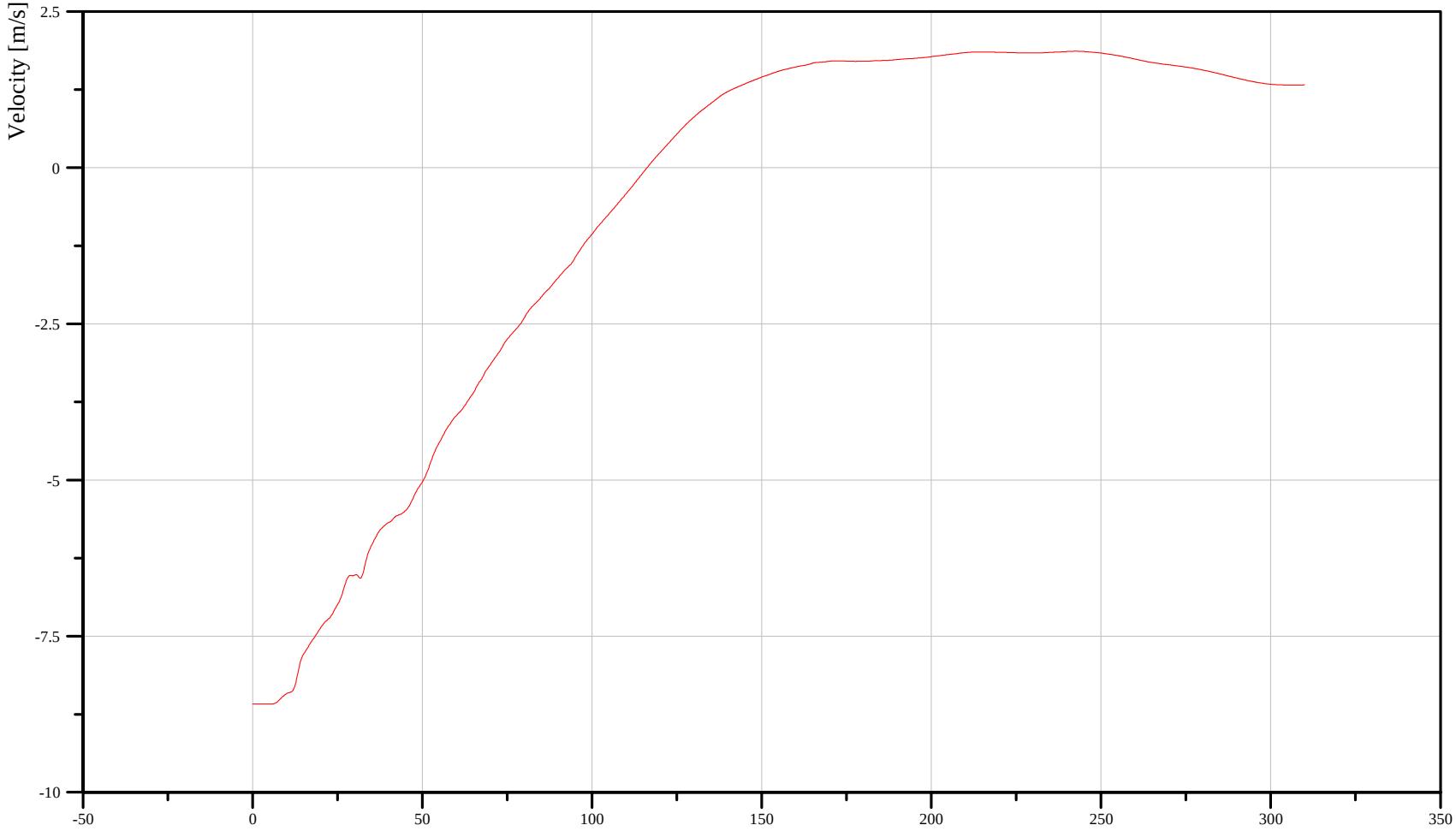
Right Side Sill at Front Seat Y-Axis Velocity

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-8.59 m/s at 4.16 ms

Max. Value
1.87 m/s at 242.56 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

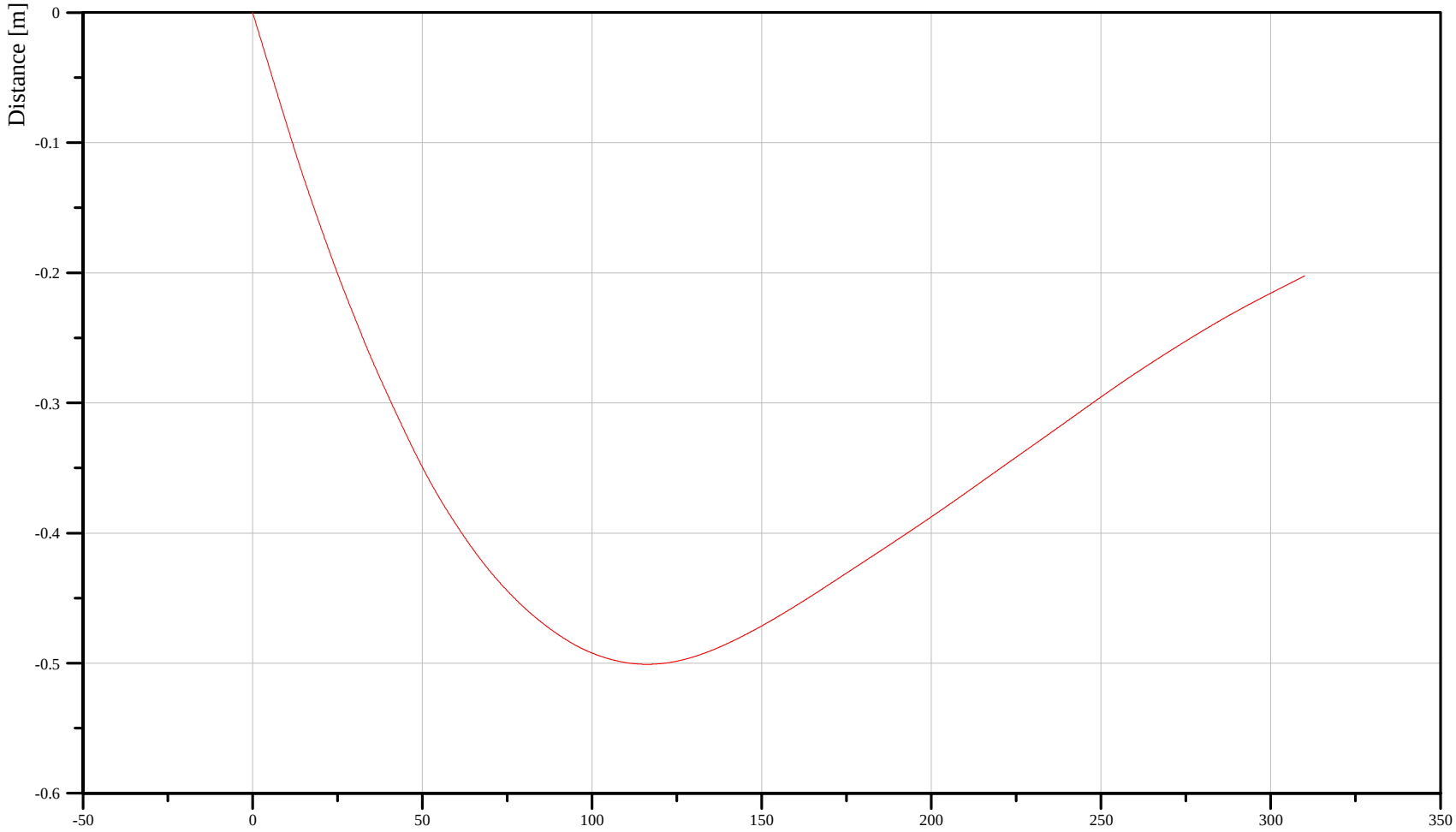
Right Side Sill at Front Seat Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-0.50 m at 116.16 ms

Max. Value
0.00 m at 0.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

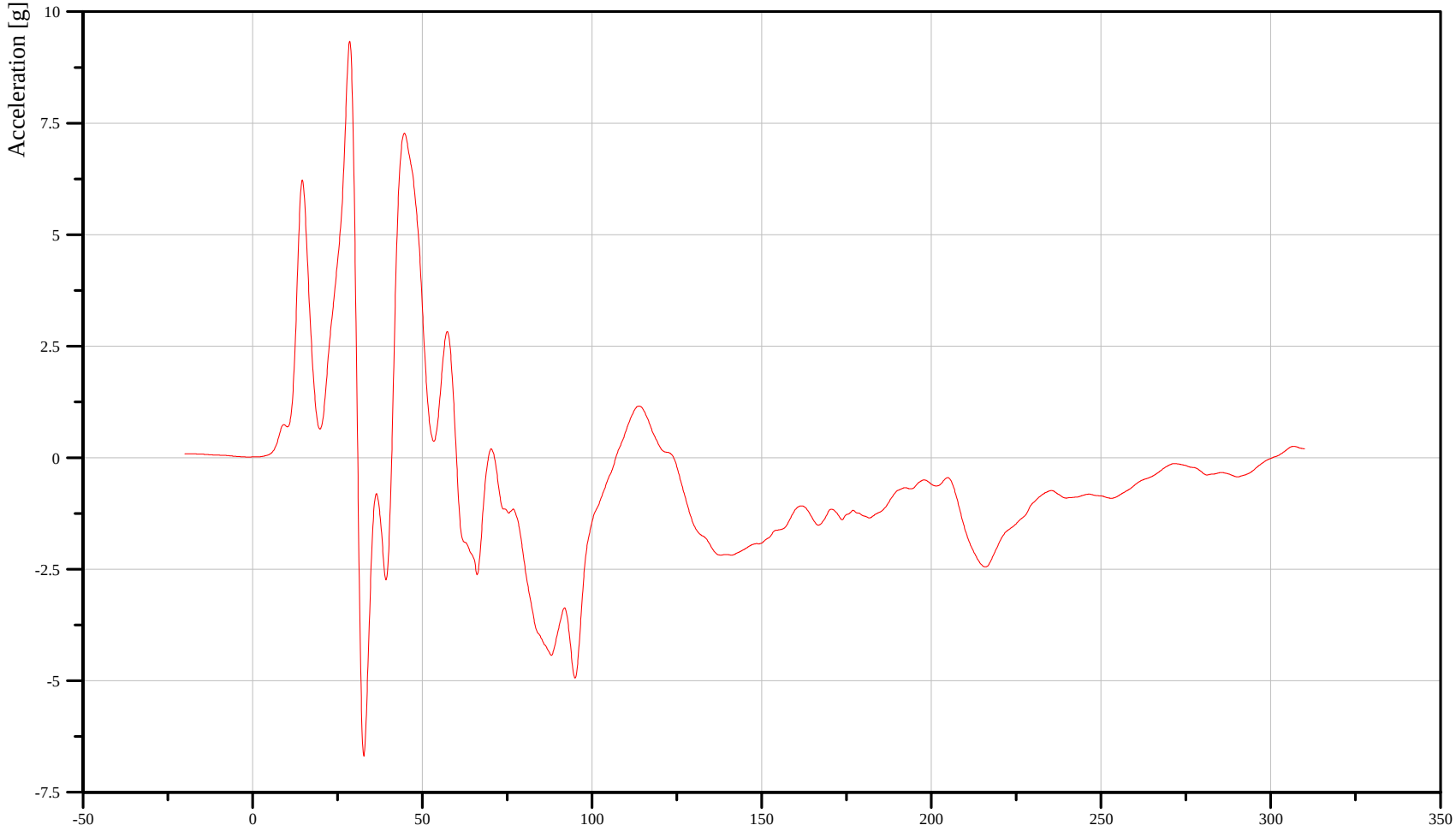
Right Side Sill at Front Seat Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-6.69 g at 32.80 ms

Max. Value
9.34 g at 28.64 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

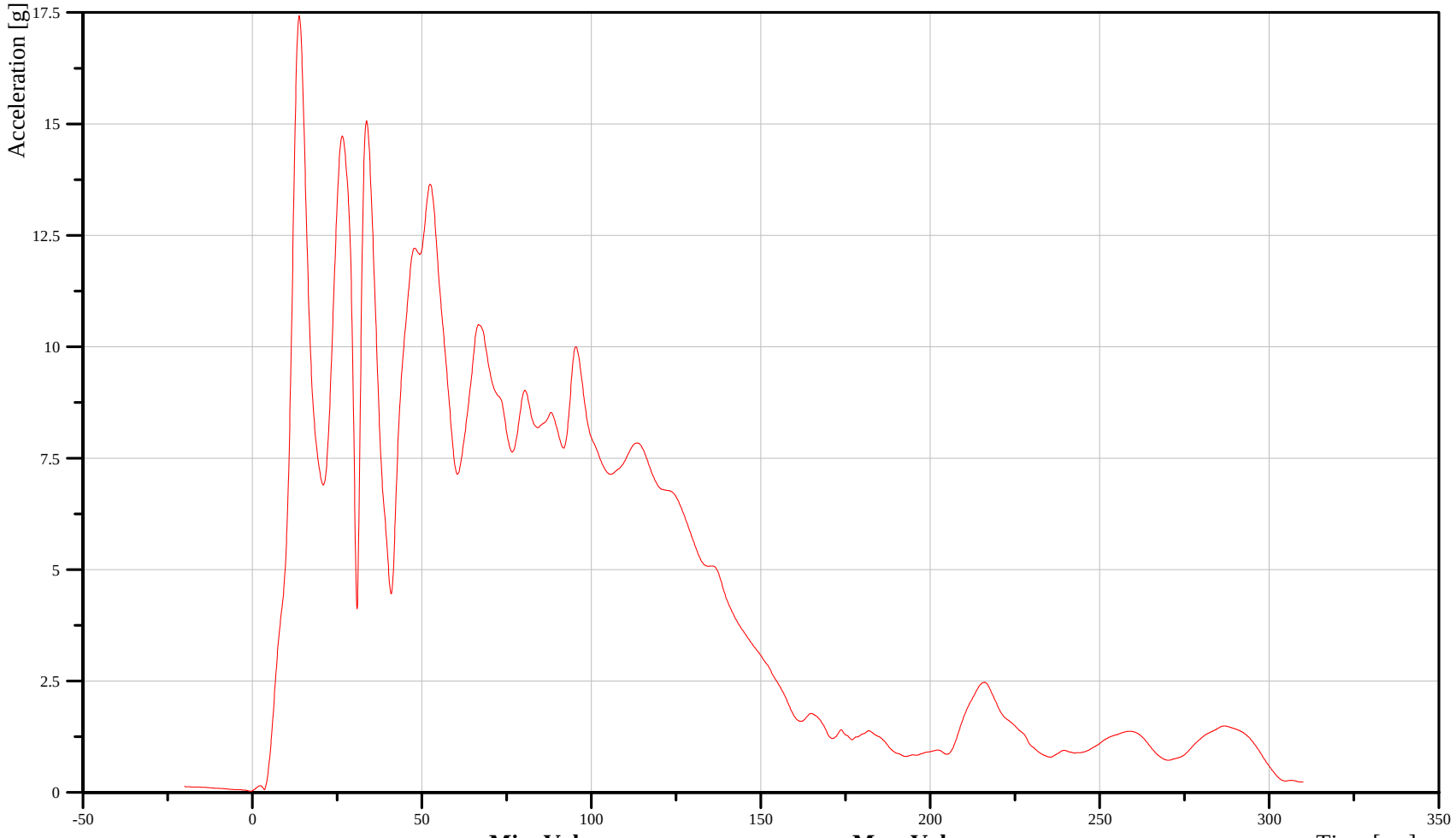
Right Side Sill at Front Seat Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBFR0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
0.03 g at -0.48 ms

Max. Value
17.43 g at 13.84 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

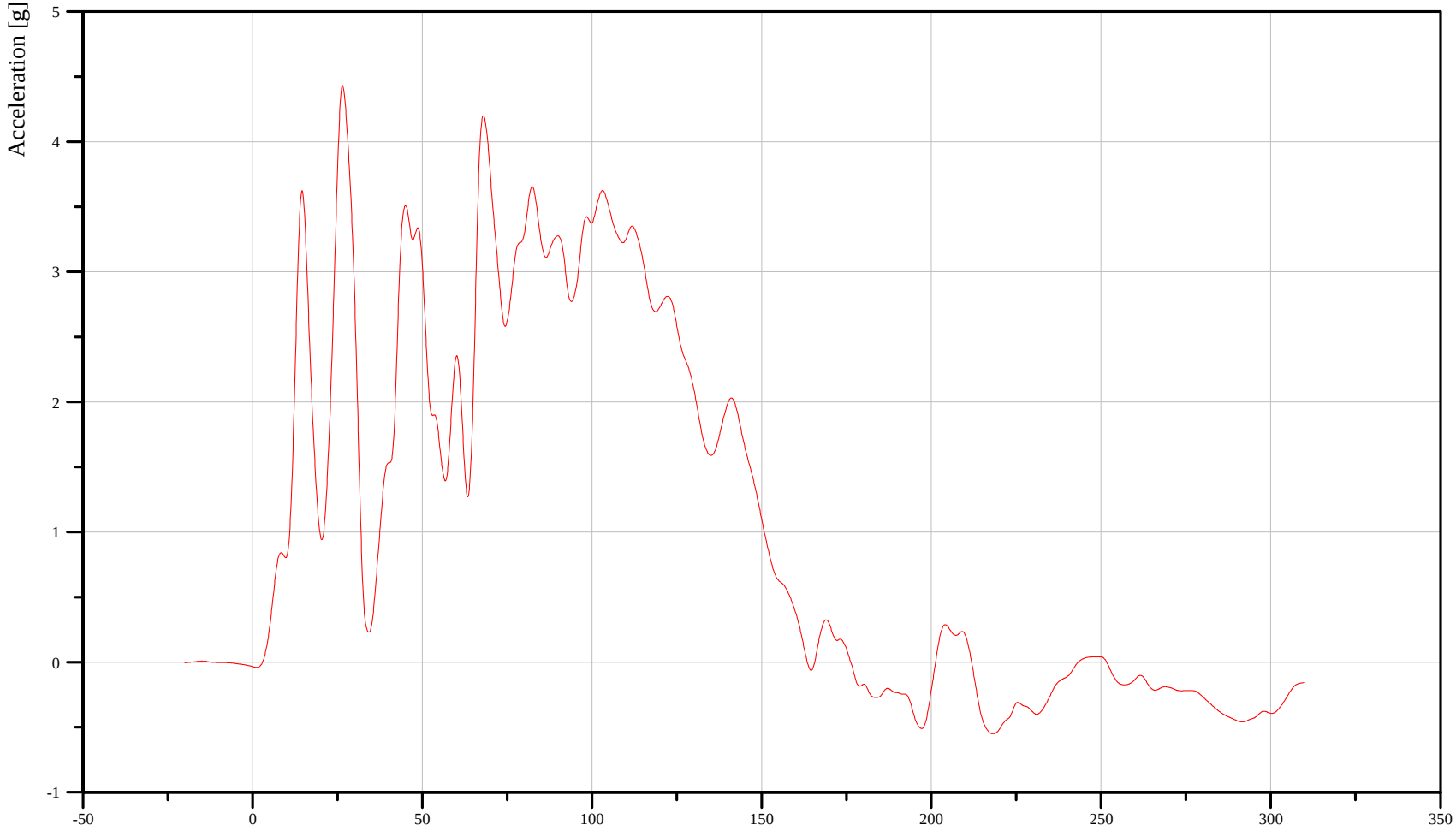
Right Side Sill at Rear Seat X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-0.55 g at 218.08 ms

Max. Value
4.43 g at 26.48 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

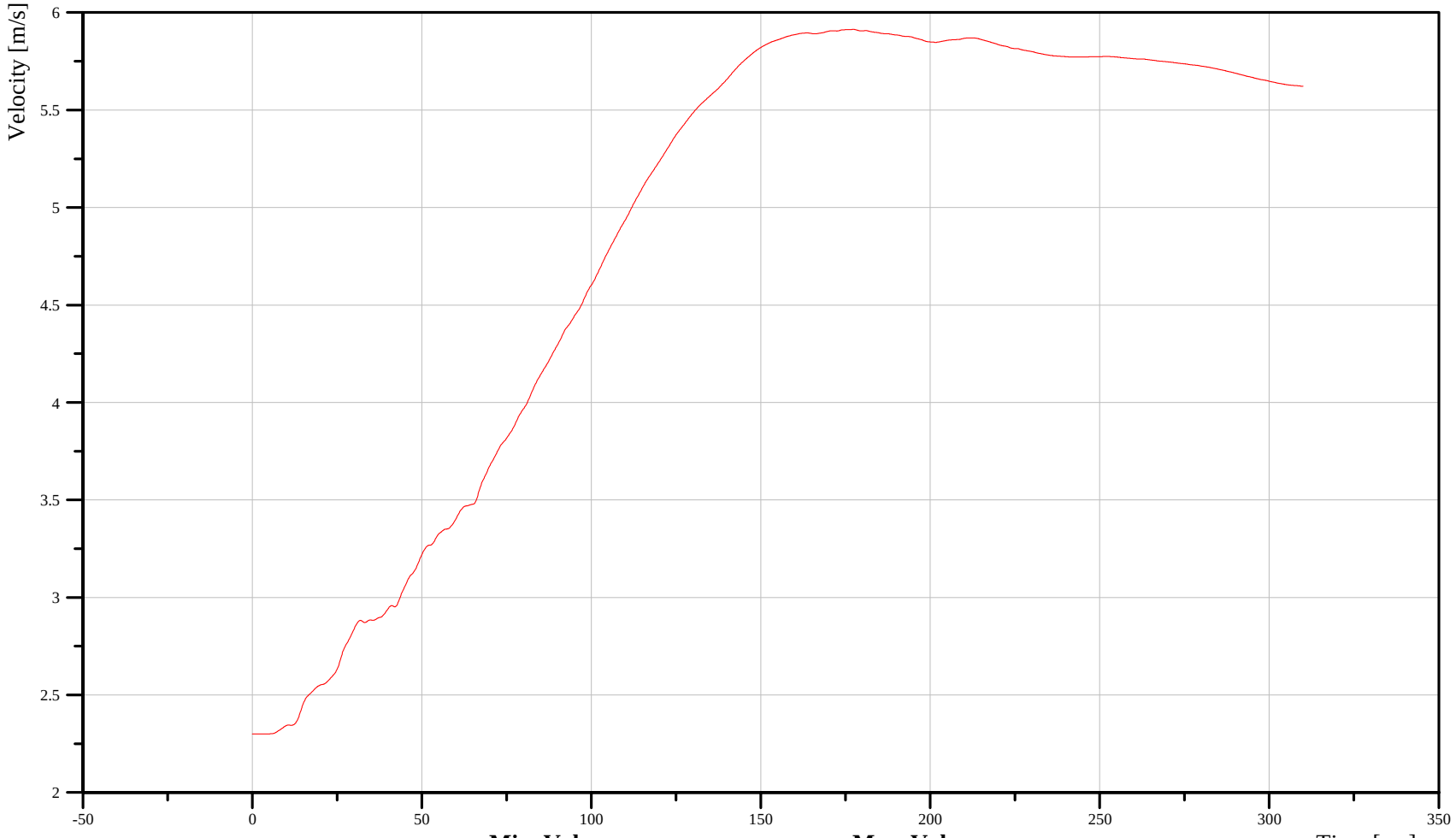
Right Side Sill at Rear Seat X-Axis Velocity

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000VEXC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
2.30 m/s at 3.52 ms

Max. Value
5.91 m/s at 177.28 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

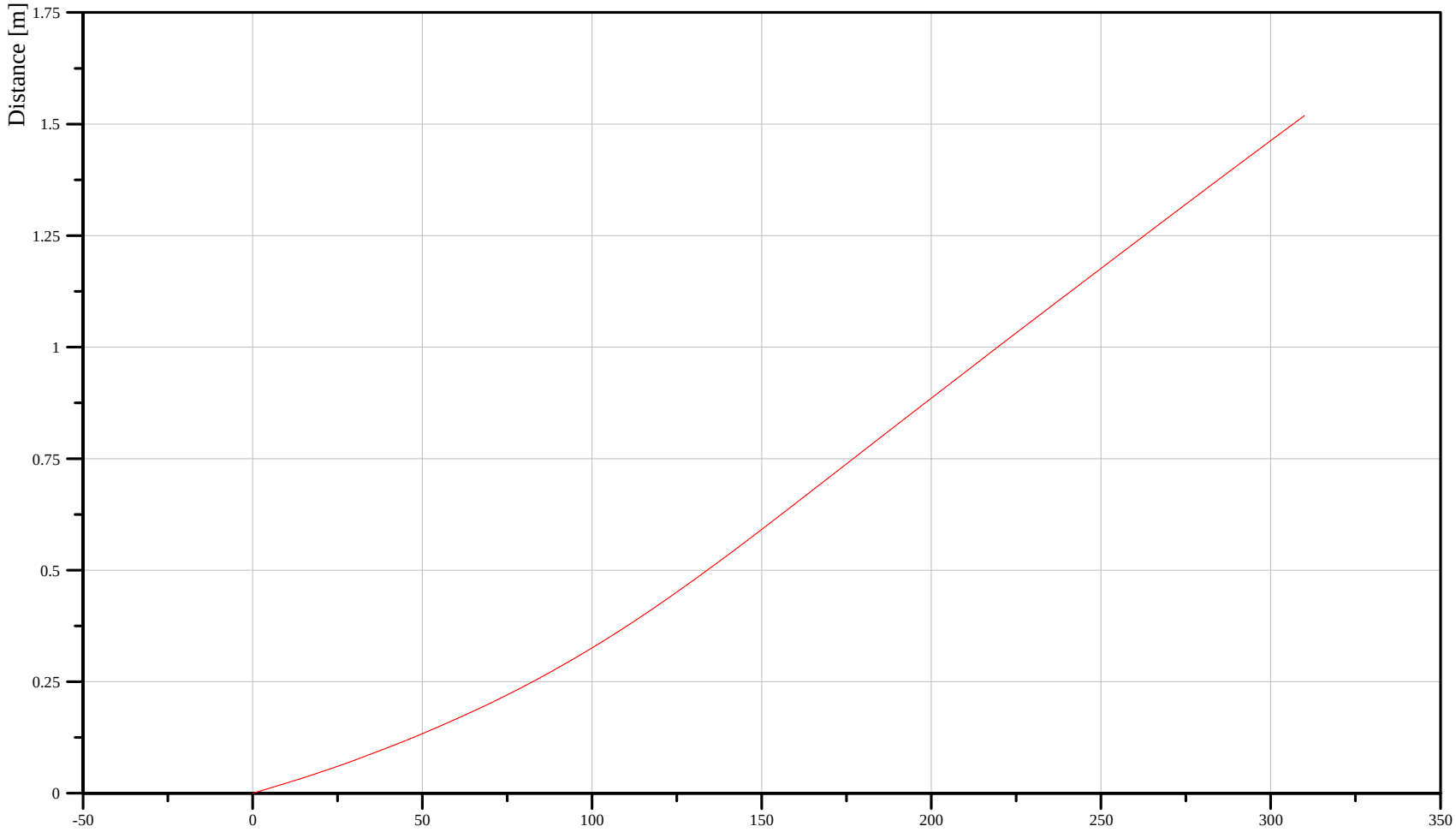
Right Side Sill at Rear Seat X-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000DCXC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
0.00 m at 0.00 ms

Max. Value
1.52 m at 310.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

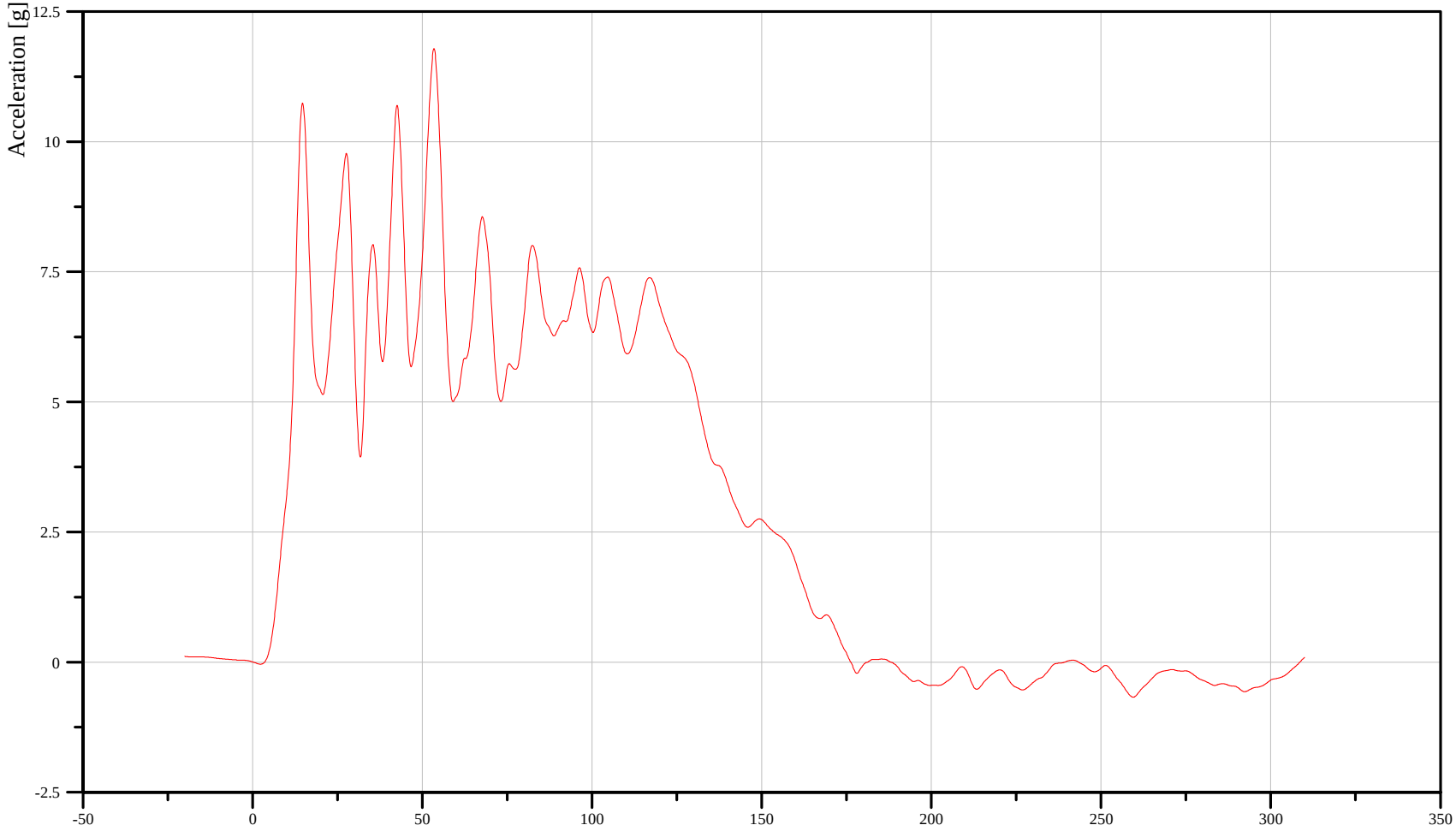
Right Side Sill at Rear Seat Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-0.67 g at 259.44 ms

Max. Value
11.79 g at 53.44 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

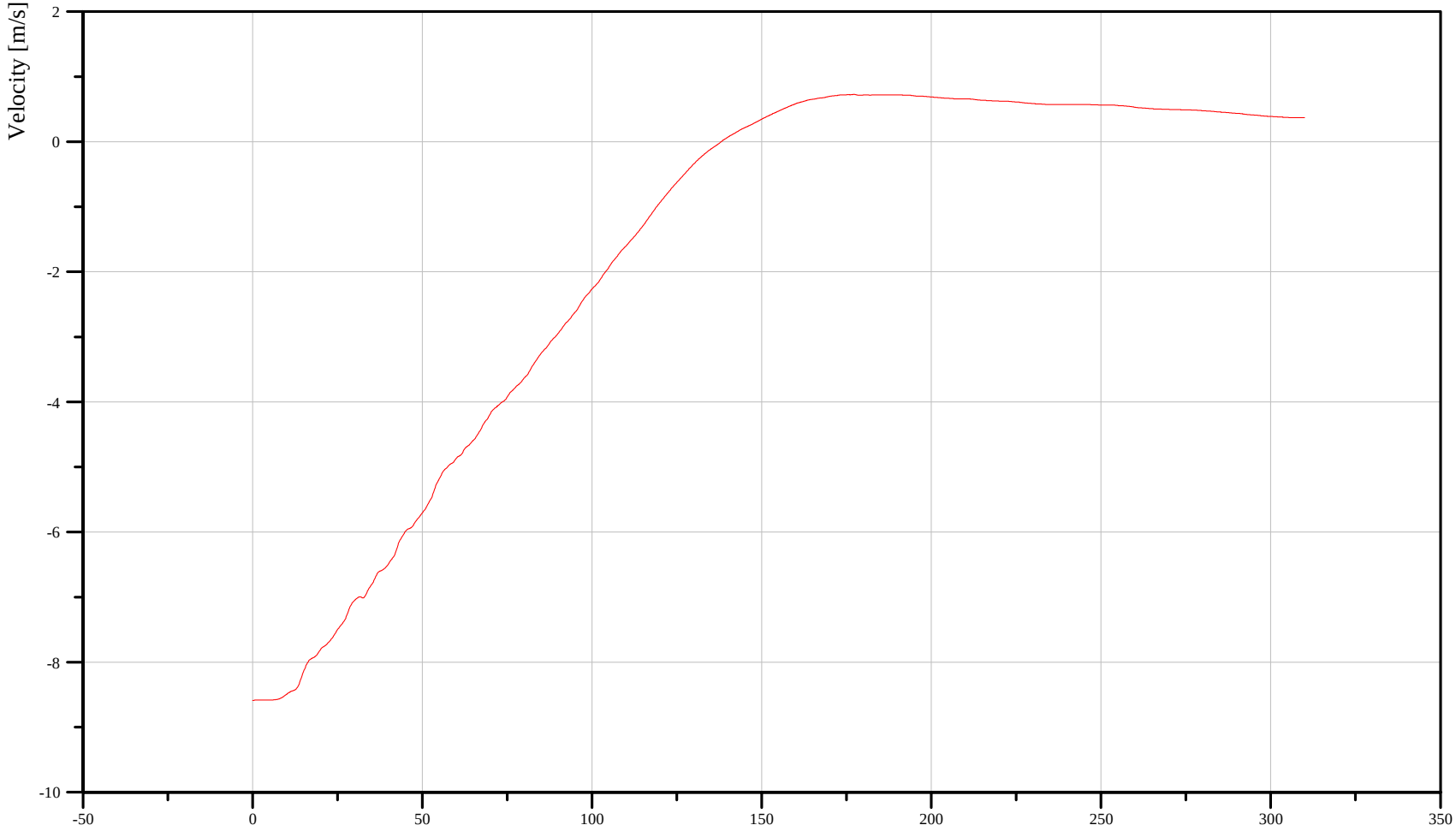
Right Side Sill at Rear Seat Y-Axis Velocity

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-8.58 m/s at 0.00 ms

Max. Value
0.73 m/s at 177.12 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

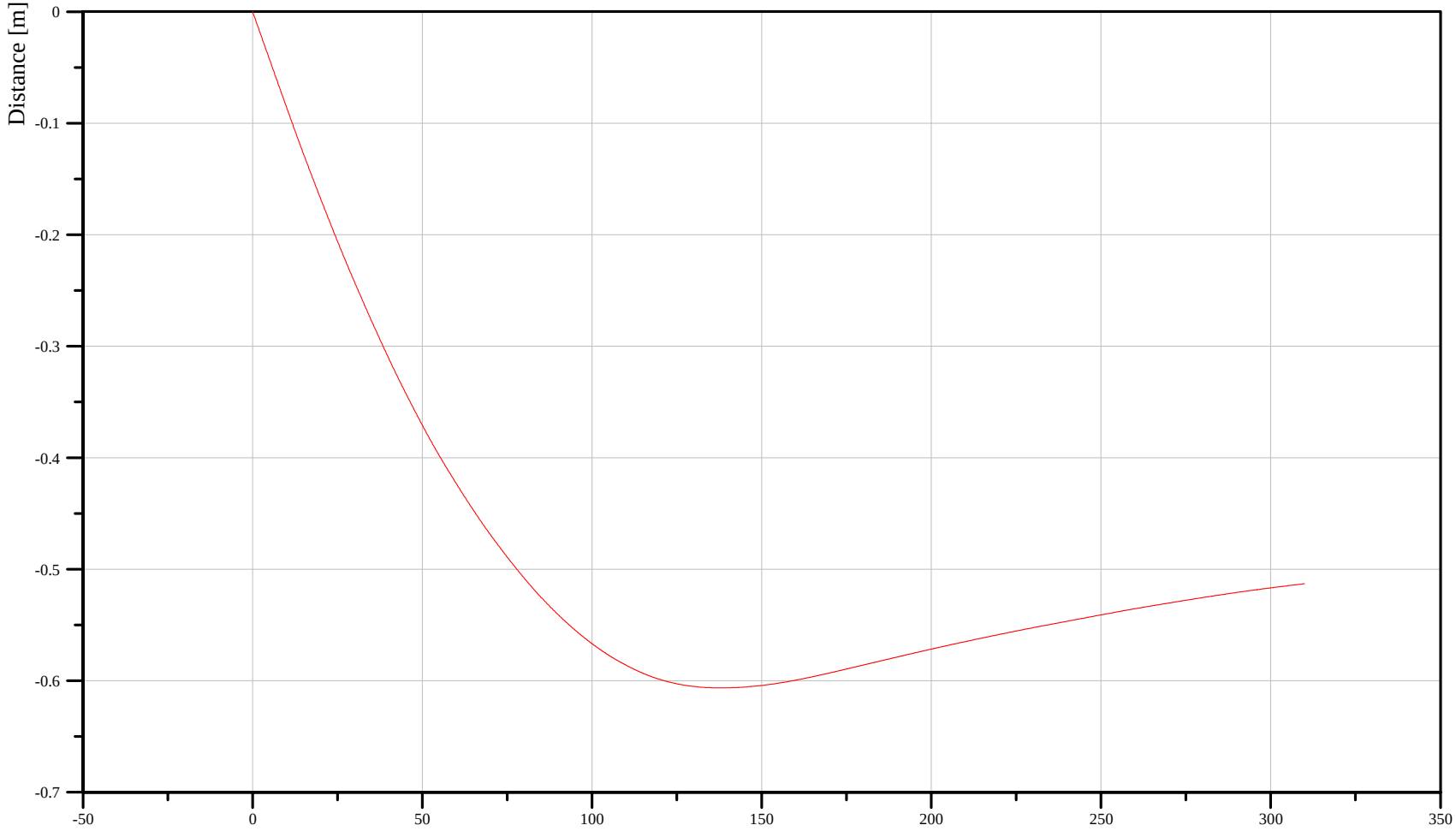
Right Side Sill at Rear Seat Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-0.61 m at 138.08 ms

Max. Value
0.00 m at 0.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

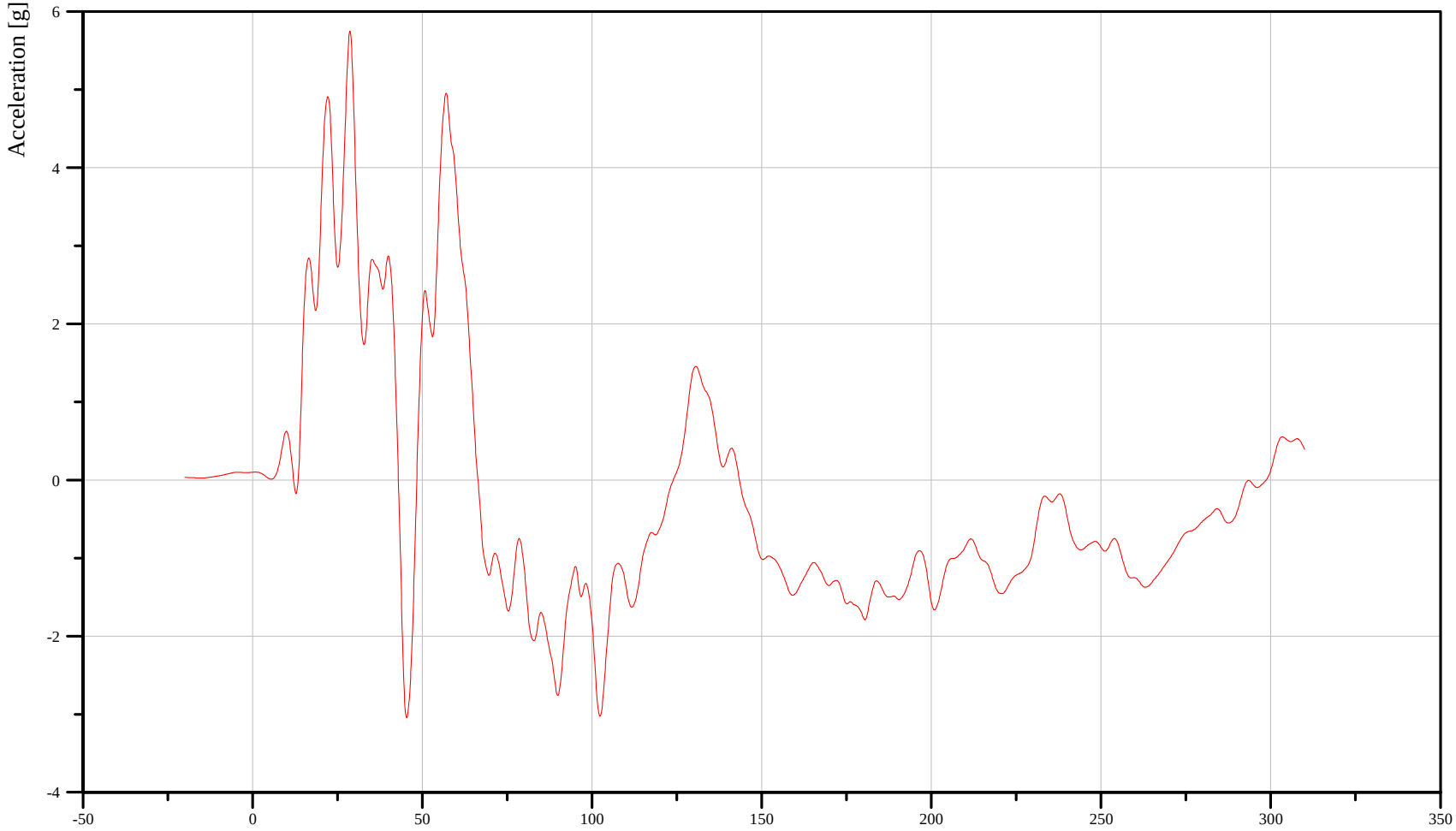
Right Side Sill at Rear Seat Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-3.04 g at 45.36 ms

Max. Value
5.75 g at 28.72 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

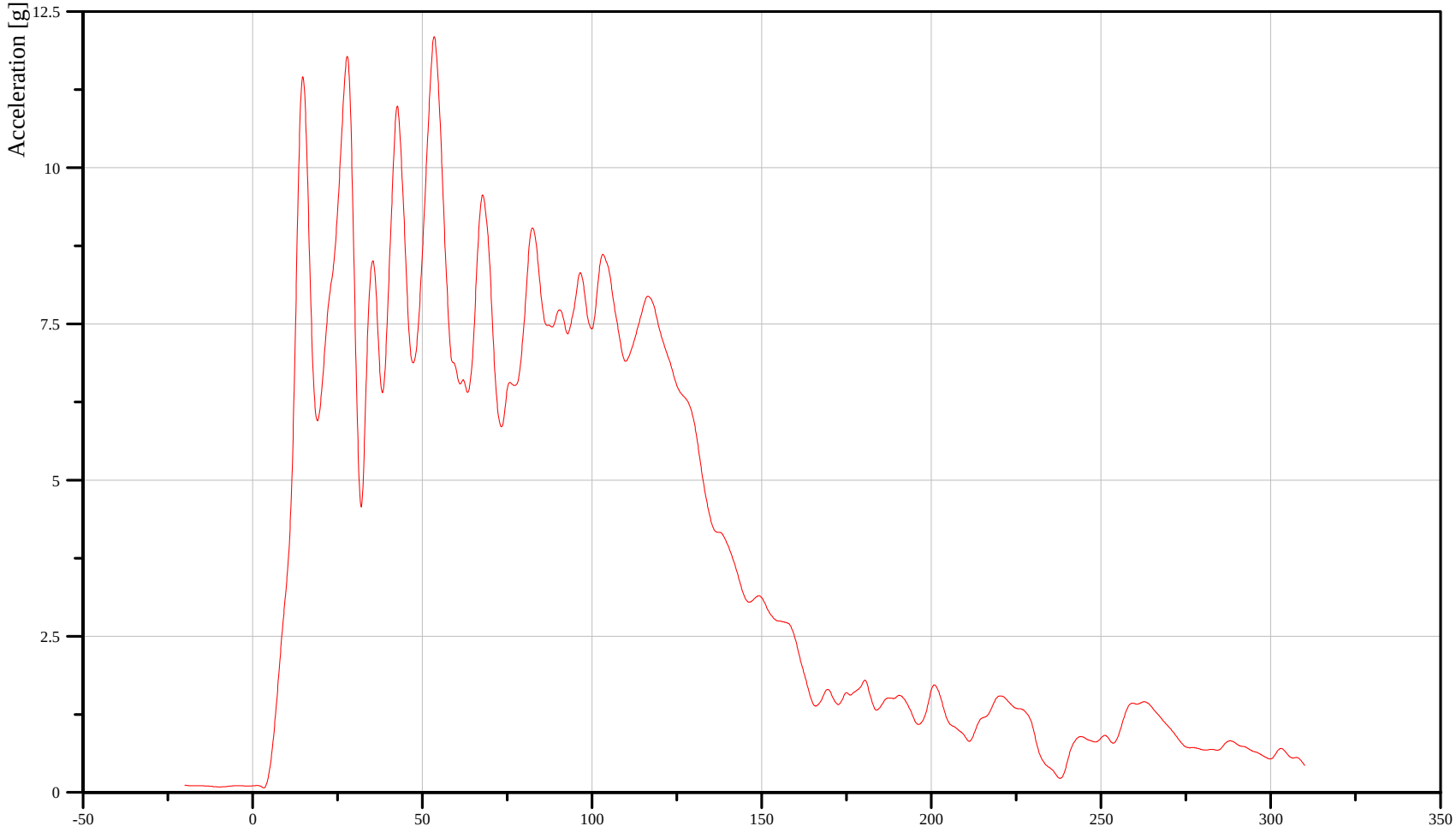
Right Side Sill at Rear Seat Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16SILBRE0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
0.07 g at 3.36 ms

Max. Value
12.10 g at 53.52 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

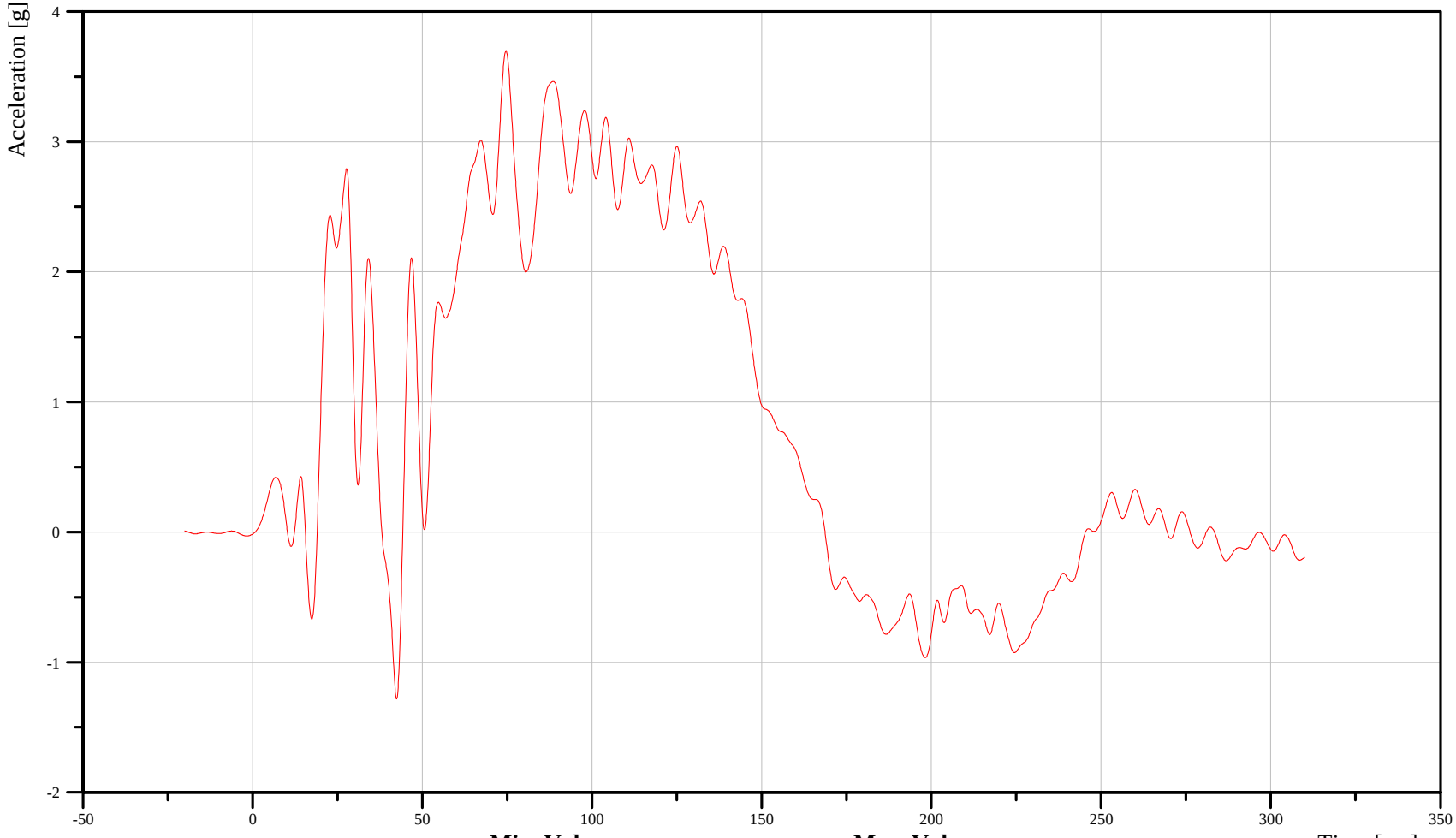
Rear Floorpan Above Axle X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

18FORA000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-1.28 g at 42.40 ms

Max. Value
3.70 g at 74.64 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

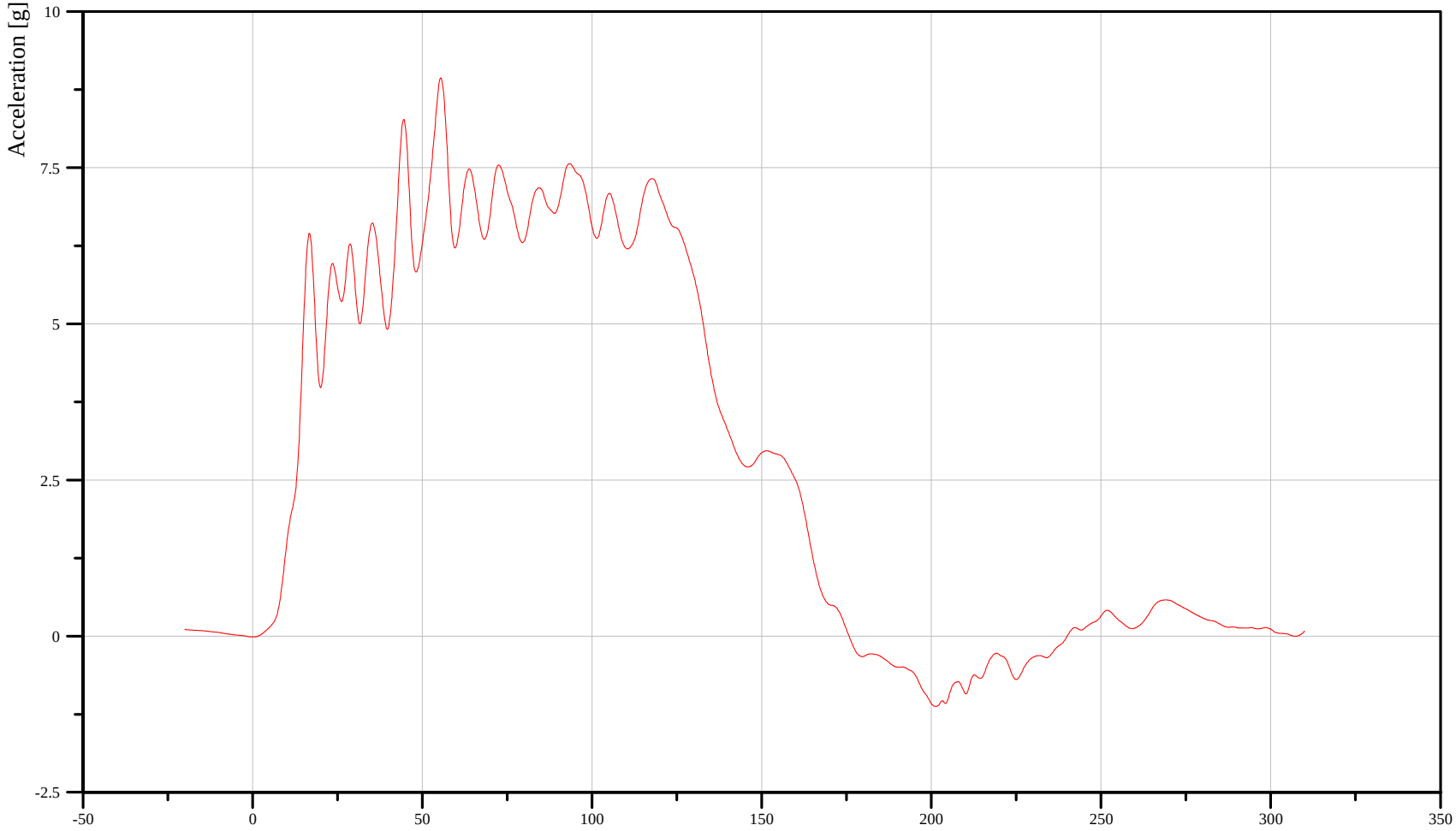
Rear Floorpan Above Axle Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

18FORA000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-1.12 g at 201.28 ms

Max. Value
8.94 g at 55.44 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

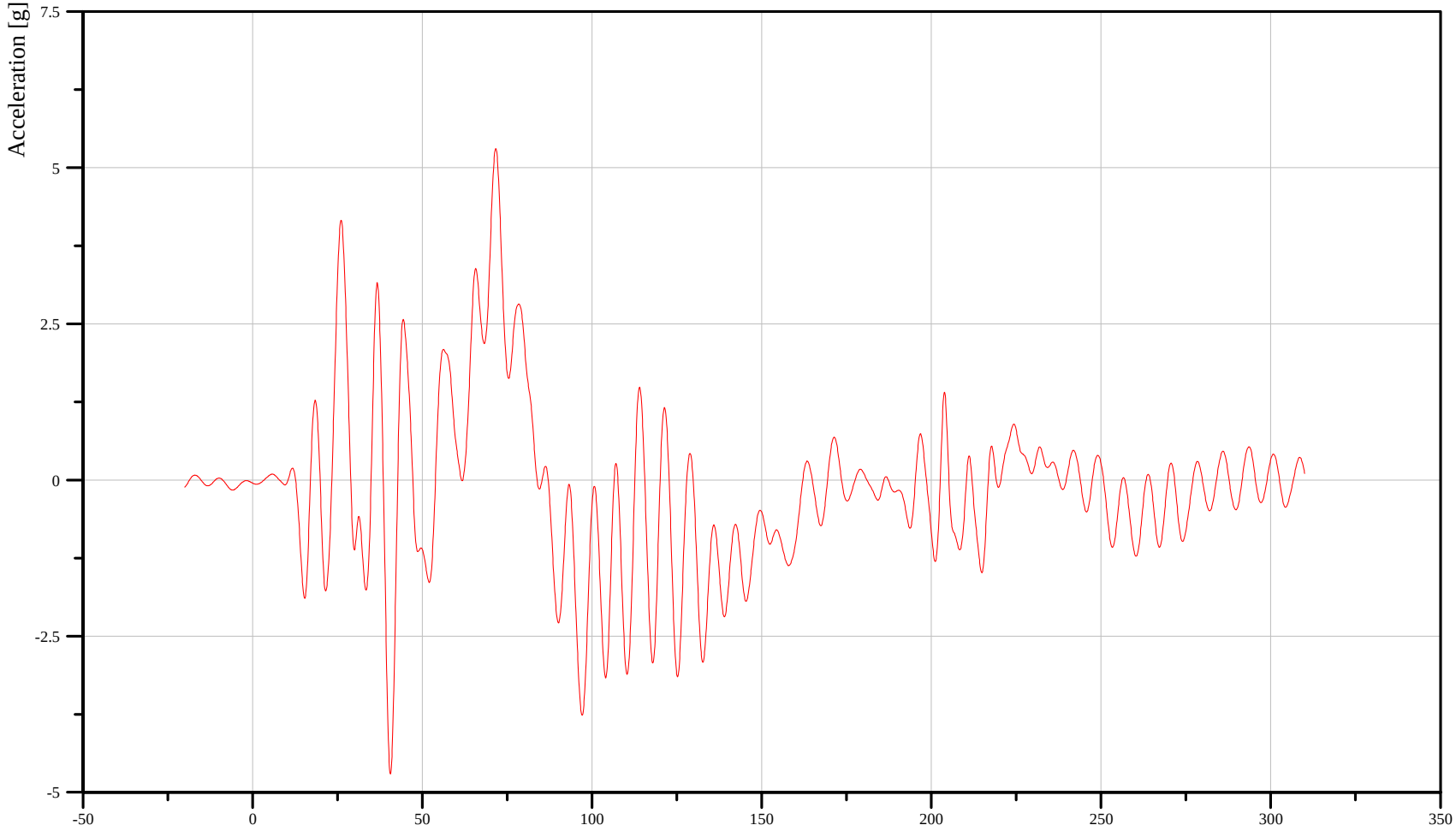
Rear Floorpan Above Axle Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

18FORA000000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-4.71 g at 40.64 ms

Max. Value
5.31 g at 71.68 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

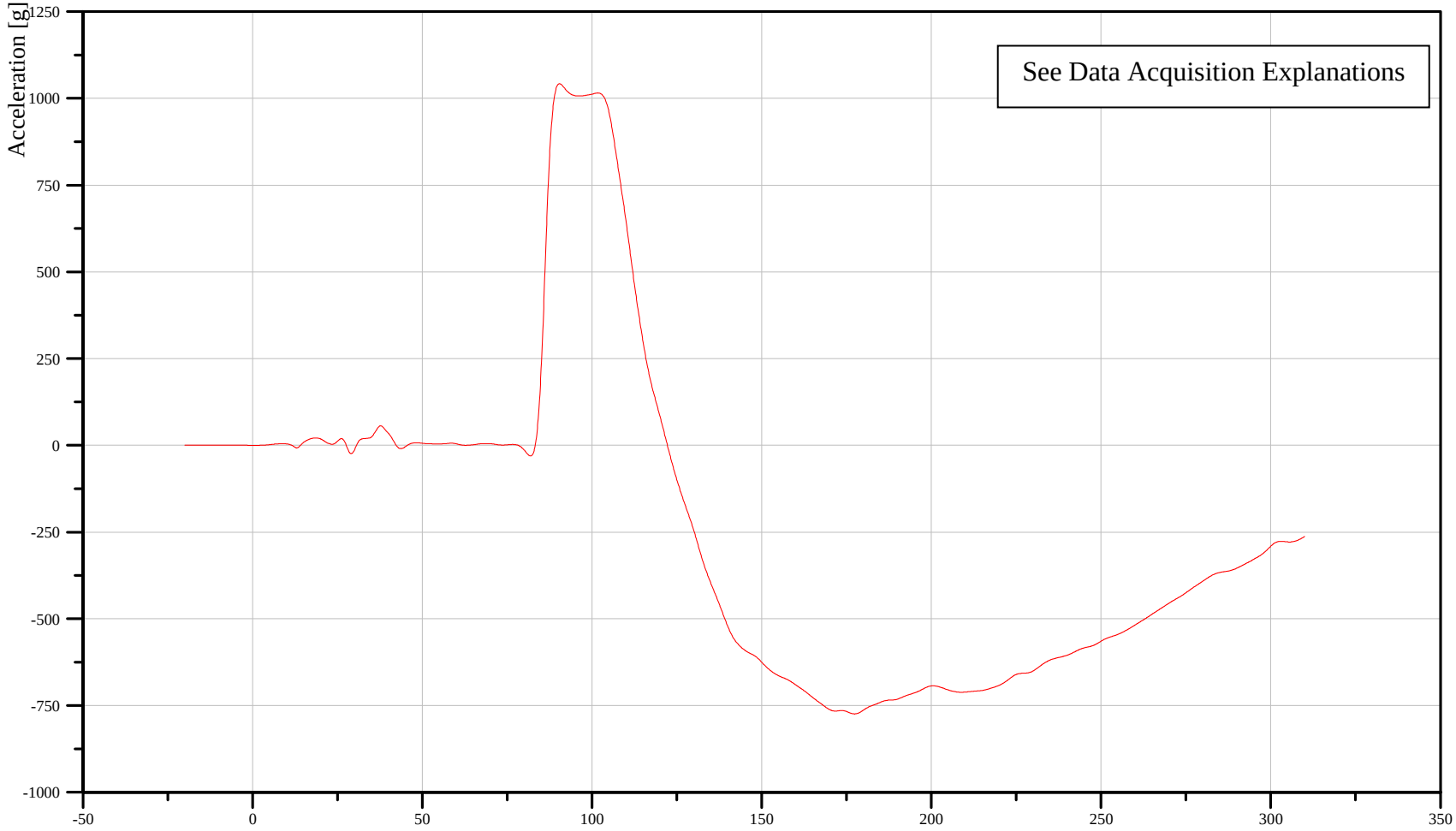
Left Side Sill at Front Seat Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14SILBFR0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-774.09 g at 177.36 ms

Max. Value
1,042.53 g at 90.40 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

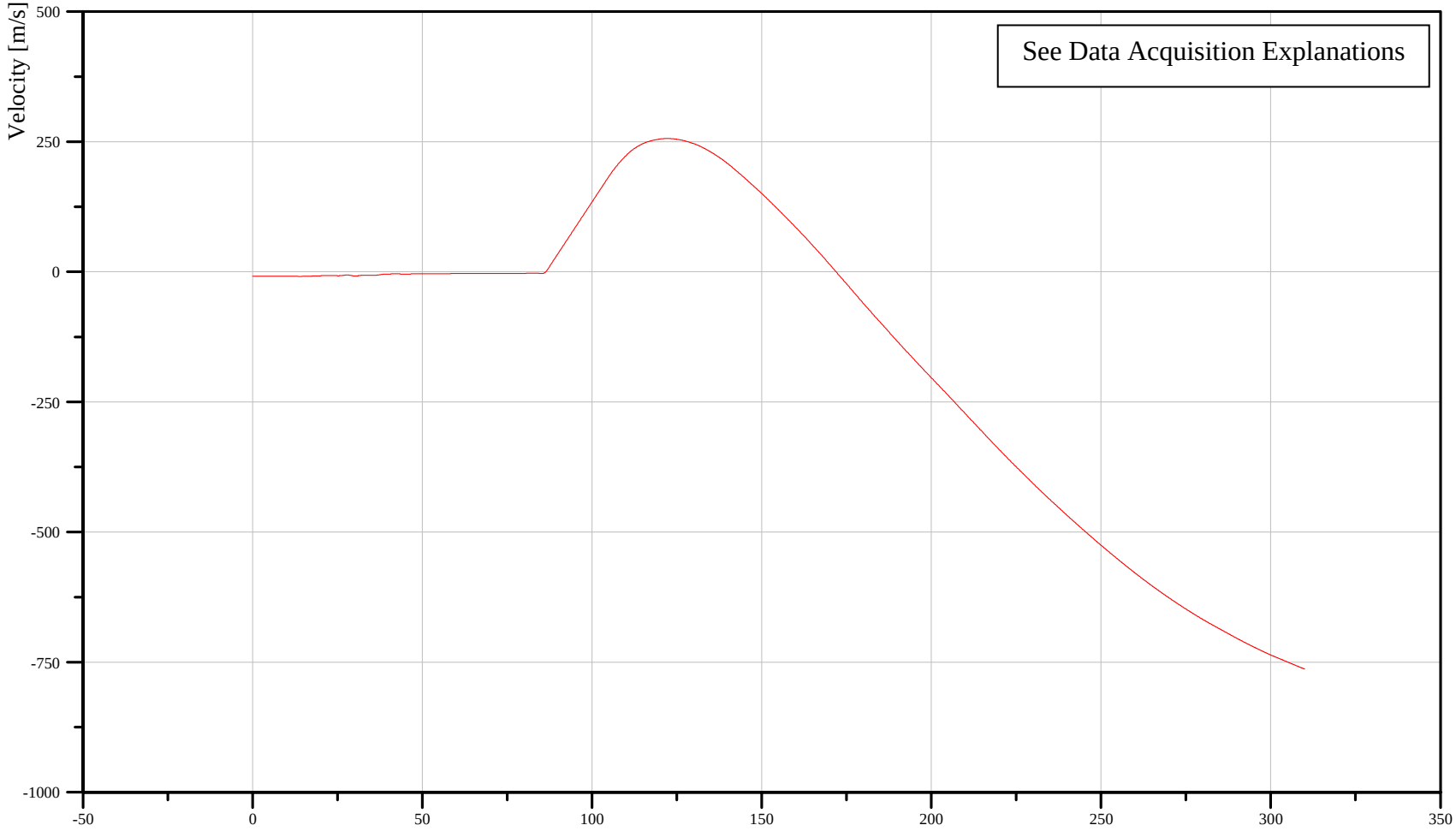
Left Side Sill at Front Seat Y-Axis Velocity

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14SILBFR0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-763.18 m/s at 310.00 ms

Max. Value
256.23 m/s at 122.24 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

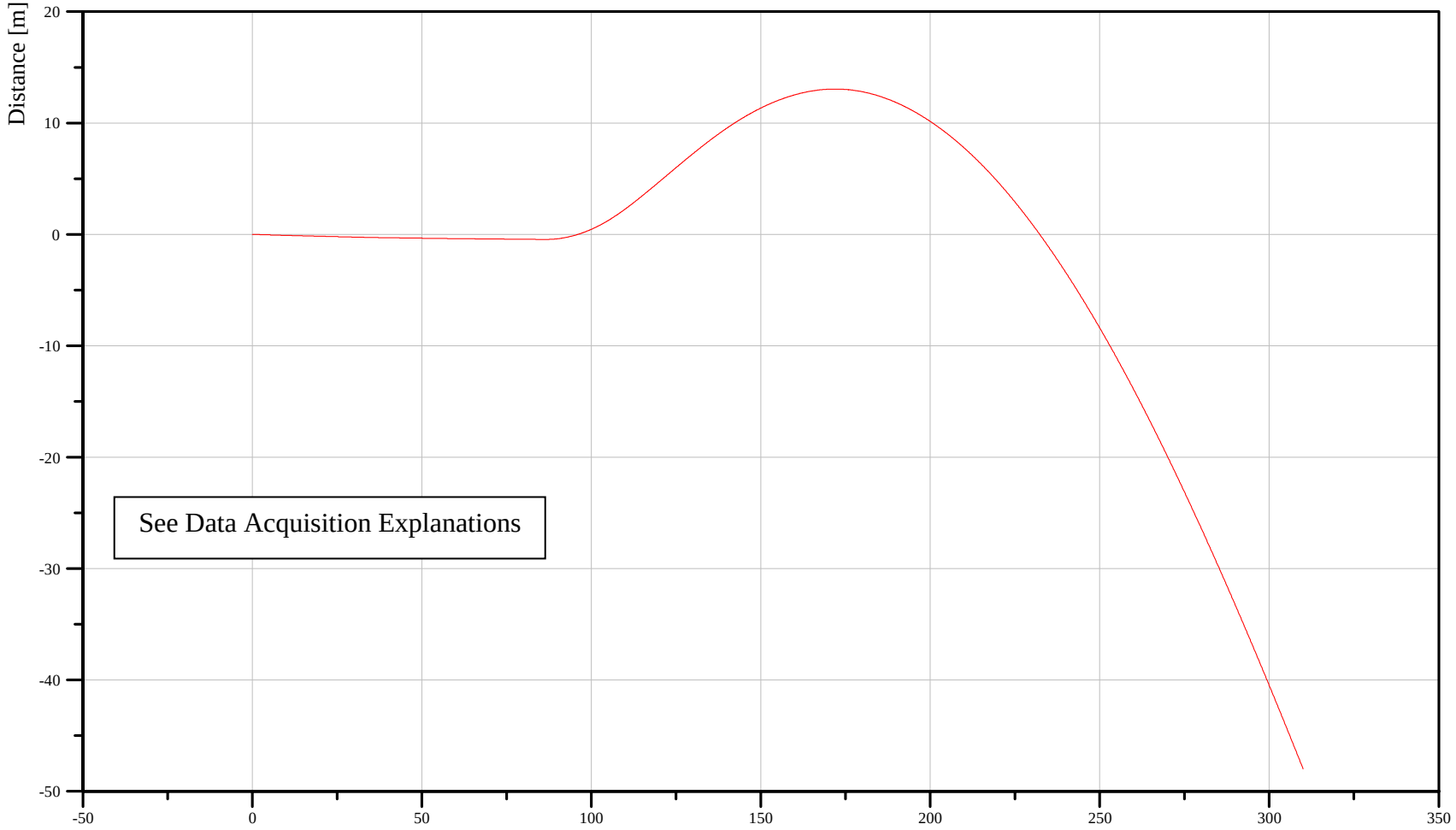
Left Side Sill at Front Seat Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14SILBFR0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-47.99 m at 310.00 ms

Max. Value
13.05 m at 171.92 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

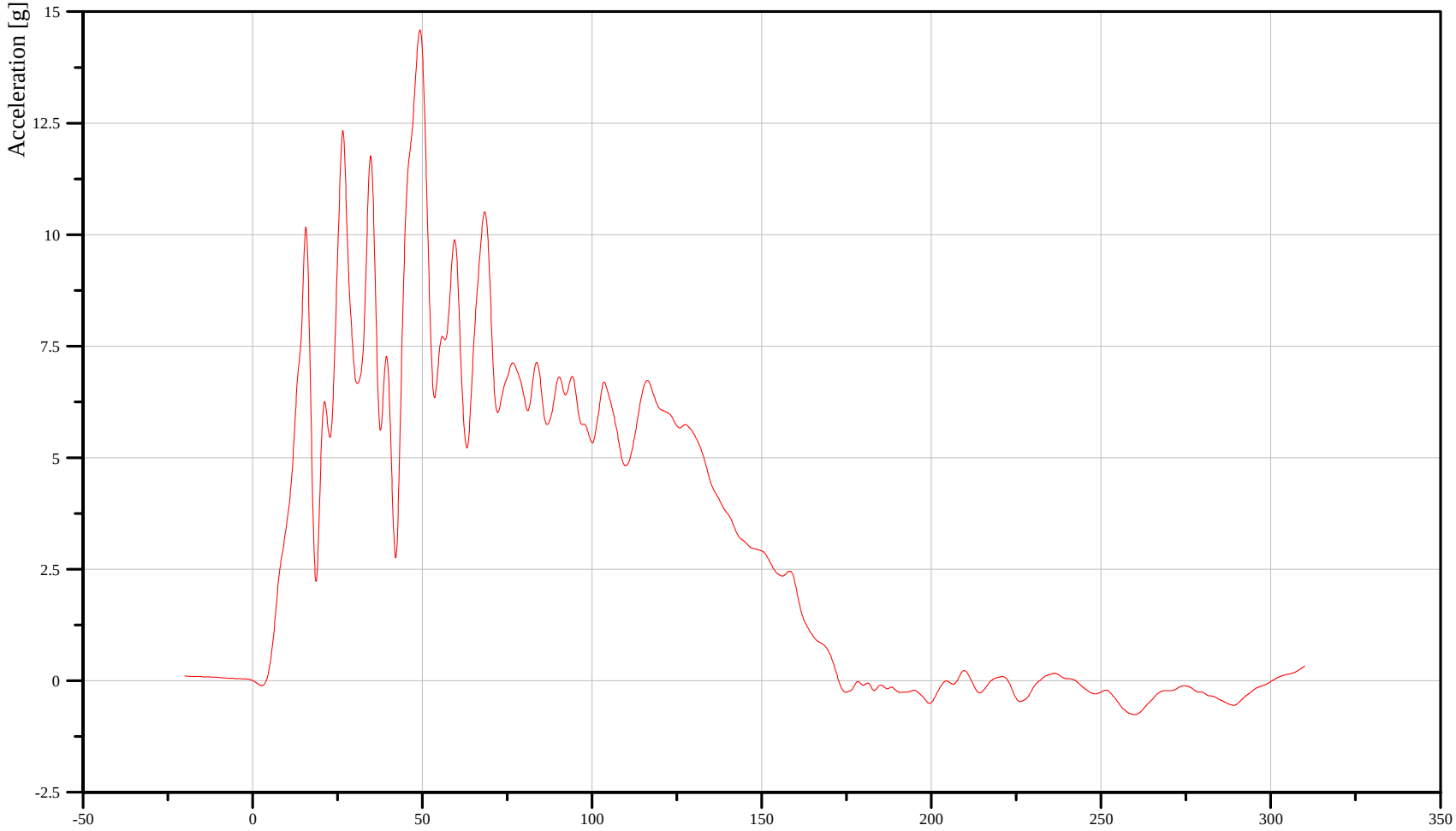
Left Side Sill at Rear Seat Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14SILBRE0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-0.76 g at 260.00 ms

Max. Value
14.59 g at 49.36 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

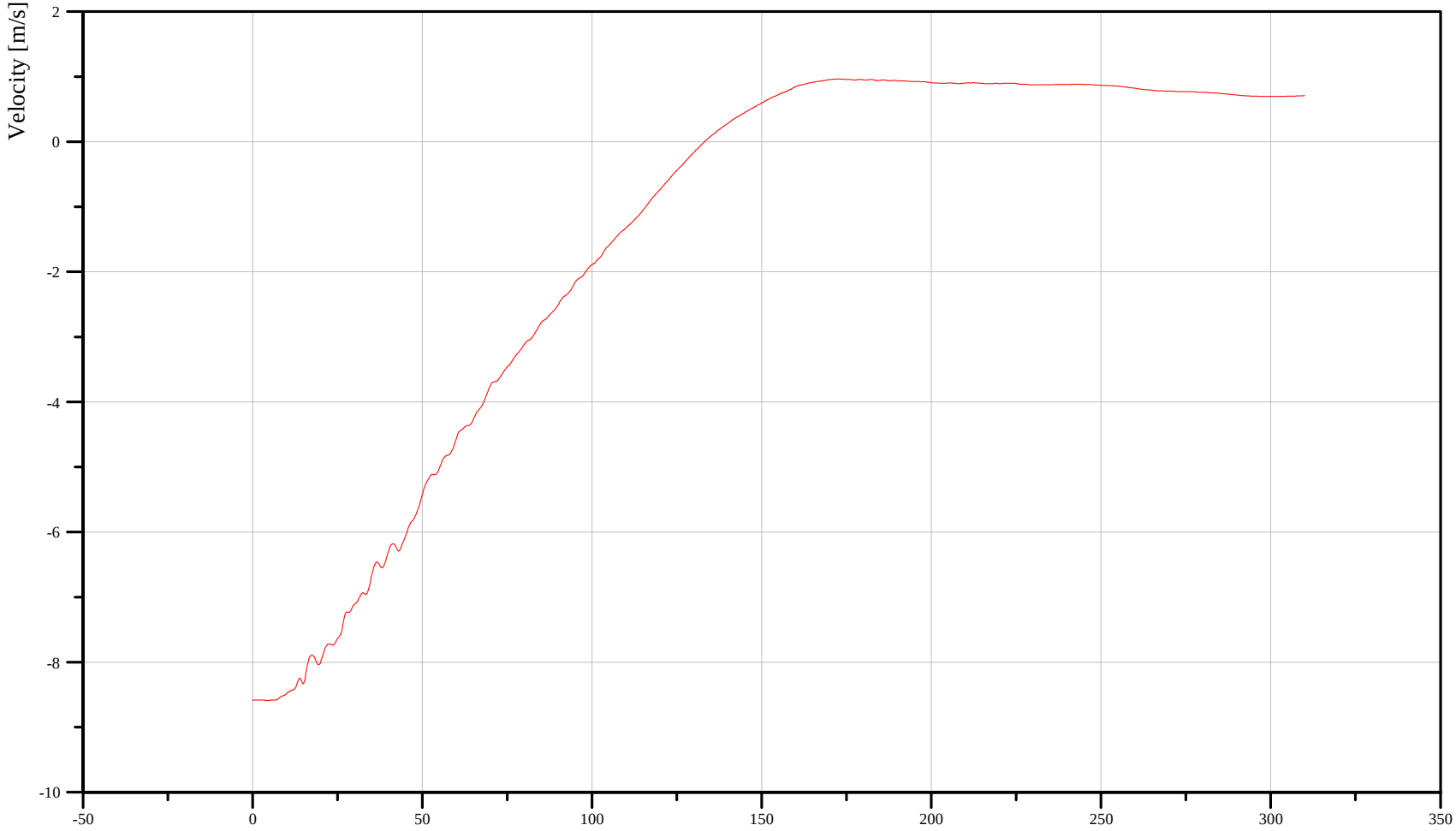
Left Side Sill at Rear Seat Y-Axis Velocity

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14SILBRE0000VEYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-8.59 m/s at 4.64 ms

Max. Value
0.97 m/s at 172.72 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

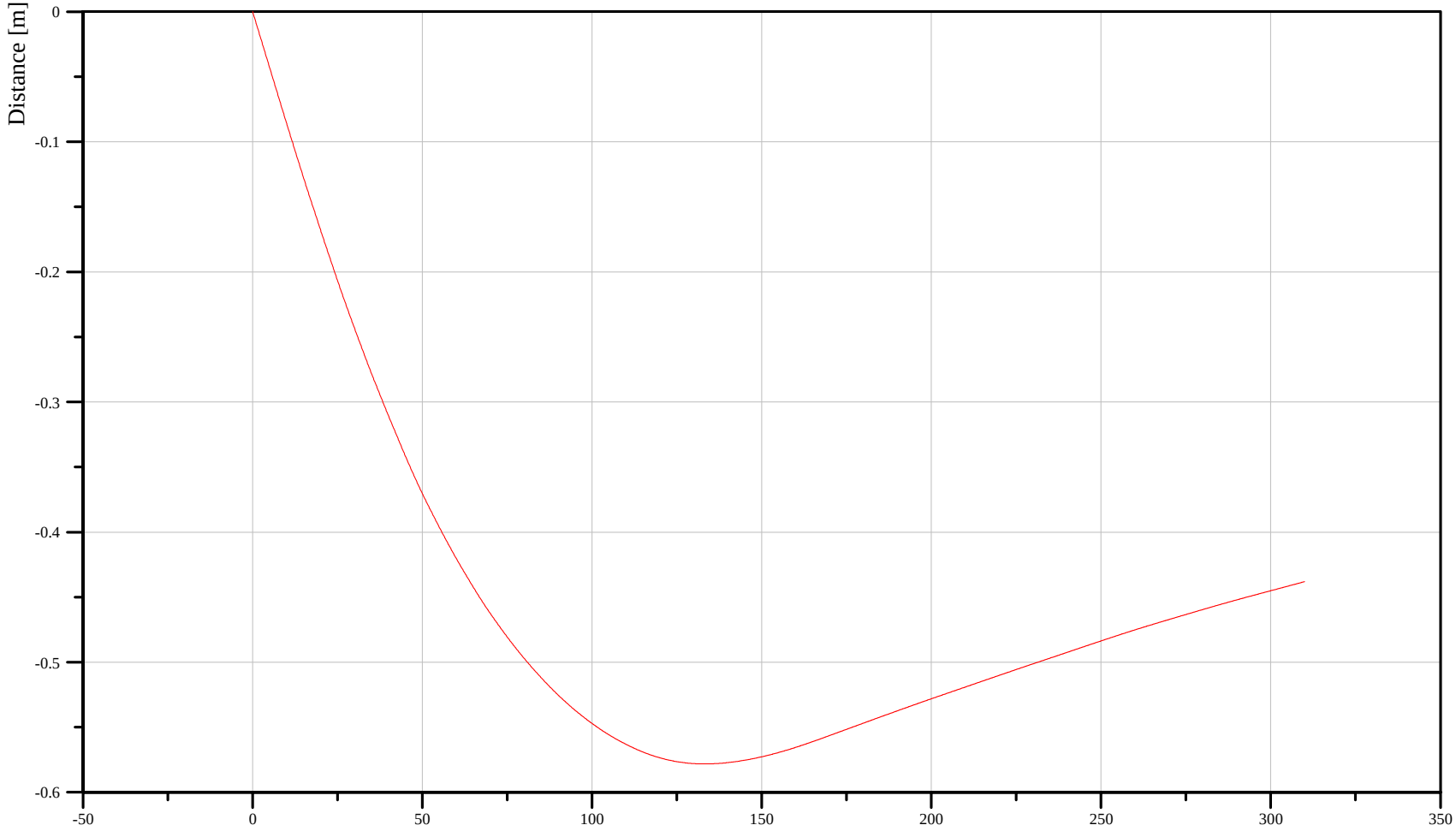
Left Side Sill at Rear Seat Y-Axis Displacement

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14SILBRE0000DCYC

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_180

Min. Value
-0.58 m at 133.12 ms

Max. Value
0.00 m at 0.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

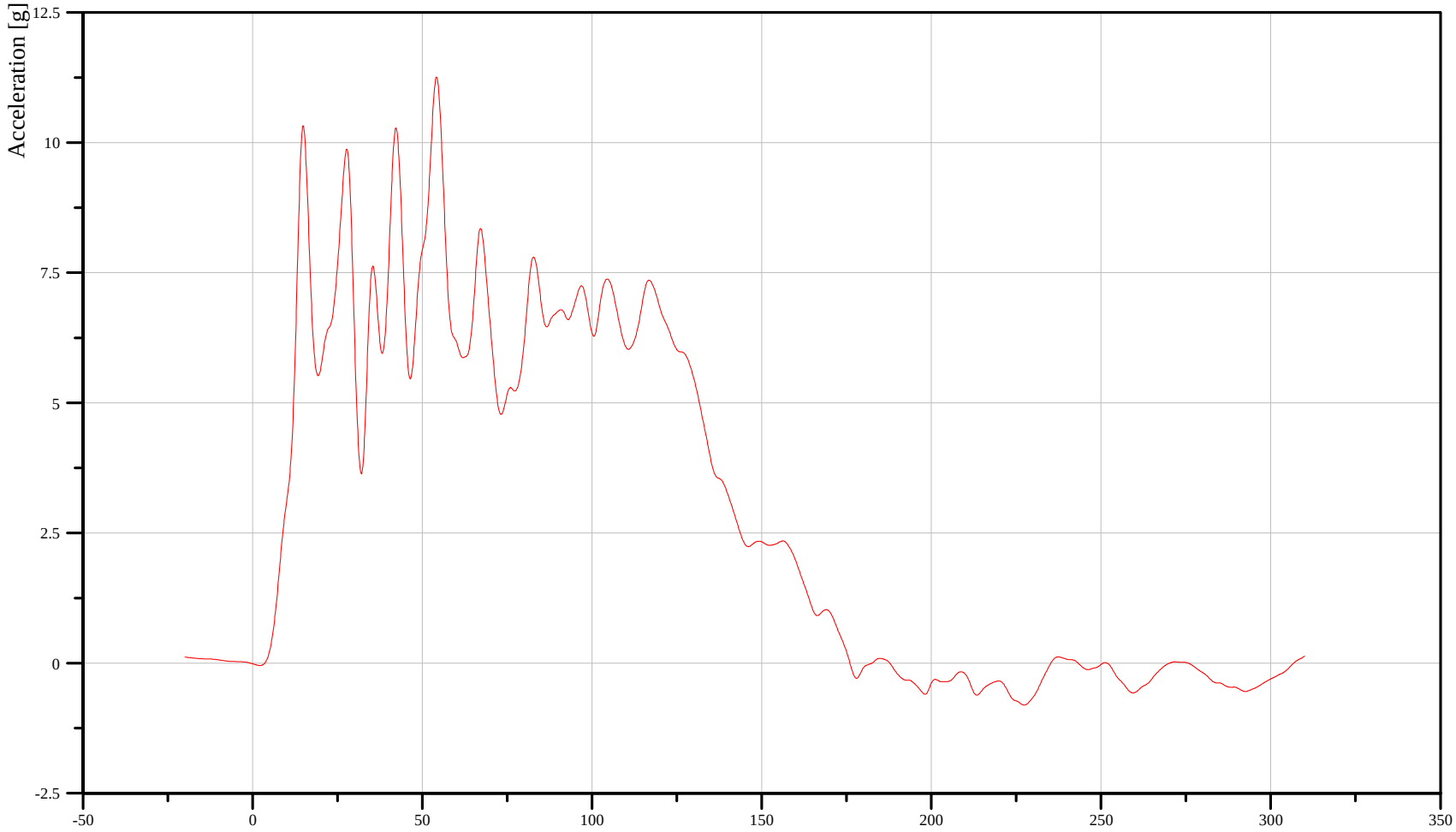
Right Rear Occupant Compartment Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16VEHCRE0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-0.80 g at 227.36 ms

Max. Value
11.26 g at 54.16 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

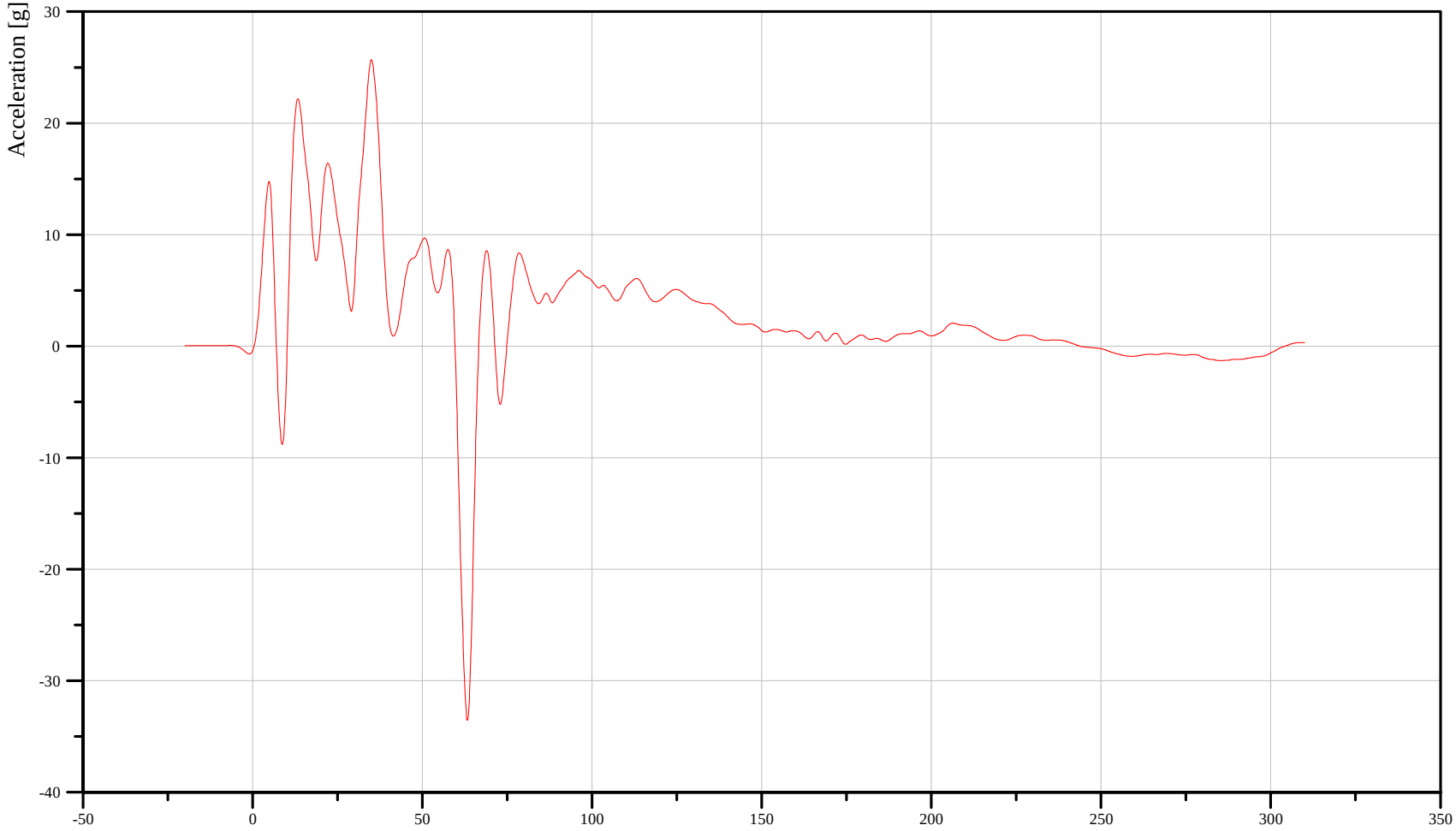
Left Lower A-Pillar Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11APILLO0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-33.55 g at 63.28 ms

Max. Value
25.69 g at 34.96 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

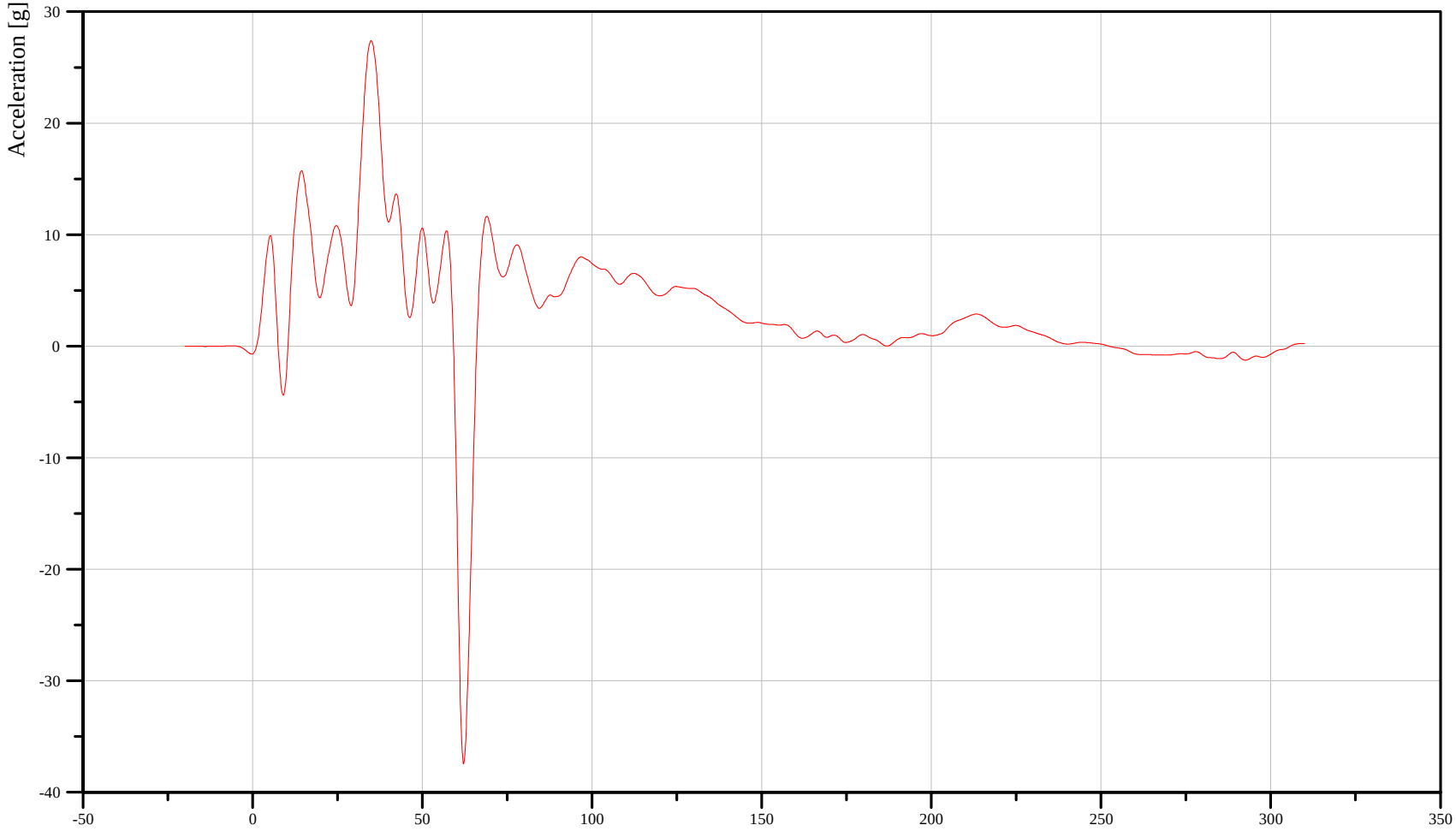
Left Mid A-Pillar Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11APILMI0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-37.45 g at 62.16 ms

Max. Value
27.40 g at 34.88 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

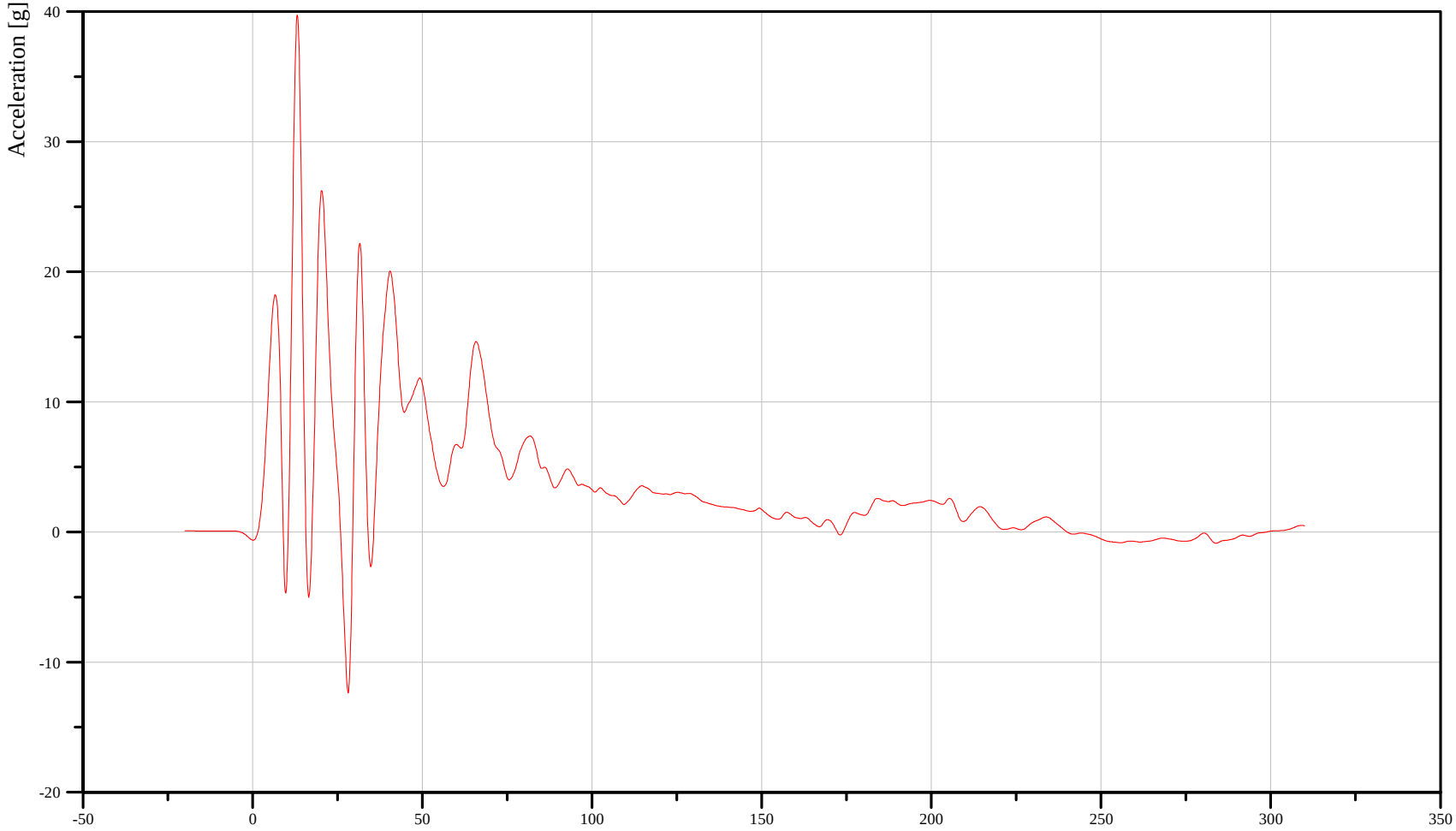
Left Lower B-Pillar Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14BPILLO0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-12.35 g at 28.16 ms

Max. Value
39.73 g at 13.20 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

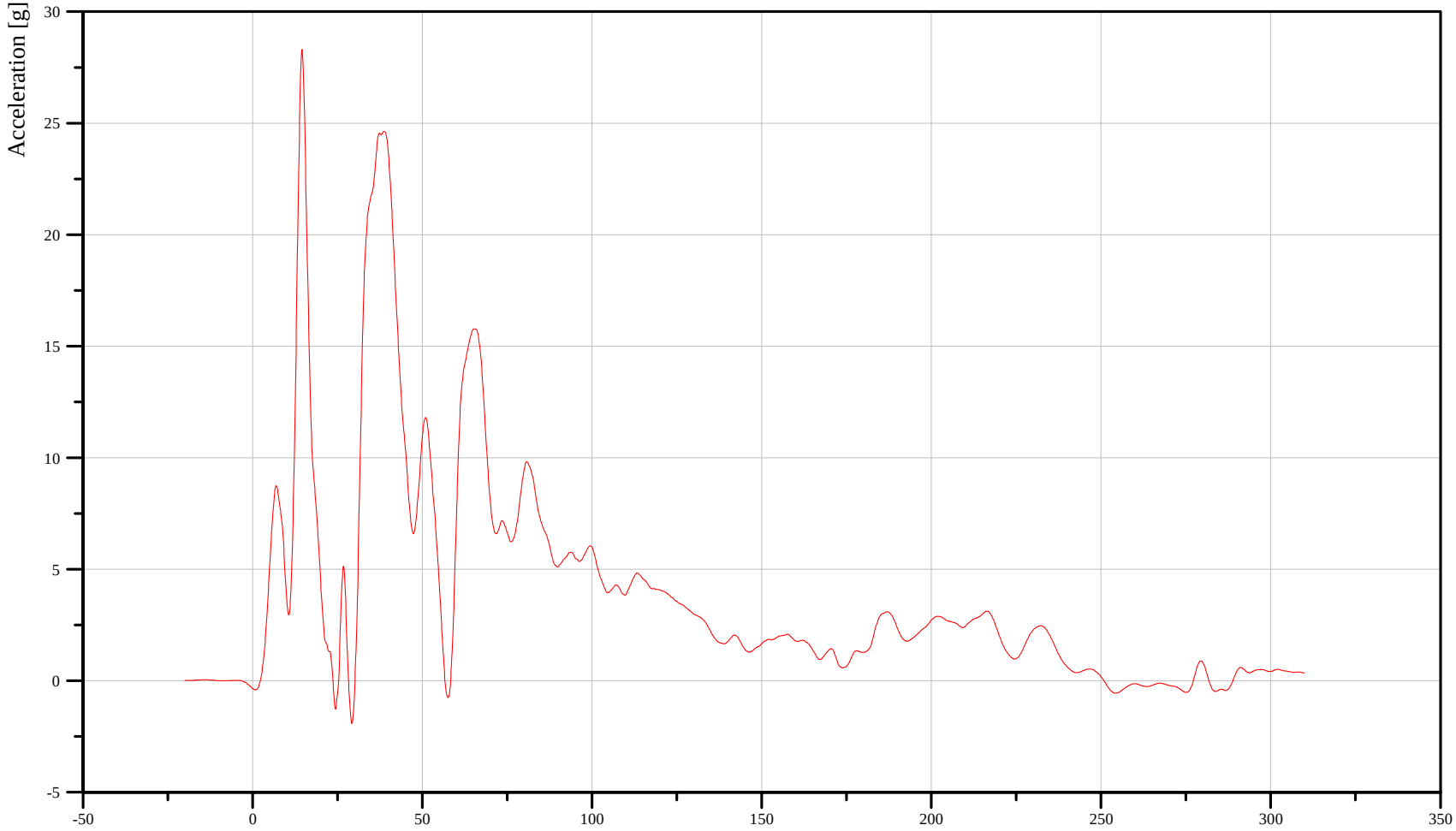
Left Mid B-Pillar Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14BPILMI0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-1.92 g at 29.28 ms

Max. Value
28.30 g at 14.56 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

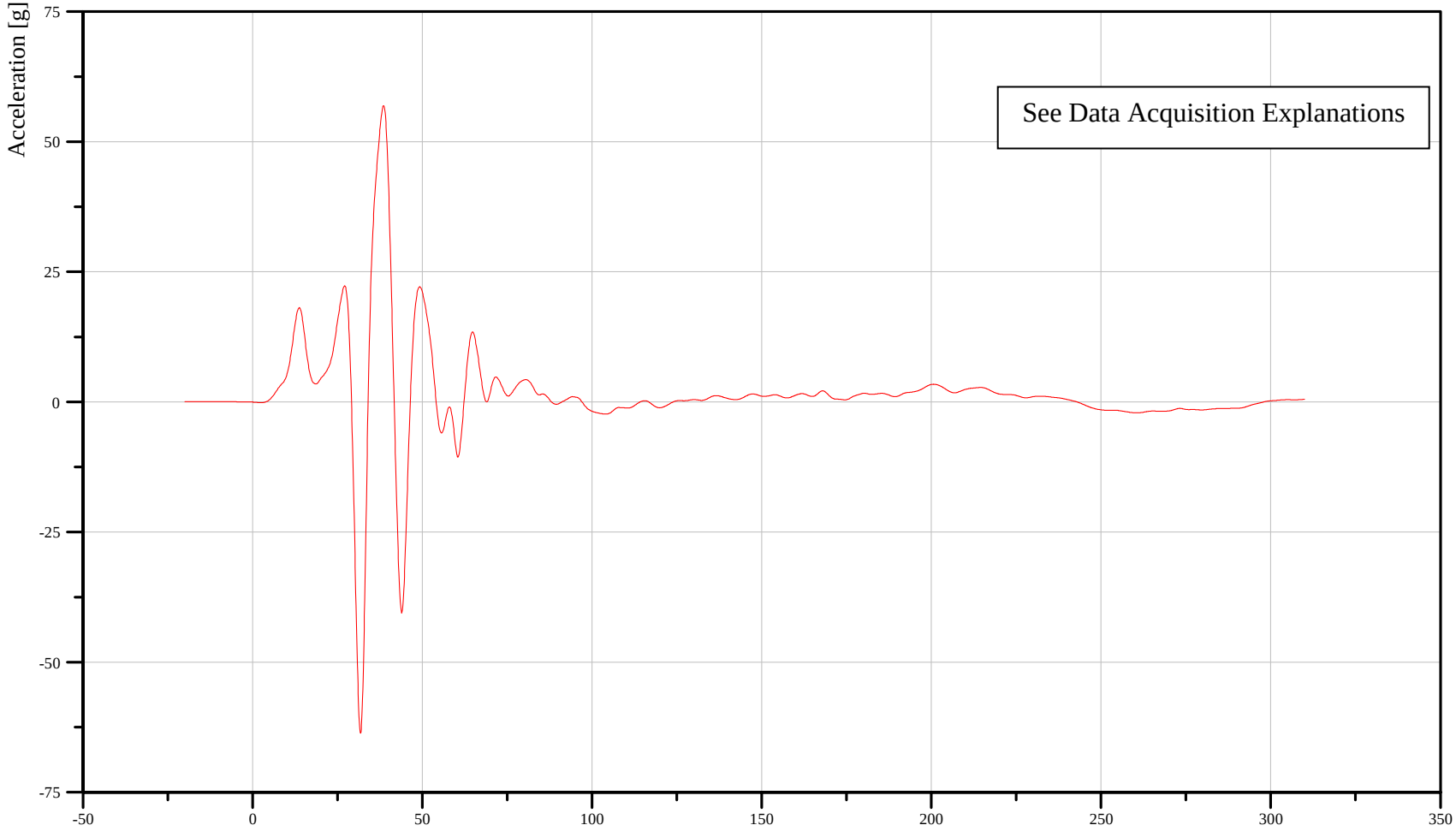
Left Front Seat Track Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11SETRFR0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-63.64 g at 31.76 ms

Max. Value
56.95 g at 38.56 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

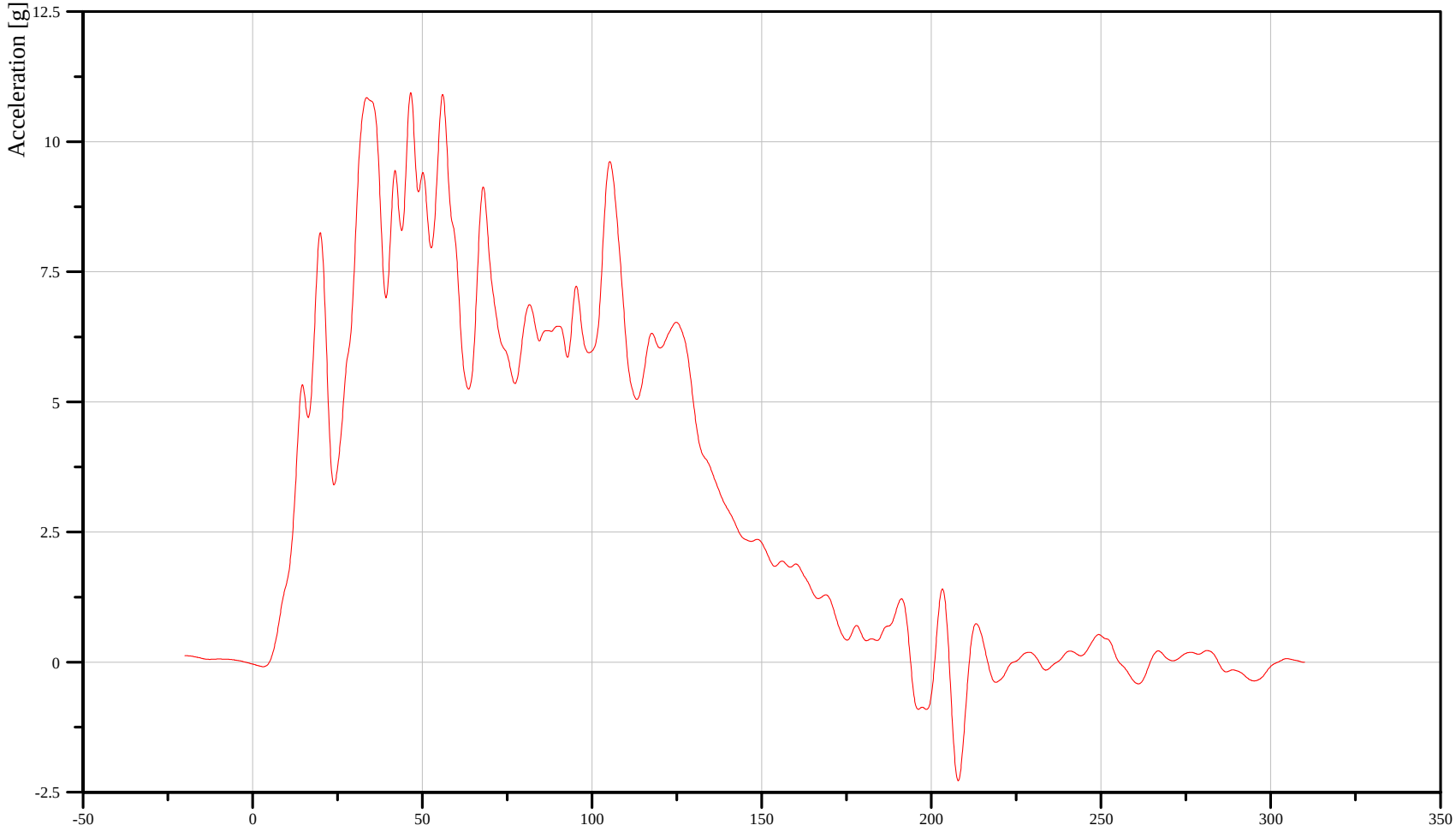
Left Rear Seat Track Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14SETRLERE00ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-2.28 g at 207.92 ms

Max. Value
10.94 g at 46.64 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

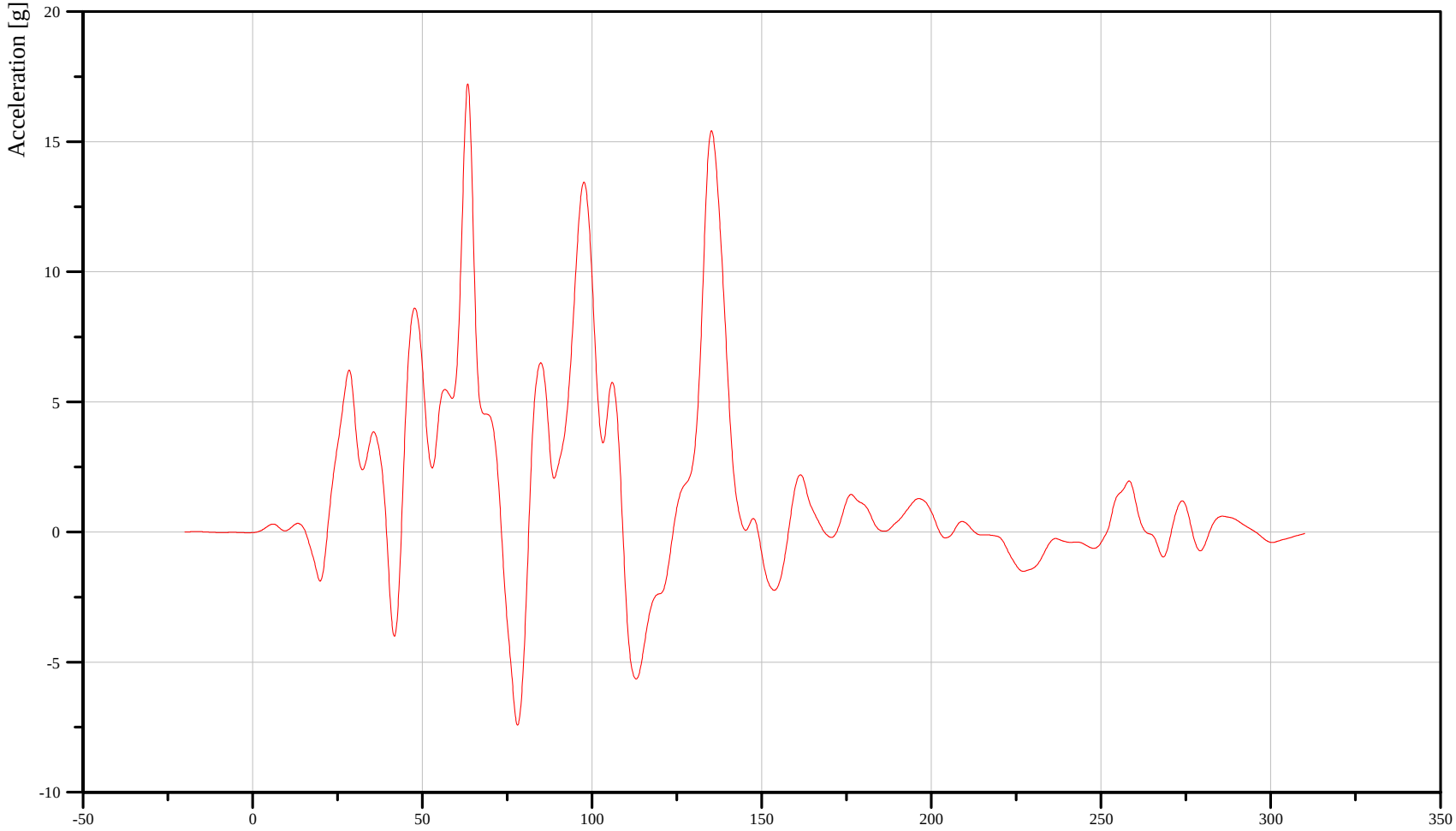
Vehicle Center of Gravity X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

10VEHCCG0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-7.42 g at 78.08 ms

Max. Value
17.23 g at 63.36 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

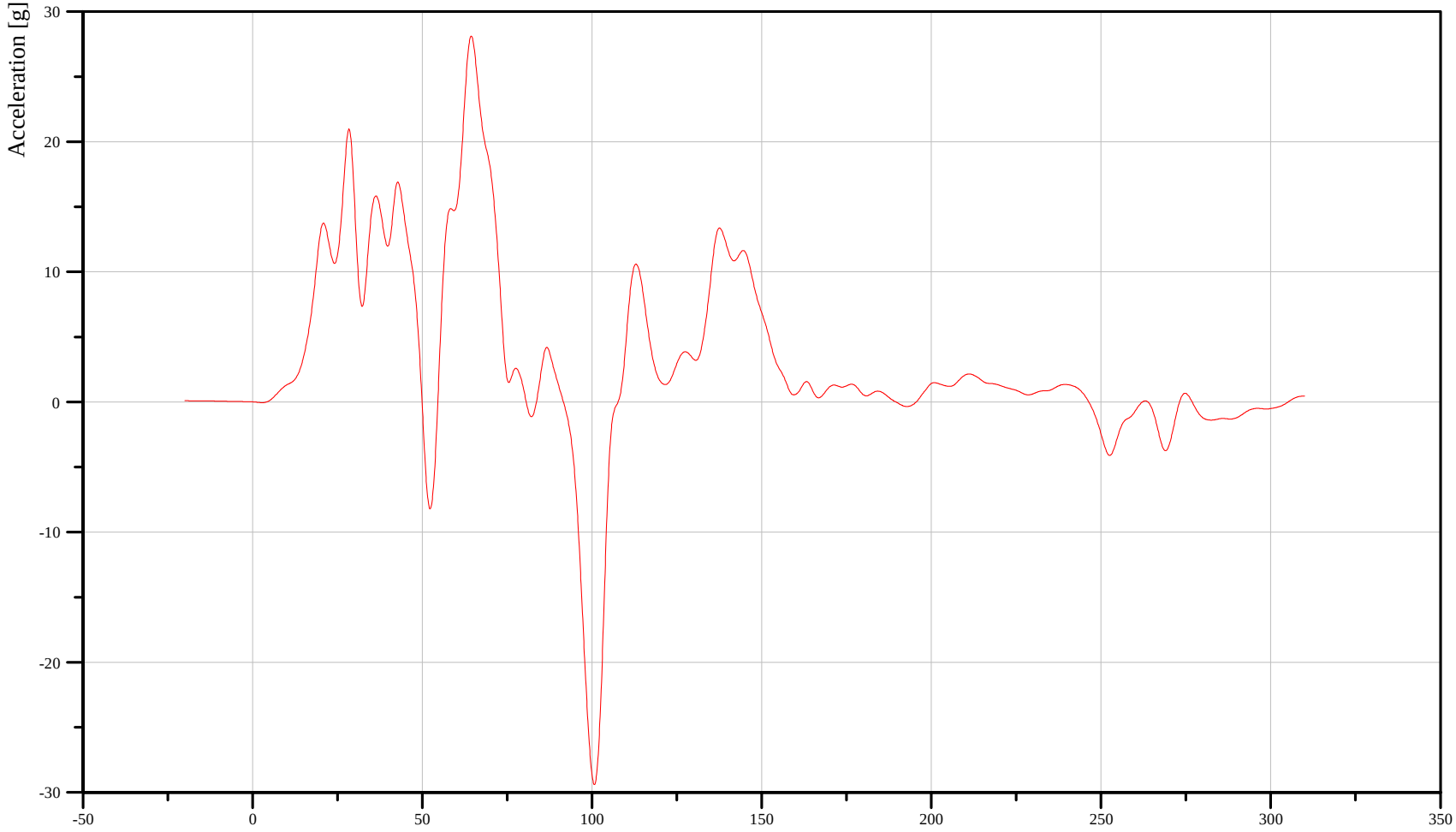
Vehicle Center of Gravity Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

10VEHCCG0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-29.40 g at 100.72 ms

Max. Value
28.12 g at 64.40 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

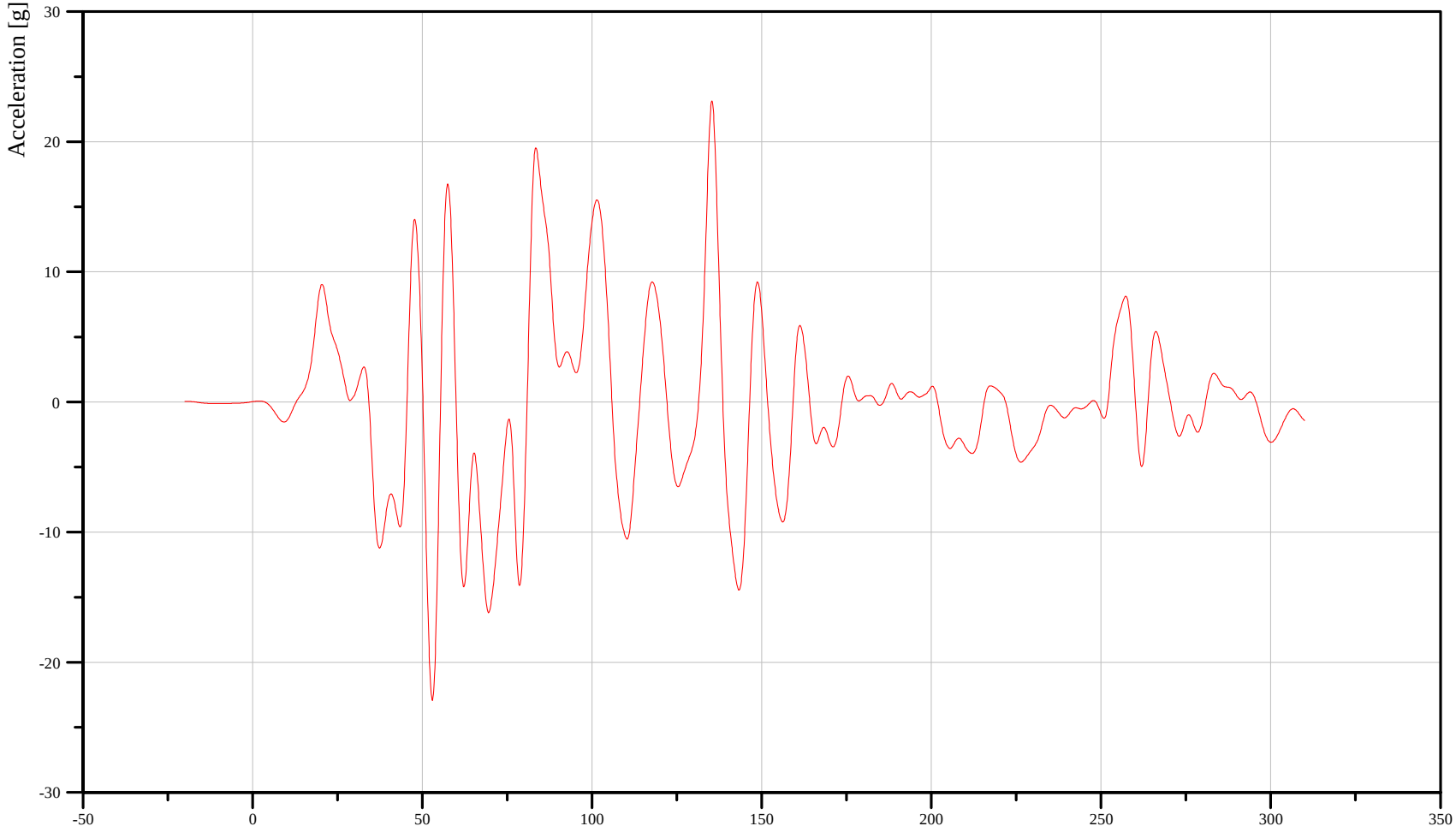
Vehicle Center of Gravity Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

10VEHCCG0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-22.93 g at 52.96 ms

Max. Value
23.14 g at 135.36 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

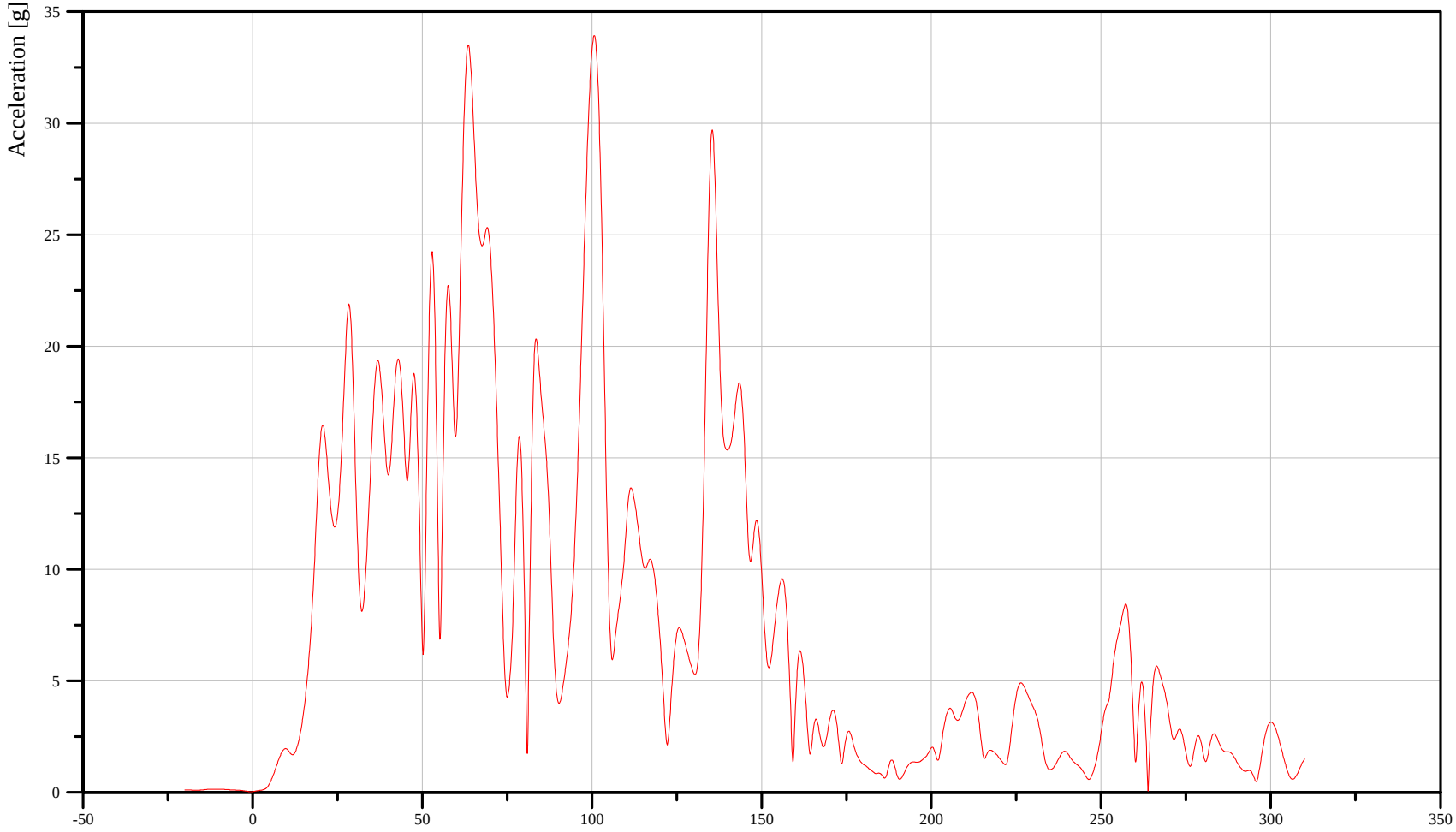
Vehicle Center of Gravity Resultant Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

10VEHCCG0000ACRD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
0.03 g at -0.48 ms

Max. Value
33.93 g at 100.72 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

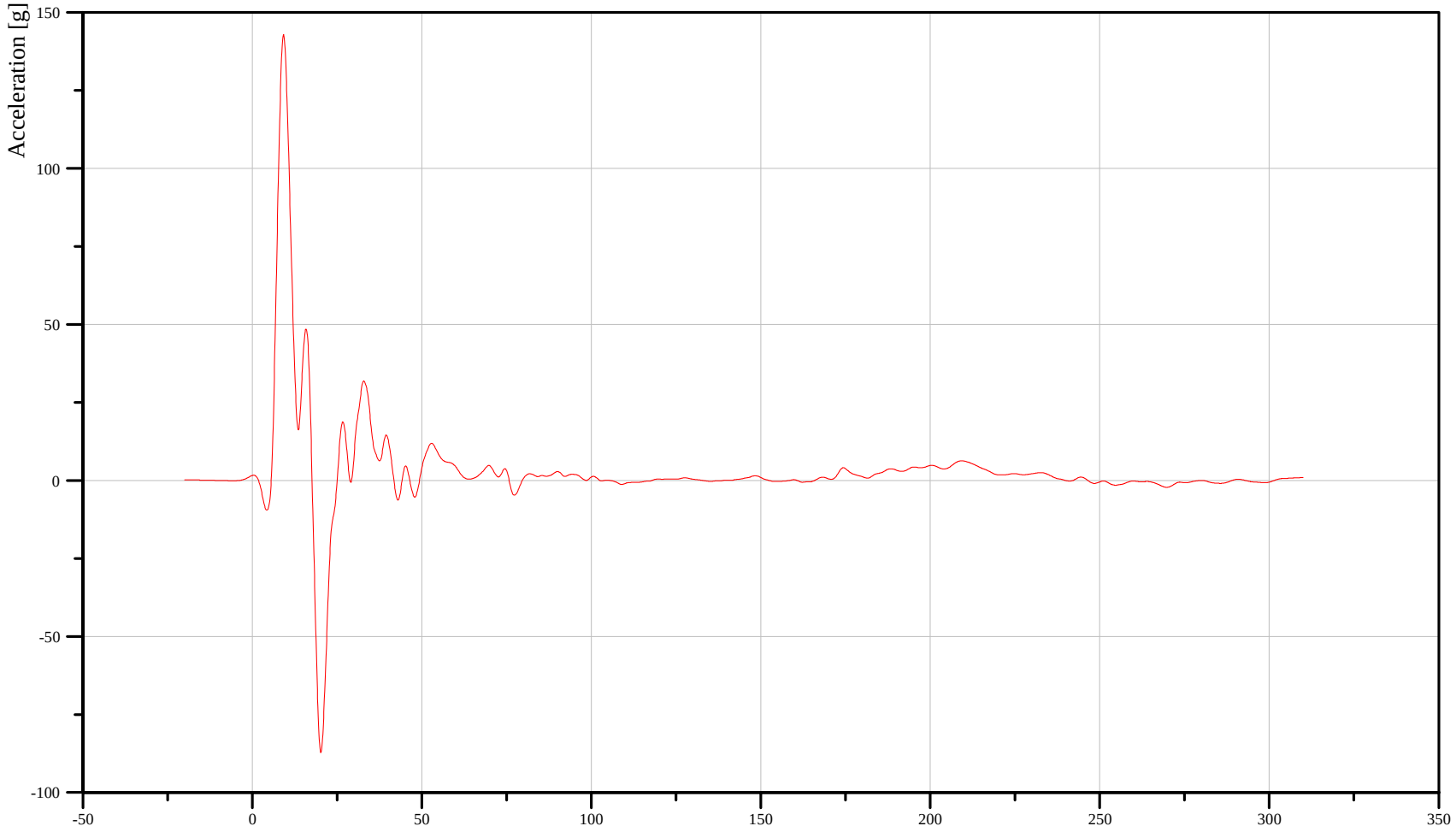
Vehicle Front Door Centerline Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14DOOR000001ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-87.26 g at 20.24 ms

Max. Value
142.94 g at 9.20 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

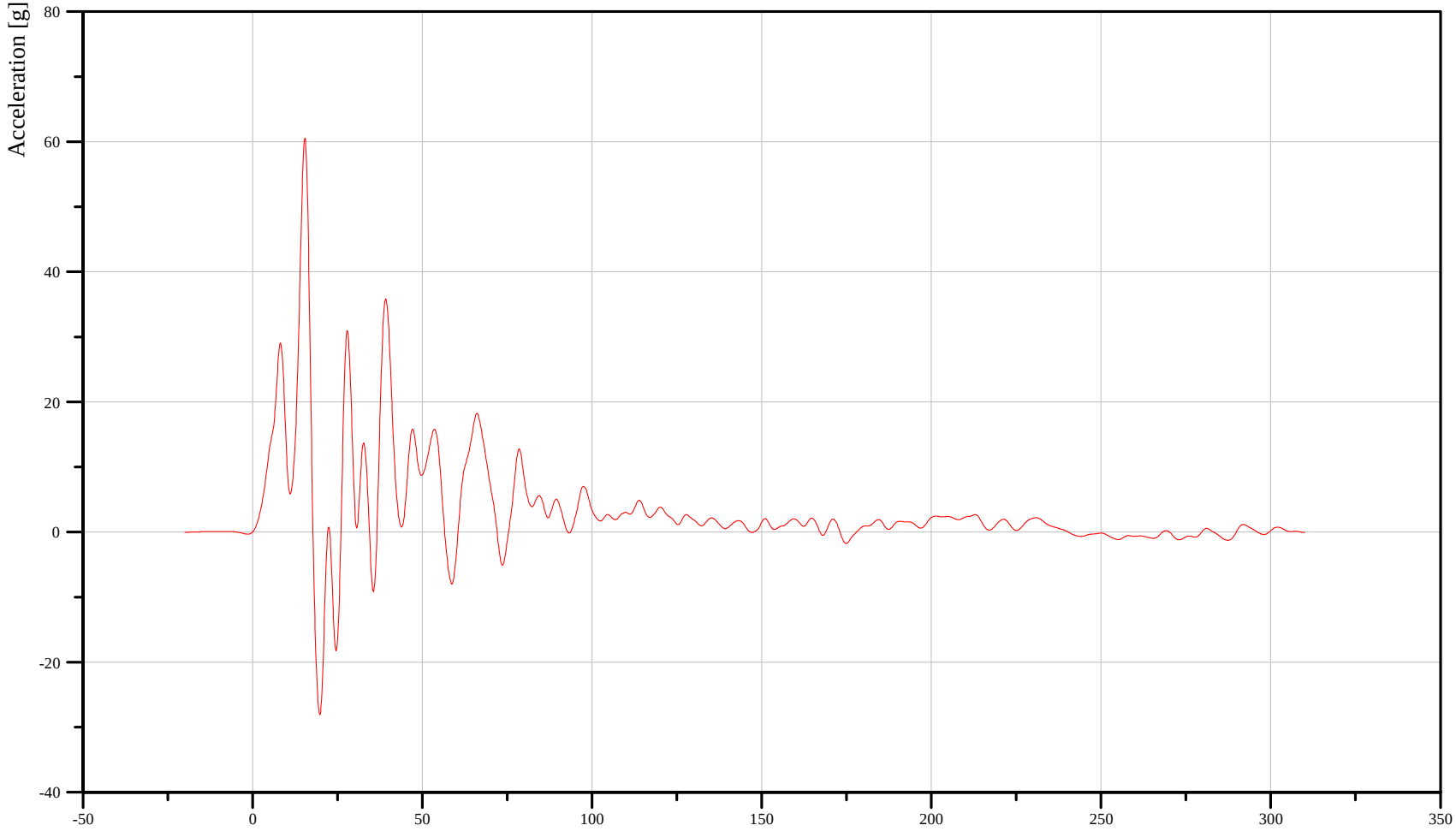
Vehicle Front Door Mid-Rear Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14DOOR000002ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-28.06 g at 19.84 ms

Max. Value
60.54 g at 15.44 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

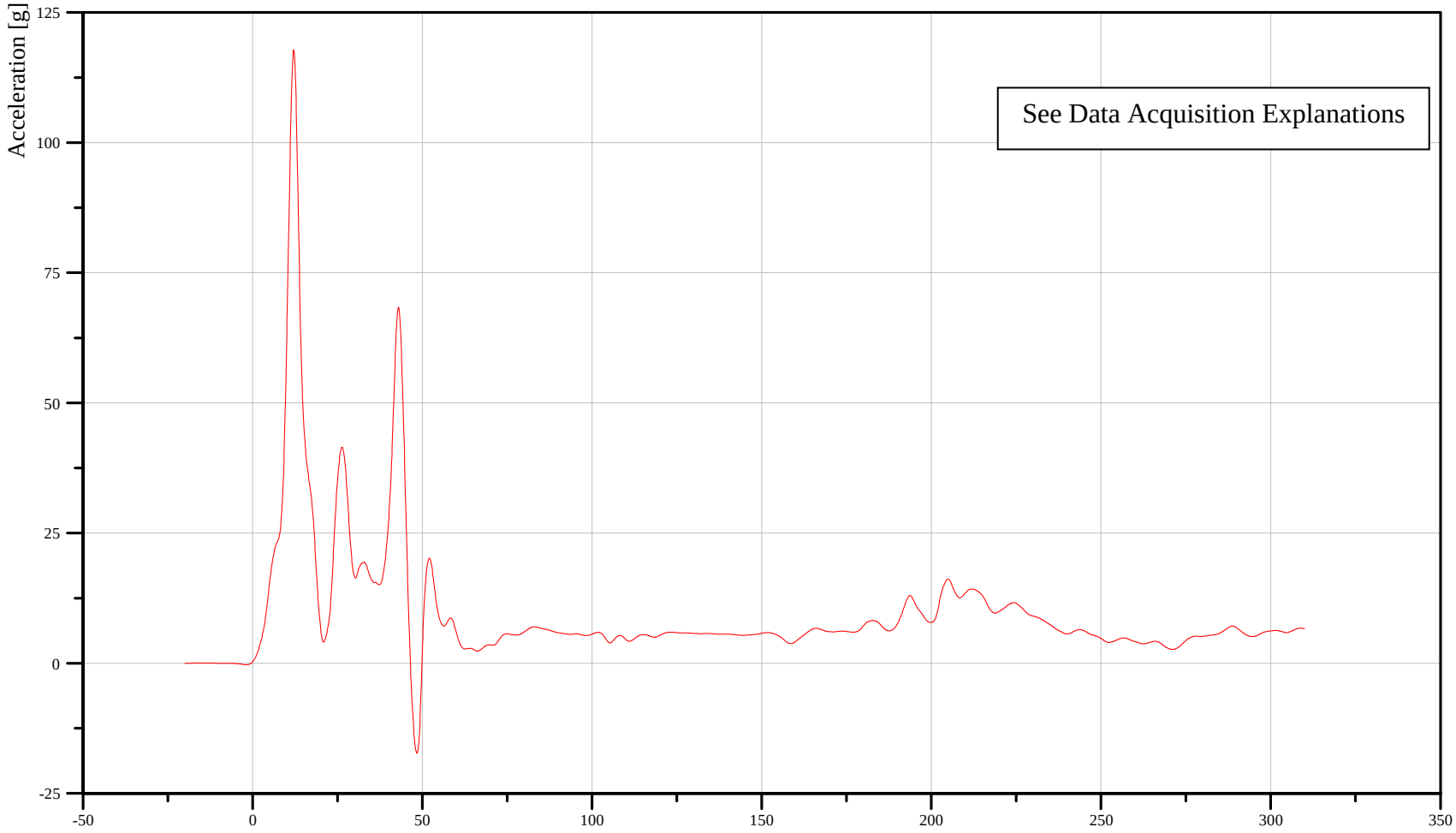
Vehicle Front Door Upper Centerline Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

14DOOR000003ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-17.30 g at 48.40 ms

Max. Value
117.83 g at 12.08 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

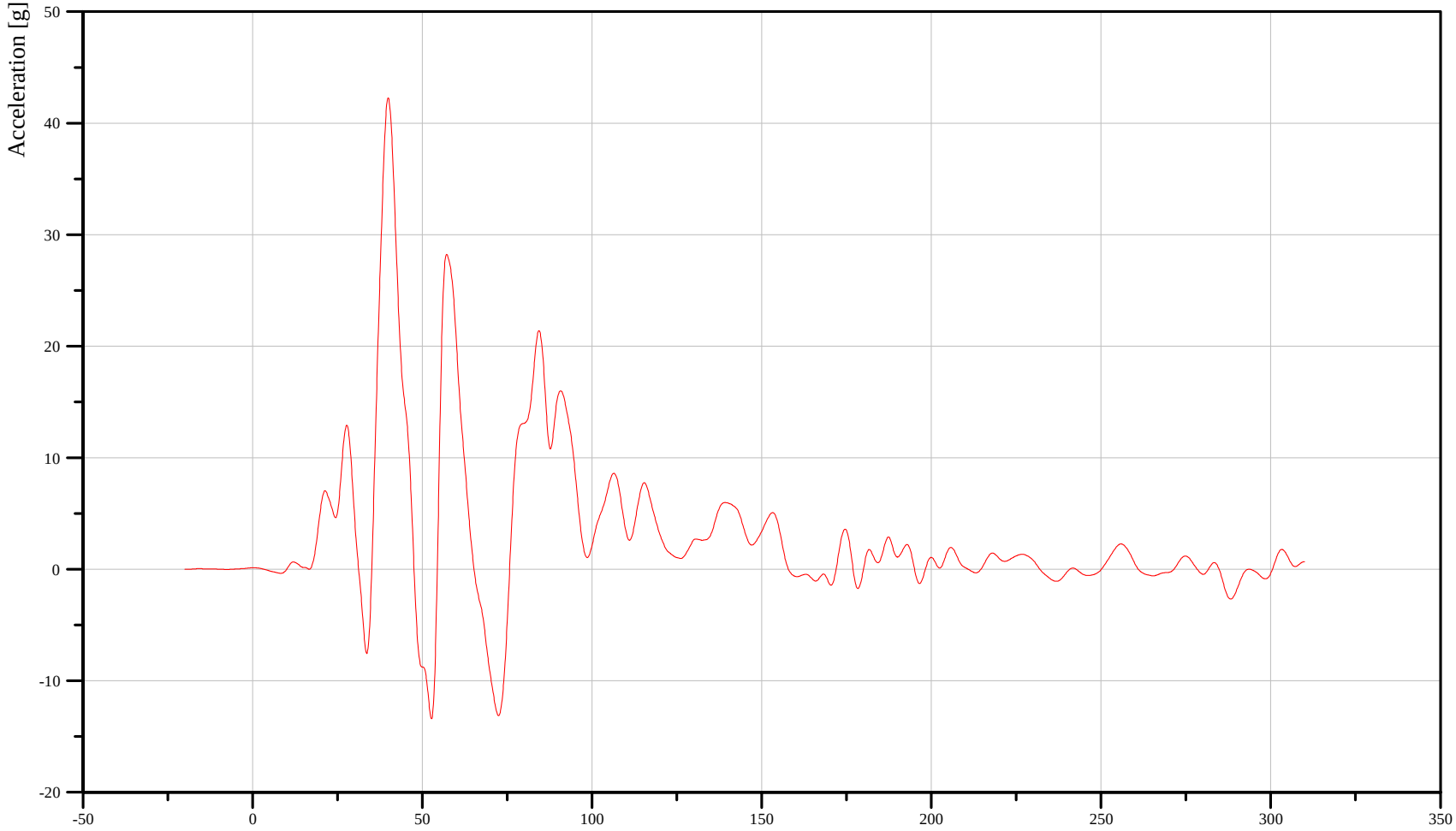
Vehicle Rear Door Mid-Rear Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16DOOR000002ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-13.41 g at 52.72 ms

Max. Value
42.27 g at 39.92 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

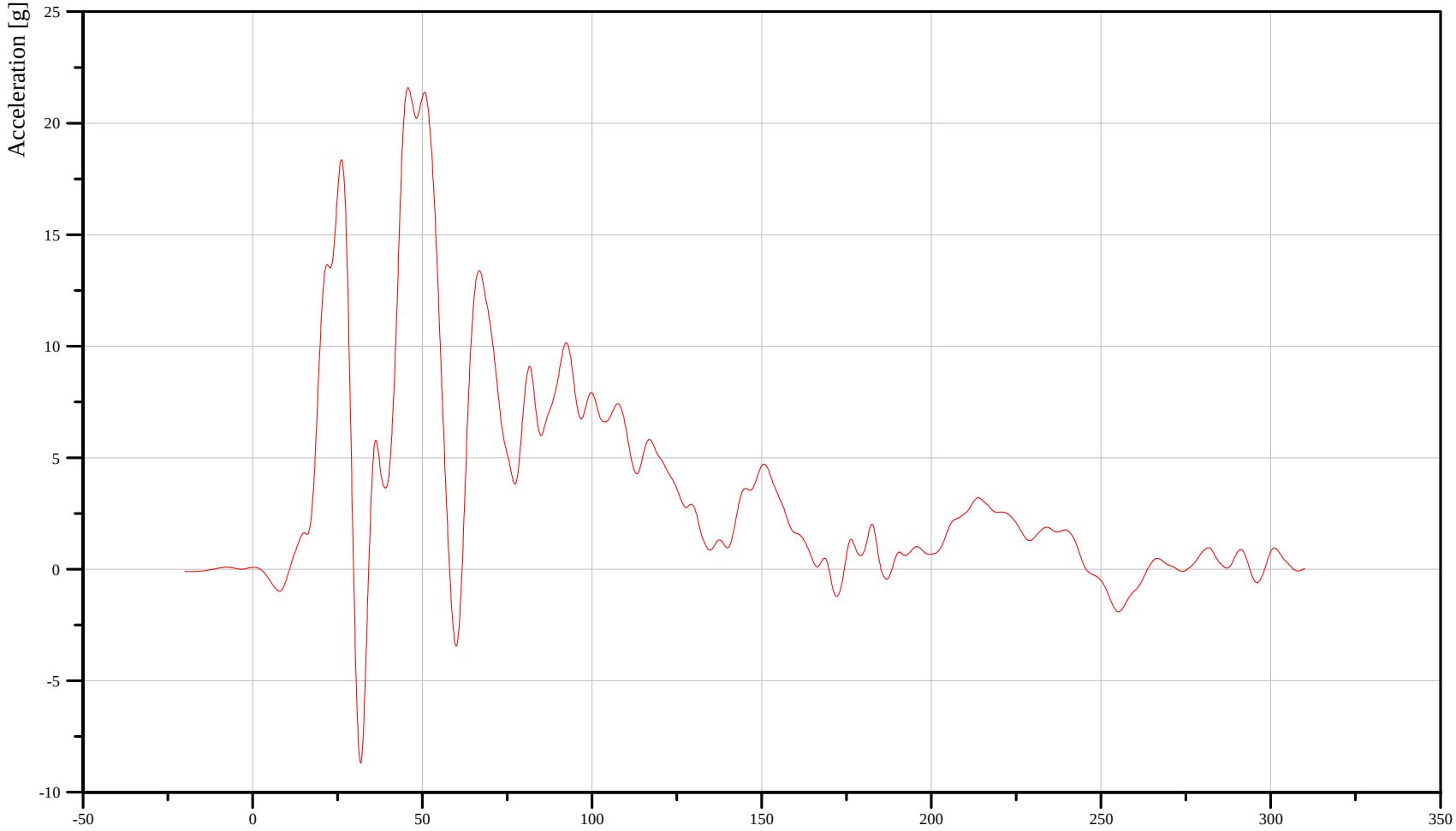
Vehicle Rear Door Upper Centerline Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

16DOOR000003ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-8.68 g at 31.84 ms

Max. Value
21.59 g at 45.76 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

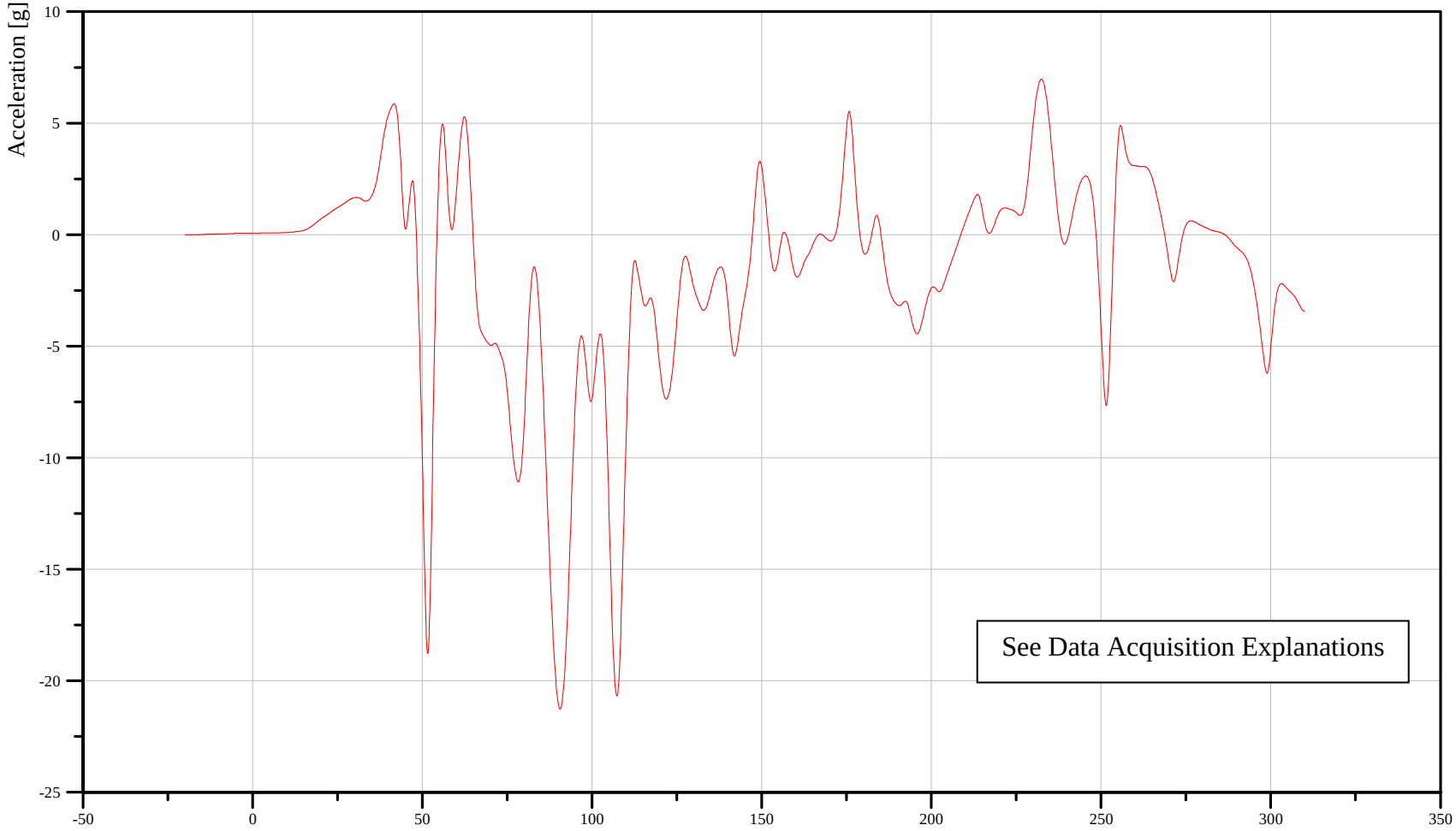
Top of Engine X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

12ENGNTP0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-21.27 g at 90.56 ms

Max. Value
6.97 g at 232.40 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

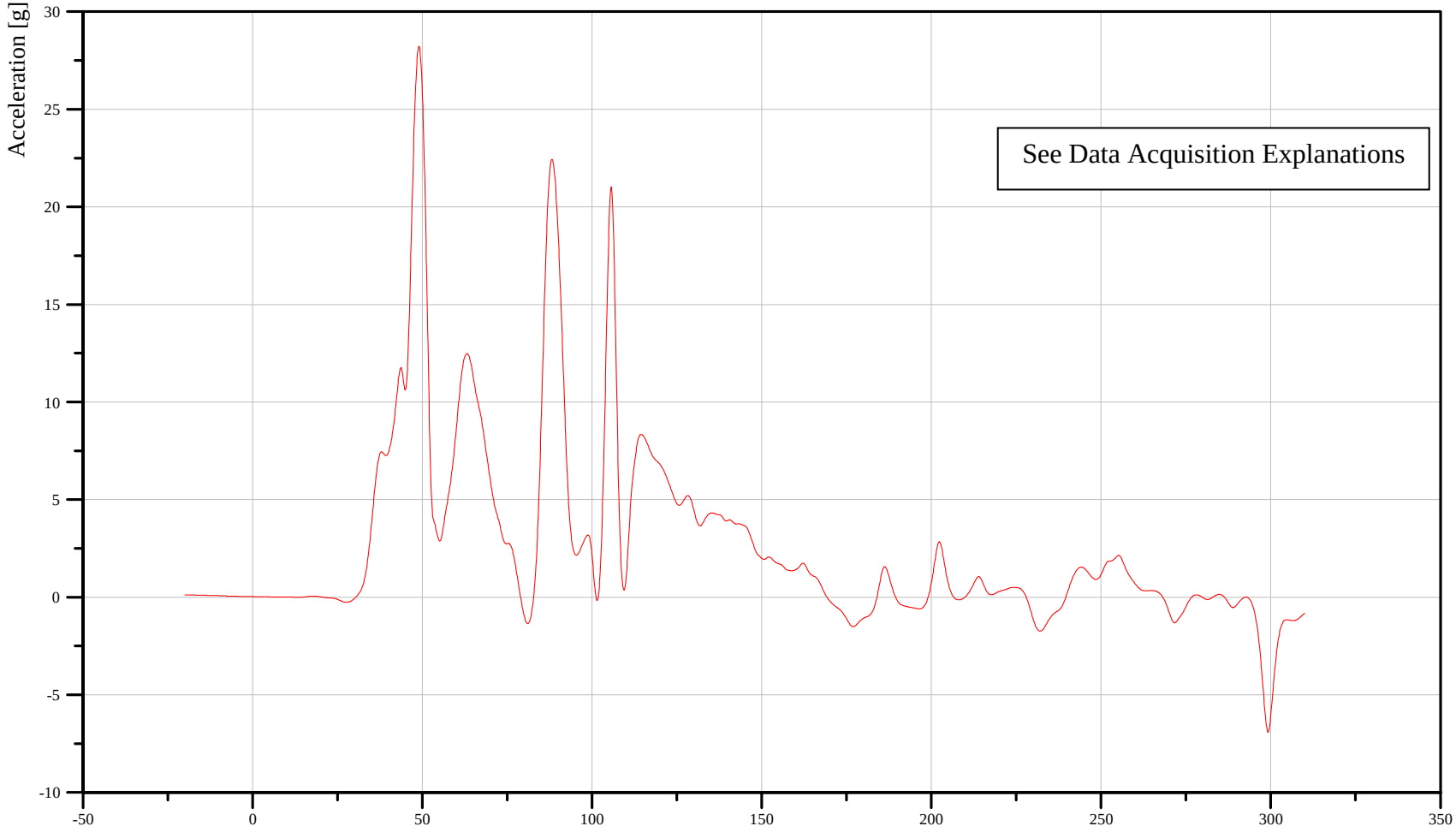
Top of Engine Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

12ENGNTP0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-6.92 g at 299.20 ms

Max. Value
28.22 g at 49.04 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

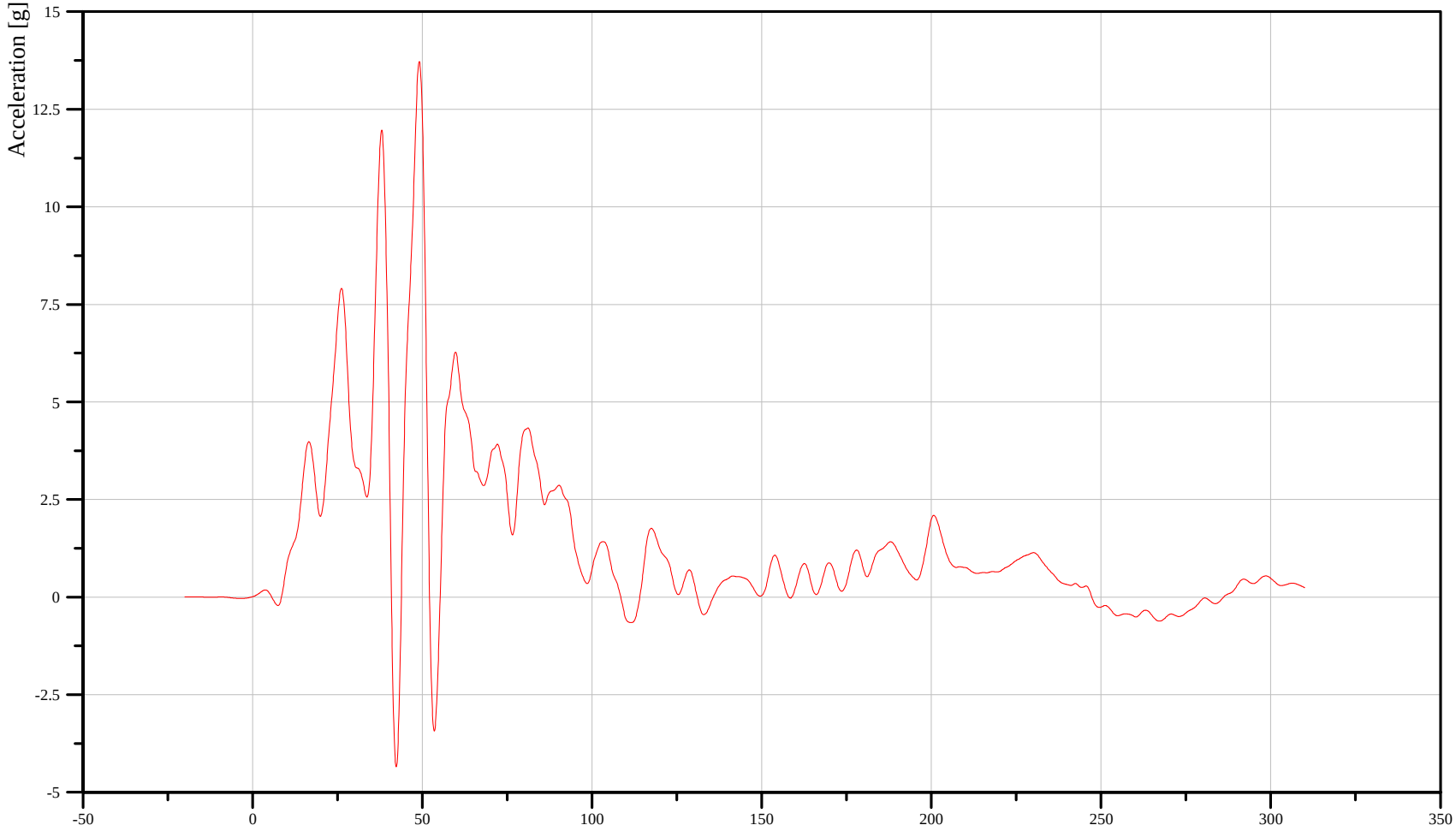
Firewall X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

12VEHC000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-4.35 g at 42.32 ms

Max. Value
13.72 g at 49.12 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

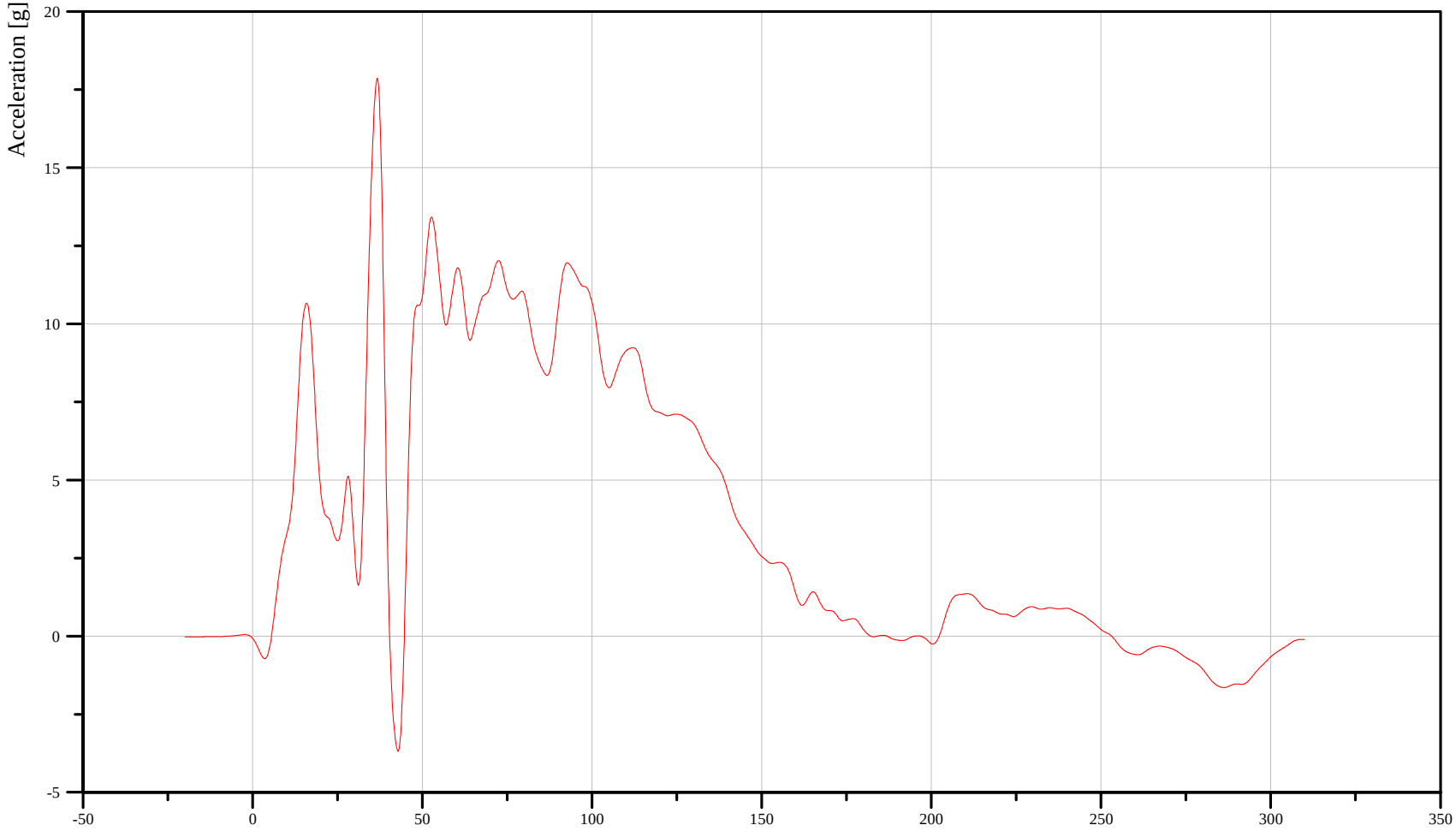
Firewall Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

12VEHC000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-3.68 g at 42.88 ms

Max. Value
17.86 g at 36.72 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

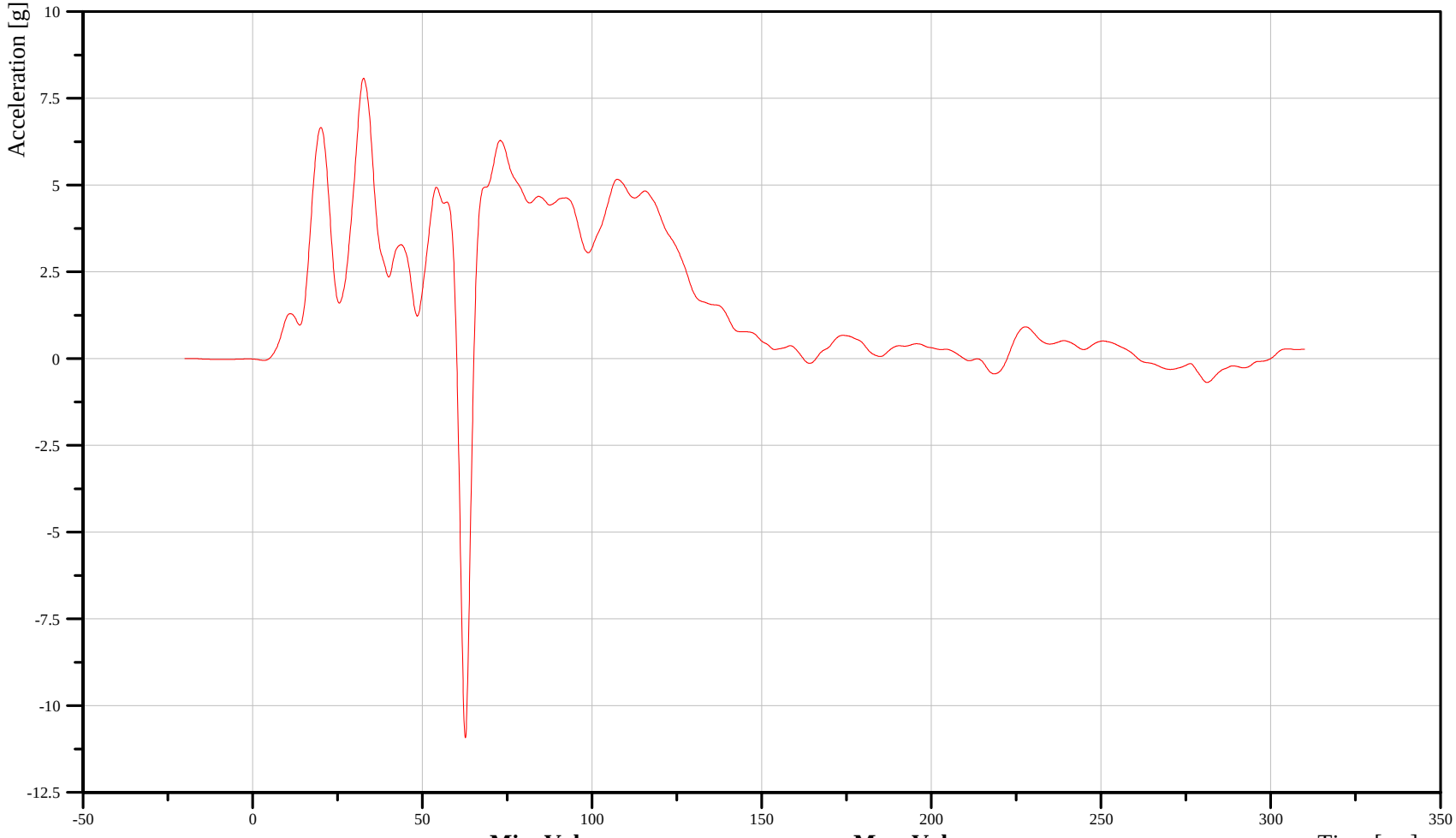
Right Side Roof Rail X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

13ROOF000000ACXD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-10.92 g at 62.72 ms

Max. Value
8.08 g at 32.72 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

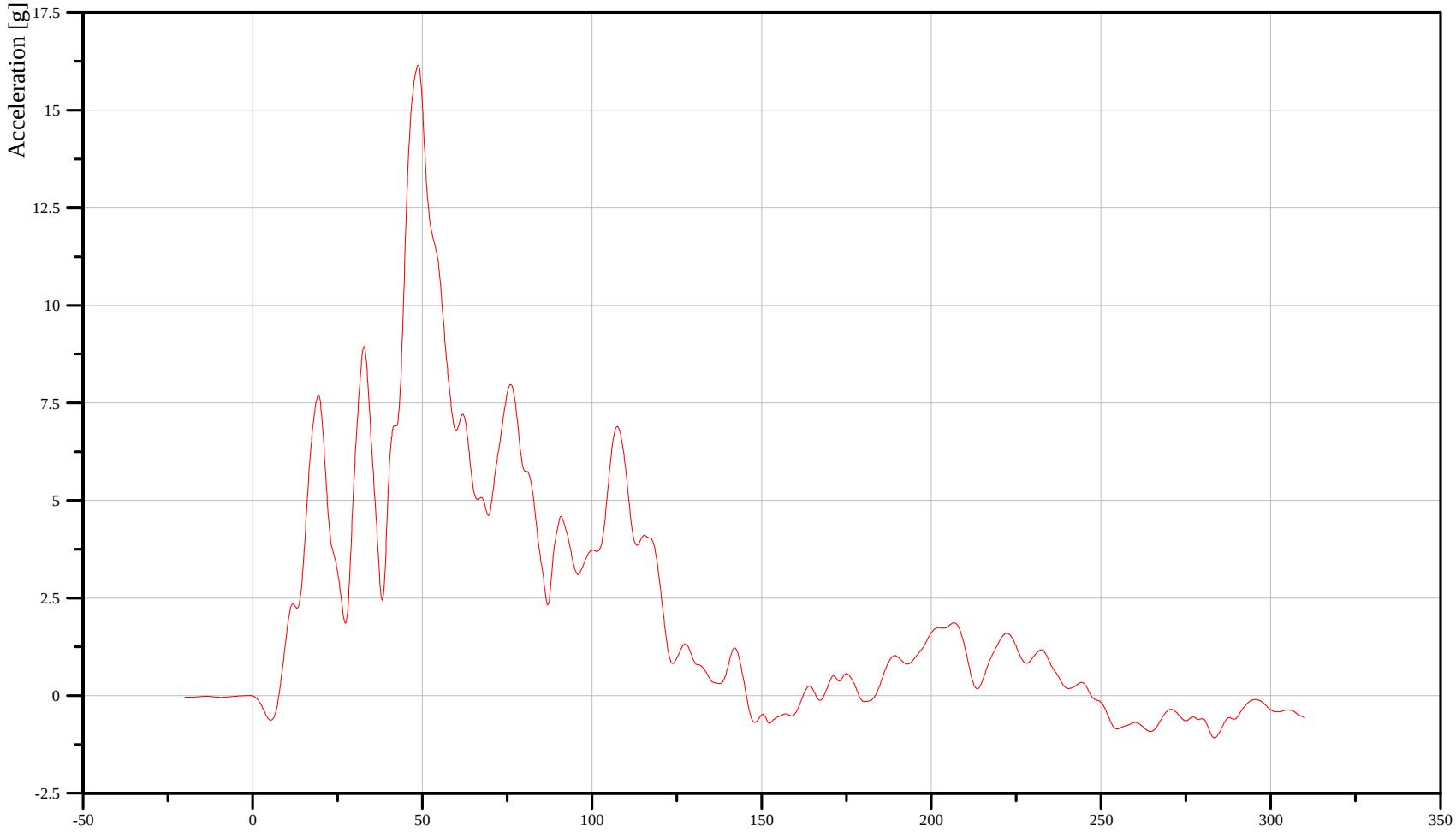
Right Side Roof Rail Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

13ROOF000000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-1.08 g at 283.44 ms

Max. Value
16.15 g at 48.80 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

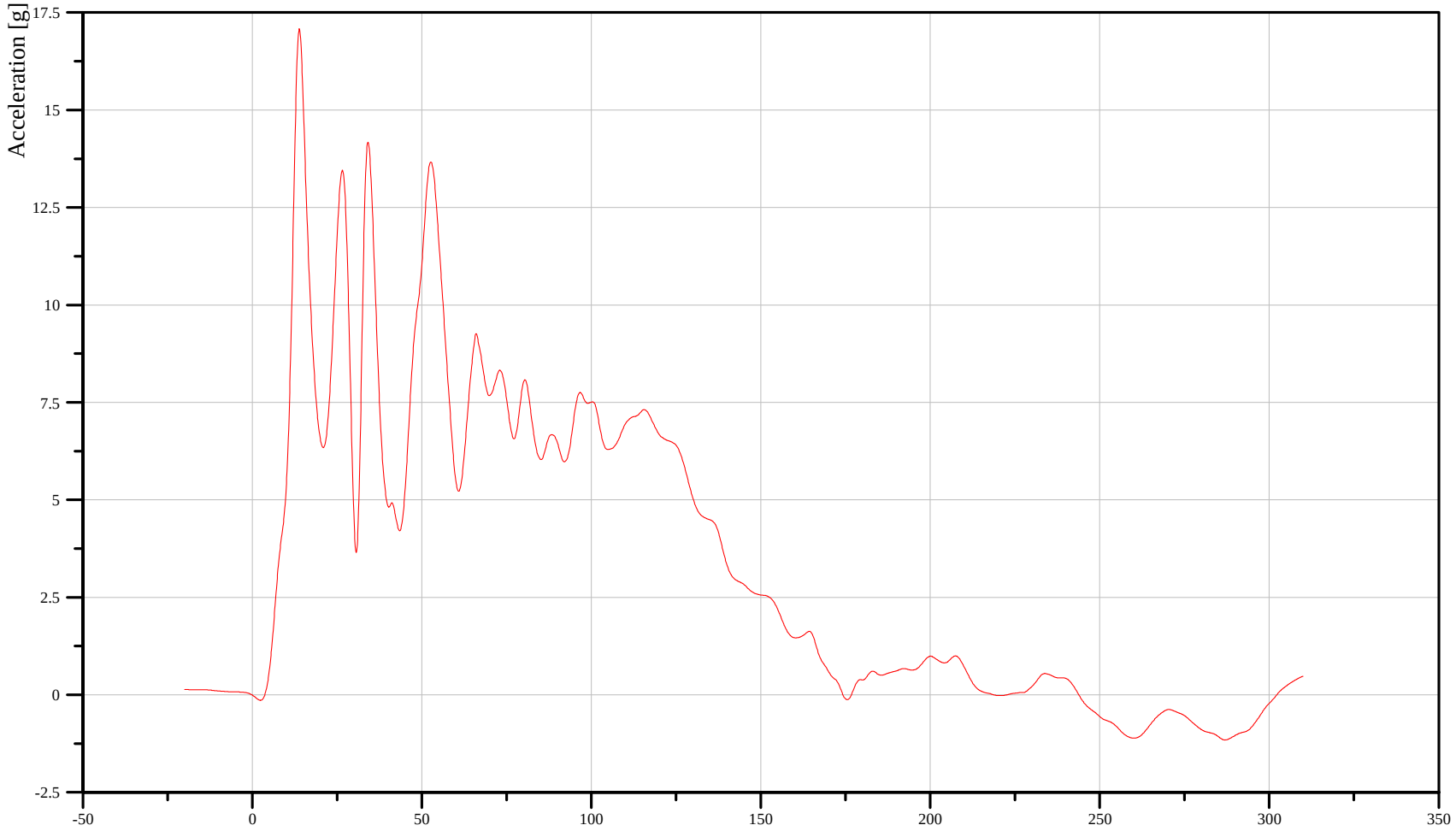
Right Side Sill In-Line With Impact Location Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

13SILBFR0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-1.16 g at 286.96 ms

Max. Value
17.08 g at 13.84 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

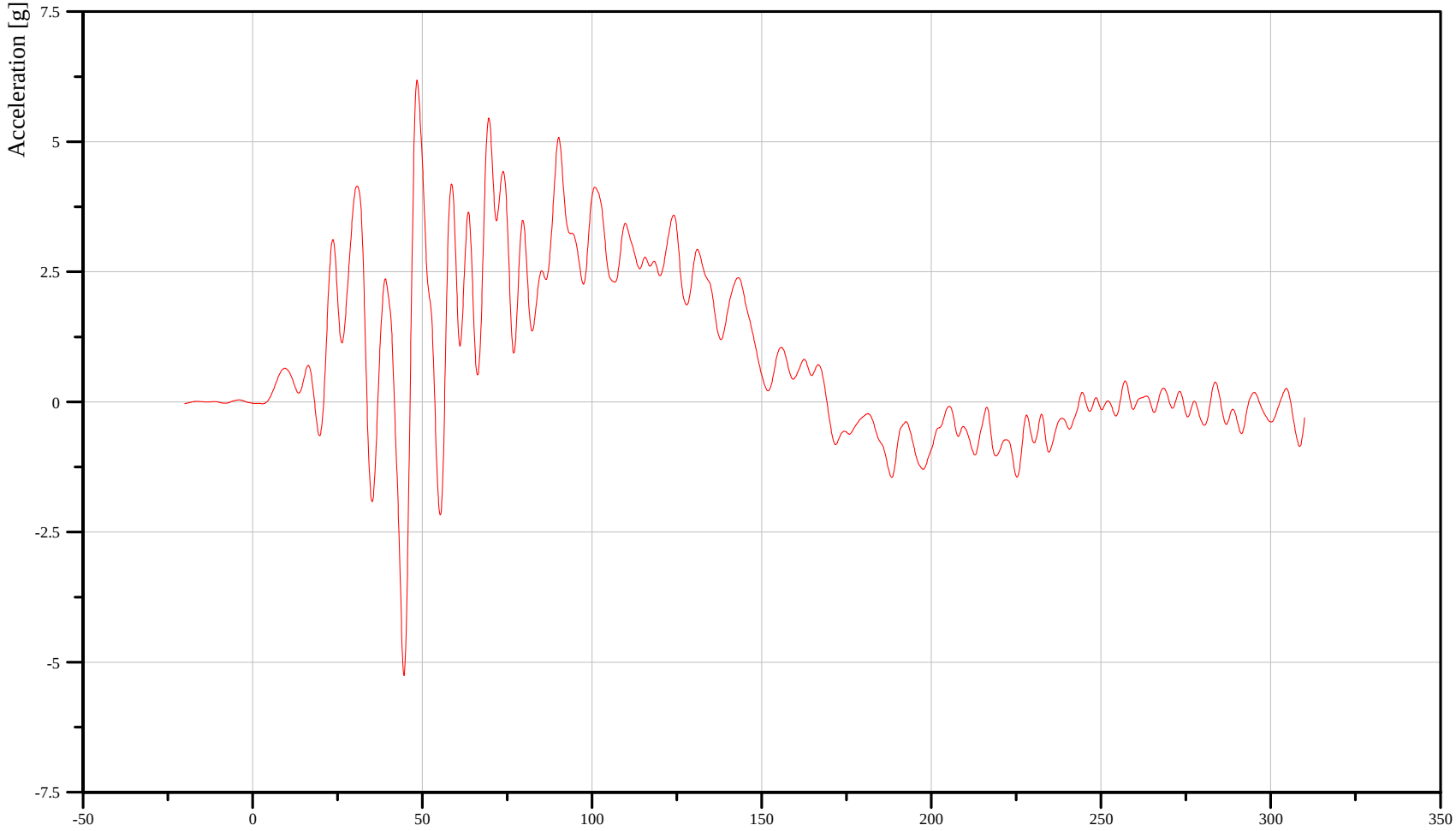
Rear Deck Behind Rear Axle X-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

18DECK000000ACXA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-5.26 g at 44.64 ms

Max. Value
6.19 g at 48.48 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

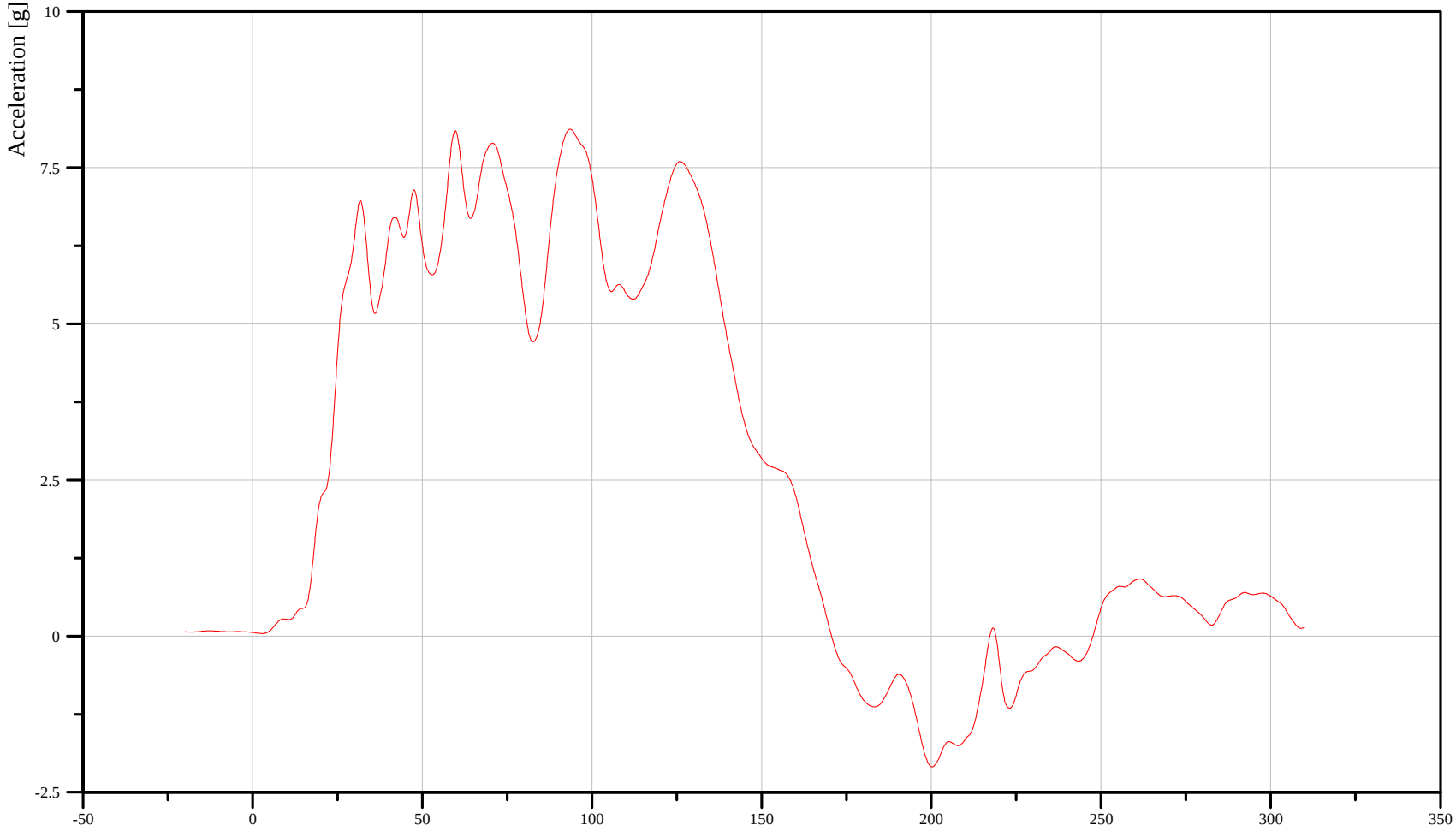
Rear Deck Behind Rear Axle Y-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

18DECK000000ACYA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-2.09 g at 200.24 ms

Max. Value
8.12 g at 93.52 ms

070517

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

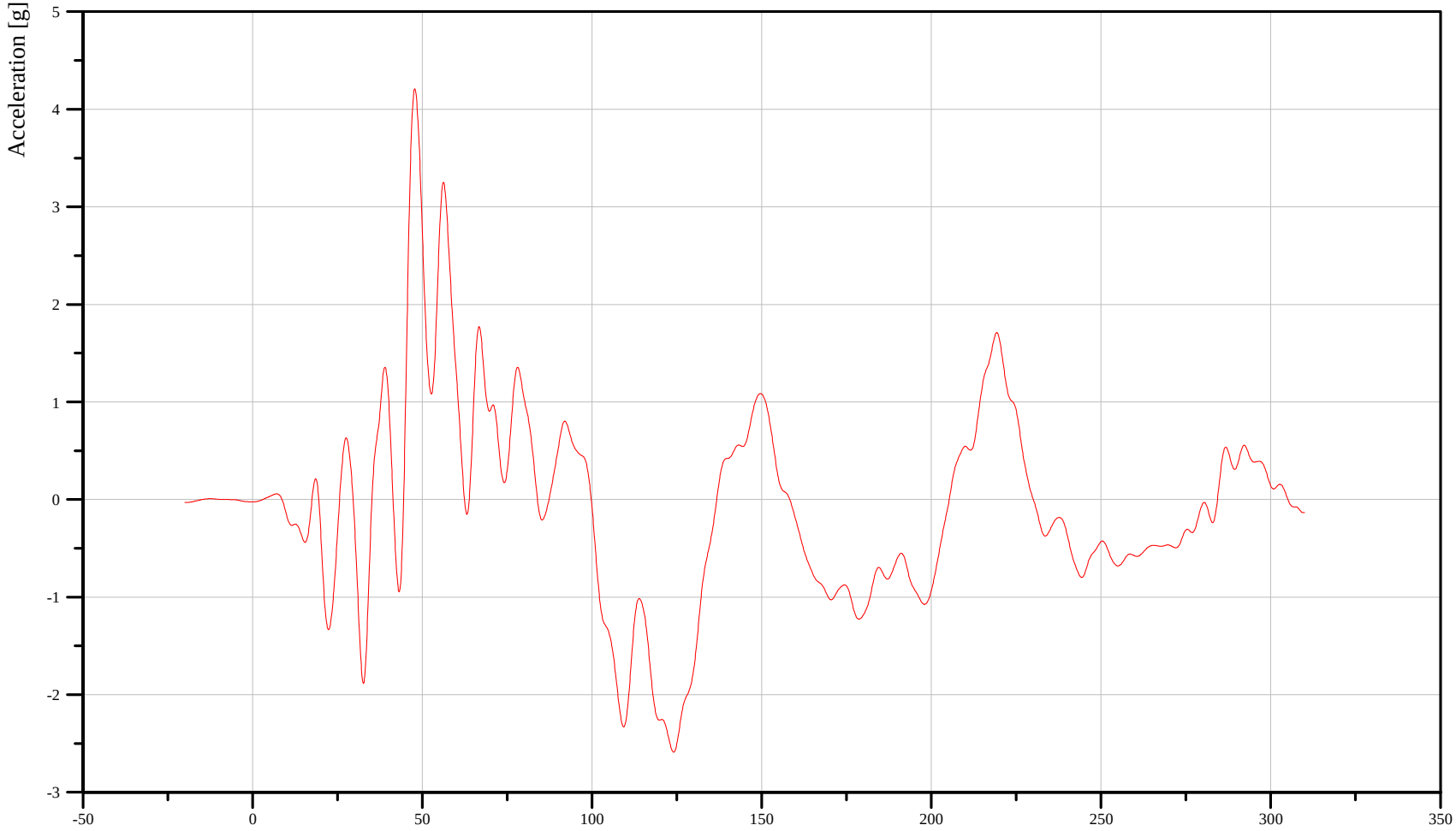
Rear Deck Behind Rear Axle Z-Axis Acceleration

Date: 05/17/2007
Time: 15:05

Customer: VRTC

18DECK000000ACZA

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_60

Min. Value
-2.59 g at 124.08 ms

Max. Value
4.21 g at 47.76 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

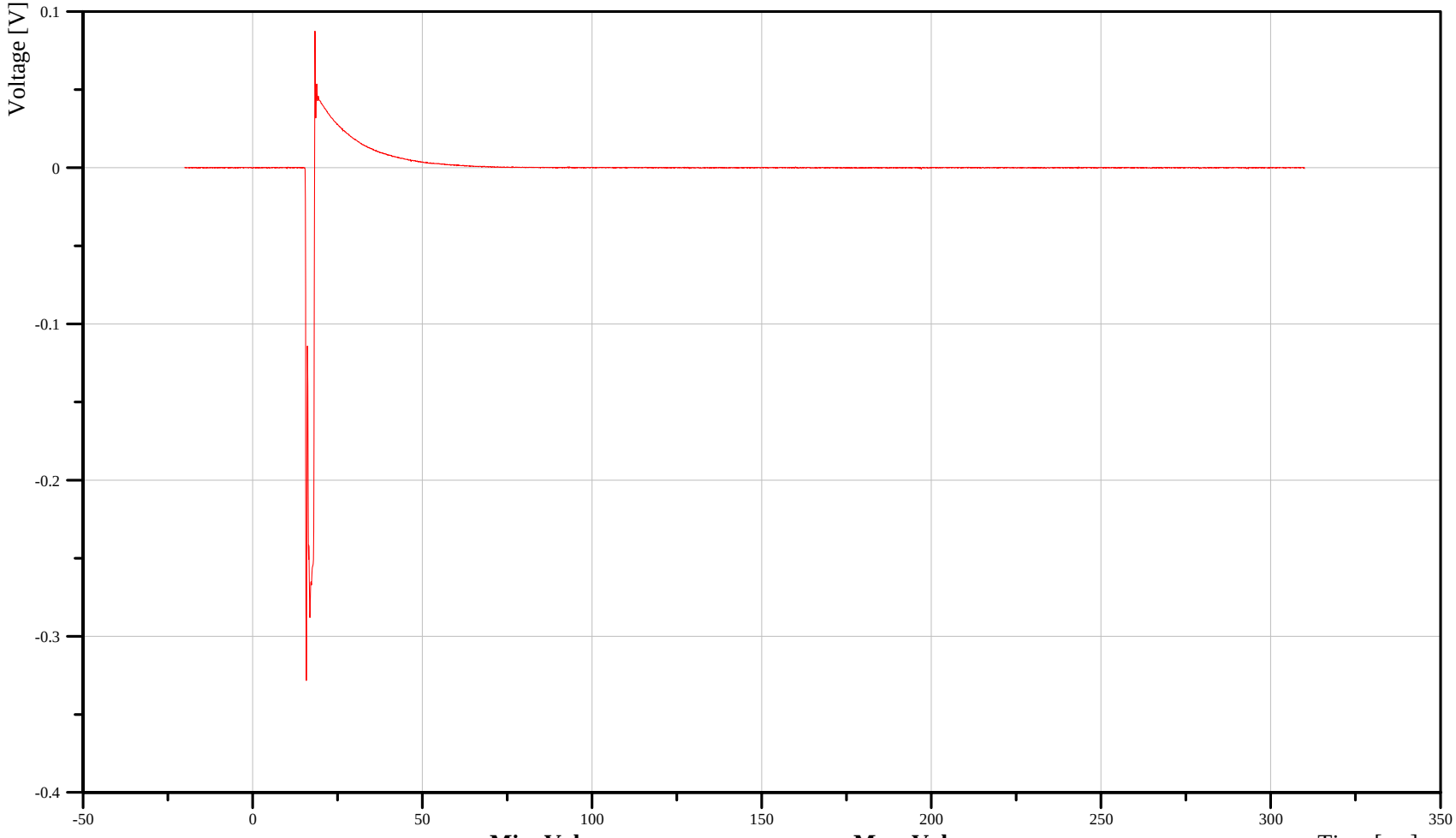
Driver Side Curtain 1 Inductor

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11AIRBTPLE10EV0A

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-0.33 V at 15.84 ms

Max. Value
0.09 V at 18.40 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

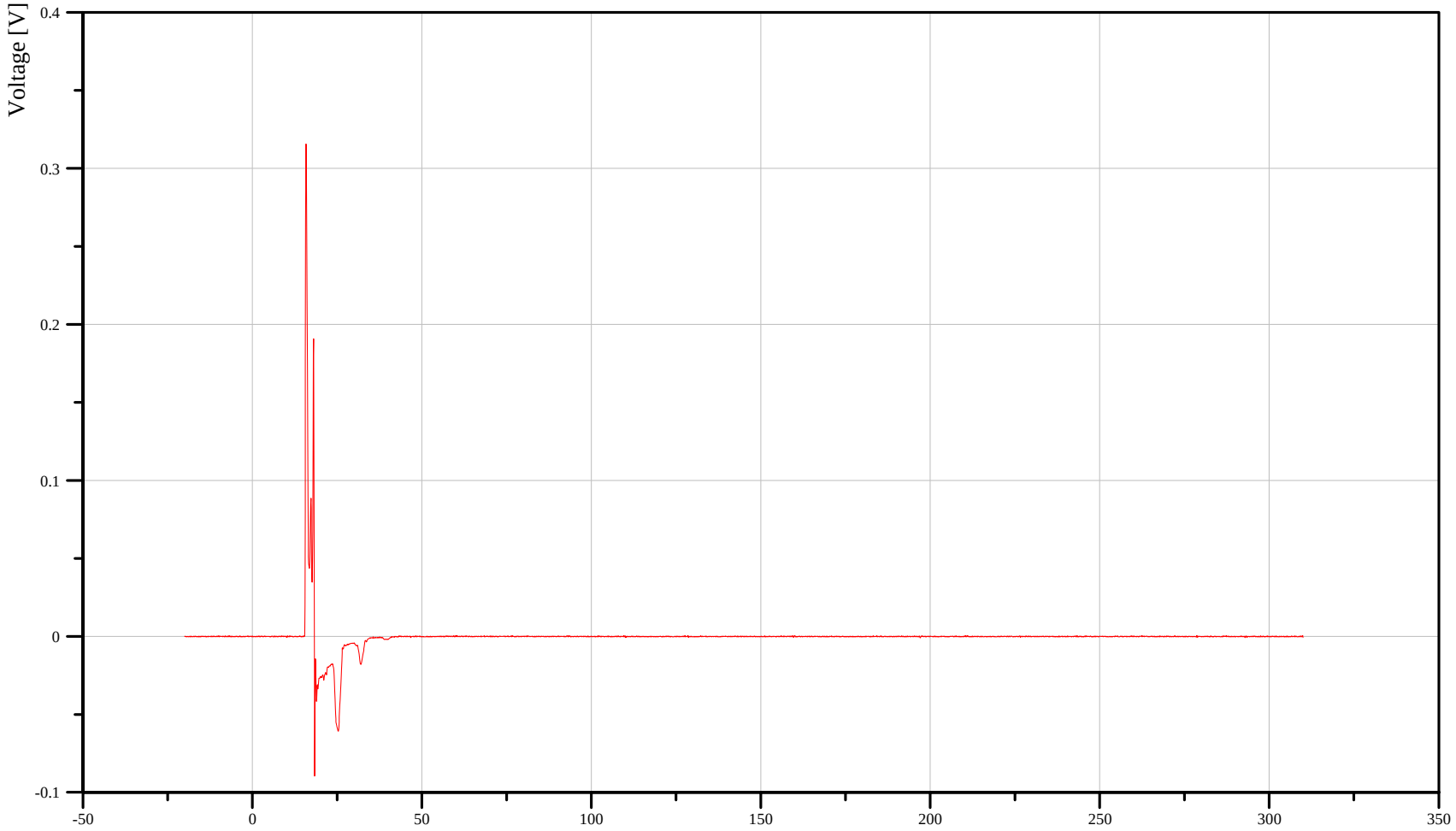
Driver Side Curtain 2 Inductor

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11AIRBTPLE20EV0A

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: CFC_1000

Min. Value
-0.09 V at 18.40 ms

Max. Value
0.32 V at 15.84 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

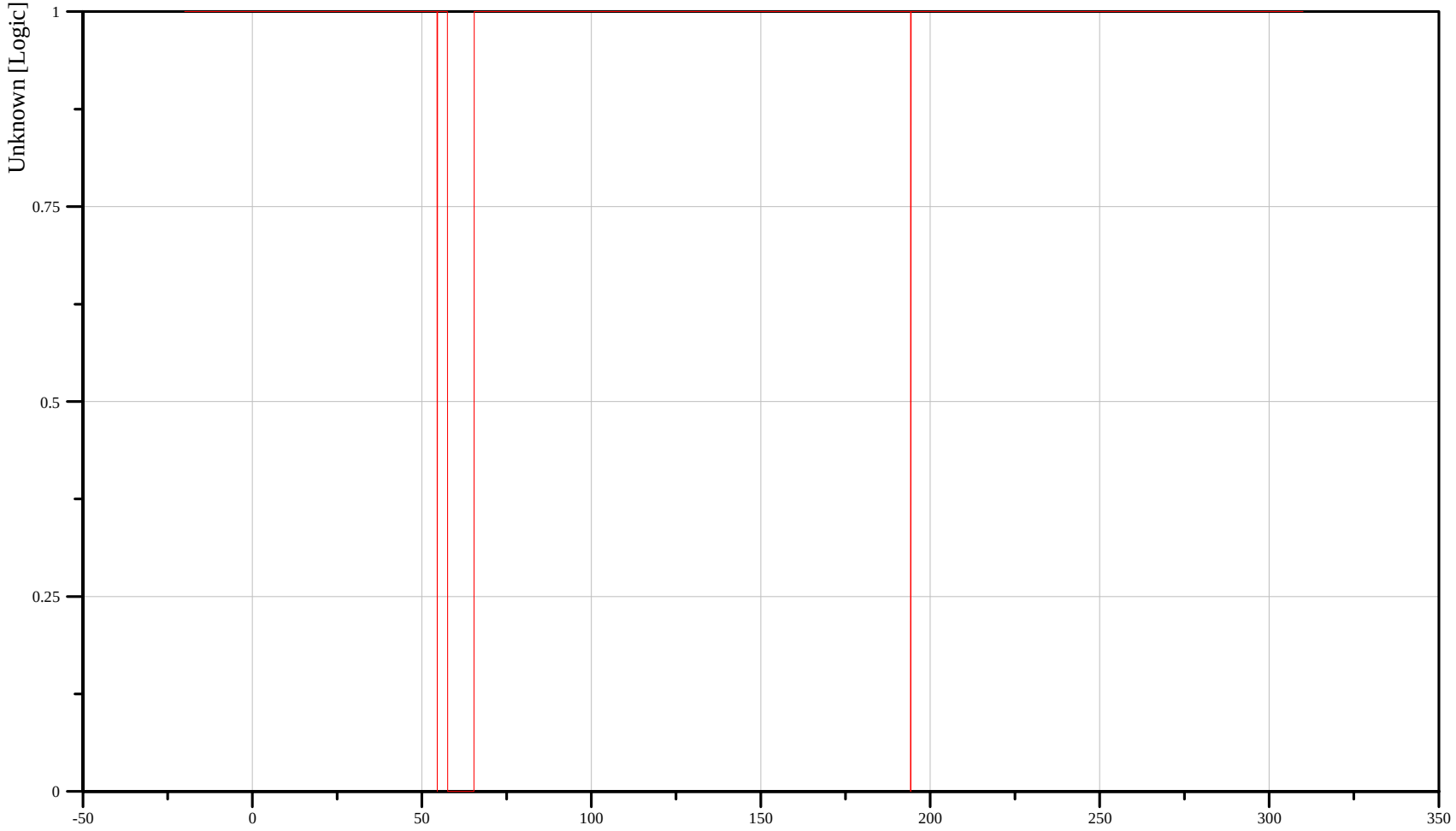
Head Contact Switch

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11CONT000001VO00

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: Unfiltered

Min. Value
0.00 Logic at 54.56 ms

Max. Value
1.00 Logic at -20.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

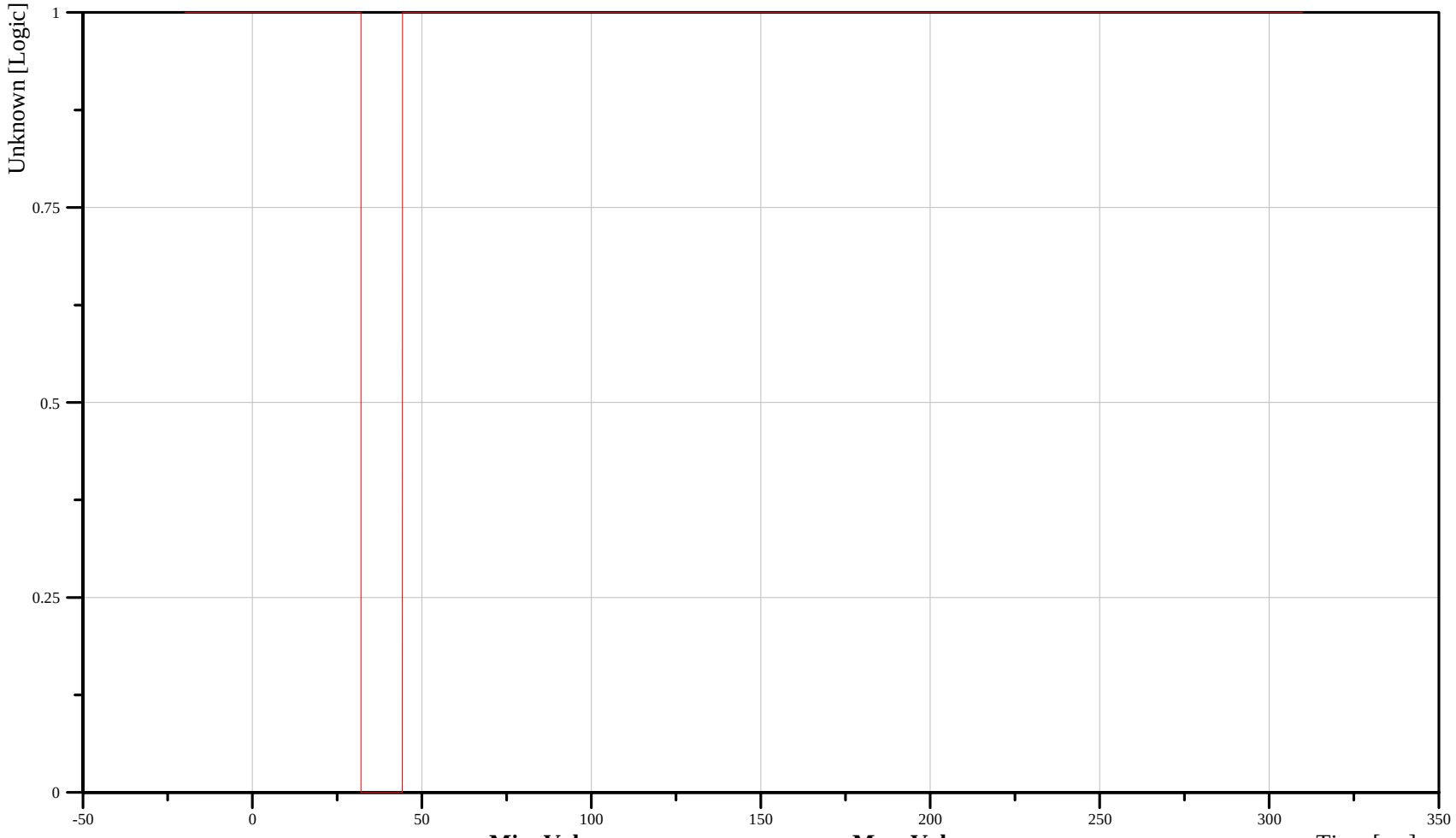
Shoulder Contact Switch

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11CONT000002VO00

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: Unfiltered

Min. Value
0.00 Logic at 32.08 ms

Max. Value
1.00 Logic at -20.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

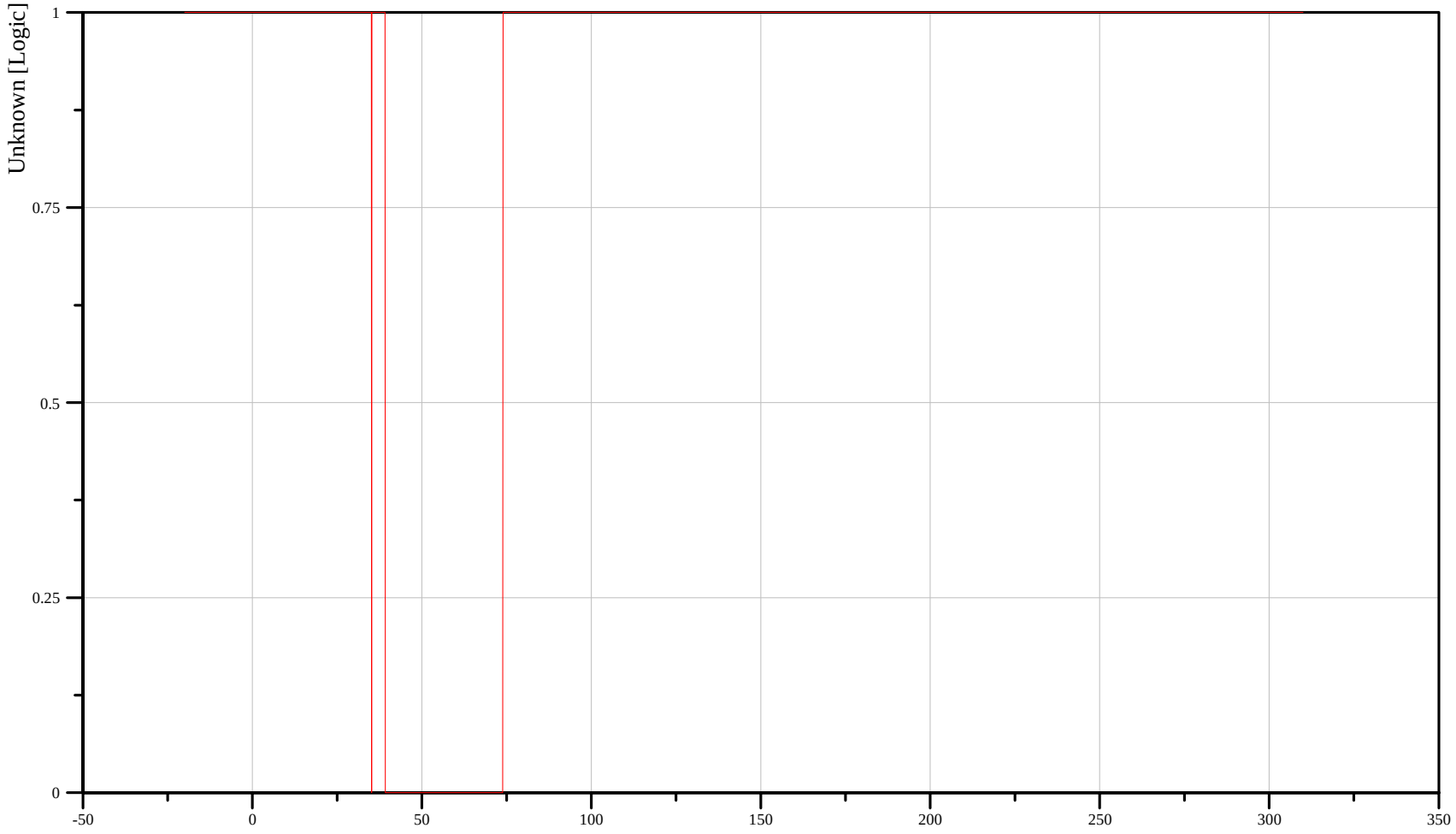
Torso Contact Switch

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11CONT000003VO00

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: Unfiltered

Min. Value
0.00 Logic at 35.20 ms

Max. Value
1.00 Logic at -20.00 ms

2007 Nissan Quest Left Side FMVSS 214 Pole Impact at 32 kph

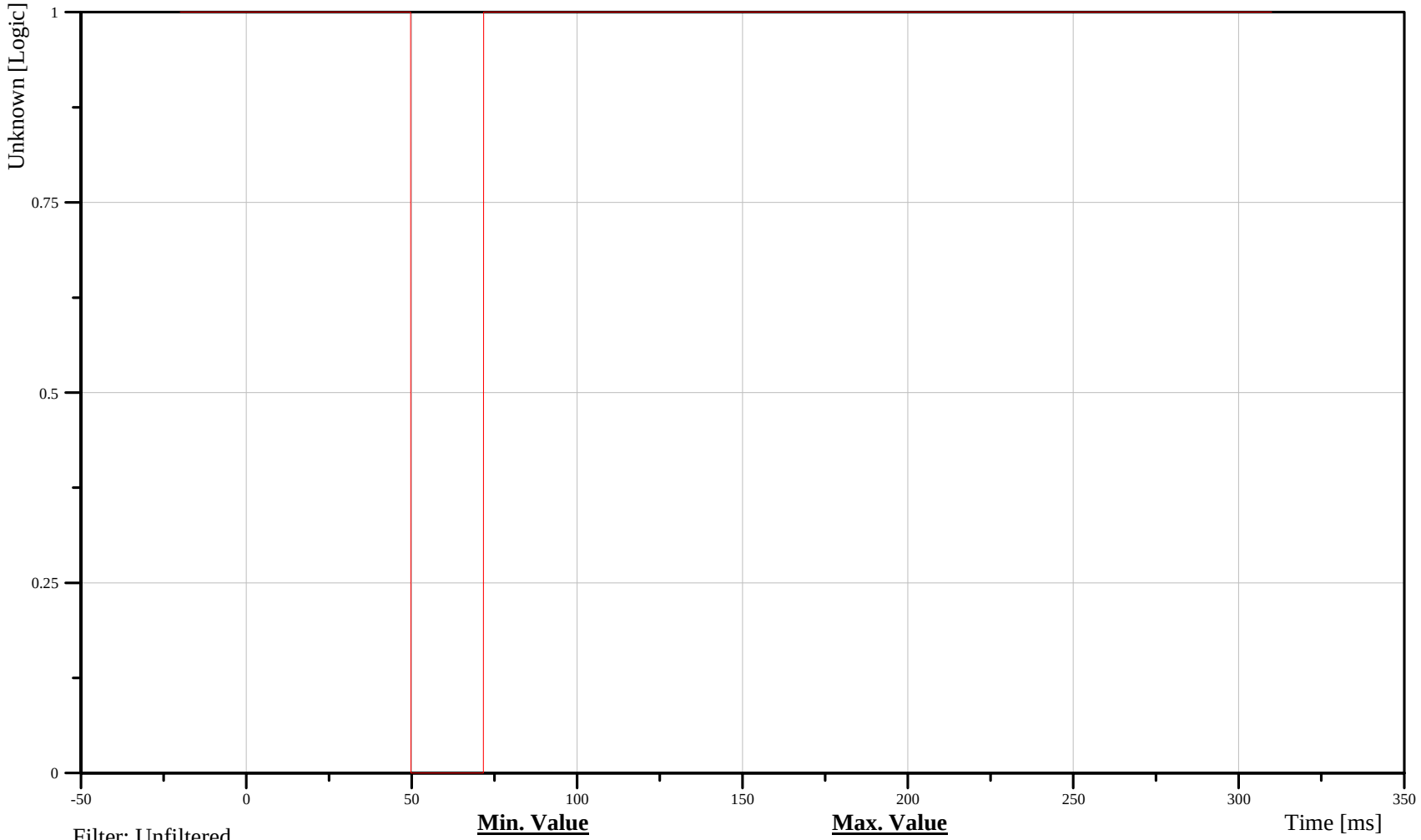
Leg Contact Switch

Date: 05/17/2007
Time: 15:05

Customer: VRTC

11CONT000004VO00

TRC Inc. Test Lab: CTF
Test Number: 070517



Filter: Unfiltered

Min. Value
0.00 Logic at 49.76 ms

Max. Value
1.00 Logic at -20.00 ms

Appendix C

SID-IIs Configuration and Performance Verification Data

Calibration Test Results

Pre-Test

SID-IIs: 056

Configured for Left Side Impact

Transportation Research Center Inc.

Left Lateral Head Drop
SID IIs SBLD Serial No. 056 Certification No. 3-1
Test Date: 5/14/2007

Test Parameter	Specification	Test Results	Pass
Temperature	18.9 - 25.6 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Peak Head Resultant Acceleration	115 - 137 g	123.0 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	4.4 g	Yes
Is Head Resultant Acceleration Curve Unimodal within 15% of Peak?	Yes	Yes	Yes

Test meets specifications.

Comments:

Technician

Approved

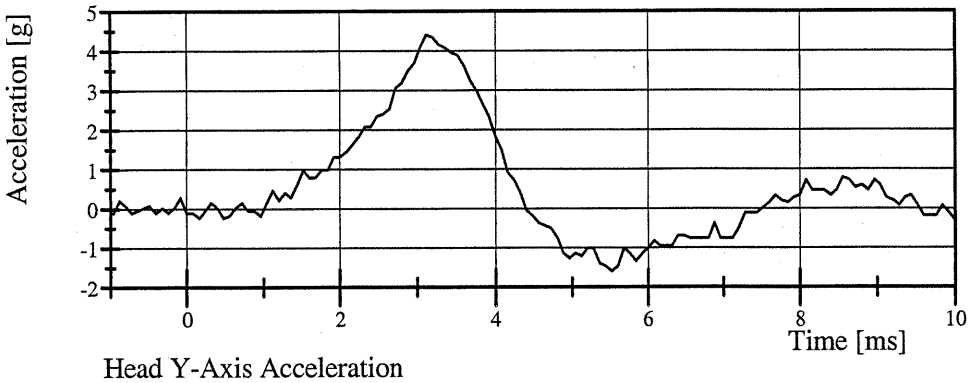
Transportation Research Center Inc.

Left Lateral Head Drop

SID IIs SBLD Serial No. 056 Certification No. 3-1

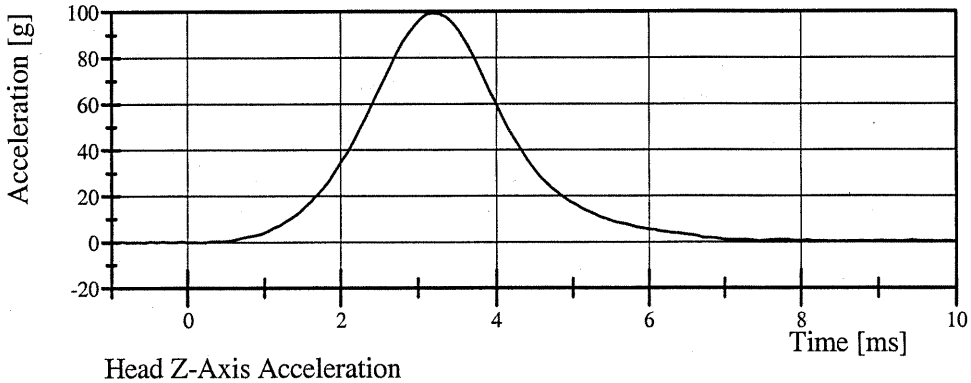
Test Date: 5/14/2007

Head X-Axis Acceleration



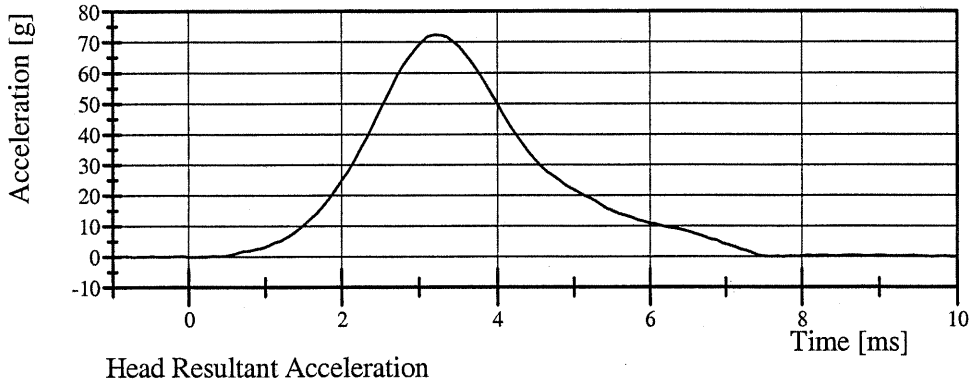
Filter Class: CFC_1000
Max: 4.4 g at 3.1 ms
Min: -1.6 g at 5.5 ms

Head Y-Axis Acceleration



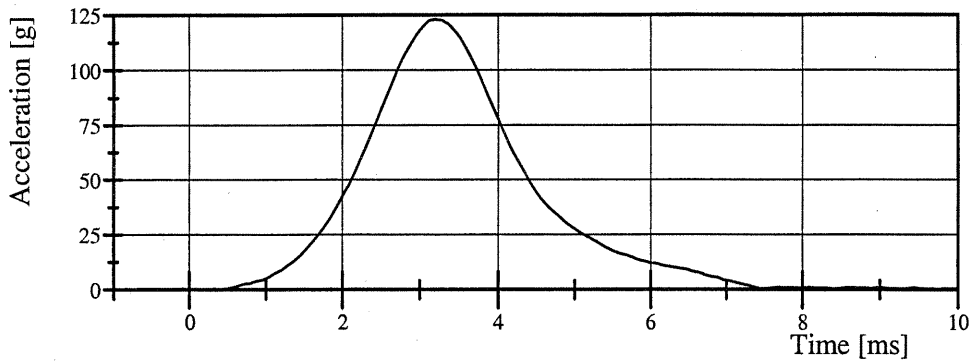
Filter Class: CFC_1000
Max: 99.4 g at 3.2 ms
Min: -0.2 g at -1.0 ms

Head Z-Axis Acceleration



Filter Class: CFC_1000
Max: 72.3 g at 3.2 ms
Min: -0.1 g at -1.0 ms

Head Resultant Acceleration



Filter Class: CFC_1000
Max: 123.0 g at 3.2 ms
Min: 0.1 g at -0.6 ms

Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 07:28:46 227

Transportation Research Center Inc.

Left Lateral Abdomen
SID IIs SBLD Serial No. 056 Certification No. 3-1
Test Date: 5/10/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Impactor Velocity	4.30 - 4.50 m/s	4.490 m/s	Yes
Impactor Acceleration	(-12) - (-16) g	-14.6 g	Yes
Upper Abdominal Rib Displacement	39 - 47 mm	43.2 mm	Yes
Lower Abdominal Rib Displacement	37 - 46 mm	39.1 mm	Yes
Lower Spine Lateral Acceleration	11.0 - 14.0 g	11.98 g	Yes

Test meets specifications.

Comments:

Technician

Approved

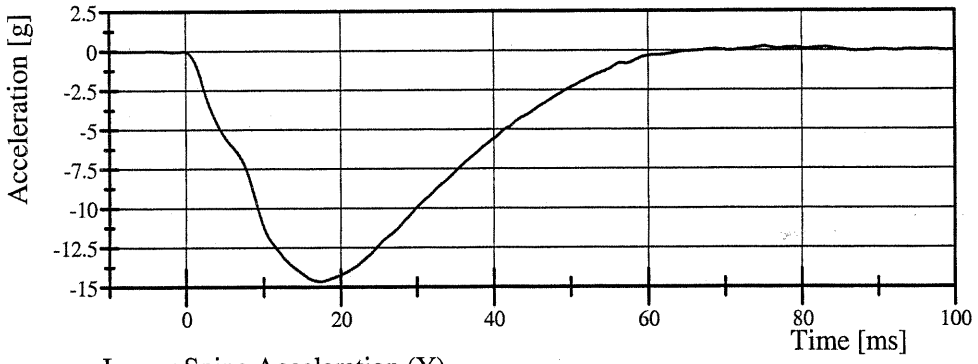
Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 10:51:22 630

070517

Transportation Research Center Inc.

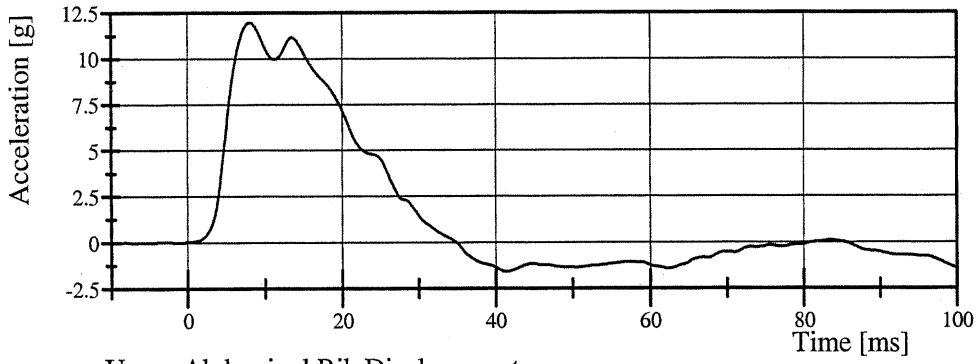
Left Lateral Abdomen
SID IIs SBLD Serial No. 056 Certification No. 3-1
Test Date: 5/10/2007

Probe Acceleration



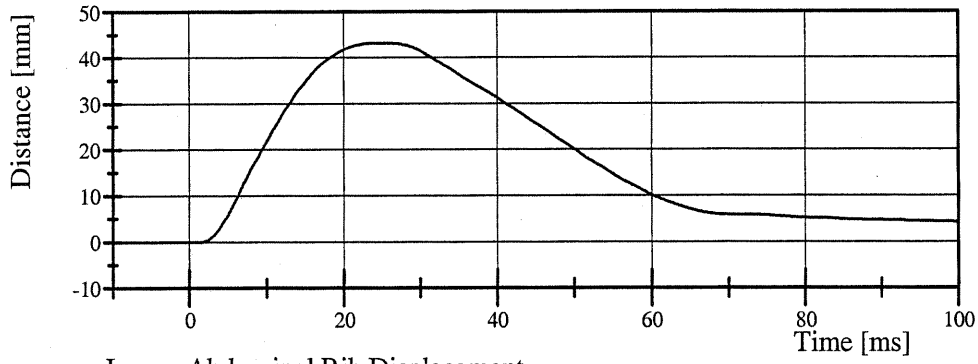
Filter Class: CFC_180
Max: 0.3 g at 75.2 ms
Min: -14.6 g at 17.4 ms

Lower Spine Acceleration (Y)



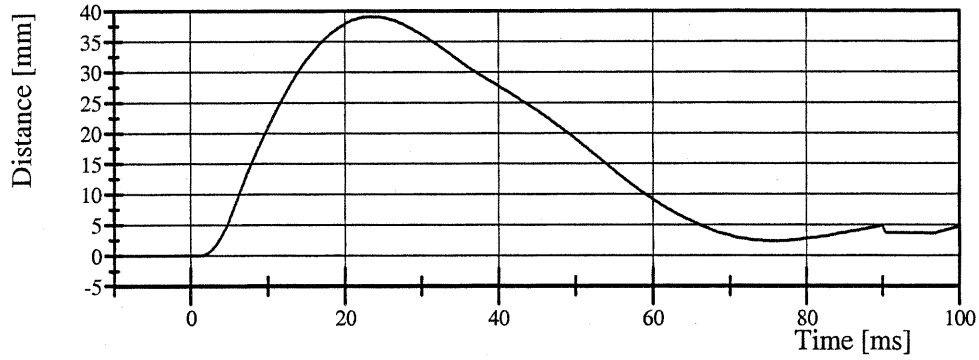
Filter Class: CFC_180
Max: 12.0 g at 8.0 ms
Min: -1.6 g at 41.4 ms

Upper Abdominal Rib Displacement



Filter Class: CFC_600
Max: 43.2 mm at 25.0 ms
Min: -0.0 mm at 1.4 ms

Lower Abdominal Rib Displacement



Filter Class: CFC_600
Max: 39.1 mm at 23.5 ms
Min: -0.0 mm at -8.8 ms

Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with ISO 6487:2000. 05 FEB 07 10:51:31 630

070517

Transportation Research Center Inc.

Left Lateral Thorax with Arm
SID IIs SBLD Serial No. 056 Certification No. 3-1
Test Date: 5/9/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	38 %	Yes
Impactor Velocity	6.60 - 6.80 m/s	6.656 m/s	Yes
Impactor Acceleration	(-31) - (-36) g	-33.4 g	Yes
Shoulder Displacement	31 - 40 mm	35.9 mm	Yes
Upper Thorax Rib Displacement	26 - 32 mm	28.8 mm	Yes
Center Thorax Rib Displacement	30 - 36 mm	33.8 mm	Yes
Lower Thorax Rib Displacement	32 - 38 mm	36.6 mm	Yes
Upper Spine Lateral Acceleration	34 - 43 g	36.9 g	Yes
Lower Spine Lateral Acceleration	28 - 35 g	34.1 g	Yes

Test meets specifications.

Comments:

Technician

Charles W. Bell

Approved

Ron Stover

Specification Source: Procedures based on Final Rule dated 12/14/2006.
Polarity in accordance with SAE J211.

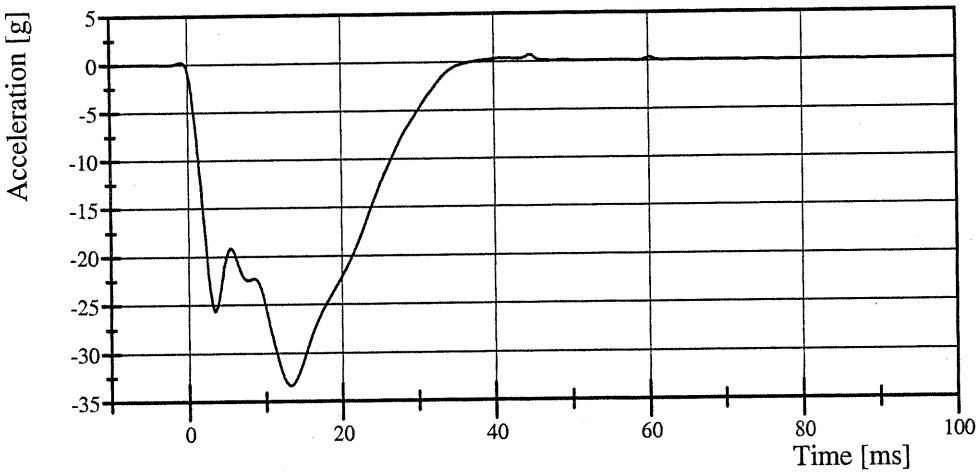
05.09.2007 13:47:46 624

070517

Transportation Research Center Inc.

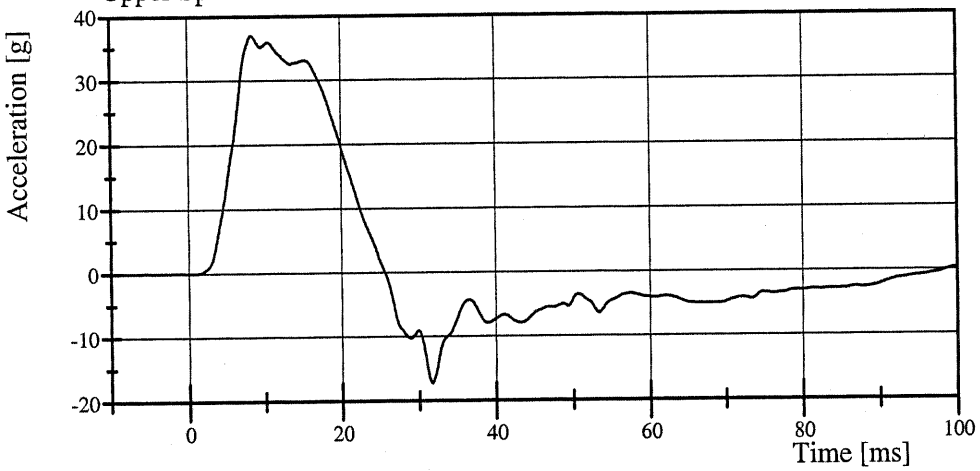
Left Lateral Thorax with Arm
SID IIs SBLD Serial No. 056 Certification No. 3-1
Test Date: 5/9/2007

Probe Acceleration



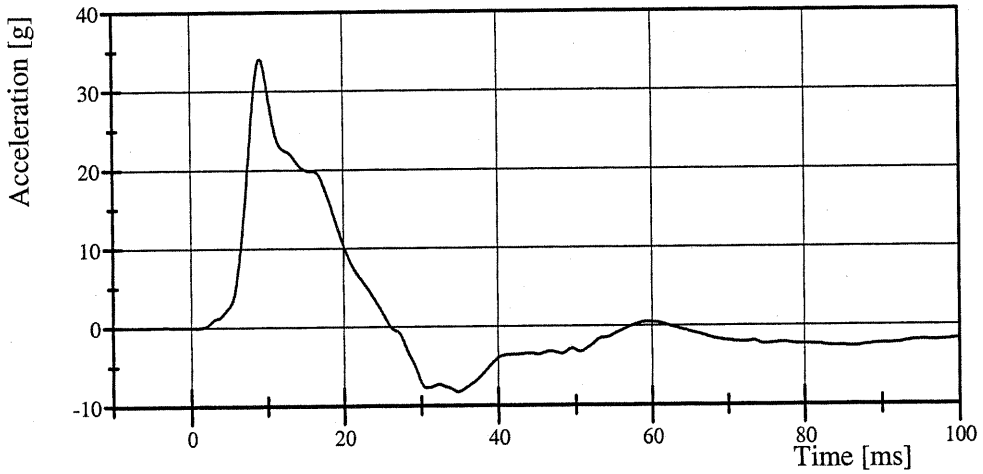
Filter Class: CFC_180
Max: 0.7 g at 44.6 ms
Min: -33.4 g at 13.2 ms

Upper Spine Acceleration



Filter Class: CFC_180
Max: 36.9 g at 8.3 ms
Min: -17.2 g at 31.7 ms

Lower Spine Acceleration



Filter Class: CFC_180
Max: 34.1 g at 9.2 ms
Min: -8.3 g at 34.8 ms

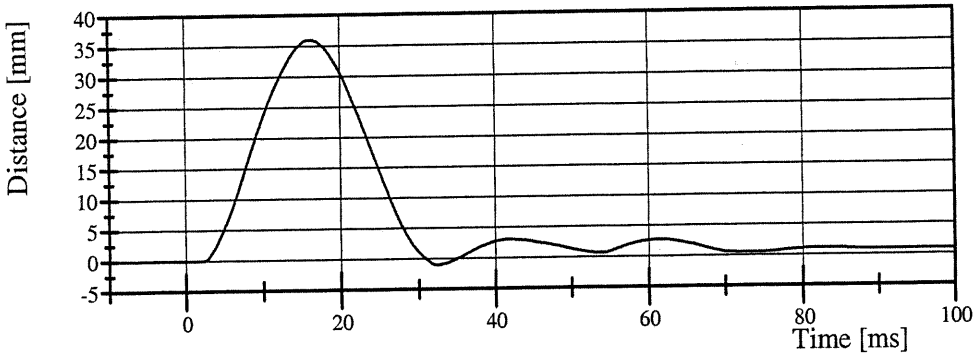
Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 13:49:15 624

070517

Transportation Research Center Inc.

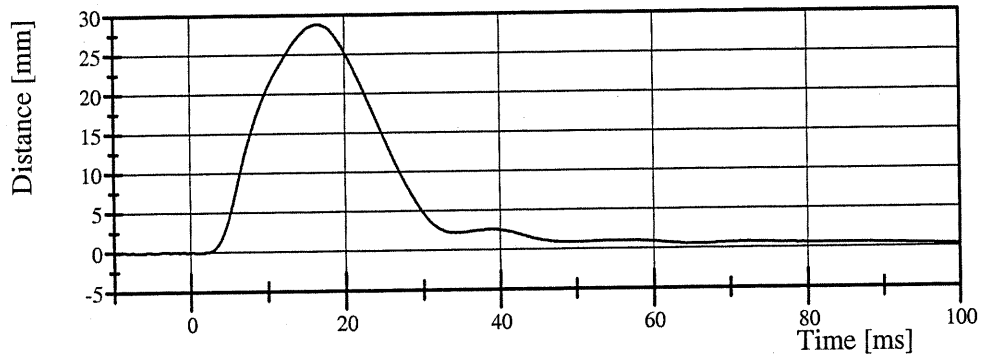
Left Lateral Thorax with Arm
SID IIs SBLD Serial No. 056 Certification No. 3-1
Test Date: 5/9/2007

Shoulder Rib Displacement



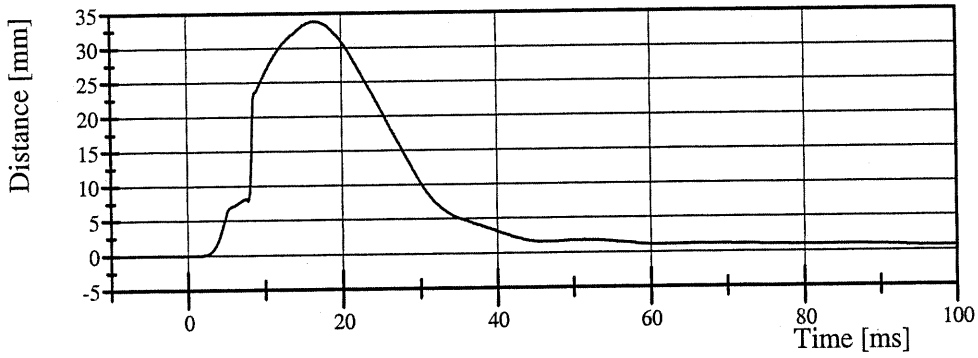
Filter Class: CFC_600
Max: 35.9 mm at 16.1 ms
Min: -1.0 mm at 32.4 ms

Upper Thorax Rib Displacement



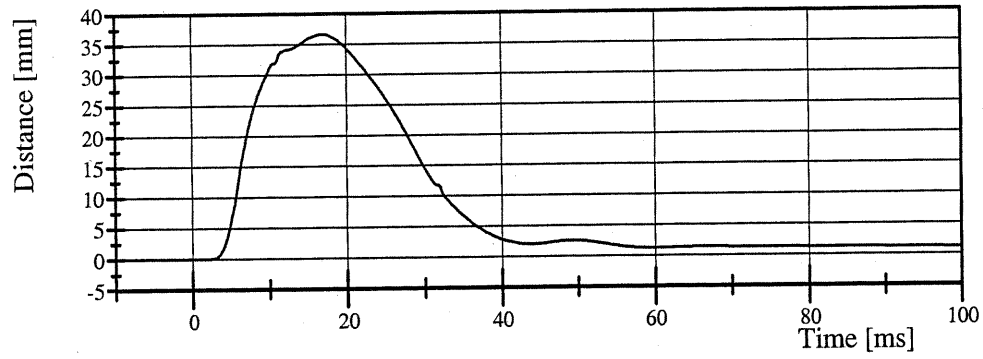
Filter Class: CFC_600
Max: 28.8 mm at 16.5 ms
Min: -0.0 mm at 1.3 ms

Center Thorax Rib Displacement



Filter Class: CFC_600
Max: 33.8 mm at 16.5 ms
Min: -0.0 mm at 1.0 ms

Lower Thorax Rib Displacement



Filter Class: CFC_600
Max: 36.6 mm at 17.0 ms
Min: -0.0 mm at 1.2 ms

Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 13:49:21 624

Transportation Research Center Inc.

Left Lateral Thorax without Arm
SID IIs SBLD Serial No. 056 Certification No. 3-6
Test Date: 5/10/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	50 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.239 m/s	Yes
Impactor Acceleration	(-14) - (-18) g	-15.4 g	Yes
Upper Thorax Rib Displacement	33 - 40 mm	35.5 mm	Yes
Center Thorax Rib Displacement	39 - 45 mm	40.3 mm	Yes
Lower Thorax Rib Displacement	36 - 43 mm	36.3 mm	Yes
Upper Spine Lateral Acceleration	14 - 17 g	15.0 g	Yes
Lower Spine Lateral Acceleration	7 - 10 g	8.8 g	Yes

Test meets specifications.

Comments:

Technician

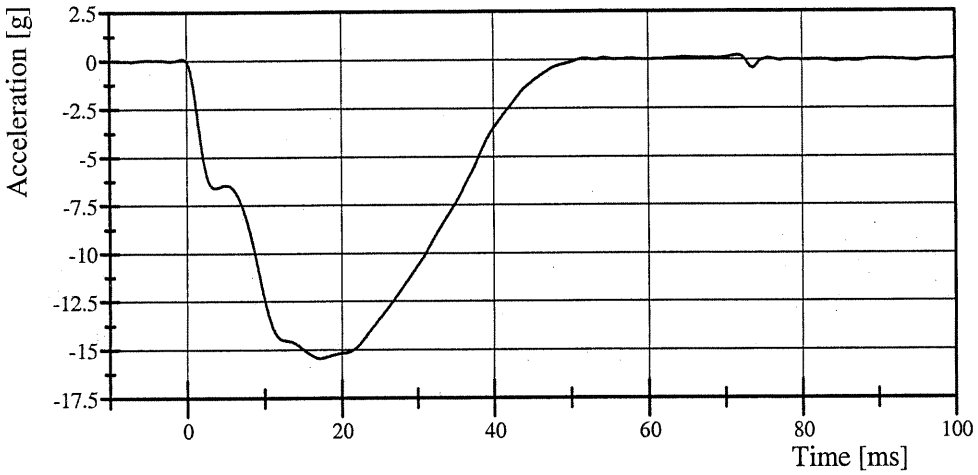
Approved

Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 10:30:30 825

Transportation Research Center Inc.

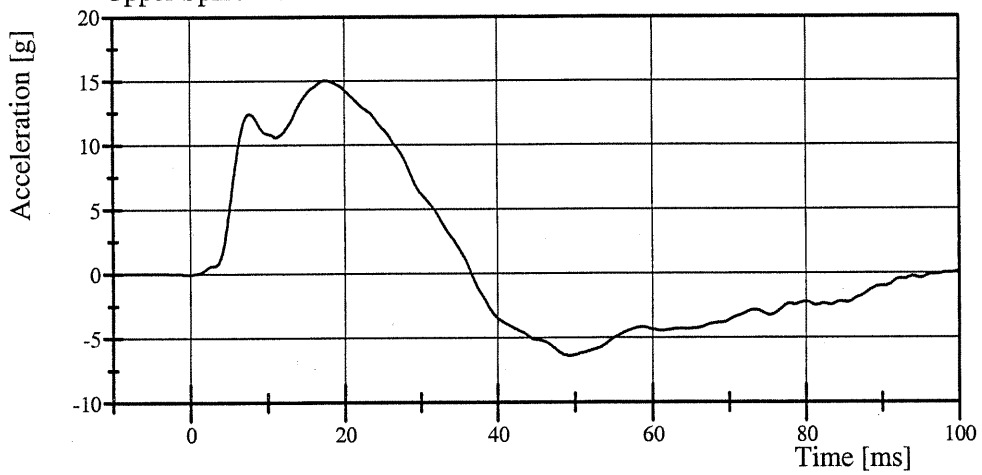
Left Lateral Thorax without Arm
SID IIs SBLD Serial No. 056 Certification No. 3-6
Test Date: 5/10/2007

Probe Acceleration



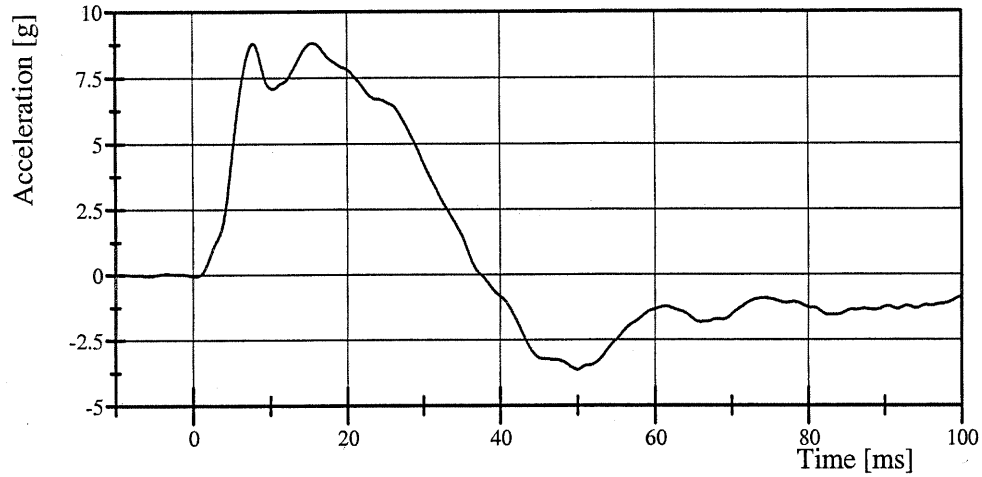
Filter Class: CFC_180
Max: 0.2 g at 71.6 ms
Min: -15.4 g at 17.1 ms

Upper Spine Acceleration



Filter Class: CFC_180
Max: 15.0 g at 17.5 ms
Min: -6.4 g at 49.4 ms

Lower Spine Acceleration



Filter Class: CFC_180
Max: 8.8 g at 15.6 ms
Min: -3.6 g at 50.0 ms

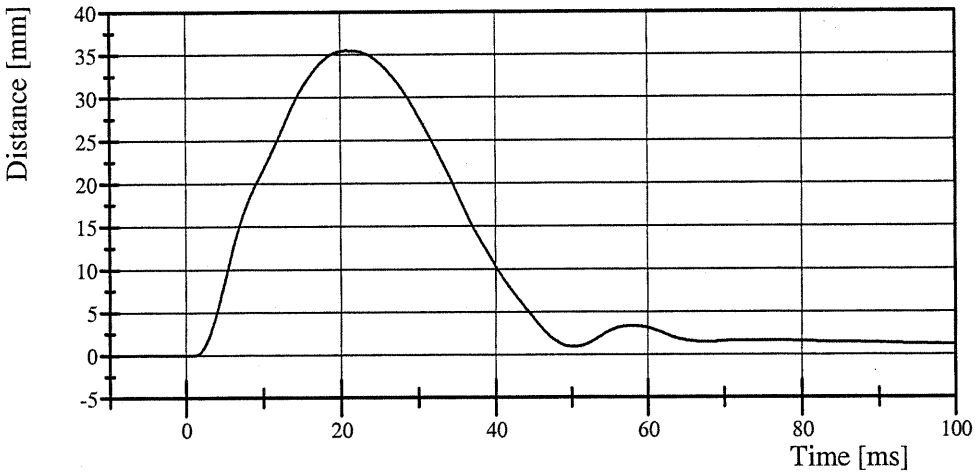
Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 10:31:30 825

070517

Transportation Research Center Inc.

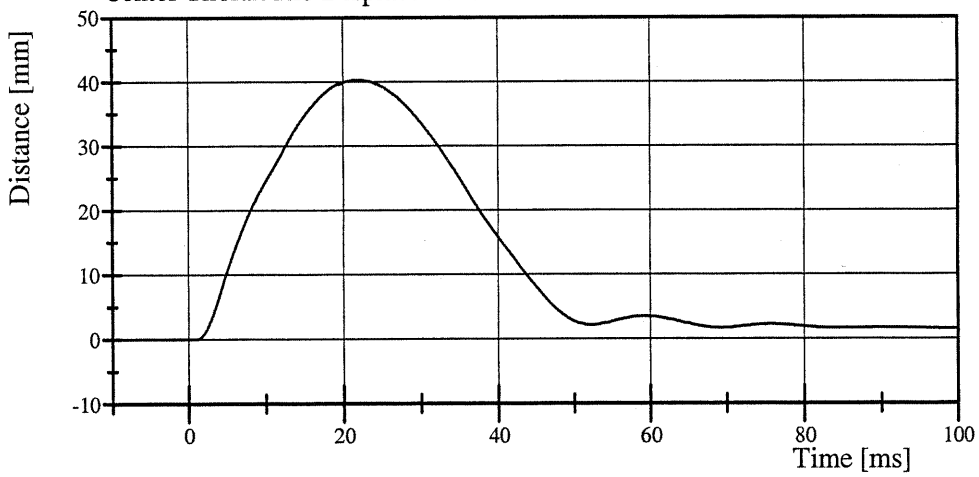
Left Lateral Thorax without Arm
SID IIs SBLD Serial No. 056 Certification No. 3-6
Test Date: 5/10/2007

Upper Thorax Rib Displacement



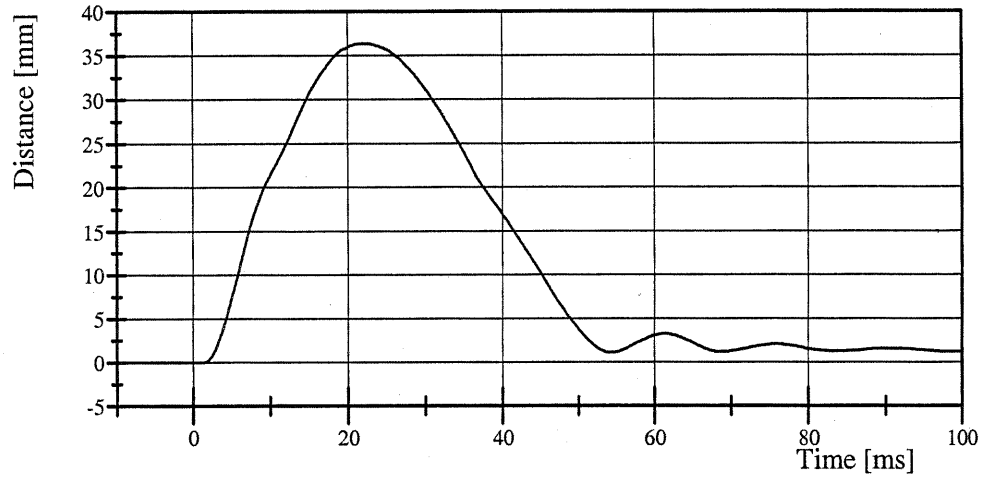
Filter Class: CFC_600
Max: 35.5 mm at 20.8 ms
Min: -0.0 mm at 1.0 ms

Center Thorax Rib Displacement



Filter Class: CFC_600
Max: 40.3 mm at 21.9 ms
Min: -0.0 mm at -0.2 ms

Lower Thorax Rib Displacement



Filter Class: CFC_600
Max: 36.3 mm at 22.5 ms
Min: -0.0 mm at 0.0 ms

Transportation Research Center Inc.

Left Lateral Pelvis
SID IIs SBLD Serial No. 056 Certification No. 3-8
Test Date: 5/15/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	54 %	Yes
Impactor Velocity	6.60 - 6.80 m/s	6.667 m/s	Yes
Impactor Acceleration	(-38.0) - (-47.0) g	-43.55 g	Yes
Peak Pelvis Lateral Acceleration	41.0 - 50.0 g	42.26 g	Yes
Acetabulum Force	3,800 - 4,600 N	3,906.6 N	Yes

Test meets specifications.

Comments:

Technician

Charles W. Kelly

Approved

Ron Stowe

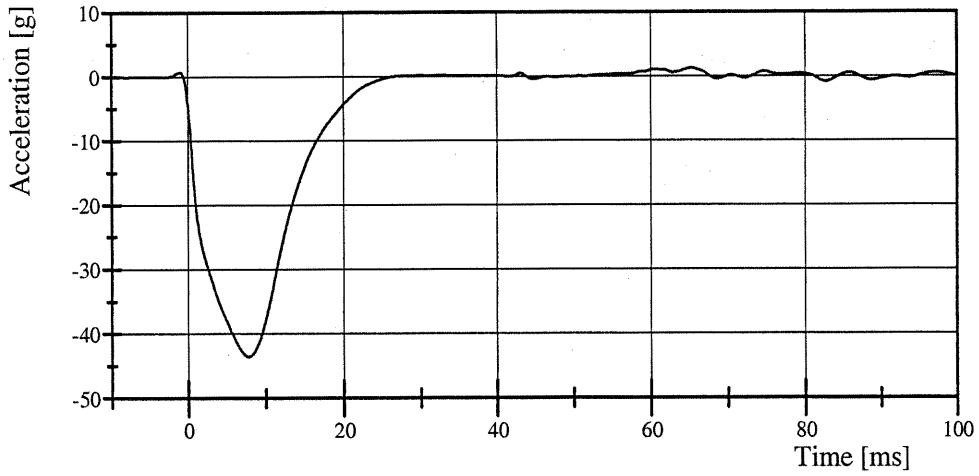
Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 13:15:43 440

070517

Transportation Research Center Inc.

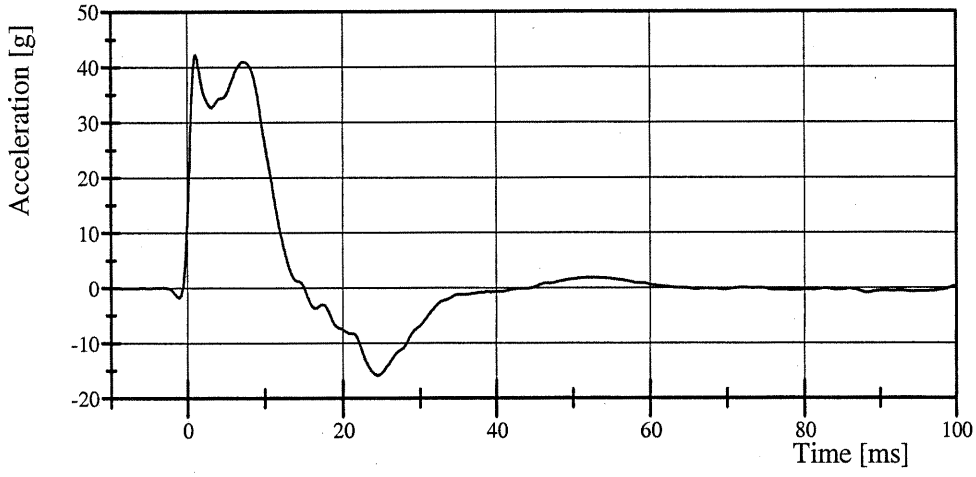
Left Lateral Pelvis
SID IIs SBLD Serial No. 056 Certification No. 3-8
Test Date: 5/15/2007

Probe Acceleration



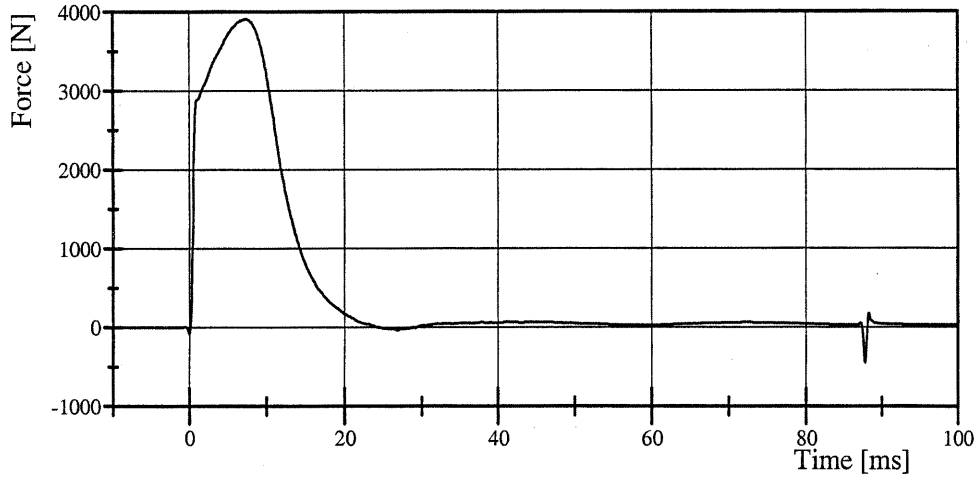
Filter Class: CFC_180
Max: 1.2 g at 65.3 ms
Min: -43.5 g at 7.8 ms

Pelvis Y-Axis Acceleration



Filter Class: CFC_180
Max: 42.3 g at 1.1 ms
Min: -15.8 g at 24.5 ms

Acetabulum Y-Axis Force



Filter Class: CFC_600
Max: 3,906.6 N at 7.4 ms
Min: -442.1 N at 87.8 ms

Transportation Research Center Inc.

Left Lateral Iliac
SID IIs SBLD Serial No. 056 Certification No. 3-6
Test Date: 5/15/2007

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	56 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.338 m/s	Yes
Impactor Acceleration	(-34.0) - (-40.0) g	-39.75 g	Yes
Peak Pelvis Lateral Acceleration	27.0 - 33.0 g	31.93 g	Yes
Iliac Force	3,700 - 4,500 N	4,424.2 N	Yes

Test meets specifications.

Comments:

Technician

Approved

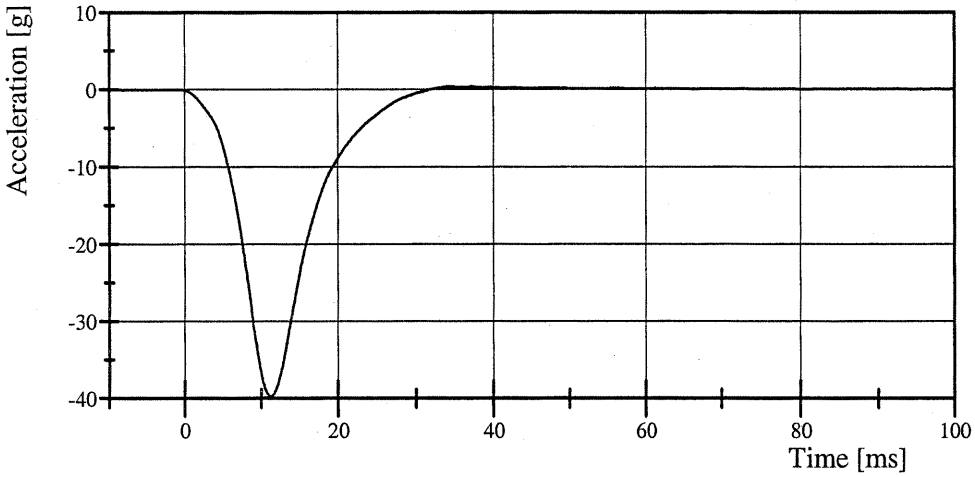
Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with ISO 6487:2002.

070517

Transportation Research Center Inc.

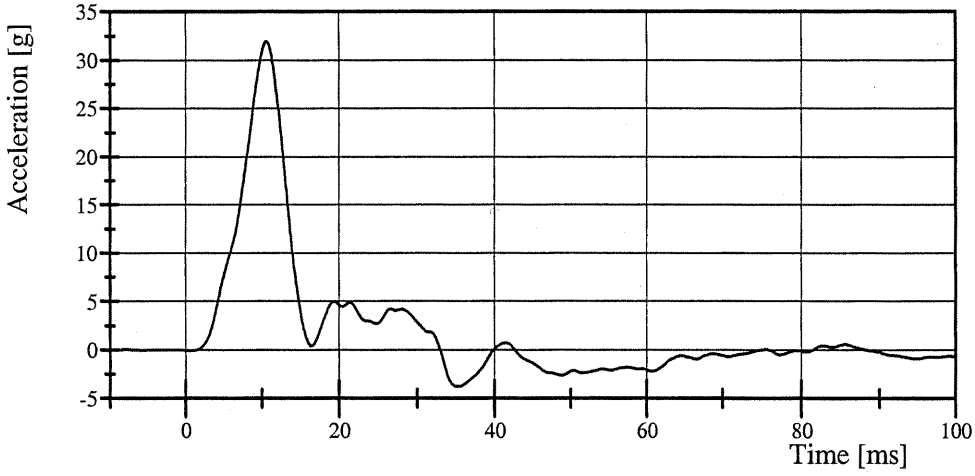
Left Lateral Iliac
SID IIs SBLD Serial No. 056 Certification No. 3-6
Test Date: 5/15/2007

Probe Acceleration



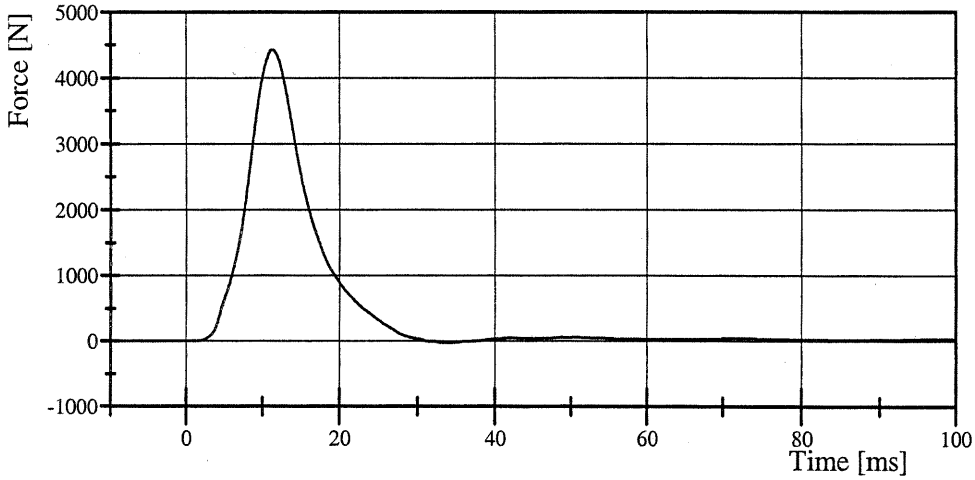
Filter Class: CFC_180
Max: 0.4 g at 34.4 ms
Min: -39.8 g at 11.3 ms

Pelvis Y-Axis Acceleration



Filter Class: CFC_180
Max: 31.9 g at 10.6 ms
Min: -3.8 g at 35.3 ms

Iliac Y-Axis Force



Filter Class: CFC_600
Max: 4,424.2 N at 11.3 ms
Min: -23.6 N at 34.4 ms

Specification Source: Procedures based on Final Rule dated 12/14/2006. Polarity in accordance with SAE J211 12:57:33 647

070517

Appendix D

Test Equipment List and Calibration Information

Sign Convention
SAE J211 MAR95

Accelerometers:	+X: Forward	
	+Y: Rightward	
	+Z: Downward	
Potentiometers:	+Chest longitudinal deflection:	Outward
	+Chest lateral deflection:	Rightward
	+Seat belt displacement:	Outward
	+Seat belt extension:	Elongation
	+Knee slider displacement:	Distance between femur and tibia increased (in relation to a seated dummy)
Rotation potentiometers:		
	+About the X-axis:	Left foot-eversion
		Right foot-inversion
	+About the Y-axis:	Left/right foot-dorsiflexion
	+About the Z-axis:	Left foot-internal
		Right foot-external
Load cells:	+Femur force:	Tension
	+Seat belt force:	Tension
	+Barrier force:	Tension
Neck load cells:	+X force:	Head pushed rearward
	+Y force:	Head pushed leftward
	+Z force:	Head pulled upward (tension on neck)
	+X moment:	Left ear rotating toward left shoulder
	+Y moment:	Chin rotating toward chest
	+Z moment:	Chin rotating toward left shoulder
Tibia load cells:	+X force:	Ankle forward, knee rearward
	+Y force:	Ankle rightward, knee leftward
	+Z force:	Tension
	+X moment:	Bottom of tibia moving leftward
	+Y moment:	Bottom of tibia moving rearward

Sign Convention (Continued)
SAE J211 MAR95

Lumbar load cells:	+X force:	Chest rearward, pelvis forward
	+Y force:	Chest leftward, pelvis rightward
	+Z force:	Chest upward, pelvis downward
	+X moment:	Left shoulder toward left hip
	+Y moment:	Sternum toward front of legs
	+Z moment:	Right shoulder forward, left shoulder rearward

Frequency Response Classes
SAE J211 MAR95

Typical Test Measurements	Channel Class
Vehicle Structural Accelerations for use in:	
Total vehicle comparison	60
Collision simulation input	60
Component analysis	600
Integration for velocity or displacement	180
Barrier Face Forces	60
Belt Restraint System Loads	60
Anthropomorphic Test Device	
Head accelerations (linear and angular)	1000
Neck	
Forces	1000
Moments	600
Thorax	
Spine accelerations	180
Rib accelerations	1000
Sternum accelerations	1000
Deflections	600
Lumbar	
Forces	1000
Moments	1000
Pelvis	
Accelerations	1000
Forces	1000
Moments	1000
Femur/Knee/Tibia/Ankle	
Forces	600
Moments	600
Displacements	180
Sled Accelerations	60
Steering Column Loads	600
Head Form Accelerations	1000

The direction column on the following sheets describes the transducer output as mounted and wired in the test location. The polarity column indicates whether a polarity change occurred during data acquisition to conform to J211 MAR95. See Report Sign Convention sheet for description of data output as presented in the report: occasionally channels have been adjusted in post-acquisition processing to conform to J211 MAR95.

Channel Report Test Number 070517

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
1	Trig D1	10ZERO000000VO0A	EVENT	1	Logic	+	Bipolar	
2	P51308	11HEADCG00S2ACXA	Head Accel X	2000	g	+	Forward	1-VRTC SID IIs 056 5/03/07.001
3	P49172	11HEADCG00S2ACYA	Head Accel Y	2000	g	-	Leftward	1-VRTC SID IIs 056 5/03/07.002
4	P51299	11HEADCG00S2ACZA	Head Accel Z	2000	g	-	Upward	1-VRTC SID IIs 056 5/03/07.003
5	1716A-1746-FX	11NECKUP00S2FOXA	Upper Neck Force X	8896	N	-	Head forward, chest rearward	1-VRTC SID IIs 056 5/03/07.004
6	1716A-1746-FY	11NECKUP00S2FOYA	Upper Neck Force Y	8896	N	+	Head leftward, chest rightward	1-VRTC SID IIs 056 5/03/07.005
7	1716A-1746-FZ	11NECKUP00S2FOZA	Upper Neck Force Z	13344	N	+	Head upward, chest downward	1-VRTC SID IIs 056 5/03/07.006
8	1716A-1746-MX	11NECKUP00S2MOXA	Upper Neck Moment X	282.5	Nm	-	Right ear toward right shoulder	1-VRTC SID IIs 056 5/03/07.007
9	1716A-1746-MY	11NECKUP00S2MOYA	Upper Neck Moment Y	282.5	Nm	+	Chin toward sternum	1-VRTC SID IIs 056 5/03/07.008
10	1716A-1746-MZ	11NECKUP00S2MOZA	Upper Neck Moment Z	282.5	Nm	+	Chin toward left shoulder	1-VRTC SID IIs 056 5/03/07.009
11	03E03E21-M01	11SHLDLE00S2ACXA	Shoulder Accel X	2000	g	+	Forward	1-VRTC SID IIs 056 5/03/07.010
12	03E03E20-N08	11SHLDLE00S2ACYA	Shoulder Accel Y	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.011
13	02I02I05-F15	11SHLDLE00S2ACZA	Shoulder Accel Z	2000	g	+	Downward	1-VRTC SID IIs 056 5/03/07.012
14	IF-344-107-FX	11SHLDLE00S2FOXA	Shoulder Force X	2000	N	-	Left shoulder rearward, chest forward	1-VRTC SID IIs 056 5/03/07.013
15	IF-344-107-FY	11SHLDLE00S2FOYA	Shoulder Force Y	2000	N	+	Left shoulder rightward, chest leftward	1-VRTC SID IIs 056 5/03/07.014
16	IF-344-107-FZ	11SHLDLE00S2FOZA	Shoulder Force Z	2000	N	+	Left shoulder downward, chest upward	1-VRTC SID IIs 056 5/03/07.015
17	180-3861-056RBSH	11SHRILE00S2DSYA	Shoulder Disp. Y	75	mm	-	Leftward	1-VRTC SID IIs 056 5/03/07.016
18	J28686	11SPIN0100S2ACXA	Upper Spine Accel X (Rib1)	2000	g	+	Forward	1-VRTC SID IIs 056 5/03/07.017
19	J36038	11SPIN0100S2ACYA	Upper Spine Accel Y (Rib1)	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.018
20	ADATO	11SPIN0100S2ACZA	Upper Spine Accel Z (Rib1)	2000	g	+	Downward	1-VRTC SID IIs 056 5/03/07.019
21	180-3862-056RB1	11TRRI01LES2DSYA	Left Thorax Rib 1 Disp. Y (Rib 1)	75	mm	-	Leftward	1-VRTC SID IIs 056 5/03/07.020
22	180-3863-056RB2	11TRRI02LES2DSYA	Left Thorax Rib 2 Disp. Y (Rib 2)	75	mm	-	Leftward	1-VRTC SID IIs 056 5/03/07.021
23	180-3864-056RB3	11TRRI03LES2DSYA	Left Thorax Rib 3 Disp. Y (Rib 3)	75	mm	-	Leftward	1-VRTC SID IIs 056 5/03/07.022
24	180-3865-056RB4	11ABRI01LES2DSYA	Left Abdomin Rib 1 Disp. Y (Rib 4)	75	mm	-	Leftward	1-VRTC SID IIs 056 5/03/07.023
25	180-3866-056RB5	11ABRI02LES2DSYA	Left Abdomin Rib 2 Disp. Y (Rib 5)	75	mm	-	Leftward	1-VRTC SID IIs 056 5/03/07.024
26	J28708	11TRRI01LES2ACYA	Left Thorax Rib 1 Accel Y (Rib 1)	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.025
27	03E03E21-M18	11TRRI02LES2ACYA	Left Thorax Rib 2 Accel Y (Rib 2)	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.026
28	03D03D16-F12	11TRRI03LES2ACYA	Left Thorax Rib 3 Accel Y (Rib 3)	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.027
29	ACCY3	11ABRI01LES2ACYA	Left Abdomin Rib 1 Accel Y (Rib 4)	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.028
30	EH75J	11ABRI02LES2ACYA	Left Abdomin Rib 2 Accel Y (Rib 5)	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.029
31	03E03E18-F18	11SPIN1200S2ACXA	Lower Spine Accel X (Rib 4)	2000	g	-	Rearward	1-VRTC SID IIs 056 5/03/07.030
32	P54290	11SPIN1200S2ACYA	Lower Spine Accel Y (Rib 4)	2000	g	-	Leftward	1-VRTC SID IIs 056 5/03/07.031
33	J35921	11SPIN1200S2ACZA	Lower Spine Accel Z (Rib 4)	2000	g	-	Upward	1-VRTC SID IIs 056 5/03/07.032
34	IF-507-112-FY	11ILACLE00S2FOYA	Left Iliac Wing Force Y	13344	N	+	Left iliac rightward, chest leftward	1-VRTC SID IIs 056 5/03/07.033

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Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	DAS Flip	Positive Polarity	Assembly
35	3249J-260-FY	11ACTBLE00S2FOYA	Left Acetabulum Force Y	8896	N	+	Left acetabulum rightward, chest leftward	1-VRTC SID IIs 056 5/03/07.034
36	P16493	11PELVCG00S2ACXA	Pelvis Accel X	2000	g	+	Forward	1-VRTC SID IIs 056 5/03/07.035
37	AF973	11PELVCG00S2ACYA	Pelvis Accel Y	2000	g	+	Rightward	1-VRTC SID IIs 056 5/03/07.036
38	J18736	11PELVCG00S2ACZA	Pelvis Accel Z	2000	g	+	Downward	1-VRTC SID IIs 056 5/03/07.037
39	P50825	16SILBFR0000ACXA	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME (#1)	400	g	+	Forward	
40	P29191	16SILBFR0000ACYA	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME (#1)	1000	g	+	Rightward	
41	p54287	16SILBFR0000ACZA	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME (#1)	400	g	-	Upward	
42	P49302	16SILBRE0000ACXA	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME (#2)	400	g	+	Forward	
43	P49566	16SILBRE0000ACYA	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME (#2)	1000	g	+	Rightward	
44	P49336	16SILBRE0000ACZA	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME (#2)	400	g	-	Upward	
45	P54216	18FORA000000ACXA	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME (#3)	1000	g	+	Forward	
46	P49969	18FORA000000ACYA	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME (#3)	1000	g	+	Rightward	
47	p50887	18FORA000000ACZA	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME (#3)	1000	g	-	Upward	
48	P54539	14SILBFR0000ACYA	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME (#5)	1000	g	+	Rightward	
49	P48067	14SILBRE0000ACYA	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME (#4)	1000	g	+	Rightward	
50	P54117	16VEHCRE0000ACYA	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME (#7)	1500	g	+	Rightward	
51	P47477	11APILLO0000ACYA	LEFT LOWER A-POST (Y) ACCELERATION VS TIME (#14)	1500	g	-	Leftward	
52	P25307	11APILMI0000ACYA	LEFT MID A-POST (Y) ACCELERATION VS TIME (#15)	1500	g	-	Leftward	
53	P54809	14BPILLO0000ACYA	LEFT LOWER B-POST (Y) ACCELERATION VS TIME (#12)	1500	g	-	Leftward	
54	P54549	14BPILMI0000ACYA	LEFT MID B-POST (Y) ACCELERATION VS TIME (#13)	1500	g	-	Leftward	
55	P45665	11SETRFR0000ACYA	LEFT FRONT SEAT TRACK (Y) ACCELERATION VS TIME (#16) - align with h-point	1500	g	+	Rightward	
56	P50316	14SETRLERE00ACYA	LEFT REAR SEAT TRACK (Y) ACCELERATION VS TIME (#17)	1500	g	+	Rightward	
57	P54196	10VEHCCG0000ACXA	Vehicle Center of Gravity X-Axis Acceleration	1500	g	-	Rearward	
58	P50283	10VEHCCG0000ACYA	Vehicle Center of Gravity Y-Axis Acceleration	1500	g	-	Leftward	
59	P54288	10VEHCCG0000ACZA	Vehicle Center of Gravity Z-Axis Acceleration	1500	g	-	Upward	
60	P49567	14DOOR000001ACYA	Vehicle Front Door Centerline Y-Axis Acceleration	1500	g	+	Rightward	
61	P50915	14DOOR000002ACYA	Vehicle Front Door Mid-Rear Y-Axis Acceleration	1500	g	+	Rightward	
62	P54450	14DOOR000003ACYA	Vehicle Front Door Upper Centerline Y-Axis Acceleration	1500	g	+	Rightward	
63	p54490	16DOOR000002ACYA	Vehicle Rear Door Mid-Rear Y-Axis Acceleration	1500	g	+	Rightward	
64	P46904	16DOOR000003ACYA	Vehicle Rear Door Upper Centerline Y-Axis Acceleration	1500	g	+	Rightward	
65	P54220	12ENGNTP0000ACXA	Top of Engine X-Axis Acceleration	1000	g	-	Rearward	
66	P54153	12ENGNTP0000ACYA	Top of Engine Y-Axis Acceleration	1000	g	+	Rightward	
67	P46612	12VEHC000000ACXA	Firewall X-Axis Acceleration	1000	g	+	Forward	
68	P48543	12VEHC000000ACYA	Firewall Y-Axis Acceleration	1000	g	+	Rightward	
69	P48623	13ROOF000000ACXA	Right Side Roof Rail X-Axis Acceleration	1000	g	+	Forward	
70	P50963	13ROOF000000ACYA	Right Side Roof Rail Y-Axis Acceleration	1000	g	-	Leftward	
71	P54543	13SILBFR0000ACYA	Right Side Sill In-Line With Impact Location Y-Axis Acceleration	1000	g	+	Rightward	
72	P54813	18DECK000000ACXA	Rear Deck Behind Rear Axle X-Axis Acceleration	1000	g	+	Forward	
73	P46926	18DECK000000ACYA	Rear Deck Behind Rear Axle Y-Axis Acceleration	1000	g	+	Rightward	
74	p54441	18DECK000000ACZA	Rear Deck Behind Rear Axle Z-Axis Acceleration	1000	g	-	Upward	
75	ABFire1	11AIRBTPLE10EV0A	Driver Side Curtain 1 Inductor	5	V	+	Bipolar	
76	ABFire2	11AIRBTPLE20EV0A	Driver Side Curtain 2 Inductor	5	V	+	Bipolar	
77	Bit.00	11CONT000001VO00	Head Contact Switch	1	Logic	+	Bipolar	
78	Bit.01	11CONT000002VO00	Shoulder Contact Switch	1	Logic	+	Bipolar	
79	Bit.02	11CONT000003VO00	Torso Contact Switch	1	Logic	+	Bipolar	
80	Bit.03	11CONT000004VO00	Leg Contact Switch	1	Logic	+	Bipolar	

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Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
1	11HEADCG00S2ACXA	Head X-Axis Acceleration	1000	-	yes	1000
2	11HEADCG00S2ACYA	Head Y-Axis Acceleration	1000	+	yes	1000
3	11HEADCG00S2ACZA	Head Z-Axis Acceleration	1000	-	yes	1000
3A	11HEADCG00S2ACRA	Head Resultant Acceleration	1000			
4	11NECKUP00S2FOXA	Upper Neck X-Axis Force	1000	+	yes	8896
5	11NECKUP00S2FOYA	Upper Neck Y-Axis Force	1000	+	yes	8896
6	11NECKUP00S2FOZA	Upper Neck Z-Axis Force	1000	+	yes	13344
7	11NECKUP00S2MOXA	Upper Neck Moment About X Axis	600	+	yes	282.5
8	11NECKUP00S2MOYA	Upper Neck Moment About Y Axis	600	+	yes	282.5
9	11NECKUP00S2MOZA	Upper Neck Moment About Z Axis	600	+	yes	282.5
10	11SHLDLE00S2ACXA	Shoulder X-Axis Acceleration	1000	-	yes	2000
11	11SHLDLE00S2ACYA	Shoulder Y-Axis Acceleration	1000	+	yes	2000
12	11SHLDLE00S2ACZA	Shoulder Z-Axis Acceleration	1000	-	yes	2000
12A	11SHLDLE00S2ACRA	Shoulder Resultant Acceleration	1000			
13	11SHLDLE00S2FOXA	Shoulder X-Axis Force	600	+	yes	2000
14	11SHLDLE00S2FOYA	Shoulder Y-Axis Force	600	+	yes	2000
15	11SHLDLE00S2FOZA	Shoulder Z-Axis Force	600	+	yes	2000
16	11SHRILE00S2DSYA	Shoulder Y-Axis Displacement	180	+	yes	75
17	11SPIN0100S2ACXA	Upper Spine X-Axis Acceleration	180	-	yes	2000
18	11SPIN0100S2ACYA	Upper Spine Y-Axis Acceleration	180	-	yes	2000
19	11SPIN0100S2ACZA	Upper Spine Z-Axis Acceleration	180	-	yes	2000
19A	11SPIN0100S2ACRA	Upper Spine Resultant Acceleration	180			
20	11TRRI01LES2DSYA	Left Thorax Rib 1 Y-Axis Displacement	180	+	yes	75
21	11TRRI02LES2DSYA	Left Thorax Rib 2 Y-Axis Displacement	180	+	yes	75
22	11TRRI03LES2DSYA	Left Thorax Rib 3 Y-Axis Displacement	180	+	yes	75
23	11ABRI01LES2DSYA	Left Abdomen Rib 1 Y-Axis Displacement	180	+	yes	75
24	11ABRI02LES2DSYA	Left Abdomen Rib 2 Y-Axis Displacement	180	+	yes	75
25	11TRRI01LES2ACYA	Left Thorax Rib 1 Y-Axis Acceleration	1000	+	yes	2000
26	11TRRI02LES2ACYA	Left Thorax Rib 2 Y-Axis Acceleration	1000	+	yes	2000
27	11TRRI03LES2ACYA	Left Thorax Rib 3 Y-Axis Acceleration	1000	+	yes	2000
28	11ABRI01LES2ACYA	Left Abdomen Rib 1 Y-Axis Acceleration	1000	+	yes	750
29	11ABRI02LES2ACYA	Left Abdomen Rib 2 Y-Axis Acceleration	1000	+	yes	2000
30	11SPIN1200S2ACXA	Lower Spine X-Axis Acceleration	180	-	yes	2000
31	11SPIN1200S2ACYA	Lower Spine Y-Axis Acceleration	180	+	yes	2000
32	11SPIN1200S2ACZA	Lower Spine Z-Axis Acceleration	180	-	yes	2000
32A	11SPIN1200S2ACRA	Lower Spine Resultant Acceleration	180			
33	11ILACLE00S2FOYA	Left Iliac Wing Y-Axis Force	600	+	yes	13344

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Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
34	11ACTBLE00S2FOYA	Left Acetabulum Y-Axis Force	600	+	yes	8896
35	11PELVCG00S2ACXA	Pelvis X-Axis Acceleration	1000	-	yes	2000
36	11PELVCG00S2ACYA	Pelvis Y-Axis Acceleration	1000	+	yes	2000
37	11PELVCG00S2ACZA	Pelvis Z-Axis Acceleration	1000	-	yes	2000
37A	11PELVCG00S2ACRA	Pelvis Resultant Acceleration	1000			
38	16SILBFR0000ACXA	Right Side Sill at Front Seat X-Axis Acceleration	60	-	yes	400
38A	16SILBFR0000VEXC	Right Side Sill at Front Seat X-Axis Velocity	180			
38B	16SILBFR0000DCXC	Right Side Sill at Front Seat X-Axis Displacement	180			
39	16SILBFR0000ACYA	Right Side Sill at Front Seat Y-Axis Acceleration	60	+	yes	1000
39A	16SILBFR0000VEYC	Right Side Sill at Front Seat Y-Axis Velocity	180			
39B	16SILBFR0000DCYC	Right Side Sill at Front Seat Y-Axis Displacement	180			
40	16SILBFR0000ACZA	Right Side Sill at Front Seat Z-Axis Acceleration	60	-	yes	400
40A	16SILBFR0000ACRA	Right Side Sill at Front Seat Resultant Acceleration	60			
41	16SILBRE0000ACXA	Right Side Sill at Rear Seat X-Axis Acceleration	60	-	yes	400
41A	16SILBRE0000VEXC	Right Side Sill at Rear Seat X-Axis Velocity	180			
41B	16SILBRE0000DCXC	Right Side Sill at Rear Seat X-Axis Displacement	180			
42	16SILBRE0000ACYA	Right Side Sill at Rear Seat Y-Axis Acceleration	60	+	yes	1000
42A	16SILBRE0000VEYC	Right Side Sill at Rear Seat Y-Axis Velocity	180			
42B	16SILBRE0000DCYC	Right Side Sill at Rear Seat Y-Axis Displacement	180			
43	16SILBRE0000ACZA	Right Side Sill at Rear Seat Z-Axis Acceleration	60	-	yes	400
43A	16SILBRE0000ACRA	Right Side Sill at Rear Seat Resultant Acceleration	60			
44	18FORA000000ACXA	Rear Floorpan Above Axle X-Axis Acceleration	60	-	yes	1000
45	18FORA000000ACYA	Rear Floorpan Above Axle Y-Axis Acceleration	60	+	yes	1000
46	18FORA000000ACZA	Rear Floorpan Above Axle Z-Axis Acceleration	60	-	yes	1000
47	14SILBFR0000ACYA	Left Side Sill at Front Seat Y-Axis Acceleration	60	+	yes	1000
47A	14SILBFR0000VEYC	Left Side Sill at Front Seat Y-Axis Velocity	180			
47B	14SILBFR0000DCYC	Left Side Sill at Front Seat Y-Axis Displacement	180			
48	14SILBRE0000ACYA	Left Side Sill at Rear Seat Y-Axis Acceleration	60	+	yes	1000
48A	14SILBRE0000VEYC	Left Side Sill at Rear Seat Y-Axis Velocity	180			
48B	14SILBRE0000DCYC	Left Side Sill at Rear Seat Y-Axis Displacement	180			
49	16VEHCRE0000ACYA	Right Rear Occupant Compartment Y-Axis Acceleration	60	+	yes	1500
50	11APILLO0000ACYA	Left Lower A-Pillar Y-Axis Acceleration	60	+	yes	1500
51	11APILMI0000ACYA	Left Mid A-Pillar Y-Axis Acceleration	60	+	yes	1500
52	14BPILLO0000ACYA	Left Lower B-Pillar Y-Axis Acceleration	60	+	yes	1500
53	14BPILMI0000ACYA	Left Mid B-Pillar Y-Axis Acceleration	60	+	yes	1500
54	11SETRFR0000ACYA	Left Front Seat Track Y-Axis Acceleration	60	+	yes	1500
55	14SETRLERE00ACYA	Left Rear Seat Track Y-Axis Acceleration	60	+	yes	1500

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Channel	ISO mnemonic	Channel Title	Filter Class	Flip	Zero	Full Scale
56	10VEHCCG0000ACXA	Vehicle Center of Gravity X-Axis Acceleration	60	-	yes	1500
57	10VEHCCG0000ACYA	Vehicle Center of Gravity Y-Axis Acceleration	60	+	yes	1500
58	10VEHCCG0000ACZA	Vehicle Center of Gravity Z-Axis Acceleration	60	-	yes	1500
58A	10VEHCCG0000ACRA	Vehicle Center of Gravity Resultant Acceleration	60			
59	14DOOR000001ACYA	Vehicle Front Door Centerline Y-Axis Acceleration	60	+	yes	1500
60	14DOOR000002ACYA	Vehicle Front Door Mid-Rear Y-Axis Acceleration	60	+	yes	1500
61	14DOOR000003ACYA	Vehicle Front Door Upper Centerline Y-Axis Acceleration	60	+	yes	1500
62	16DOOR000002ACYA	Vehicle Rear Door Mid-Rear Y-Axis Acceleration	60	+	yes	1500
63	16DOOR000003ACYA	Vehicle Rear Door Upper Centerline Y-Axis Acceleration	60	+	yes	1500
64	12ENGNTP0000ACXA	Top of Engine X-Axis Acceleration	60	-	yes	1000
65	12ENGNTP0000ACYA	Top of Engine Y-Axis Acceleration	60	+	yes	1000
66	12VEHC000000ACXA	Firewall X-Axis Acceleration	60	-	yes	1000
67	12VEHC000000ACYA	Firewall Y-Axis Acceleration	60	+	yes	1000
68	13ROOF000000ACXA	Right Side Roof Rail X-Axis Acceleration	60	-	yes	1000
69	13ROOF000000ACYA	Right Side Roof Rail Y-Axis Acceleration	60	+	yes	1000
70	13SILBFR0000ACYA	Right Side Sill In-Line With Impact Location Y-Axis Acceleration	60	+	yes	1000
71	18DECK000000ACXA	Rear Deck Behind Rear Axle X-Axis Acceleration	60	-	yes	1000
72	18DECK000000ACYA	Rear Deck Behind Rear Axle Y-Axis Acceleration	60	+	yes	1000
73	18DECK000000ACZA	Rear Deck Behind Rear Axle Z-Axis Acceleration	60	-	yes	1000
74	11AIRBTPLE10EV0A	Driver Side Curtain 1 Inductor	1000	+	no	5
75	11AIRBTPLE20EV0A	Driver Side Curtain 2 Inductor	1000	+	no	5
76	11CONT000001VO00	Head Contact Switch	0	+	no	1
77	11CONT000002VO00	Shoulder Contact Switch	0	+	no	1
78	11CONT000003VO00	Torso Contact Switch	0	+	no	1
79	11CONT000004VO00	Leg Contact Switch	0	+	no	1

2007 NISSAN QUEST LEFT SIDE FMVSS 214 POLE IMPACT AT 32 KPH