

**Vehicle Research and Test Center
Moving Deformable Barrier into
2005 Honda CR-V at 53.1 km/h
TRC Inc. Test Number: 050725**

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Section 1.0

Purpose and Test Procedure

Purpose

This 48/24 km/h (32.9 mph) 90° side impact test 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 in a moving deformable barrier impact test. The subject vehicle was a 2005 Honda CR-V MPV.

Test Procedure

This test was conducted in accordance with VRTC instructions for a moving deformable barrier into a vehicle side impact test. Data was obtained relative to FMVSS 214, "Side Impact Protection" performed using SID-IIs (Build D) anthropomorphic test devices (dummies).

A 2005 Honda CR-V MPV was impacted on the driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 53.1 km/h (33.0 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by Transportation Research Center Inc. in East Liberty, Ohio on July 25, 2005. Pre-test and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the side impact dummies (SID-IIs) are included in Appendix A.

The moving deformable barrier was equipped with a 214 style deformable barrier face and five (5) accelerometers to measure longitudinal, lateral, and vertical axis accelerations. The barrier's specified impact velocity range was 52.1 to 53.8 km/h.

Two restrained Side Impact Dummies (SID-IIs) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the Federal Register Part 572-214 Section S8.3 and S12.3 (May 17, 2004). Both SID-IIs were certified prior to this test and were restrained by 3-point seat belts and a curtain airbag deployed from the headliner. The driver dummy was additionally restrained by a torso airbag.

Both dummies were instrumented with head, shoulder, spine, thorax, abdomen, and pelvis accelerometers to measure longitudinal, lateral, and vertical accelerations. Both dummies were also instrumented with upper neck, shoulder, lumbar, acetabulum, iliac wing, and femur load cells to measure forces and moments, and five (5) rib and one (1) shoulder deflection potentiometers.

The 199 data channels were digitally sampled and recorded at 12,500 samples per second and processed per SAE J211 March 1995.

The crash event was recorded by one (1) real-time panning motion picture camera and ten (10) high-speed digital motion picture cameras. The pre- and post-test conditions were recorded by one (1) real-time motion picture camera.

The side impact test summary data are presented in Section 2.0. The summary of FMVSS 214 data are presented in Section 3.0. The occupant, camera, vehicle, and barrier measurements are presented in Section 4.0. Appendix A contains the still photographic prints. Appendix B contains the dummy and vehicle data plots. Appendix C contains the dummy verification data. Appendix D contains test equipment and instrumentation calibration information. Appendix E contains a copy of the INSIA Report on Structural Measurements.

Section 2.0

Moving Deformable Barrier Side Impact Test Summary

Test Results Summary

This moving deformable barrier side impact test was conducted by TRC Inc. on July 25, 2005.

The test vehicle, a 2005 Honda CR-V MPV, was equipped with a 2.4-liter transverse engine, automatic transmission, power steering, power brakes, dual stage front airbags, and side curtain airbags, and side front torso airbags. The vehicle's test weight was 1679.4 kg. The moving deformable barrier's impact speed was 53.1 km/h. The moving deformable barrier impacted 1 mm to the right of the target point (377 mm rearward of front axle).

Injury Criteria Data Summary		
	Driver	Left Rear Passenger
HIC (15 ms)	18	78
HIC (36 ms)	38	107
Lower Spine Acceleration (g)	32	56
Pelvic Force Summation (N)	1350	3149

Data Acquisition Explanations

The left rear passenger's spine rib 2 Z-axis acceleration data channel, 14THSP02RIS2ACZA, recorded invalid data throughout the impact event. The resultant was also affected.

The vehicle's left lower B-post Y-axis acceleration data channel, 14BPILLO0000ACYA, recorded questionable data after 8 milliseconds.

The vehicle's left middle A-post Y-axis acceleration data channel, 11APILMI0000ACYA, lost data after 29 milliseconds.

The vehicle's left front door centerline Y-axis acceleration data channel, 11DOOR000001ACYA, lost data after 4 milliseconds.

The vehicle's left front door mid-rear Y-axis acceleration data channel, 11DOOR000002ACYA, lost data after 11 milliseconds.

Table 1 Crash Test Summary

Test mode:	Moving deformable barrier side impact			
Test date:	07/25/05			
Test time:	13:42			
Ambient temperature:	21° C			
Vehicle year/make/ model/body style:	2005/Honda/CR-V/MPV			
Vehicle test weight:	1679.4 kg			
Impact angle ¹ :	270°			
Impact velocity ² :	53.1 km/h			
Maximum vehicle static crush:	185 mm			
Maximum barrier static crush:	140 mm			
Number of data channels:	199			
Number of cameras:	High-speed	10	Real-time	1
<u>Dummies:</u>	<u>Driver #020</u>		<u>Passenger #056</u>	
Type:	SID-IIs		SID-IIs	
Location:	Left front		Left rear	
Restraint:	3-pt. seat belt, side torso airbag		3-pt. seat belt	
<u>Seat track position for test:</u>				
Driver:	3rd position back from full forward			
Passenger:	Full forward			
<u>Seat back position for test:</u>				
Driver:	Full forward			
Passenger:	Full forward			
<u>Head restraint position for test:</u>				
Driver:	Full down			
Passenger:	1 of 2			
<u>Steering column position:</u>	27.4°; middle of geometric range of travel			

¹ With respect to tow track centerline.

² Speed trap measurement ($\pm .08$ km/h accuracy)

Table 2 General Test and Vehicle Parameter Data

Vehicle year/make/ model/body style:	2005/Honda/CR-V/MPV
VIN:	JHLRD68575C007230
Model year:	2005
Body style:	MPV
Color:	Silver
Engine data:	
Cylinders:	4
Displacement	2.4 liters
Cylinder placement:	Straight
Engine placement:	Transverse
Transmission data:	<u>4</u> speed, ___ manual, <u>X</u> automatic, <u>X</u> overdrive
Final drive:	<u>X</u> FWD, ___ RWD, ___ 4WD
Date vehicle received:	7/18/2005
Odometer reading:	155
Dealer's name and address:	Vehicle supplied by VRTC

Accessories:			
Power steering	Yes	Automatic transmission	Yes
Power brakes	Yes	Automatic speed control	Yes
Power seats	No	Tilting steering wheel	Yes
Power windows	Yes	Telescoping steering wheel	No
Tinted glass	Yes	Air conditioning	Yes
Radio	Yes	Anti-skid brake	Yes
Clock	Yes	Rear window defroster	Yes
Other	None	Power door locks	Yes

Certification data from vehicle's label:

Vehicle manufactured by:	Honda Motor Co., LTD		
Date of manufacture:	01/05		
VIN:	JHLRD68575C007230		
GVWR:	2020 kg	(4450 lbs.)	
GAWR: Front:	1000 kg	(2200 lbs.)	
Rear:	1040 kg	(2290 lbs.)	

Table 2 General Test and Vehicle Parameter Data, Continued

Tires on vehicle (mfr., line, size): Dunlop, Grand Trek ST20, P215/65R16

Tire pressure with maximum capacity vehicle load:

Front:	44 psi	(300 kPa)
Rear:	44 psi	(300 kPa)

Spare tire (mfr., line, size): Dunlop, Grand Trek ST20, P215/65R16

Type of seats:

Front	Bucket
Rear	Split bench

Maximum width: 1782 mm

Wheelbase: 2632 mm

Location of “Recommended Tire Pressure” label:

The label was located on driver B-pillar.

Data from vehicle’s “Recommended Tire Pressure” label”:

Recommended tire size: P215/65R16

Recommended cold tire pressure:

Front:	29 psi	(200 kPa)
Rear:	29 psi	(200 kPa)

Vehicle Capacity Data:

Number of Occupants (Designated seating capacity):

Front	2
Rear	3
Total	5

Vehicle capacity weight: 395 kg

Rated cargo/luggage weight¹ 55 kg

Test vehicle attitude:

Delivered attitude:	LF	739 mm;	RF	735 mm;	LR	735 mm;	RR	730 mm
Fully loaded attitude:	LF	725 mm;	RF	725 mm;	LR	710 mm;	RR	707 mm
Pre-test attitude:	LF	729 mm;	RF	725 mm;	LR	725 mm;	RR	722 mm
Post-test attitude:	LF	721 mm;	RF	730 mm;	LR	731 mm;	RR	718 mm

¹ RCLW = VCW - (68 kg * designated seating capacity)

Table 2 General Test and Vehicle Parameter Data, Continued

Test vehicle attitude:

	Left Sill Pitch	Right Sill Pitch	Front Bumper L-R Roll	Rear Bumper L-R Roll
As Delivered:	-0.3°	-0.2°	0.3°	0.3°
As Tested:	-0.3°	-0.4°	0.1°	0.4°
Fully Loaded:	-0.1°	-0.1°	0.5°	0.3°

Negative Pitch Angle = Vehicle front down

Negative Roll Angle = Driver side down

Weight of test vehicle as received (with maximum fluids)=UDW:

Right front	435.5 kg	Right rear	329.5 kg
Left front	407.0 kg	Left rear	338.5 kg
Total front weight	842.5 kg	(55.8 % of total vehicle weight)	
Total rear weight	668.0 kg	(44.2 % of total vehicle weight)	
Total delivered weight	1510.5 kg		

Calculation of test vehicle's target test weight:

Total Delivered Weight (UDW) =	1510.5 kg
Rated Cargo/Luggage Weight (RCLW) =	55 kg
Weight of 2 SID-IIs Dummies @ 57 kg each =	114.0 kg
Target test weight =	1679.5 kg

Weight of test vehicle with required dummies and 54.9 kg of cargo weight:

Right front	463.6 kg	Right rear	373.4 kg
Left front	461.6 kg	Left rear	380.8 kg
Total front weight	925.2 kg	(55.1% of total vehicle weight)	
Total rear weight	754.2 kg	(44.9% of total vehicle weight)	
Total test weight	1679.4 kg	(0.1 kg under target test weight)	

Table 2 General Test and Vehicle Parameter Data, Continued

Weight of ballast secured in vehicle: None

Components removed to meet target test weight: Rear hatch, spare tire, (1) rear hatch bracket, (2) headrests, rear hatch seal, right rear taillight, right front door seal

Location of Vehicle's CG: 1182 mm rearward of front wheel centerline

Fuel System Data:

Usable fuel system capacity 57.9 liters (from owner's manual)

Actual test volume: 53.7 liters (93% of usable)

Table 3 Post-Impact Data

Test number: 050725
Test date: 07/25/05
Test time: 13:42
Test type: Moving deformable barrier left side impact
Impact angle: 270°
Ambient temperature
at impact area: 21° C
Required impact velocity range: 52.1 to 53.8 km/h

MDB impact velocity:

Primary: 53.1 km/h
Secondary: 53.1 km/h
Distance from vehicle to barrier:
Entering velocity trap: 661 mm
Exiting velocity trap: 51 mm

Location of Impact Point On Test Vehicle Side To Be Impacted:

Wheelbase = 2632 millimeters
Intended impact point is 376 millimeters rearward of front axle centerline
(which is 940 millimeters forward of the wheelbase midpoint)
Actual Impact Point is 377 millimeters rearward of front axle centerline

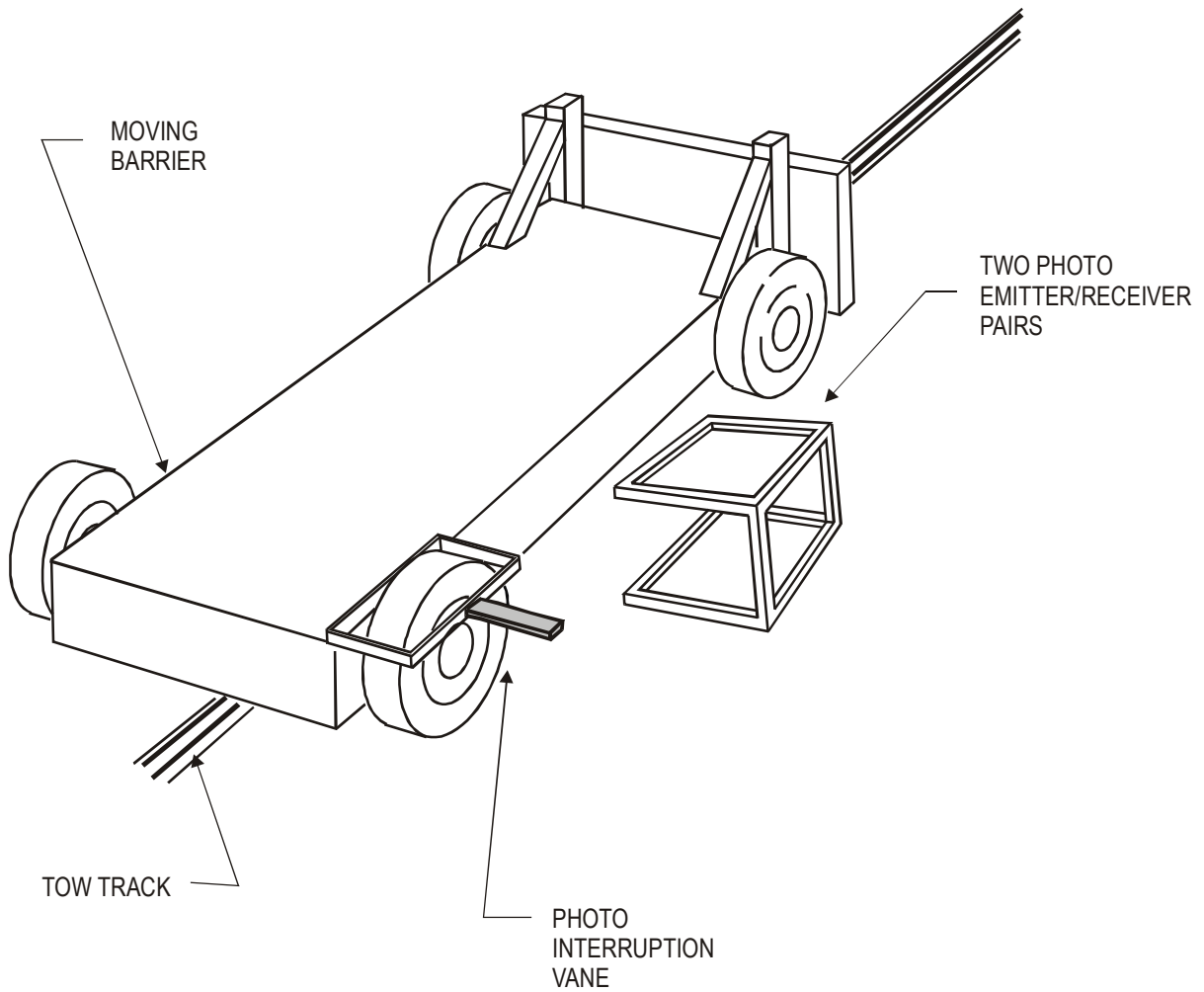
Impact Point:

Actual Impact Point is 1 mm right of nominal impact ref. line (Lateral)
Actual Impact Point is 1 mm up from nominal impact point (Vertical)

Maximum Exterior Static Crush:

1. Level 1 (385 mm above ground) = 108 mm
2. Level 2 (660 mm above ground) = 175 mm
3. Level 3 (748 mm above ground) = 185 mm
4. Level 4 (1037 mm above ground) = 94 mm
5. Level 5 (1620 mm above ground) = 0 mm
Maximum Post-Test Intrusion = 185 mm

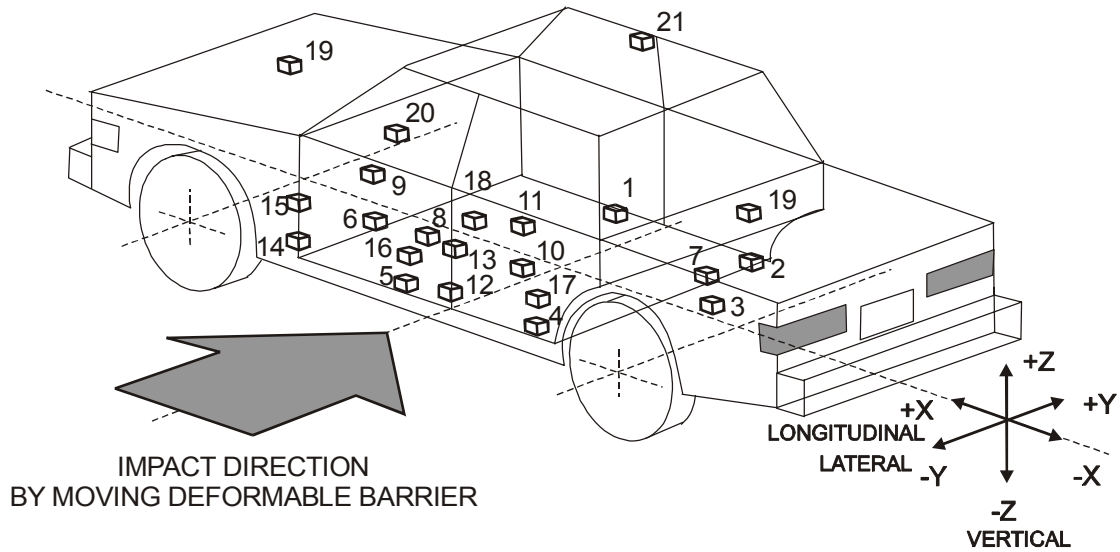
Figure 1 Impact Velocity Measurement System



The final vane clears the final emitter/receiver pair 51 millimeters before impact.

The vanes have 610-millimeter spacing.

Figure 2 Vehicle Accelerometer and String Potentiometer Placement



- 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 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-Engine Top
- 20-Firewall
- 21-Right Side Roof Rail

Table 4 Test Vehicle Accelerometer Data Summary

Accel. No.	Location		Positive Direction		Negative Direction	
			Max. (g)	Time (ms)	Max. (g)	Time (ms)
1	Right Side Sill at Front Seat	X	2.9	54.9	-6.3	11.3
		Y	18.3	11.6	-1.8	143.2
		Z	5.5	69.7	-9.5	11.0
2	Right Side Sill At Rear Seat	X	2.9	54.2	-6.4	13.0
		Y	20.8	10.3	-1.8	74.1
		Z	4.0	78.8	-7.9	24.7
3	Rear Floorpan Above Axle	X	1.4	67.8	-7.2	28.0
		Y	21.5	26.8	-1.9	93.2
		Z	2.7	109.8	-6.0	30.7
4	Left Side Sill at Rear Seat	Y	38.3	12.2	-13.2	22.2
5	Left Side Sill at Front Seat	Y	49.3	4.5	-20.2	23.0
6	Left Front Door Centerline ¹	Y	-----	-----	-----	-----
7	Right Rear Occupant Compartment	Y	21.1	7.3	-1.8	111.3
8	Left Front Door Mid-Rear ¹	Y	-----	-----	-----	-----
9	Left Front Door Upper Centerline	Y	53.1	5.7	-73.7	14.8
10	Left Rear Door Mid-Rear	Y	58.7	4.3	-46.5	27.1
11	Left Rear Door Upper Centerline	Y	138.1	17.6	-77.5	11.9
12	Left Lower B-Pillar ¹	Y	101.7	4.7	-63.5	37.7
13	Left Middle B-Pillar	Y	84.4	6.9	-24.3	29.7
14	Left Lower A-Pillar	Y	57.2	3.8	-32.6	22.3
15	Left Middle A-Pillar ¹	Y	-----	-----	-----	-----
16	Left Front Seat Track	Y	48.2	14.5	-10.0	21.0
17	Left Rear Seat Track	Y	29.9	26.4	-1.7	93.1
18	Vehicle Center of Gravity	X	2.5	55.1	-6.5	11.9
		Y	19.7	9.0	-1.6	72.6
		Z	9.3	33.2	-11.0	47.9
	Resultant		20.4	9.3		

¹ See Data Acquisition Explanations.

Table 4 Test Vehicle Accelerometer Data Summary, Cont'd.

Accel. No.	Location		Positive Direction		Negative Direction	
			Max. (g)	Time (ms)	Max. (g)	Time (ms)
19	Top of Engine	X	2.3	212.6	-7.9	40.1
		Y	18.7	26.4	-6.0	95.2
20	Firewall	X	4.8	40.2	-14.0	15.7
		Y	17.5	7.3	-46.3	11.6
21	Right Roof Rail	X	12.5	70.6	-30.8	16.1
		Y	3.1	31.8	-7.2	54.8

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

Table 5 Moving Deformable Barrier (MDB) Summary

MDB Face Manufacturer And Serial Number:

Cellbond, EH334

Position Of Impactor (MDB) On Monorail:

Crabbed 27° to the left

MDB Specifications:

Overall Width of Framework Carriage = 1251 mm

Overall Length of MDB (Incl. honeycomb impact face) = 4014 mm

Wheelbase of Framework Carriage = 2591 mm

Track of Framework Carriage (Front & Rear) = 1881 mm

C.G. Location Rearward of Front Axle = 1139 mm

MDB Weight:

Left Front = 491.2 kg Left Rear = 195.0 kg

Right Front = 275.4 kg Right Rear = 406.0 kg

Total Front = 766.6 kg Total Rear = 601.0 kg

Total MDB Weight = 1367.6 kg

Impact Angle (MDB C/L to Target Vehicle C/L) = 90 degrees

Impact Speed = 53.1 km/h

Maximum Static Crush of Honeycomb Impact Face:

1. Row A at Center of Bumper Level = 140 millimeters

2. Row B at Top of Bumper Level = 83 millimeters

3. Row C at Mid Level = 84 millimeters

4. Row D at Top of Stack Level = 128 millimeters

Instrumentation:

Number of MDB Data Channels = 5

Section 3.0

Summary of FMVSS 214 Data

Table 6 Dummy Injury Criteria Data

Driver Dummy S/N 020

Location	Positive Direction		Negative Direction	
	Max.	Time (ms)	Max.	Time (ms)
Head Acceleration (g)				
Longitudinal X	2.2	269.0	-11.3	55.9
Lateral Y	15.9	76.4	-3.2	268.2
Vertical Z	11.1	39.0	-0.3	87.5
Resultant	20.5	55.9		
HIC (36 ms)	38			
Upper Neck Force (N)				
X-Axis Shear	248.3	58.6	-20.8	244.4
Y-Axis Shear	323.9	76.7	-48.5	235.8
Z-Axis Axial	336.3	38.8	-188.0	77.4
Upper Neck Moment (N-m)				
About X-Axis	6.6	27.4	-12.3	67.4
About Y-Axis	11.8	88.5	-15.1	34.4
About Z-Axis	17.4	74.2	-8.8	310.0
Shoulder Acceleration (g)				
Longitudinal X	71.2	22.6	-42.1	16.1
Lateral Y	76.4	22.2	-90.2	18.6
Vertical Z	64.8	19.2	-63.2	20.3
Resultant	106.8	21.7		
Shoulder Force (N)				
Longitudinal X	157.2	21.4	-147.7	32.6
Lateral Y	210.0	42.0	-360.9	21.6
Vertical Z	157.1	17.8	-93.6	23.7
Shoulder Displacement (mm)				
Lateral Y	4.7	31.9		
Upper Spine Acceleration (g)				
Longitudinal X	6.6	58.6	-13.5	28.4
Lateral Y	25.1	48.7	-8.0	15.8
Vertical Z	5.2	16.0	-7.5	53.5
Resultant	25.6	48.7		

Table 6 Dummy Injury Criteria Data, Cont'd.

Driver Dummy S/N 020

Location		Positive Direction Max. Time (ms)		Negative Direction Max. Time (ms)	
Spine Rib 1 Acceleration (g)					
Longitudinal	X	6.8	59.6	-17.1	12.5
Lateral	Y	25.6	48.2	-4.1	15.6
Vertical	Z	7.1	22.6	-8.4	46.0
Resultant		27.4	47.4		
Spine Rib 2 Acceleration (g)					
Longitudinal	X	6.4	59.9	-17.9	12.5
Lateral	Y	27.3	47.5	-3.2	73.2
Vertical	Z	7.0	22.6	-9.1	46.0
Resultant		28.9	47.2		
Spine Rib 3 Acceleration (g)					
Longitudinal	X	6.0	60.2	-18.5	12.5
Lateral	Y	28.3	47.0	-4.0	77.3
Vertical	Z	7.1	22.6	-8.8	46.1
Resultant		29.8	46.7		
Lower Spine Acceleration (g)					
Longitudinal	X	6.1	72.9	-19.4	12.5
Lateral	Y	30.2	46.6	-5.8	76.6
Vertical	Z	7.6	22.6	-9.0	46.1
Resultant		31.5	46.2		
Spine Rib 5 Acceleration (g)					
Longitudinal	X	6.8	54.1	-19.9	12.4
Lateral	Y	31.8	46.5	-6.5	77.0
Vertical	Z	7.1	22.6	-9.1	46.1
Resultant		33.1	46.4		
Lumbar Moment (N-m)					
Longitudinal	X	25.7	50.1	-14.9	281.9
Lateral	Y	18.4	44.2	-12.1	305.0
Vertical	Z	13.3	45.8	-13.1	75.8

Table 6 Dummy Injury Criteria Data, Cont'd.

Driver Dummy S/N 020

Location	Positive Direction Max. Time (ms)		Negative Direction Max. Time (ms)	
Thorax Rib 1 Acceleration (g)				
Longitudinal X	16.3	33.2	-27.9	17.5
Lateral Y	34.5	51.8	-11.4	11.9
Vertical Z	18.2	36.1	-11.8	53.8
Resultant	36.6	51.7		
Thorax Rib 1 Displacement (mm)				
Lateral Y	9.4	39.5		
Thorax Rib 2 Acceleration (g)				
Longitudinal X	23.5	35.7	-31.0	17.2
Lateral Y	49.4	49.8	-23.4	13.2
Vertical Z	22.9	46.0	-9.7	53.3
Resultant	57.5	49.9		
Thorax Rib 2 Displacement (mm)				
Lateral Y	10.2	41.7		
Thorax Rib 3 Acceleration (g)				
Longitudinal X	19.4	36.4	-33.7	16.2
Lateral Y	88.8	16.6	-78.3	13.5
Vertical Z	9.9	47.1	-12.7	63.4
Resultant	94.0	16.6		
Thorax Rib 3 Displacement (mm)				
Lateral Y	16.3	54.7		
Abdomen Rib 1 Acceleration (g)				
Longitudinal X	17.4	17.3	-65.8	41.9
Lateral Y	105.7	16.4	-76.5	13.6
Vertical Z	9.7	35.0	-15.8	43.2
Resultant	106.1	16.4		
Abdomen Rib 1 Displacement (mm)				
Lateral Y	7.5	56.3		

Table 6 Dummy Injury Criteria Data, Cont'd.

Driver Dummy S/N 020

Location		Positive Direction Max. Time (ms)		Negative Direction Max. Time (ms)	
Abdomen Rib 2 Acceleration (g)					
Longitudinal	X	13.2	33.0	-57.0	42.2
Lateral	Y	58.9	41.4	-16.4	15.0
Vertical	Z	18.4	47.7	-10.6	50.2
Resultant		77.8	41.7		
Abdomen Rib 2 Displacement (mm)					
Lateral	Y	6.7	56.6		
Pelvis Acceleration (g)					
Longitudinal	X	8.5	53.6	-11.9	14.5
Lateral	Y	28.8	39.4	-4.1	103.2
Vertical	Z	4.7	15.9	-5.8	55.5
Resultant		29.5	39.3		
Left Acetabulum Force (N)					
Lateral	Y	918.6	47.4	-43.4	64.6
Left Illiac Wing Force (N)					
Lateral	Y	441.3	45.2	-37.5	307.8
Pelvis Force Summation (N)					
Lateral	Y	1350	47.0		
Right Femur Force (N)					
X-Axis		46.8	101.3	-333.5	34.6
Y-Axis		111.2	179.8	-645.0	47.1
Z-Axis		354.1	21.5	-103.4	81.2
Right Femur Moment (N-m)					
About Longitudinal		59.0	48.7	-50.5	63.0
About Lateral		1.9	10.8	-46.3	34.2
About Vertical		0.6	9.9	-31.3	43.9

Table 6 Dummy Injury Criteria Data, Cont'd.

Driver Dummy S/N 020

Location	Positive Direction		Negative Direction	
	Max.	Time (ms)	Max.	Time (ms)
Left Femur Force (N)				
X-Axis	152.3	58.5	-143.8	45.6
Y-Axis	77.2	34.0	-672.0	57.6
Z-Axis	439.4	53.5	-207.2	63.4
Left Femur Moment (N-m)				
About Longitudinal	31.1	63.2	-53.0	47.8
About Lateral	23.5	53.4	-15.9	75.3
About Vertical	2.1	104.4	-30.1	57.4

Positive Direction:

Longitudinal: Forward

Lateral: Rightward

Vertical: Downward

Negative Direction:

Longitudinal: Rearward

Lateral: Leftward

Vertical: Upward

Table 6 Dummy Injury Criteria Data, Cont'd.

Left Rear Passenger Dummy S/N 056

Location	Positive Direction		Negative Direction	
	Max.	Time (ms)	Max.	Time (ms)
Head Acceleration (g)				
Longitudinal X	1.7	28.7	-15.4	72.9
Lateral Y	28.6	68.5	-3.9	304.6
Vertical Z	4.7	229.1	-7.5	77.0
Resultant	32.7	70.7		
HIC (36 ms)	107			
Upper Neck Force (N)				
X-Axis Shear	119.1	69.9	-151.7	95.0
Y-Axis Shear	136.5	68.3	-119.9	99.9
Z-Axis Axial	128.2	214.6	-614.3	77.4
Upper Neck Moment (N-m)				
About X-Axis	37.1	64.2	-7.9	175.6
About Y-Axis	6.9	155.7	-38.7	73.4
About Z-Axis	8.1	101.7	-6.9	175.5
Shoulder Acceleration (g)				
Longitudinal X	38.3	50.7	-30.6	61.4
Lateral Y	16.9	70.2	-117.3	49.6
Vertical Z	219.9	27.8	-79.6	28.7
Resultant	220.9	27.8		
Shoulder Force (N)				
Longitudinal X	72.4	53.5	-243.3	62.5
Lateral Y	1018.9	57.8	-272.7	41.6
Vertical Z	105.2	129.8	-638.8	31.4
Shoulder Displacement (mm)				
Lateral Y	17.5	60.8		
Upper Spine Acceleration (g)				
Longitudinal X	2.1	163.4	-25.3	62.4
Lateral Y	39.1	55.4	-3.2	180.8
Vertical Z	3.9	75.2	-3.7	33.3
Resultant	42.1	62.4		

Table 6 Dummy Injury Criteria Data, Cont'd.

Left Rear Passenger Dummy S/N 056

Location		Positive Direction Max. Time (ms)		Negative Direction Max. Time (ms)	
Spine Rib 1 Acceleration (g)					
Longitudinal	X	3.9	33.0	-12.2	65.0
Lateral	Y	43.0	55.4	-3.4	181.2
Vertical	Z	10.7	67.6	-10.3	48.1
Resultant		44.5	55.8		
Spine Rib 2 Acceleration (g)					
Longitudinal	X	3.7	32.6	-13.8	57.1
Lateral	Y	45.0	55.9	-3.1	181.1
Vertical ¹	Z	-----	-----	-----	-----
Resultant ¹		-----	-----		
Spine Rib 3 Acceleration (g)					
Longitudinal	X	3.5	32.2	-16.4	57.1
Lateral	Y	47.2	56.0	-2.6	169.6
Vertical	Z	10.0	67.6	-10.1	48.2
Resultant		50.2	56.3		
Lower Spine Acceleration (g)					
Longitudinal	X	4.0	34.2	-19.2	57.1
Lateral	Y	52.1	56.2	-3.5	138.7
Vertical	Z	9.5	68.0	-9.6	48.1
Resultant		55.8	56.4		
Spine Rib 5 Acceleration (g)					
Longitudinal	X	4.0	34.2	-21.5	57.1
Lateral	Y	53.5	56.2	-3.8	138.9
Vertical	Z	9.1	67.8	-9.8	48.1
Resultant		57.9	56.4		
Lumbar Moment (N-m)					
Longitudinal	X	53.8	55.8	-29.3	42.1
Lateral	Y	23.0	58.2	-11.0	42.7
Vertical	Z	22.4	75.8	-12.9	167.4

Table 6 Dummy Injury Criteria Data, Cont'd.

Left Rear Passenger Dummy S/N 056

Location		Positive Direction Max. Time (ms)		Negative Direction Max. Time (ms)	
Thorax Rib 1 Acceleration (g)					
Longitudinal	X	39.4	63.1	-56.4	54.2
Lateral	Y	108.1	52.1	-36.3	34.2
Vertical	Z	28.2	32.6	-21.6	57.7
Resultant		112.7	52.1		
Thorax Rib 1 Displacement (mm)					
Lateral	Y	22.2	59.7		
Thorax Rib 2 Acceleration (g)					
Longitudinal	X	28.1	63.3	-62.5	52.7
Lateral	Y	137.1	49.6	-60.5	35.0
Vertical	Z	55.7	33.9	-64.3	56.8
Resultant		137.7	49.6		
Thorax Rib 2 Displacement (mm)					
Lateral	Y	31.1	59.3		
Thorax Rib 3 Acceleration (g)					
Longitudinal	X	24.8	63.3	-60.1	52.2
Lateral	Y	237.8	49.1	-72.1	34.6
Vertical	Z	50.0	36.2	-47.8	50.0
Resultant		240.3	49.1		
Thorax Rib 3 Displacement (mm)					
Lateral	Y	37.3	57.8		
Abdomen Rib 1 Acceleration (g)					
Longitudinal	X	57.7	48.5	-78.3	46.2
Lateral	Y	263.7	48.5	-74.6	45.6
Vertical ¹	Z	40.7	53.8	-40.0	69.4
Resultant ¹		271.6	48.4		
Abdomen Rib 1 Displacement (mm)					
Lateral	Y	40.0	58.0		

Table 6 Dummy Injury Criteria Data, Cont'd.

Left Rear Passenger Dummy S/N 056

Location	Positive Direction Max. Time (ms)		Negative Direction Max. Time (ms)	
Abdomen Rib 2 Acceleration (g)				
Longitudinal X	6.5	61.0	-31.3	51.9
Lateral Y	94.6	50.5	-18.2	55.3
Vertical Z	46.3	50.1	-46.0	55.4
Resultant	104.3	50.4		
Abdomen Rib 2 Displacement (mm)				
Lateral Y	18.8	56.9		
Pelvis Acceleration (g)				
Longitudinal X	4.4	107.5	-24.2	51.0
Lateral Y	73.6	47.2	-7.9	30.6
Vertical Z	14.0	48.0	-9.9	47.0
Resultant	74.3	47.2		
Left Acetabulum Force (N)				
Lateral Y	2669.9	51.0	-82.4	113.6
Left Illiac Wing Force (N)				
Lateral Y	745.0	56.3	-61.7	38.6
Pelvis Force Summation (N)				
Lateral Y	3149	53.2		
Right Femur Force (N)				
X-Axis	117.2	48.2	-160.3	47.0
Y-Axis	1450.9	46.0	-100.8	251.2
Z-Axis	743.2	46.4	-128.2	28.1
Right Femur Moment (N-m)				
About Longitudinal	31.0	50.8	-40.7	45.8
About Lateral	36.9	48.2	-11.5	46.9
About Vertical	22.1	62.4	-13.4	47.9

Table 6 Dummy Injury Criteria Data, Cont'd.

Left Rear Passenger Dummy S/N 056

Location	Positive Direction		Negative Direction	
	Max.	Time (ms)	Max.	Time (ms)
Left Femur Force (N)				
X-Axis	319.5	47.9	-180.0	27.4
Y-Axis	472.4	50.4	-697.8	46.7
Z-Axis	142.2	71.7	-1111.8	46.1
Left Femur Moment (N-m)				
About Longitudinal	207.9	46.6	-75.0	50.2
About Lateral	23.4	65.4	-32.1	27.3
About Vertical	36.3	47.4	-23.5	27.1

Positive Direction:

Longitudinal: Forward
 Lateral: Rightward
 Vertical: Downward

Negative Direction:

Longitudinal: Rearward
 Lateral: Leftward
 Vertical: Upward

¹ See Data Acquisition Explanations

Table 7 Post-Impact Dummy/Vehicle Data

Visible Dummy Contact Points:

	<u>Driver</u>	<u>Passenger</u>
Head	Side curtain airbag. headrest	Side curtain airbag
Shoulder	Side torso airbag	Door panel
Abdomen	None	None
Left knee	Door panel	Door panel
Right knee	None	None

Door opening:

	<u>Left</u>	<u>Right</u>
Front	Jammed and latched	Easy
Rear	Jammed and latched	Easy

Seat movement:

	<u>Seat back failure</u>	<u>Seat shift</u>
Left Front	None	None
Left Rear	None	None

Glazing damage: Small crack at upper windshield at driver's A-pillar area.

Other notable impact effects: None

Section 4.0

Occupant, Vehicle, Camera, and Barrier Information

Table 8 Vehicle Structural Measurements^{1,2}

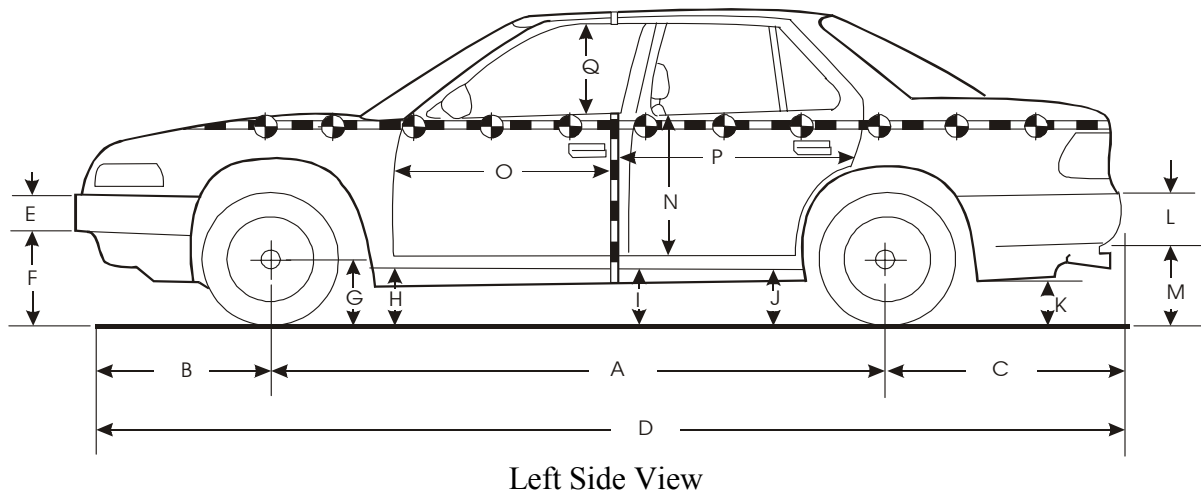
	Elements	Pre-Test
1	Total Length	4390
2	Total Width	1317
3	Bumper Top Height	543
4	Bumper Bottom Height	470
5	Longitudinal Member Top Height	553
6	Longitudinal Member Bottom Height	434
7	Distance Between Longitudinal Members	1018
7'	Longitudinal Member Width	703
8	Engine Top Height	860
9	Engine Bottom Height	212
10	Engine and Gearbox Width	805
11	Front Bumper - Engine Distance	320
12	Front Shock Absorber Fixing Height	876
13	Bonnet Leading Edge Height	886
14	Front Shock Absorber Fixing Width	1135
15	Front Bumper - Front Axle Distance	855
16	Front Axle - A Pillar Distance	525
17	A Pillar - B Pillar Distance	1035
18	B Pillar - Rear Axle Distance	1090
19	B Pillar - C Pillar Distance	870
20	Roof Sill Bottom Height	1520
21	Roof Sill Top Height	1590
22	Floor Sill Bottom Height	370
23	Floor Sill Top Height	445

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 3 Pre-Test And Post-Test Measurement Points



Note: All dimensions are in millimeters with tolerance of ± 3 mm

Code	Measurement Description	Pre-Test	Post-Test	Change
A	Wheelbase	2632	2609	23
B	Front Axle to Front Surface of Vehicle	855	845	10
C	Rear Axle to Rear Surface of Vehicle	903	905	-2
D	Total Length at Centerline	4390	4381	9
E	Front Bumper Thickness	235	235	0
F	Front Bumper Bottom to Ground	445	437	8
G	Sill Height at Front Wheel Well	315	315	0
H	Sill Height at Front Door Leading Edge	374	375	-1
I	Sill Height at "B" Pillar	372	379	-7
J1	Sill Height at Rear Wheel Well	323	343	-20
J2	Pinch Weld Height at Rear Wheel Well	371	383	-12
K	Sill Height Aft of Rear Wheel Well	383	395	-12
L	Rear Bumper Thickness	212	212	0
M	Rear Bumper Bottom to Ground	612	620	-8
N	Sill Height to Window Bottom Sill	740	710	30
O	Front Door Leading Edge to Impact CL	839	745	94
P	Rear Door Trailing Edge to Impact CL	1218	1300	-82
Q	Front Window Opening	461	446	15
R	Right Side Length	4215	4226	-11
S	Left Side Length	4215	4223	-8
T	Vehicle Width at "B" Post	1366	1263	103

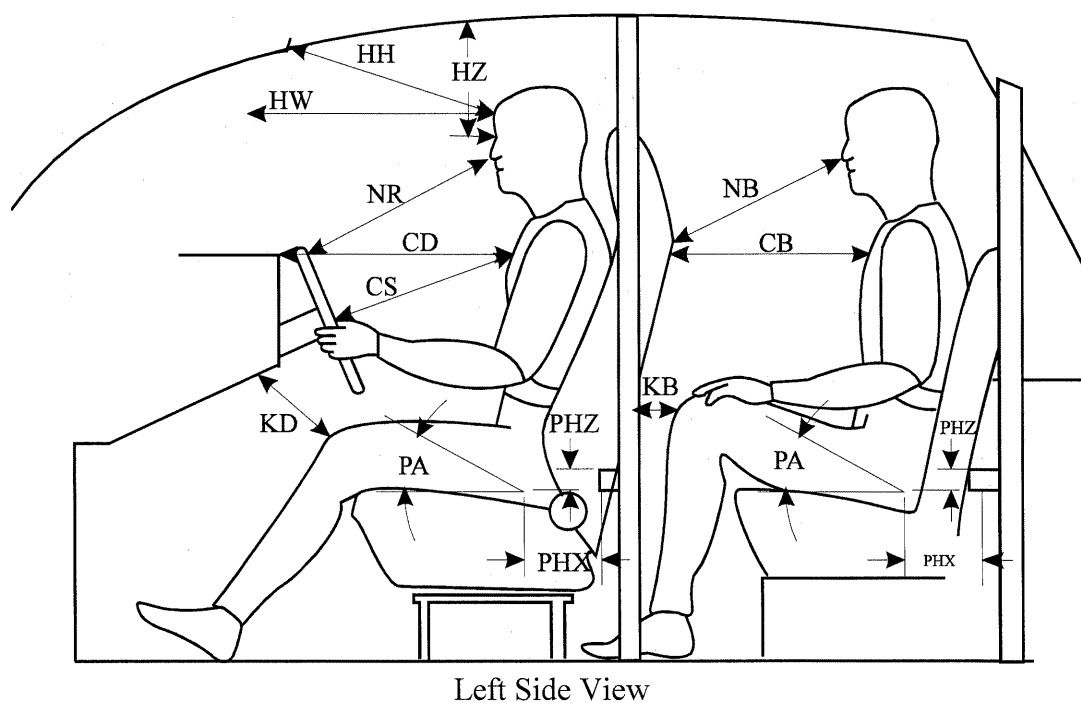
D = Length at centerline
T = Width at B-pillar

E&L = Bumper Thickness
J1 = To Pinch Weld

R = Right Side Length
J2 = To Sill

S = Left Side Length

Figure 4 SID-IIs Longitudinal Clearance Dimensions



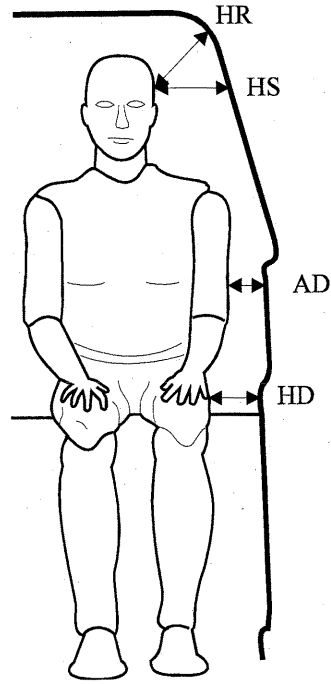
Note: All measurements were recorded using TRC Inc.'s FARO Arm with a tolerance of ± 0.1 mm.

Measurement	Driver SID-IIs # 020	Left Rear Pass. SID-IIs # 056
HH	273	N/A
HW	533	N/A
HZ	221	N/A
NR/NB	225	606
CD/CB	--- ¹	590
CS	164	N/A
KDL(KDA°)/KBL(KBA°)	18/(32.8°)	261/(1.0°)
KDR(KDA°)/KBR(KBA°)	29/(28.4°)	253/(1.6°)
PA°	20.7°	20.8°
PHX	348	381
PHZ	84	204

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.

¹ Measurement was not recorded.

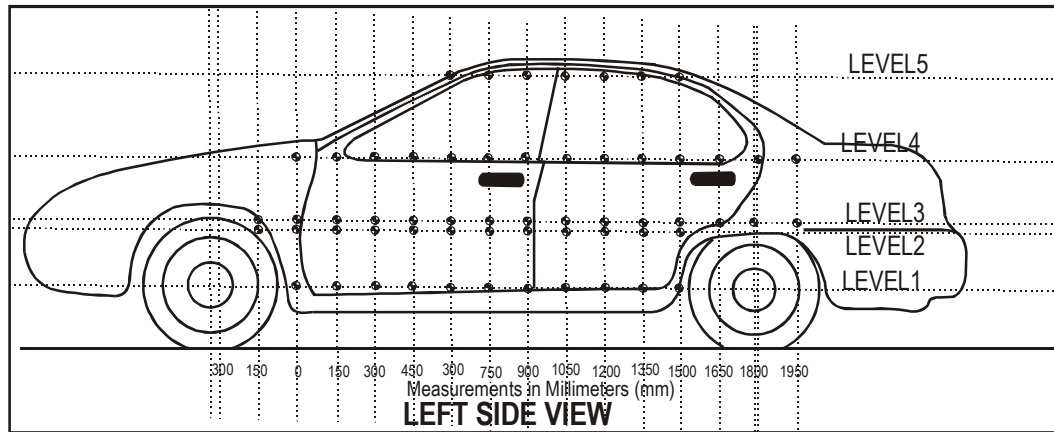
Figure 5 SID-IIs Lateral Clearance Dimensions



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

Measurement	Driver SID-IIs # 020	Left Rear Pass. SID-IIs # 056
HR	256	257
HS	341	338
AD	146	66
HD	175	172

Figure 4 Vehicle Side Measurements



Level 5 - Window Top

Level 4 - Window Sill

Level 3 - Mid-Door

Level 2 - Occupant H-Point

Level 1 - Axle Centerline Height or Sill Top Height

Measurements Are Taken When The Vehicle Is In The “As Tested” Configuration.

Measurements along the vertical 750 mm line shown above:

Level 5 @ Window Top	=	<u>1620</u>	mm
Level 4 @ Window Sill	=	<u>1037</u>	mm
Level 3 @ Mid Door	=	<u>748</u>	mm
Level 2 @ Occupant H-Point	=	<u>660</u>	mm
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>385</u>	mm

Table 9 Vehicle Exterior Crush Profiles - All Levels

Location	Height		(mm) From Impact Point													
			-1200	-1050	-900	-750	-600	-450	-300	-150	0	150	300	450	600	750
Level 1 Side Sill	385	Pre	---	---	---	---	---	---	---	---	---	788	792	792	791	792
		Post	---	---	---	---	---	---	---	---	---	709	701	694	694	693
		Crush	---	---	---	---	---	---	---	---	---	79	91	98	97	99
Level 2 H-Point	660	Pre	---	---	---	860	---	---	---	---	887	885	890	891	893	893
		Post	---	---	---	865	---	---	---	---	839	785	723	726	731	725
		Crush	---	---	---	-5	---	---	---	---	48	100	167	165	162	168
Level 3 Mid-Door	748	Pre	---	---	---	832	879	888	889	889	879	880	882	884	885	886
		Post	---	---	---	839	886	889	883	874	848	769	744	741	740	738
		Crush	---	---	---	-7	-7	-1	6	15	31	111	138	143	145	148
Level 4 Window Sill	1037	Pre	---	---	---	---	754	781	800	812	822	829	834	838	842	845
		Post	---	---	---	---	761	788	807	819	826	843	839	828	814	808
		Crush	---	---	---	---	-7	-7	-7	-7	-4	-14	-5	10	28	37
Level 5 Window Top	1620	Pre	---	---	---	---	---	---	---	---	---	---	---	---	---	600
		Post	---	---	---	---	---	---	---	---	---	---	---	---	---	650
		Crush	---	---	---	---	---	---	---	---	---	---	---	---	---	-50

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

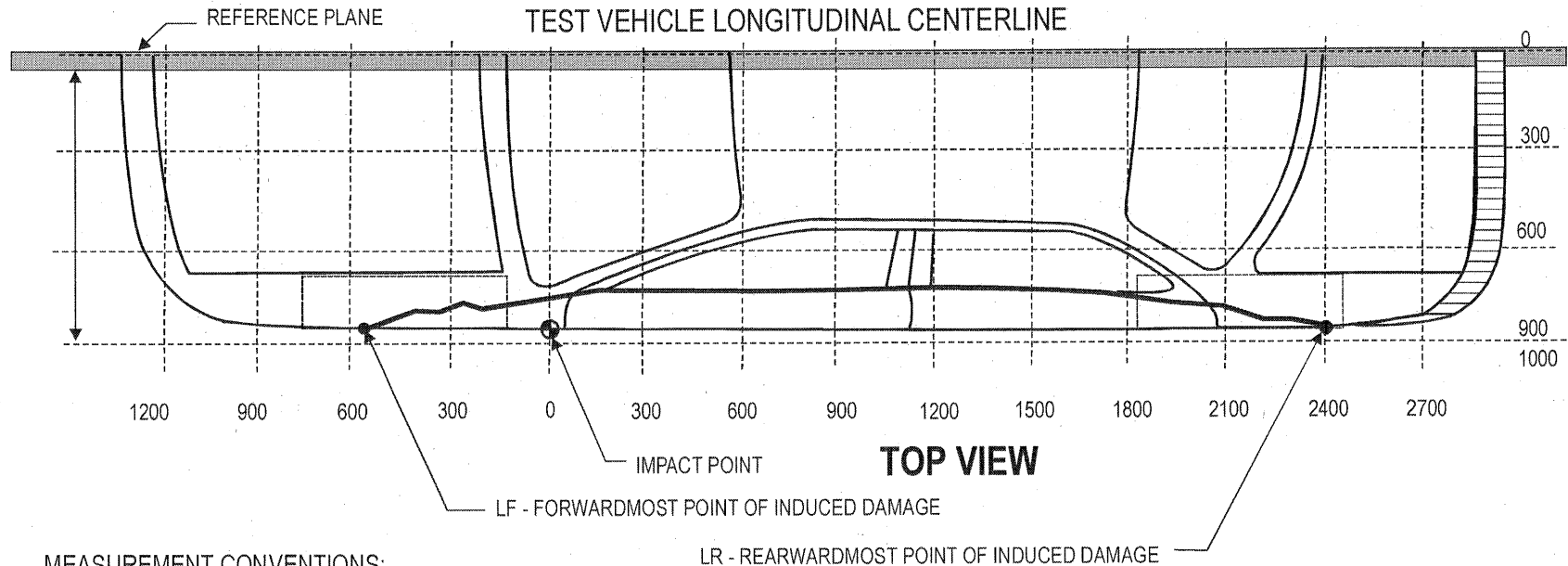
Table 9 Vehicle Exterior Crush Profiles - All Levels, Cont'd.

Location	Height		(mm) From Impact Point												
			900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700
Level 1 Side Sill	385	Pre	789	791	792	792	792	791	791	---	---	---	---	---	---
		Post	691	687	684	695	703	708	753	---	---	---	---	---	---
		Crush	98	104	108	97	89	83	38	---	---	---	---	---	---
Level 2 H-Point	660	Pre	894	894	893	892	890	889	877	888	---	---	---	886	846
		Post	719	728	737	717	720	736	784	899	---	---	---	918	886
		Crush	175	166	156	175	170	153	93	-11	---	---	---	-32	-40
Level 3 Mid-Door	748	Pre	886	885	885	884	883	881	879	888	892	893	889	873	849
		Post	732	730	702	699	723	754	790	857	897	908	911	905	889
		Crush	154	155	183	185	160	127	89	31	-5	-15	-22	-32	-40
Level 4 Window Sill	1037	Pre	847	850	851	851	851	850	850	837	850	846	842	836	826
		Post	803	791	757	782	801	823	850	852	876	863	866	868	865
		Crush	44	59	94	69	50	27	0	-15	-26	-17	-24	-32	-39
Level 5 Window Top	1620	Pre	592	591	589	589	586	583	580	580	575	571	567	562	551
		Post	599	601	599	601	602	602	601	604	602	602	601	598	590
		Crush	-7	-10	-10	-12	-16	-19	-21	-24	-27	-31	-34	-36	-39

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

Figure 7 Vehicle Damage Profile Distances

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 (+)

DPD Measurements	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
6: LF = -300 mm (Level 2)	889	883	6
5: 150 mm (Level 2)	880	769	111
4: 600 mm (Level 2)	891	731	162
3: 1050 mm (Level 2)	894	728	166
2: 1500 mm (Level 3)	890	720	170
1: LR = 1950 mm (Level 3)	888	857	31

Full length of induced damage was 2250 mm.

Figure 8 Exterior Static Crush For Impactor Face

(Grid as looking at MDB from front)

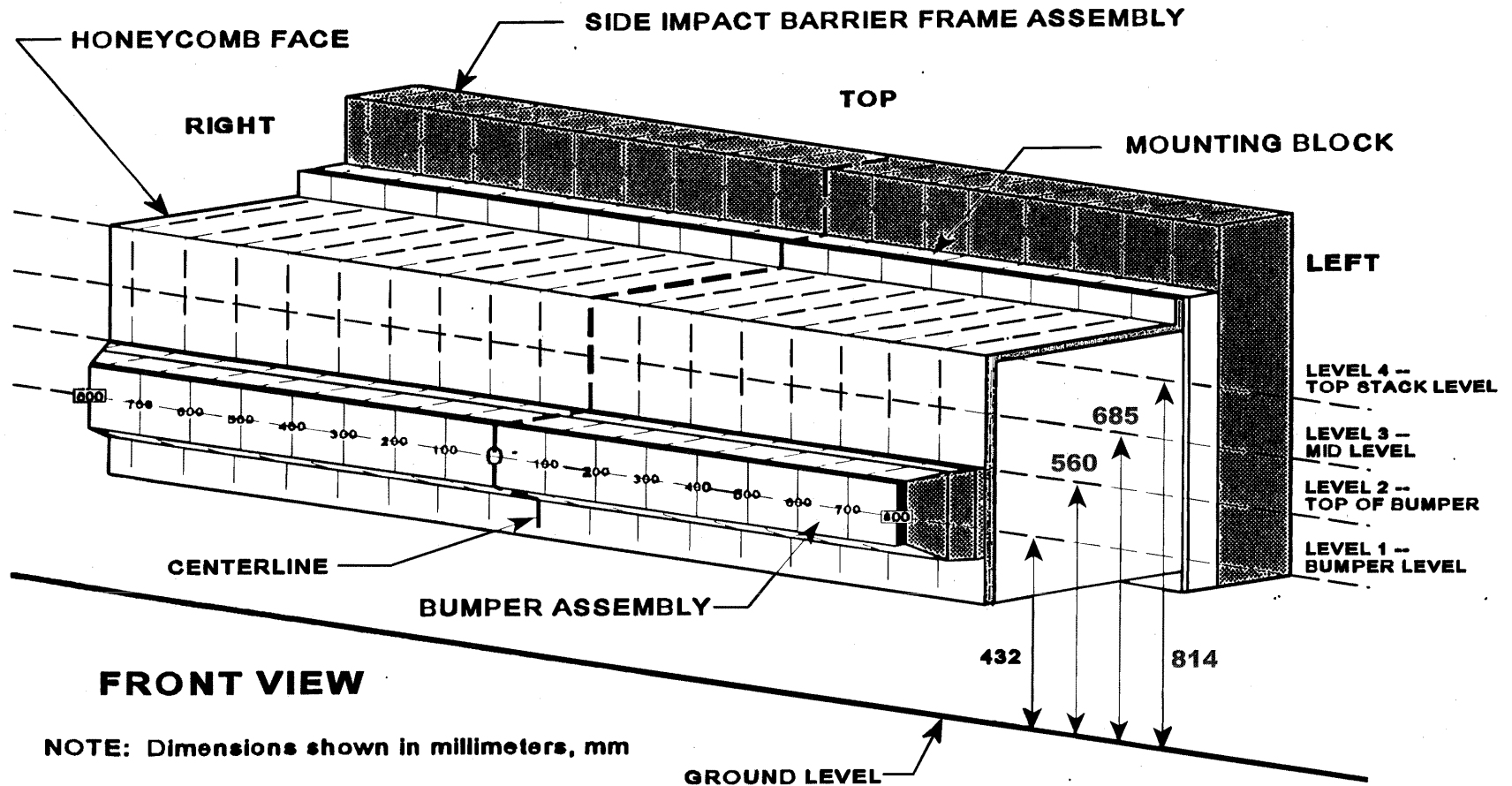


Table 10 Exterior Static Crush For Impactor Face

		Distance Right of Center (mm)										Distance Left of Center (mm)							
Location	Height At CL	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800	
Top Stack Level - Level D	814	-108	-80	-58	-39	-20	-25	-29	-24	-23	-28	-32	-36	-43	-54	-72	-84	-128	
Mid Level Level C	685	-84	-41	-27	-22	-15	-26	-32	-22	-14	-10	-11	-14	-17	-21	-30	-51	-91	
Top Bumper Level-Level B	560	-83	-80	-74	-68	-58	-53	-49	-48	-49	-51	-53	-55	-58	-60	-63	-65	-94	
Mid Bumper Level - Level A	432	-140	-137	-136	-128	-117	-108	-106	-105	-104	-106	-108	-108	-109	-110	-111	-118	-117	

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

Table 11 Deformable Barrier Face Profiles

Deformable Barrier Face Profile

Level D - Top Stack

Pre-Test

Index	Xmm	Ymm	Zmm
1	-385	801	-46
2	-385	701	-47
3	-385	601	-48
4	-384	501	-48
5	-385	402	-48
6	-384	301	-49
7	-385	201	-49
8	-384	101	-49
9	-385	1	-49
10	-385	-99	-49
11	-385	-198	-50
12	-384	-298	-50
13	-384	-399	-51
14	-384	-498	-50
15	-384	-599	-51
16	-384	-699	-51
17	-384	-798	-51

Post-Test

Index	Xmm	Ymm	Zmm
1	-277	760	-92
2	-305	664	-89
3	-326	567	-87
4	-345	469	-85
5	-365	371	-84
6	-359	275	-84
7	-356	177	-81
8	-361	77	-78
9	-362	-23	-75
10	-357	-122	-73
11	-353	-222	-71
12	-348	-322	-68
13	-341	-422	-65
14	-330	-521	-64
15	-312	-620	-63
16	-300	-718	-59
17	-256	-806	-66

Difference

Index	Xmm	Ymm	Zmm
1	-108	41	46
2	-80	37	42
3	-58	35	39
4	-39	32	38
5	-20	30	36
6	-25	26	35
7	-29	24	32
8	-24	24	29
9	-23	24	26
10	-28	24	24
11	-32	24	21
12	-36	23	18
13	-43	23	15
14	-54	23	13
15	-72	21	12
16	-84	19	8
17	-128	8	15

Table 11 Deformable Barrier Face Profiles, Cont'd.

Deformable Barrier Face Profile Cont'd.

Level C - Mid Level

Pre-Test

Index	Xmm	Ymm	Zmm
18	-385	802	-175
19	-385	703	-175
20	-385	603	-176
21	-385	502	-176
22	-385	403	-176
23	-385	302	-177
24	-385	202	-177
25	-385	102	-178
26	-385	2	-178
27	-385	-98	-178
28	-385	-198	-179
29	-385	-298	-179
30	-385	-398	-180
31	-384	-498	-179
32	-384	-598	-180
33	-384	-698	-180
34	-384	-798	-181

Post-Test

Index	Xmm	Ymm	Zmm
18	-301	760	-215
19	-344	672	-209
20	-358	573	-209
21	-363	473	-210
22	-370	374	-210
23	-359	274	-209
24	-353	174	-208
25	-363	74	-206
26	-371	-25	-202
27	-375	-125	-199
28	-374	-226	-196
29	-371	-326	-193
30	-368	-427	-190
31	-363	-528	-187
32	-354	-628	-183
33	-332	-726	-181
34	-293	-817	-182

Difference

Index	Xmm	Ymm	Zmm
18	-84	42	40
19	-41	31	34
20	-27	30	34
21	-22	29	34
22	-15	29	34
23	-26	28	32
24	-32	28	30
25	-22	28	28
26	-14	28	25
27	-10	28	21
28	-11	28	18
29	-14	29	14
30	-17	29	11
31	-21	30	7
32	-30	31	4
33	-51	28	1
34	-91	19	2

Table 11 Deformable Barrier Face Profiles, Cont'd.

Deformable Barrier Face Profile Cont'd.

Level B - Top of Bumper

Pre-Test

Index	Xmm	Ymm	Zmm
35	-385	803	-300
36	-385	703	-300
37	-385	603	-301
38	-385	503	-302
39	-385	403	-301
40	-385	303	-302
41	-385	203	-303
42	-385	102	-302
43	-385	3	-303
44	-385	-96	-303
45	-385	-197	-304
46	-385	-297	-304
47	-385	-397	-305
48	-385	-497	-304
49	-385	-597	-305
50	-384	-697	-305
51	-384	-797	-305

Post-Test

Index	Xmm	Ymm	Zmm
35	-301	770	-322
36	-305	671	-312
37	-310	572	-312
38	-317	472	-314
39	-327	373	-320
40	-332	272	-323
41	-336	171	-324
42	-337	71	-321
43	-336	-29	-317
44	-334	-128	-311
45	-331	-229	-307
46	-330	-328	-305
47	-327	-429	-302
48	-325	-530	-300
49	-322	-630	-300
50	-319	-730	-299
51	-290	-819	-305

Difference

Index	Xmm	Ymm	Zmm
35	-83	33	22
36	-80	32	12
37	-74	31	12
38	-68	31	13
39	-58	30	19
40	-53	31	21
41	-49	32	22
42	-48	31	19
43	-49	32	14
44	-51	32	8
45	-53	32	3
46	-55	32	1
47	-58	32	-2
48	-60	33	-4
49	-63	33	-5
50	-65	33	-6
51	-94	22	-1

Table 11 Deformable Barrier Face Profiles, Cont'd.

Deformable Barrier Face Profile Cont'd.

Level A - Mid Bumper

Pre-Test

Index	Xmm	Ymm	Zmm
52	-477	798	-427
53	-488	698	-429
54	-488	599	-429
55	-488	499	-429
56	-488	399	-430
57	-488	299	-430
58	-488	198	-431
59	-488	99	-432
60	-488	-1	-432
61	-488	-101	-432
62	-488	-202	-432
63	-488	-302	-432
64	-488	-402	-434
65	-487	-502	-434
66	-487	-602	-434
67	-487	-702	-434
68	-471	-798	-435

Post-Test

Index	Xmm	Ymm	Zmm
52	-337	762	-442
53	-351	663	-445
54	-352	564	-443
55	-360	464	-445
56	-371	365	-447
57	-379	265	-448
58	-382	164	-448
59	-383	65	-448
60	-384	-36	-446
61	-382	-136	-446
62	-380	-236	-445
63	-380	-336	-444
64	-379	-436	-444
65	-377	-536	-443
66	-376	-636	-441
67	-369	-736	-438
68	-355	-832	-434

Difference

Index	Xmm	Ymm	Zmm
52	-140	36	15
53	-137	35	17
54	-136	35	14
55	-128	35	16
56	-117	34	17
57	-108	34	18
58	-106	34	17
59	-105	34	16
60	-104	35	14
61	-106	35	14
62	-108	34	13
63	-108	34	12
64	-109	34	10
65	-110	34	9
66	-111	34	7
67	-118	33	4
68	-117	34	-1

Figure 9 Deformable Barrier Face Profiles

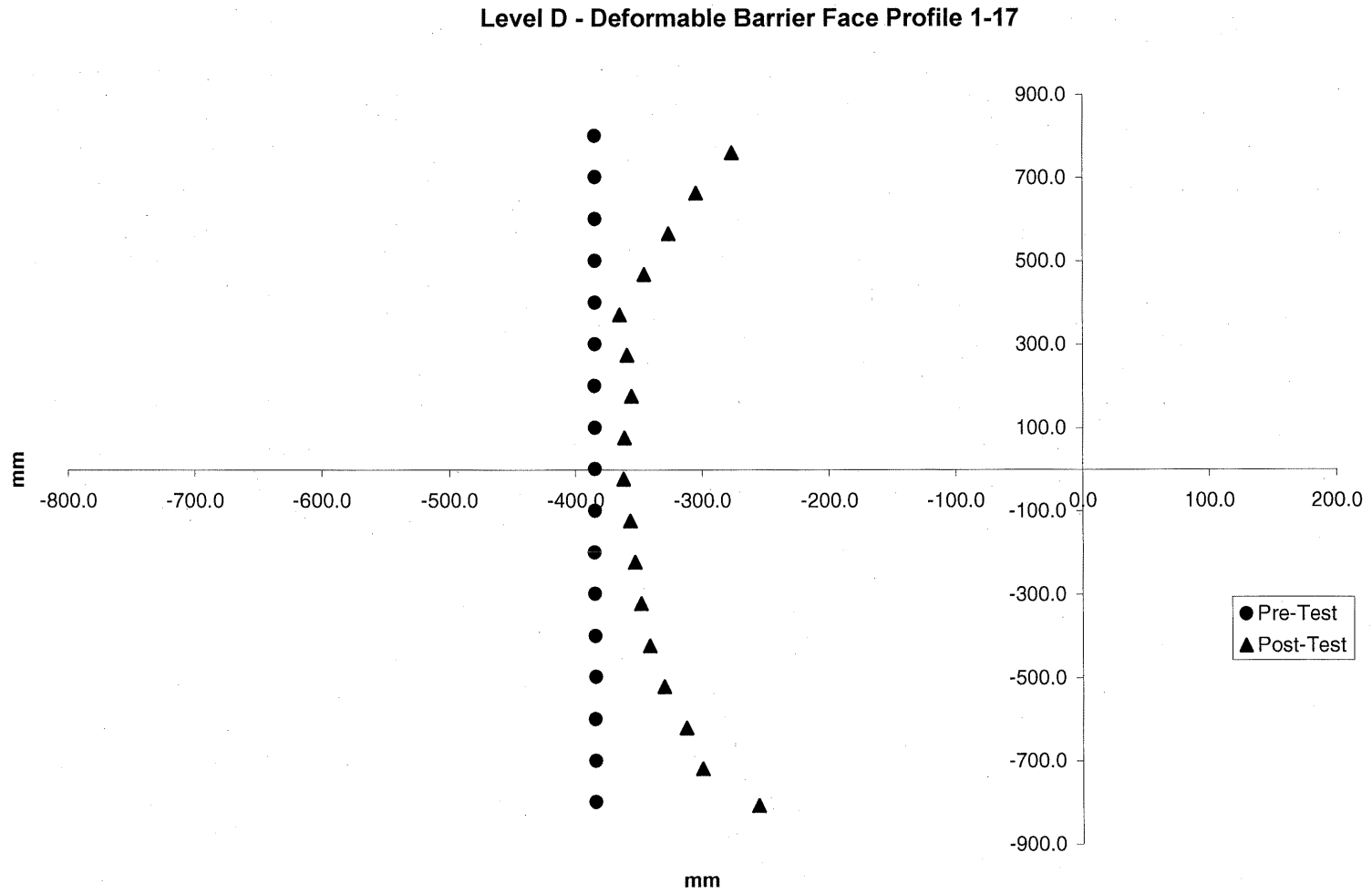


Figure 9 Deformable Barrier Face Profiles, Cont'd.

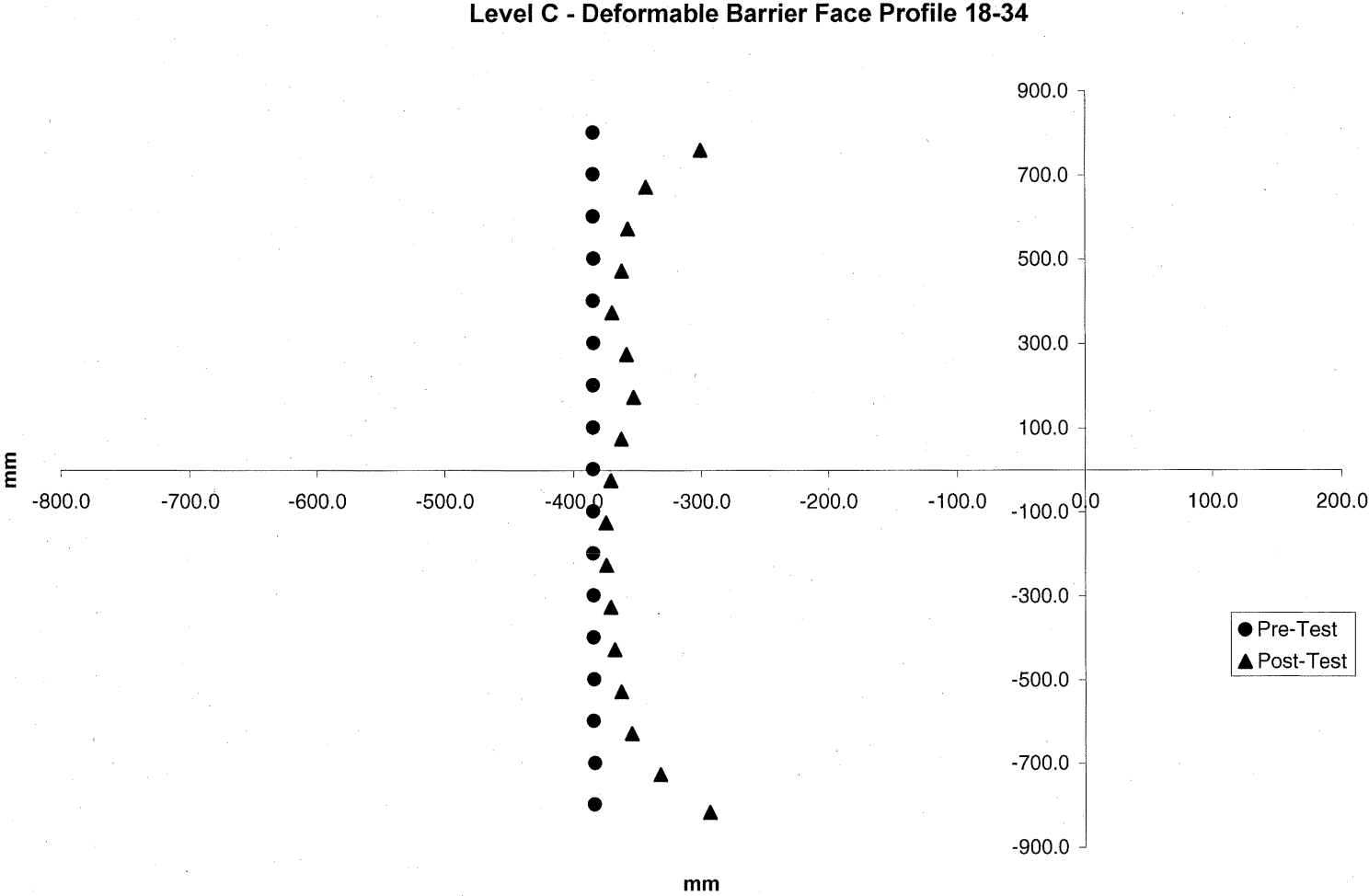


Figure 9 Deformable Barrier Face Profiles, Cont'd.

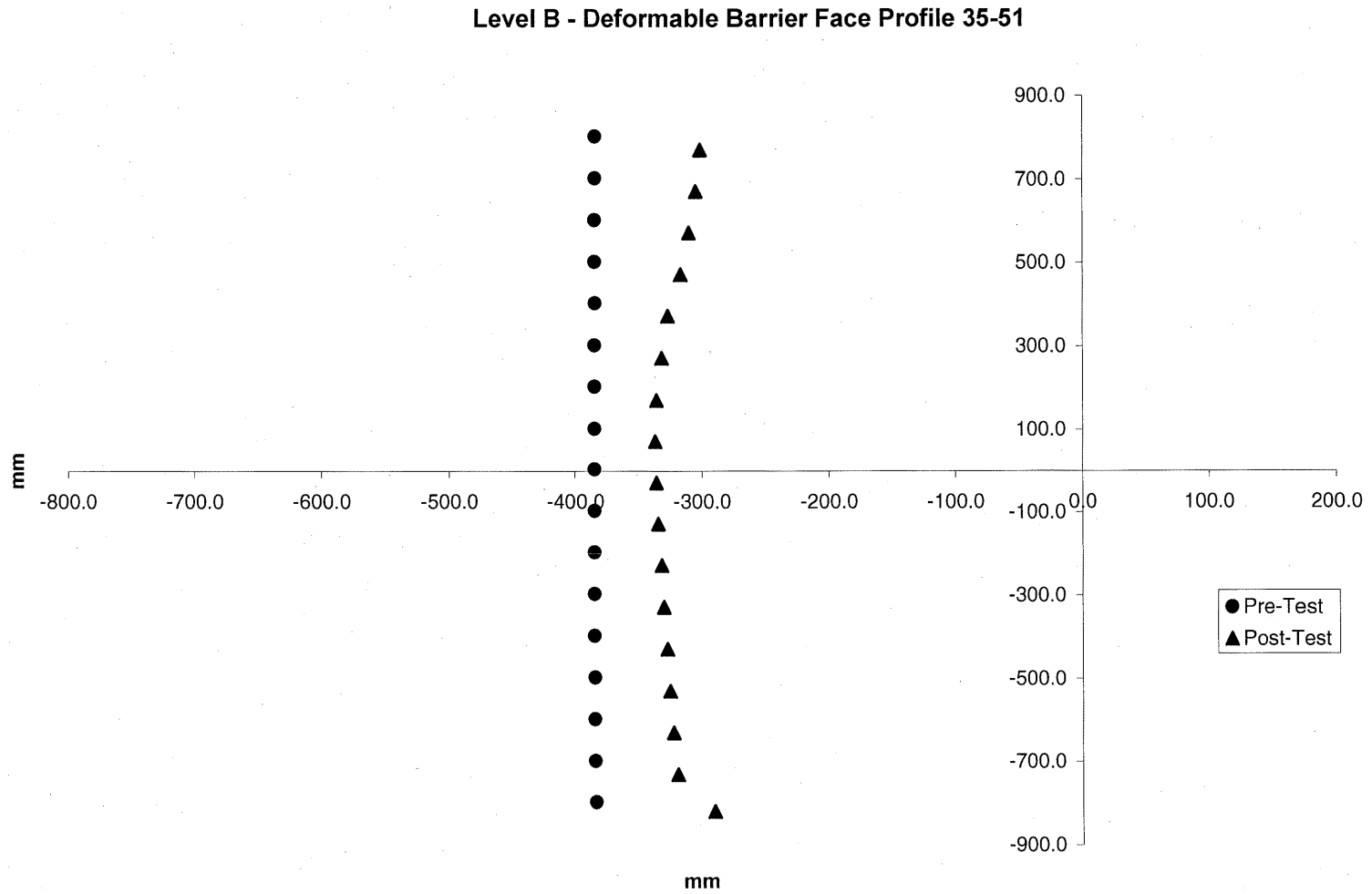


Figure 9 Deformable Barrier Face Profiles, Cont'd.

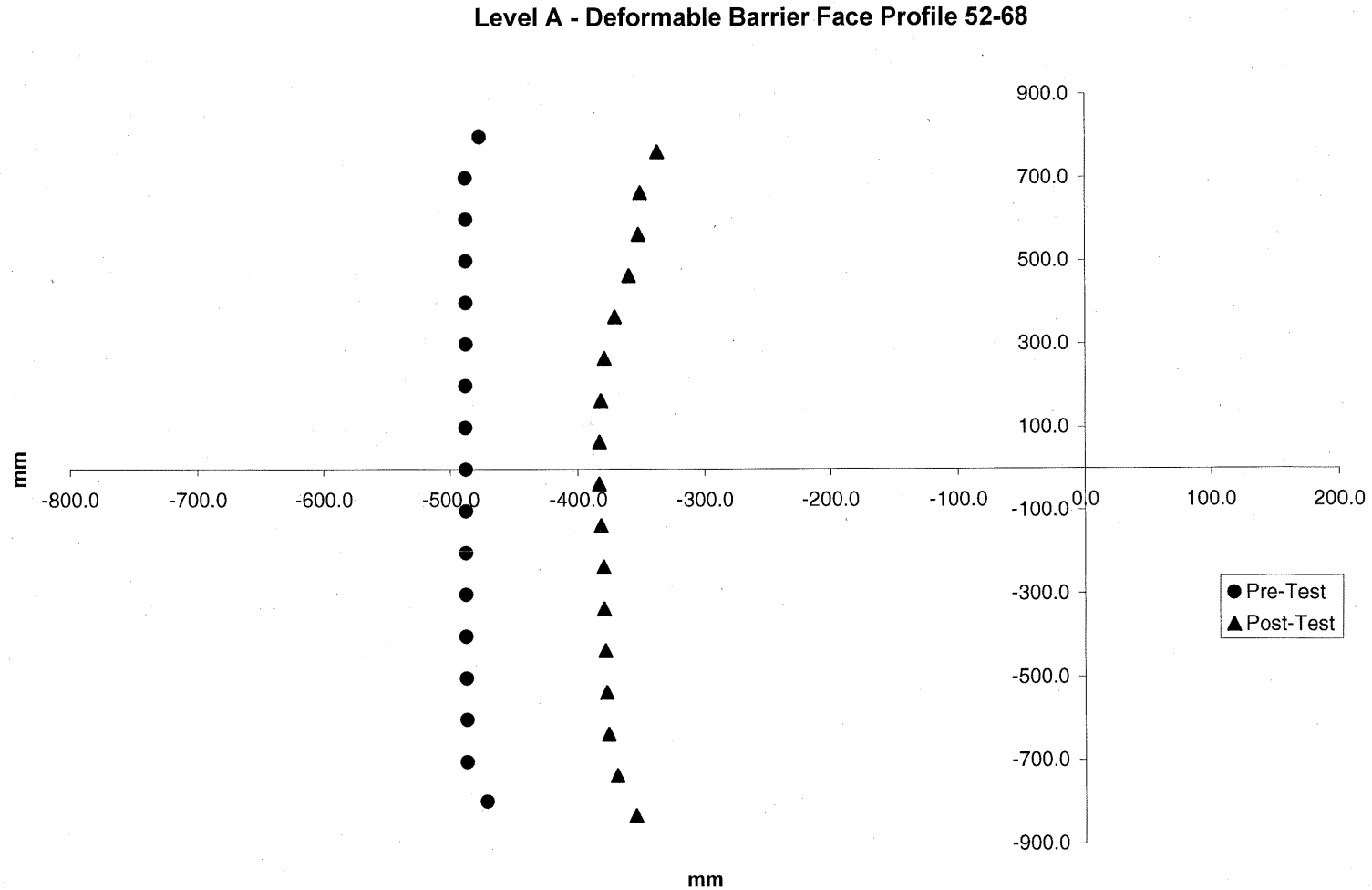
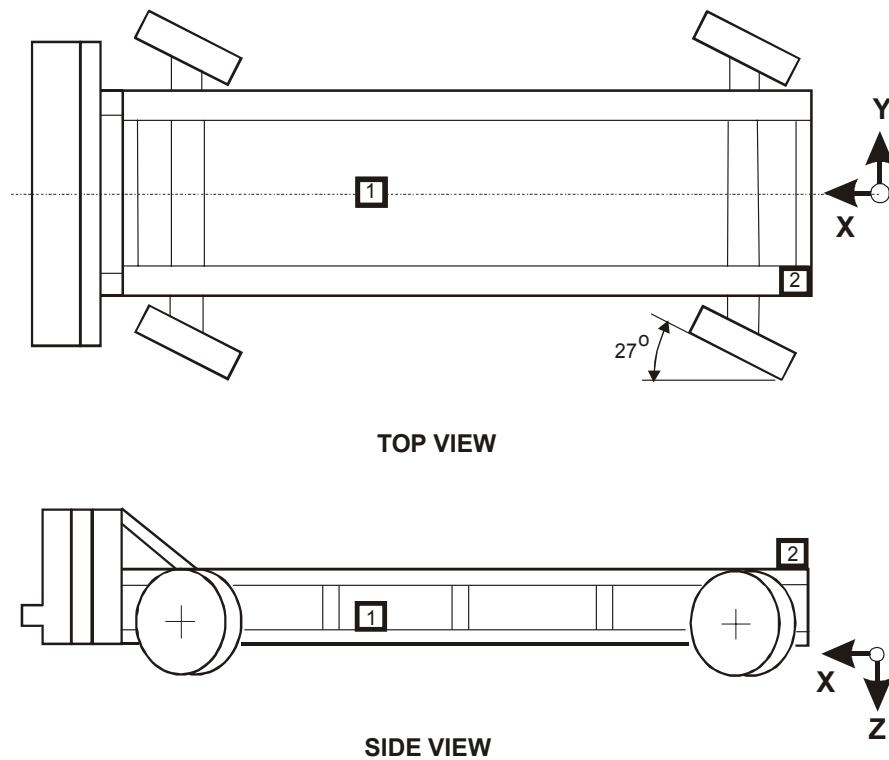


Figure 10 MDB Accelerometer Locations and Data Summary



Accel. No.	Location	Coordinates (millimeters)			Positive Direction		Negative Direction	
		X*	Y*	Z*	Max. (g)	Time (ms)	Max. (g)	Time (ms)
1	MDB Center of Gravity	1853	0	-519				
	Longitudinal X				1.2	244.6	-20.8	29.4
	Lateral Y				1.3	60.0	-7.0	38.8
	Vertical Z				5.3	54.8	-3.7	24.1
	Resultant R				21.3	29.3		
2	Rear Frame Member	411	-738	-628				
	Longitudinal X				1.5	130.2	-23.0	39.8
	Lateral Y				1.5	34.9	-2.3	56.2

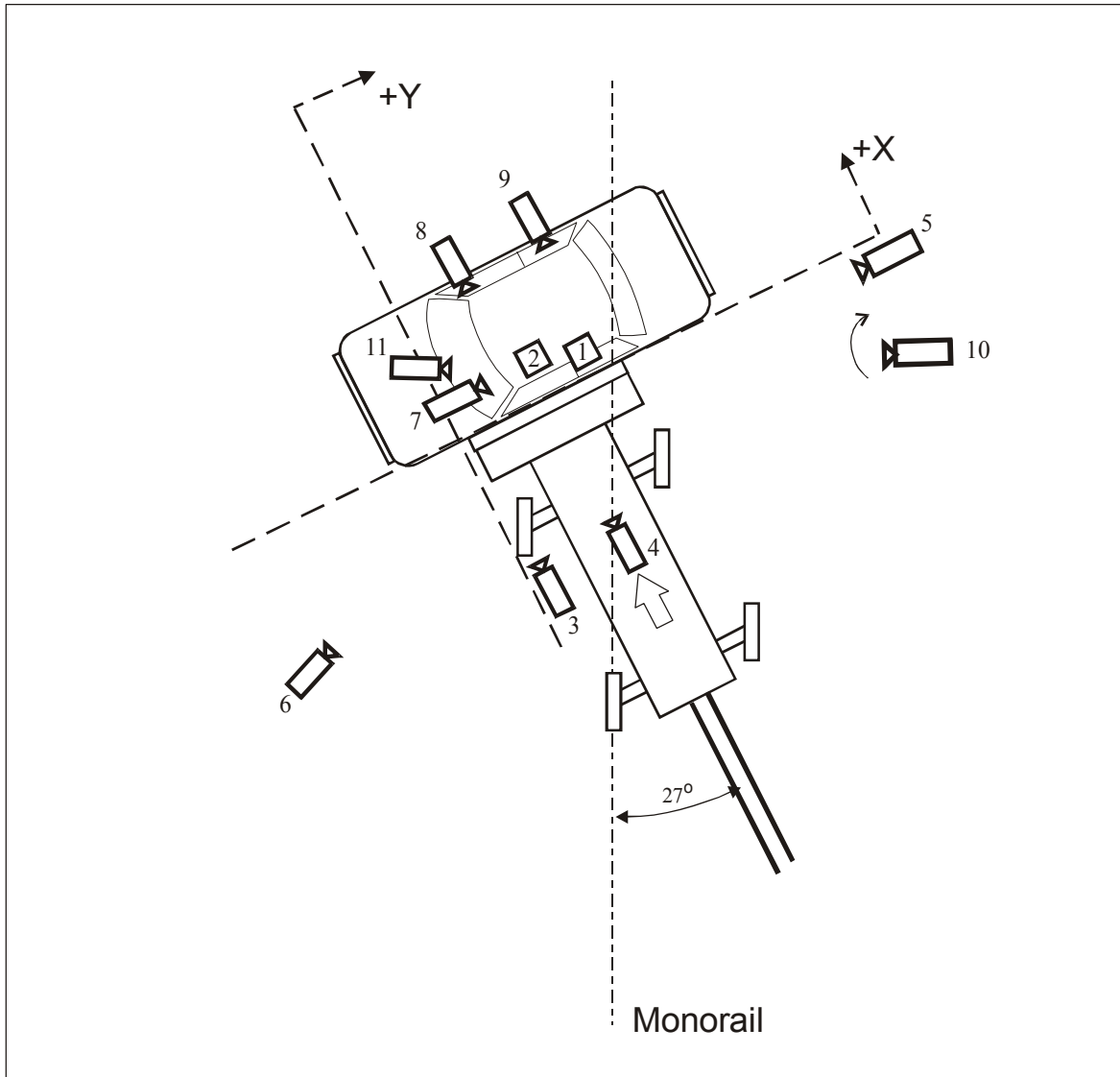
*Reference: X = Rear Bumper (+ Forward)

Y = Vehicle Centerline (+ To Right)

Z = Ground Level (+ Down)

All measurements accurate to within ± 3 mm.

Figure 11 Camera Positions



Impact
Area

Table 12 Camera Information

Camera Number	Location	Location, mm			Angle (deg.)	Lens (mm)	Speed (fps)
		X	Y	Z			
1	Overhead wide	250	2150	-5750	-77.5	Zoom	1000
2	Overhead tight	370	1800	-5750	-85.5	50	1000
3	Onboard MDB left side	-1750	-40	-720	-0.5	13	1000
4	Onboard MDB center	-2480	830	-1353	-5.2	17	1000
5	Right wide	850	10000	-1000	-1.0	12.5	1000
6	Left quarter wide	-1500	-7000	-1270	-3.4	10	1000
7	Onboard vehicle front	500	-420	-1390	-1.6	25	1000
8	Onboard side front door	1620	700	-1300	-11.1	12.5	1000
9	Onboard side rear door	1620	1630	-1250	5.6	12.5	1000
10	Real-time Panning-Video	N/A	N/A	N/A	N/A	Zoom	24
11	Onboard vehicle driver hip	900	-490	-1700	-23.0	50	1000

+X: Forward (referenced to MDB) from impact point

+Y: Rightward (referenced to MDB) from impact point

+Z: Downward from ground level

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

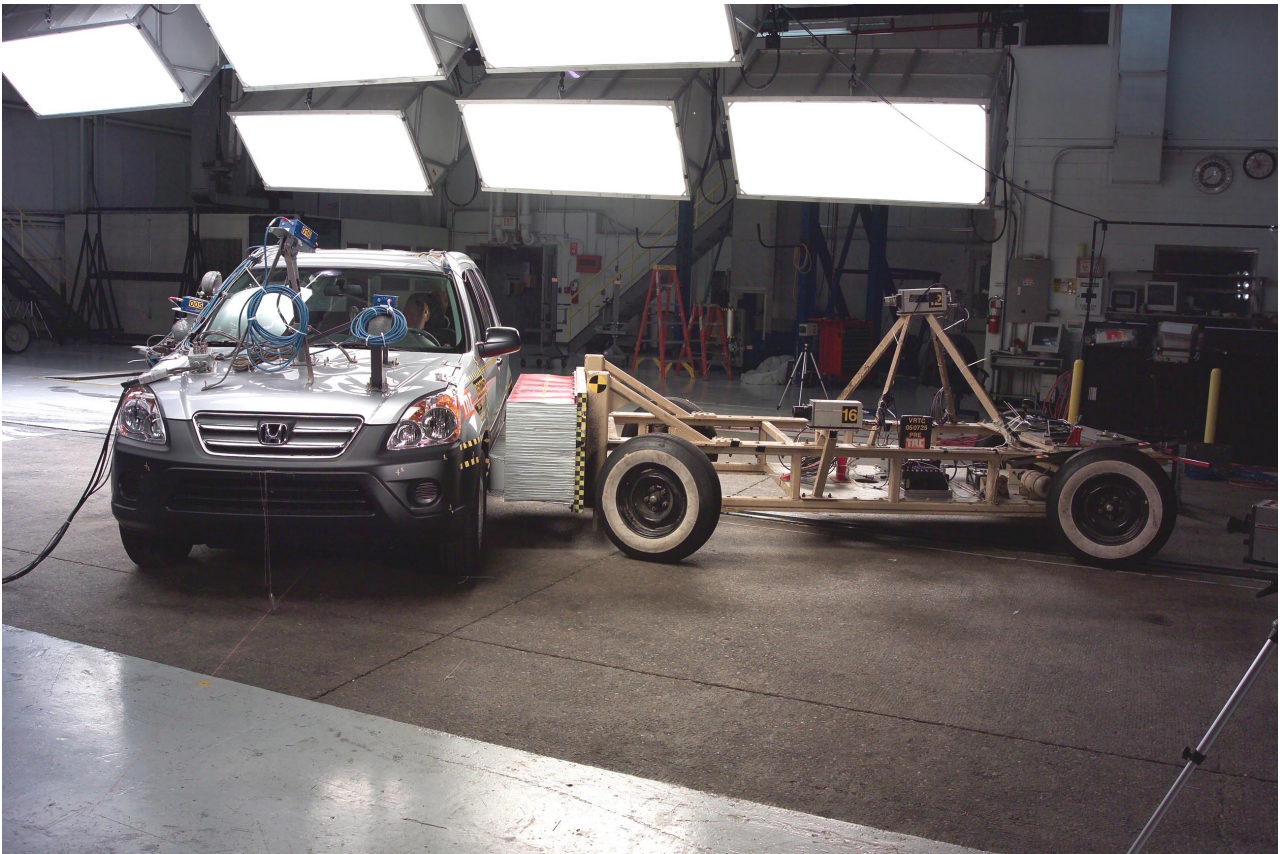


Figure A-17 Pre-Test Front View with MDB in Position

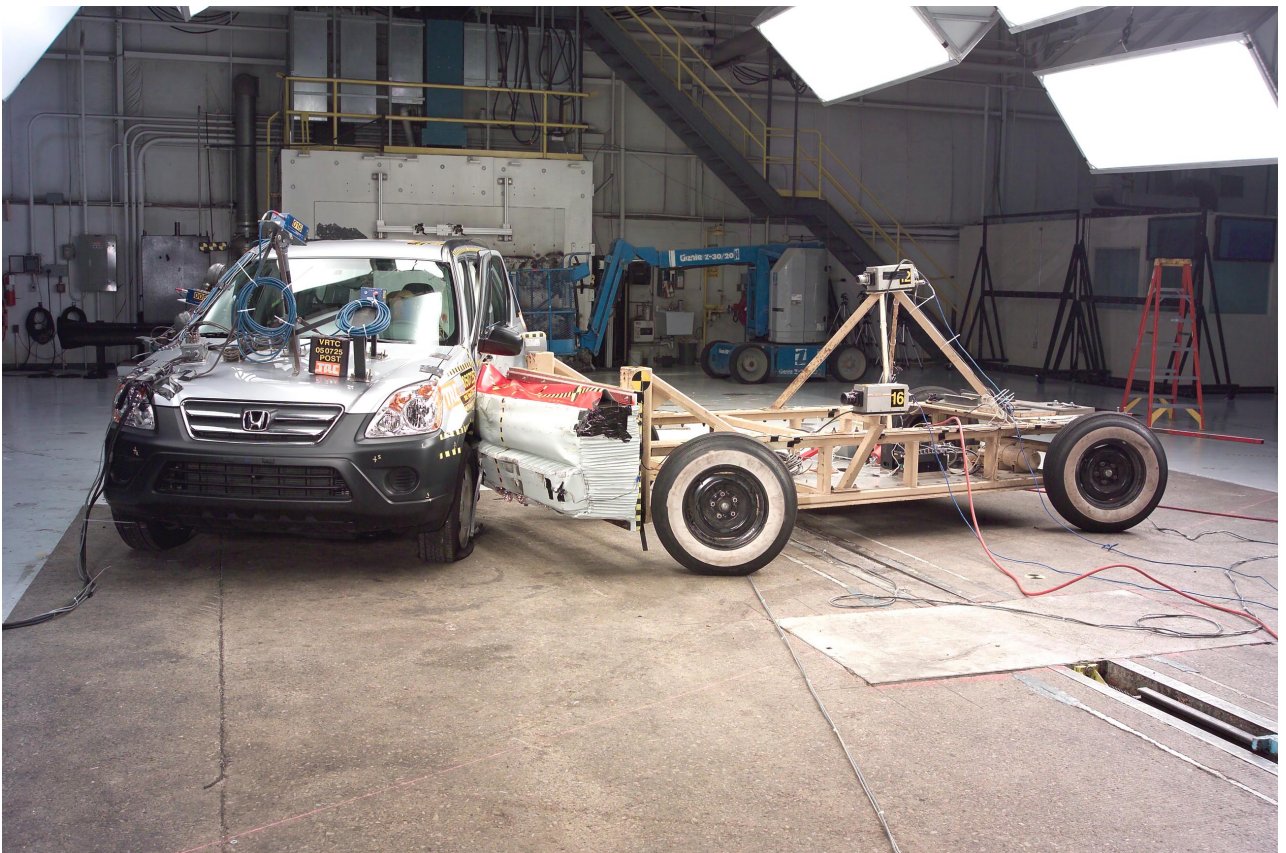


Figure A-18 Post-Test Front View with MDB in Position

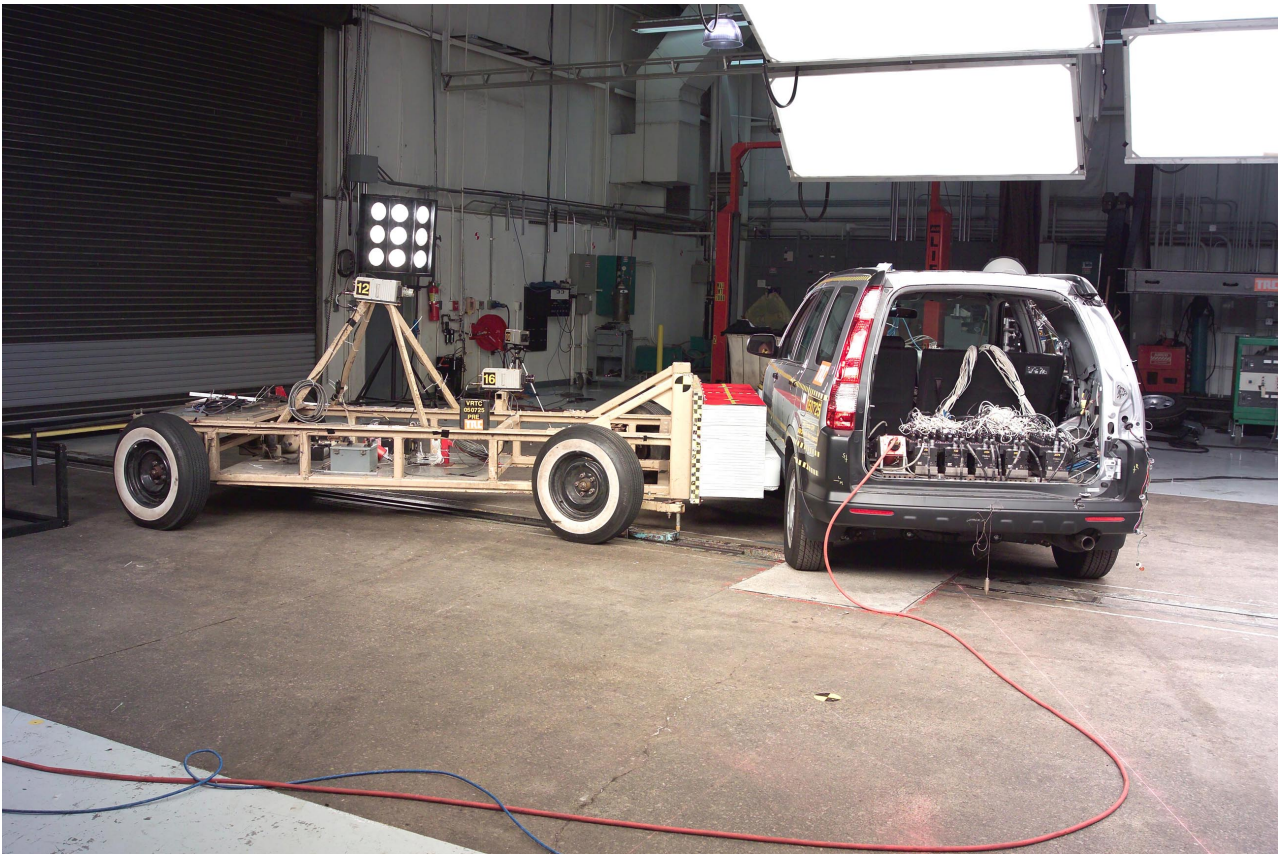


Figure A-19 Pre-Test Rear View with MDB in Position

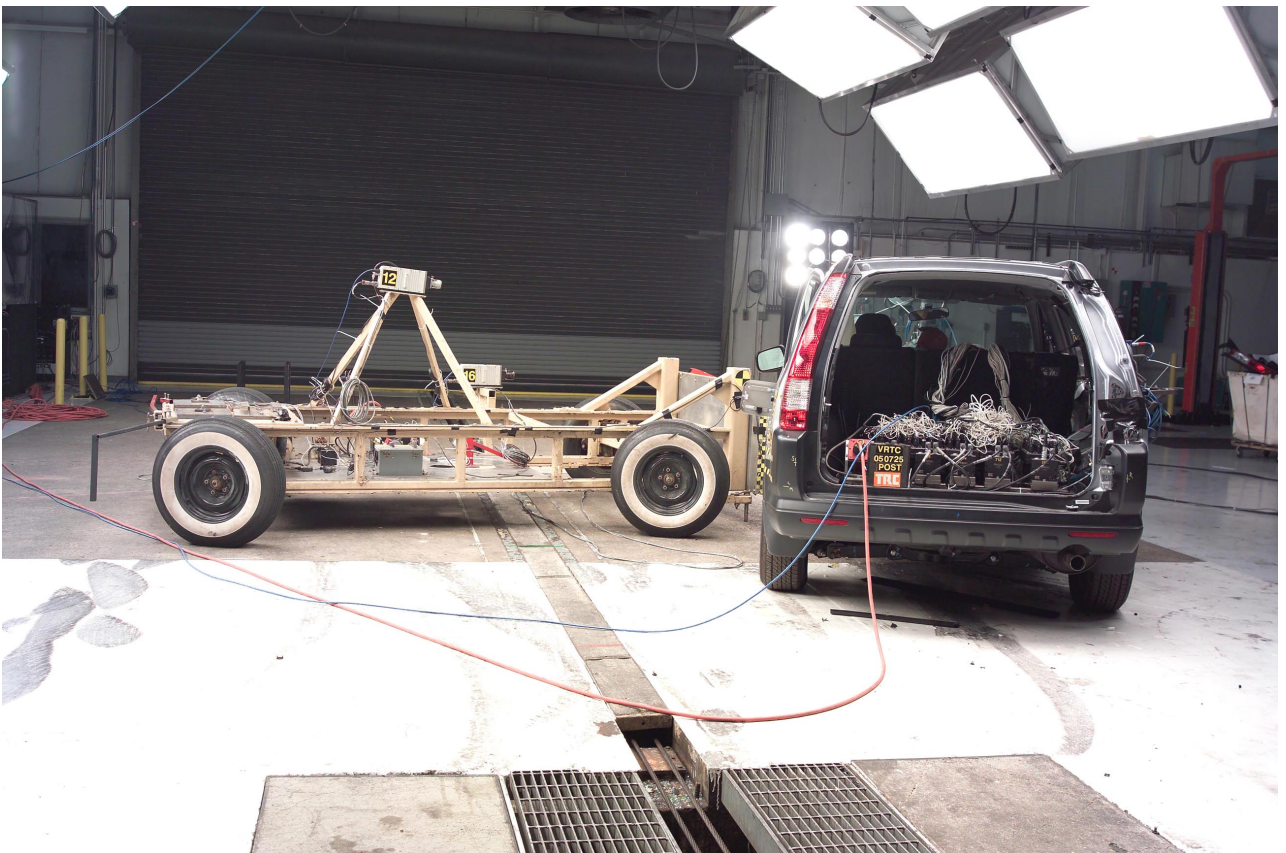


Figure A-20 Post-Test Rear View with MDB in Position

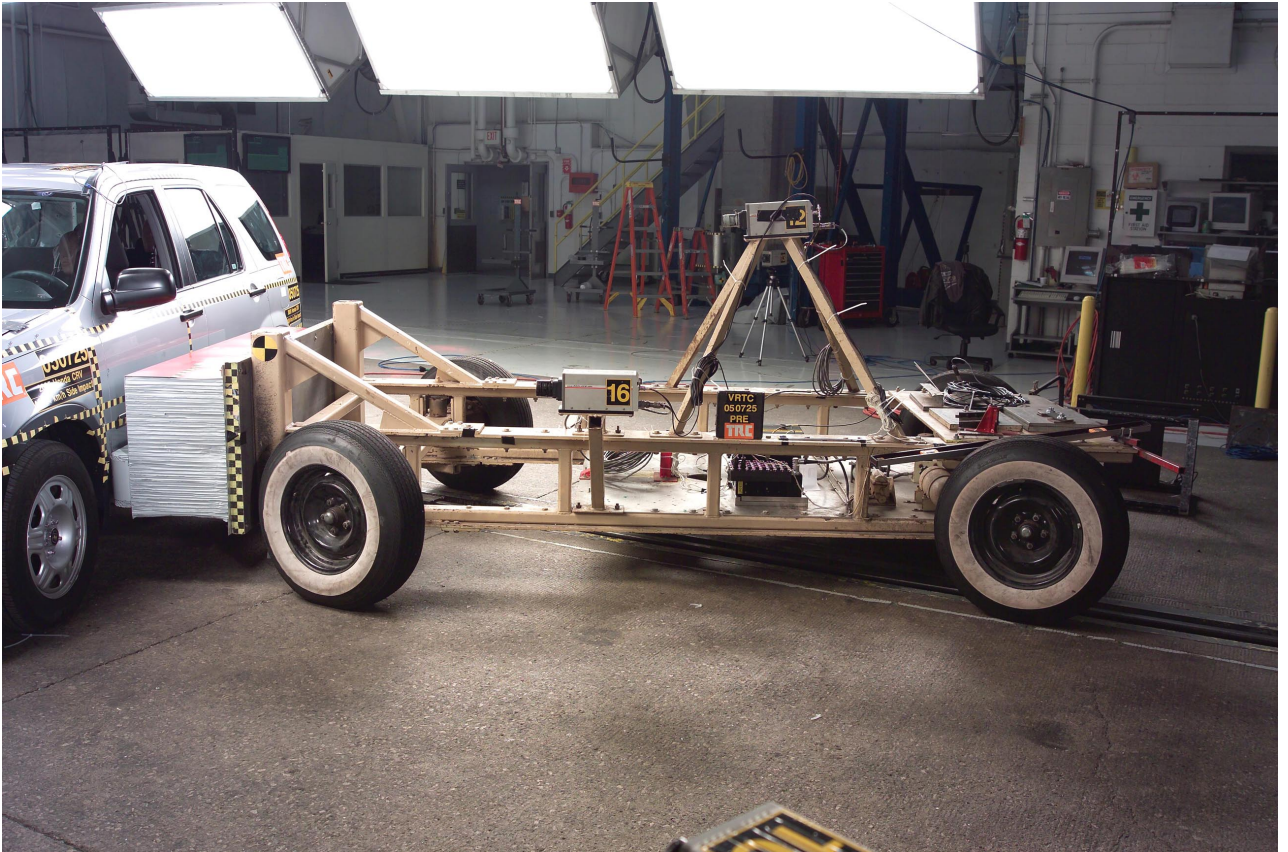


Figure A-21 Pre-Test Left Side View of MDB with Impactor Face in Position

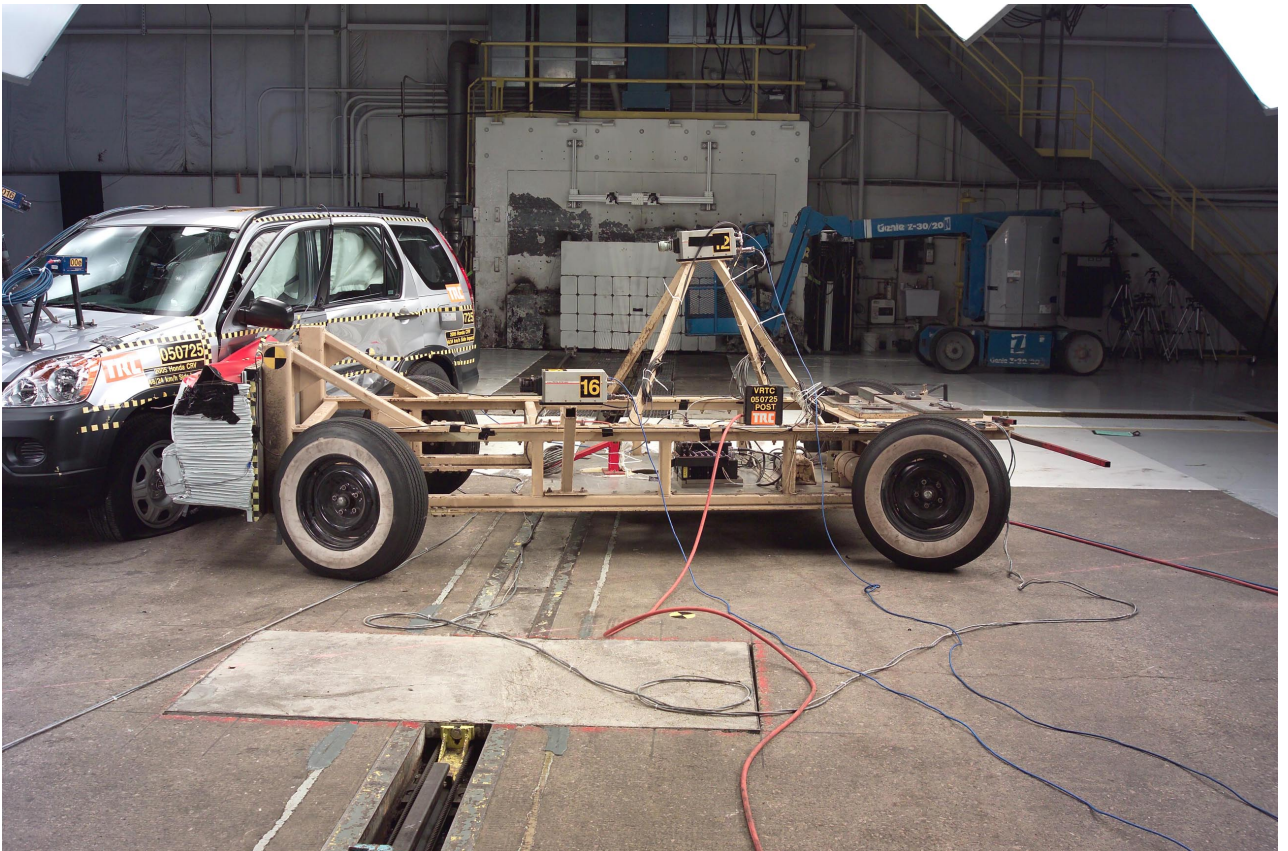


Figure A-22 Post-Test Left Side View of MDB with Impactor Face in Position



Figure A-23 Pre-Test Rear View of MDB with Impactor Face in Position



Figure A-24 Post-Test Rear View of MDB with Impactor Face in Position

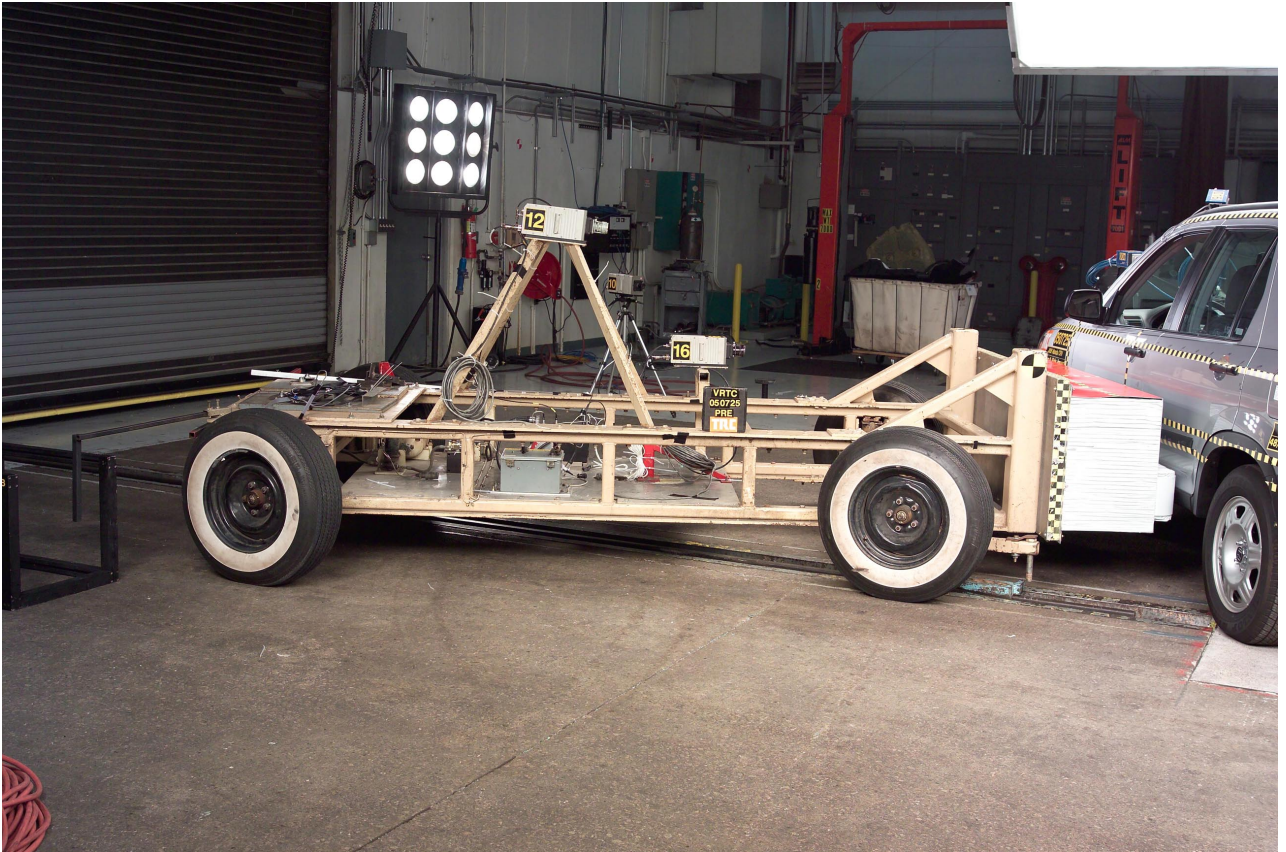


Figure A-25 Pre-Test Left Rear View of MDB with Impactor Face in Position

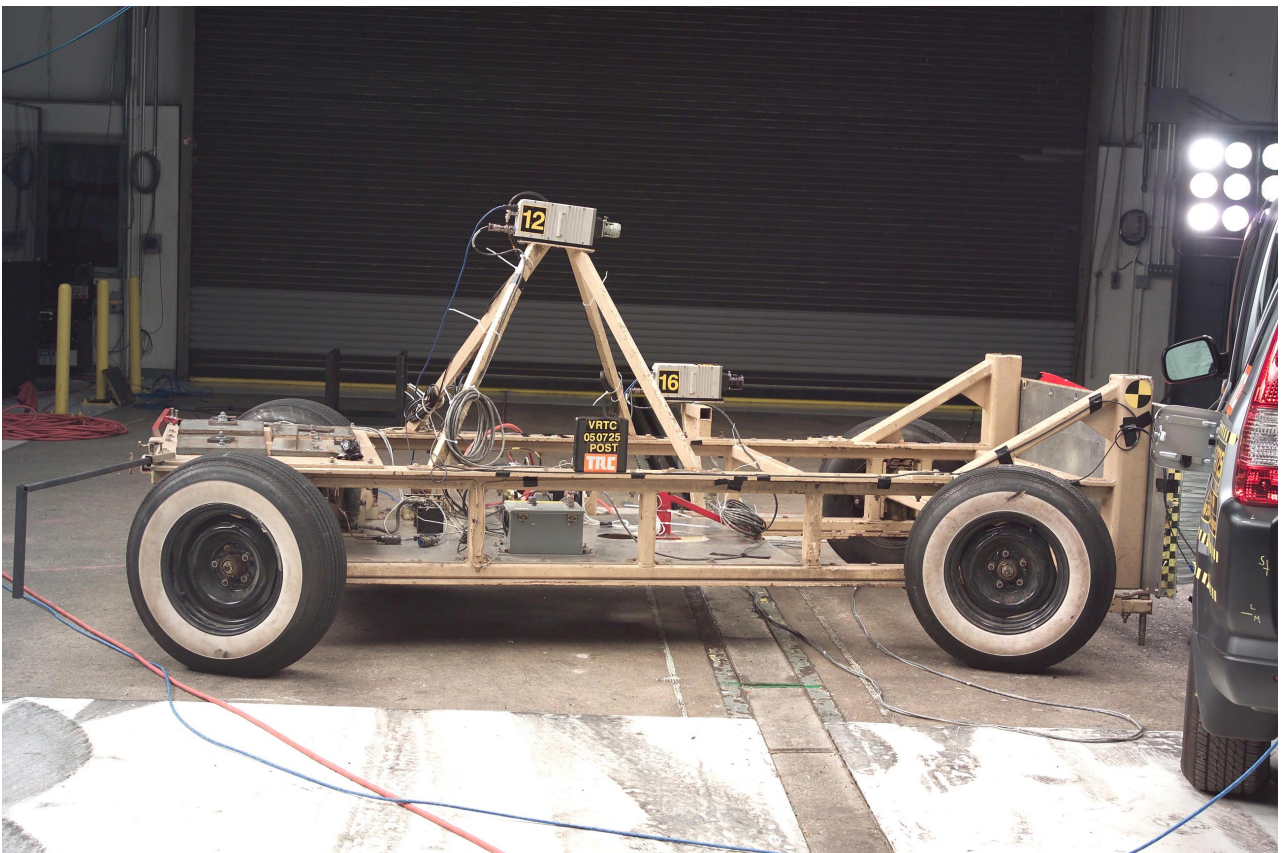


Figure A-26 Post-Test Left Rear View of MDB with Impactor Face in Position



Figure A-27 Pre-Test Overhead View of MDB Aligned with Vehicle



Figure A-28 Post-Test Overhead View of MDB Aligned with Vehicle



Figure A-29 Pre-Test Frontal View of Impactor Face



Figure A-30 Post-Test Frontal View of Impactor Face

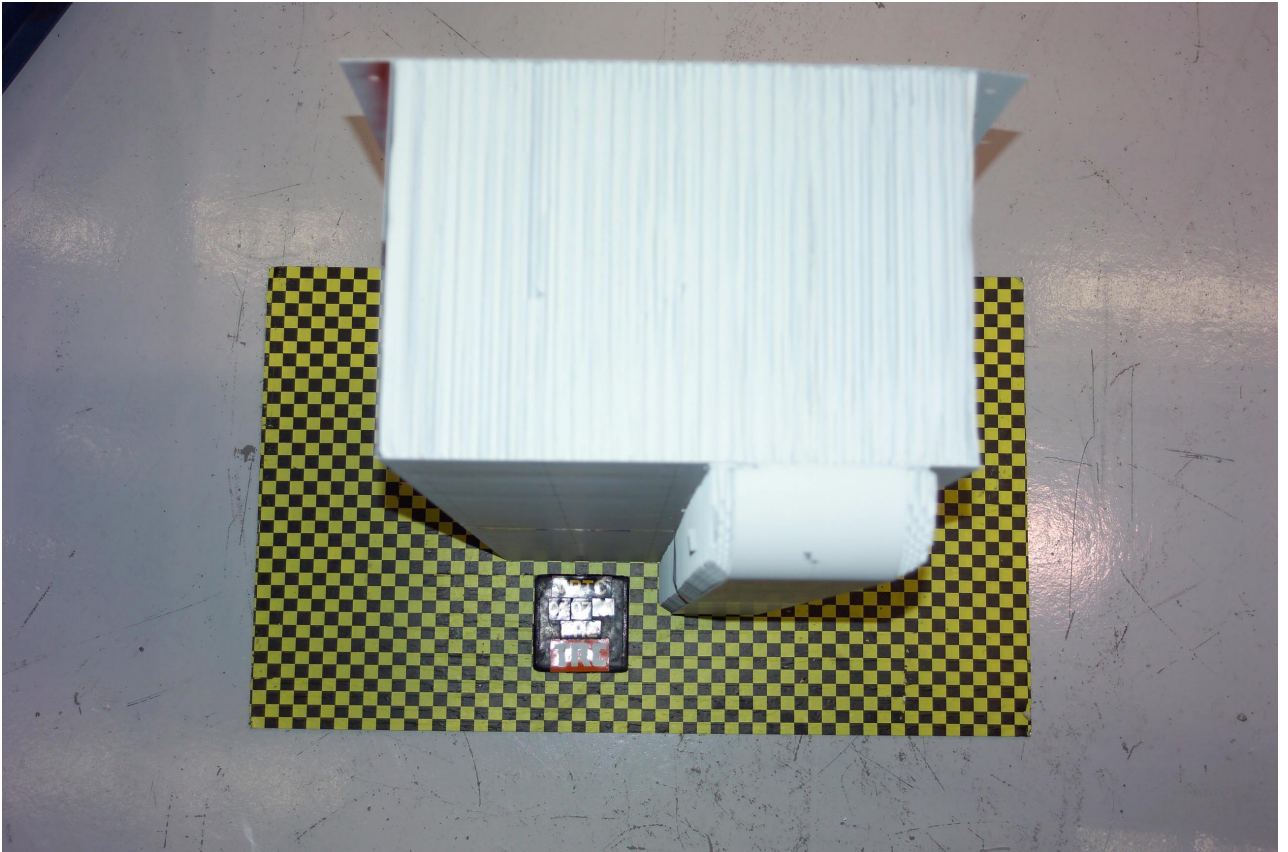


Figure A-31 Pre-Test Left Side View of Impactor Face



Figure A-32 Post-Test Left Side View of Impactor Face

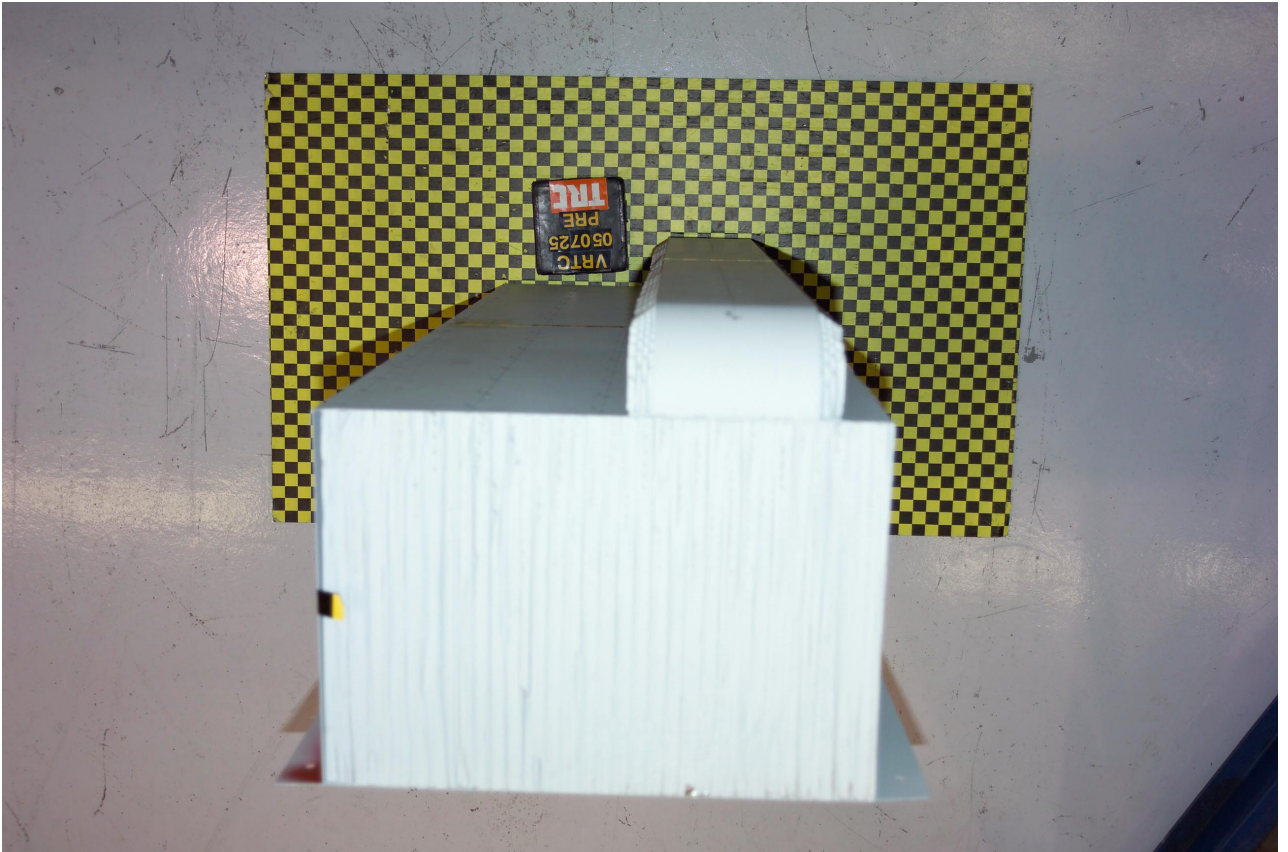


Figure A-33 Pre-Test Right Side View of Impactor Face

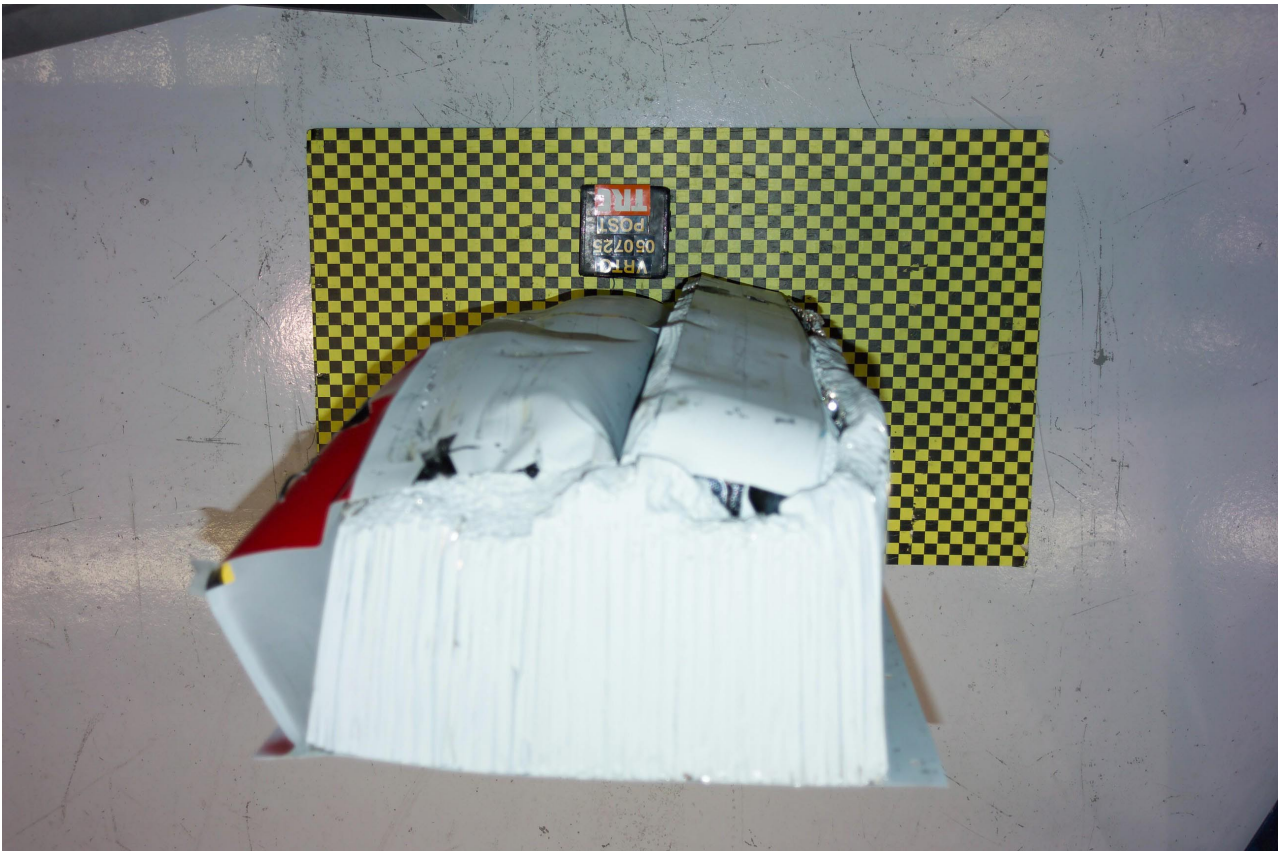


Figure A-34 Post-Test Right Side View of Impactor Face

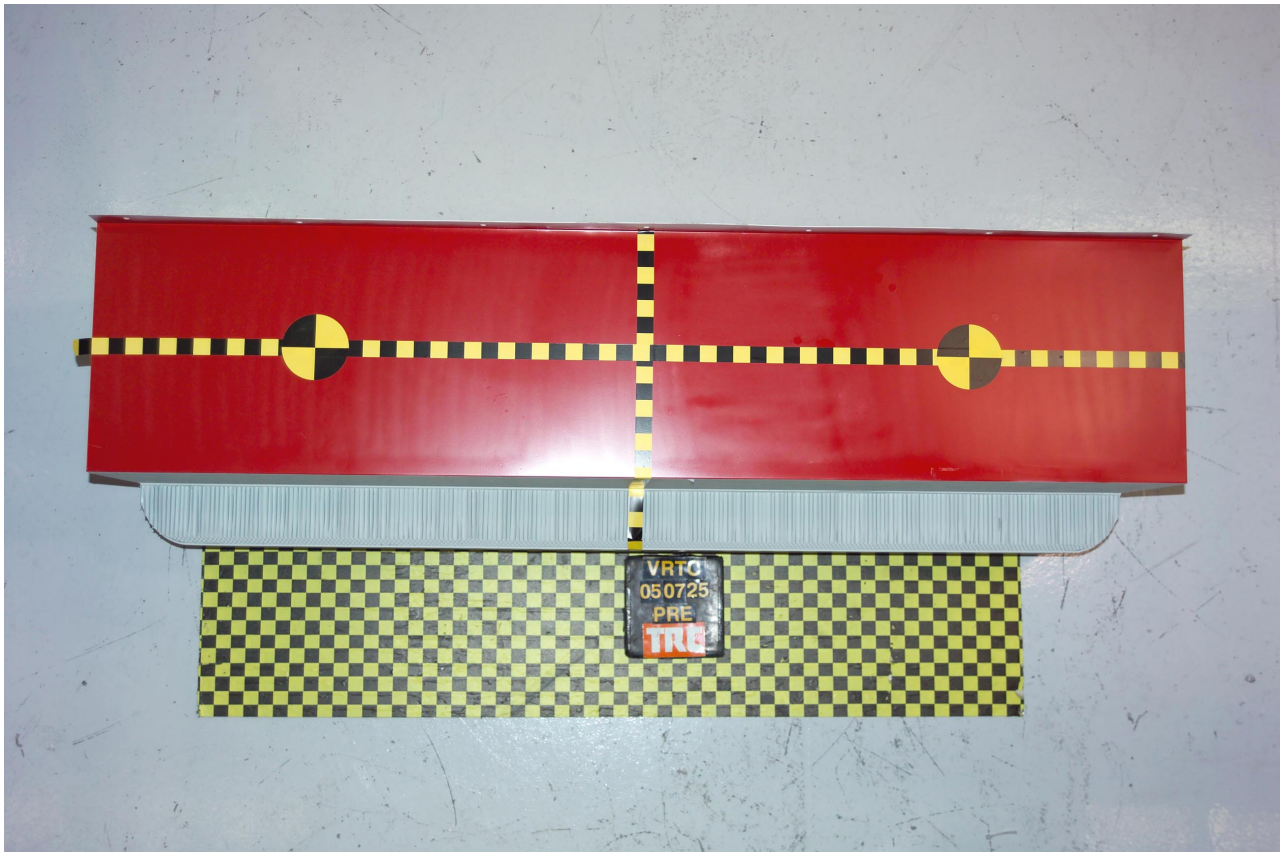


Figure A-35 Pre-Test Top View of Impactor Face

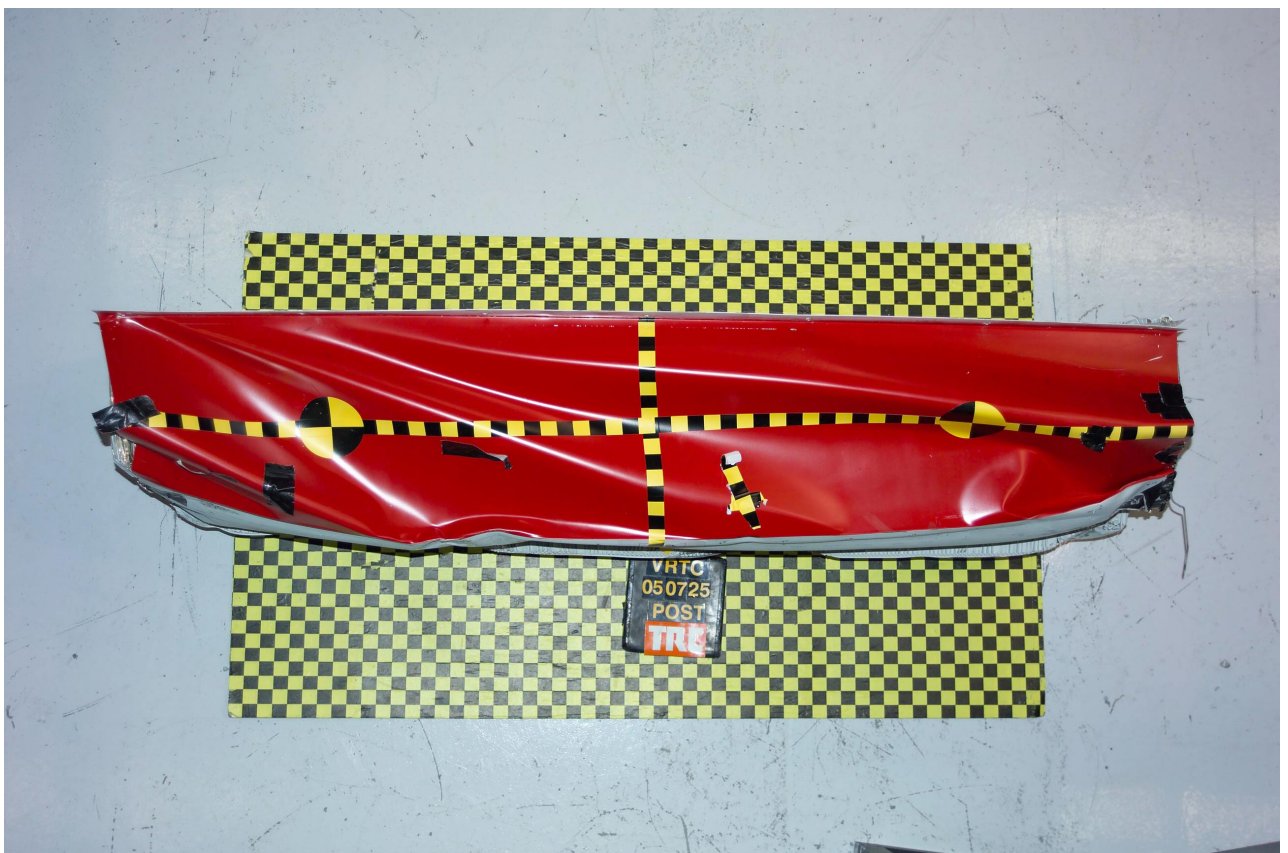


Figure A-36 Post-Test Top View of Impactor Face



Figure A-37 Pre-Test View of MDB Showing Contact Switches in Place



Figure A-38 Post-Test View of MDB Showing Contact Switches in Place



Figure A-39 Pre-Test Primary Impact Point View



Figure A-40 Post-Test Primary Impact Point View



Figure A-41 Pre-Test Secondary Impact Point View



Figure A-42 Post-Test Secondary Impact Point View



Figure A-43 Pre-Test Fuel Filler Cap View



Figure A-44 Post-Test Fuel Filler Cap View



Figure A-45 Pre-Test Right Occupant Compartment View of Front SID-IIIs



Figure A-46 Post-Test Right Occupant Compartment View of Front SID-IIIs



Figure A-47 Pre-Test Right Occupant Compartment View of Rear SID-IIs



Figure A-48 Post-Test Right Occupant Compartment View of Rear SID-II



Figure A-49 Pre-Test Left View of Front SID-IIs - View 1



Figure A-50 Post-Test Left View of Front SID-IIs View



Figure A-51 Pre-Test Left View of Front SID-IIs - View 2

Intentionally Left Blank



Figure A-52 Pre-Test Left View of Front SID-IIs and Door Clearance



Figure A-53 Post-Test Left View of Front SID-IIs and Door Clearance



Figure A-54 Pre-Test Left View of Rear SID-IIs - View 1



Figure A-55 Post-Test Left View of Rear SID-IIs View



Figure A-56 Pre-Test Left View of Rear SID-IIs - View 2

Intentionally Left Blank



Figure A-57 Pre-Test Left View of Rear SID-II and Door Clearance



Figure A-58 Post-Test Left View of Rear SID-II and Door Clearance



Figure A-59 Pre-Test Interior of Front Door



Figure A-60 Post-Test Interior of Front Door Showing SID-II's Impact Locations



Figure A-61 Post-Test Front SID-IIs Contact - View 1



Figure A-62 Post-Test Front SID-IIs Contact - View 2



Figure A-63 Post-Test Front SID-IIs Contact - View 3

Intentionally Left Blank



Figure A-64 Pre-Test Interior of Rear Door



Figure A-65 Post-Test Interior of Rear Door Showing SID-II's Impact Locations



Figure A-66 Post-Test Rear SID-IIs Contact - View 1



Figure A-67 Post-Test Rear SID-IIs Contact - View 2



Figure A-68 Pre-Test Barrier Face Front View

Intentionally Left Blank



Figure A-69 Pre-Test Barrier Face Left Side View



Figure A-70 Post-Test Barrier Face Left Side View



Figure A-71 Pre-Test Barrier Face Right Side View



Figure A-72 Post-Test Barrier Face Right Side View

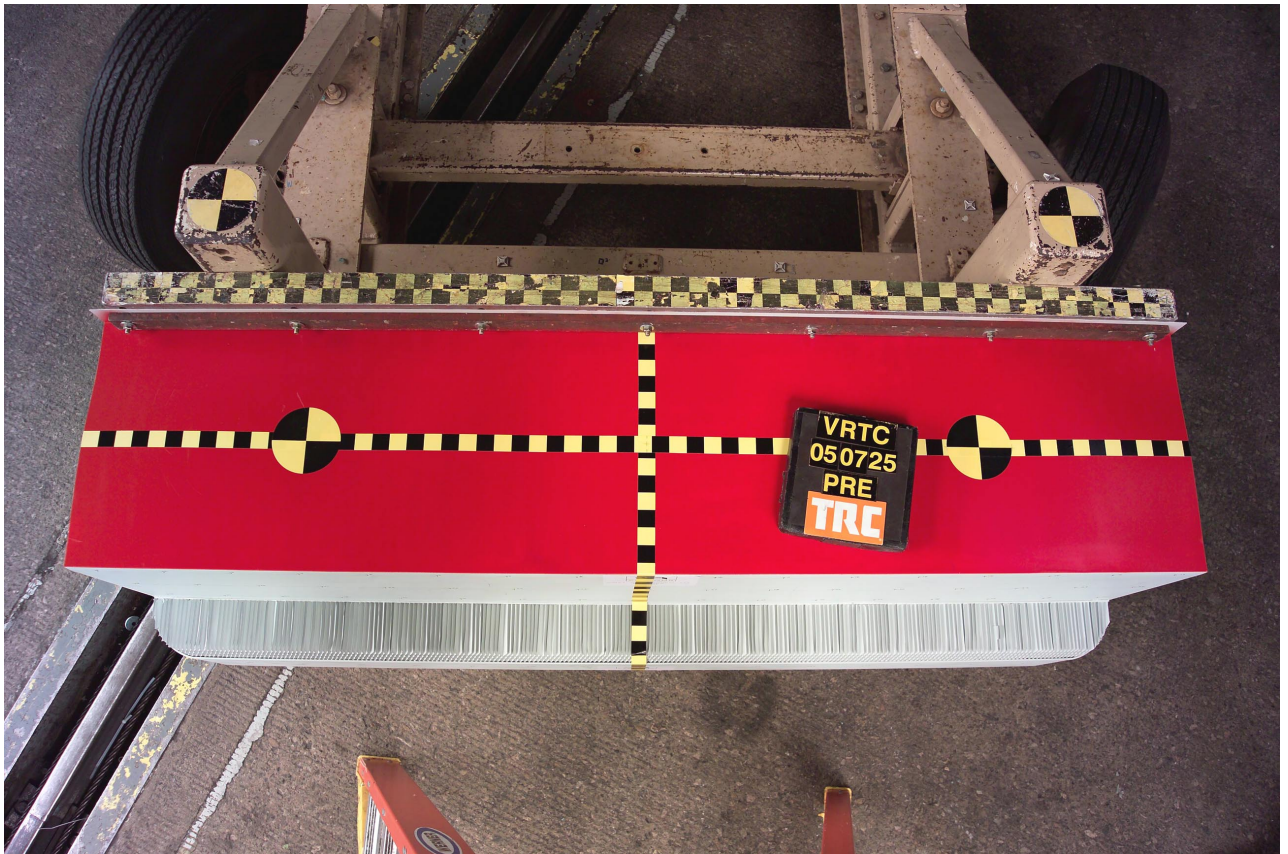


Figure A-73 Pre-Test Barrier Face Overhead View



Figure A-74 Post-Test Barrier Face Overhead View



Figure A-75 Vehicle Certification Label View



Figure A-76 Vehicle Tire Load Label View

Appendix B

Data Plots



MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

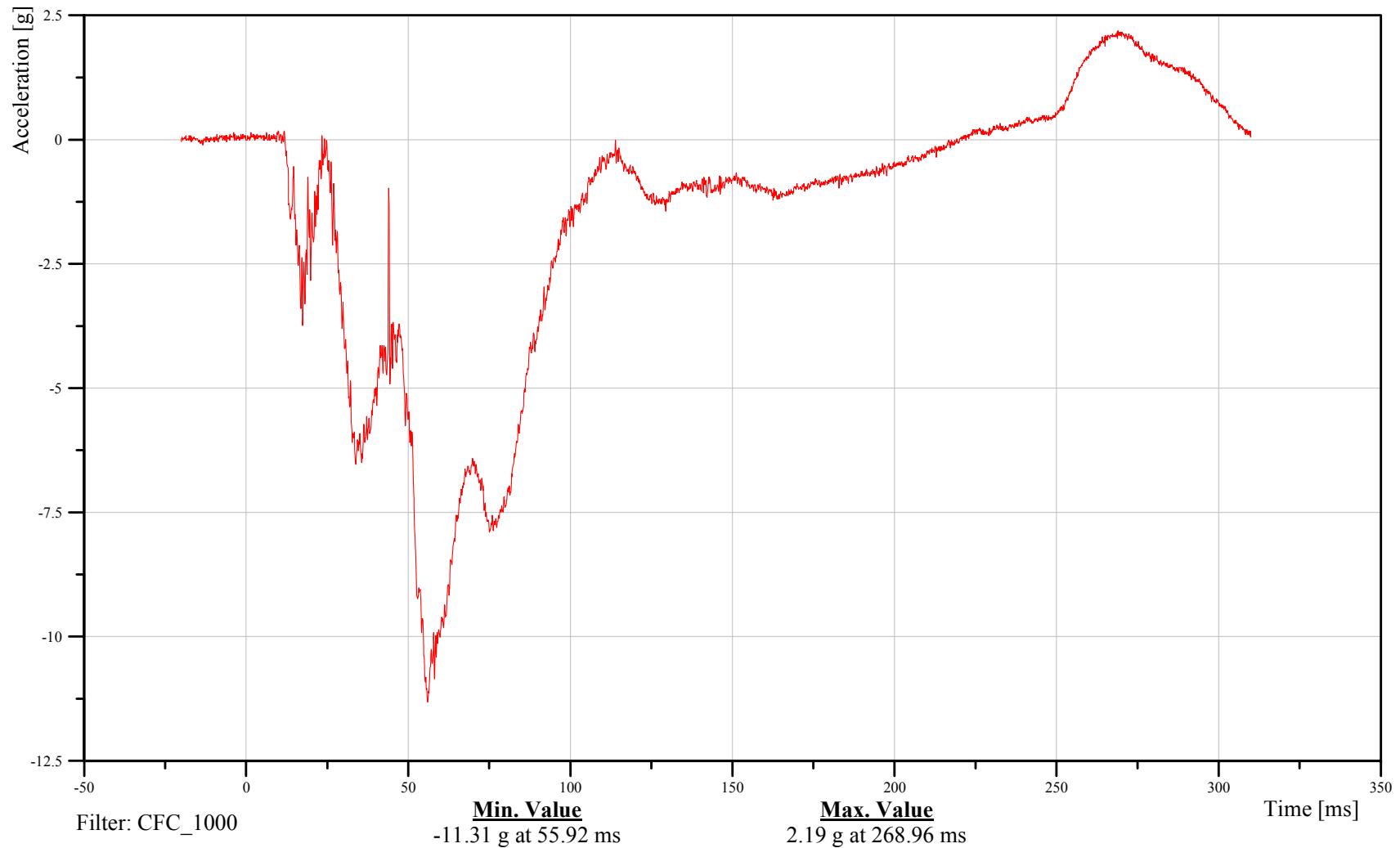
Head Accel X

Customer: VRTC

11HEADCG00S2ACXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

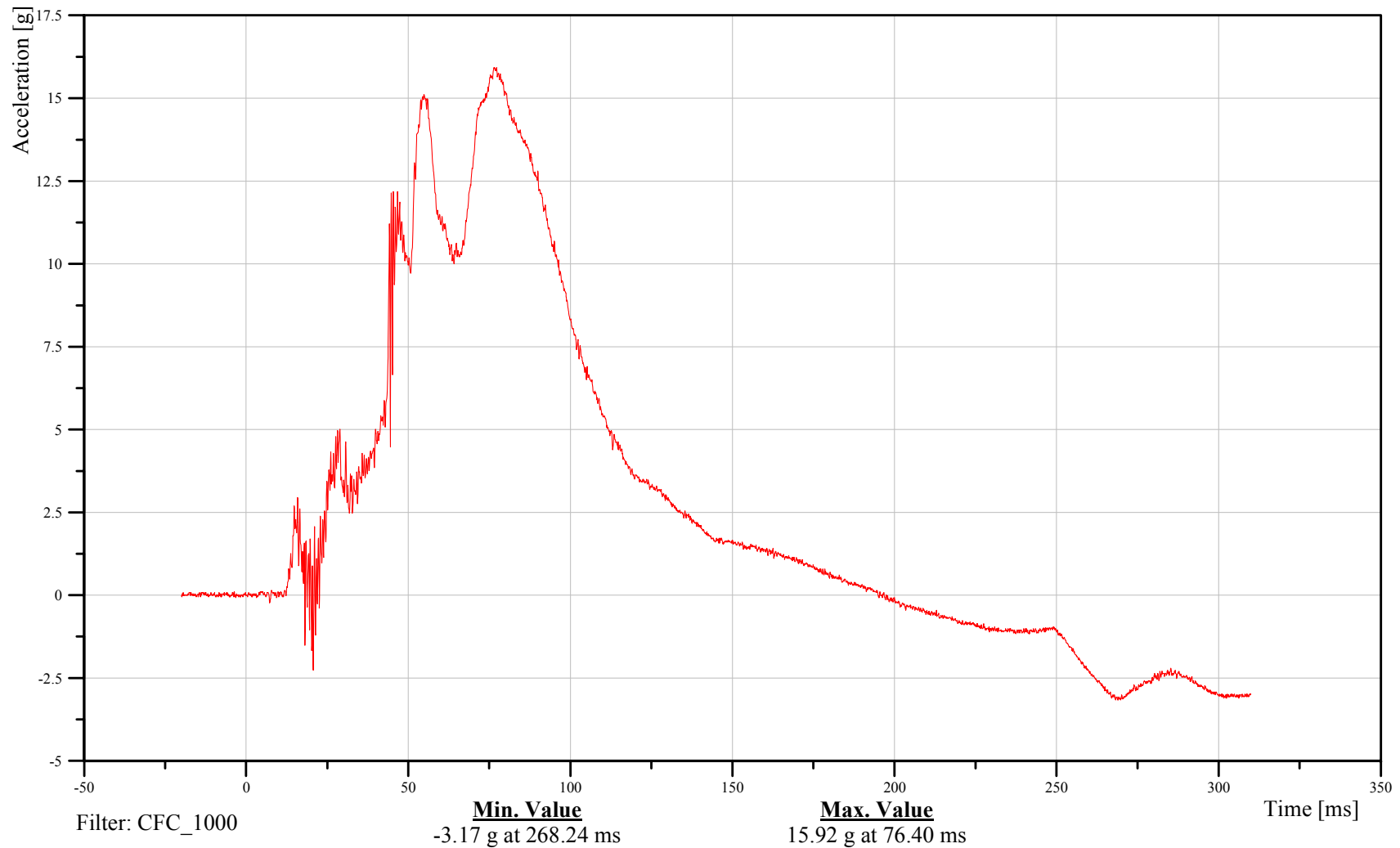
Head Accel Y

Customer: VRTC

11HEADCG00S2ACYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

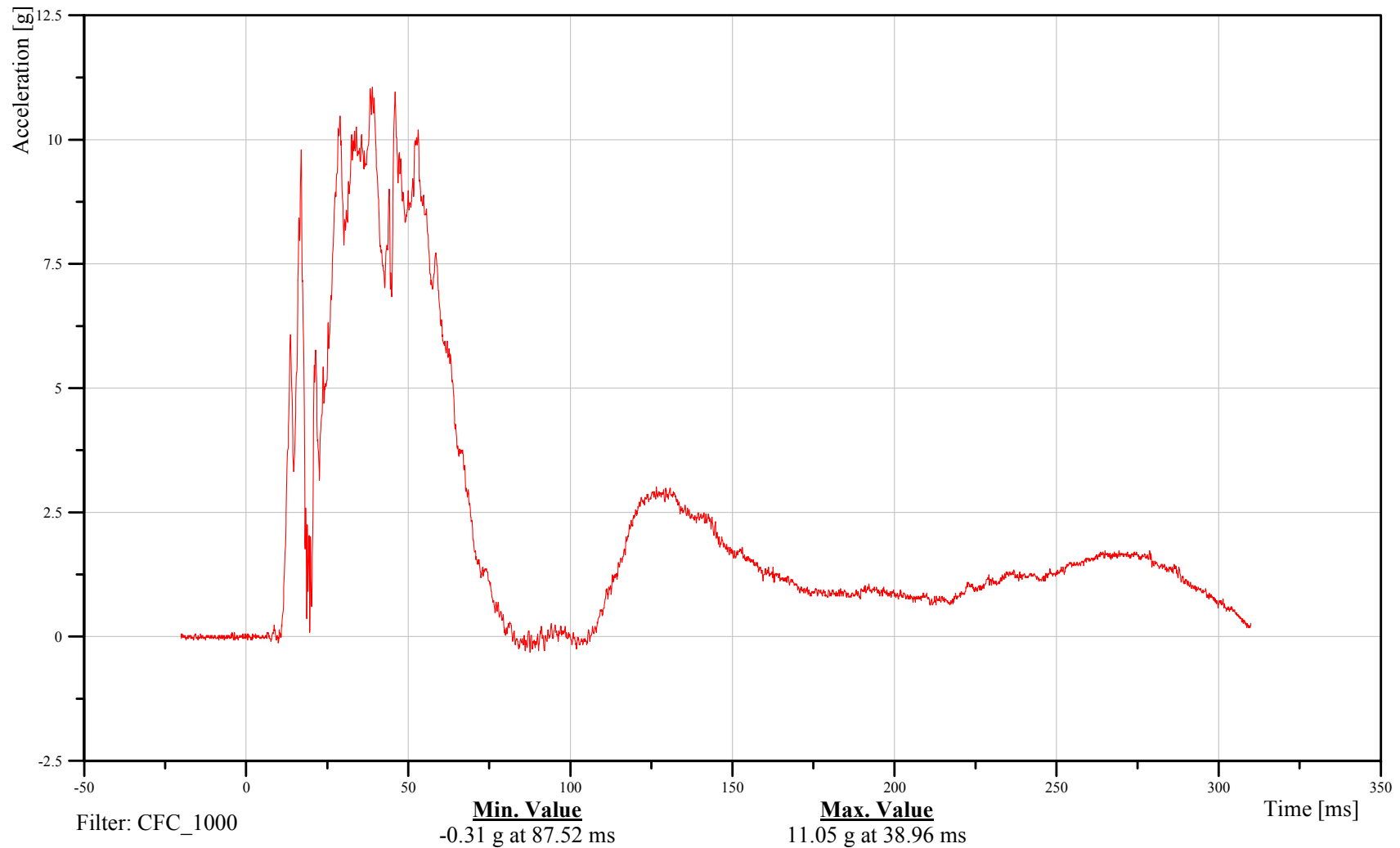
Head Accel Z

Customer: VRTC

11HEADCG00S2ACZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

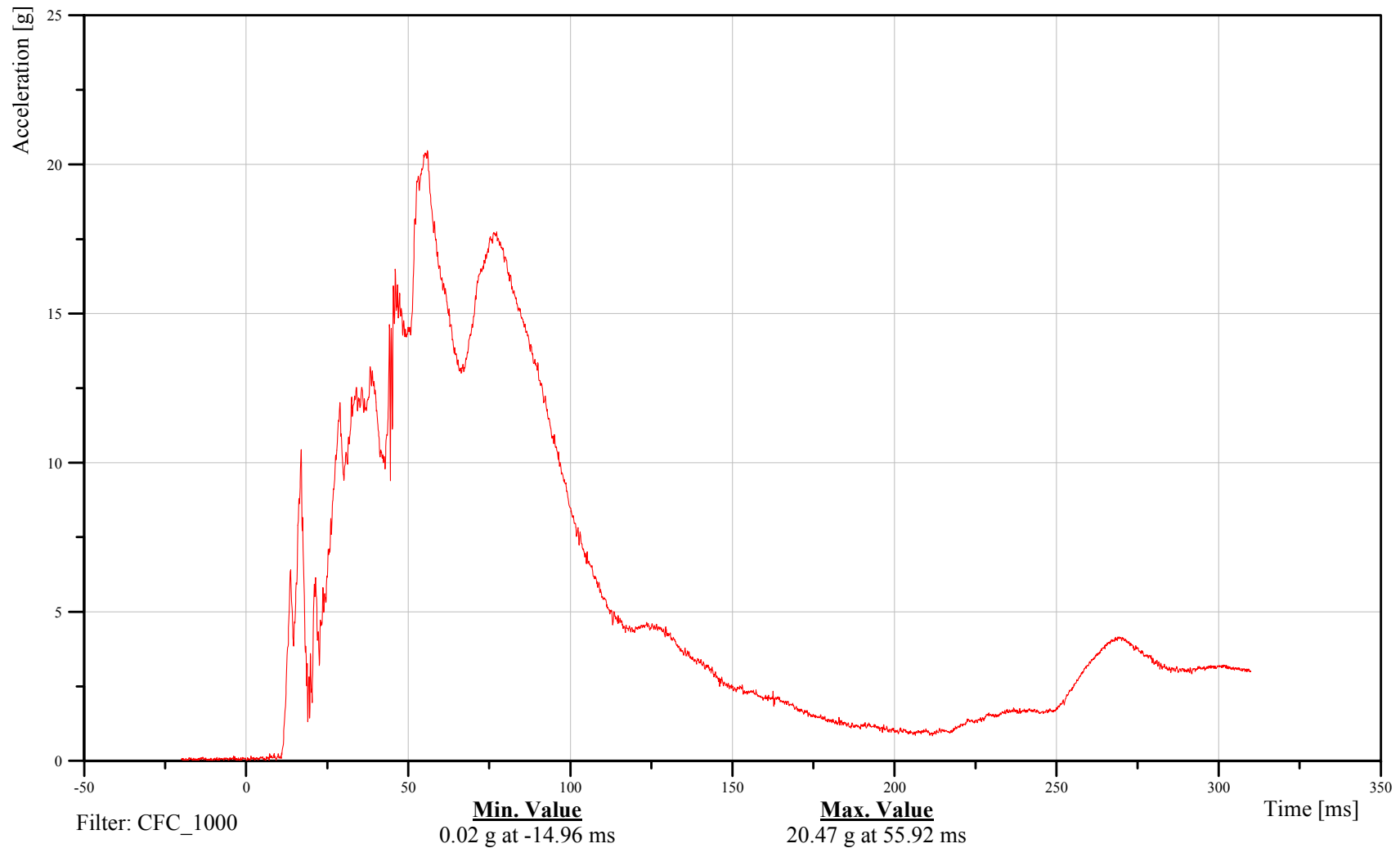
Head Accel Resultant

Customer: VRTC

11HEADCG00S2ACRA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

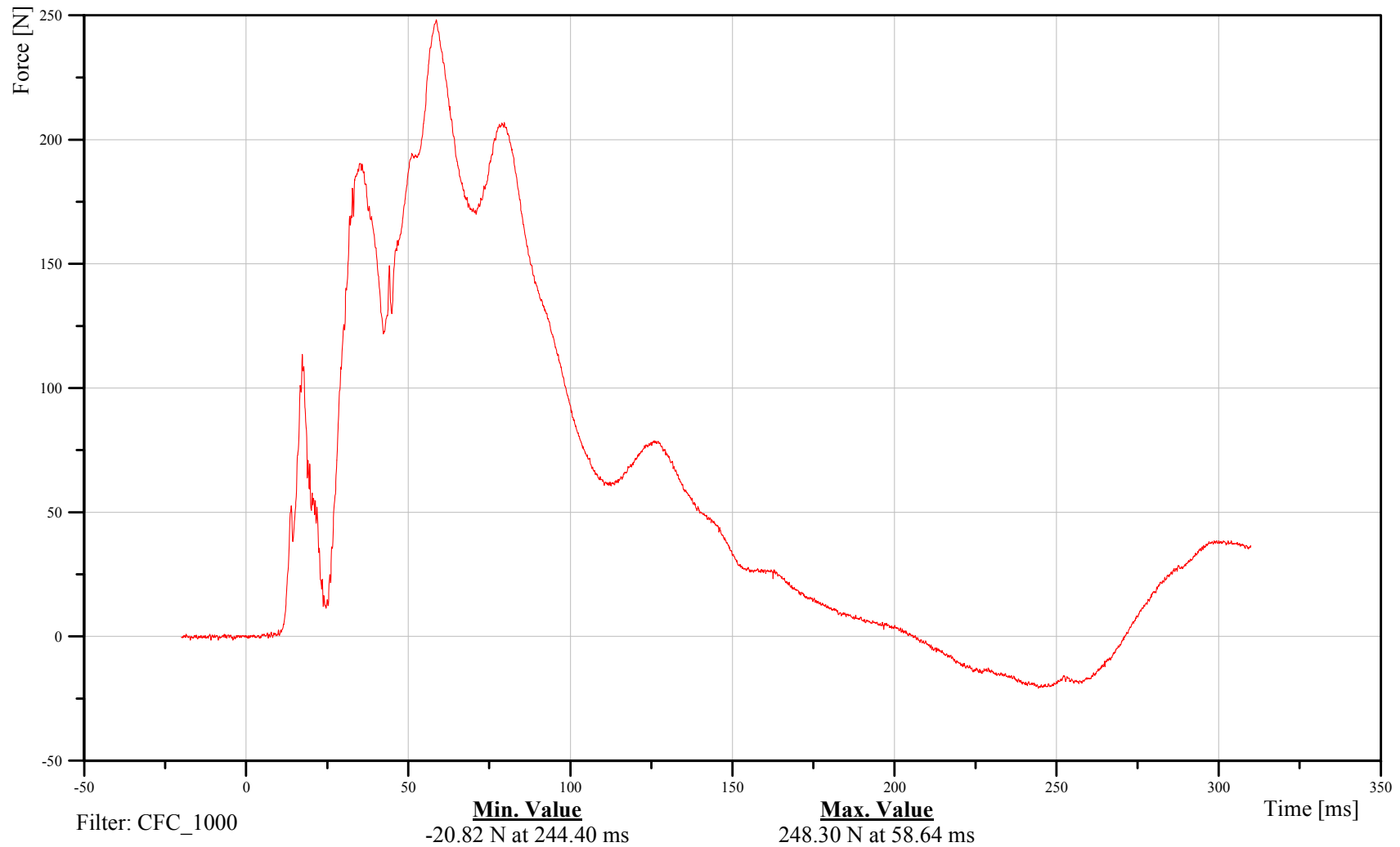
Neck Force X

Customer: VRTC

11NECKUP00S2FOXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

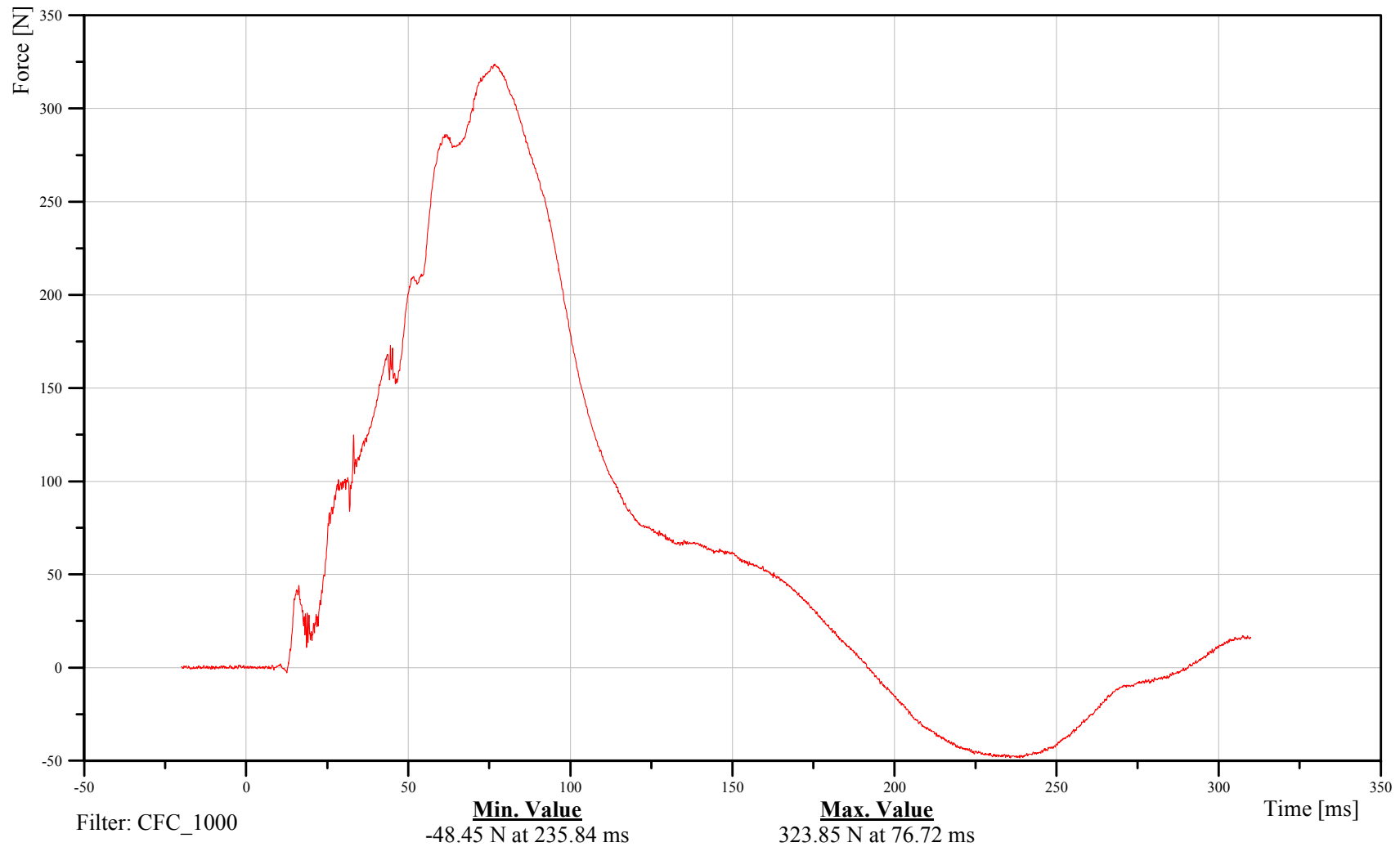
Neck Force Y

Customer: VRTC

11NECKUP00S2FOYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

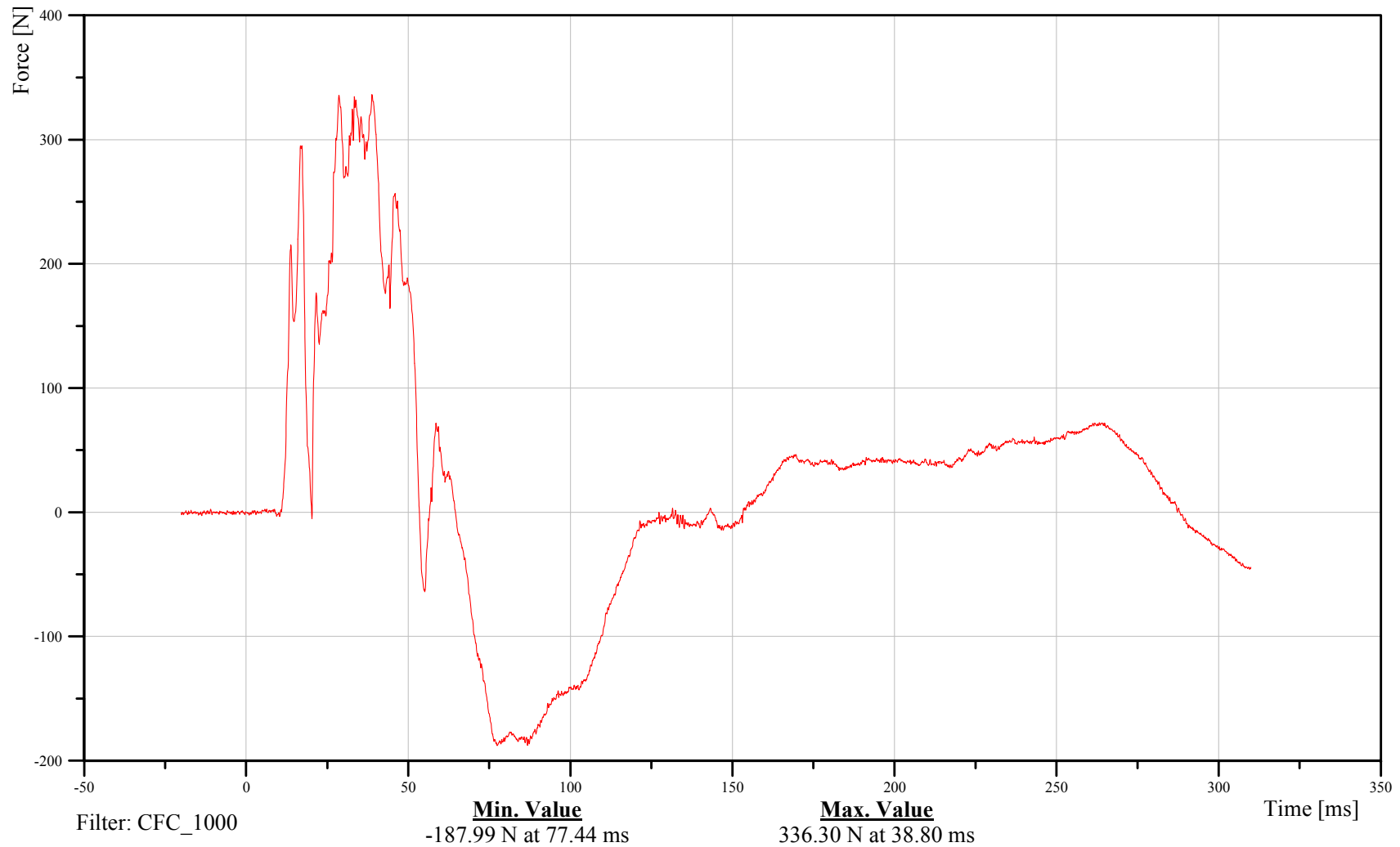
Neck Force Z

Customer: VRTC

11NECKUP00S2FOZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

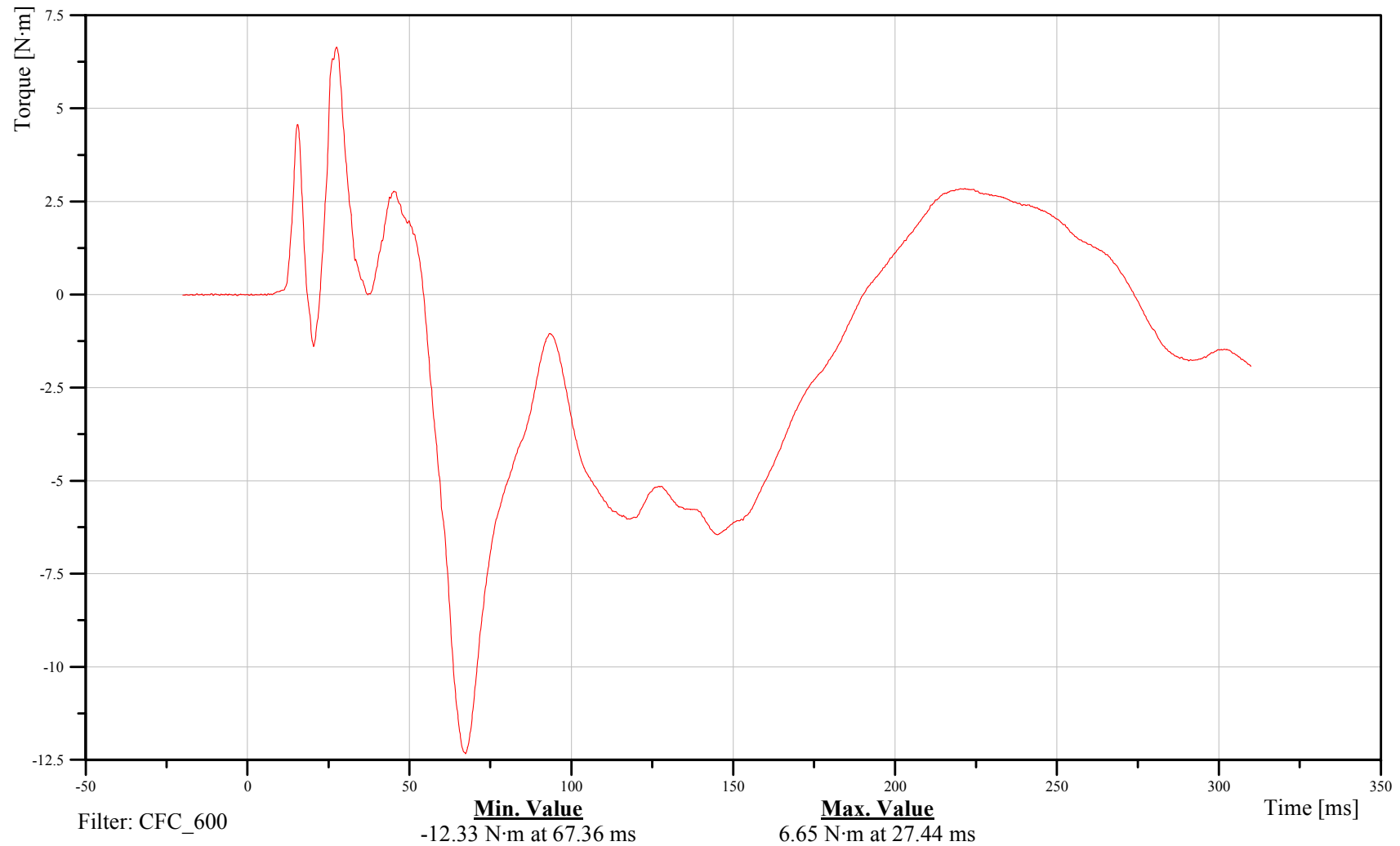
Neck Moment X

Customer: VRTC

11NECKUP00S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

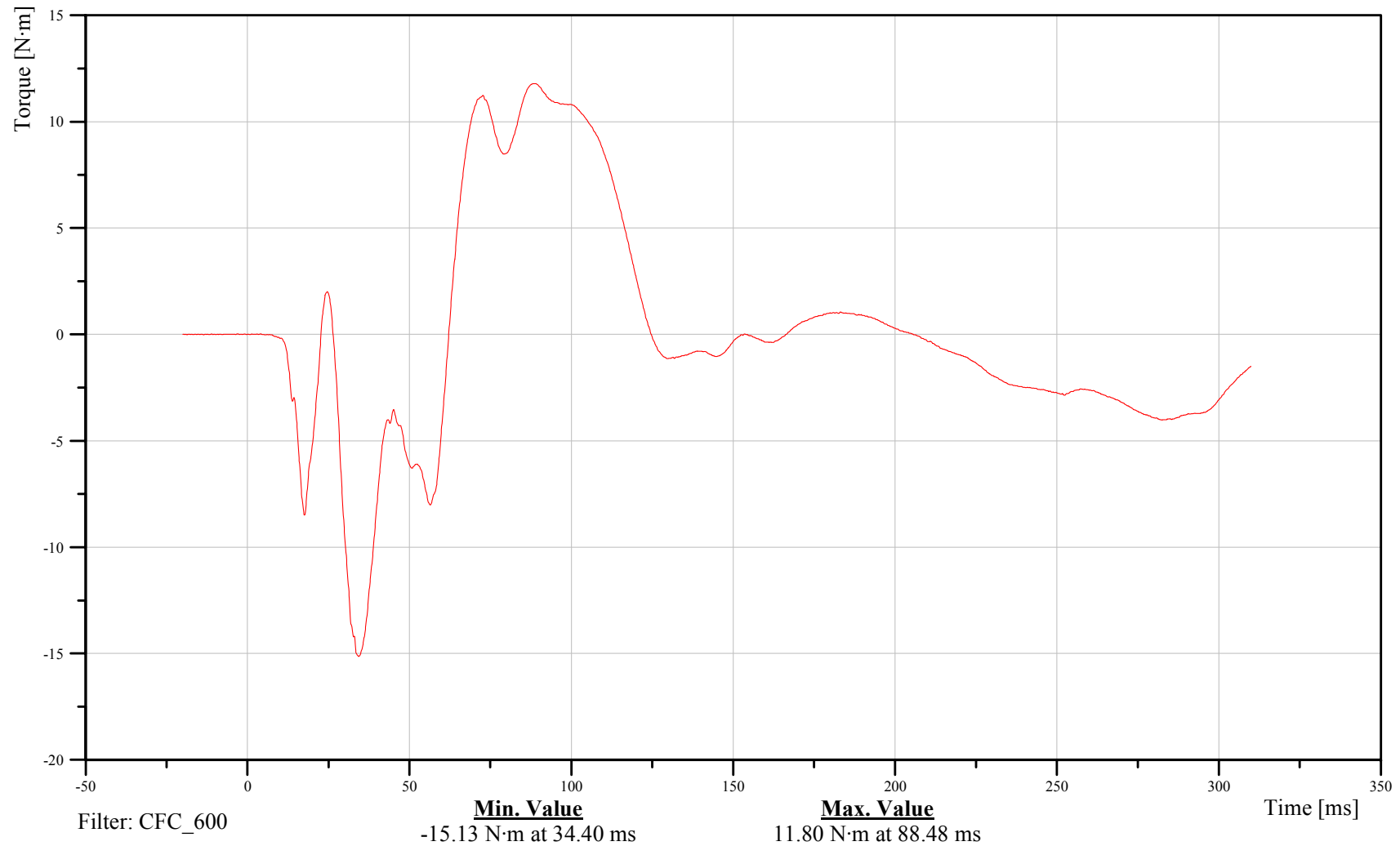
Neck Moment Y

Customer: VRTC

11NECKUP00S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

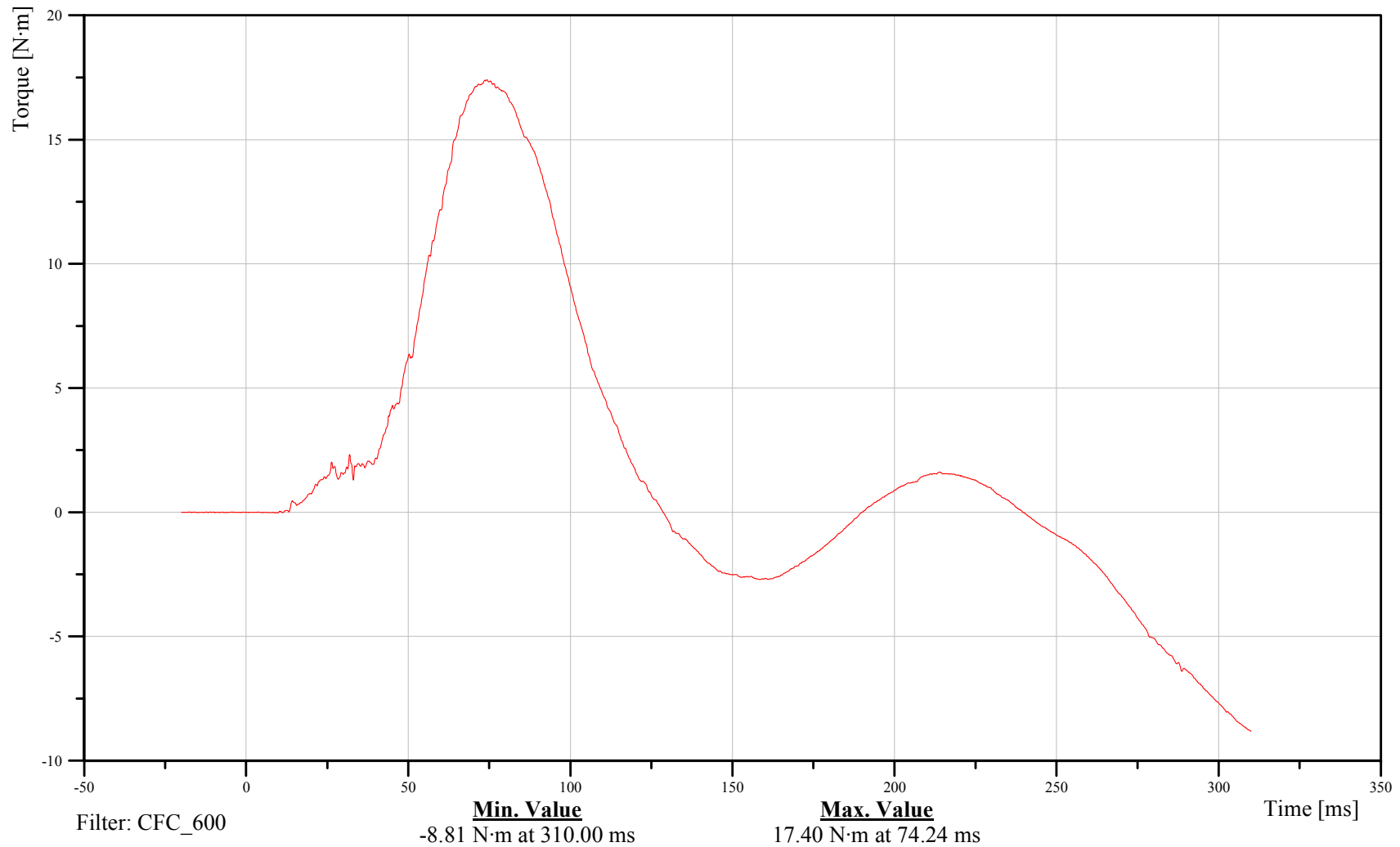
Neck Moment Z

Customer: VRTC

11NECKUP00S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

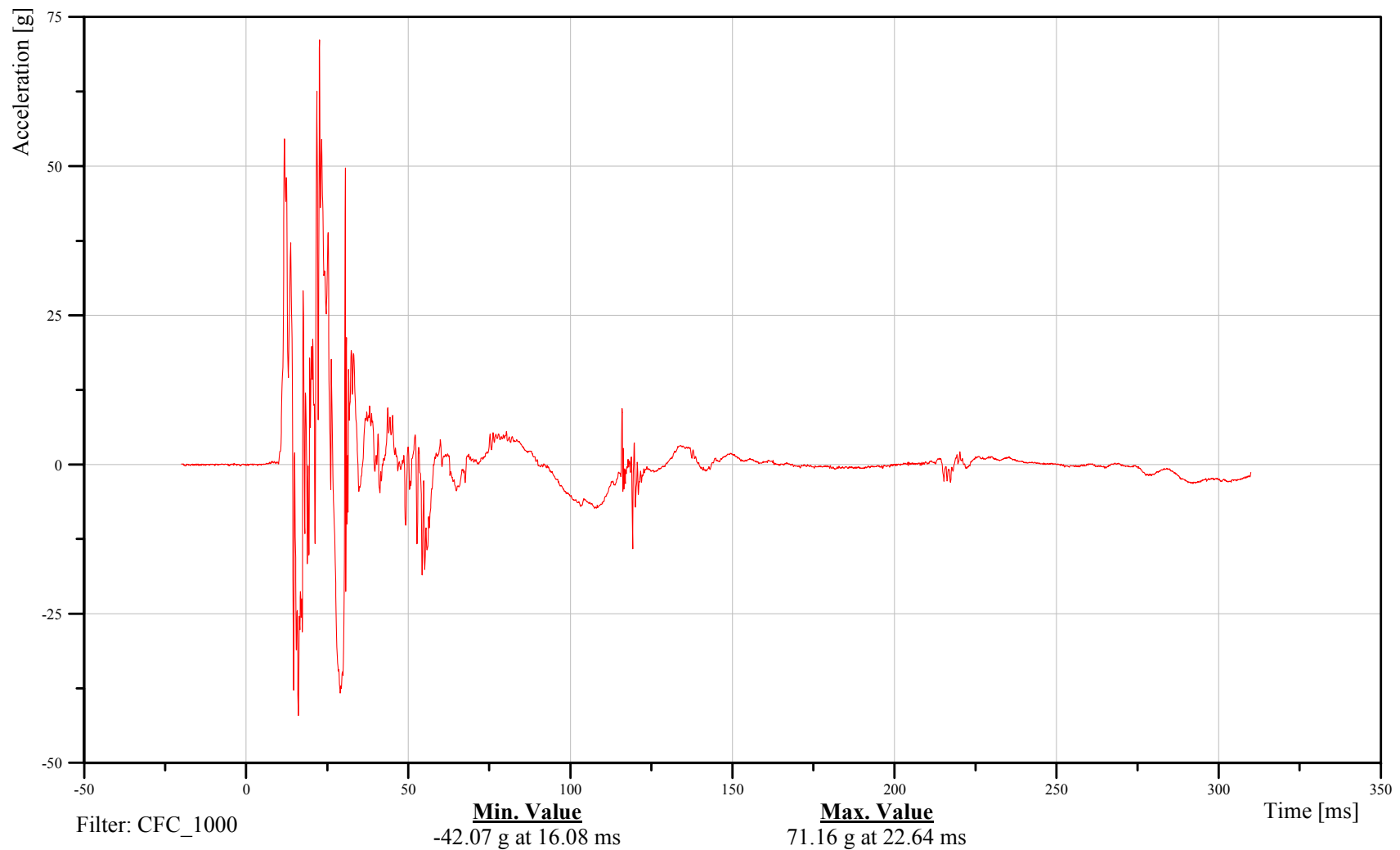
Shoulder Accel X

Customer: VRTC

11SHLDLE00S2ACXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

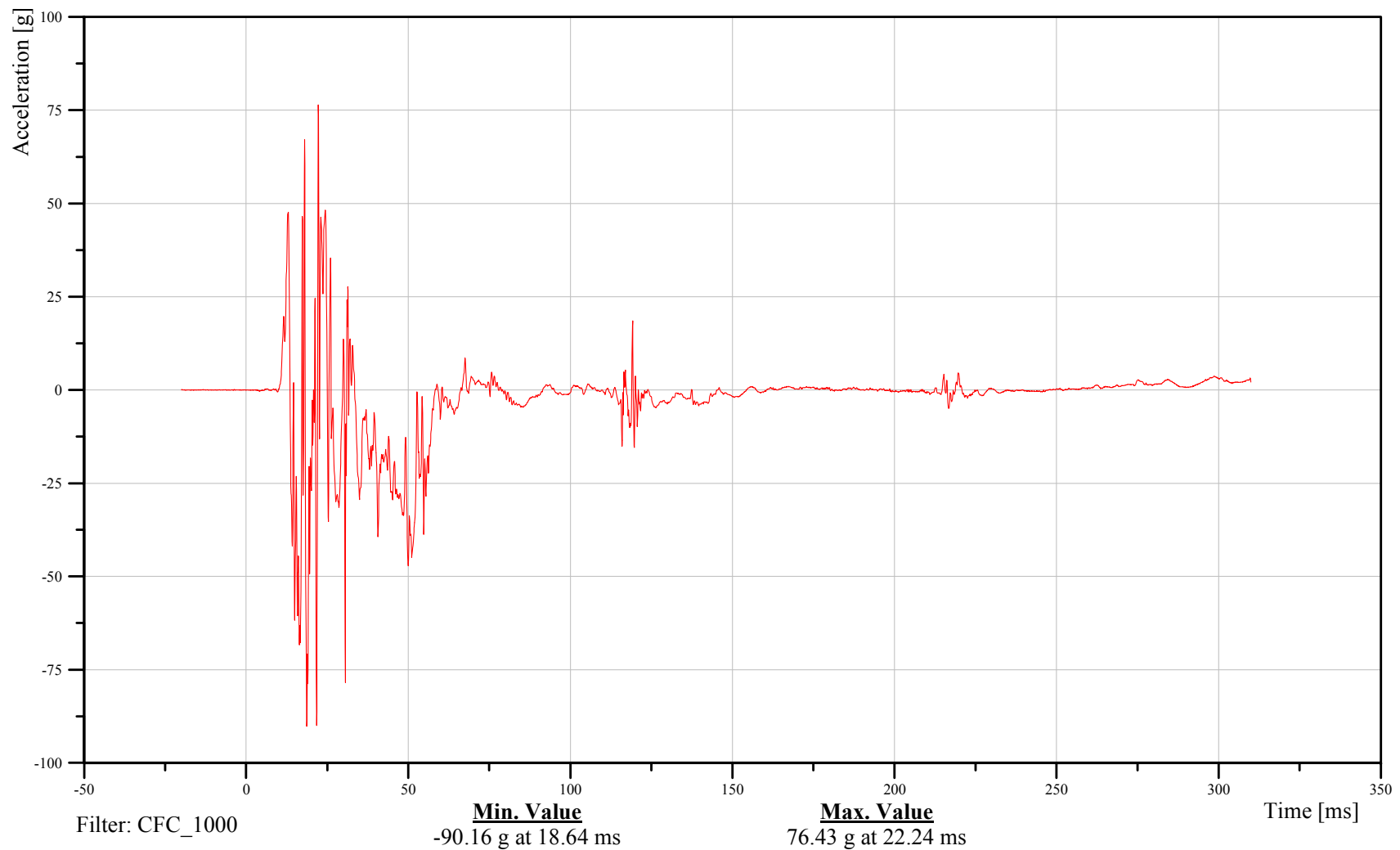
Shoulder Accel Y

Customer: VRTC

11SHLDLE00S2ACYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Shoulder Accel Z

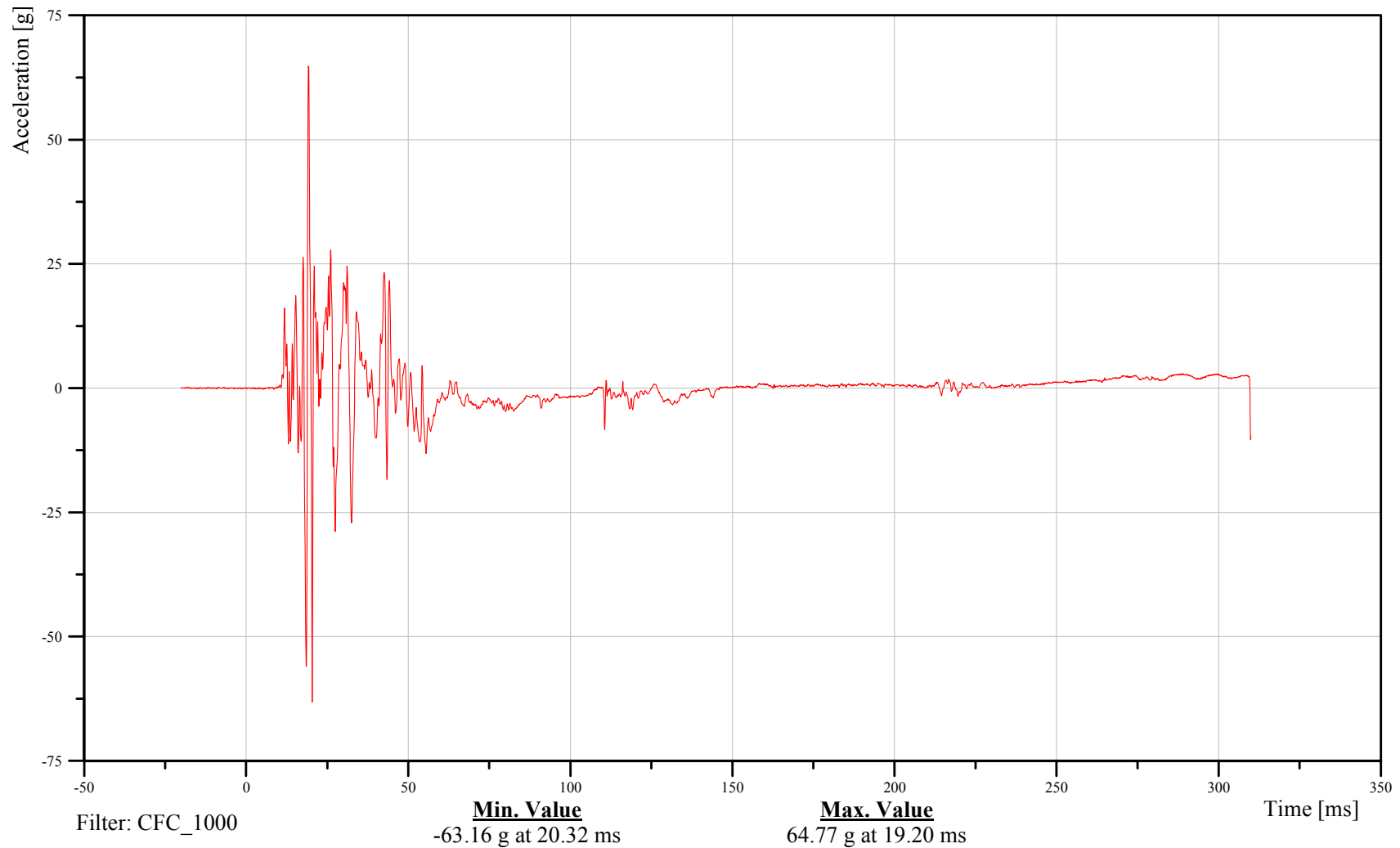
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11SHLDLE00S2ACZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

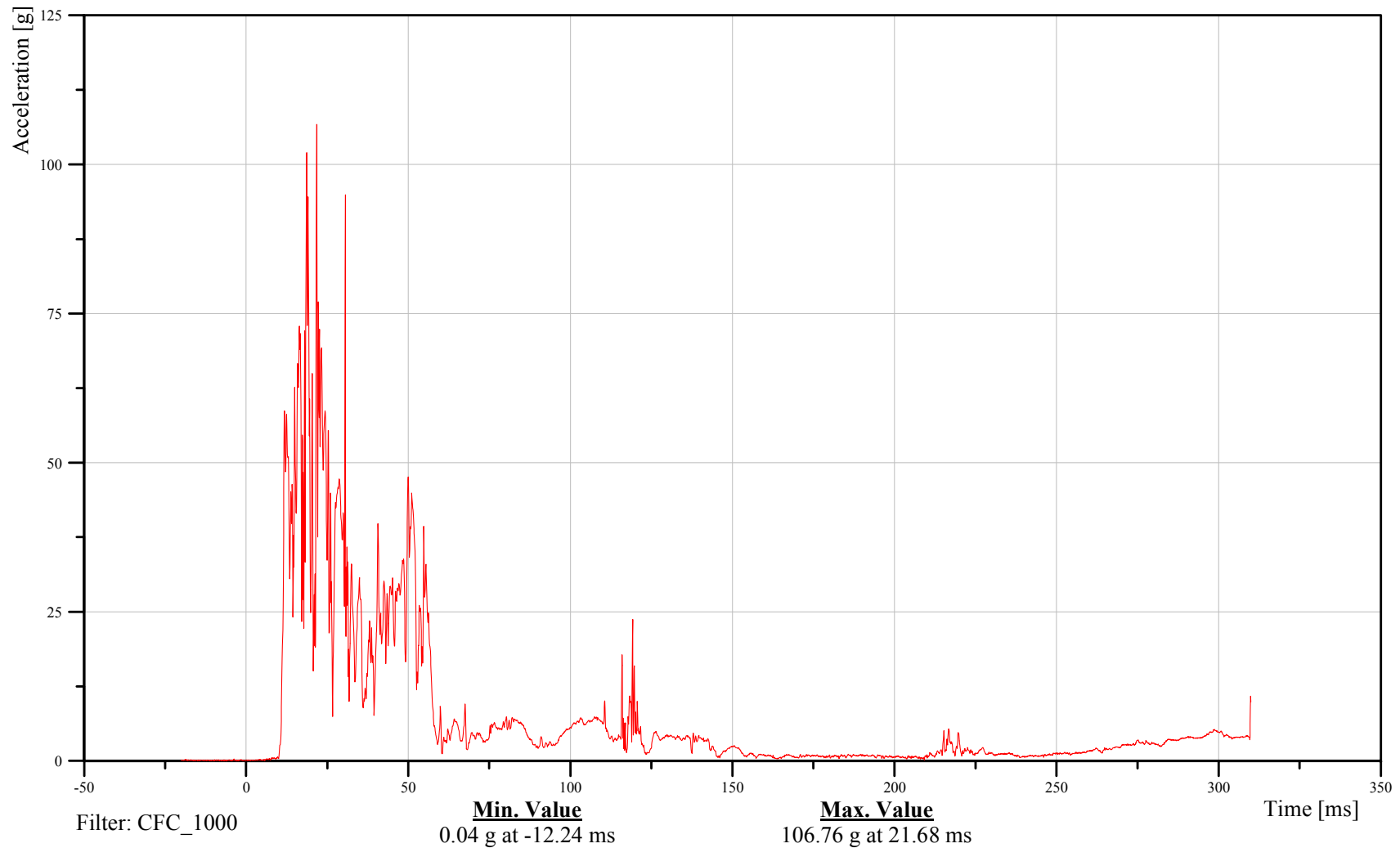
Shoulder Accel Resultant

Customer: VRTC

11SHLDLE00S2ACRA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

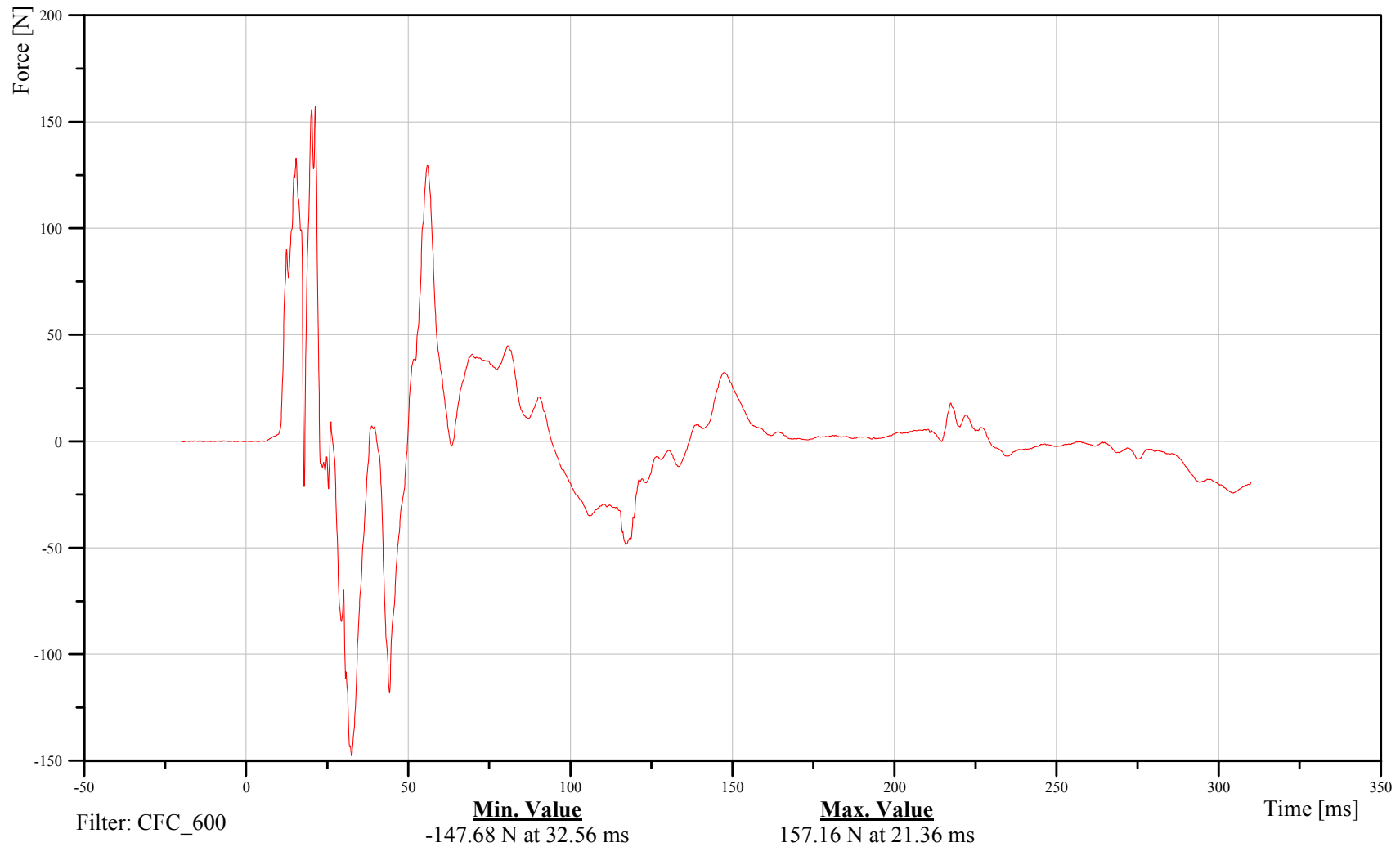
Shoulder Force X

Customer: VRTC

11SHLDLE00S2FOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

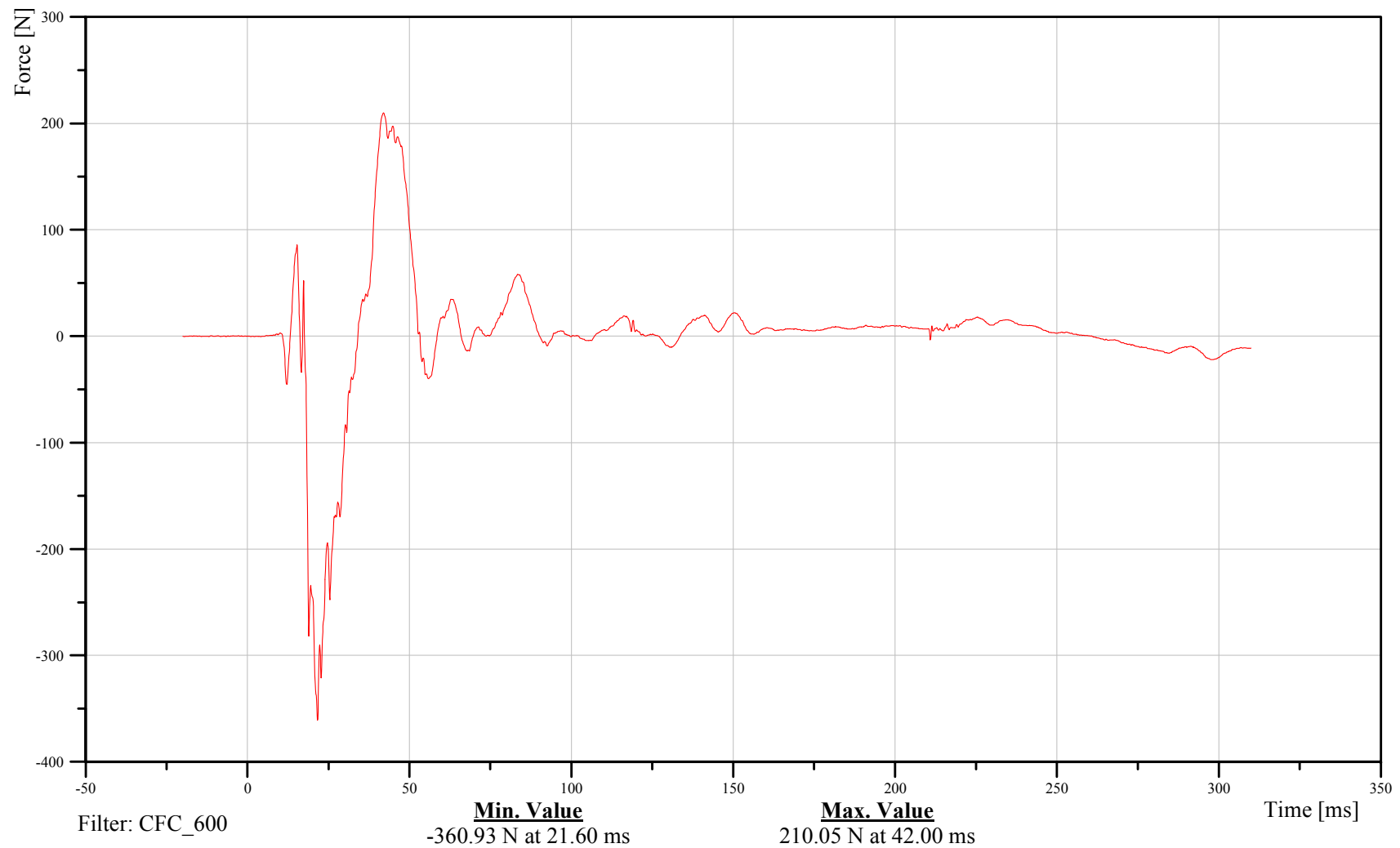
Shoulder Force Y

Customer: VRTC

11SHLDLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

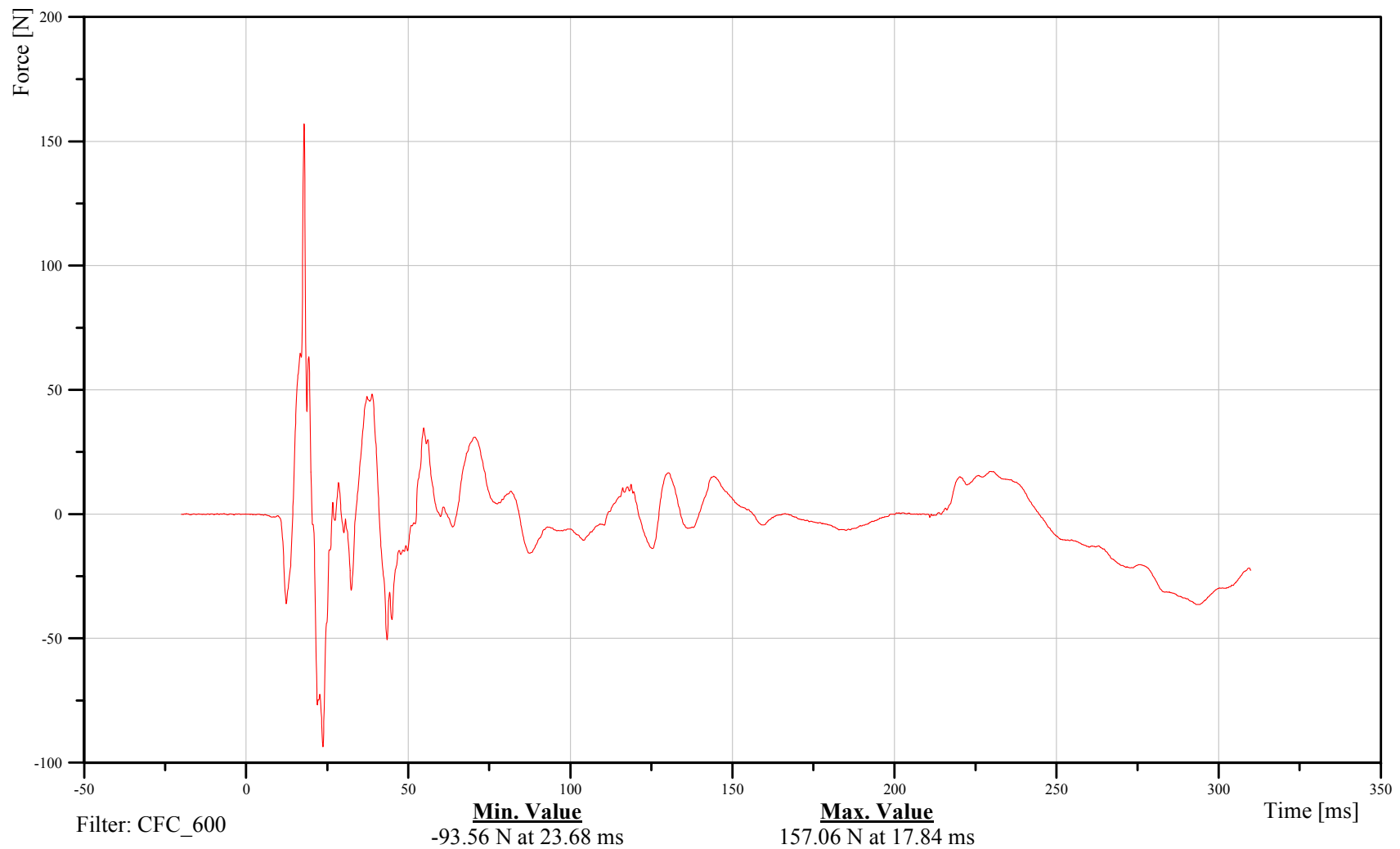
Shoulder Force Z

Customer: VRTC

11SHLDLE00S2FOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

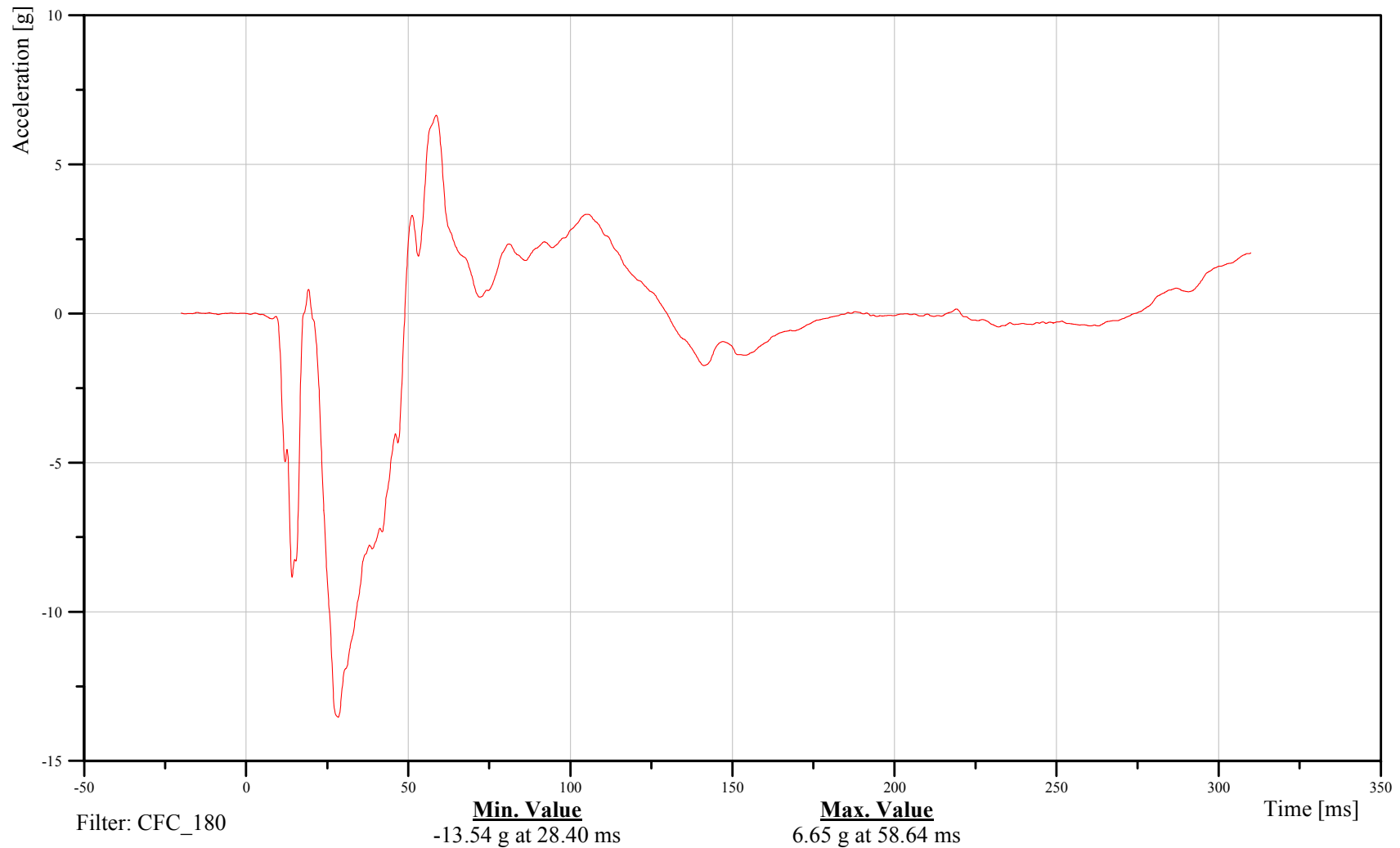
Upper Spine Accel X

Customer: VRTC

11SPIN0100S2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

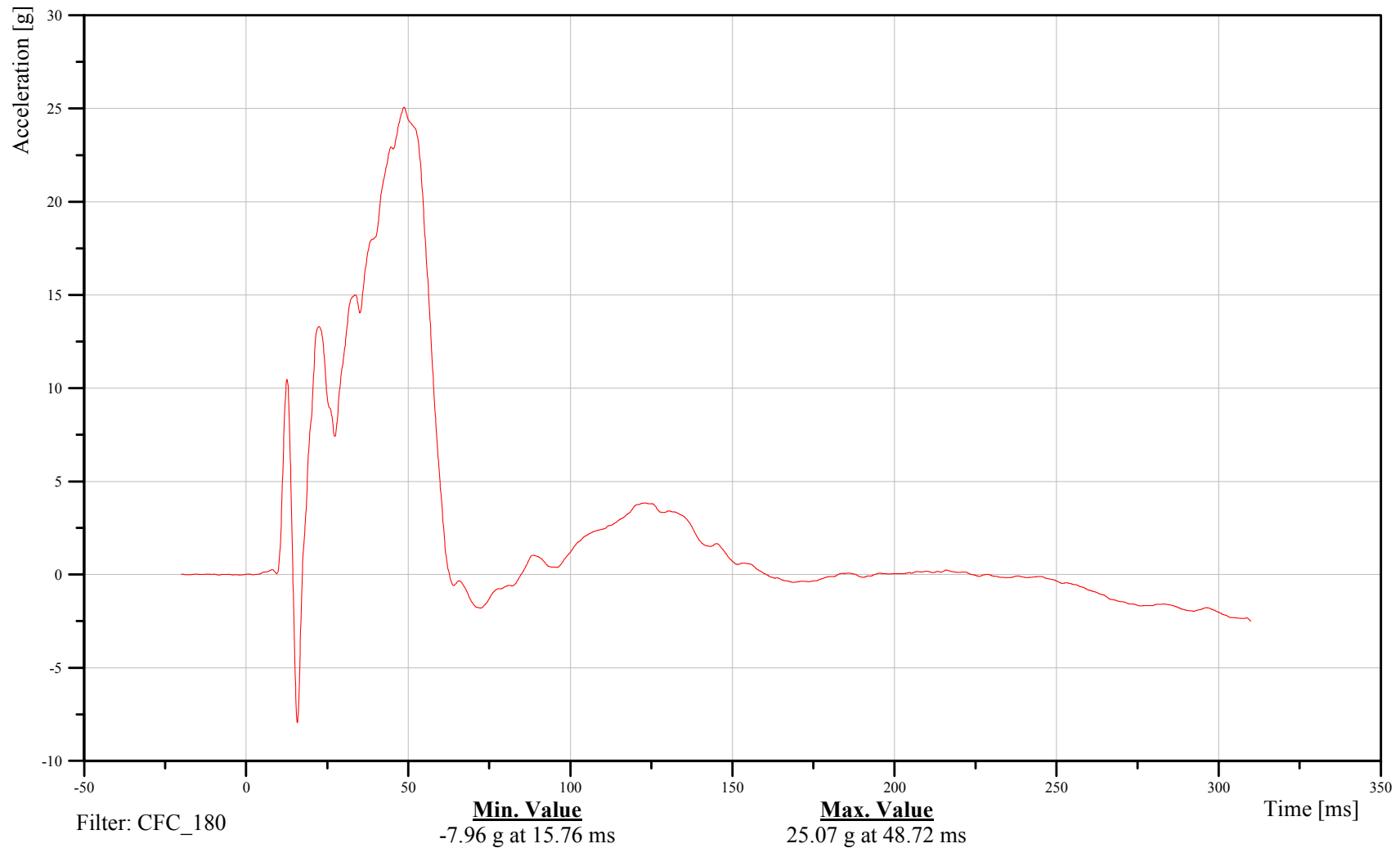
Upper Spine Accel Y

Customer: VRTC

11SPIN0100S2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

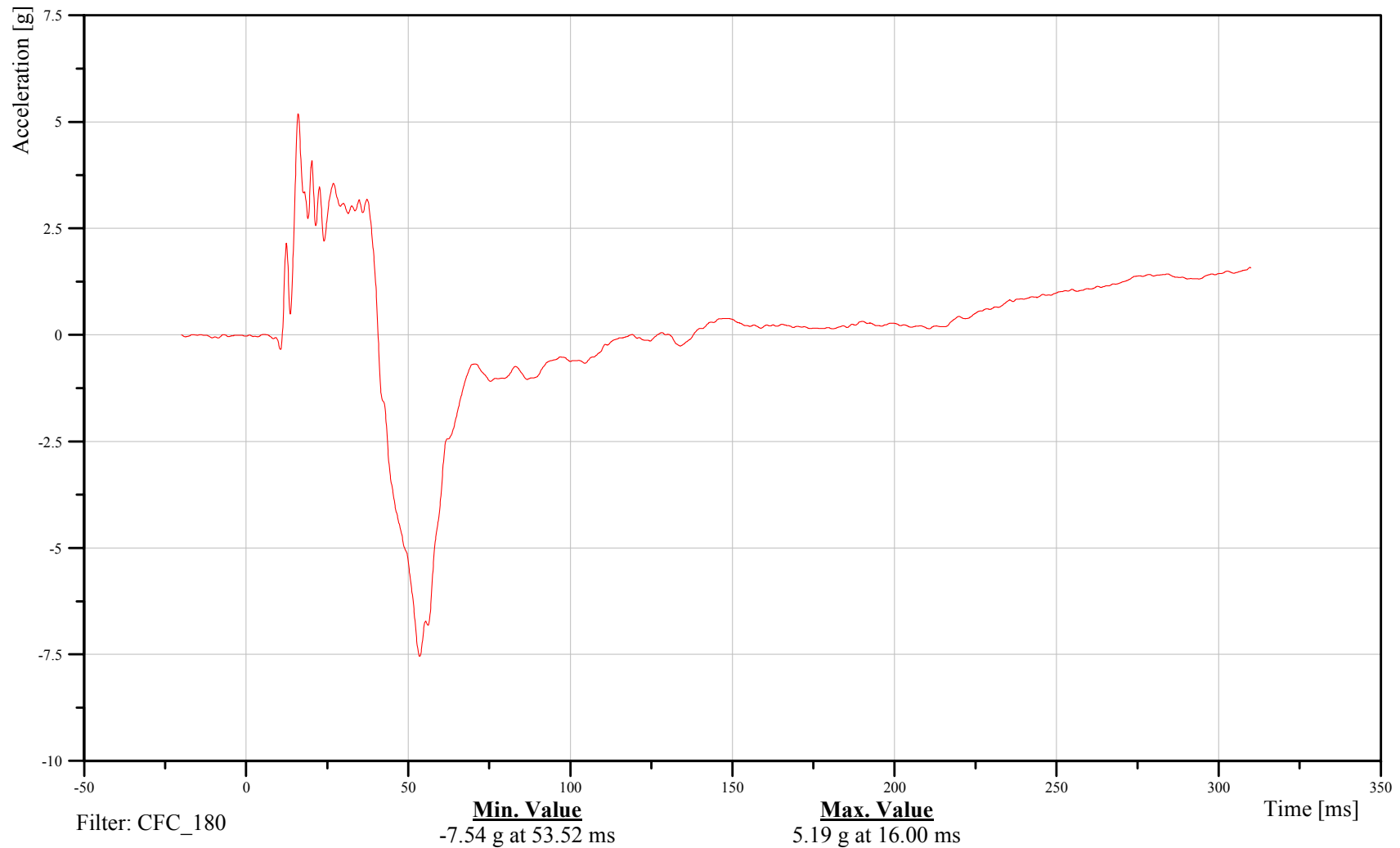
Upper Spine Accel Z

Customer: VRTC

11SPIN0100S2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

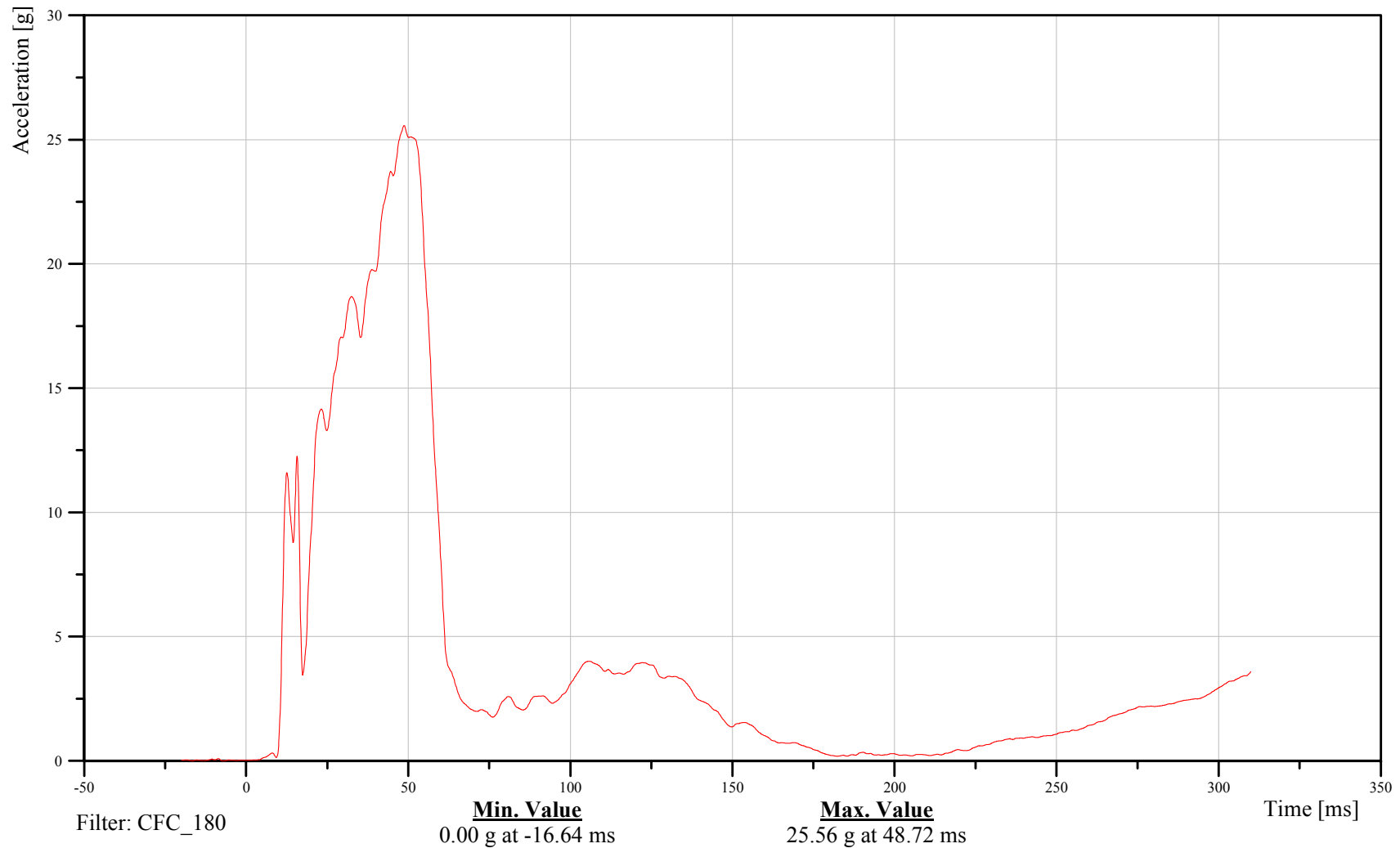
Upper Spine Resultant

Customer: VRTC

11SPIN0100S2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 1 Accel X

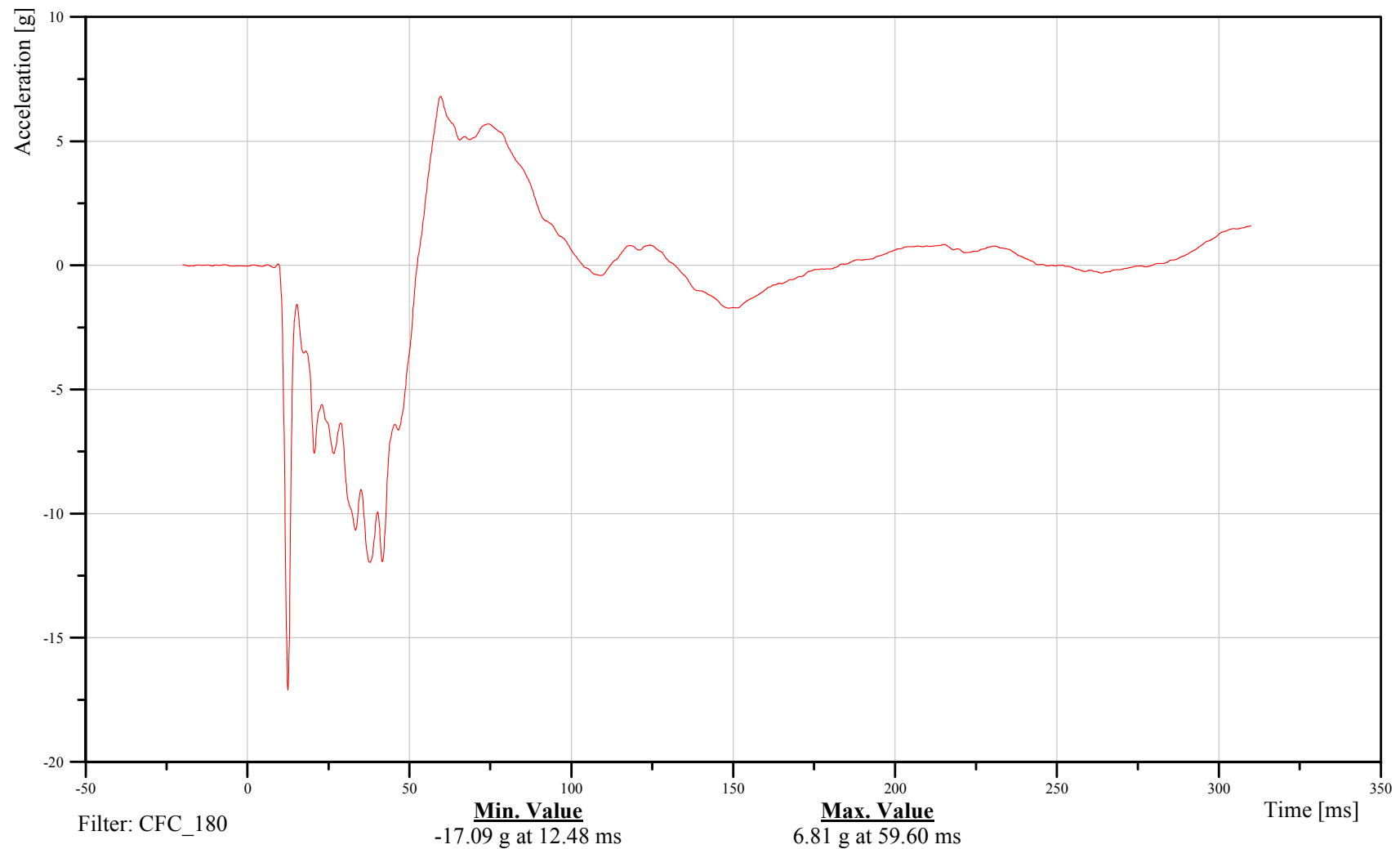
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP01RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

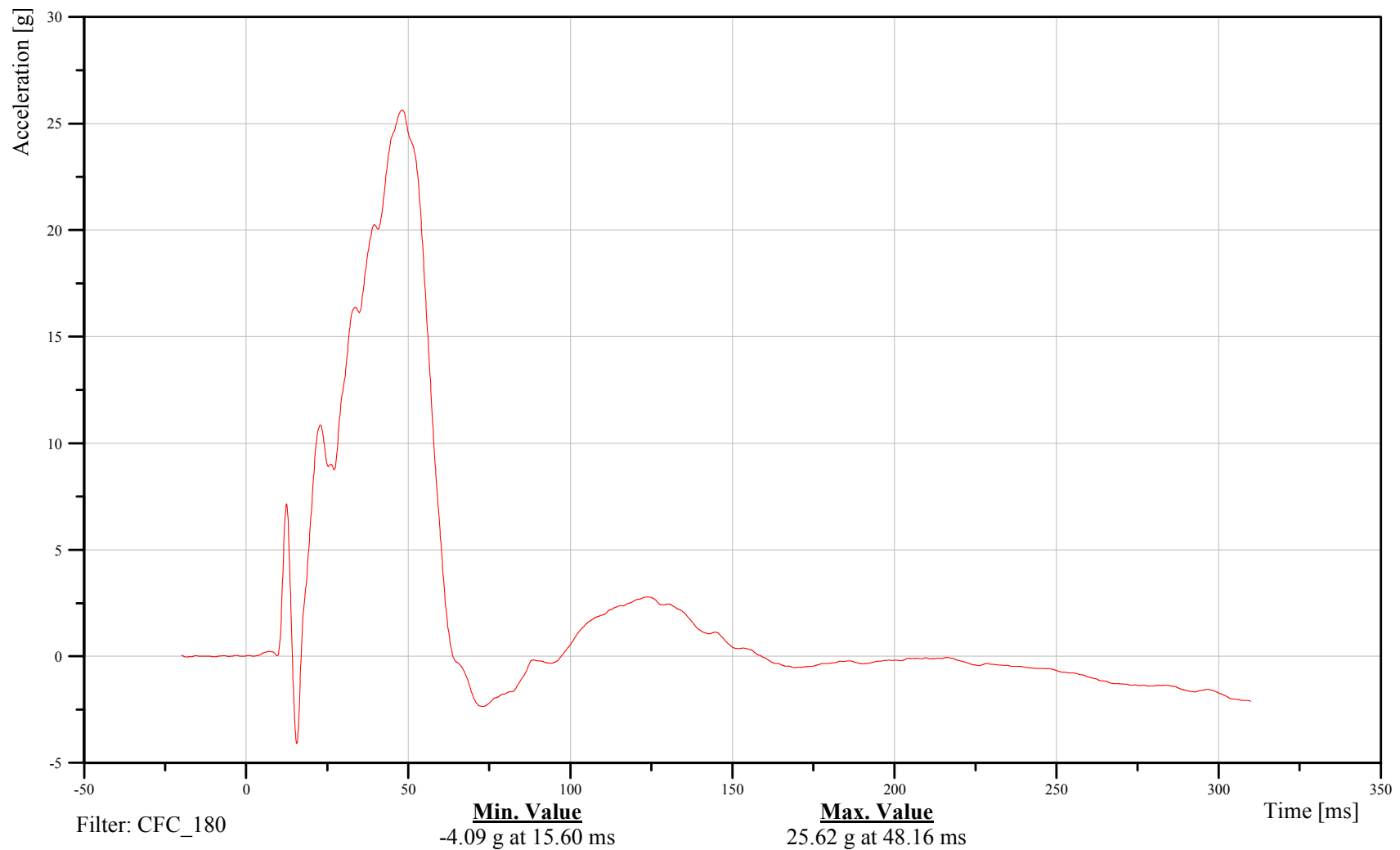
Spine Rib 1 Accel Y

Customer: VRTC

11THSP01RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

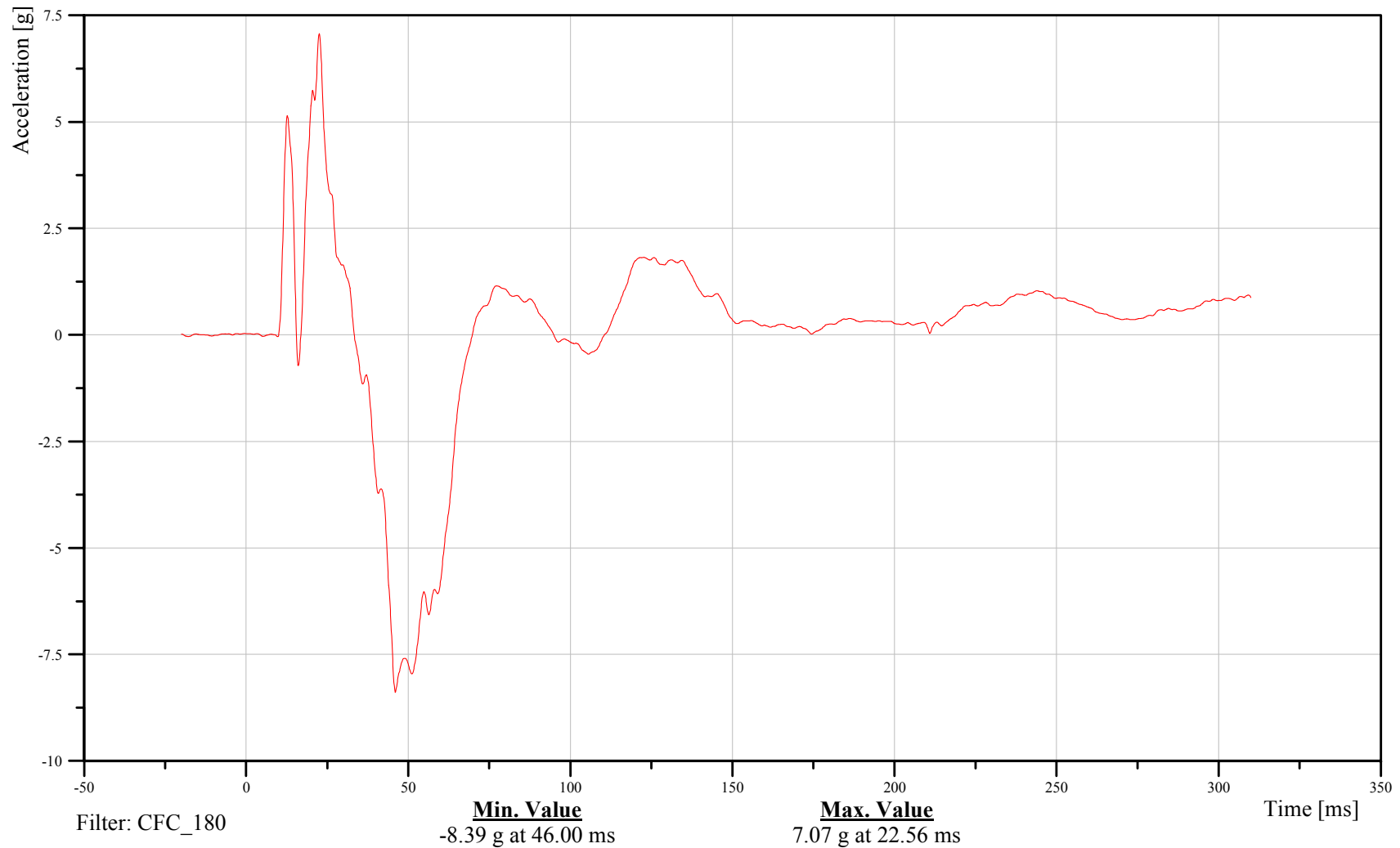
Spine Rib 1 Accel Z

Customer: VRTC

11THSP01RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 1 Accel Resultant

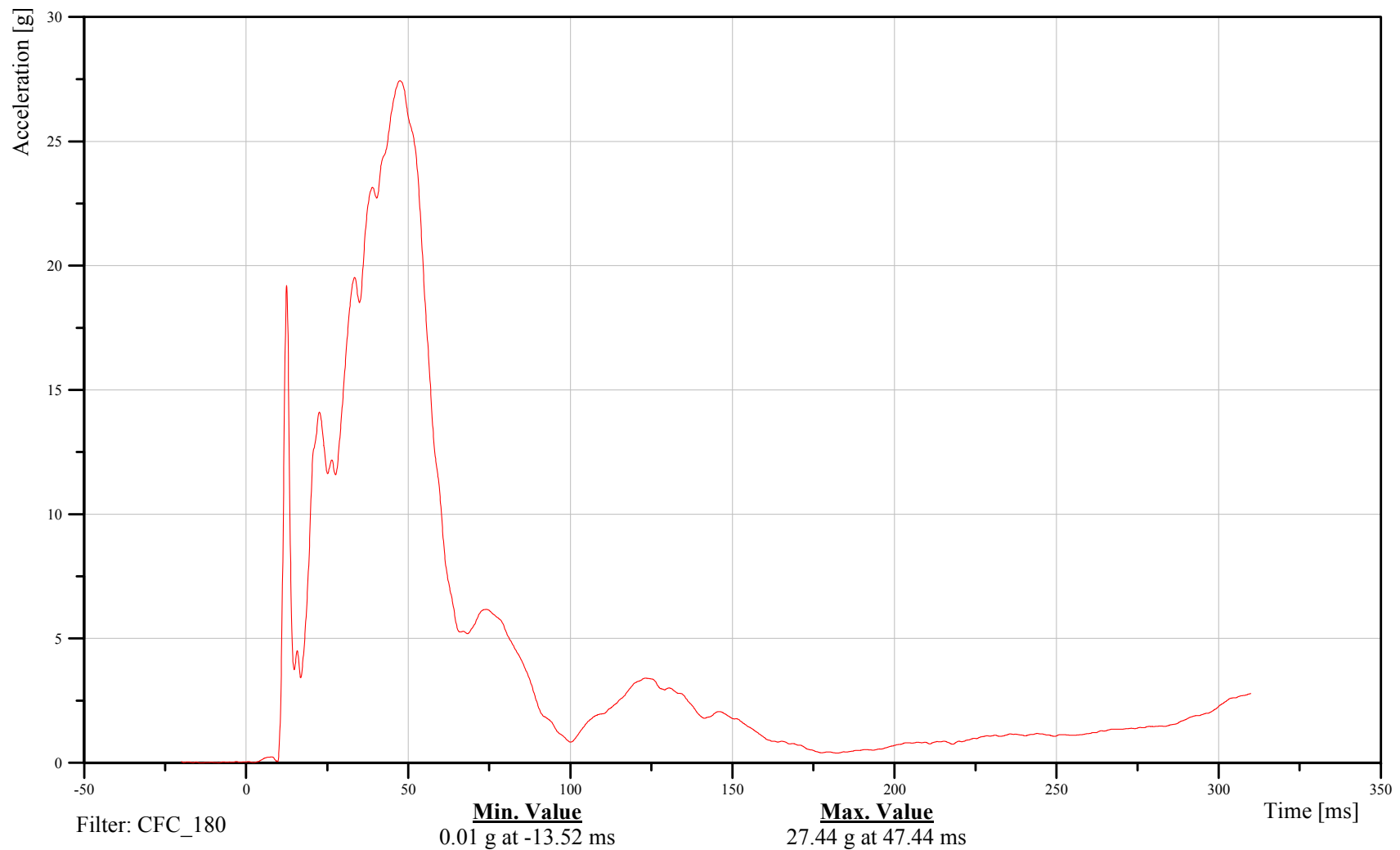
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP01RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 2 Accel X

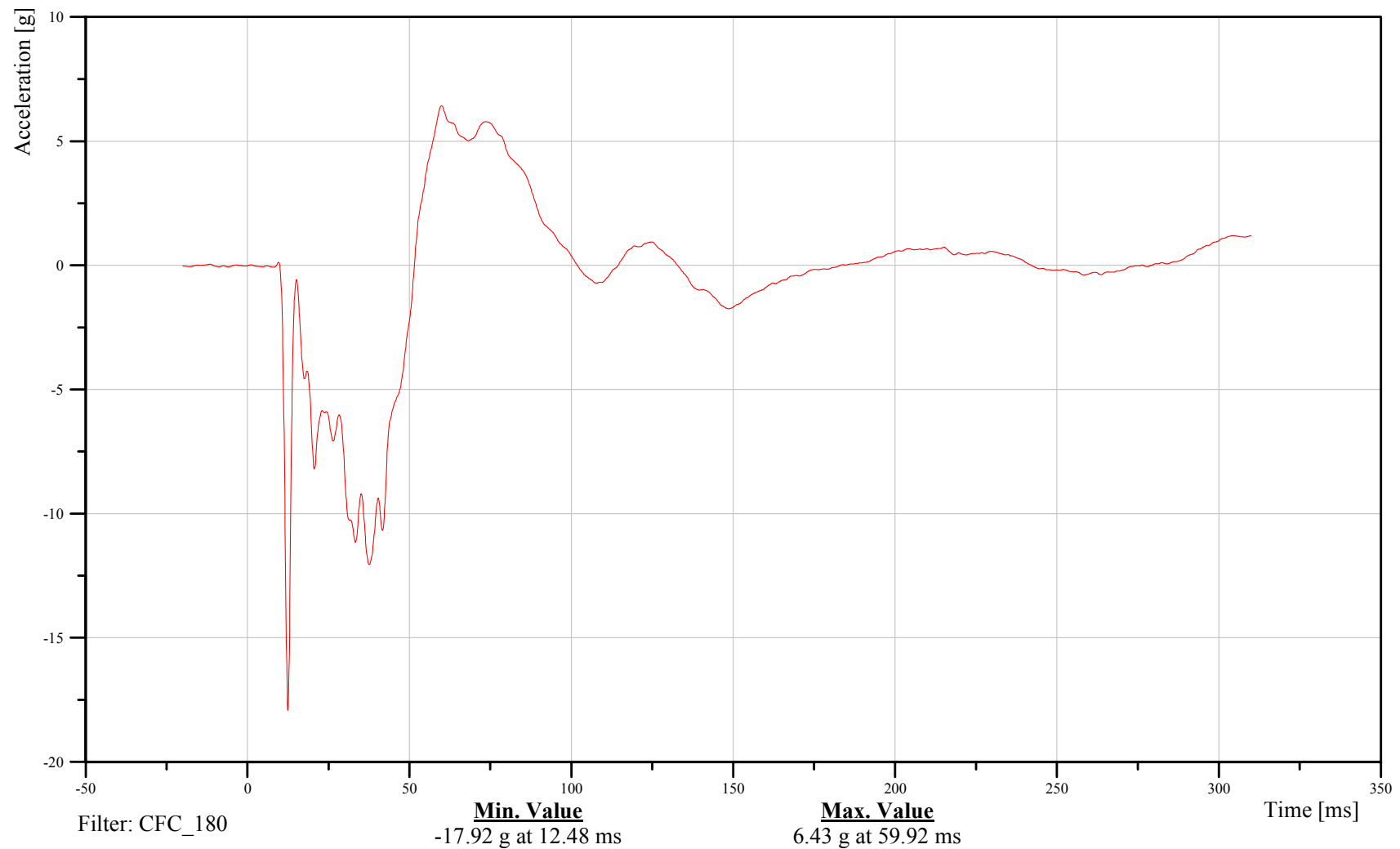
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP02RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 2 Accel Y

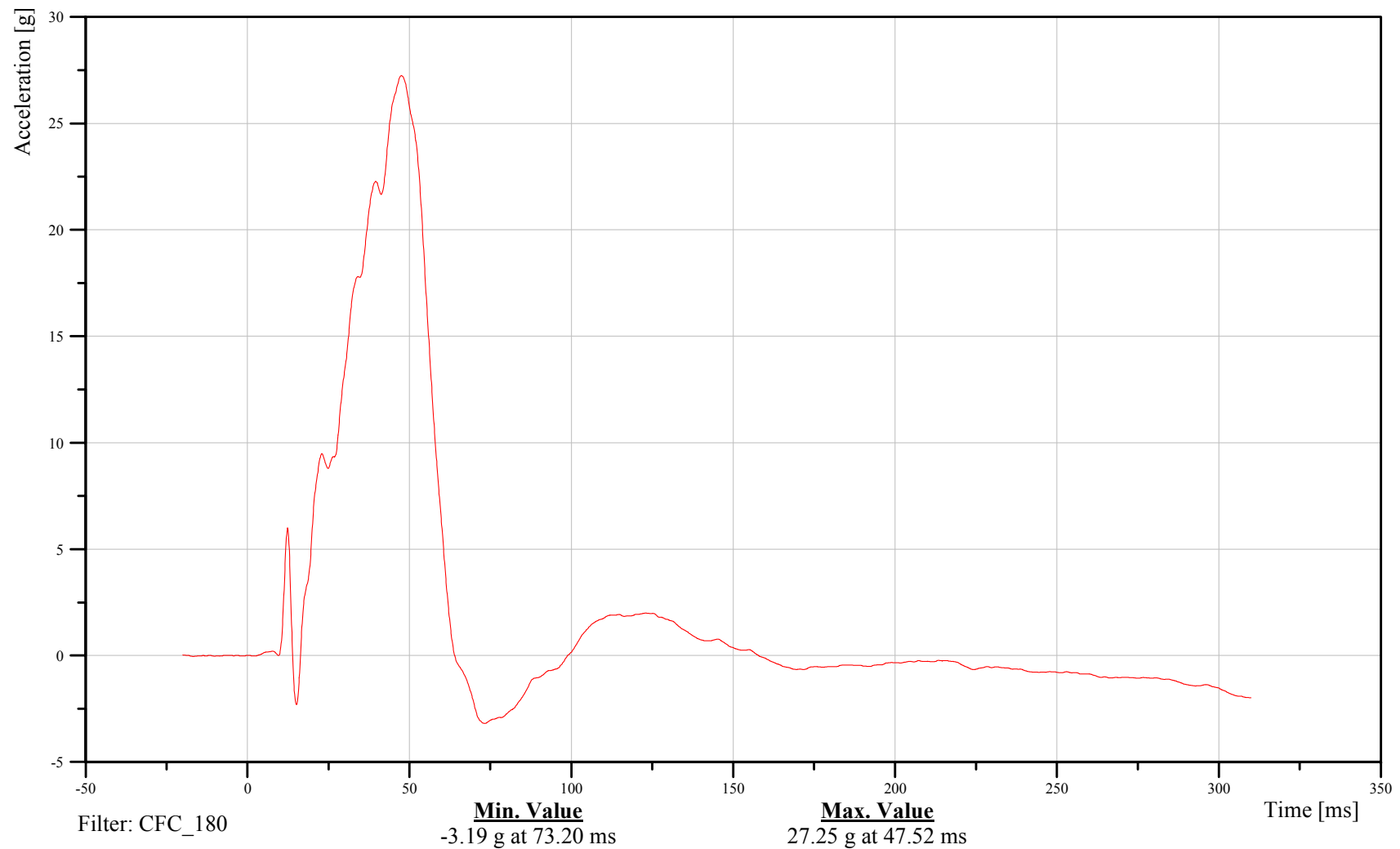
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP02RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

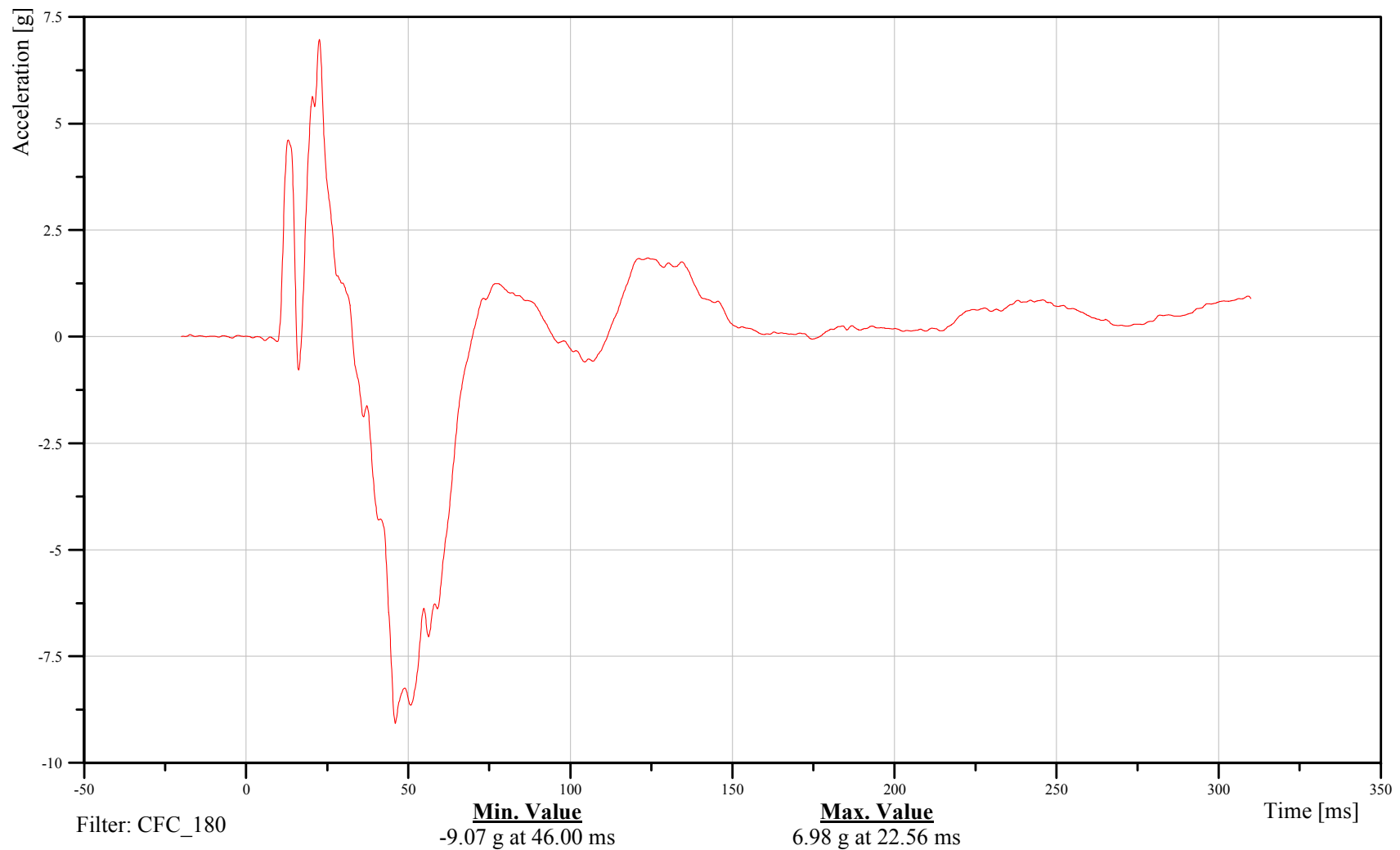
Spine Rib 2 Accel Z

Customer: VRTC

11THSP02RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 2 Accel Resultant

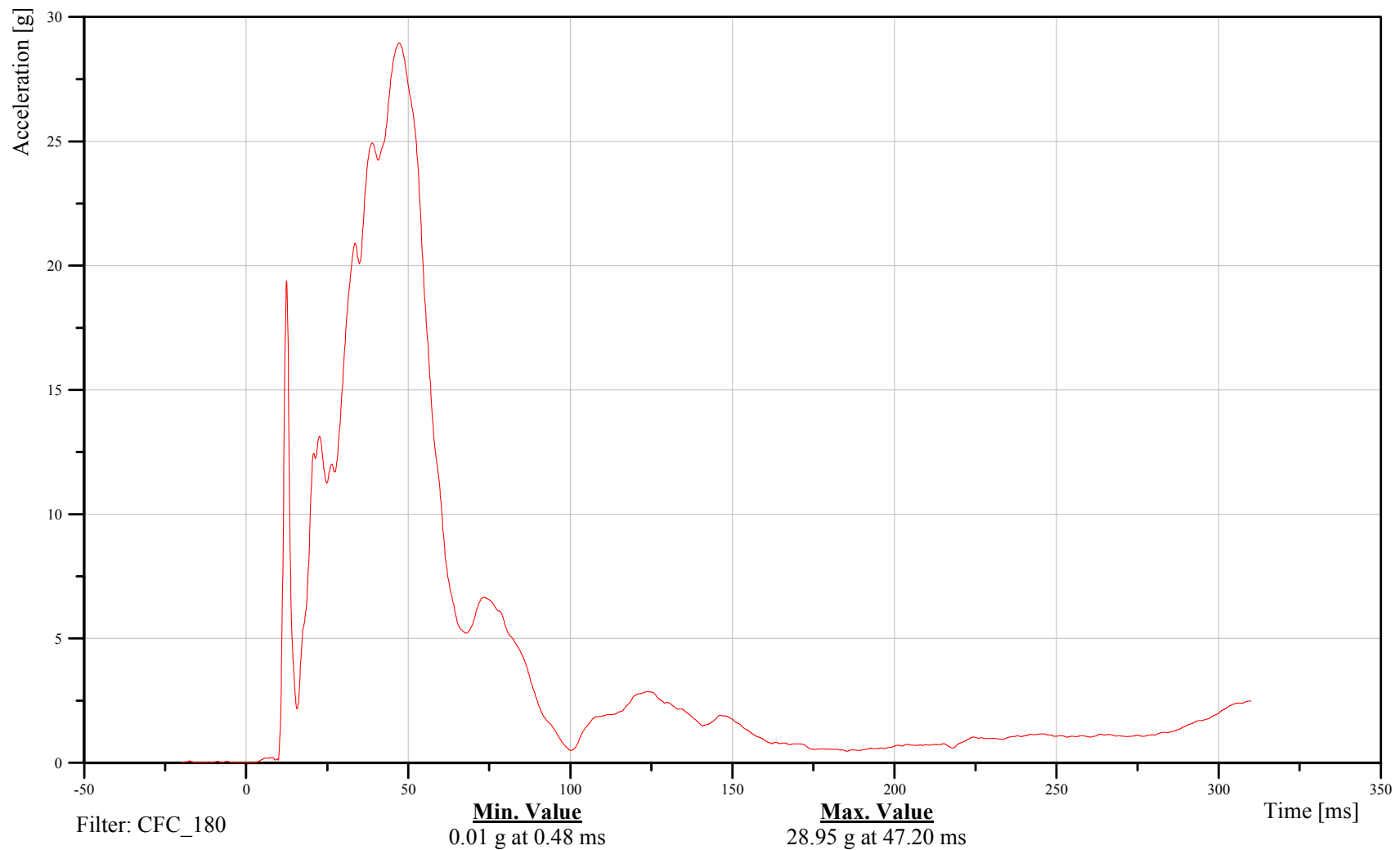
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP02RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 3 Accel X

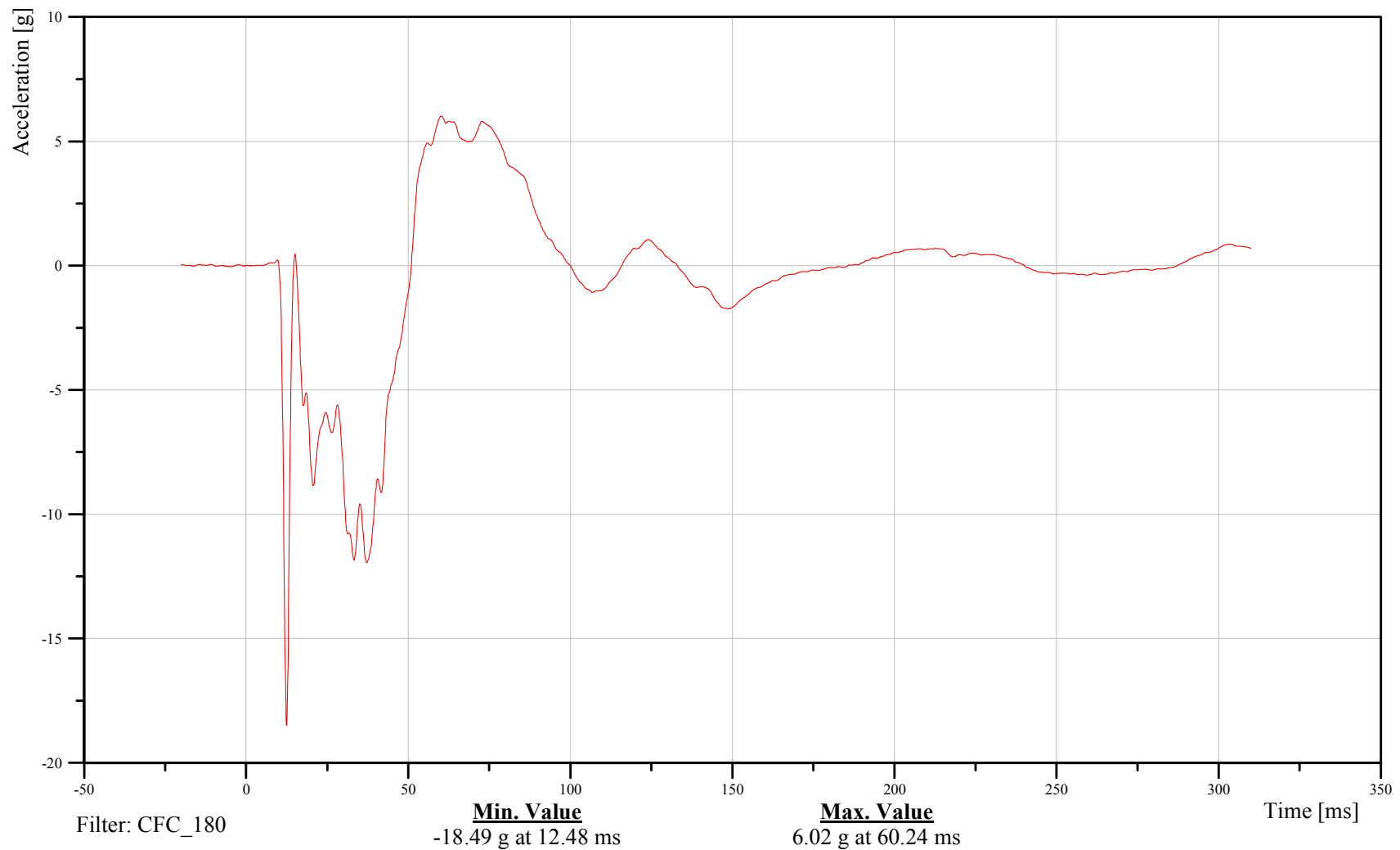
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP03RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 3 Accel Y

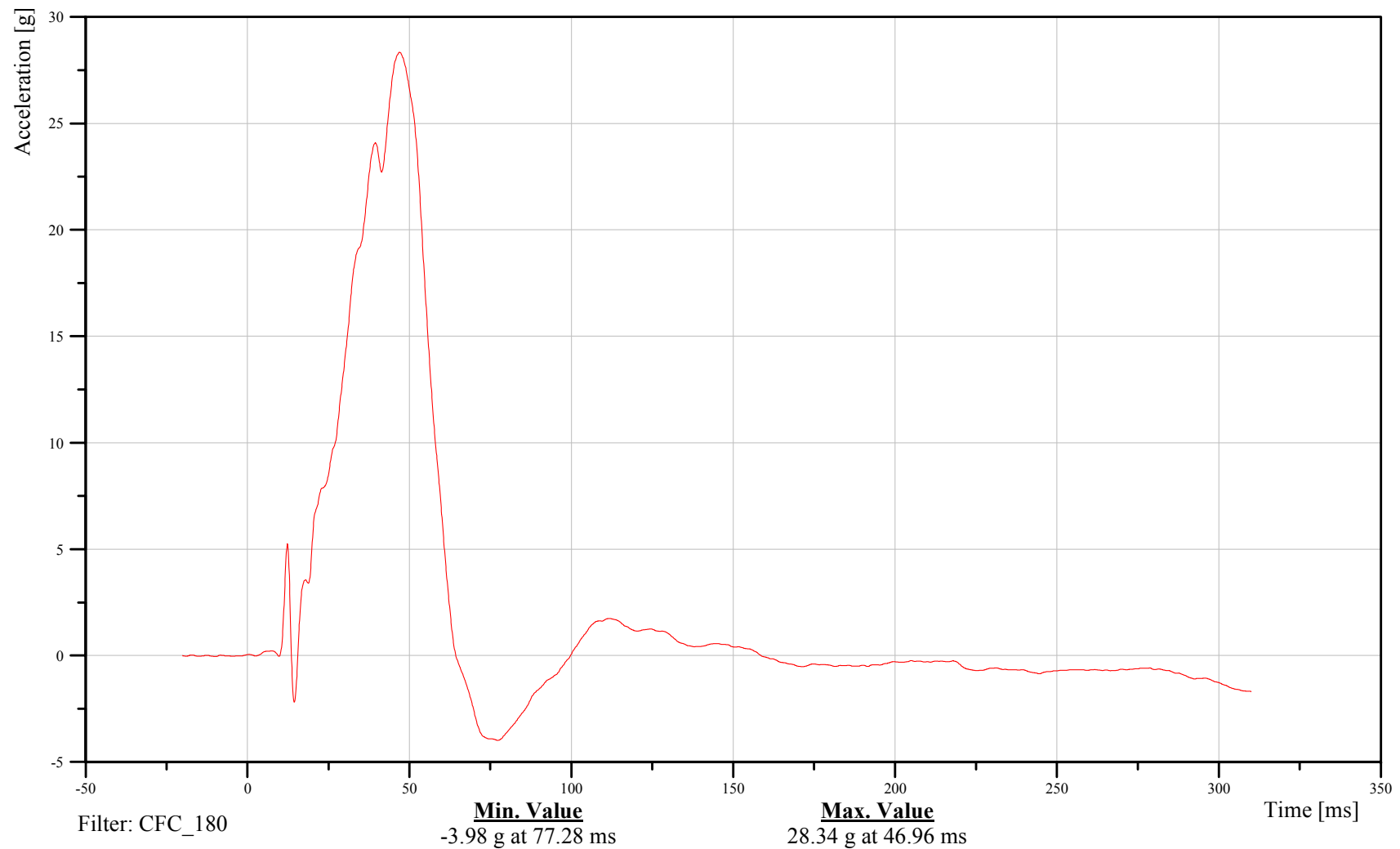
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP03RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

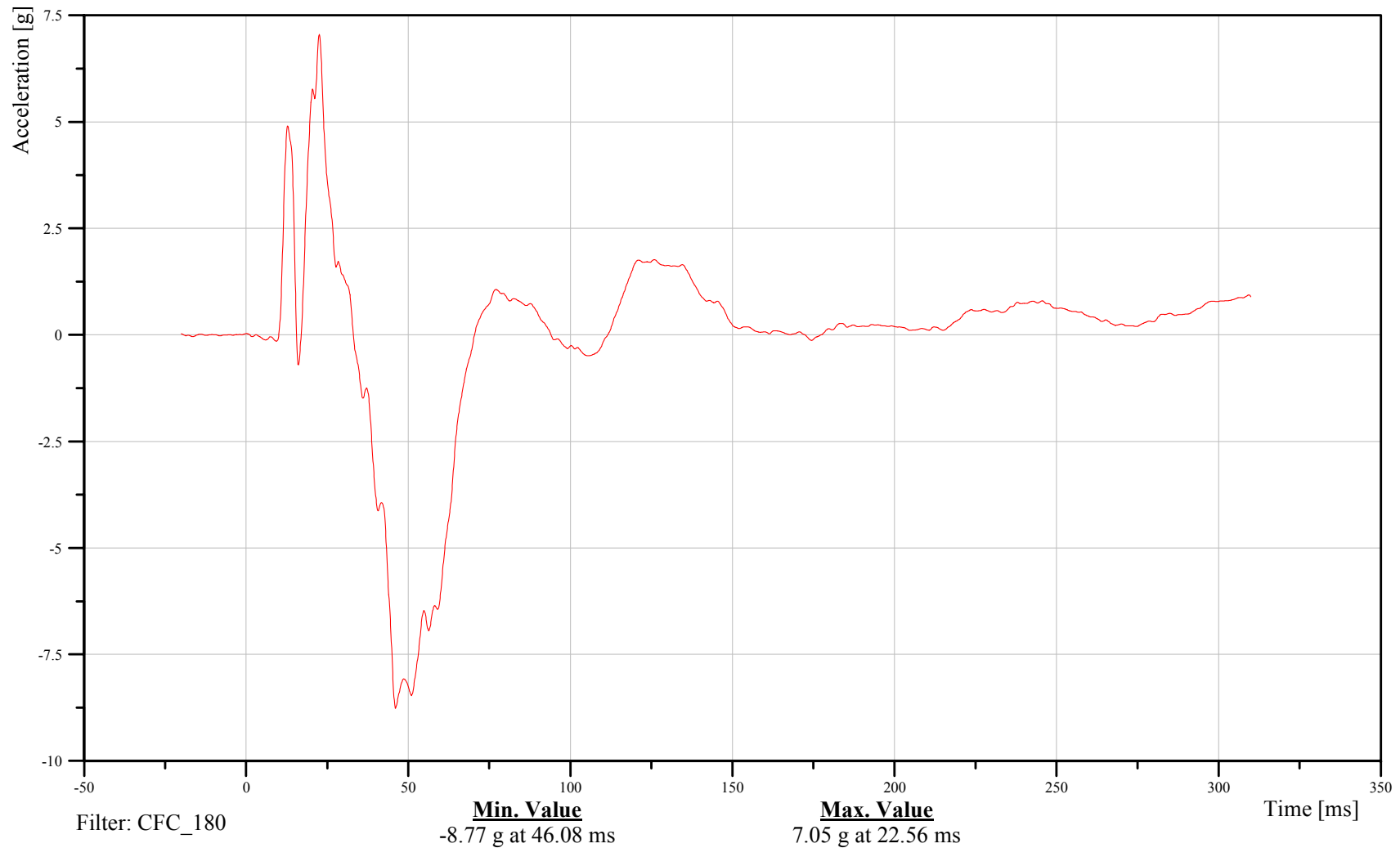
Spine Rib 3 Accel Z

Customer: VRTC

11THSP03RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 3 Accel Resultant

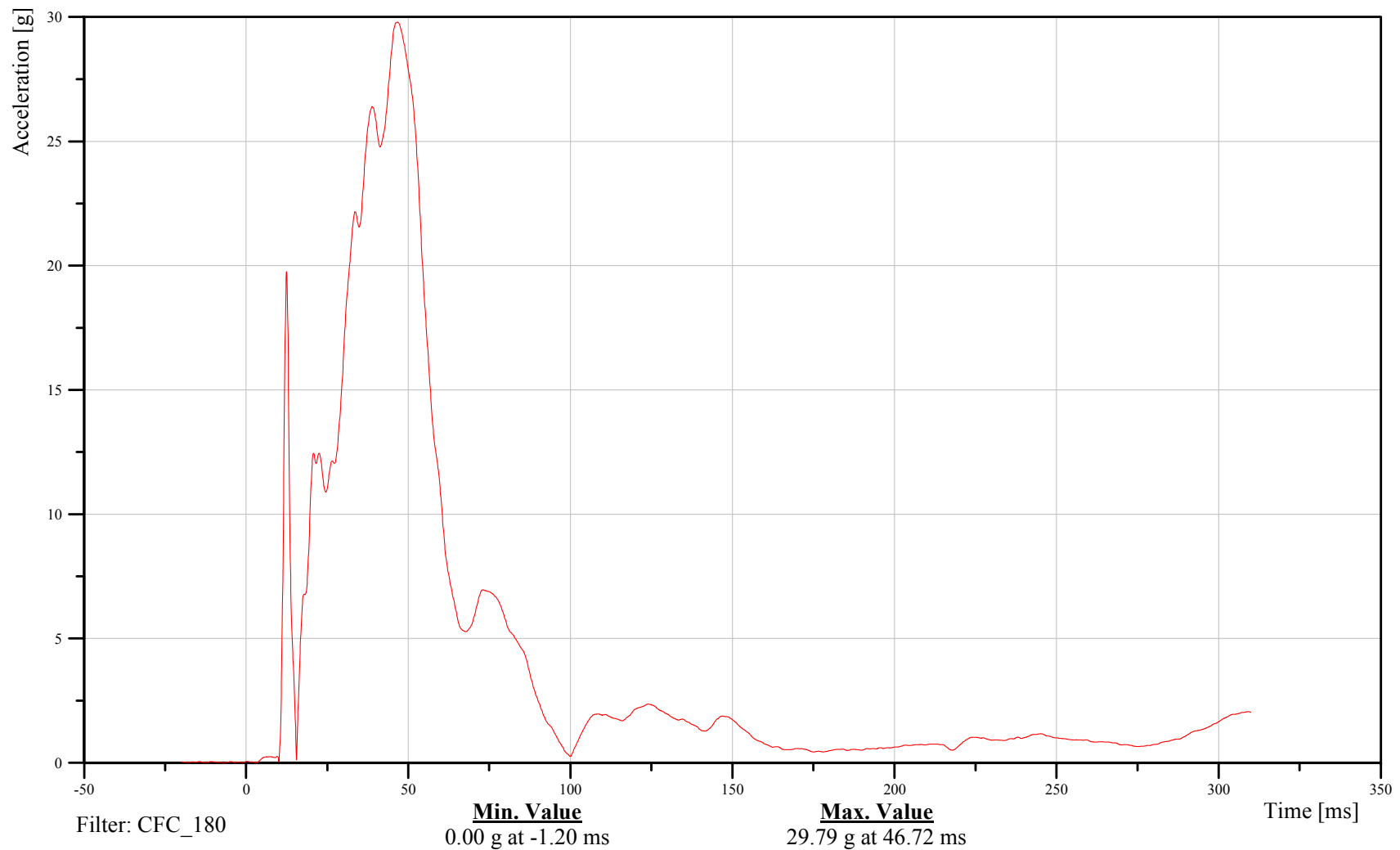
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11THSP03RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

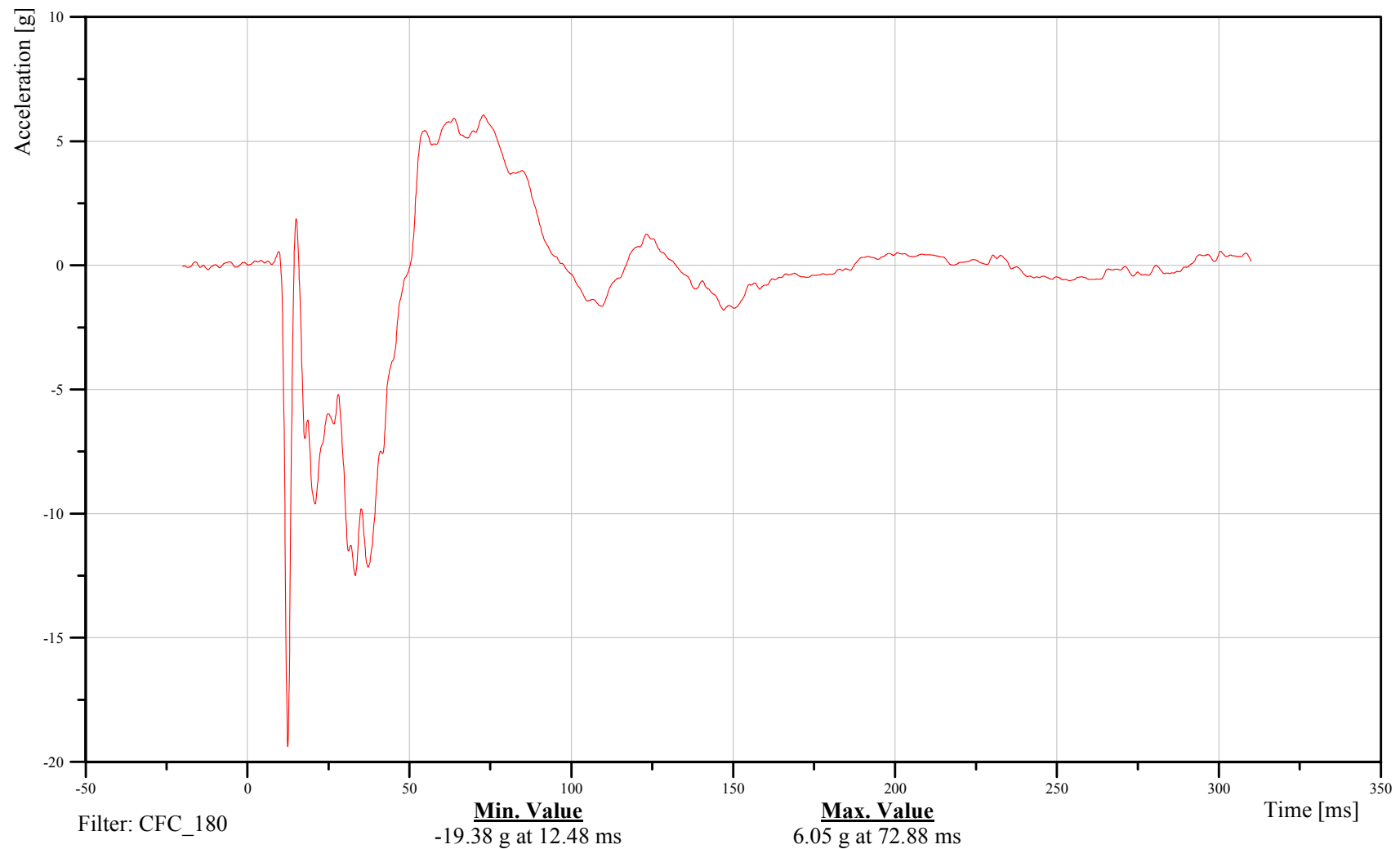
Lower Spine Accel X

Customer: VRTC

11SPIN1200S2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Lower Spine Accel Y

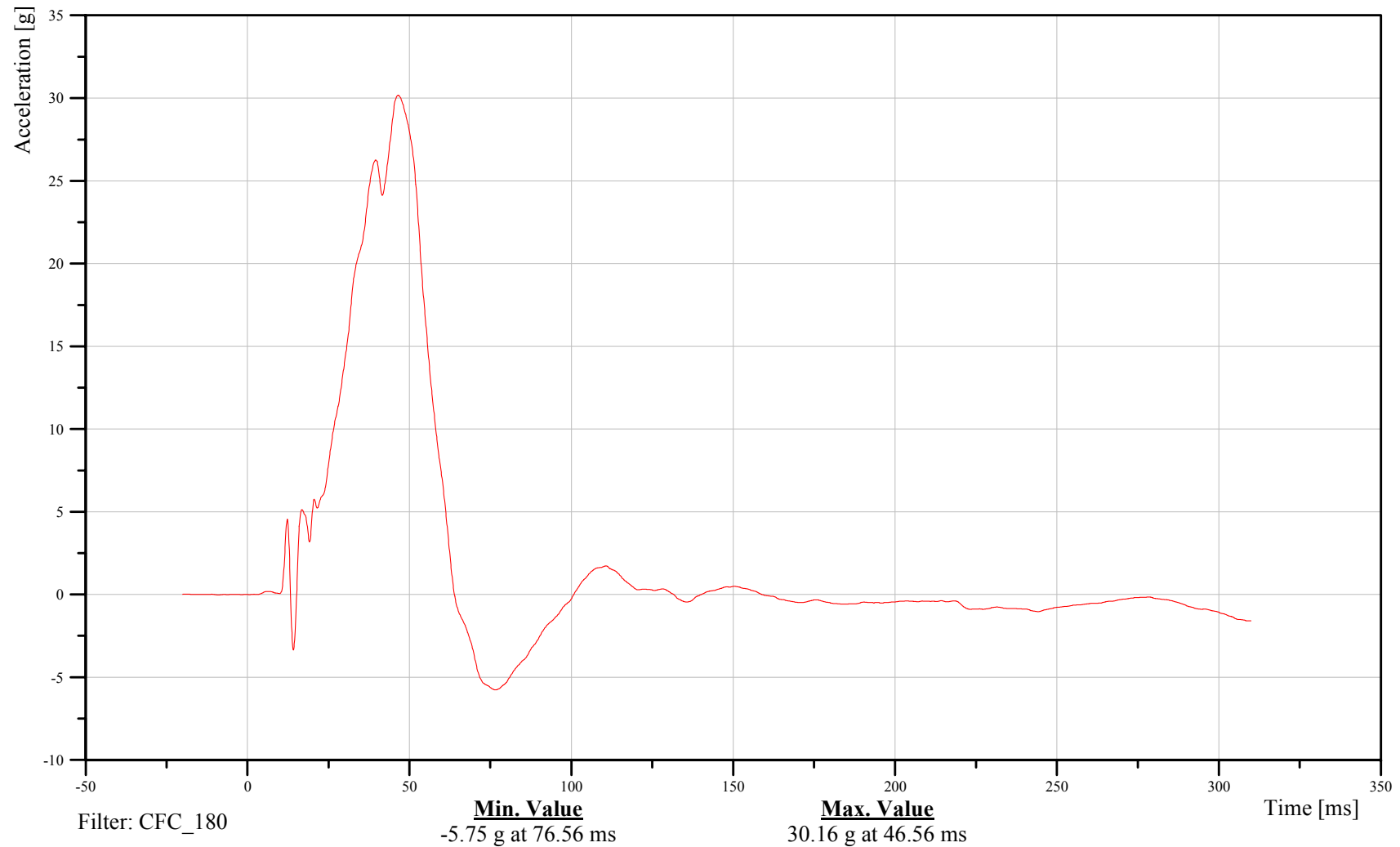
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11SPIN1200S2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

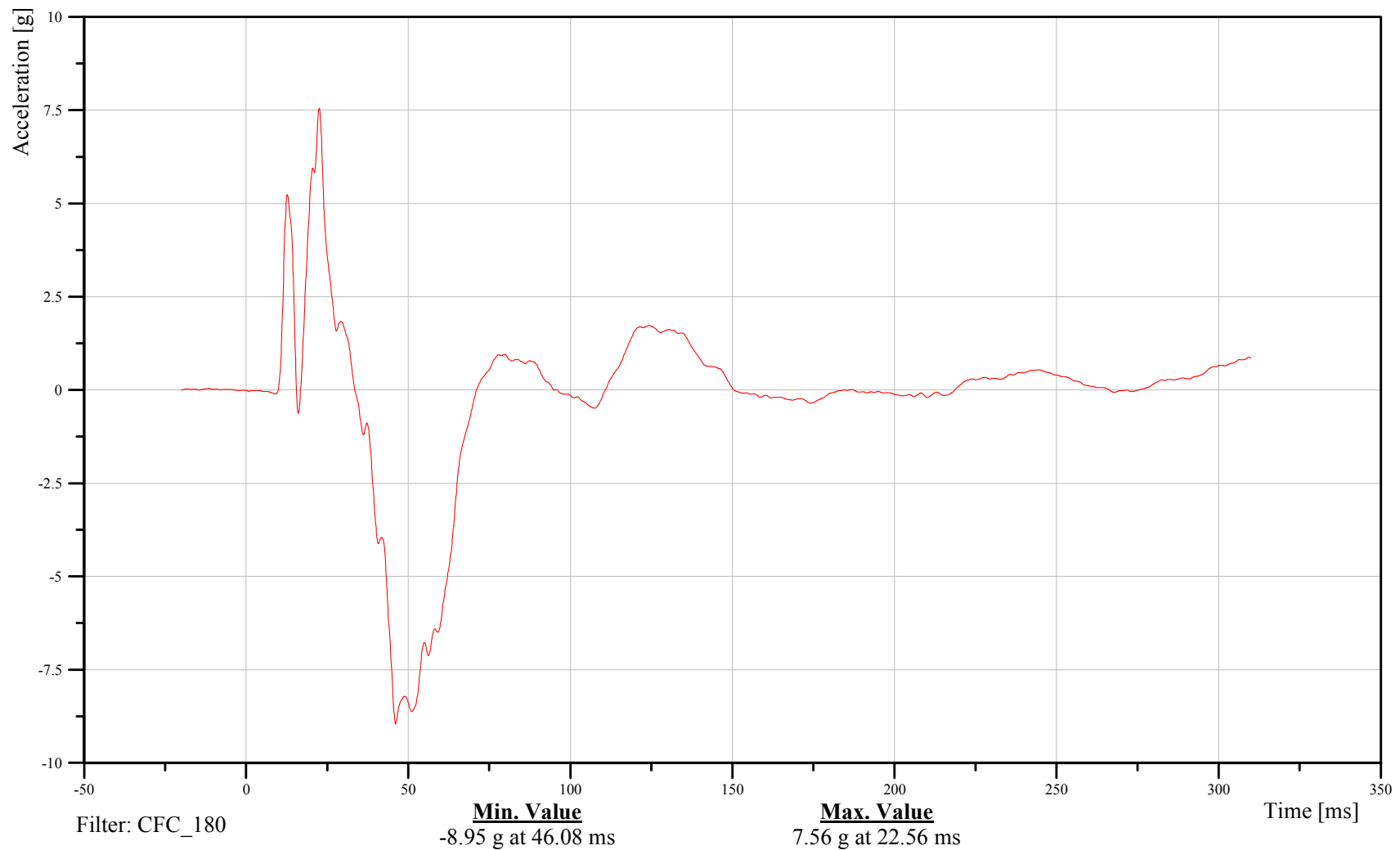
Lower Spine Accel Z

Customer: VRTC

11SPIN1200S2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

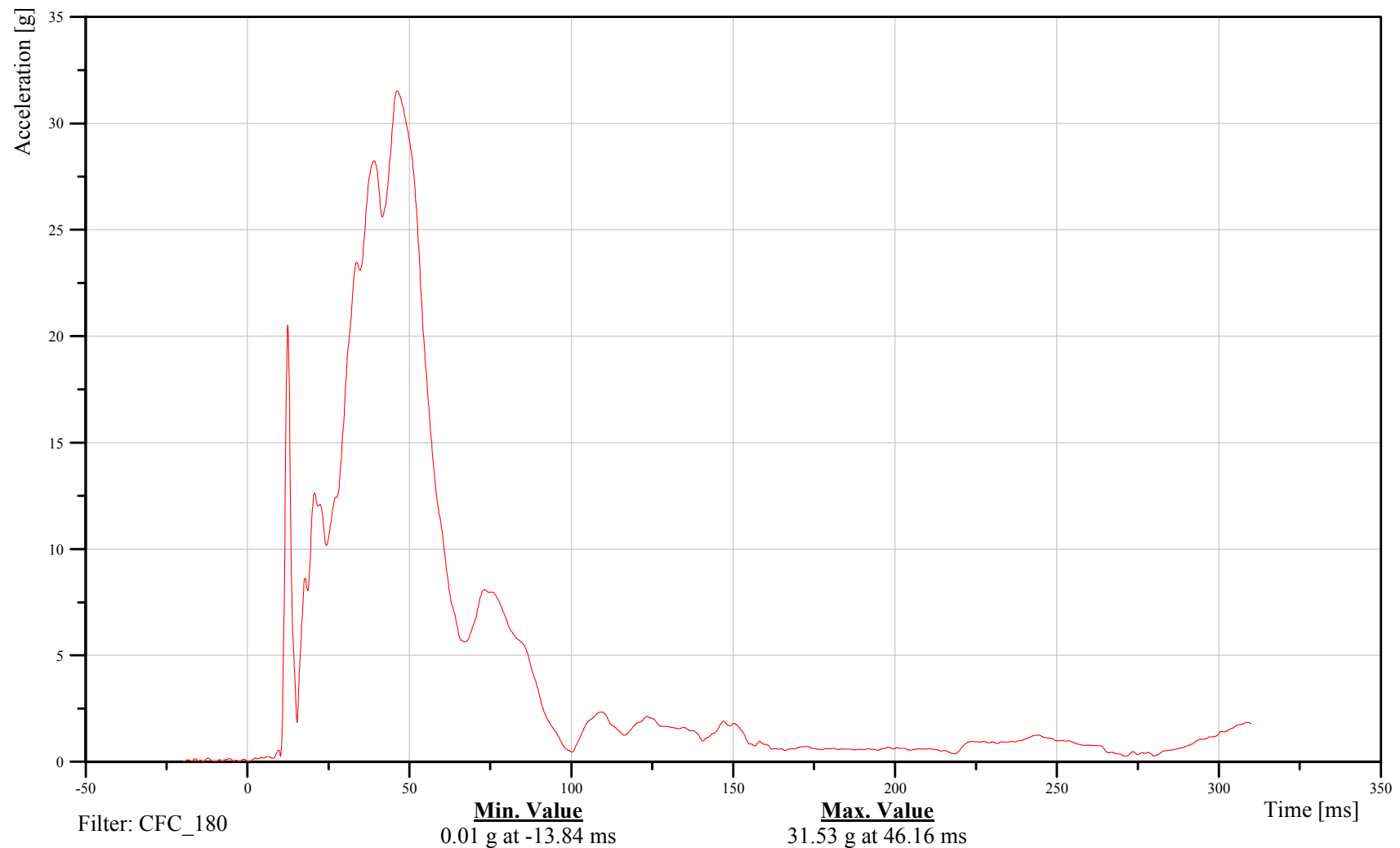
Lower Spine Accel Resultant

Customer: VRTC

11SPIN1200S2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 5 Accel X

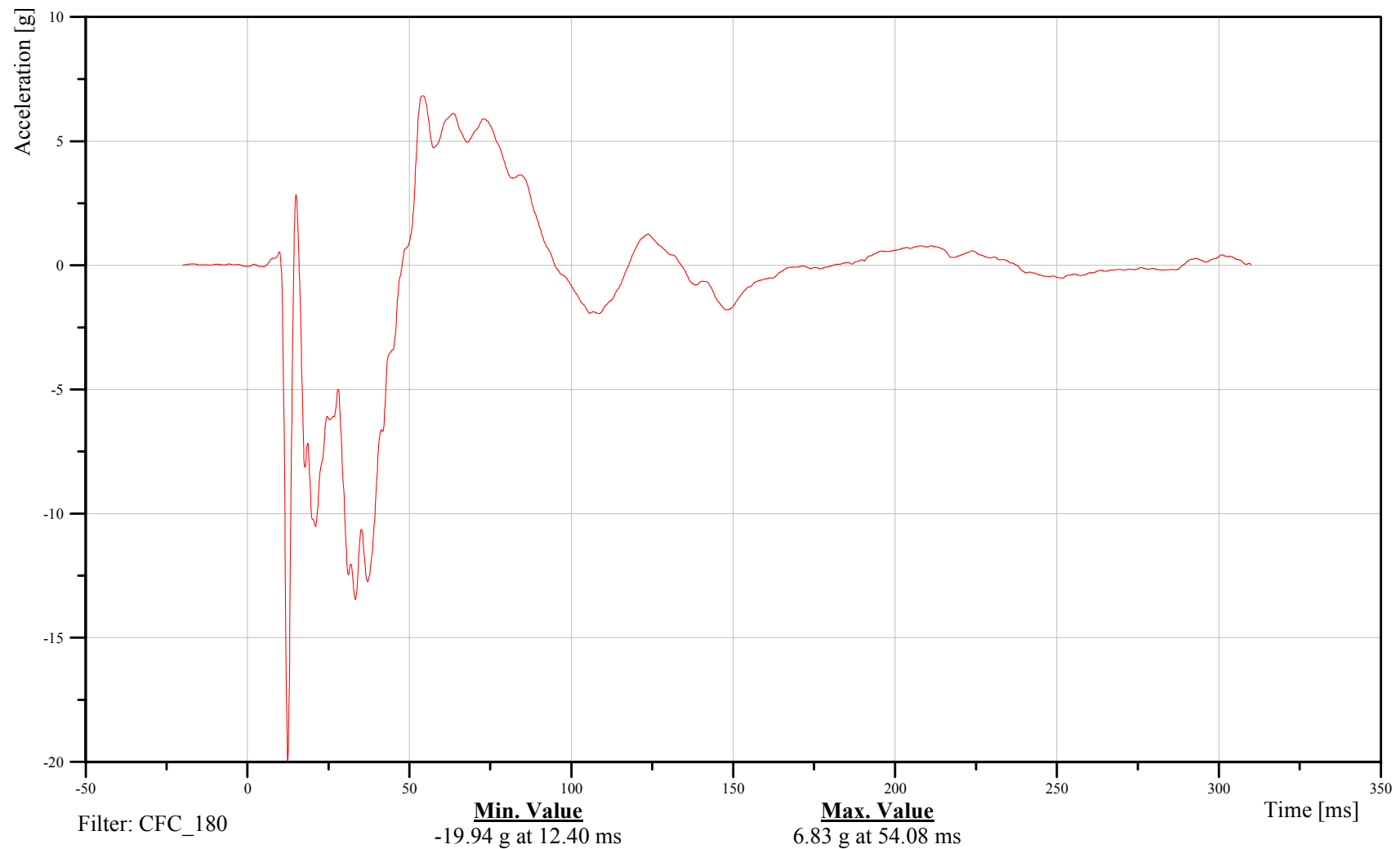
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABSP02RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 5 Accel Y

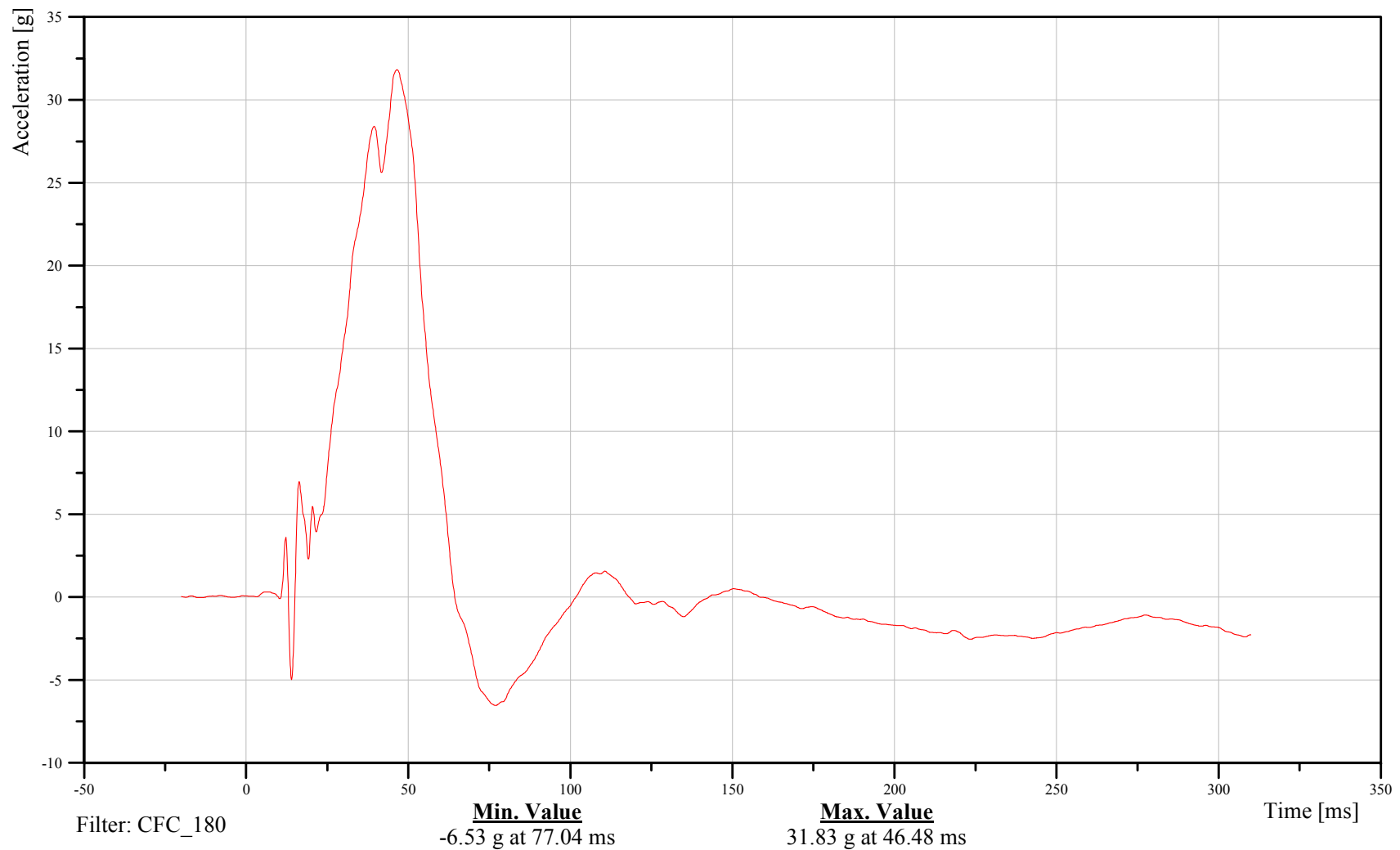
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABSP02RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 5 Accel Z

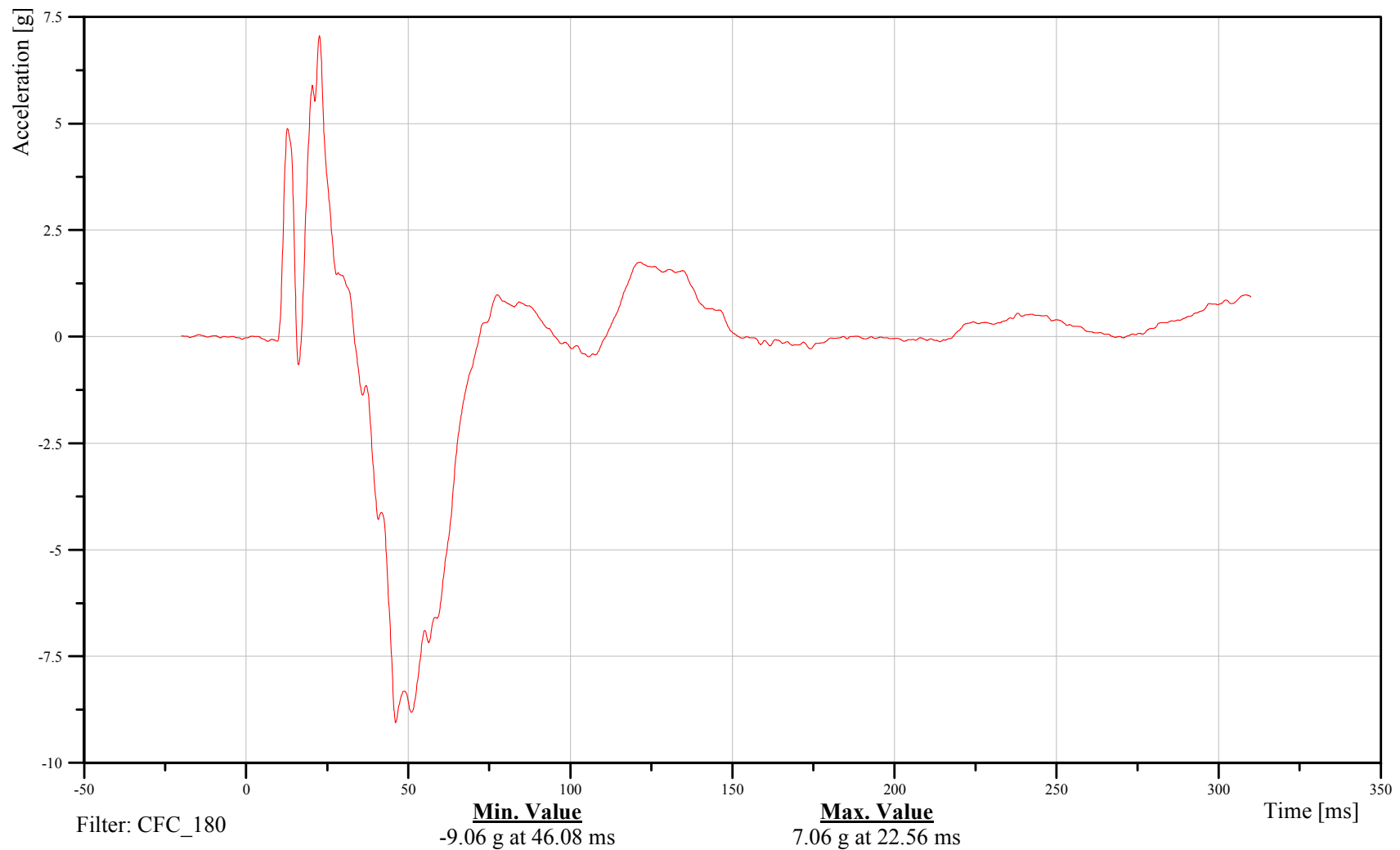
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABSP02RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 5 Accel Resultant

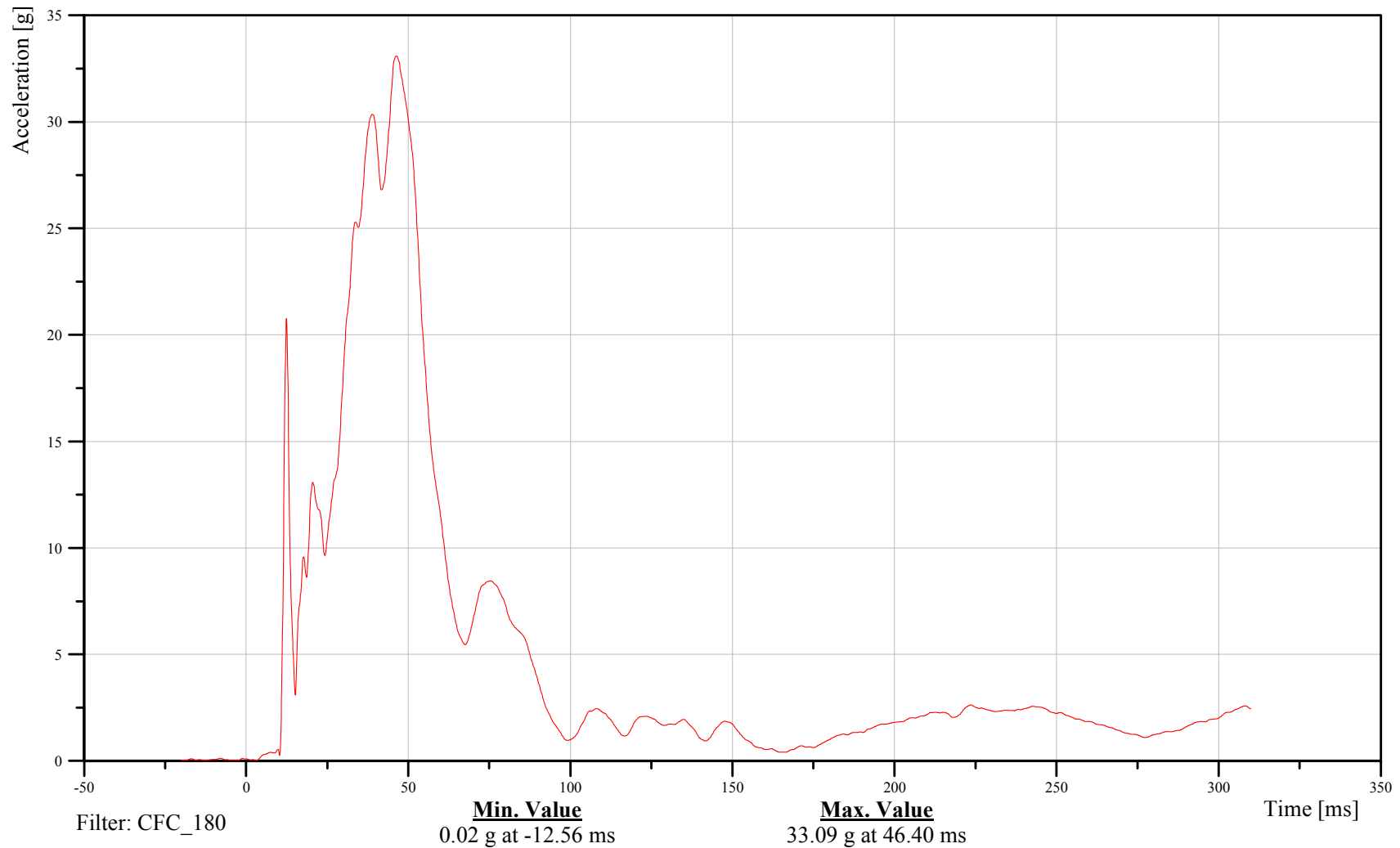
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABSP02RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

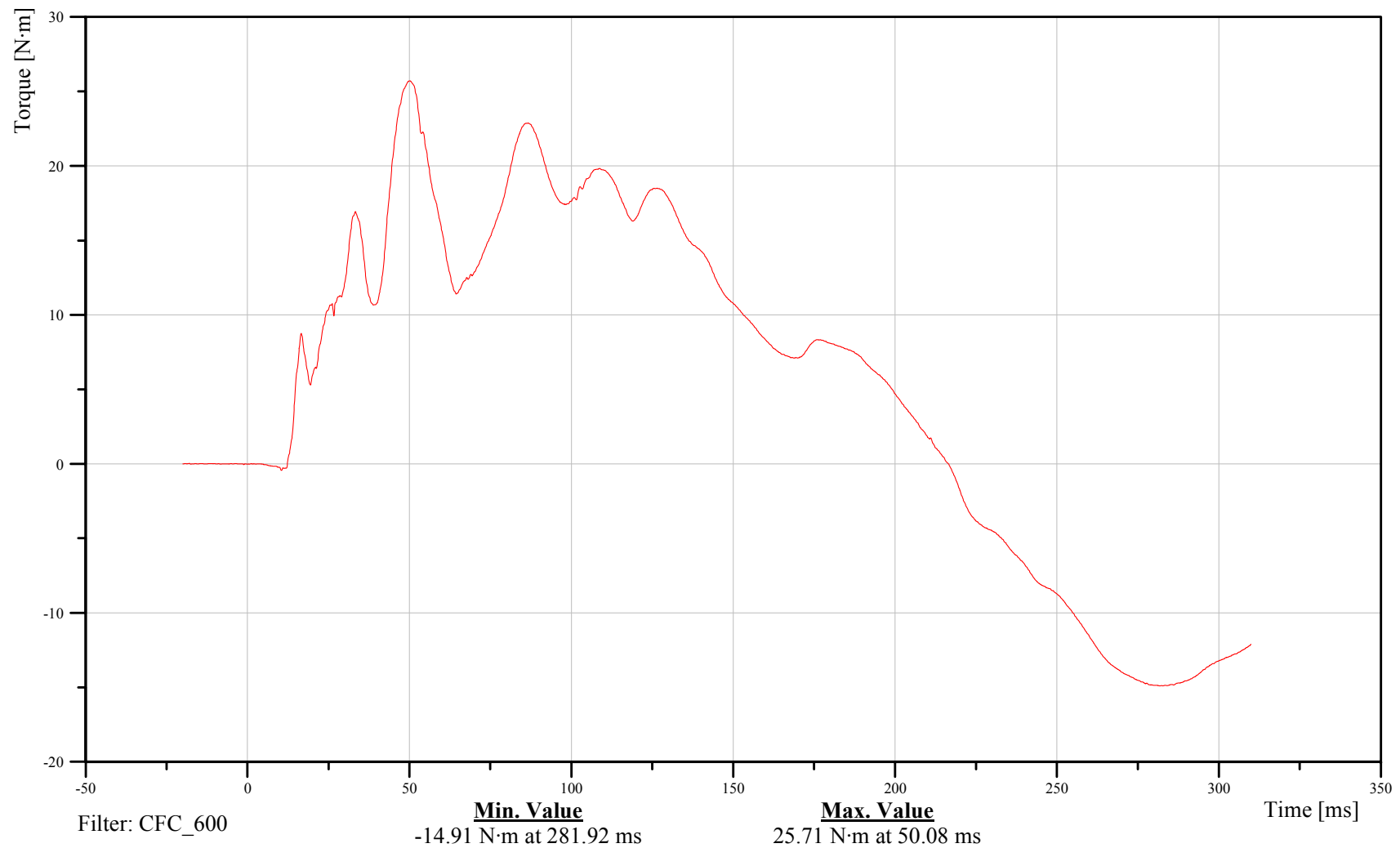
Lumbar Moment X

Customer: VRTC

11LUSP0000S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

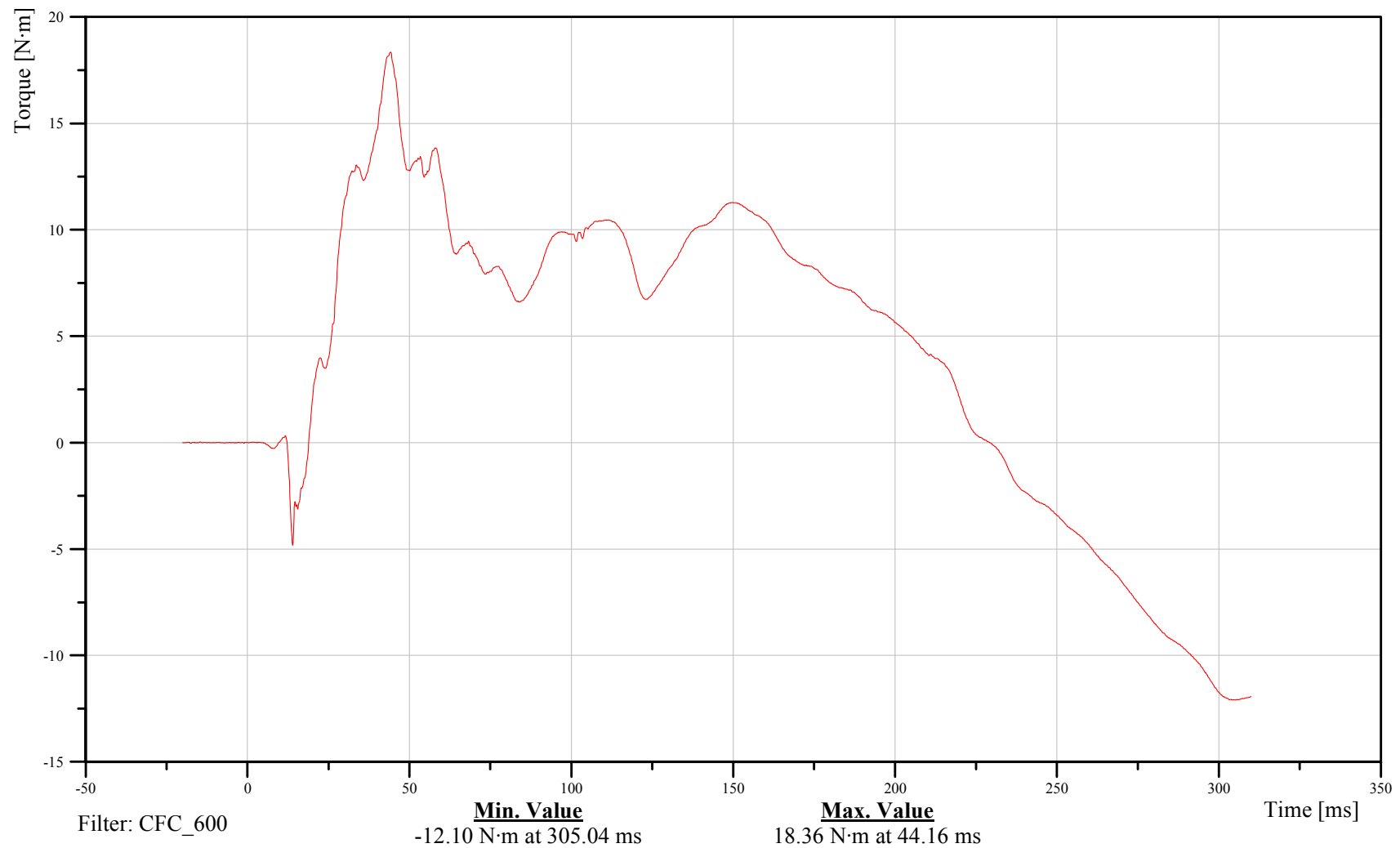
Lumbar Moment Y

Customer: VRTC

11LUSP0000S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

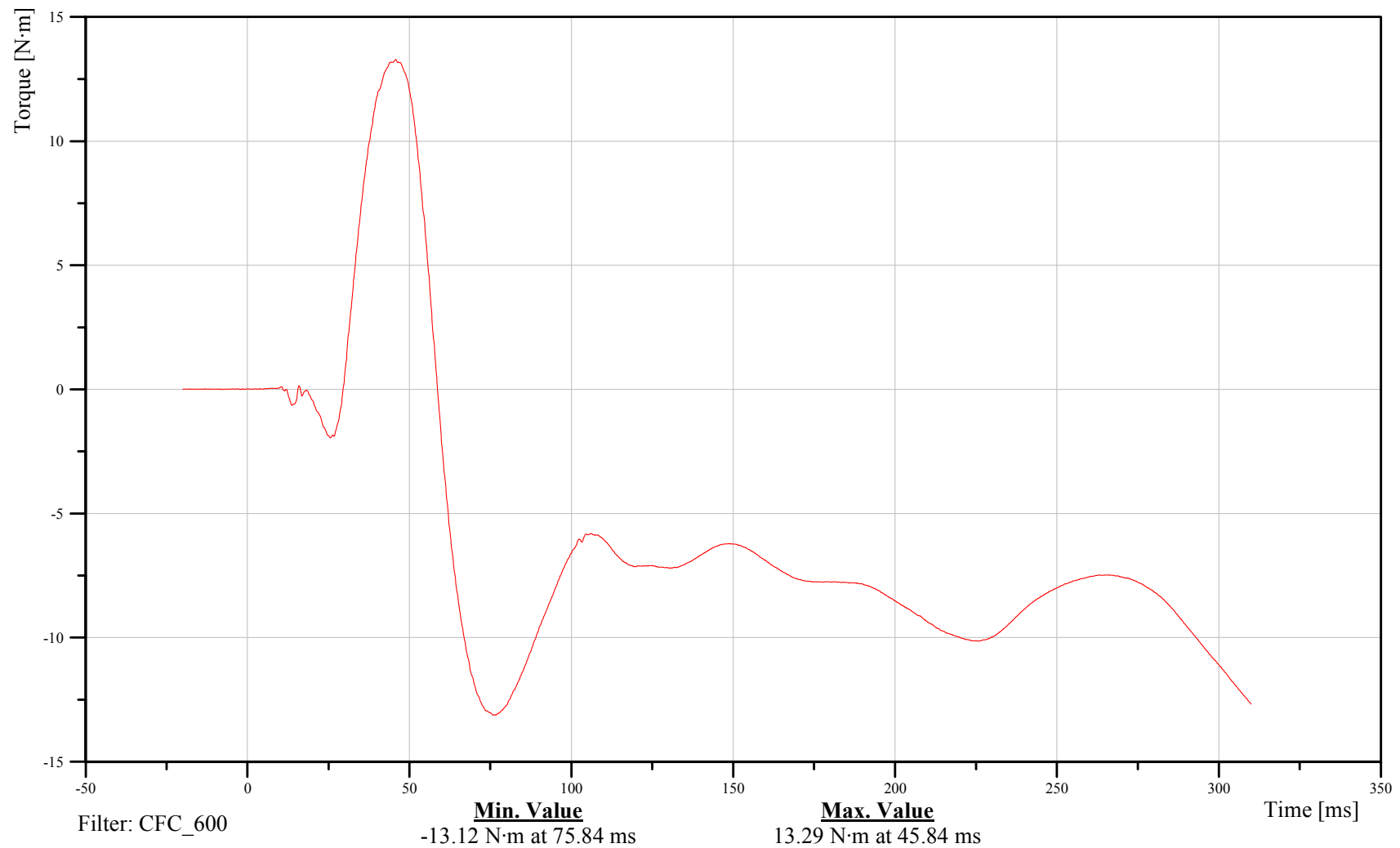
Lumbar Moment Z

Customer: VRTC

11LUSP0000S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel X

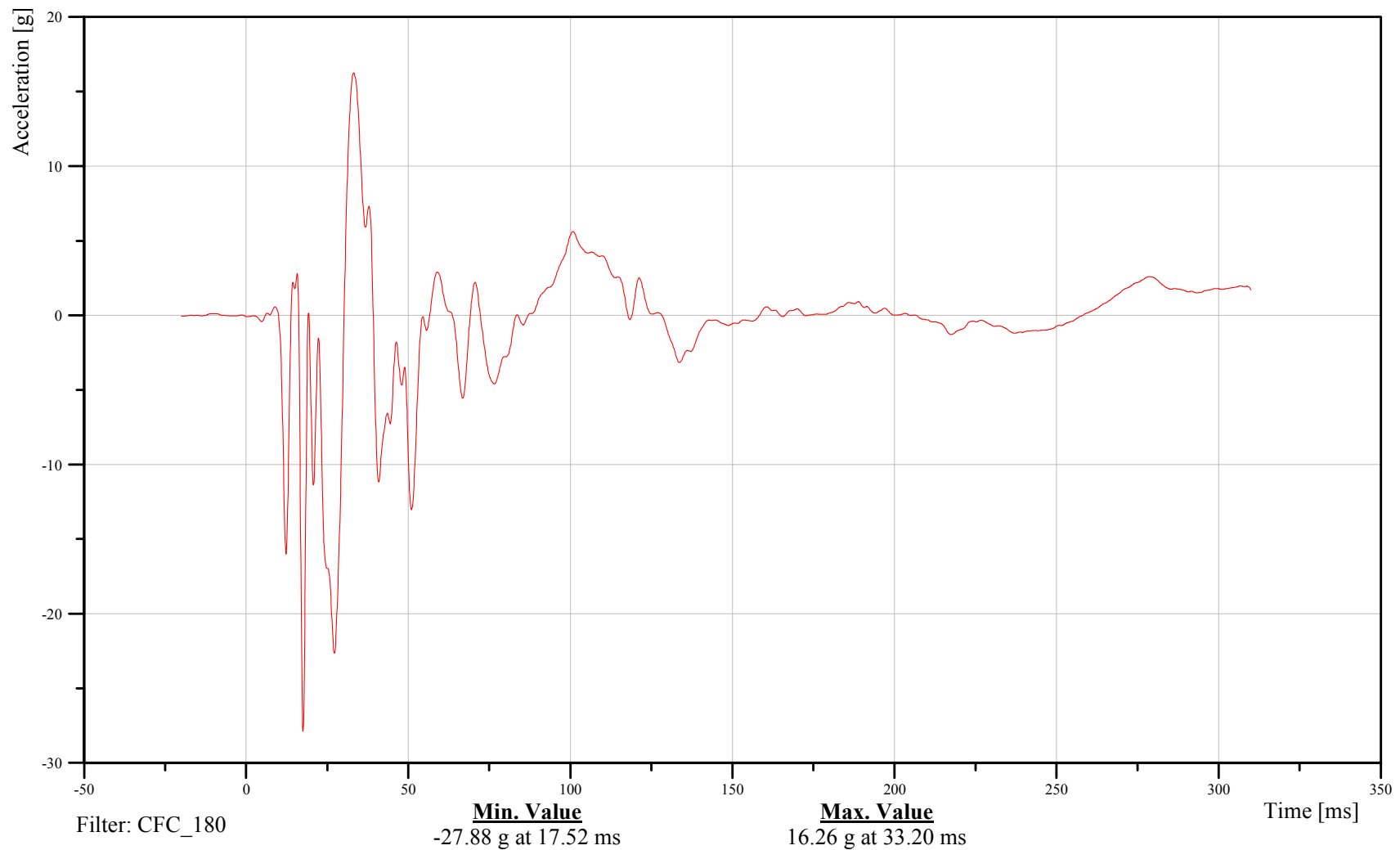
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI01LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel Y

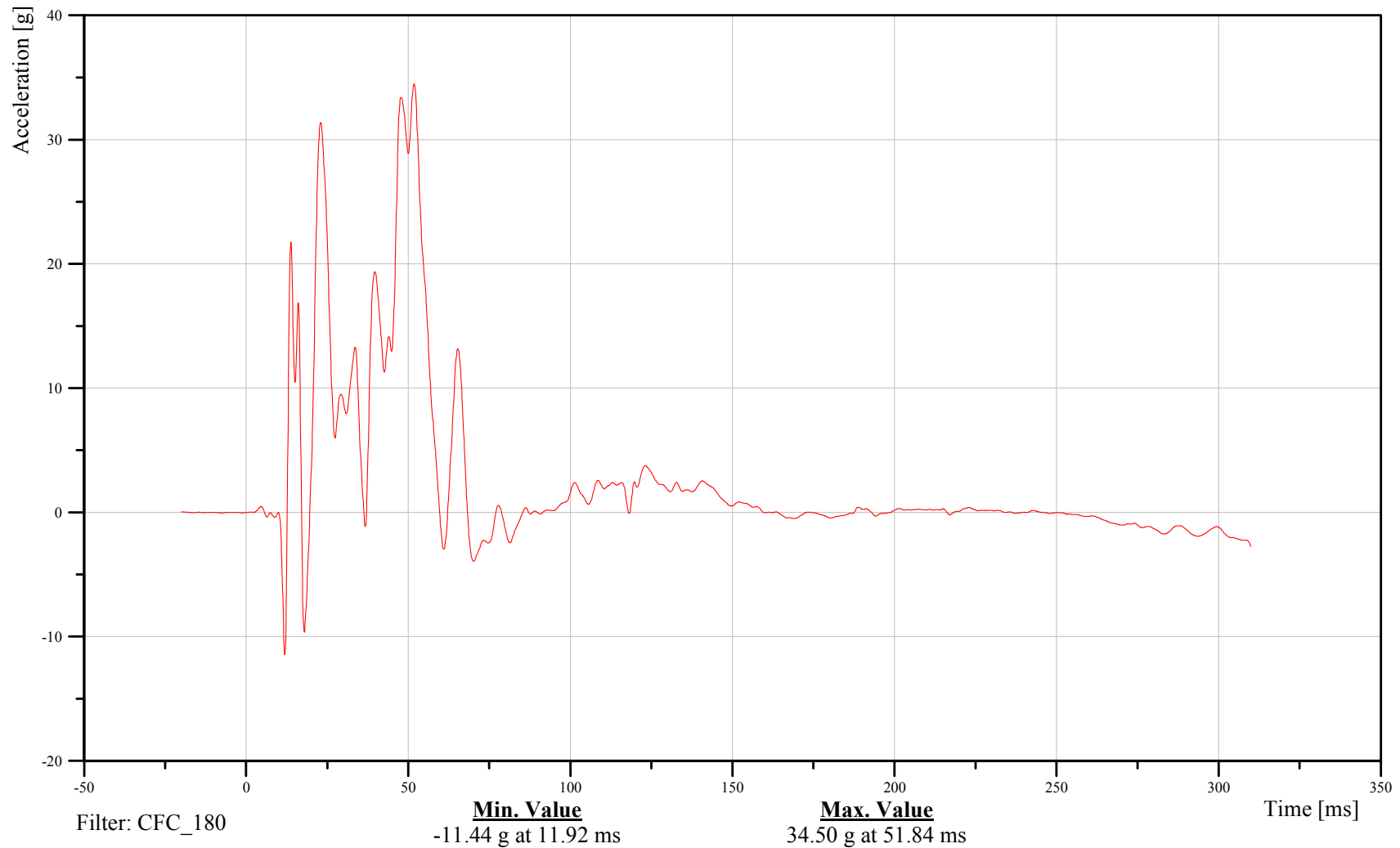
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI01LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel Z

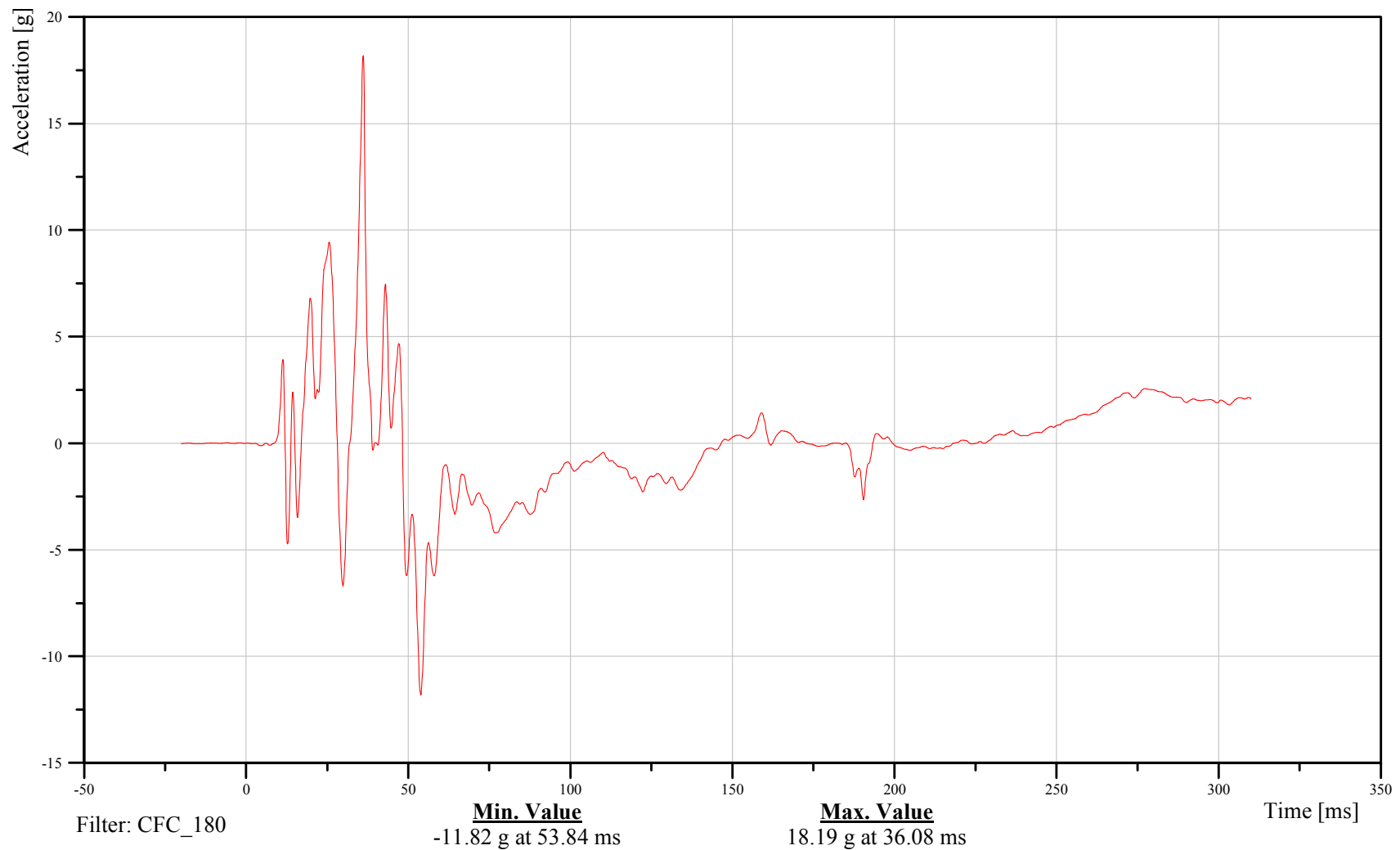
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI01LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel Resultant

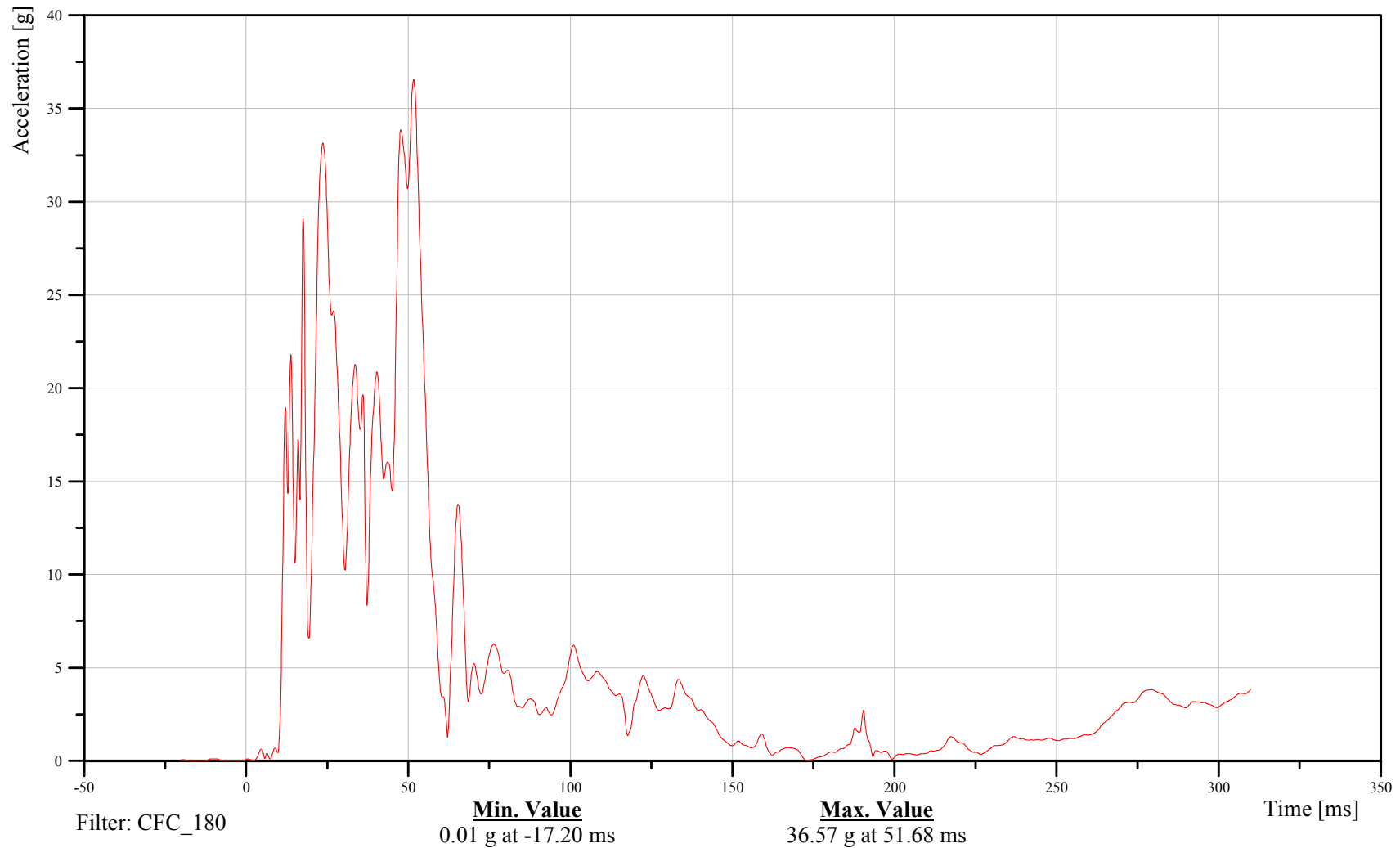
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI01LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel X

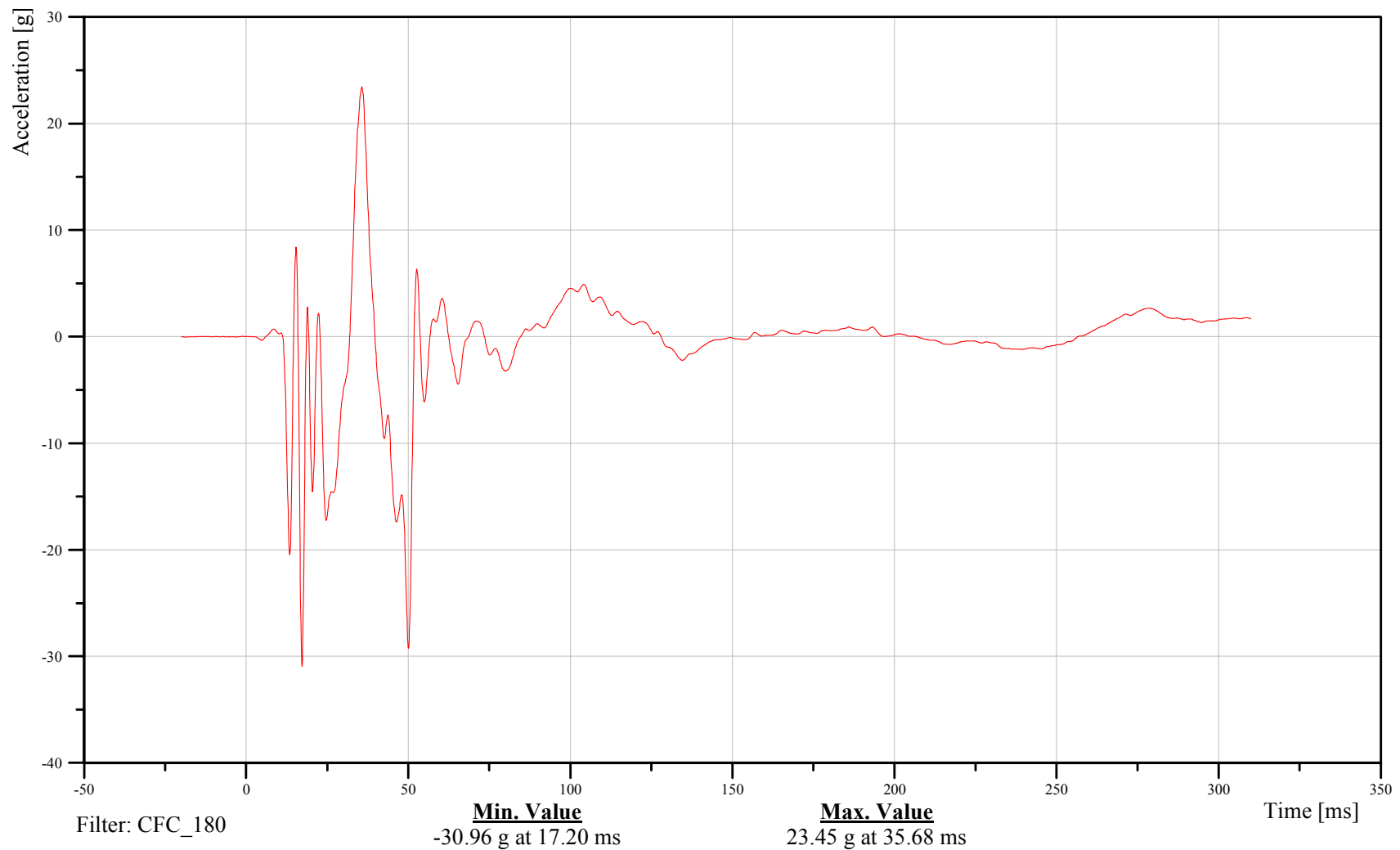
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI02LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel Y

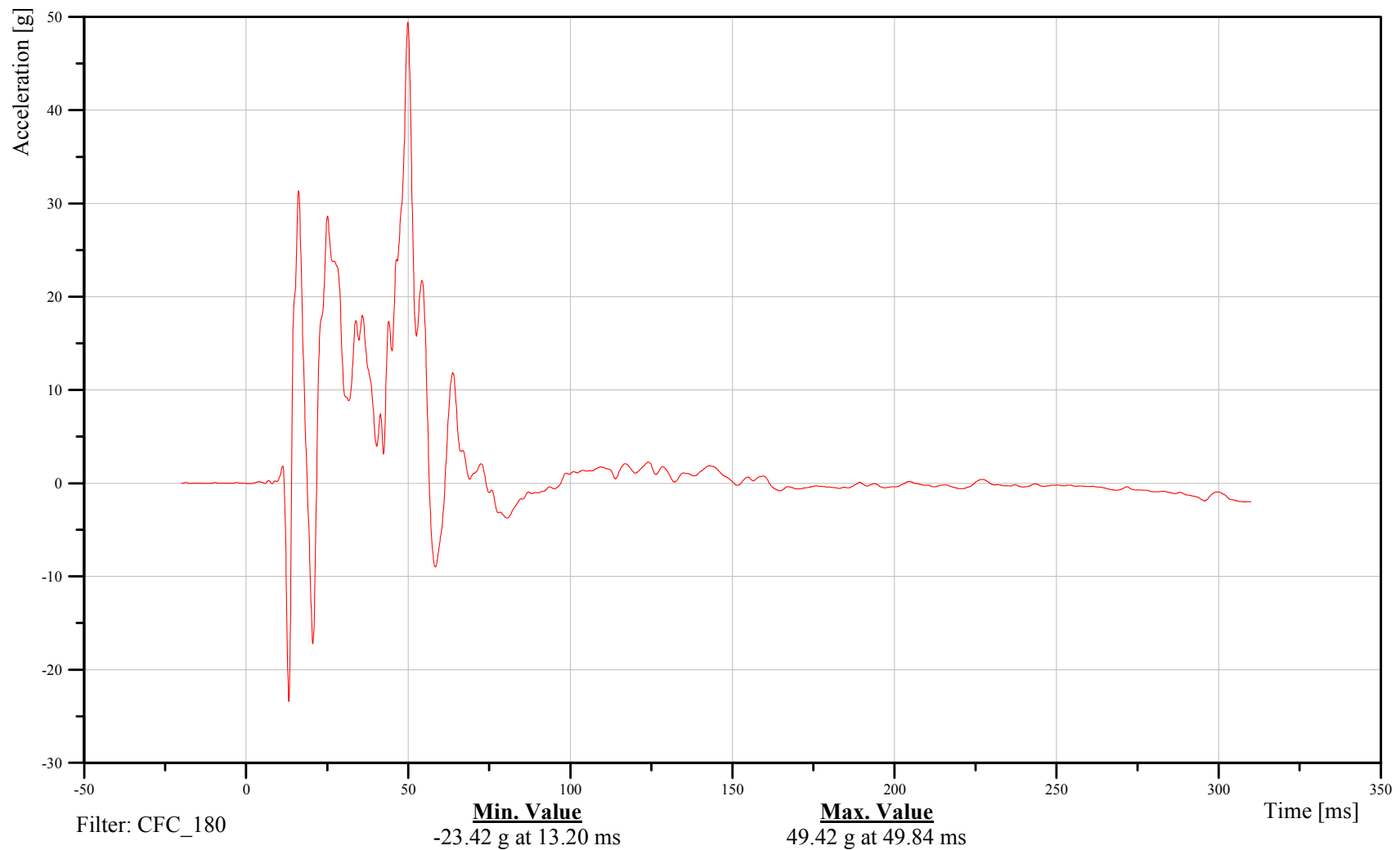
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI02LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel Z

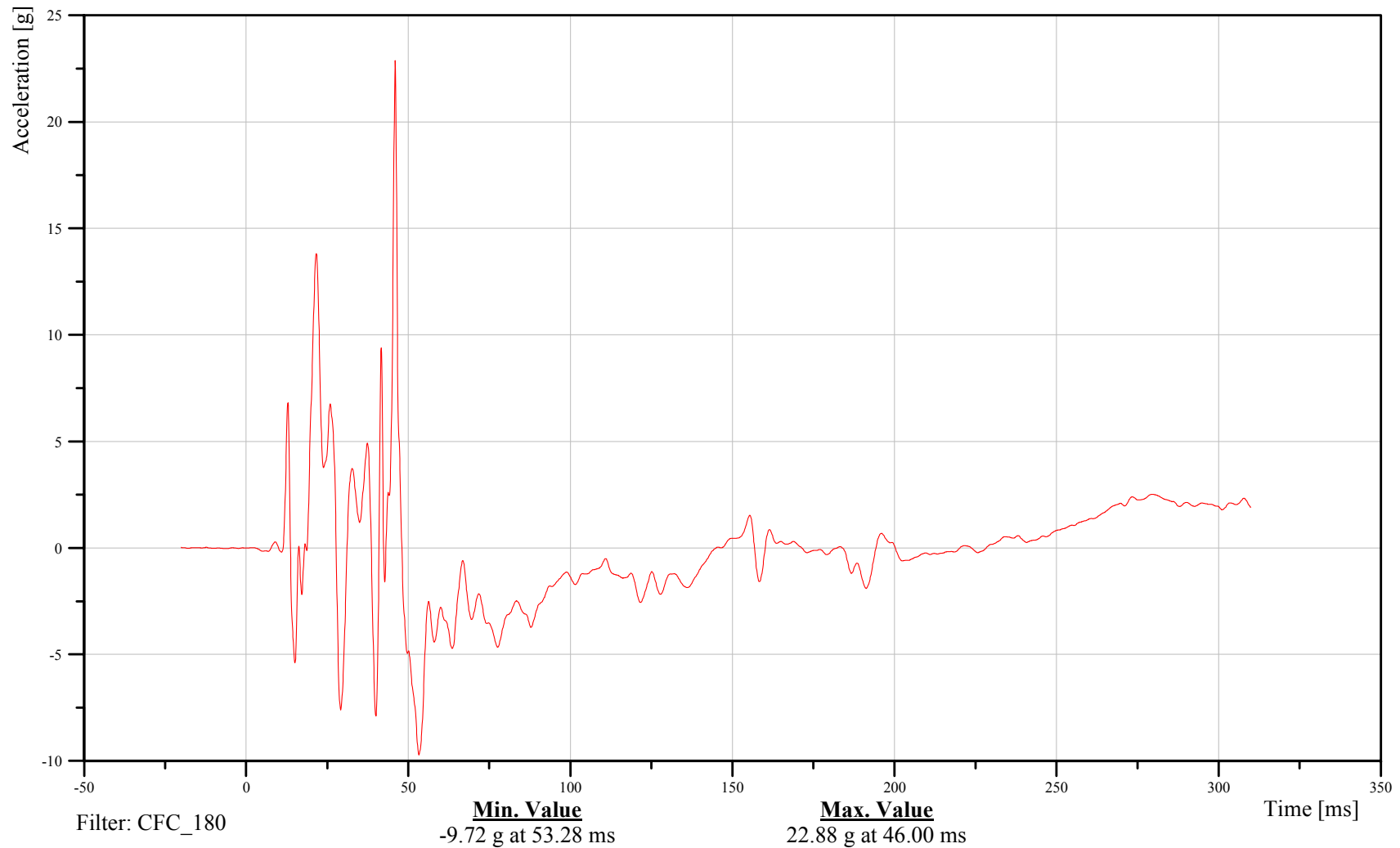
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI02LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel Resultant

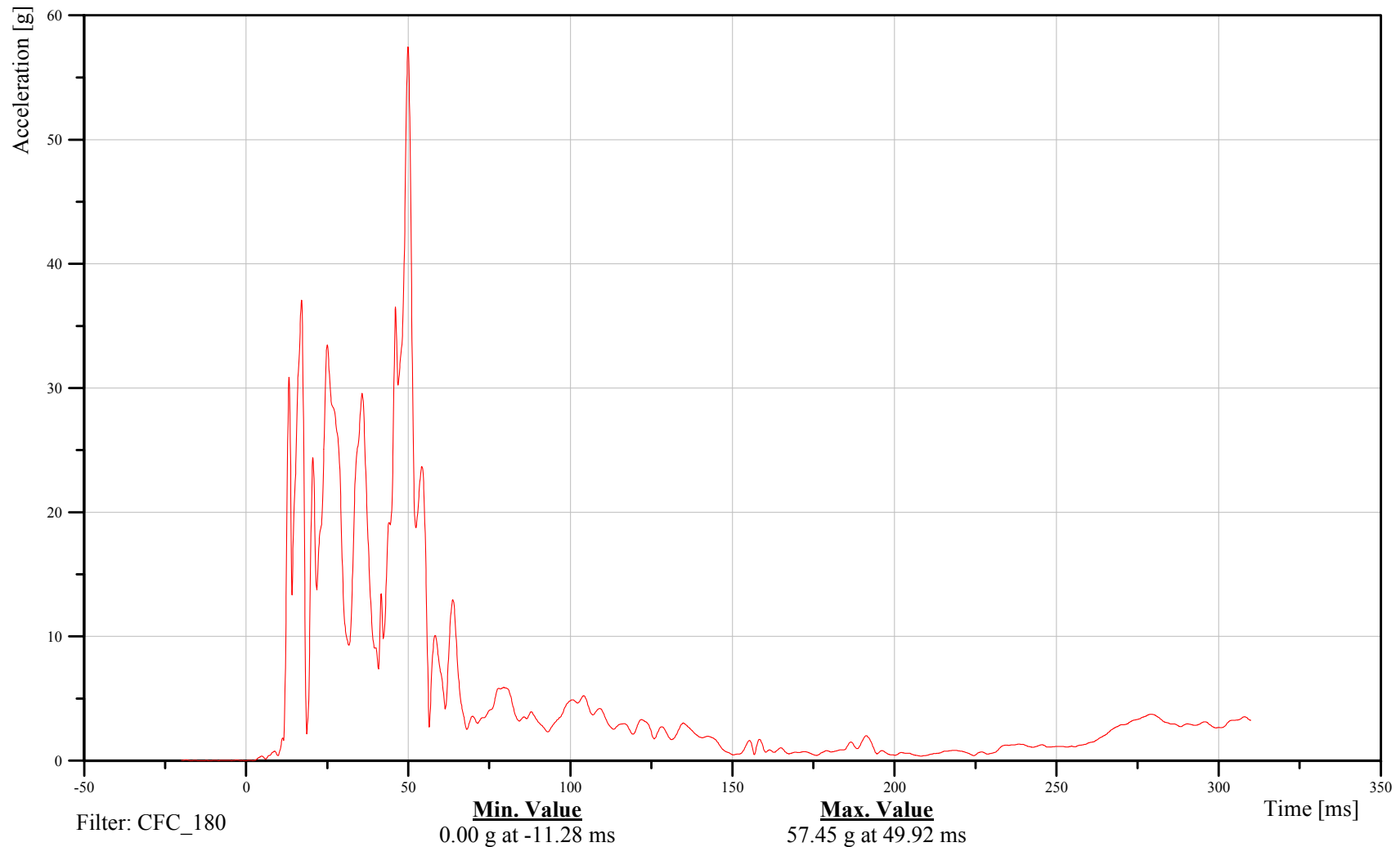
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI02LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel X

Date: 07/25/2005

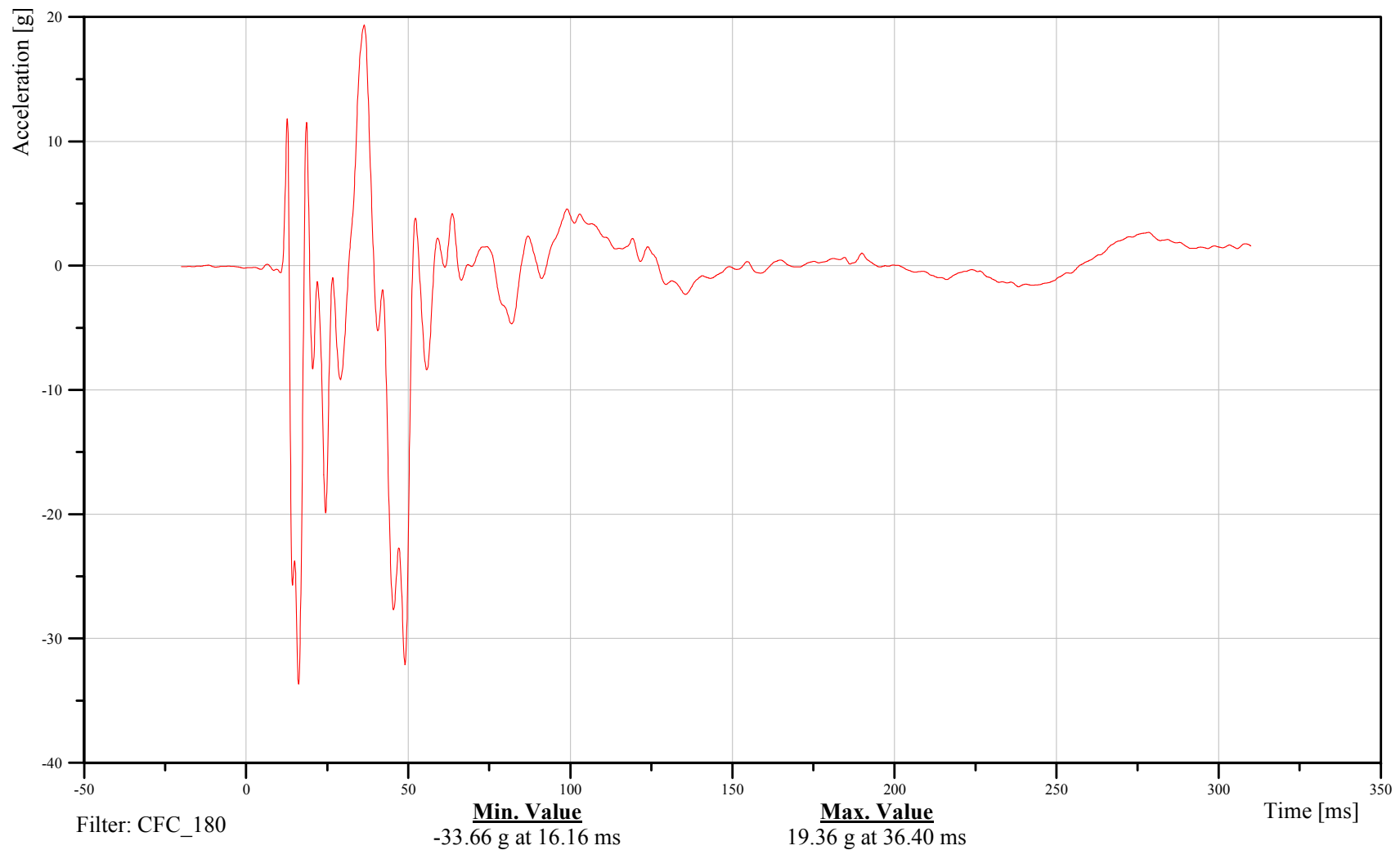
Time: 13:48

Customer: VRTC

11TRRI03LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel Y

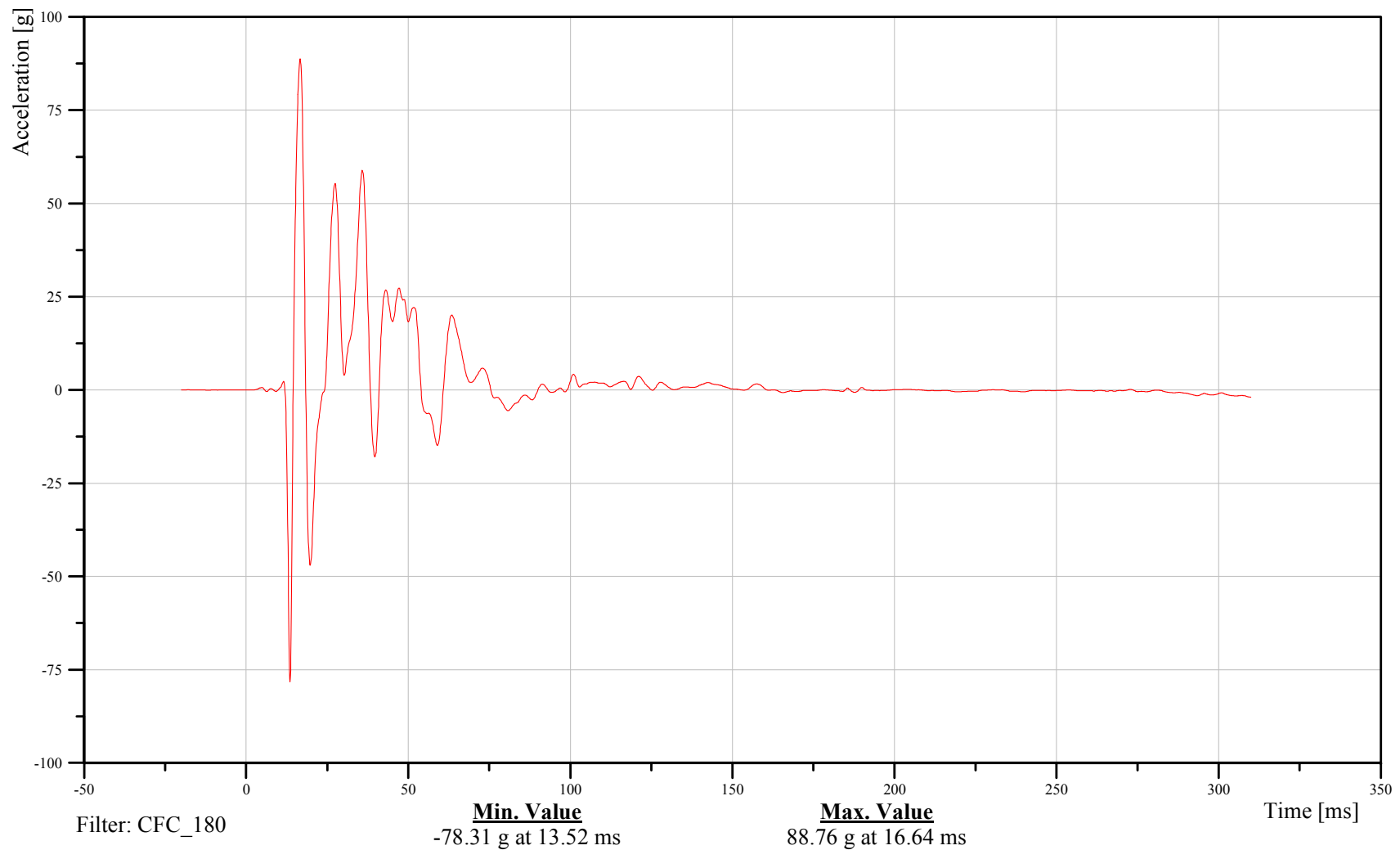
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI03LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel Z

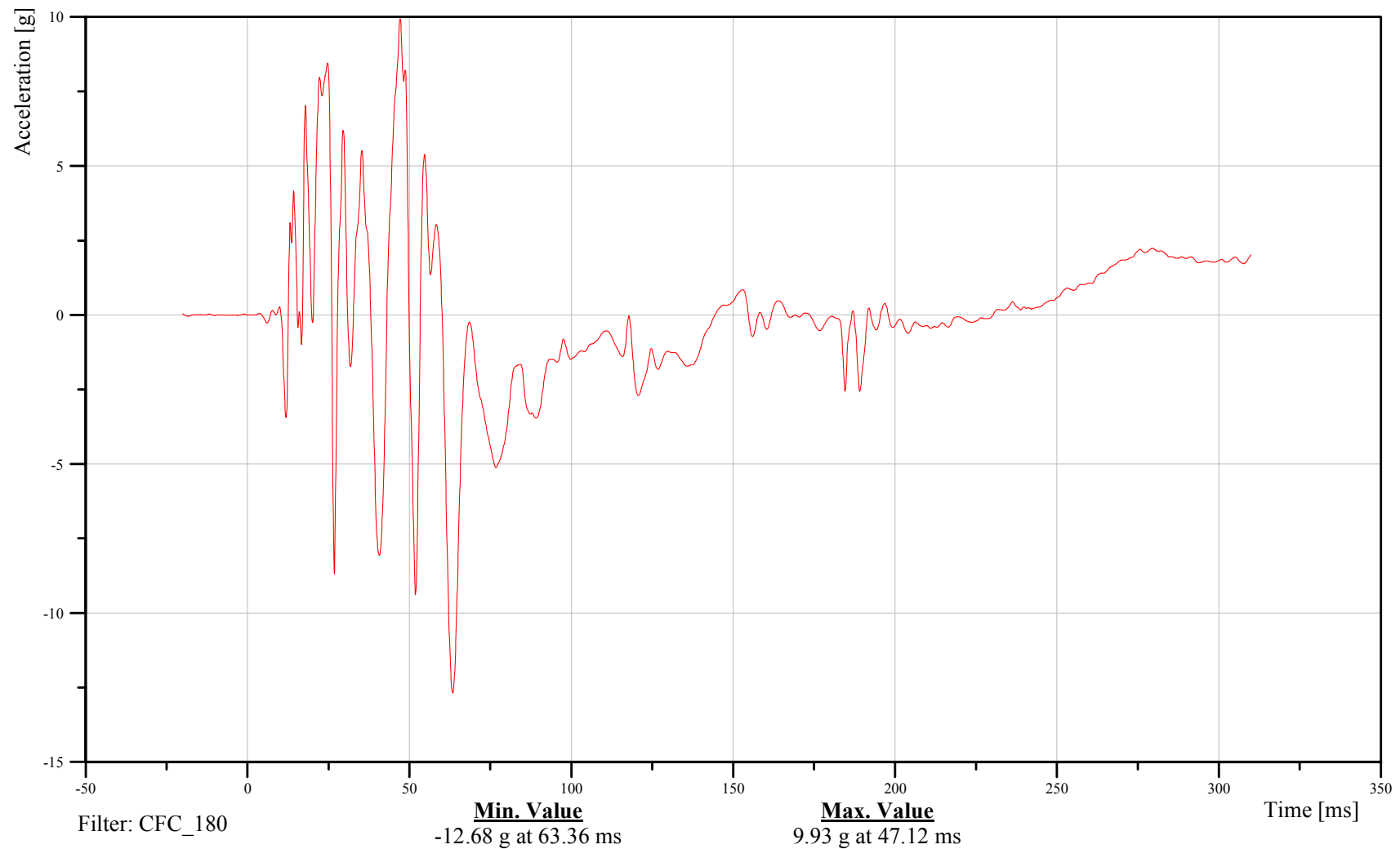
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI03LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel Resultant

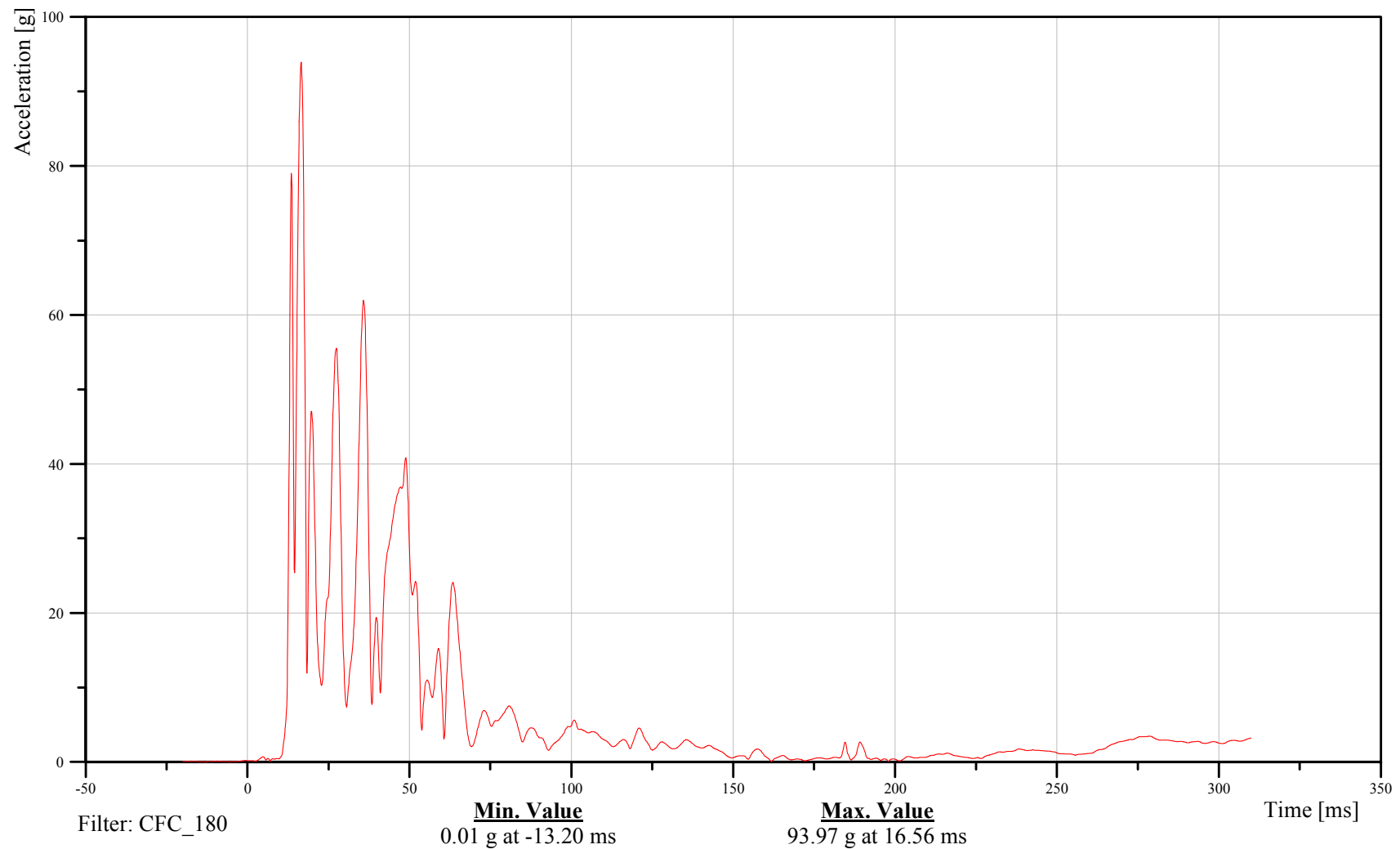
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI03LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 1 Accel X

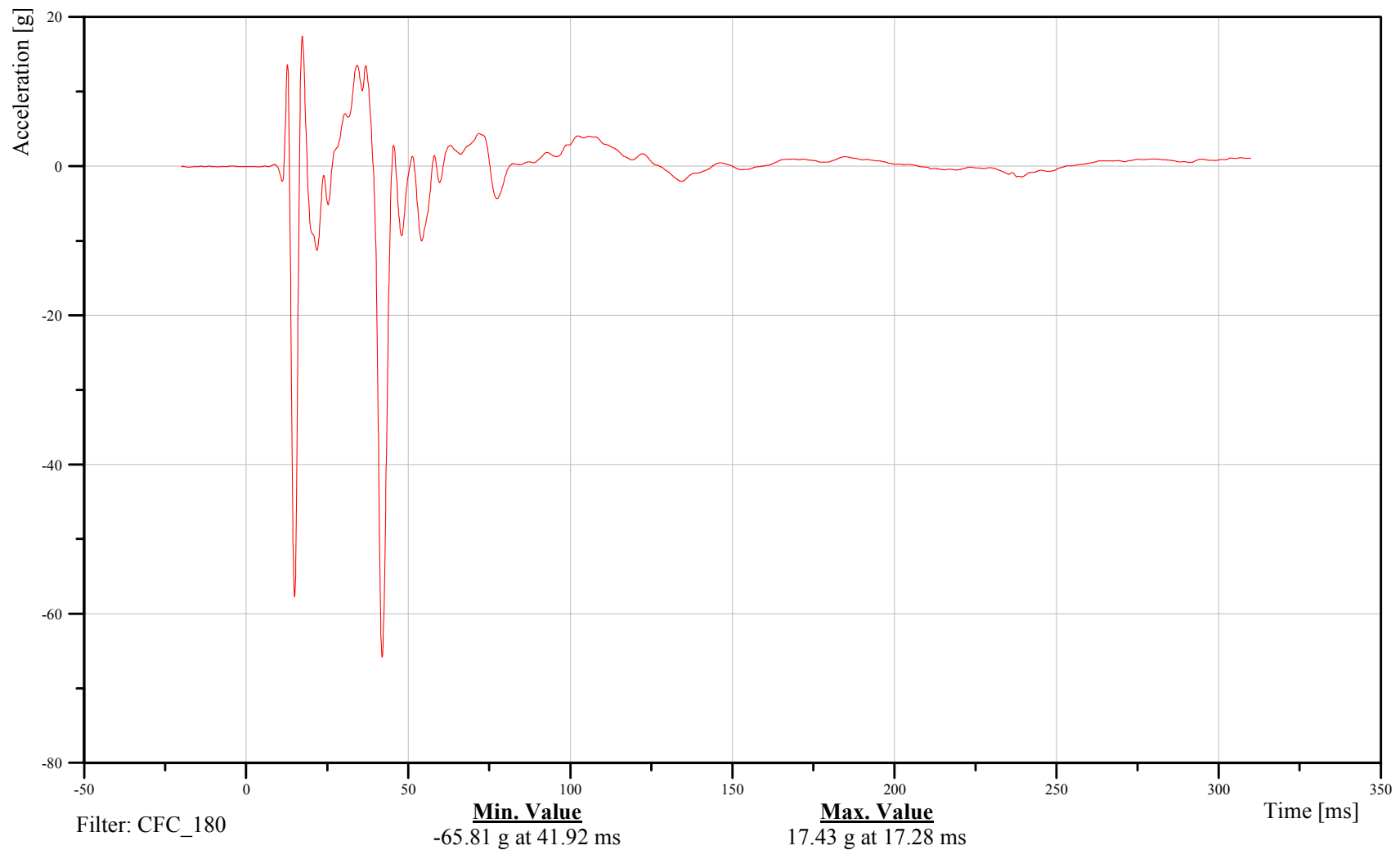
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABRI01LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 1 Accel Y

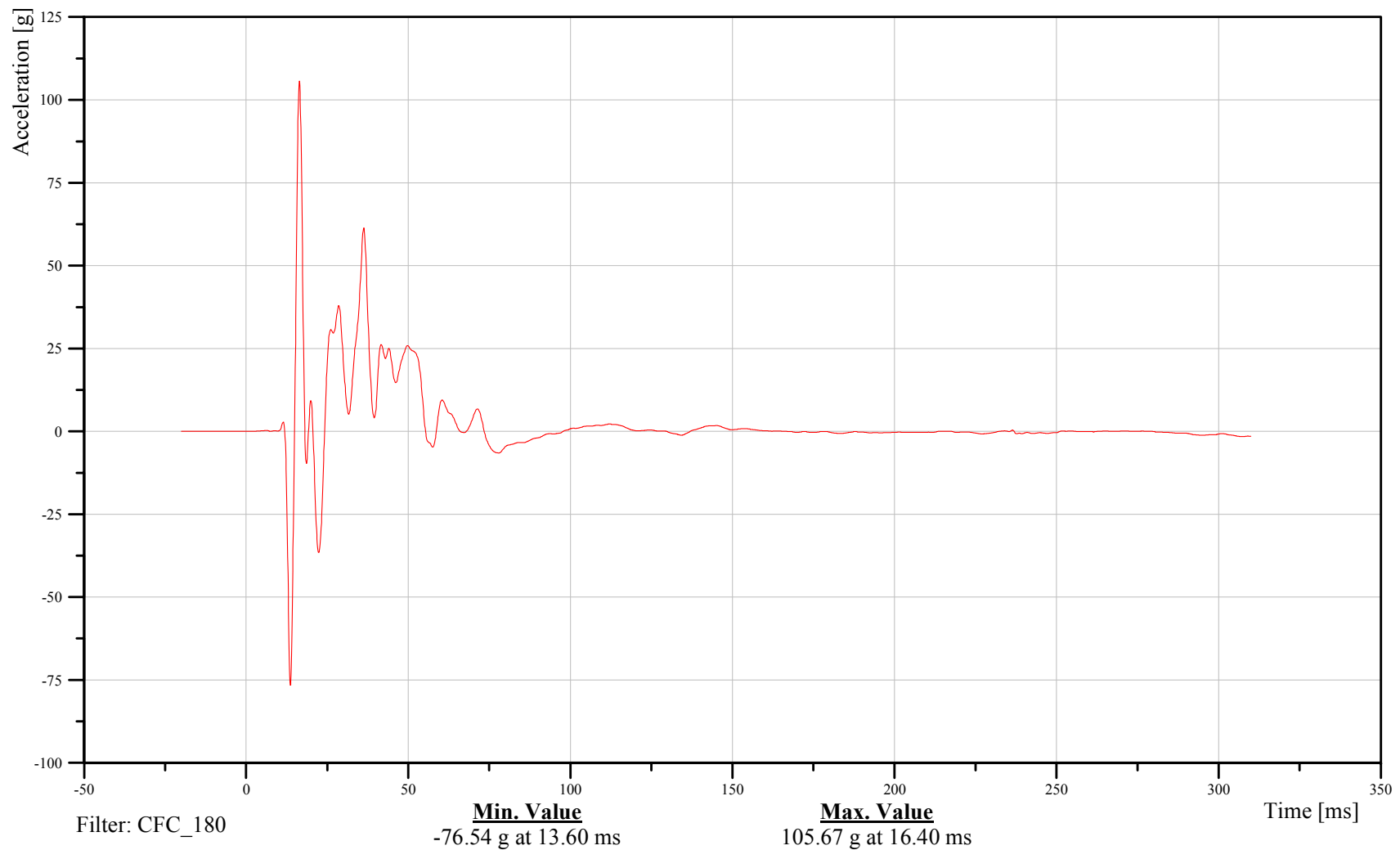
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABRI01LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 1 Accel Z

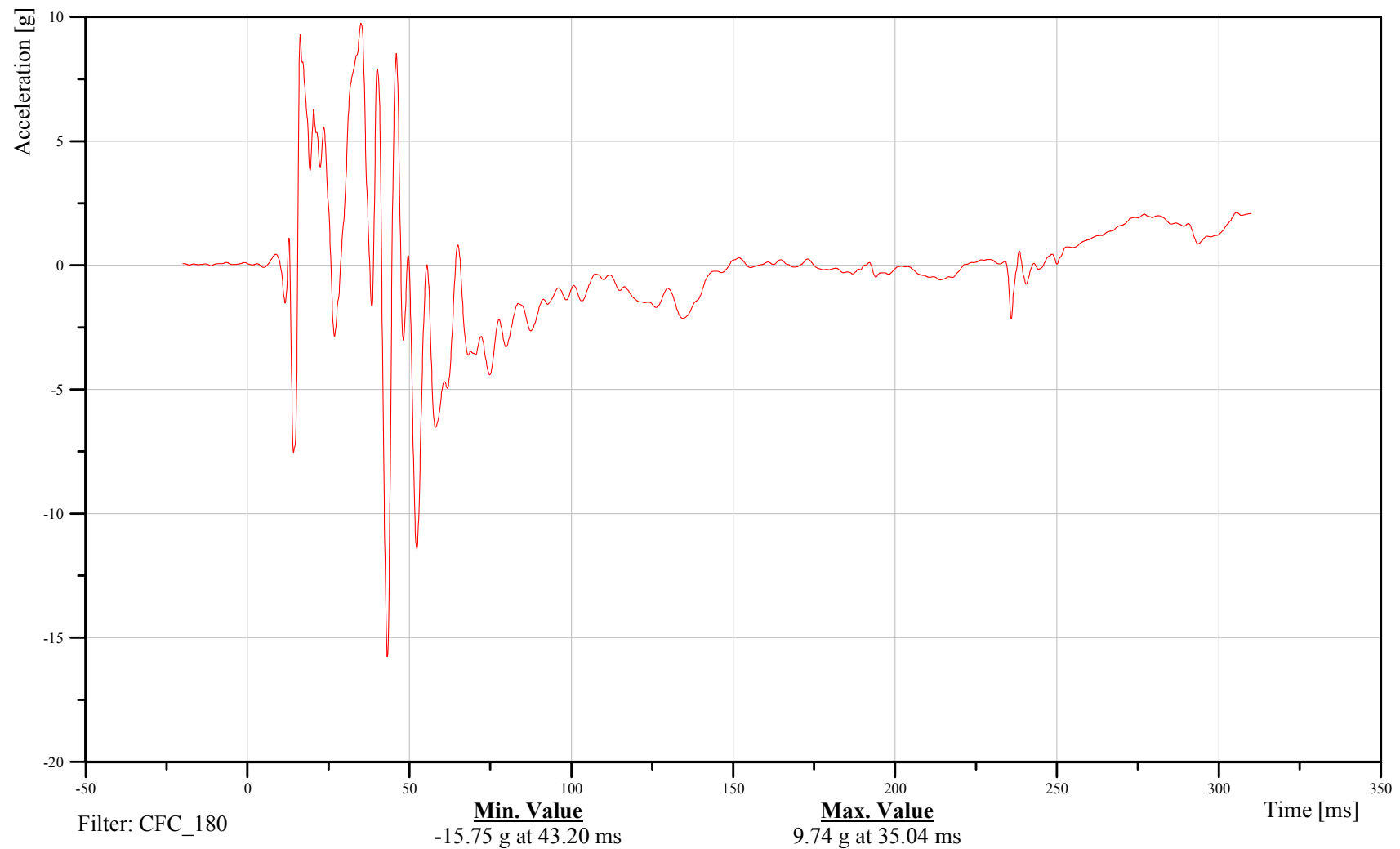
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABRI01LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 1 Accel Resultant

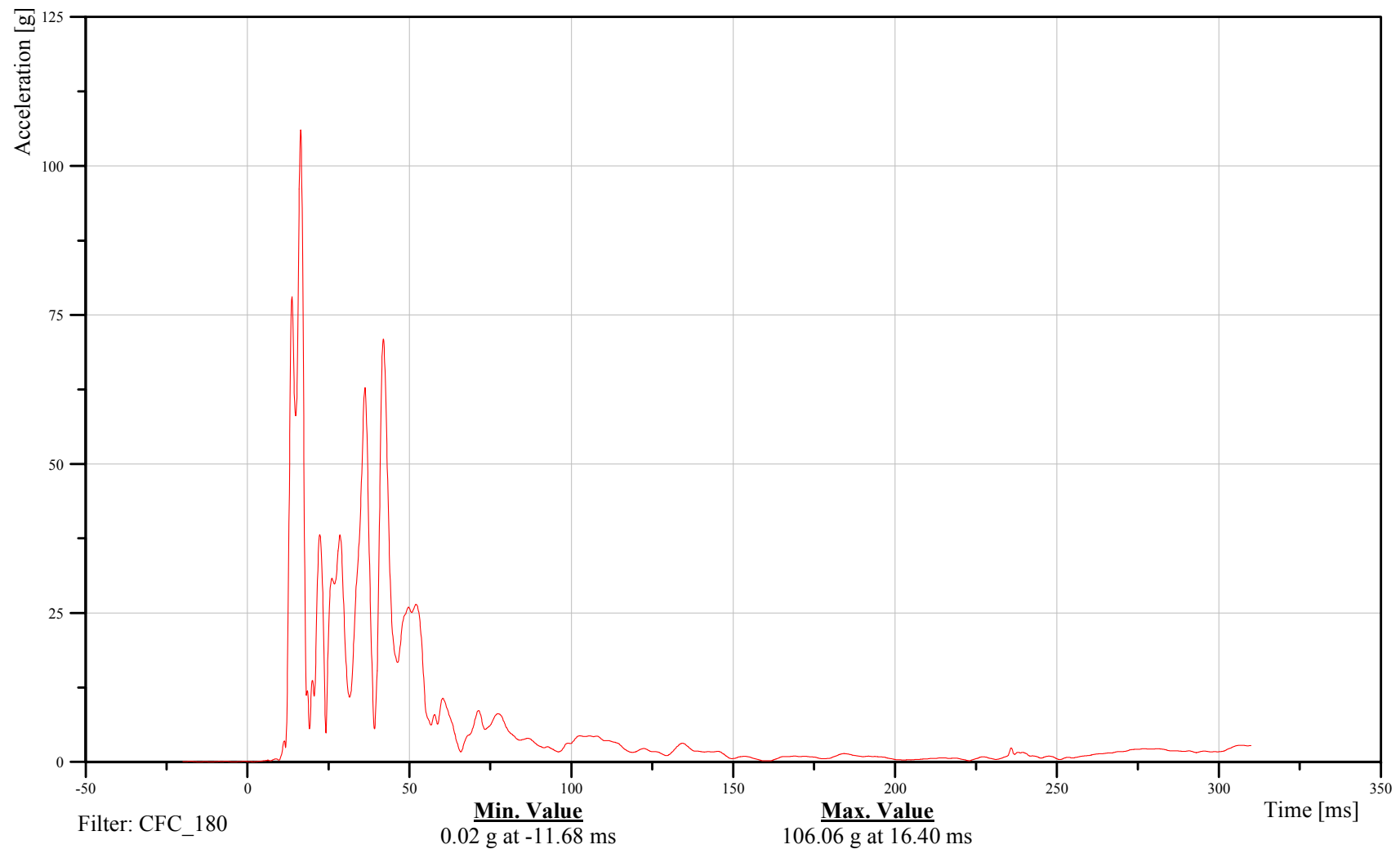
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABRI01LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 2 Accel X

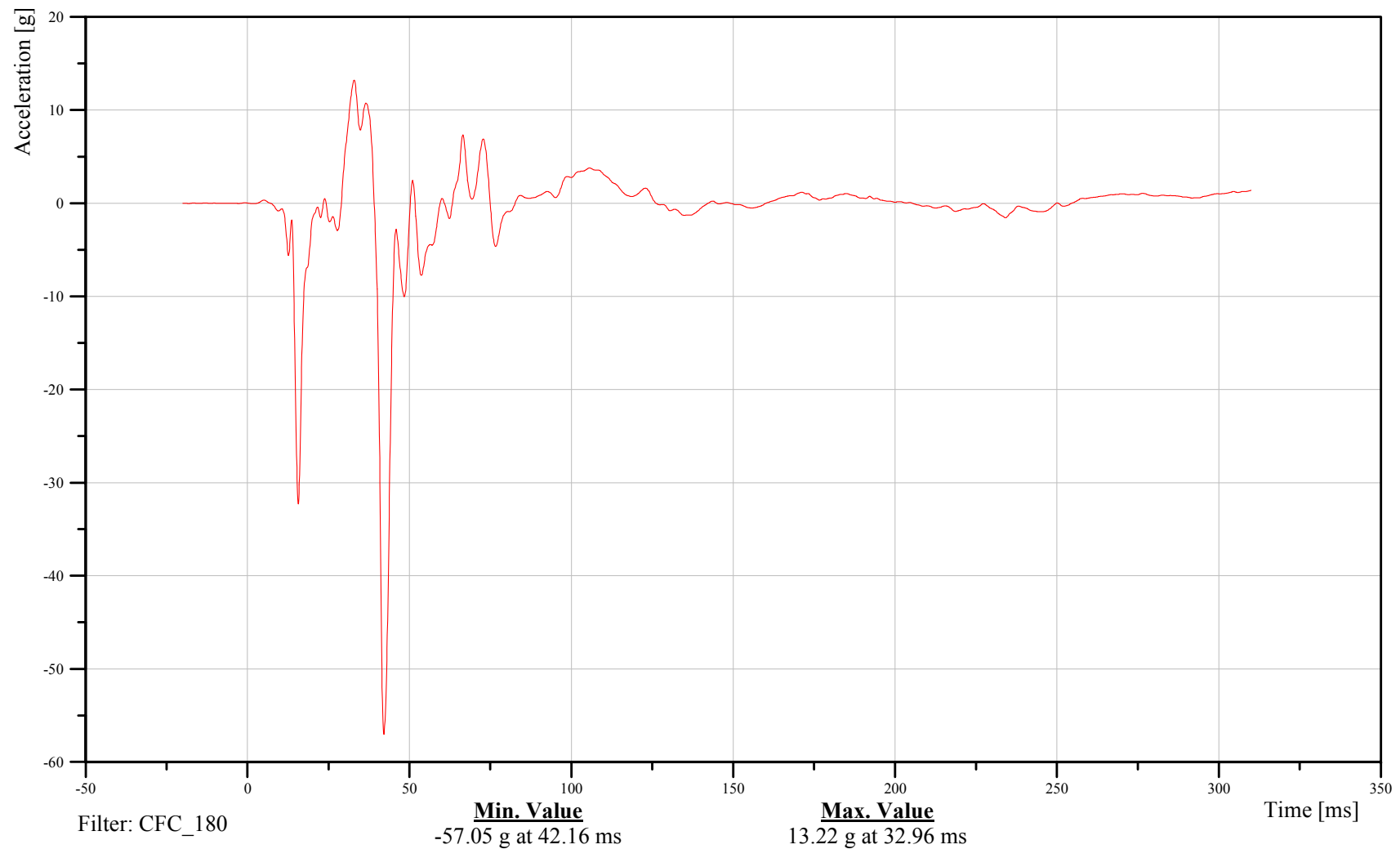
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABRI02LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 2 Accel Y

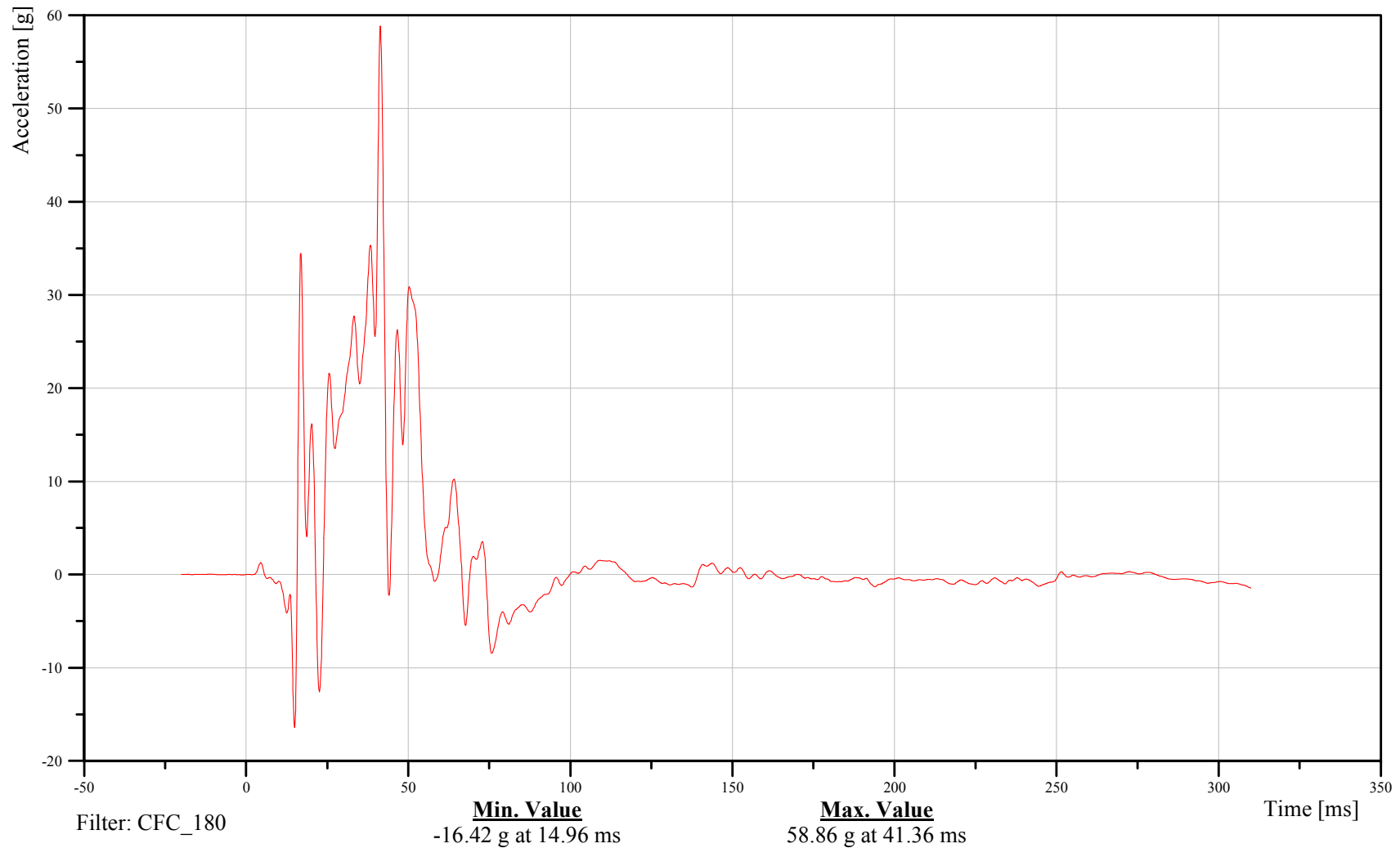
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABRI02LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

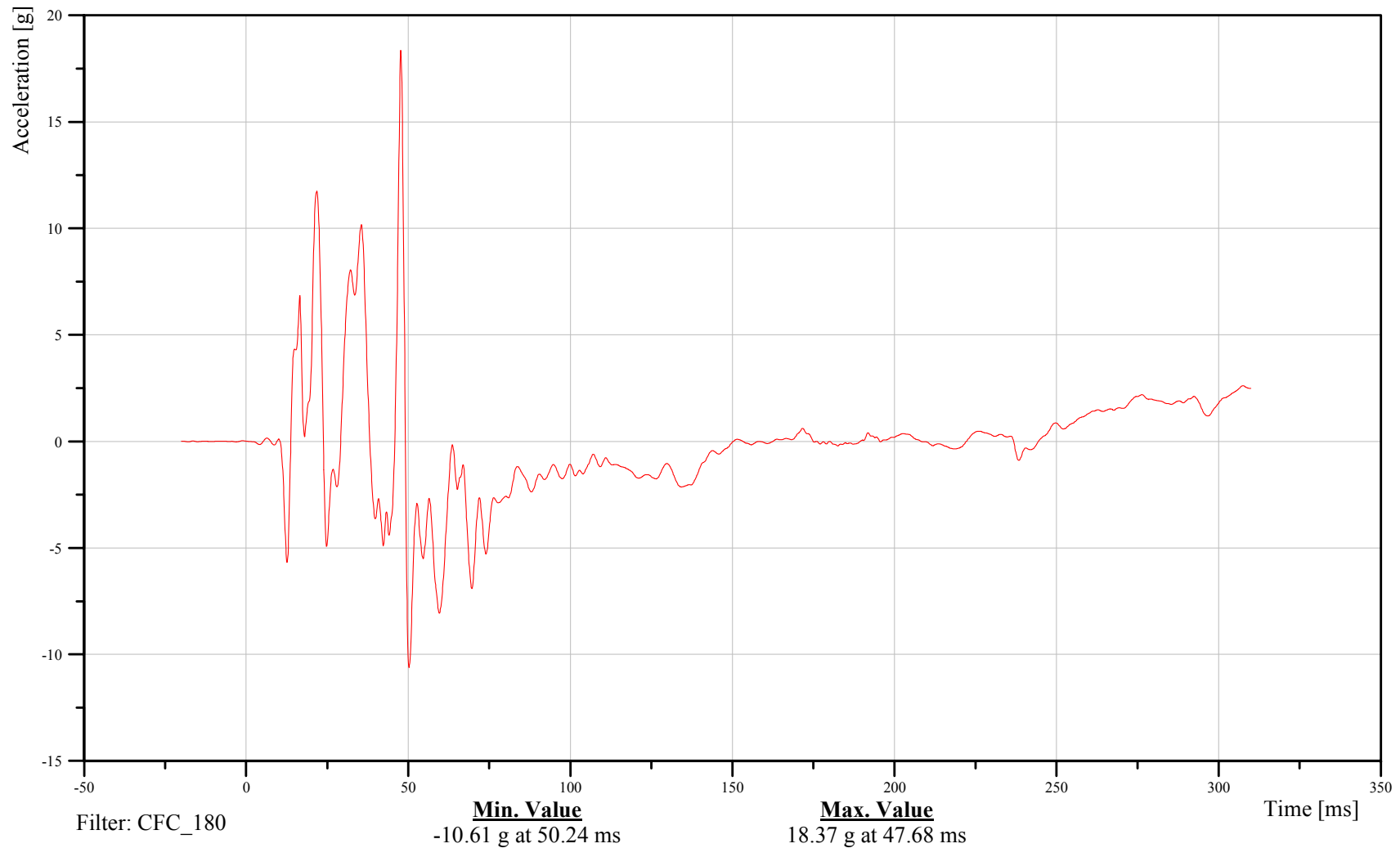
Abdomin Rib 2 Accel Z

Customer: VRTC

11ABRI02LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 2 Accel Resultant

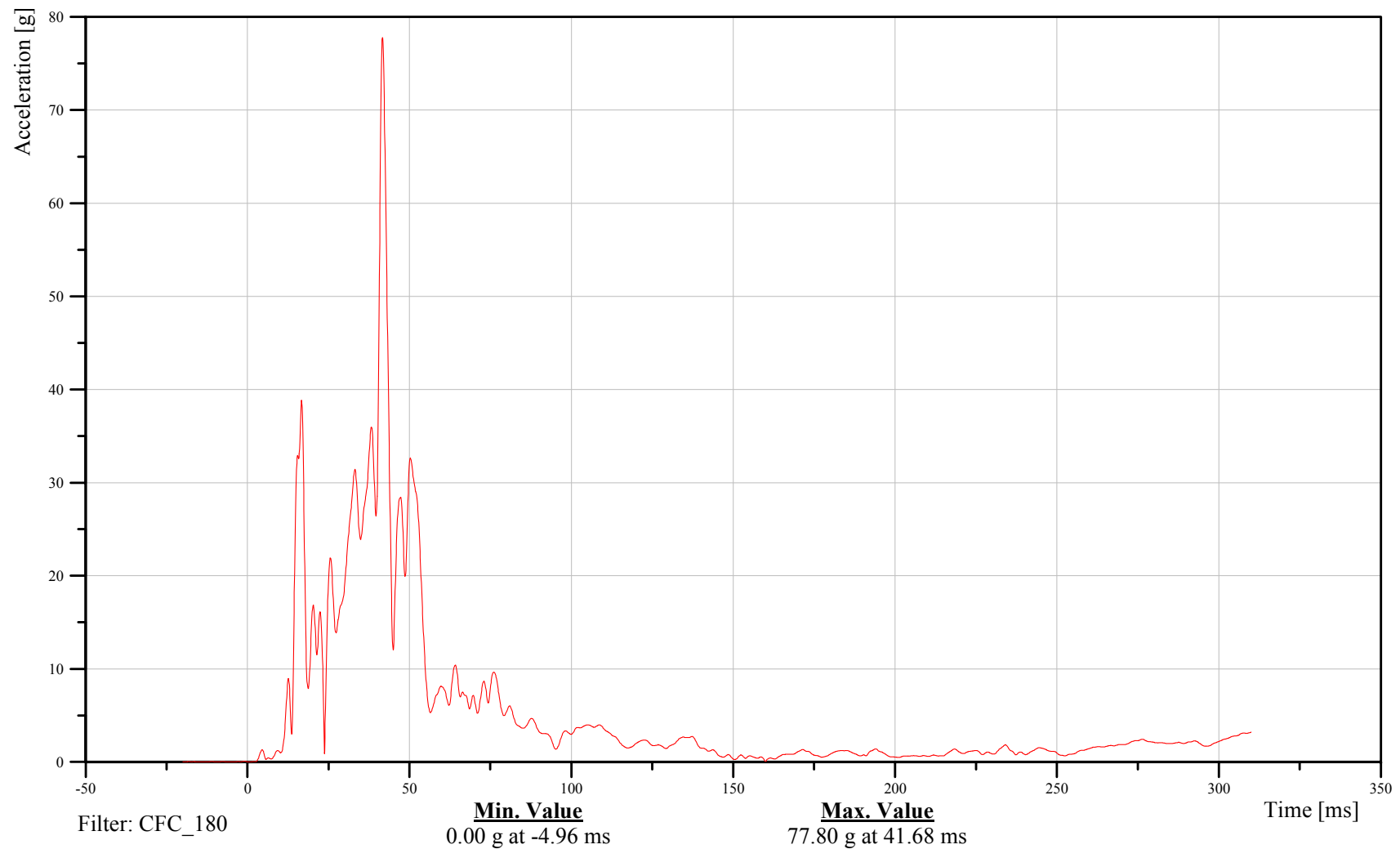
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ABRI02LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

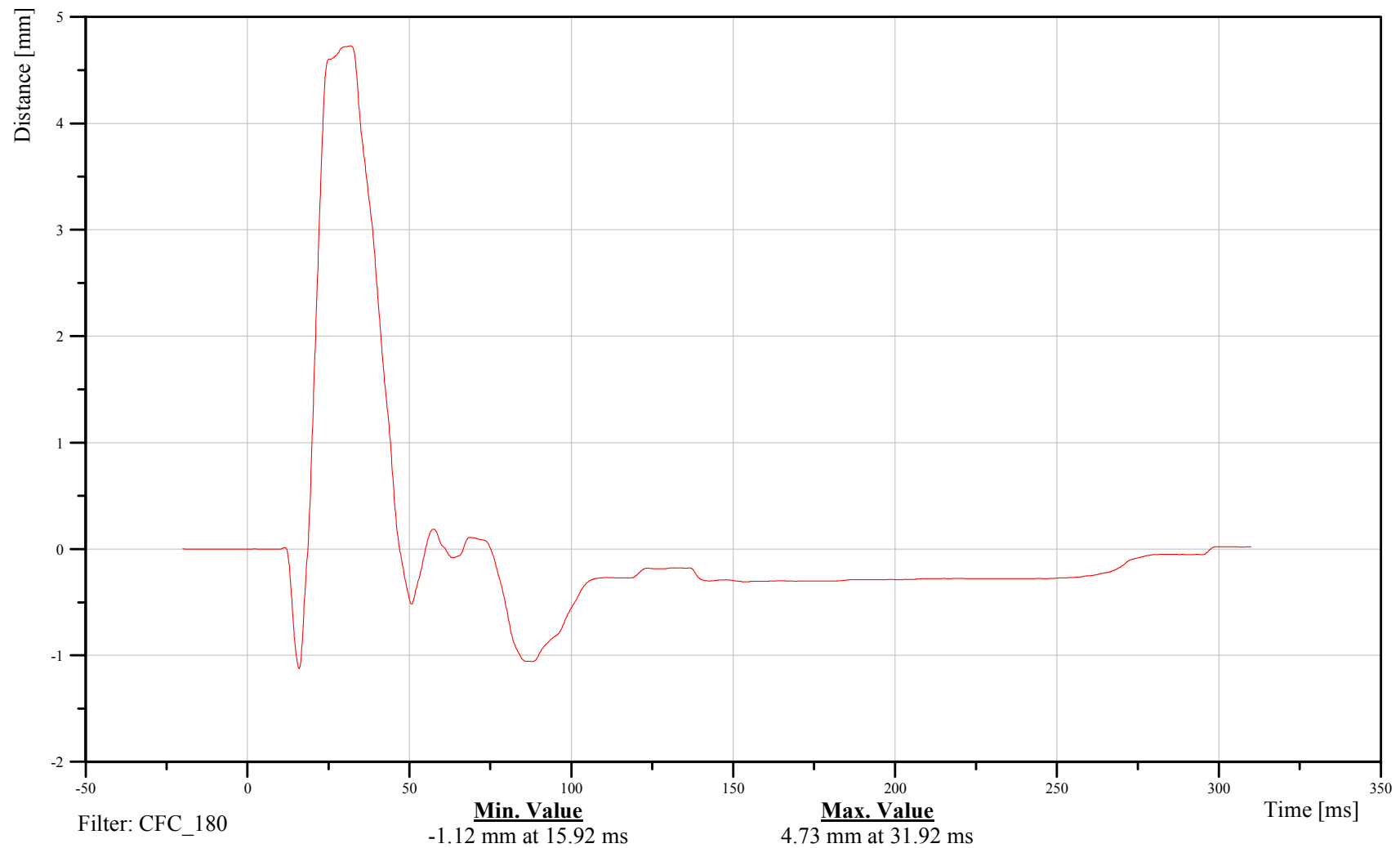
Shoulder Disp. Y

Customer: VRTC

11SHRILE00S2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Disp. Y

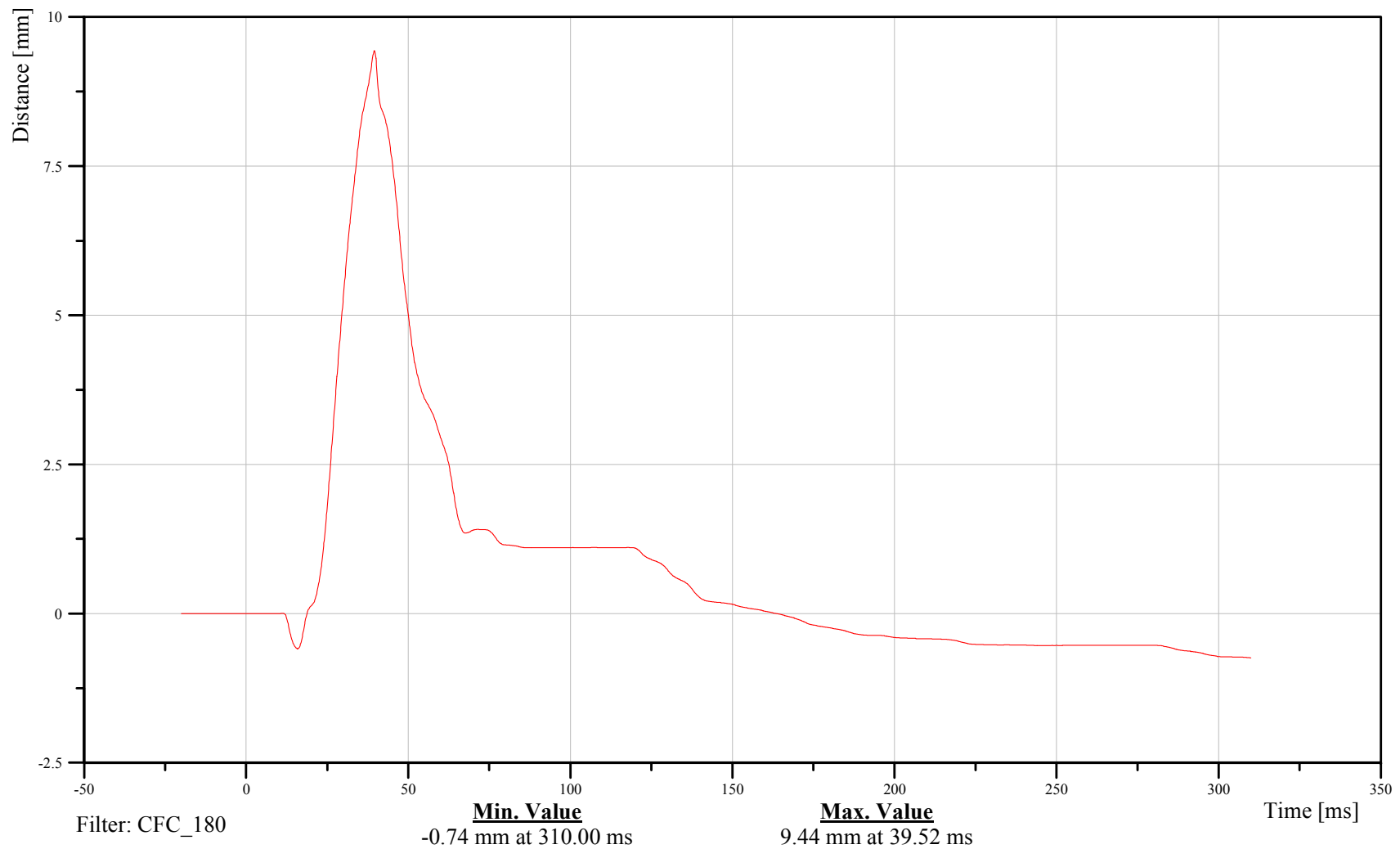
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI01LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Disp. Y

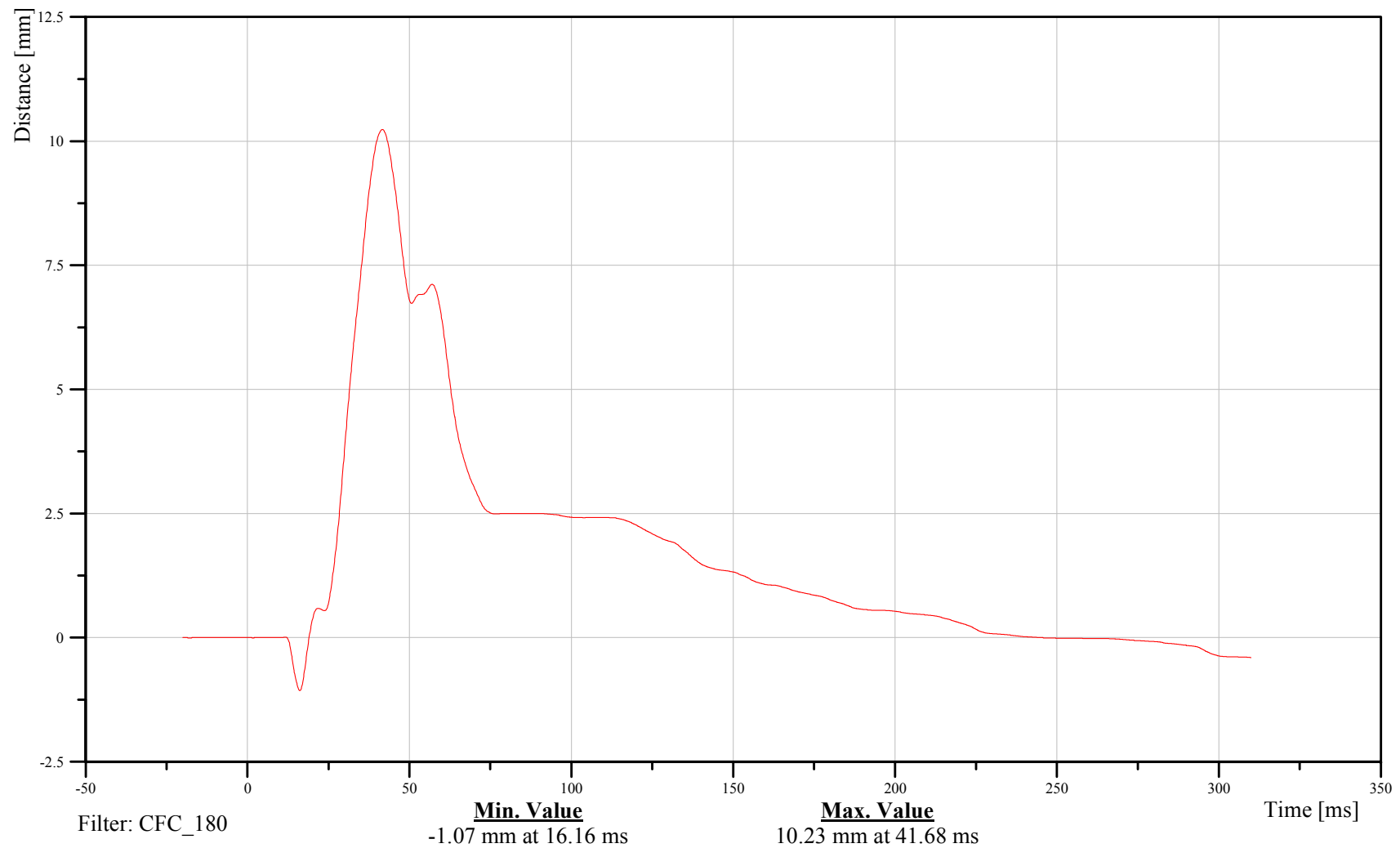
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI02LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Disp. Y

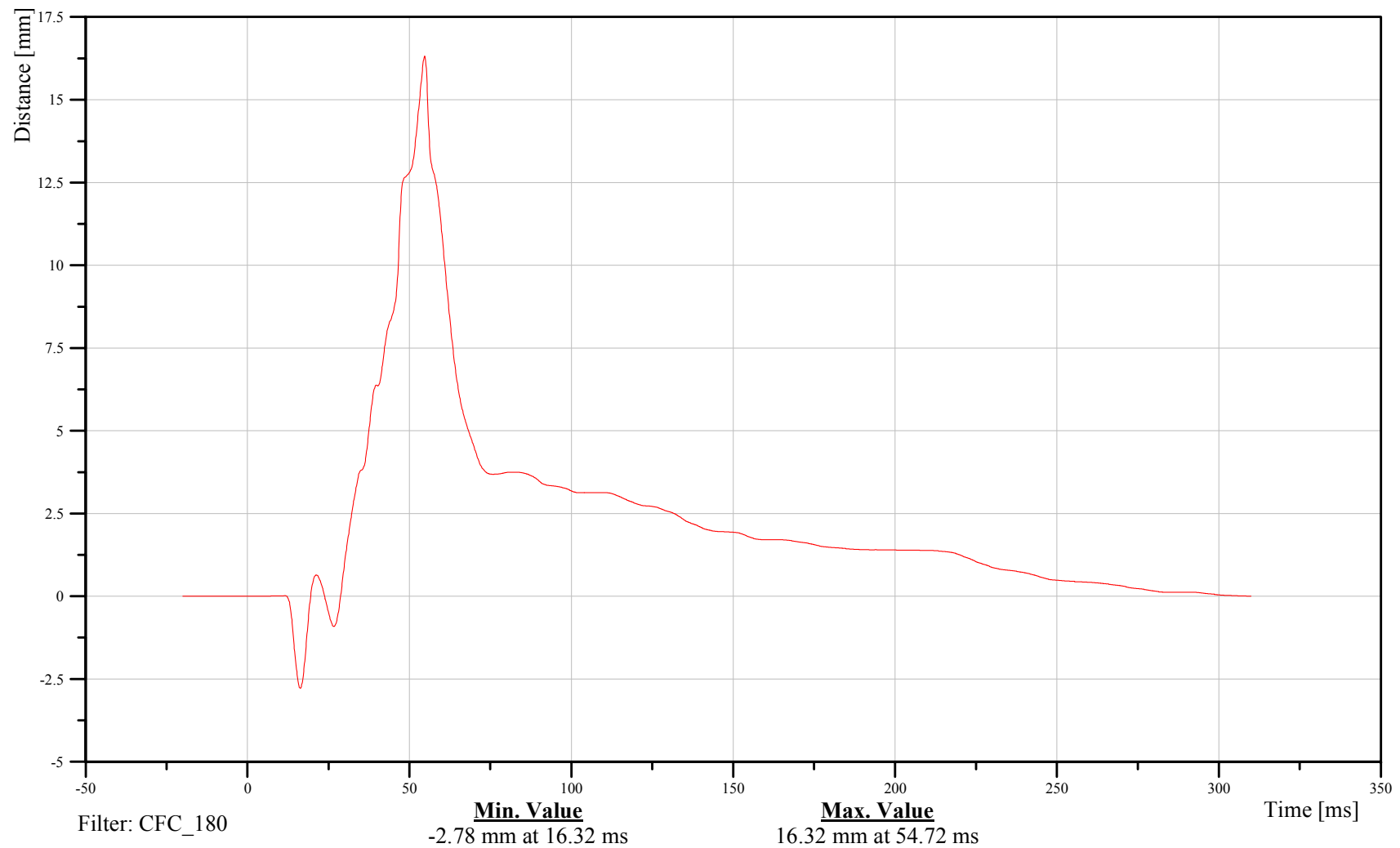
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11TRRI03LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

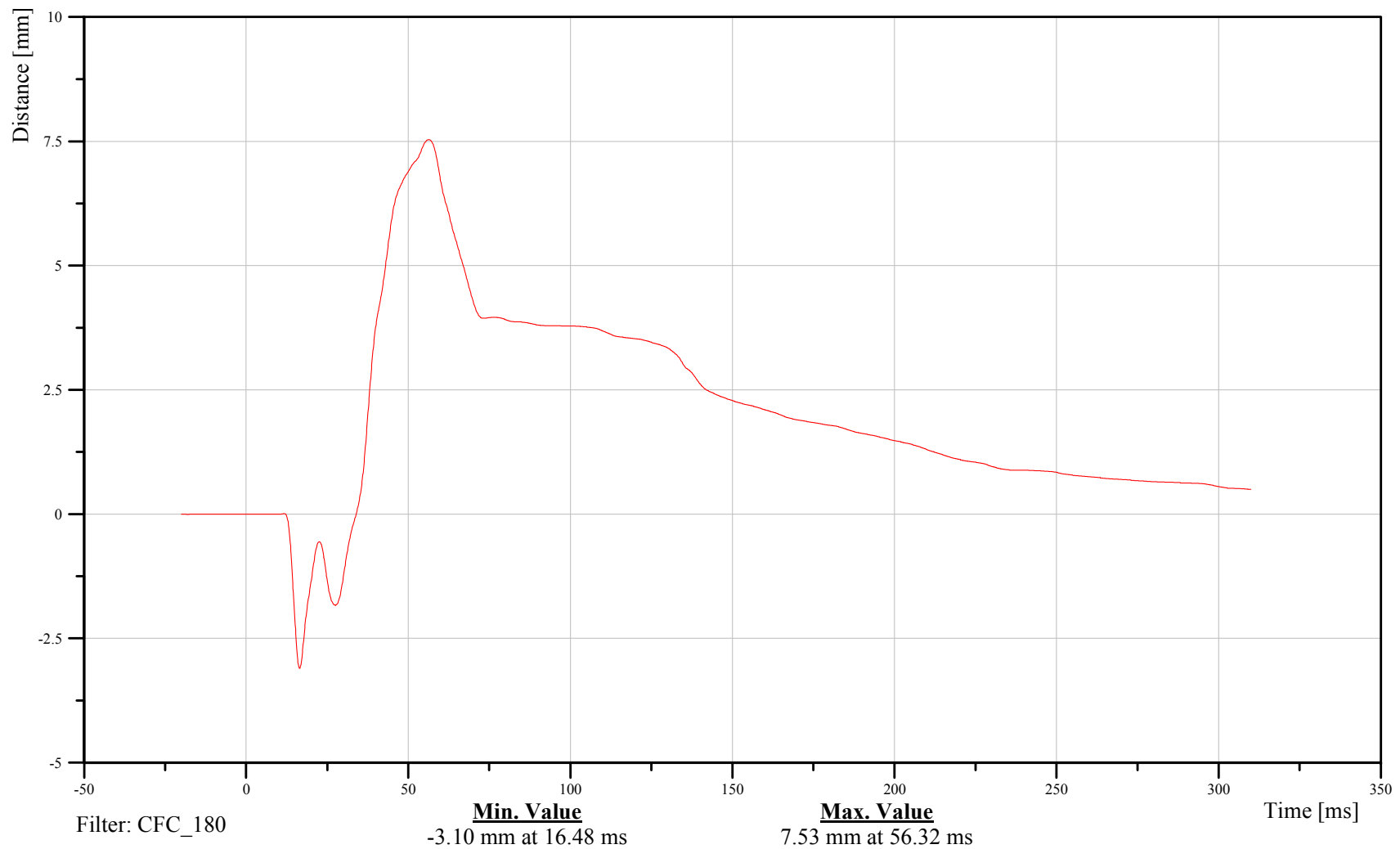
Abdomin Rib 1 Disp. Y

Customer: VRTC

11ABRI01LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

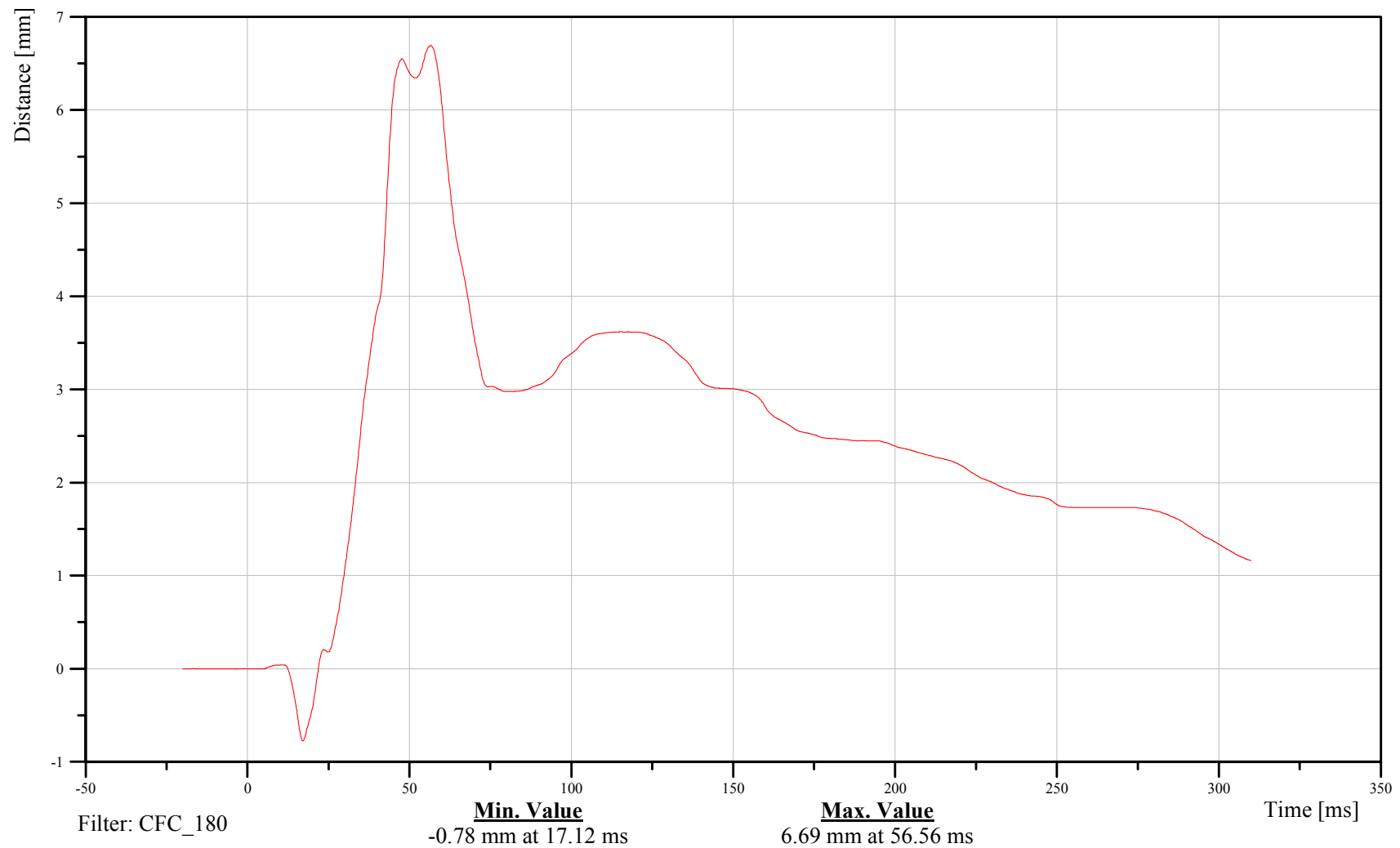
Abdomin Rib 2 Disp. Y

Customer: VRTC

11ABRI02LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Pelvis Accel X

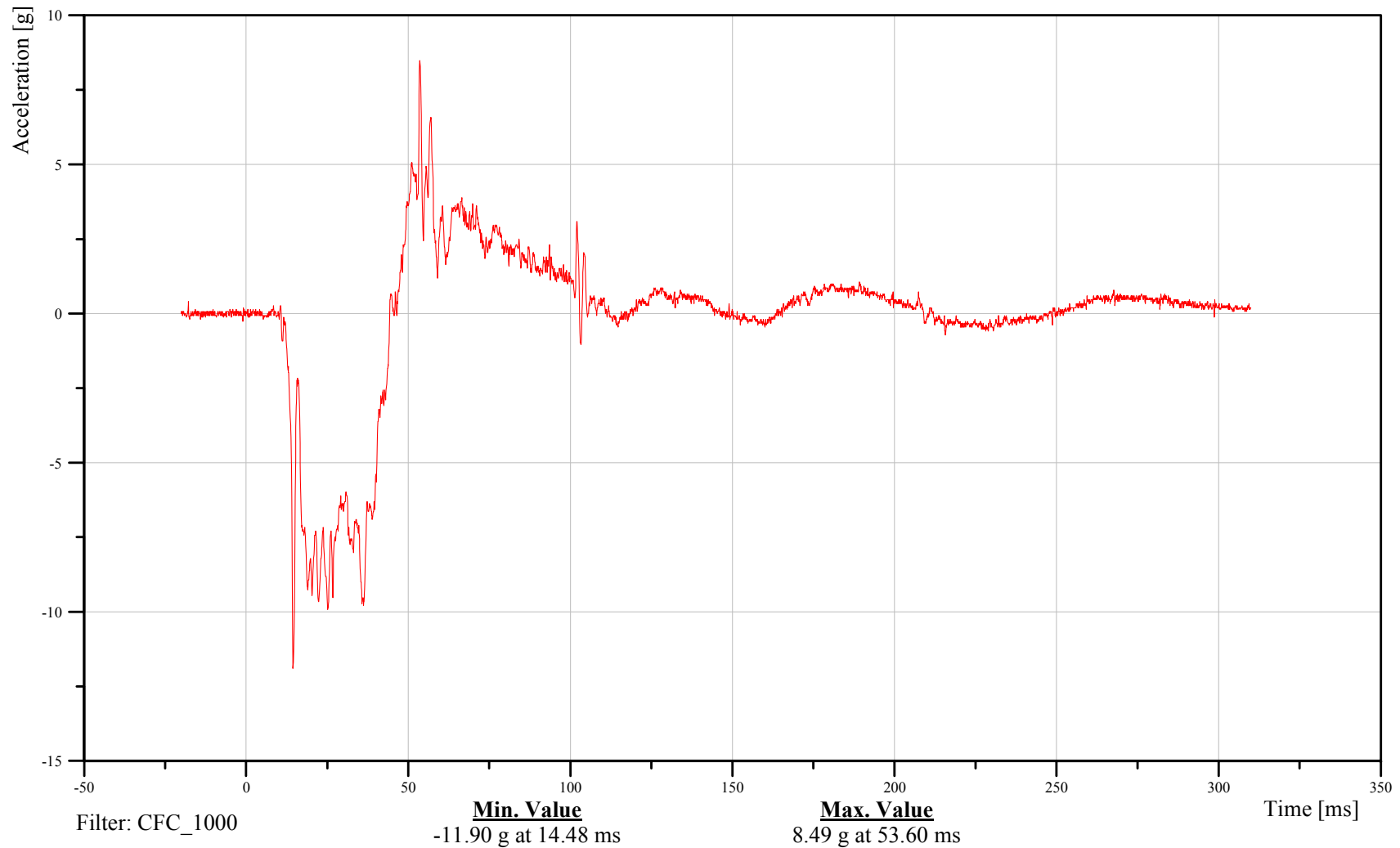
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11PELVCG00S2ACXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Pelvis Accel Y

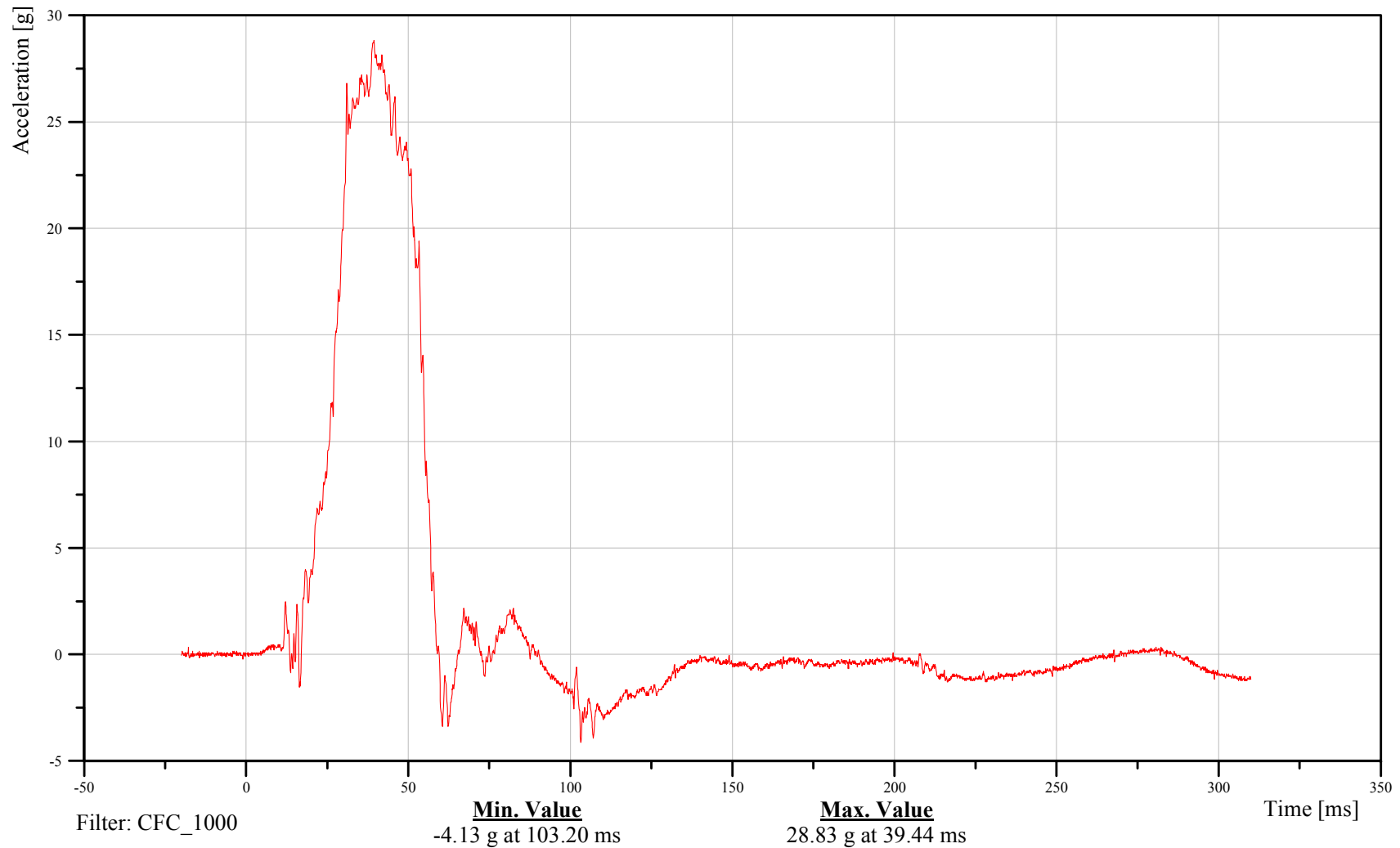
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11PELVCG00S2ACYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

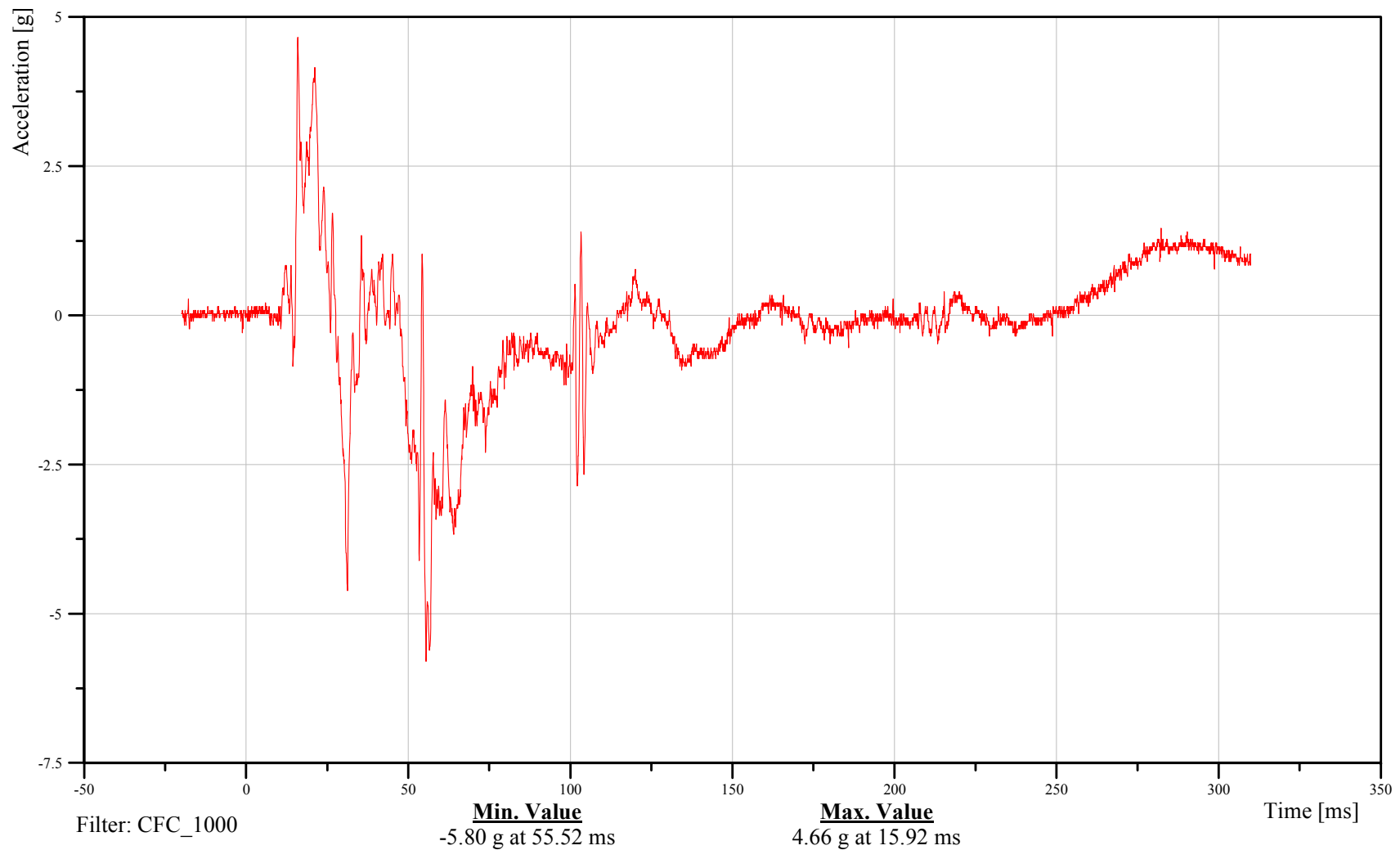
Pelvis Accel Z

Customer: VRTC

11PELVCG00S2ACZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

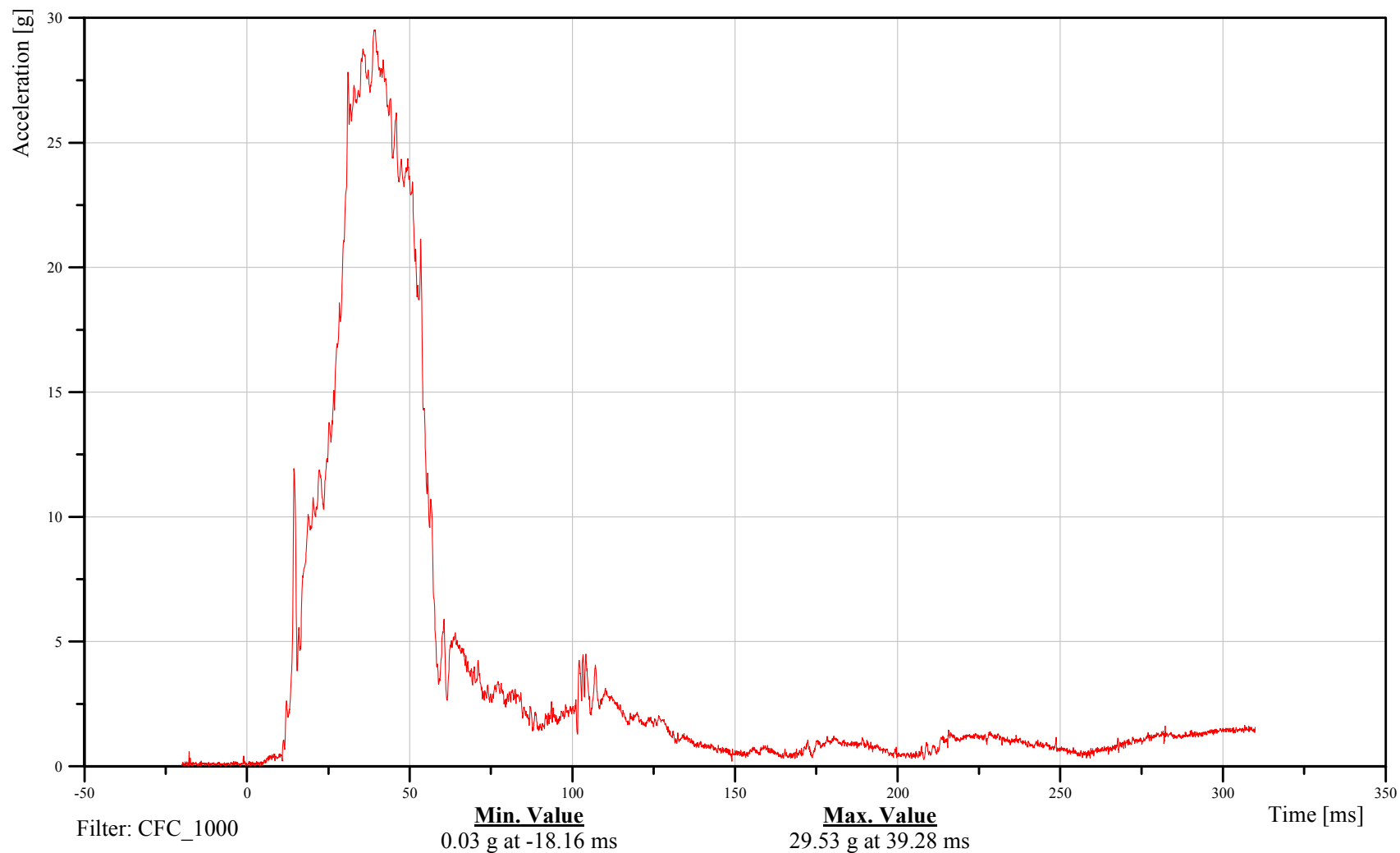
Pelvis Accel Resultant

Customer: VRTC

11PELVCG00S2ACRA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Acetabulum Force Y

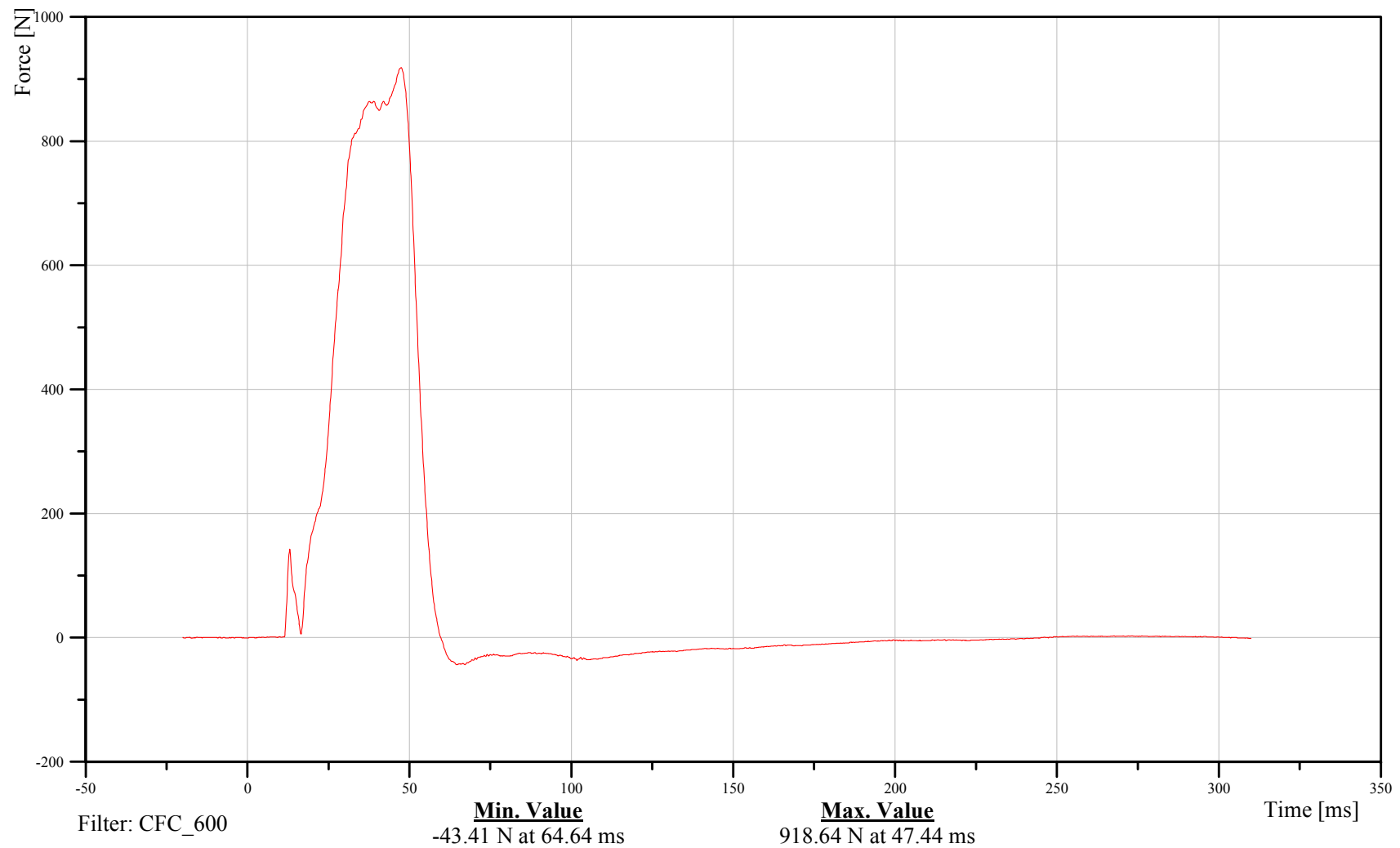
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ACTBLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Illiac Wing Force Y

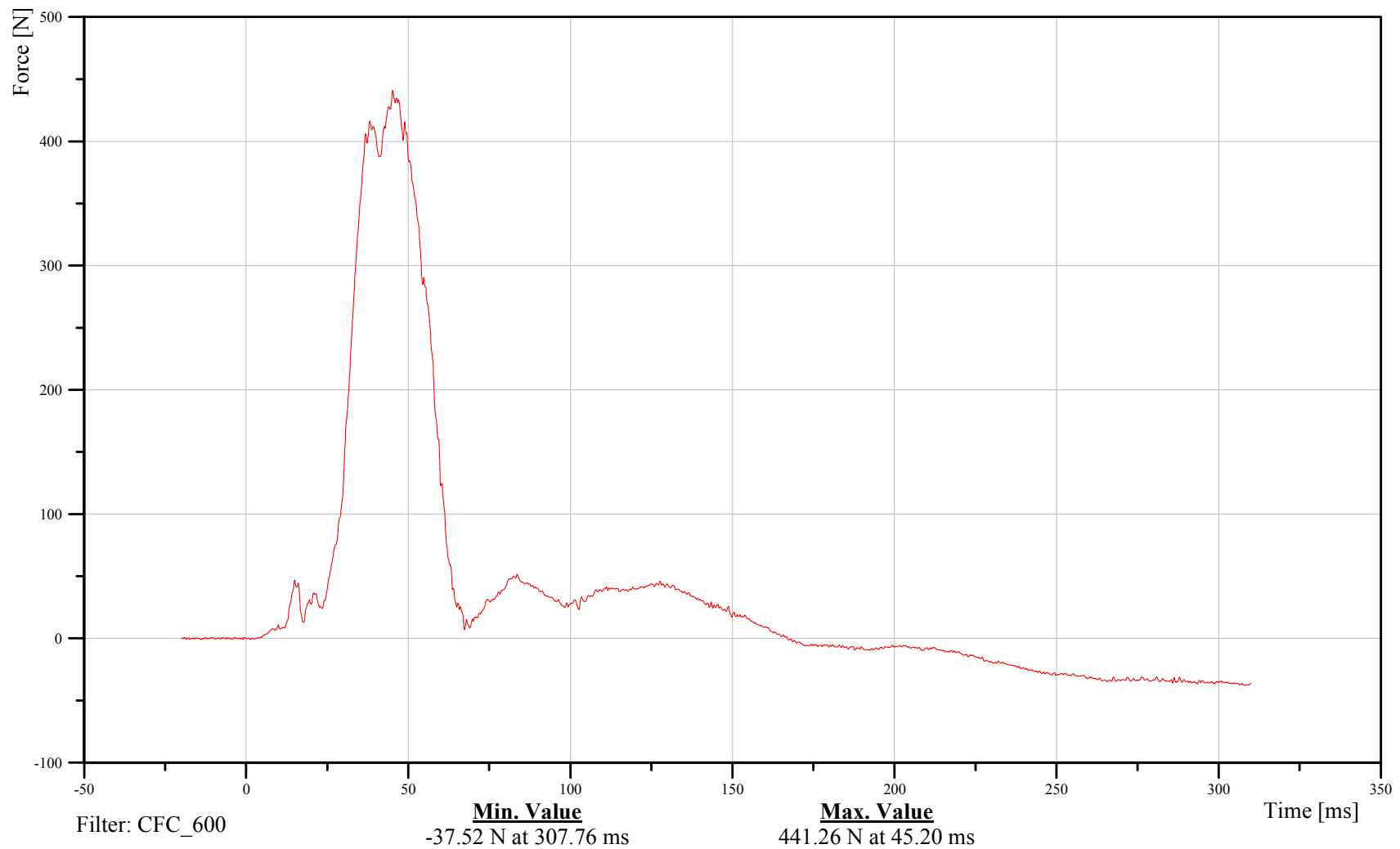
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11ILACLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

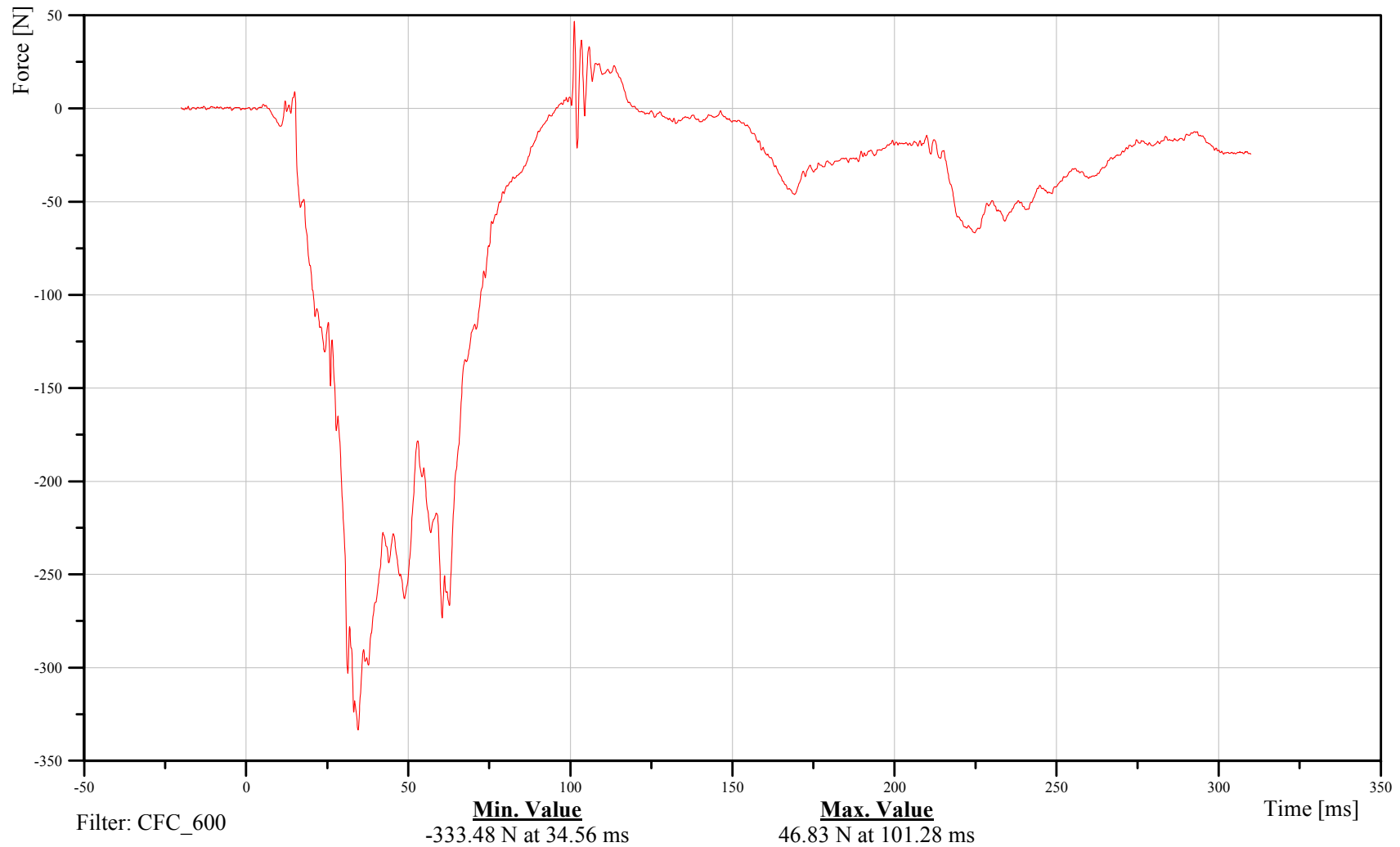
Right Femur Force X

Customer: VRTC

11FEMRRI00S2FOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

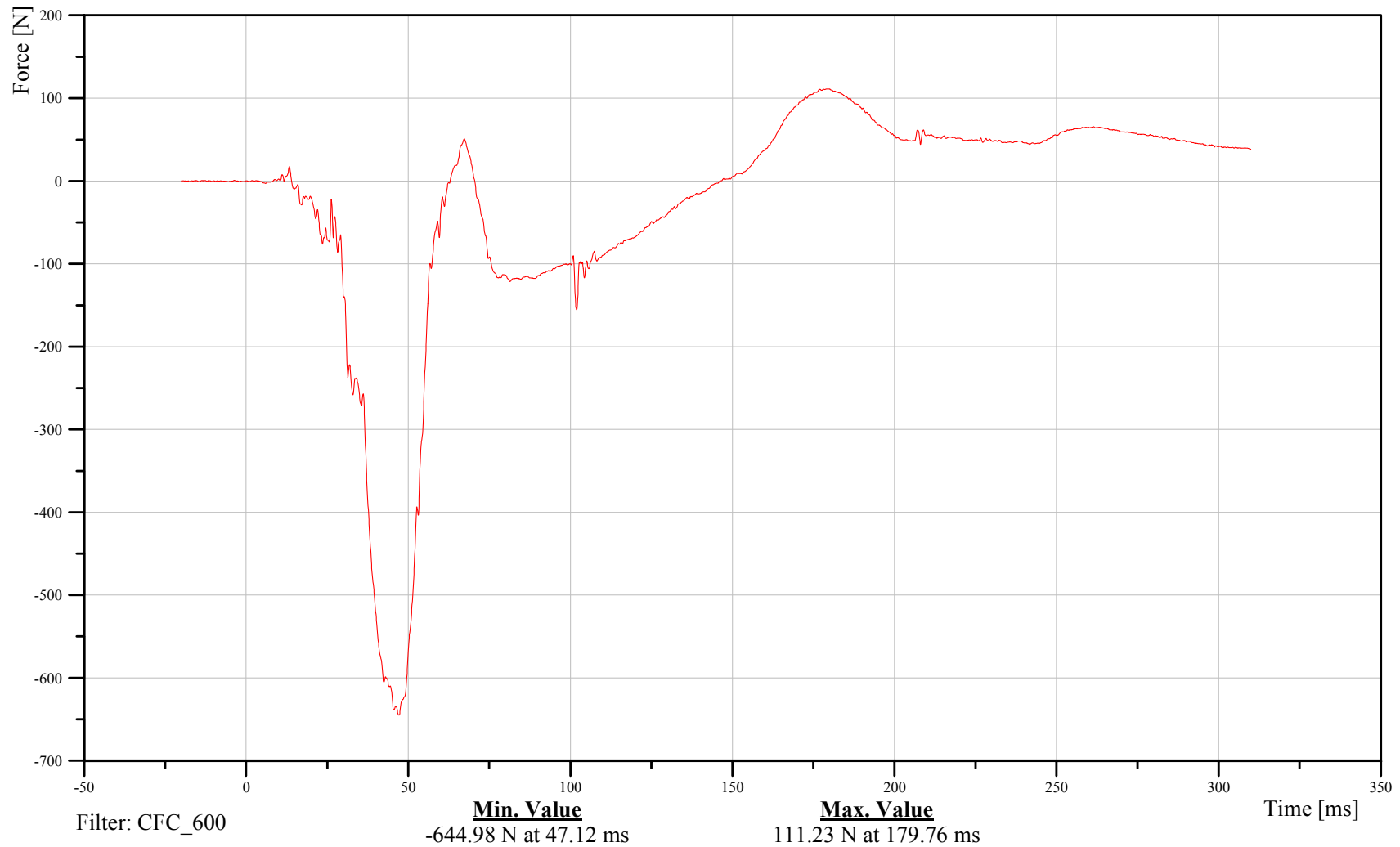
Right Femur Force Y

Customer: VRTC

11FEMRRI00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

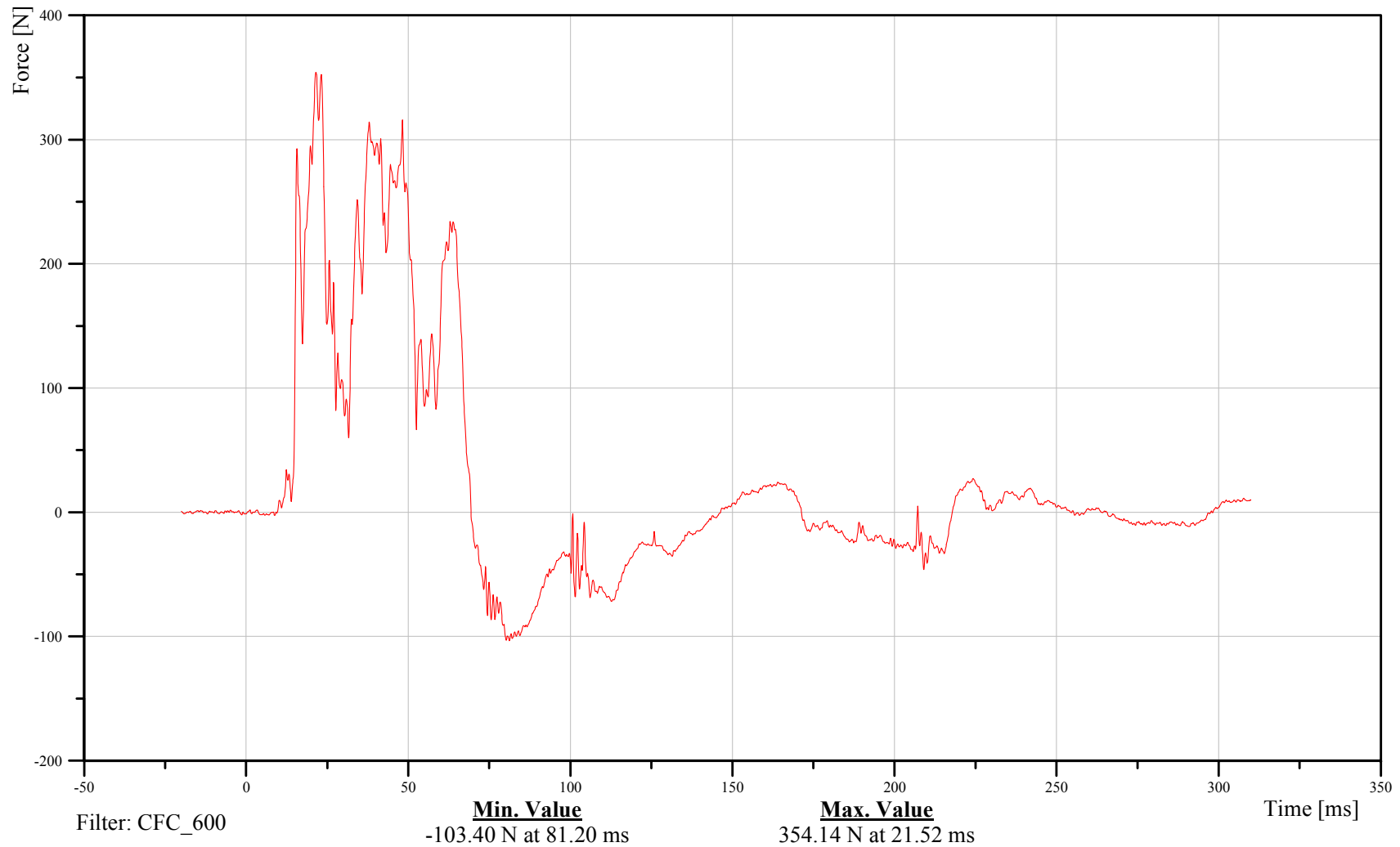
Right Femur Force Z

Customer: VRTC

11FEMRRI00S2FOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

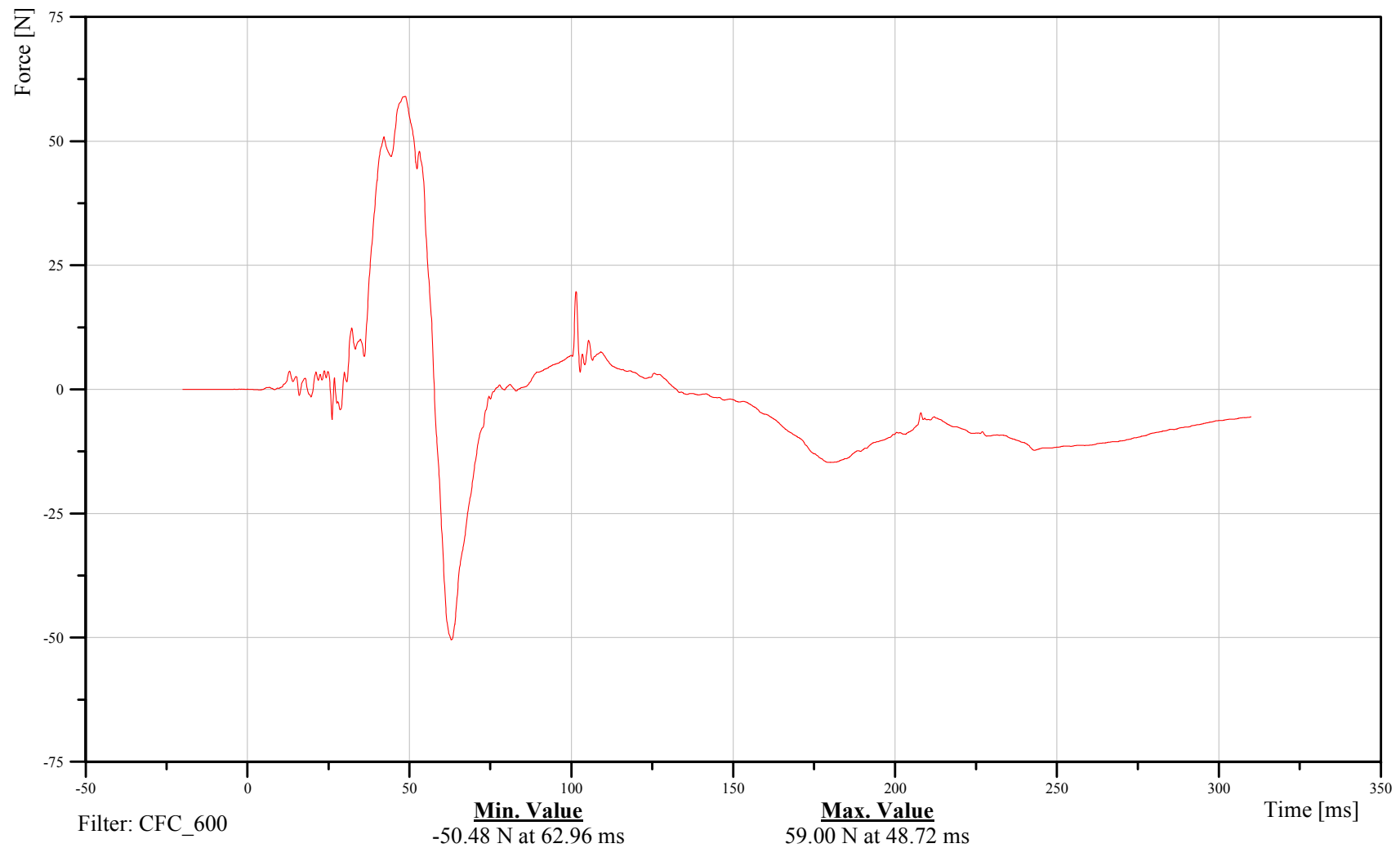
Right Femur Moment X

Customer: VRTC

11FEMRRI00S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

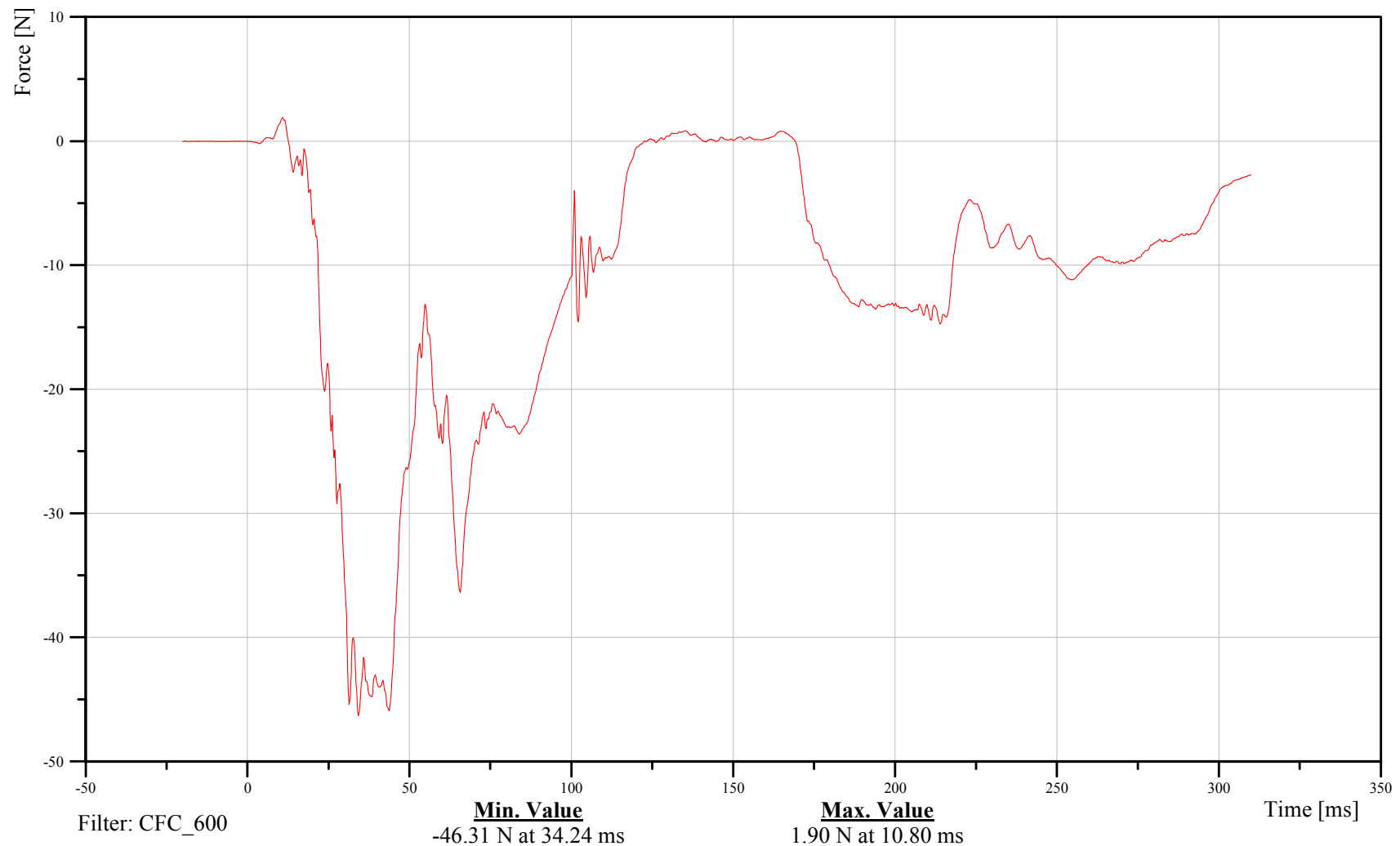
Right Femur Moment Y

Customer: VRTC

11FEMRRI00S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

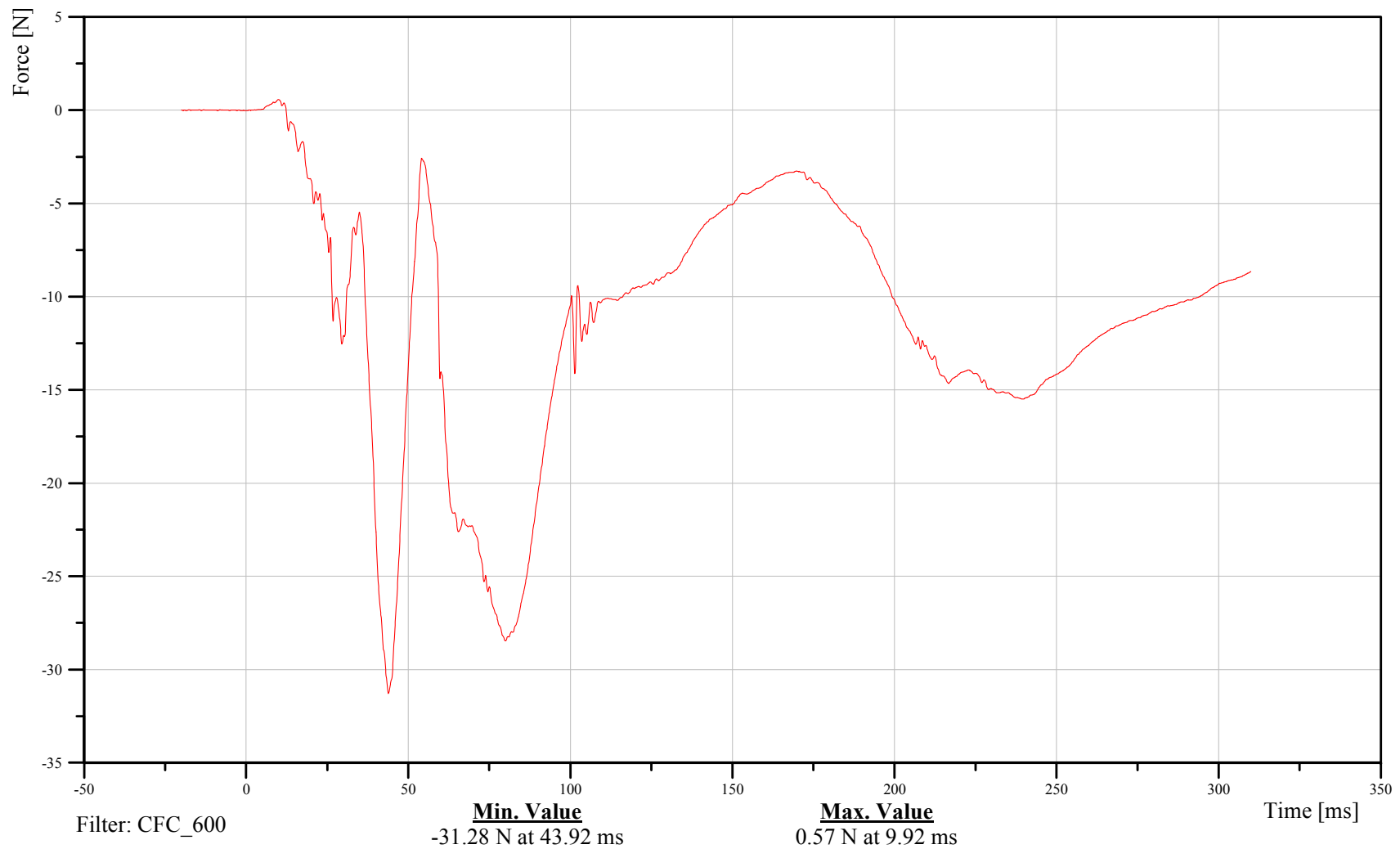
Right Femur Moment Z

Customer: VRTC

11FEMRRI00S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

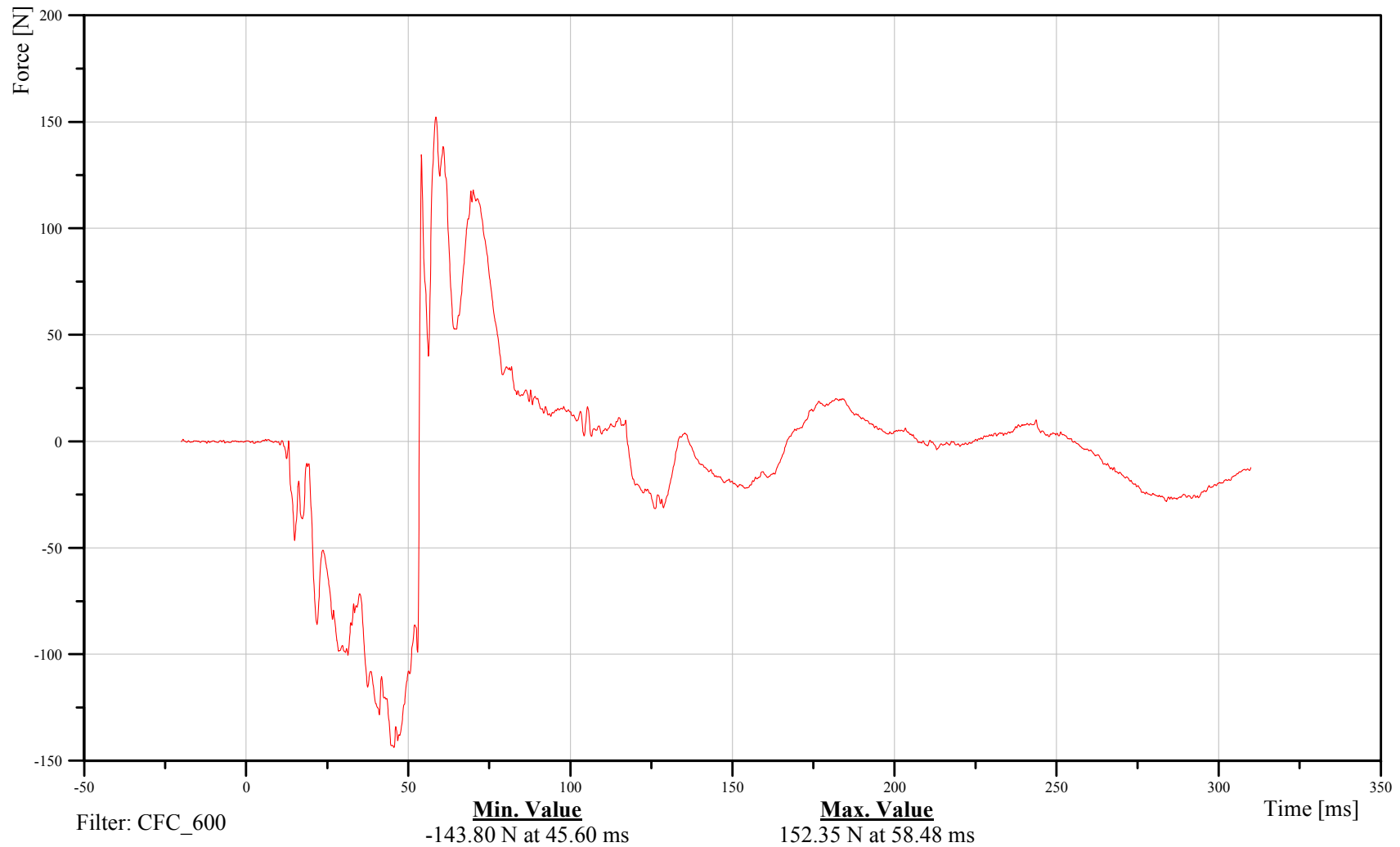
Left Femur Force X

Customer: VRTC

11FEMRLE00S2FOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

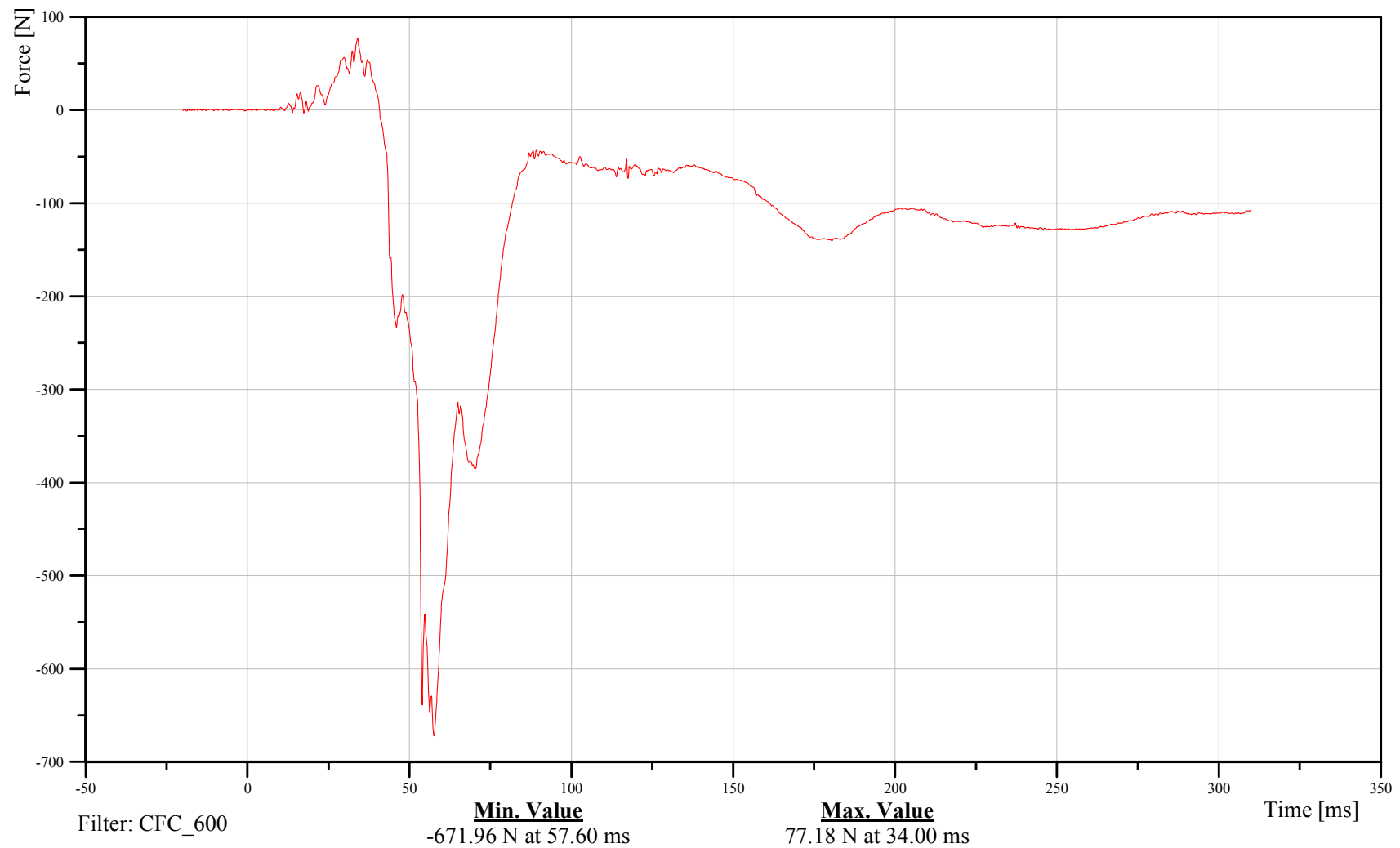
Left Femur Force Y

Customer: VRTC

11FEMRLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Force Z

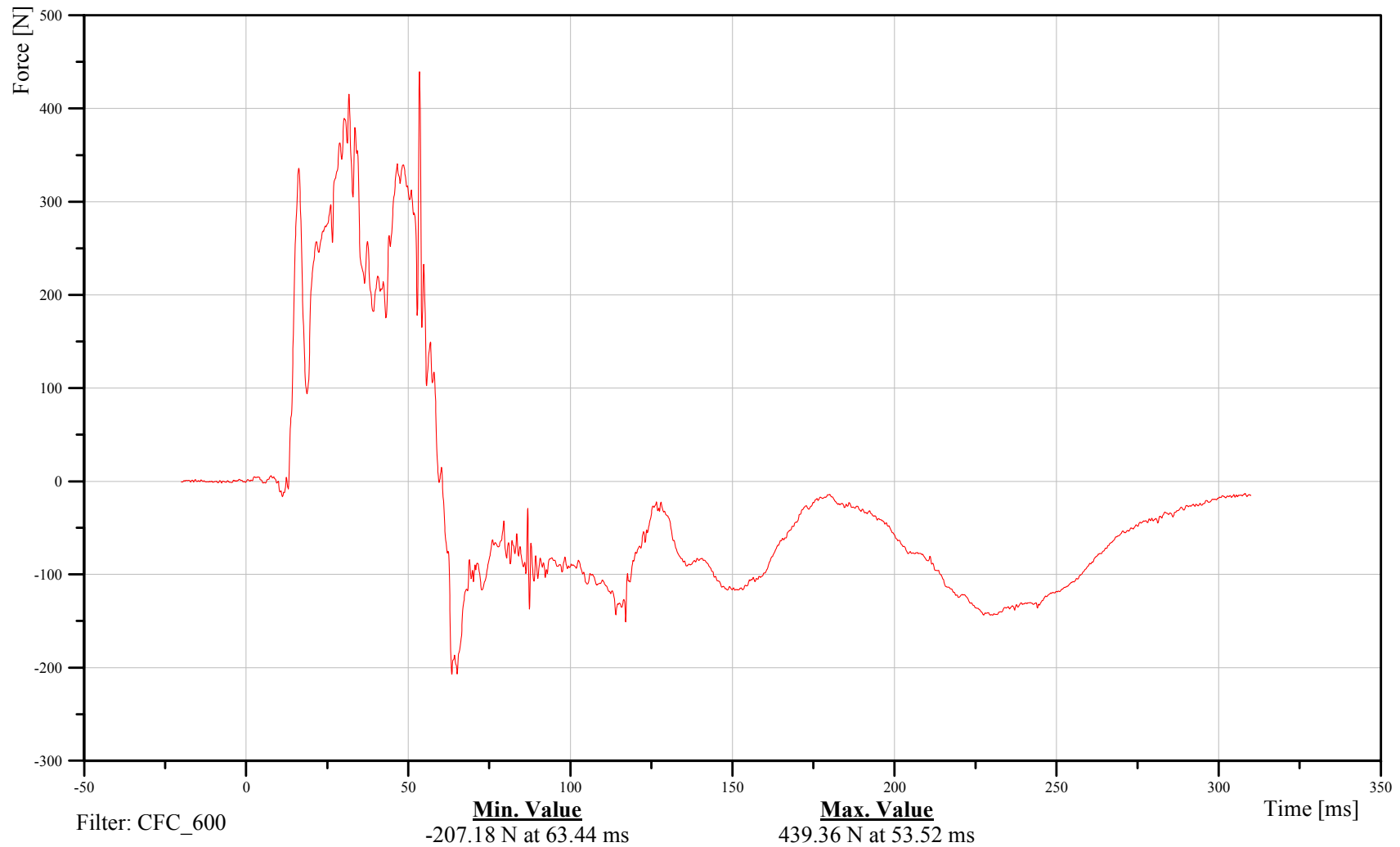
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11FEMRLE00S2FOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Moment X

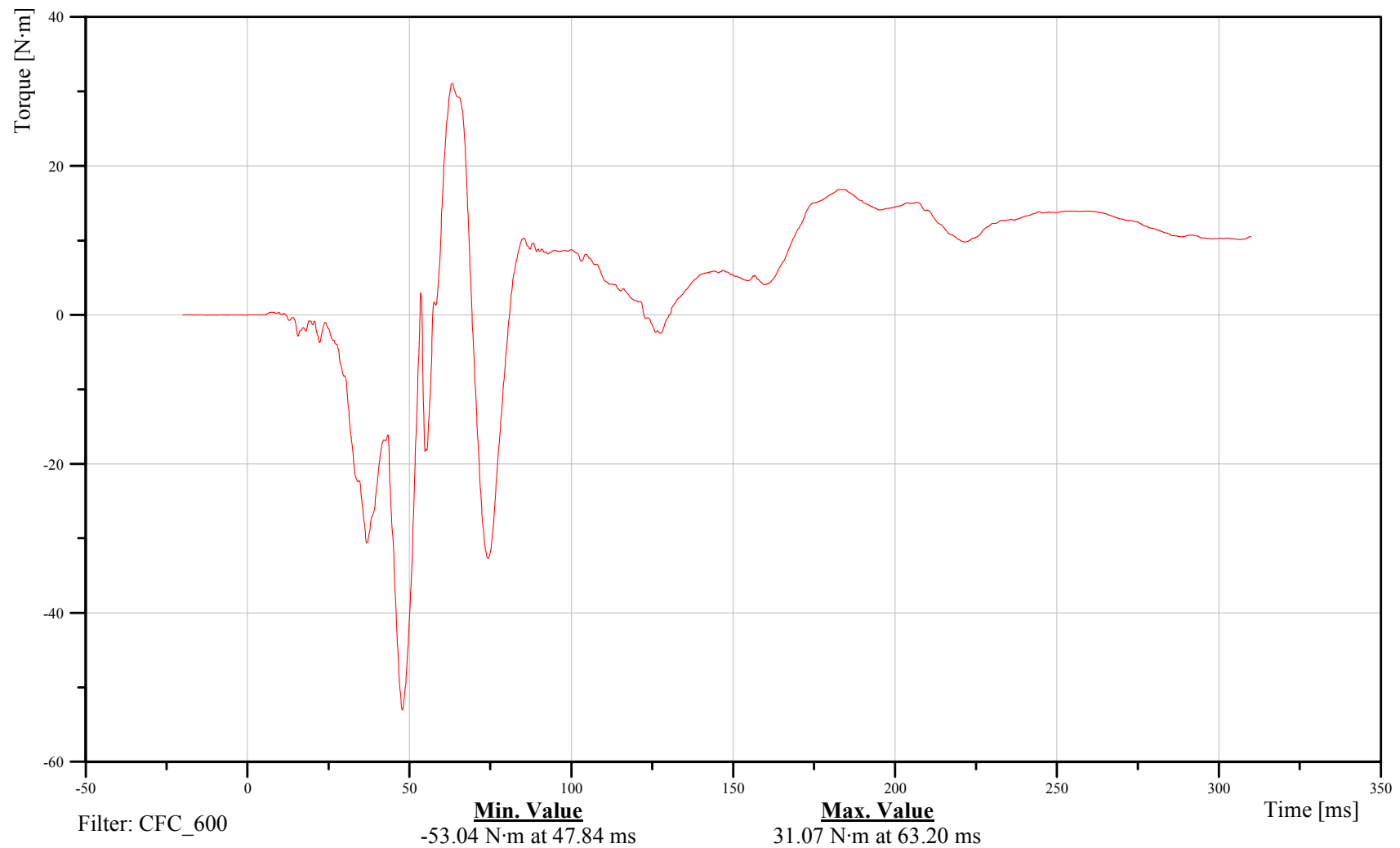
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11FEMRLE00S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Moment Y

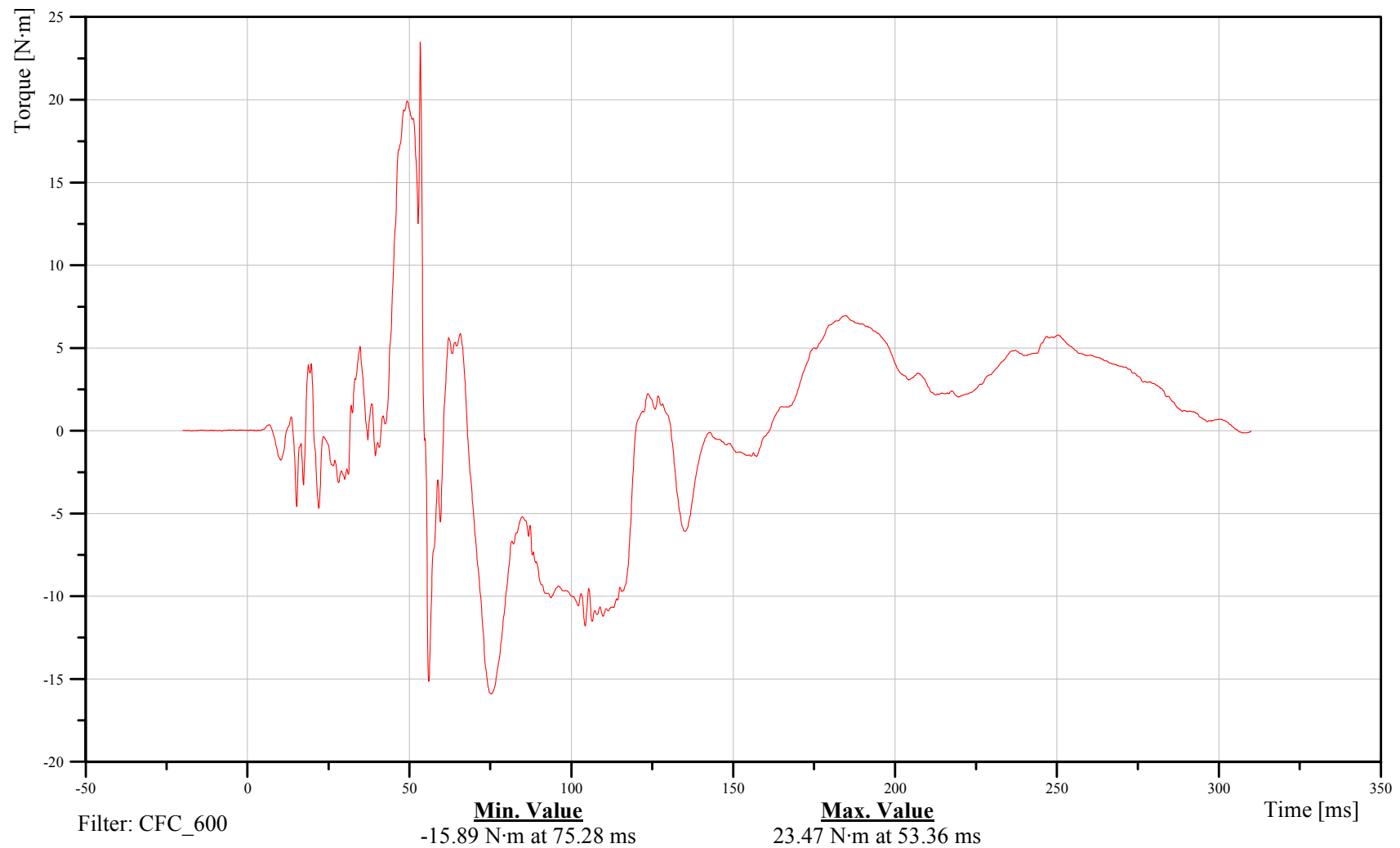
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11FEMRLE00S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Moment Z

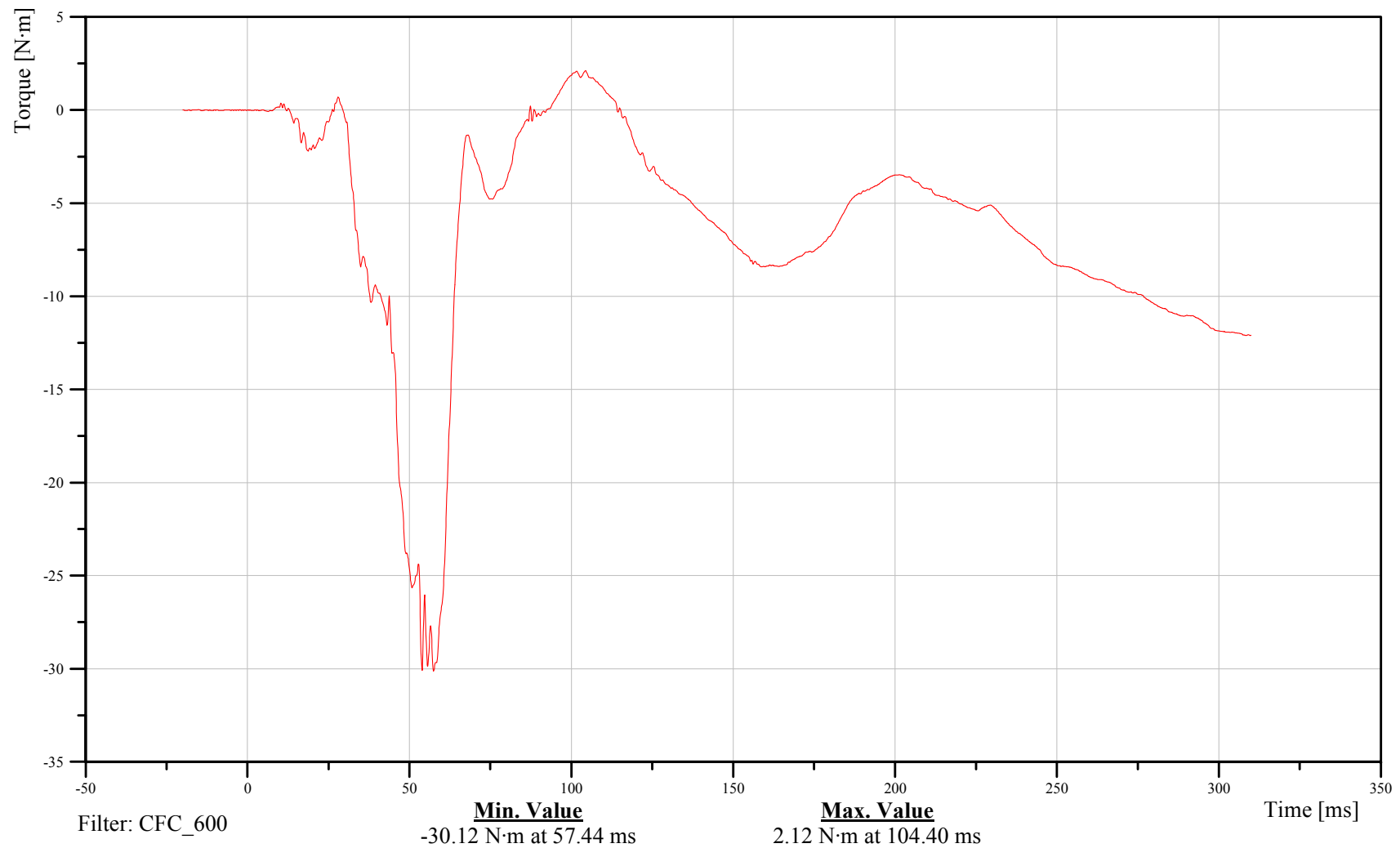
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11FEMRLE00S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

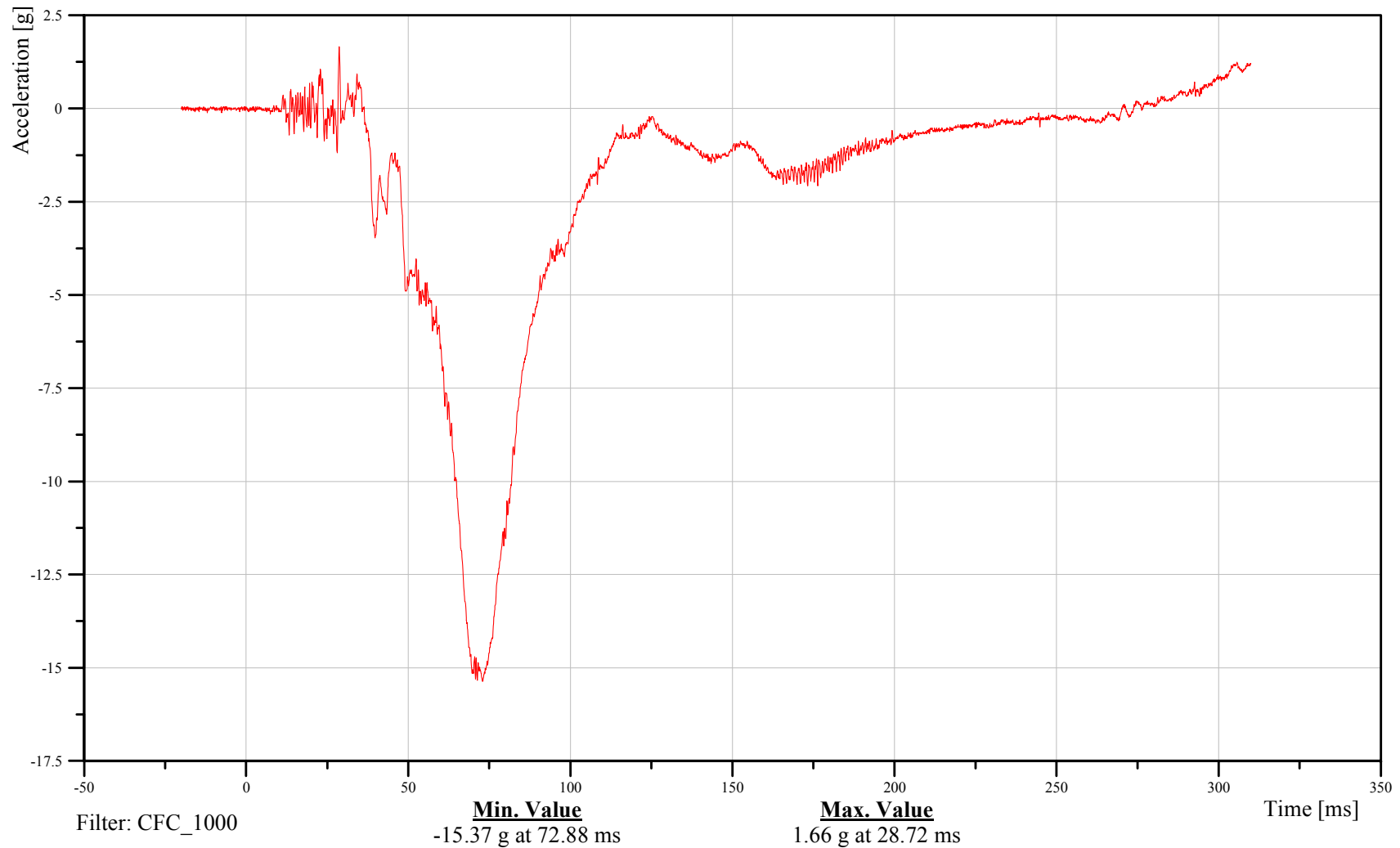
Head Accel X

Customer: VRTC

14HEADCG00S2ACXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

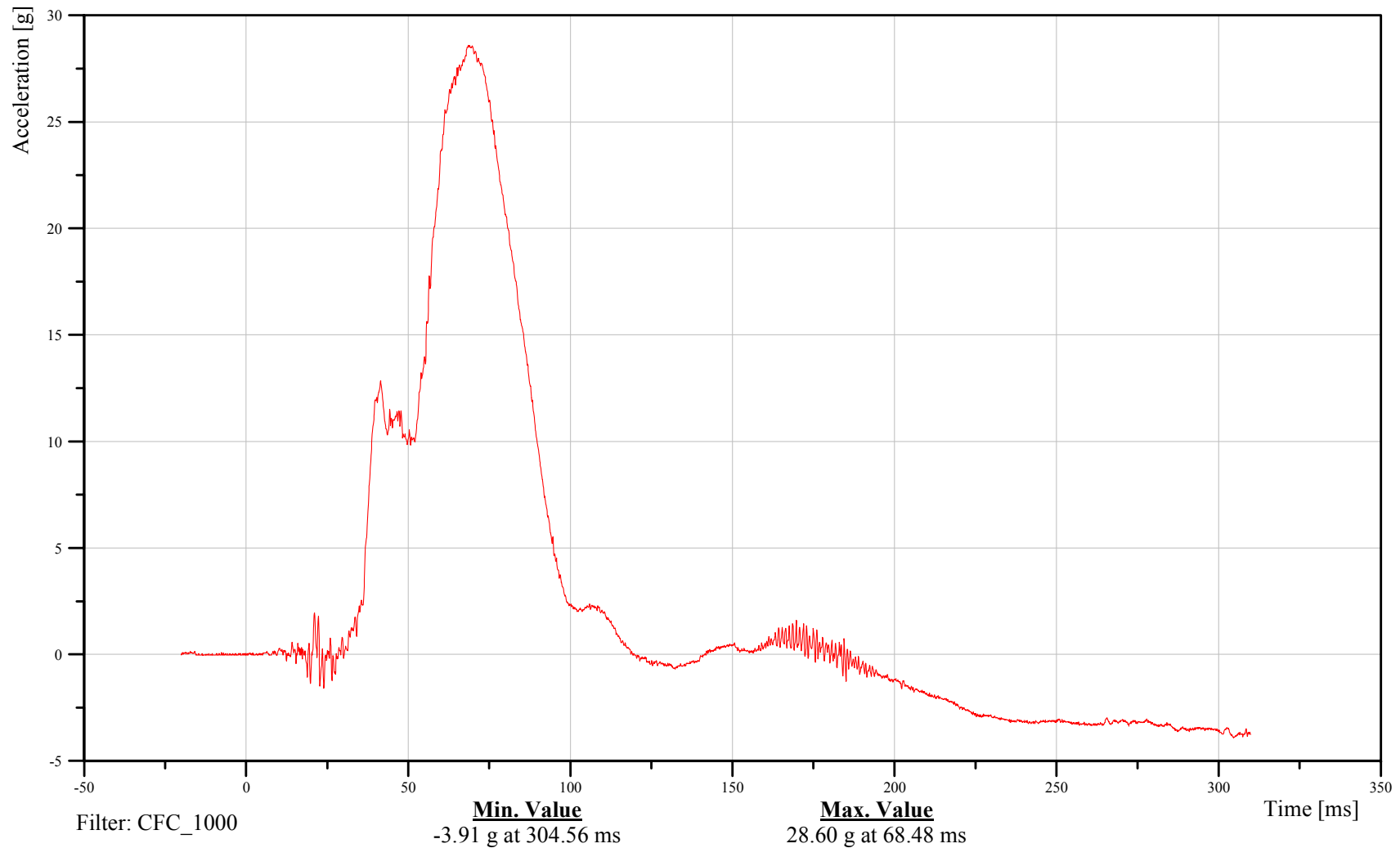
Head Accel Y

Customer: VRTC

14HEADCG00S2ACYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

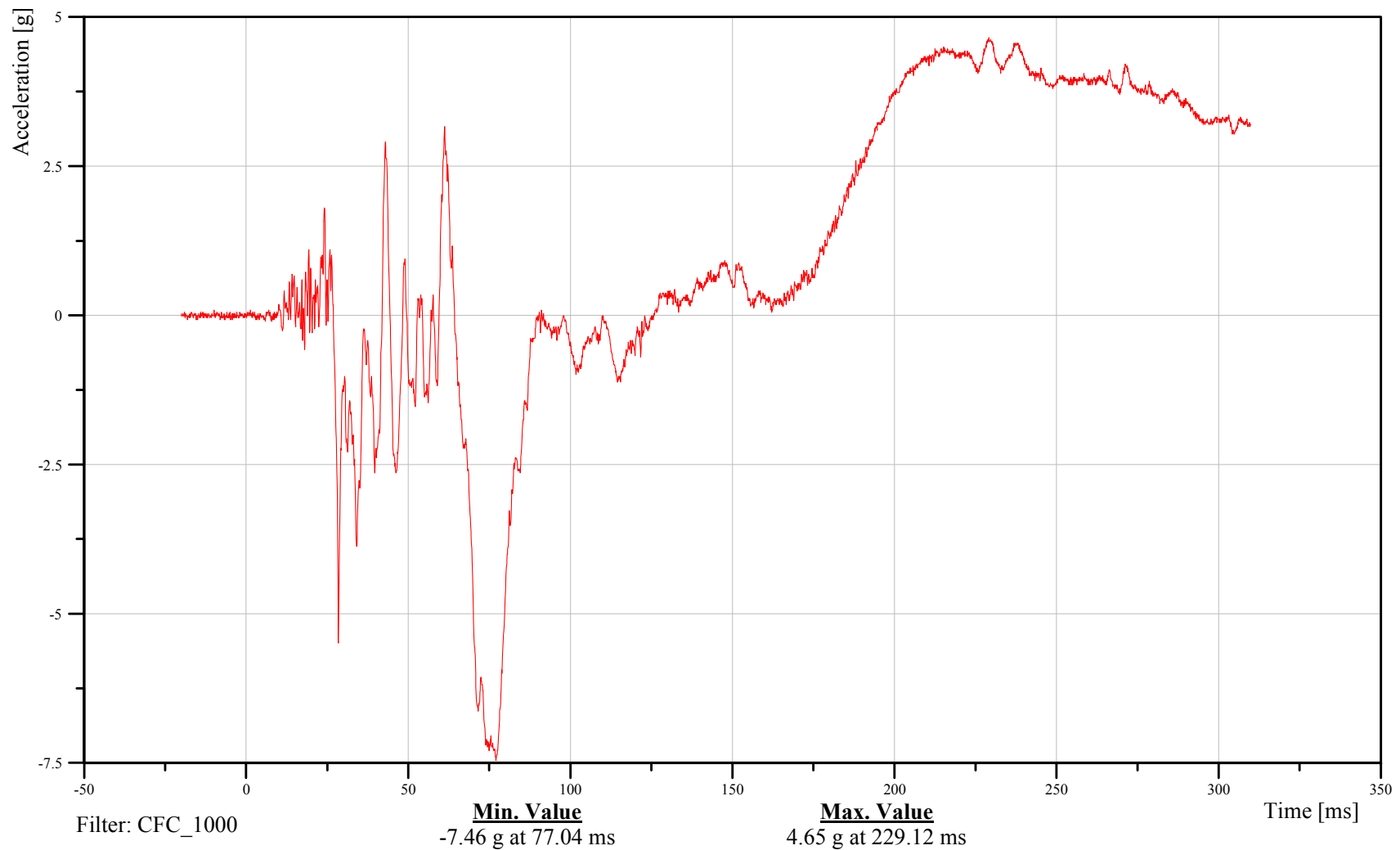
Head Accel Z

Customer: VRTC

14HEADCG00S2ACZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

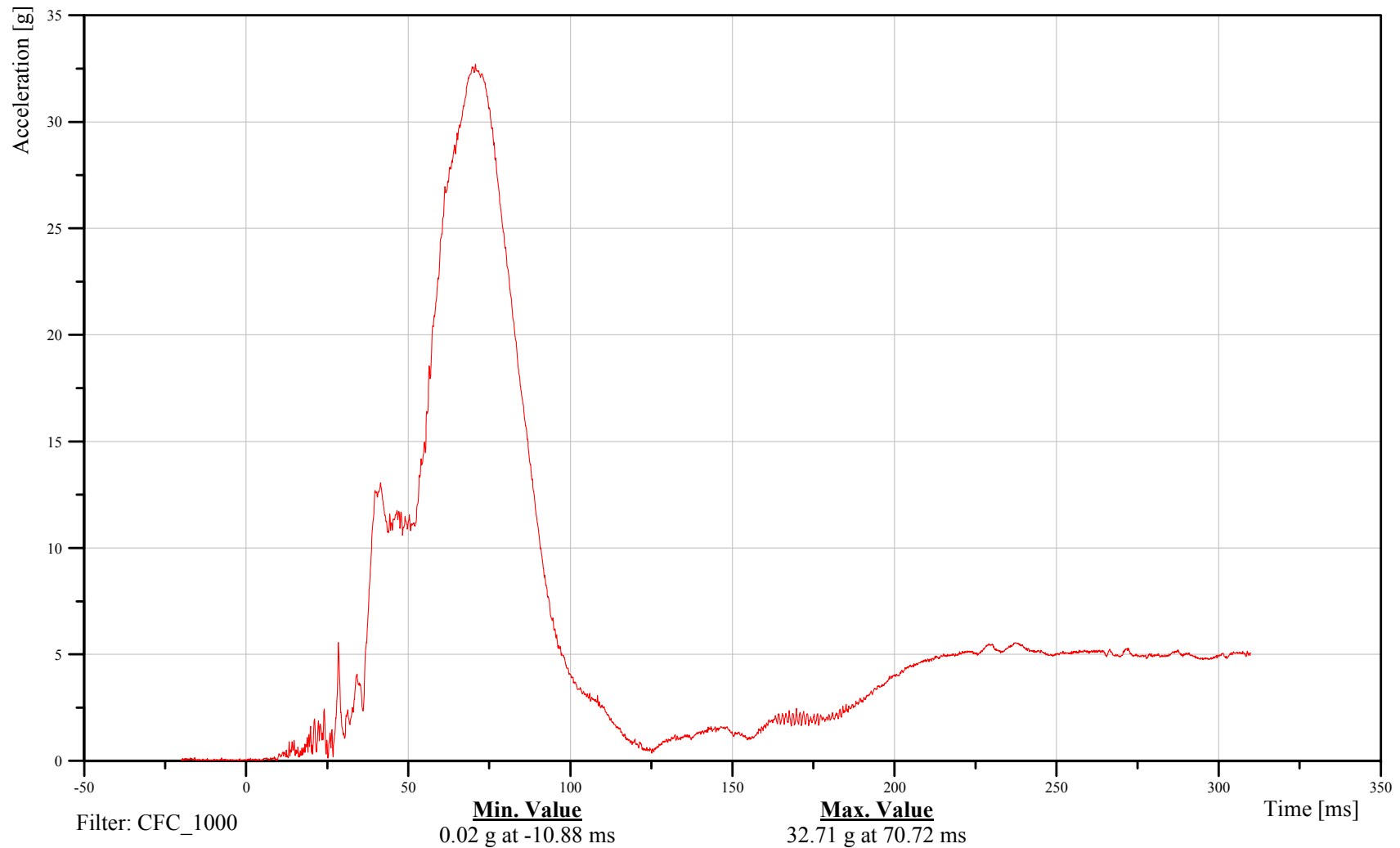
Head Accel Resultant

Customer: VRTC

14HEADCG00S2ACRA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

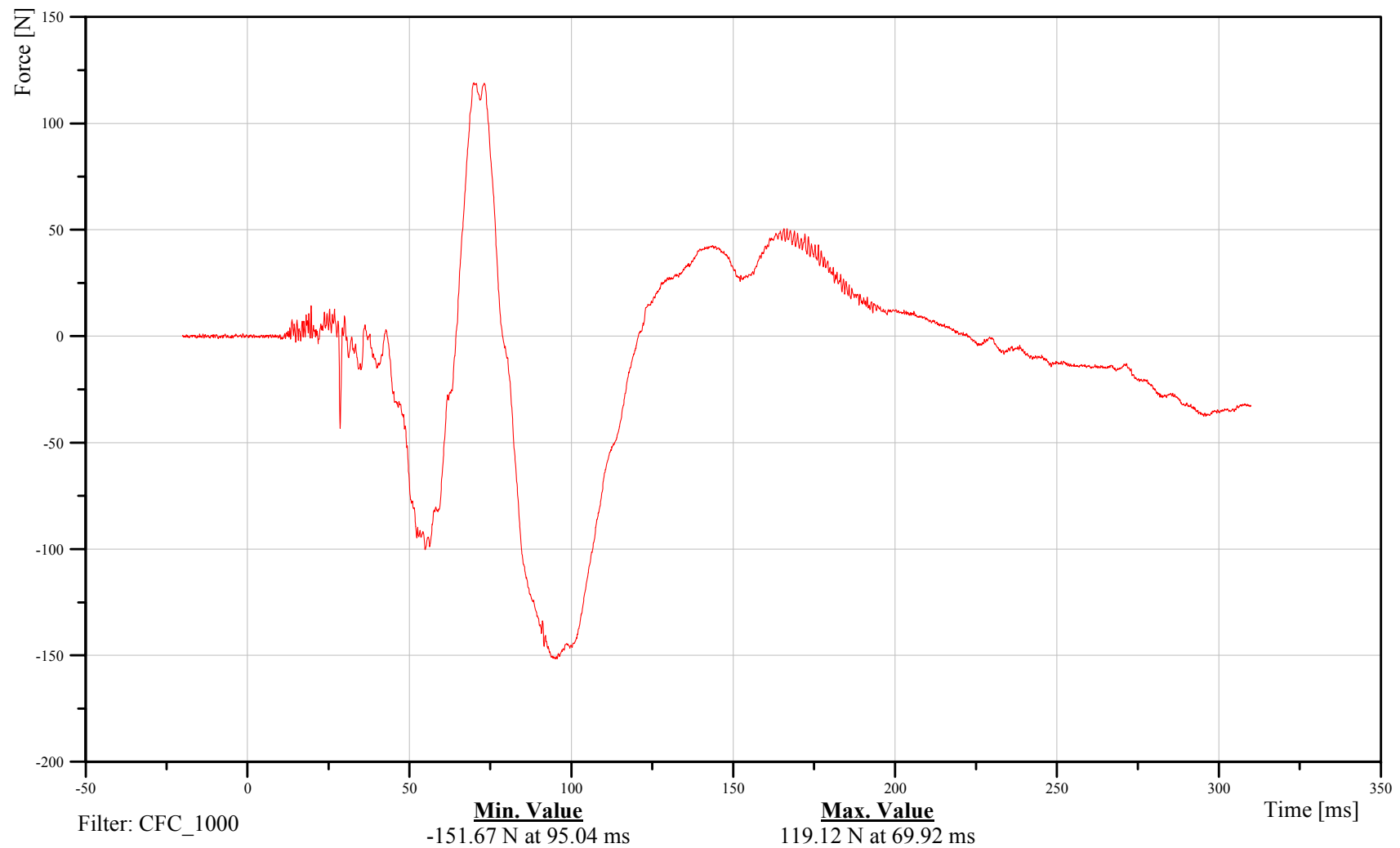
Neck Force X

Customer: VRTC

14NECKUP00S2FOXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

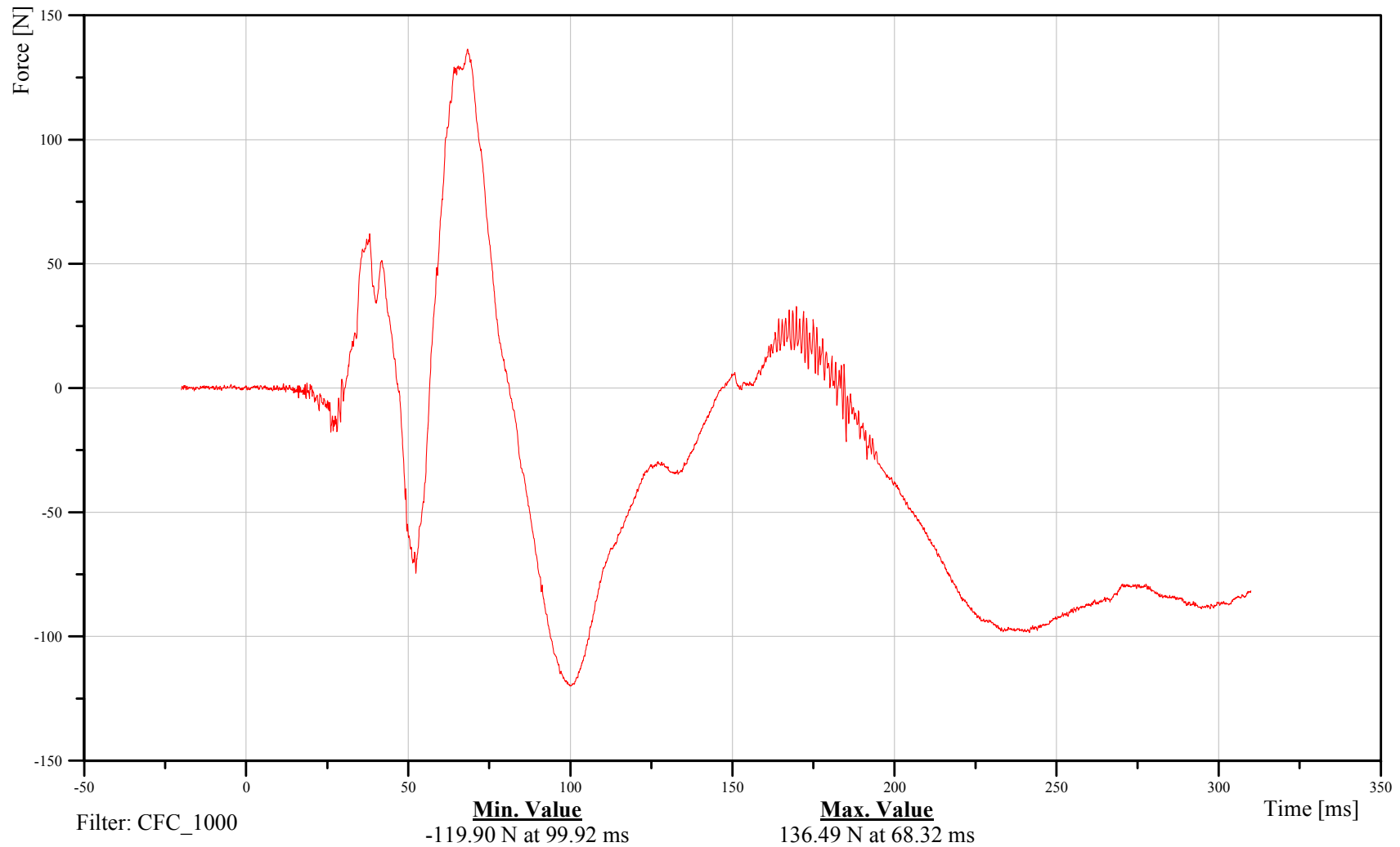
Neck Force Y

Customer: VRTC

14NECKUP00S2FOYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

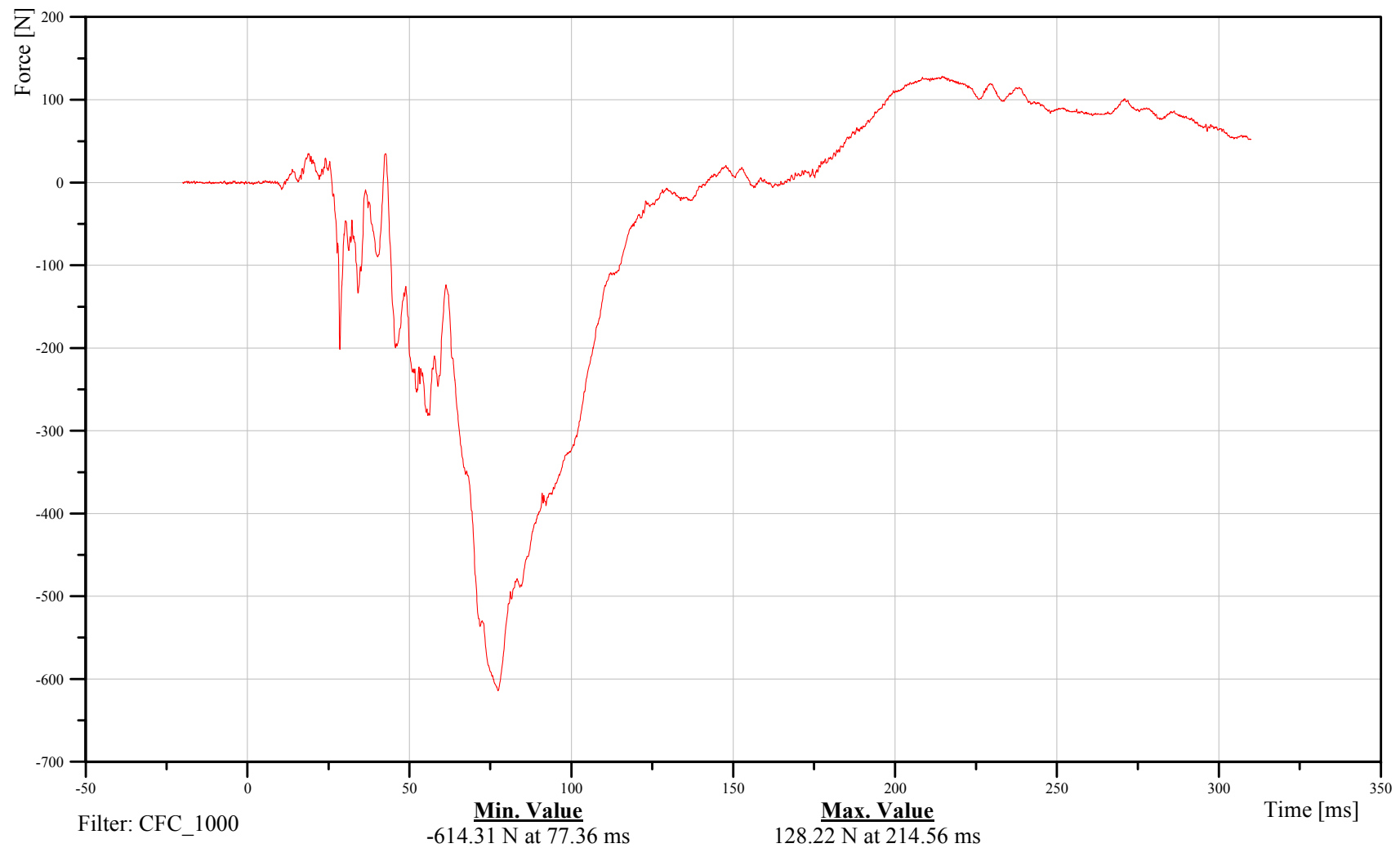
Neck Force Z

Customer: VRTC

14NECKUP00S2FOZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

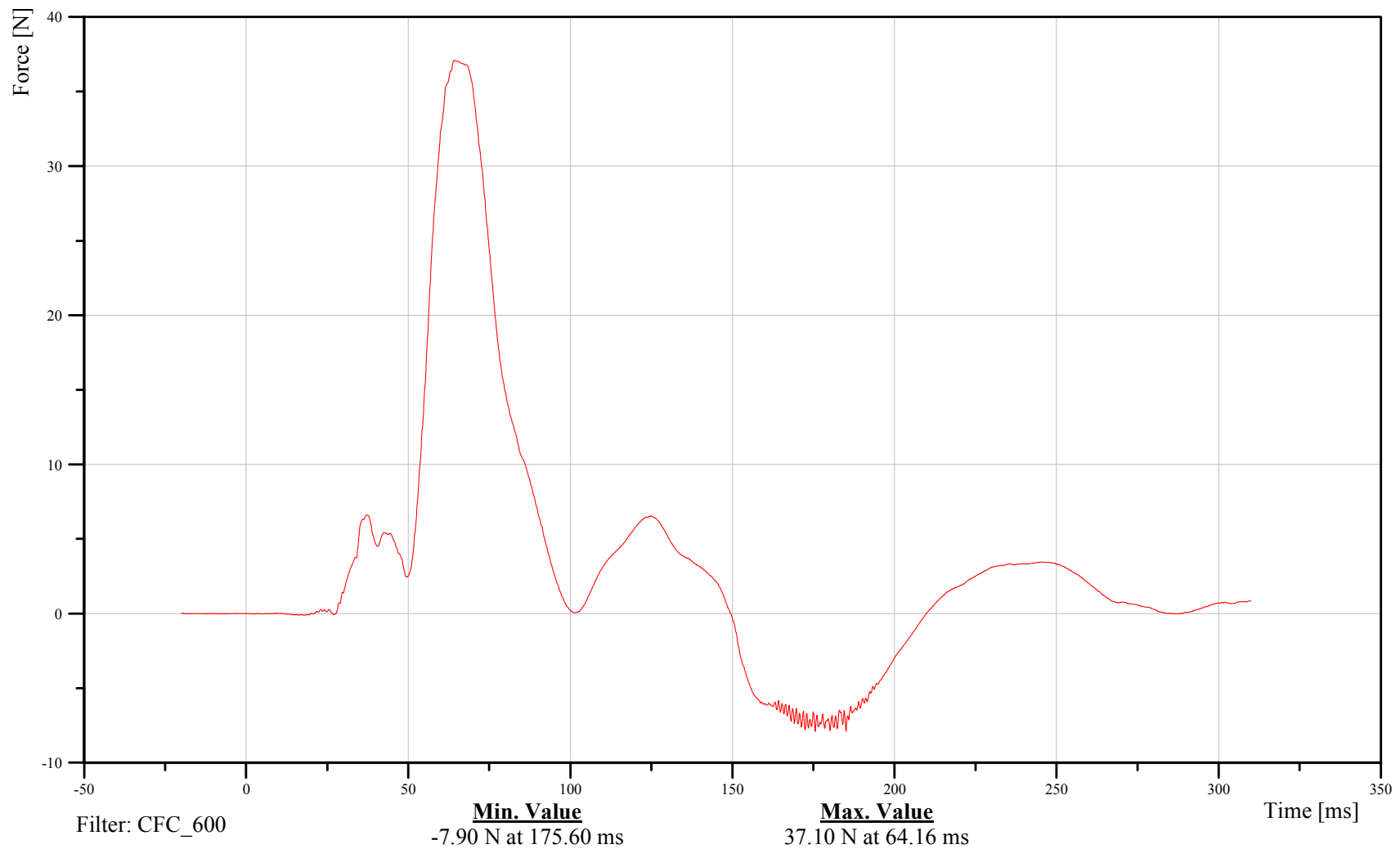
Neck Moment X

Customer: VRTC

14NECKUP00S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

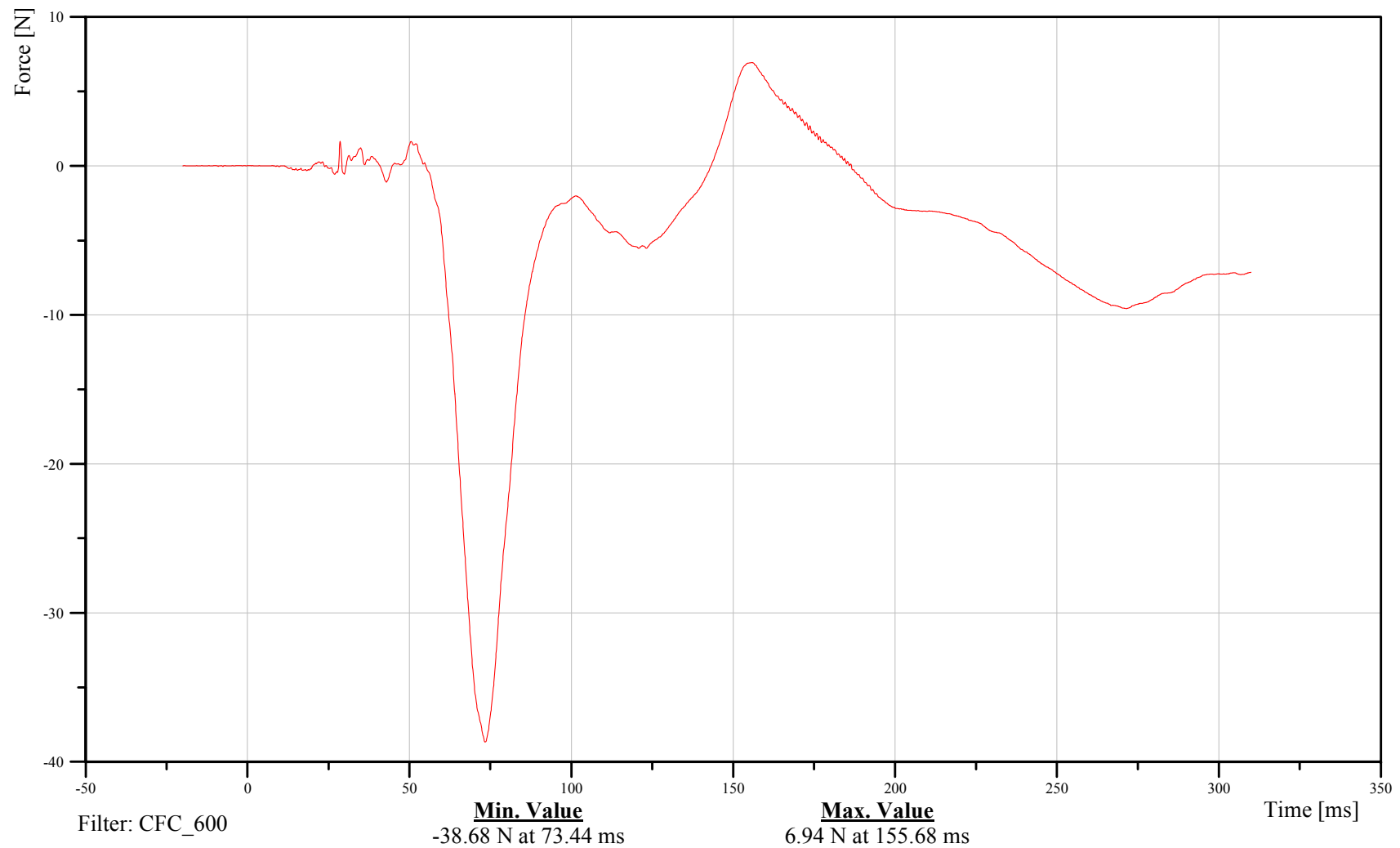
Neck Moment Y

Customer: VRTC

14NECKUP00S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

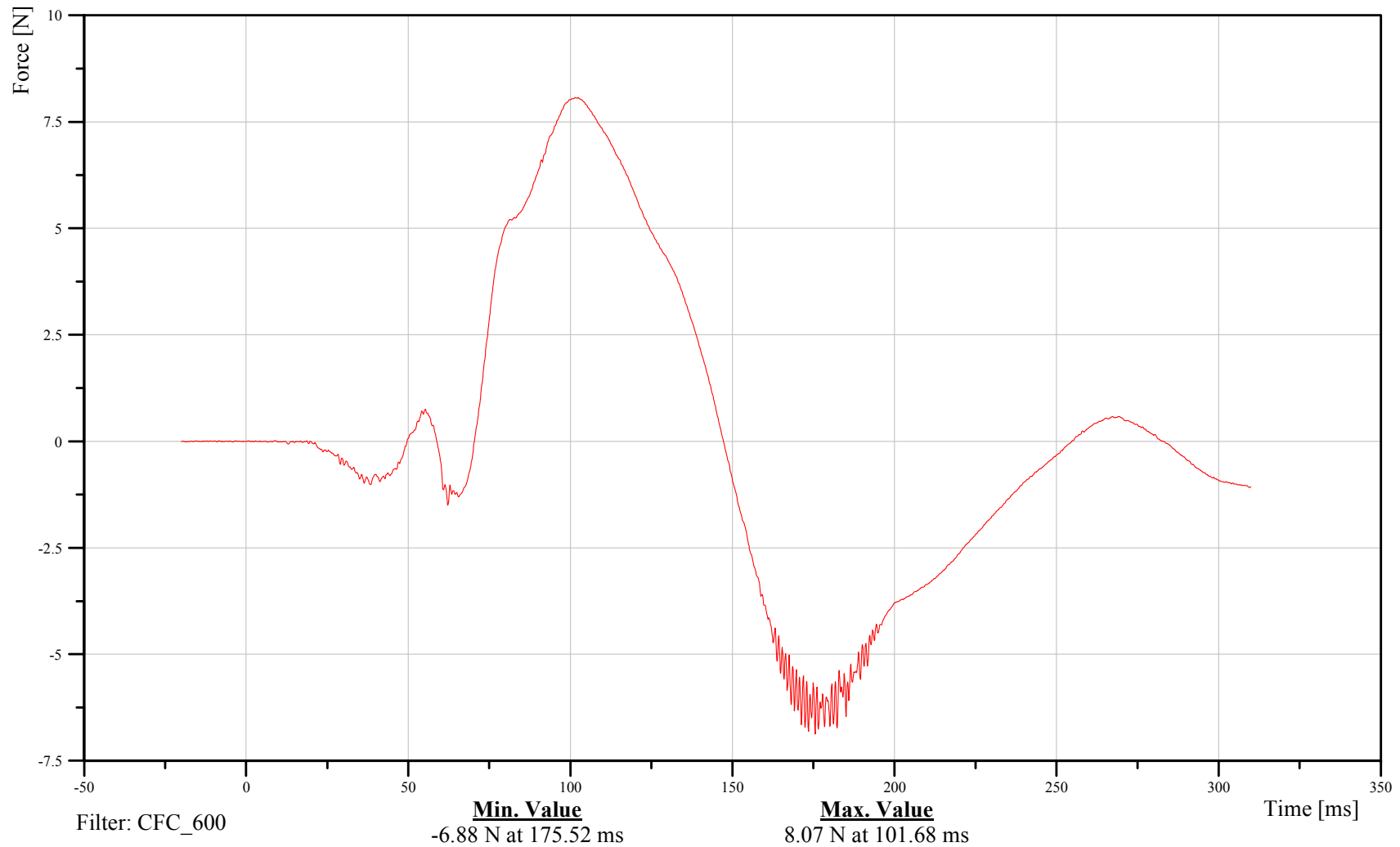
Neck Moment Z

Customer: VRTC

14NECKUP00S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Shoulder Accel X

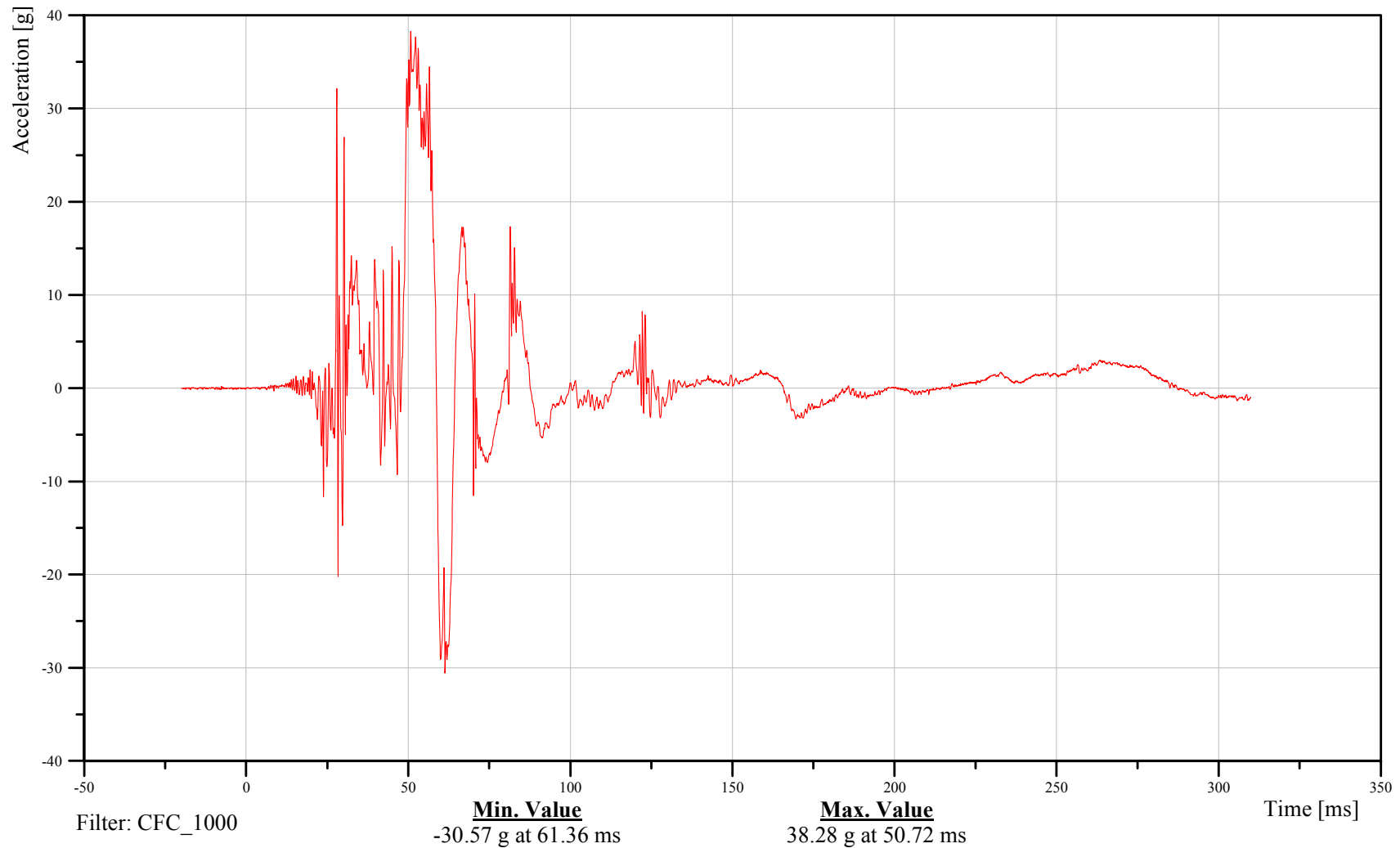
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14SHLDLE00S2ACXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

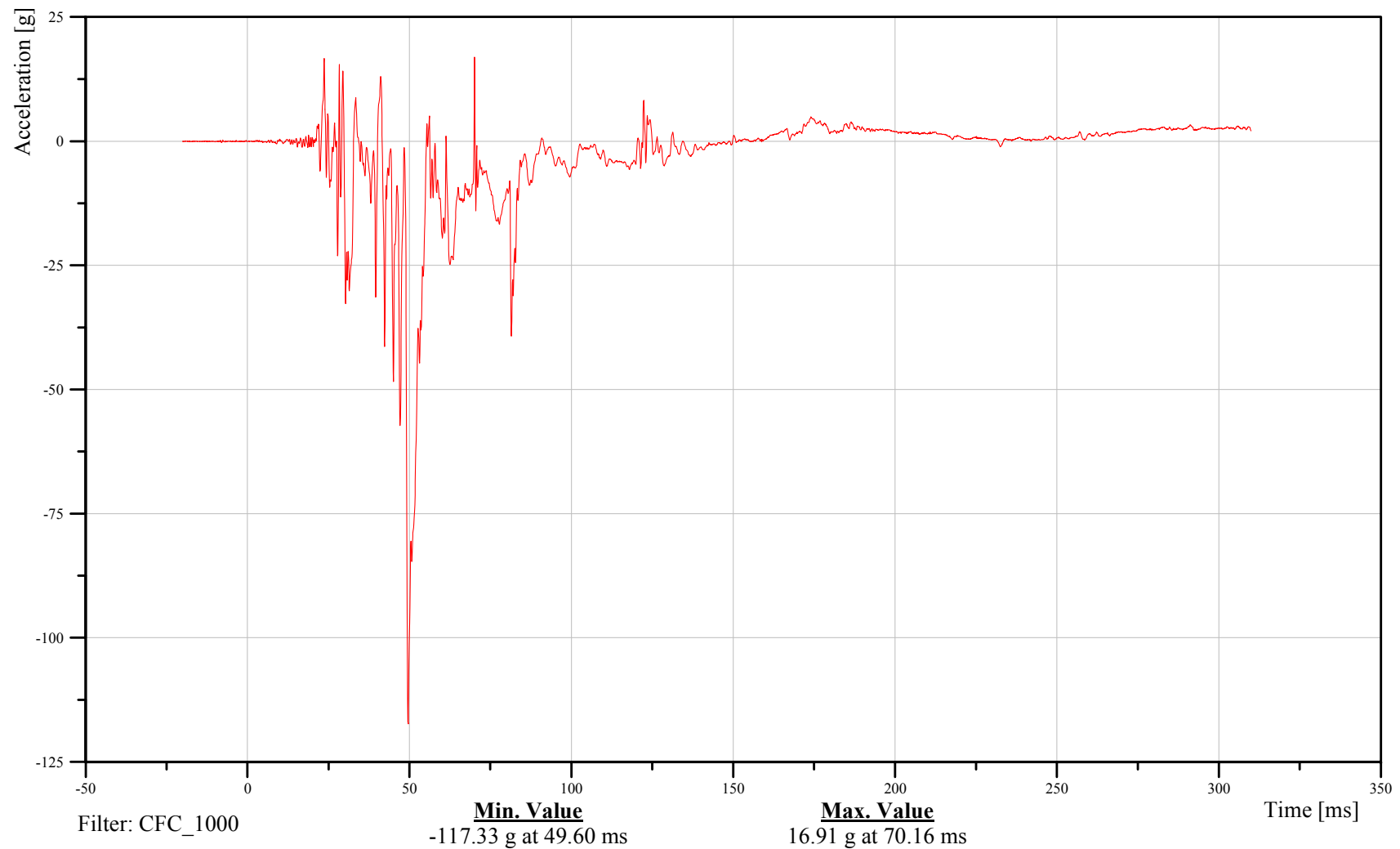
Shoulder Accel Y

Customer: VRTC

14SHLDLE00S2ACYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Shoulder Accel Z

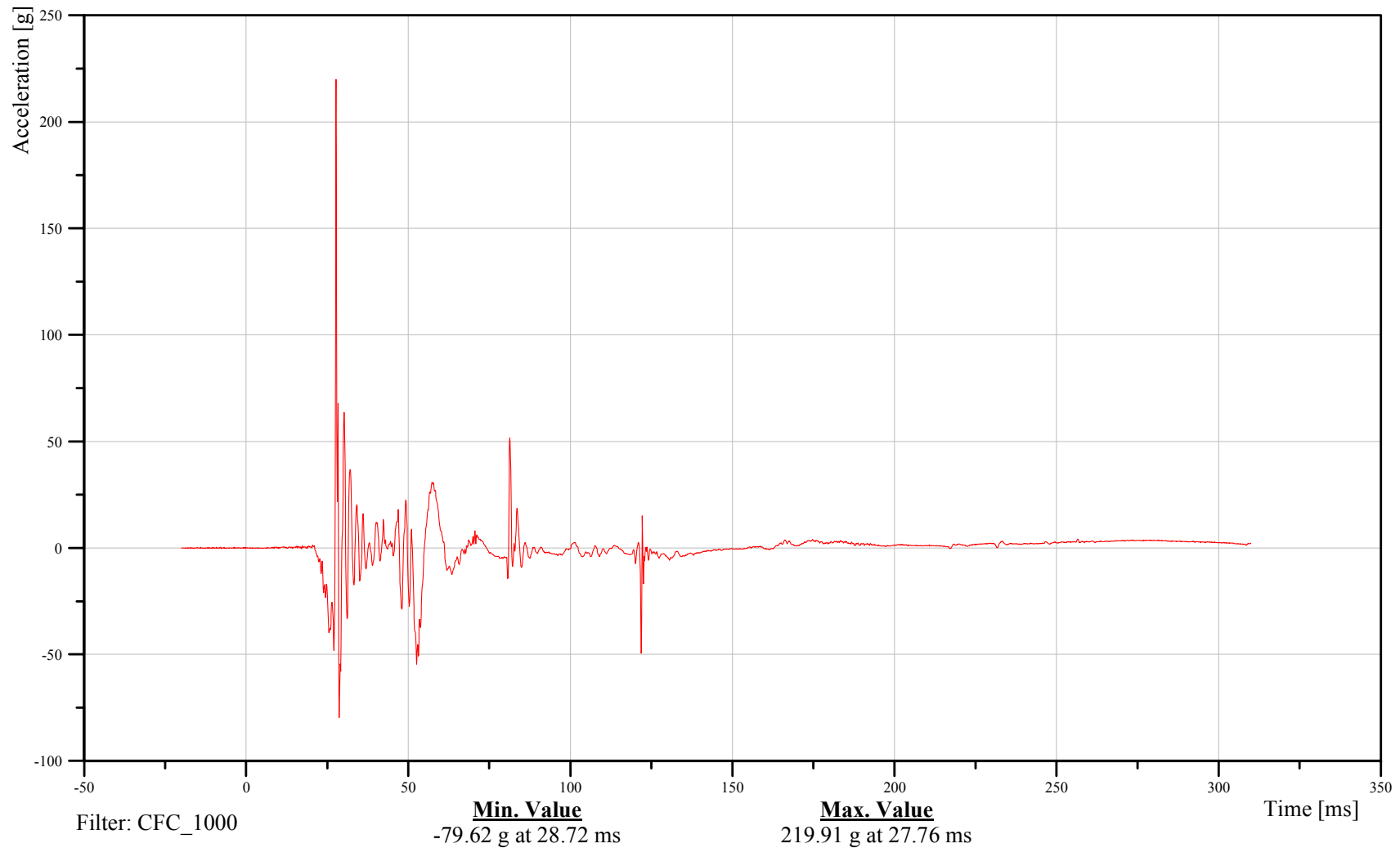
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14SHLDLE00S2ACZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Shoulder Accel Resultant

Date: 07/25/2005

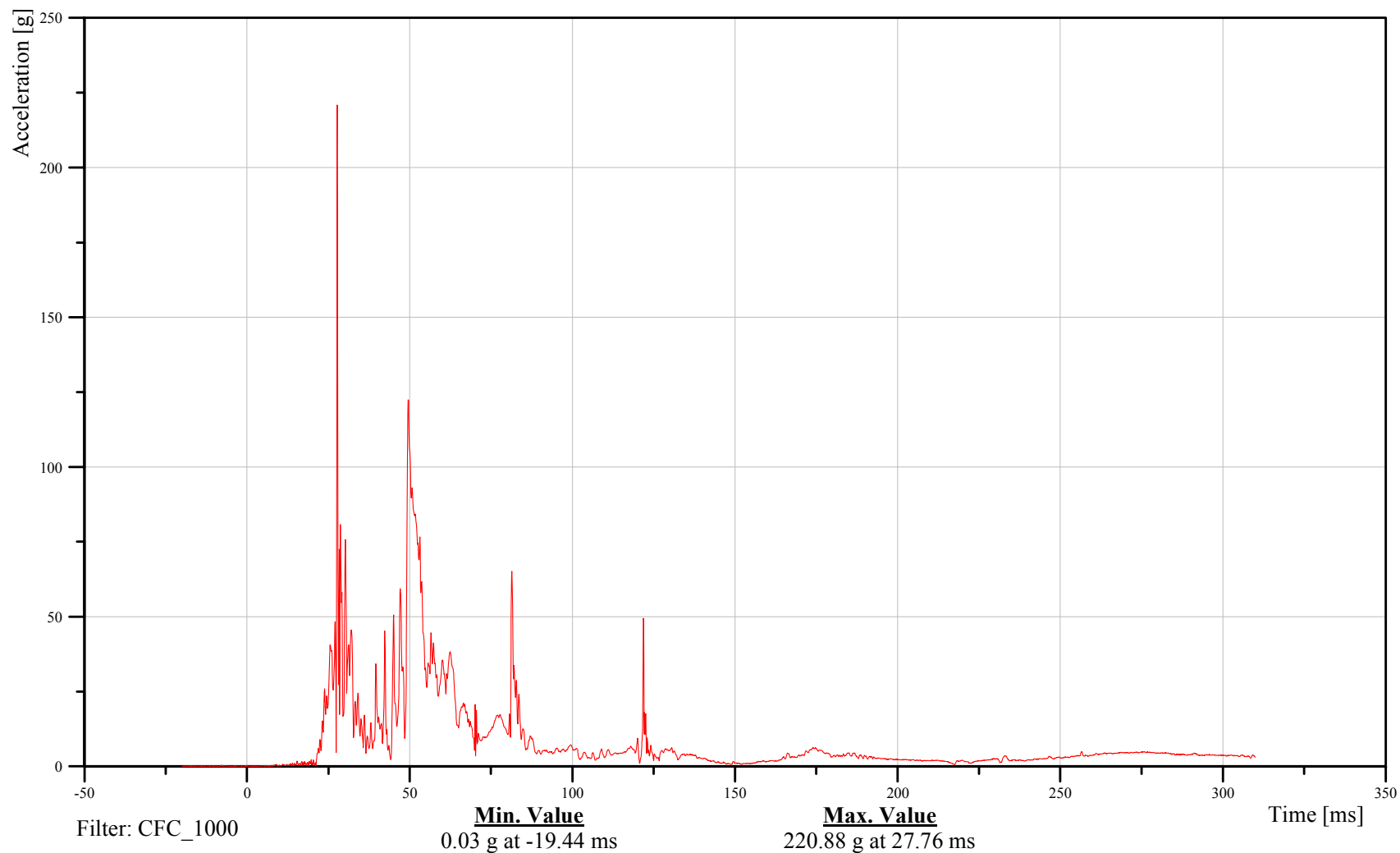
Time: 13:48

Customer: VRTC

14SHLDLE00S2ACRA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

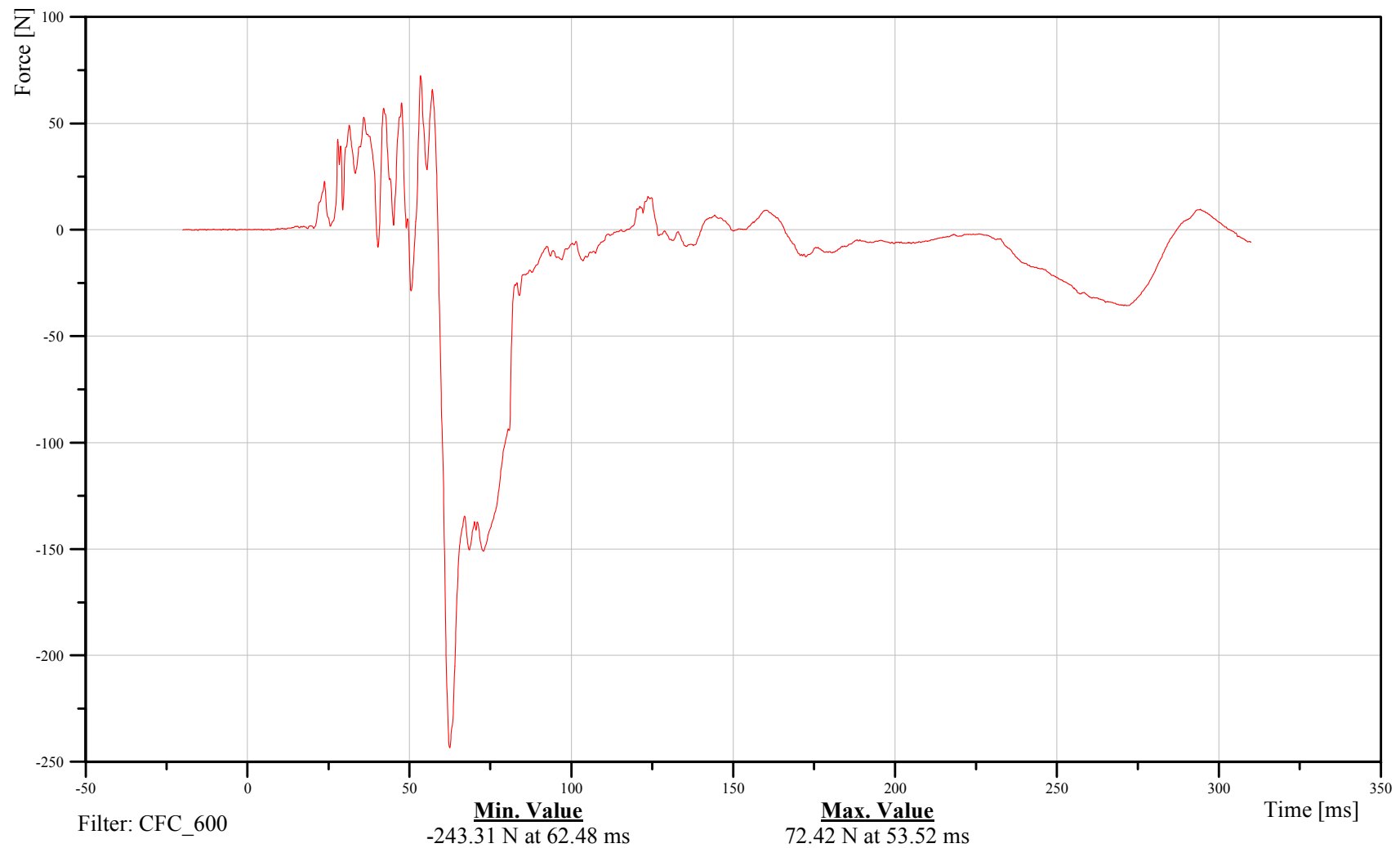
Shoulder Force X

Customer: VRTC

14SHLDLE00S2FOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Shoulder Force Y

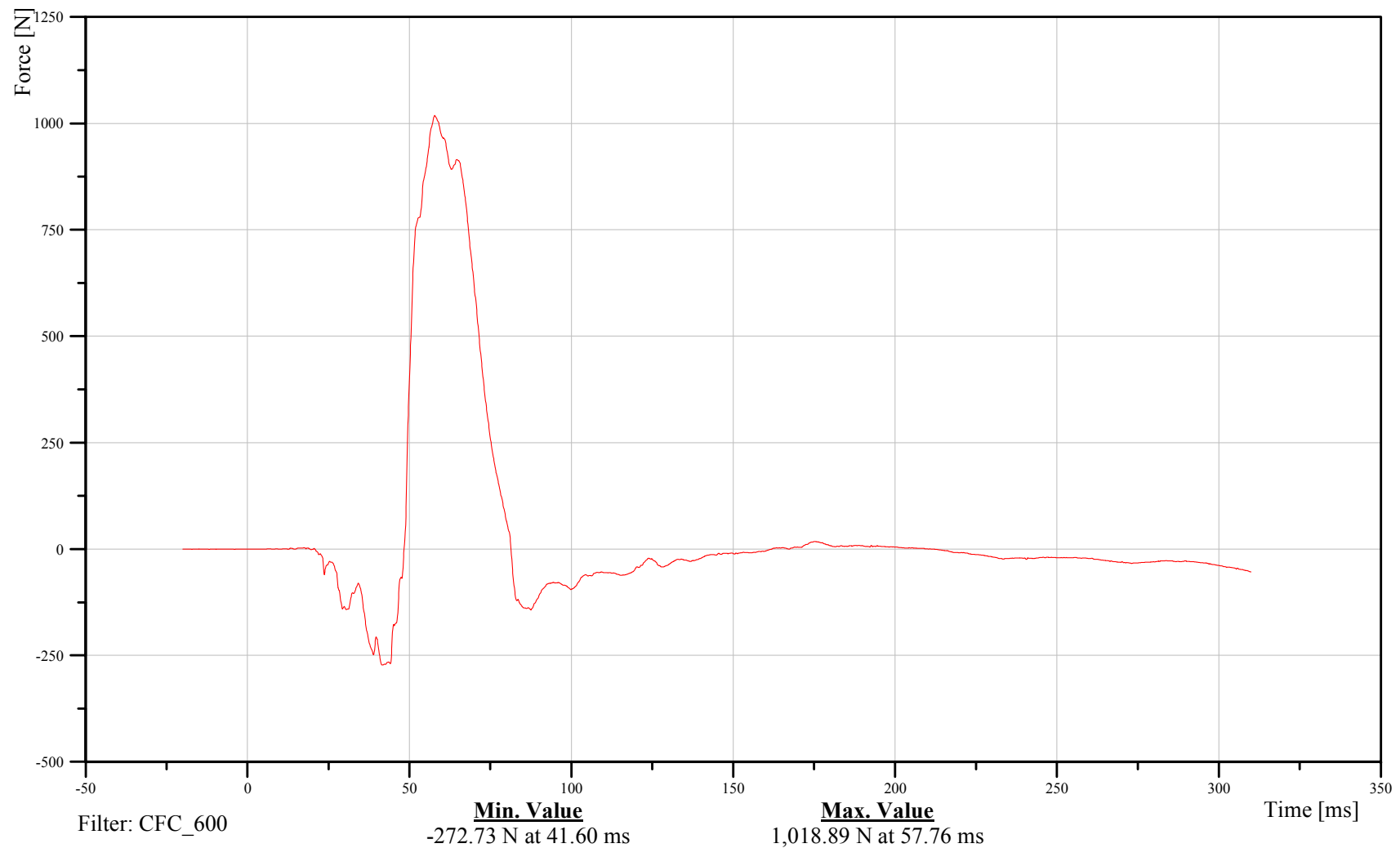
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14SHLDLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

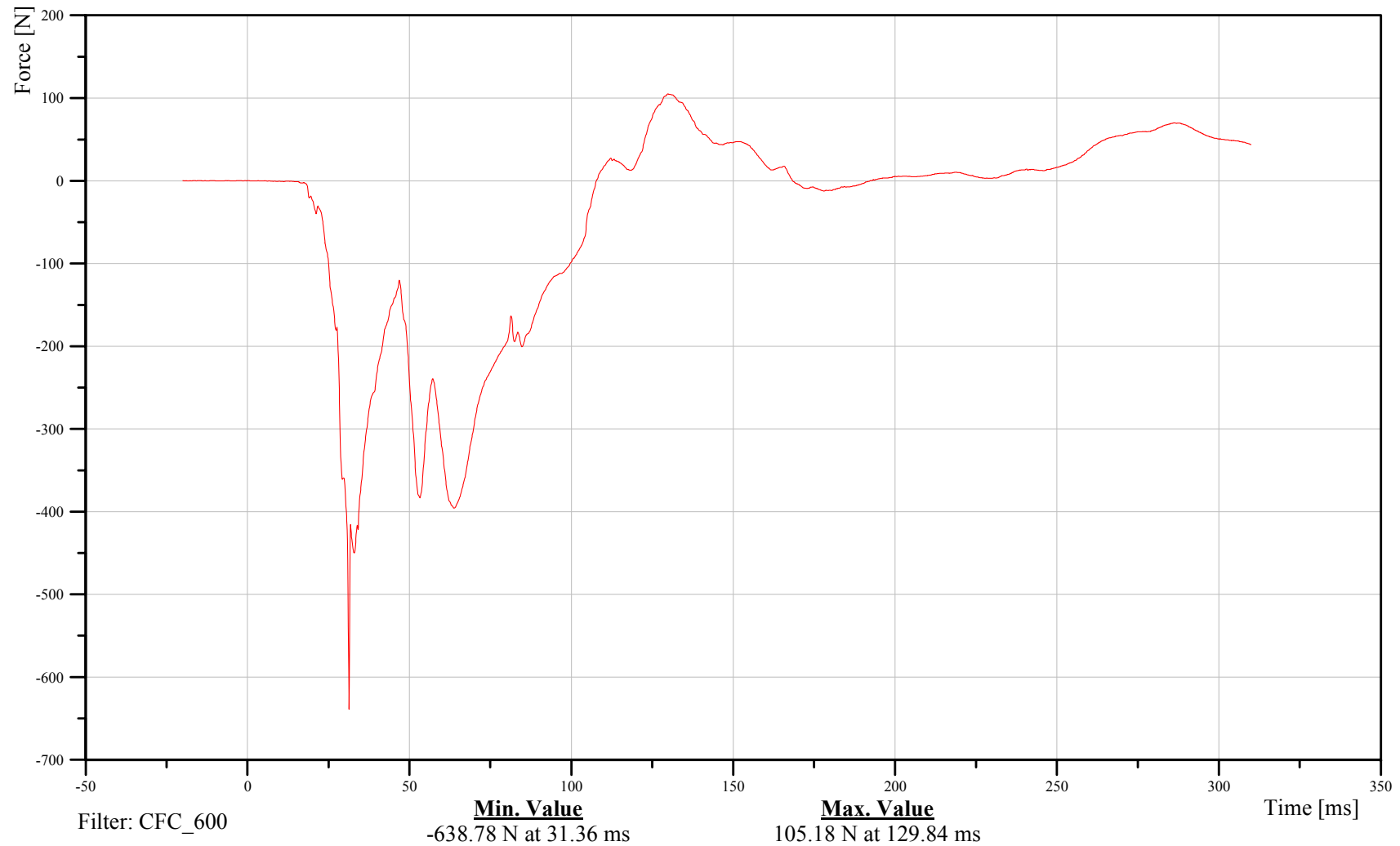
Shoulder Force Z

Customer: VRTC

14SHLDLE00S2FOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Upper Spine Accel X

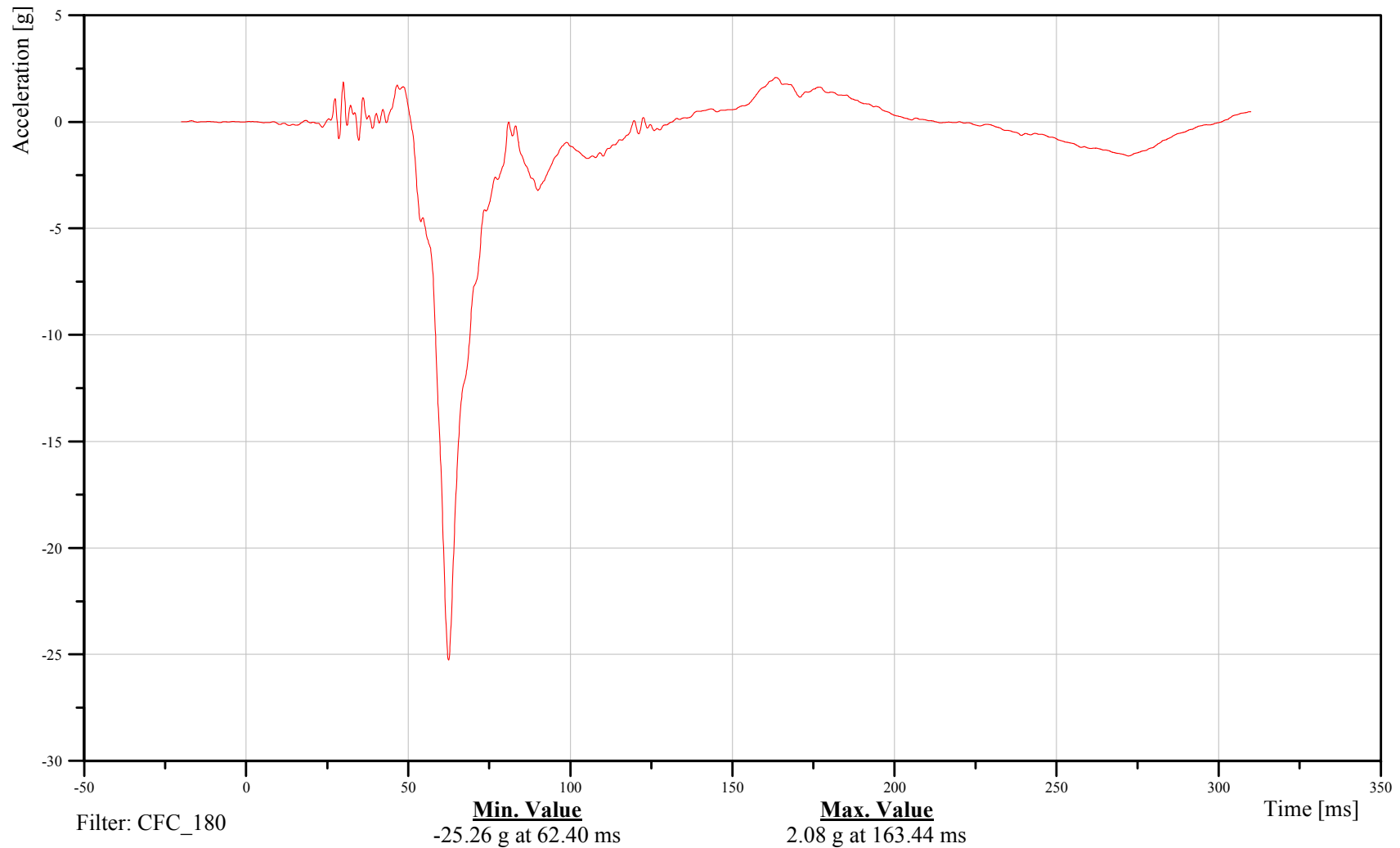
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14SPIN0100S2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

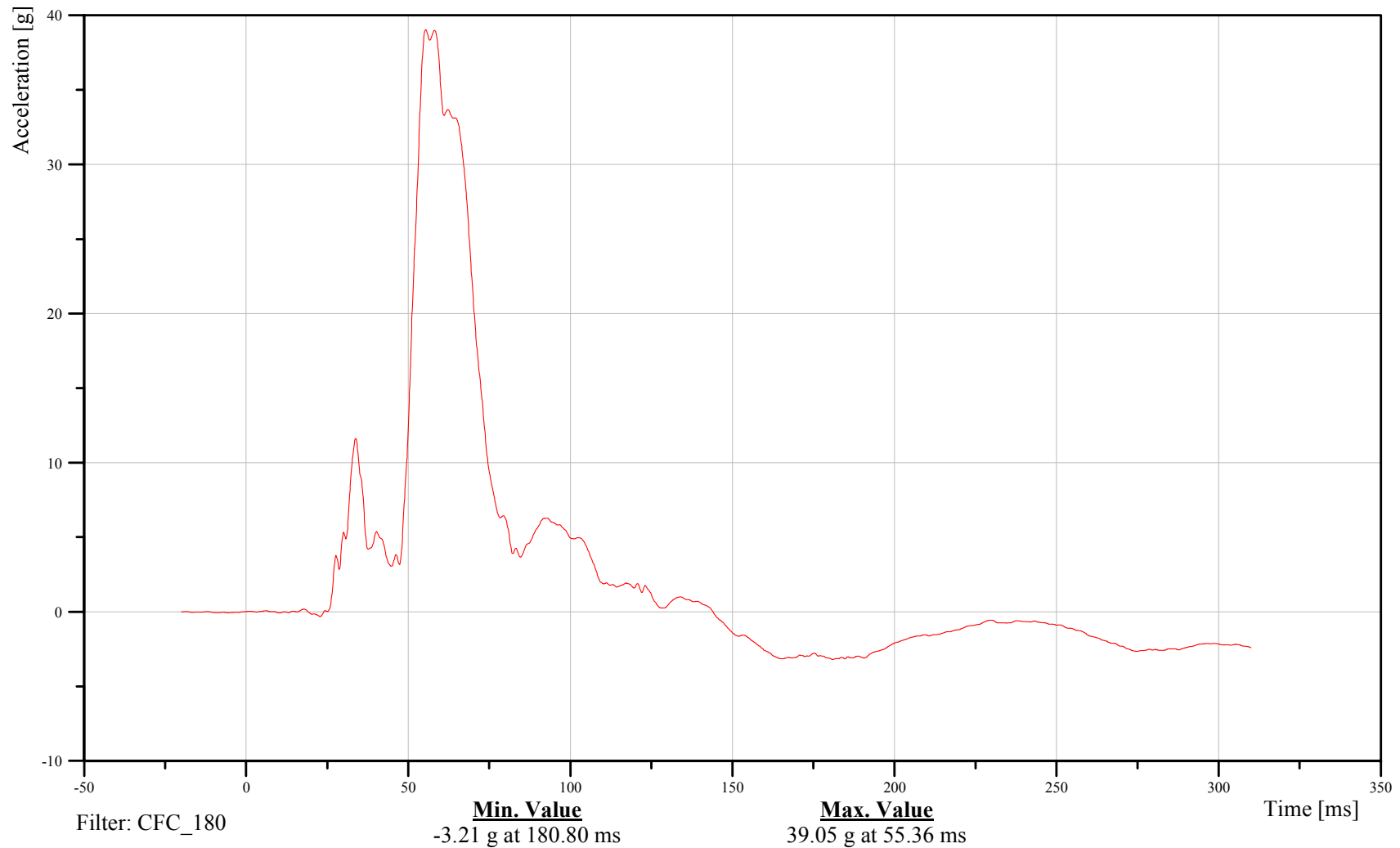
Upper Spine Accel Y

Customer: VRTC

14SPIN0100S2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

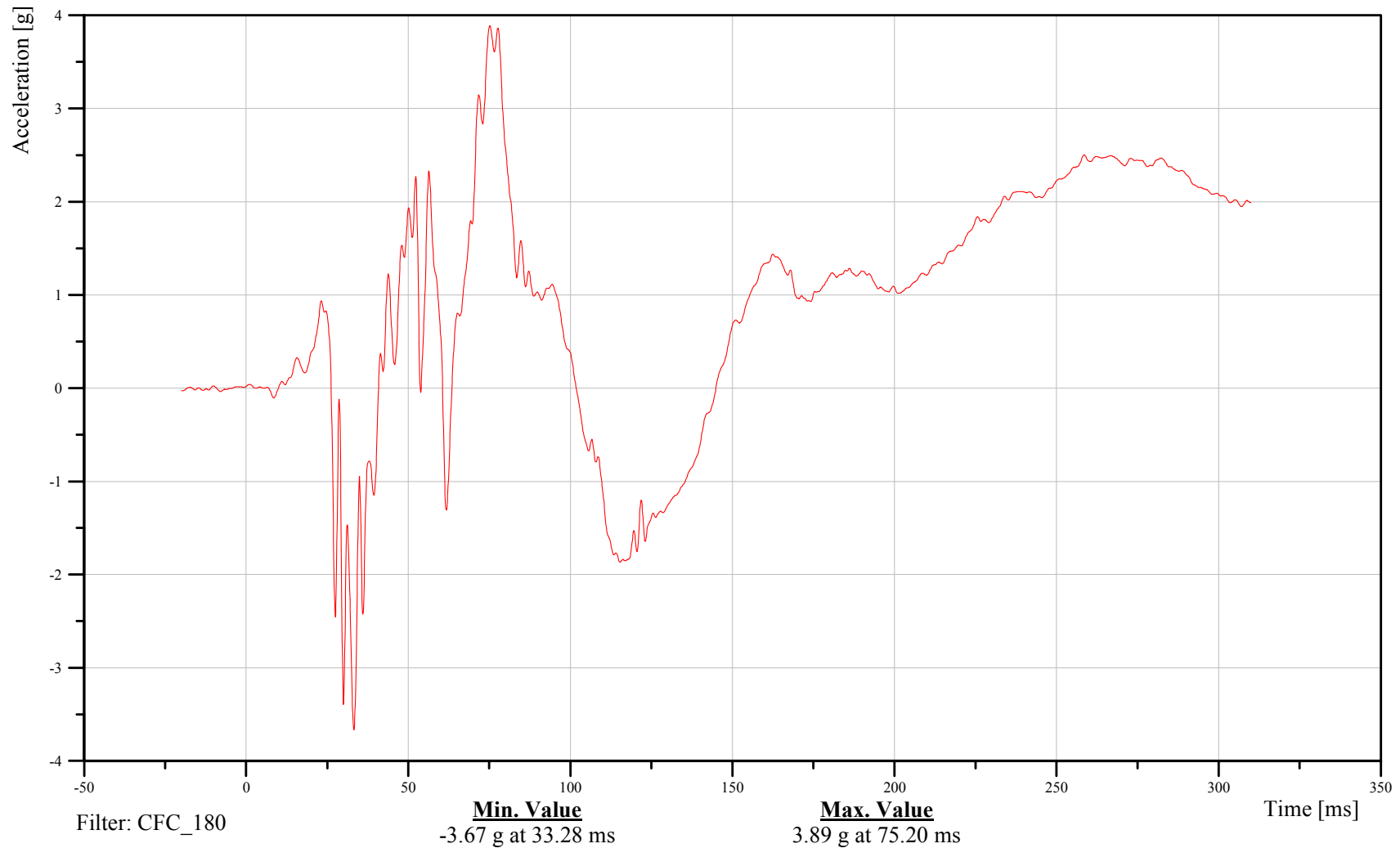
Upper Spine Accel Z

Customer: VRTC

14SPIN0100S2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

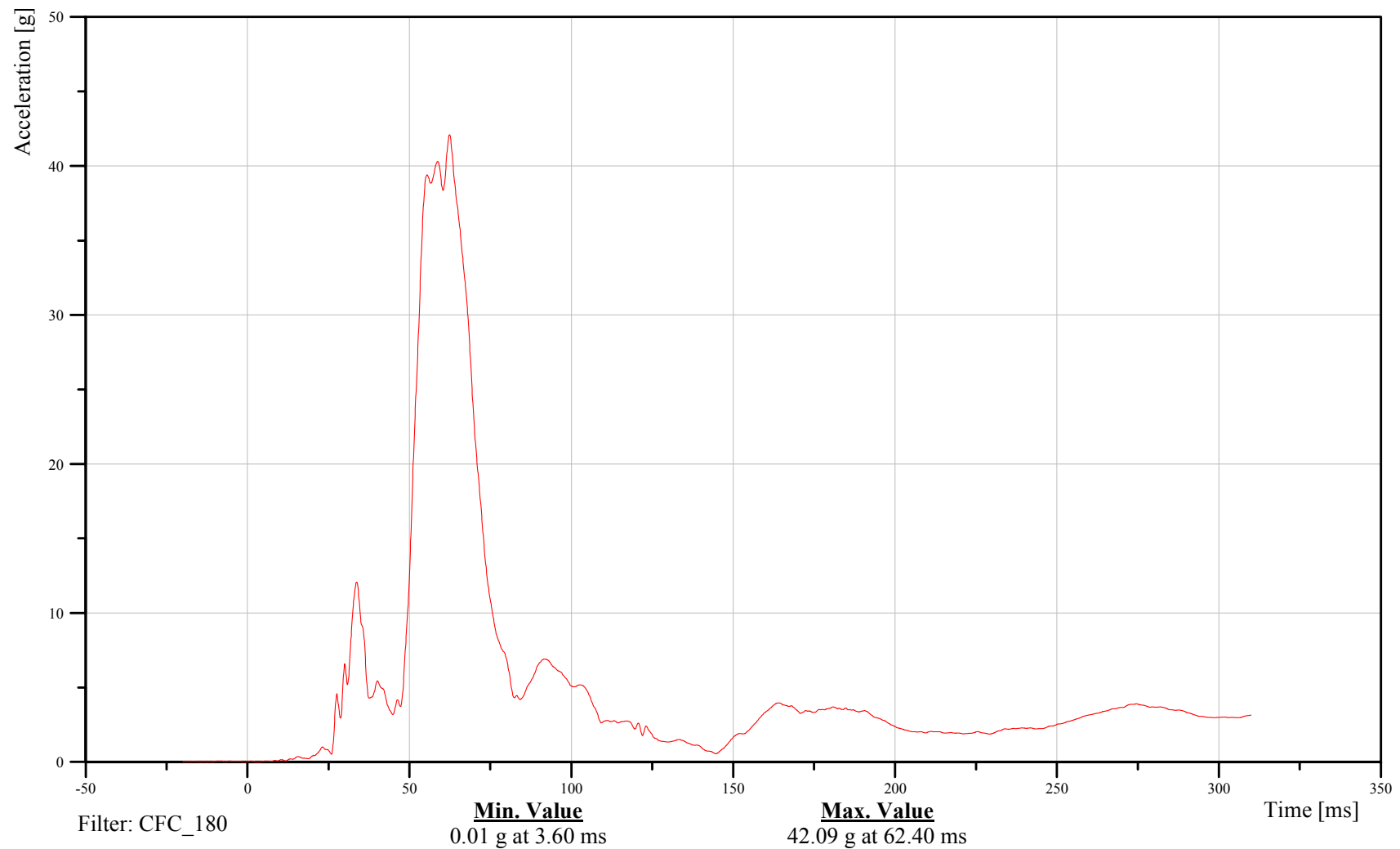
Upper Spine Resultant

Customer: VRTC

14SPIN0100S2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 1 Accel X

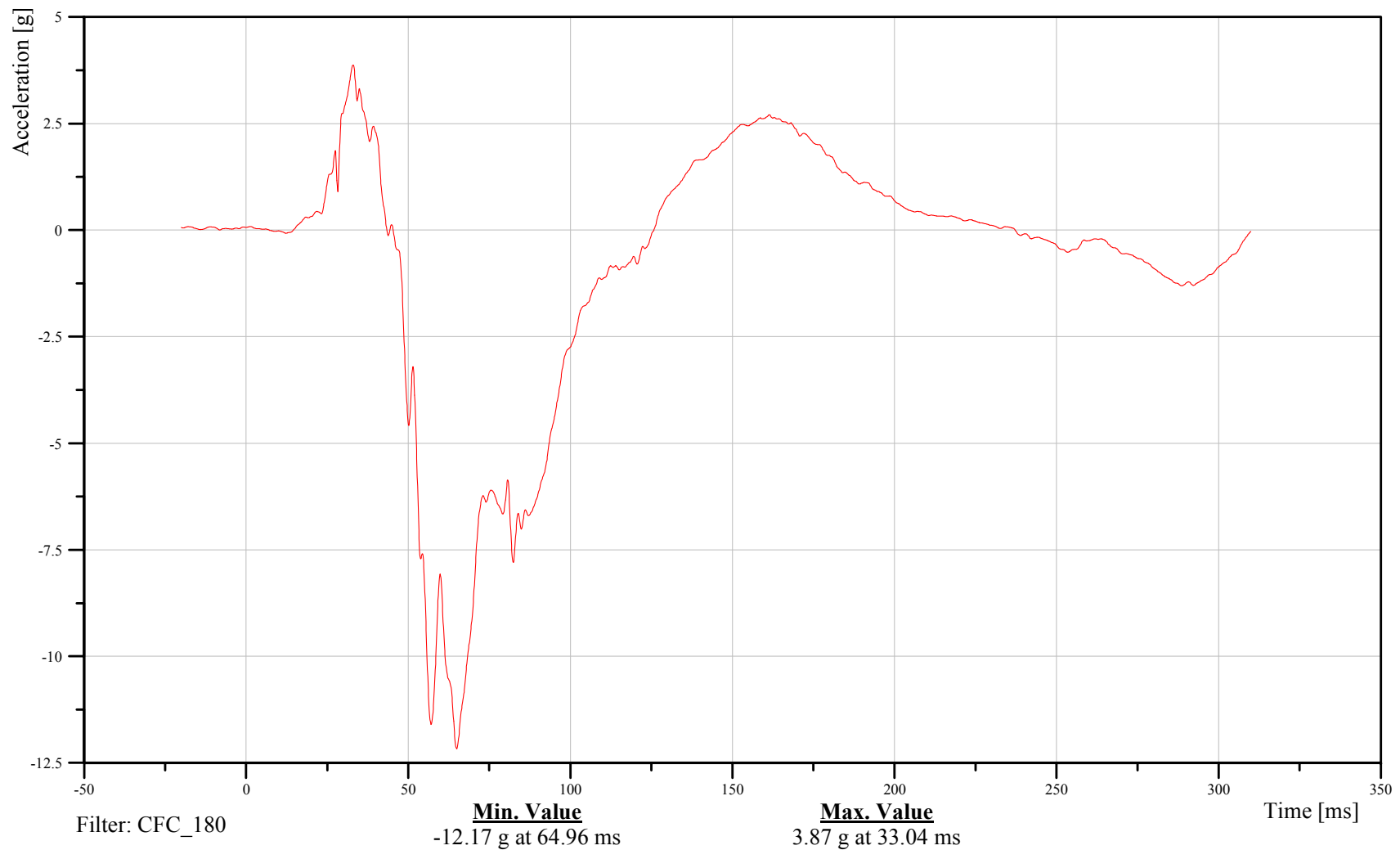
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP01RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

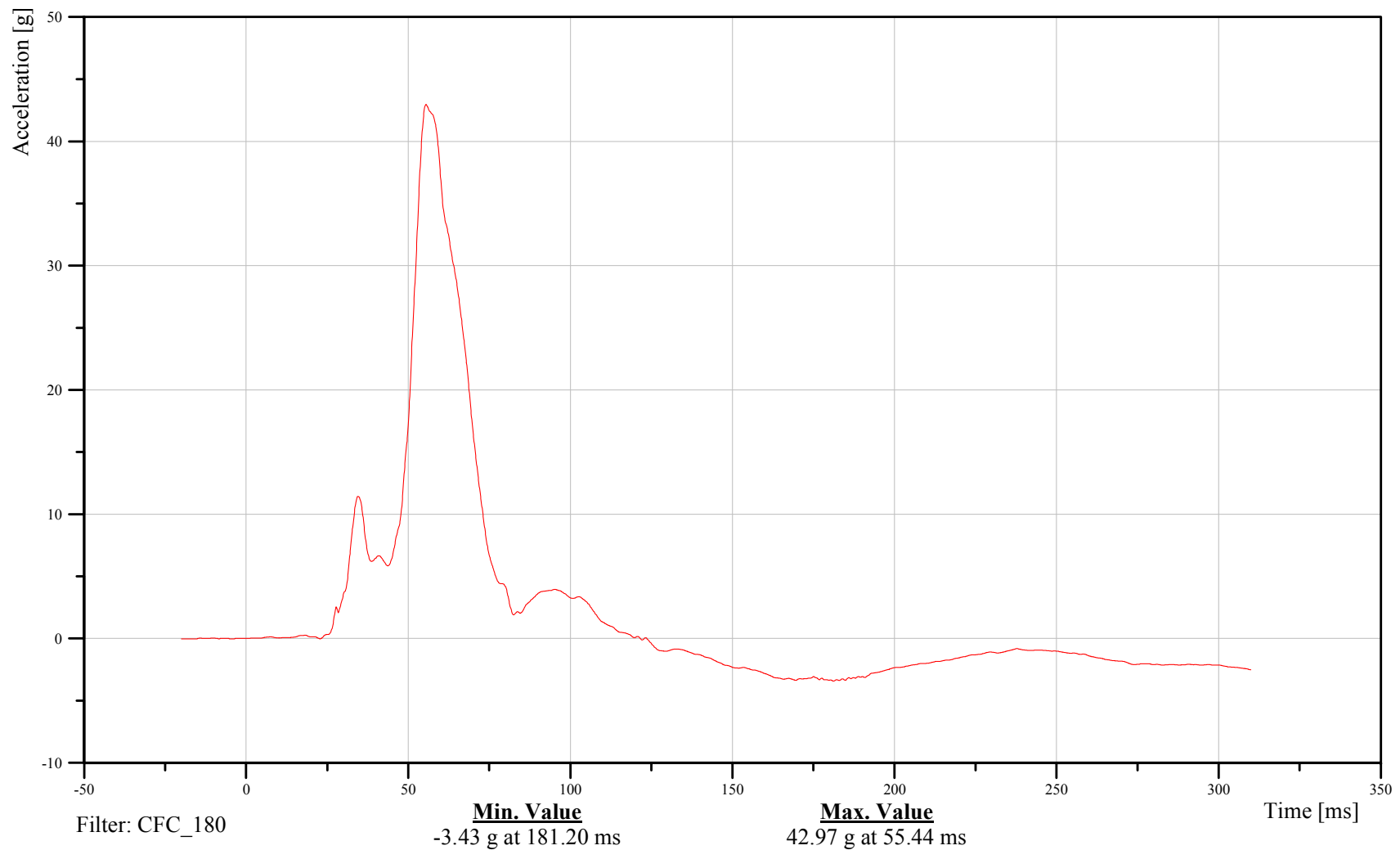
Spine Rib 1 Accel Y

Customer: VRTC

14THSP01RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

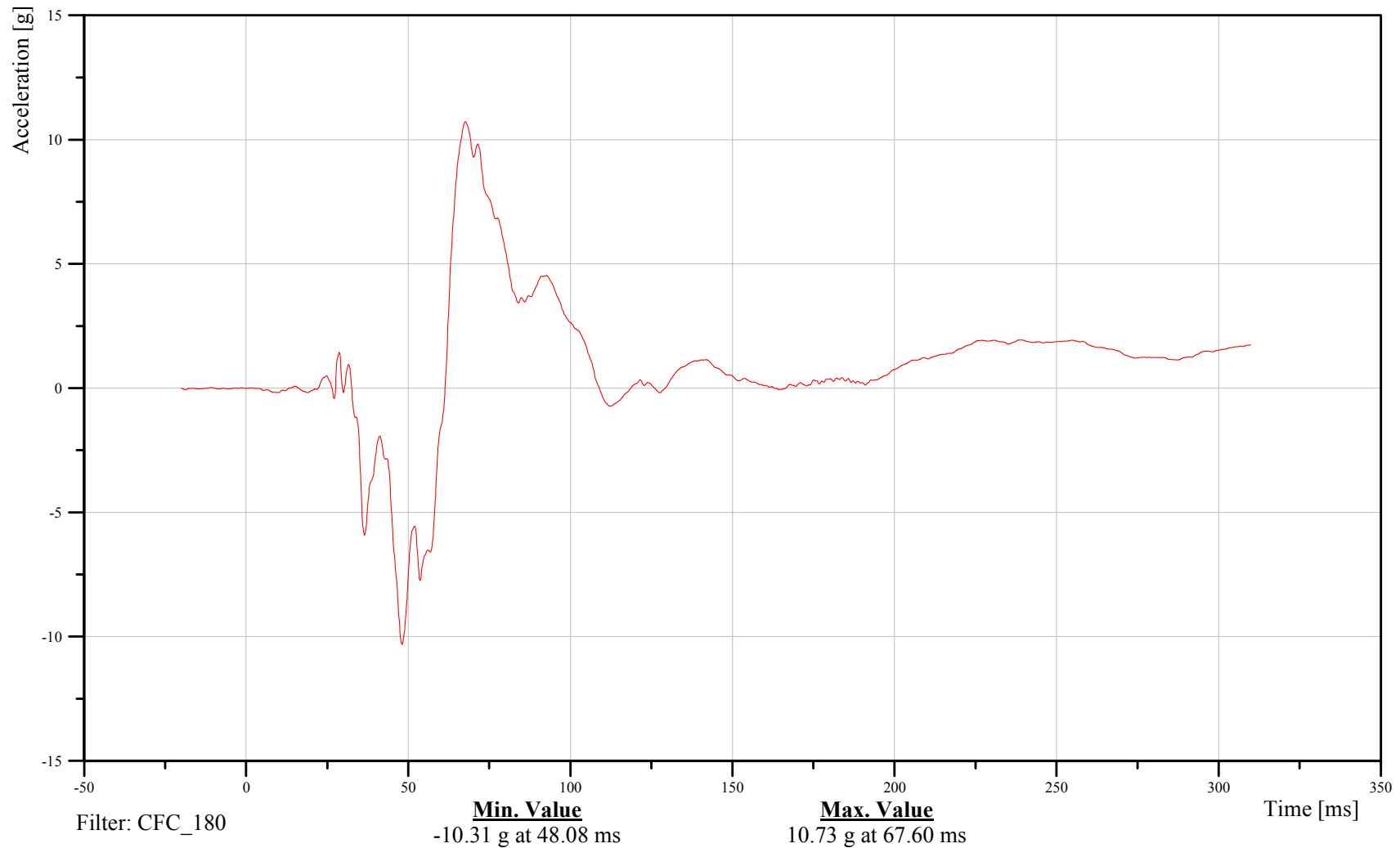
Spine Rib 1 Accel Z

Customer: VRTC

14THSP01RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 1 Accel Resultant

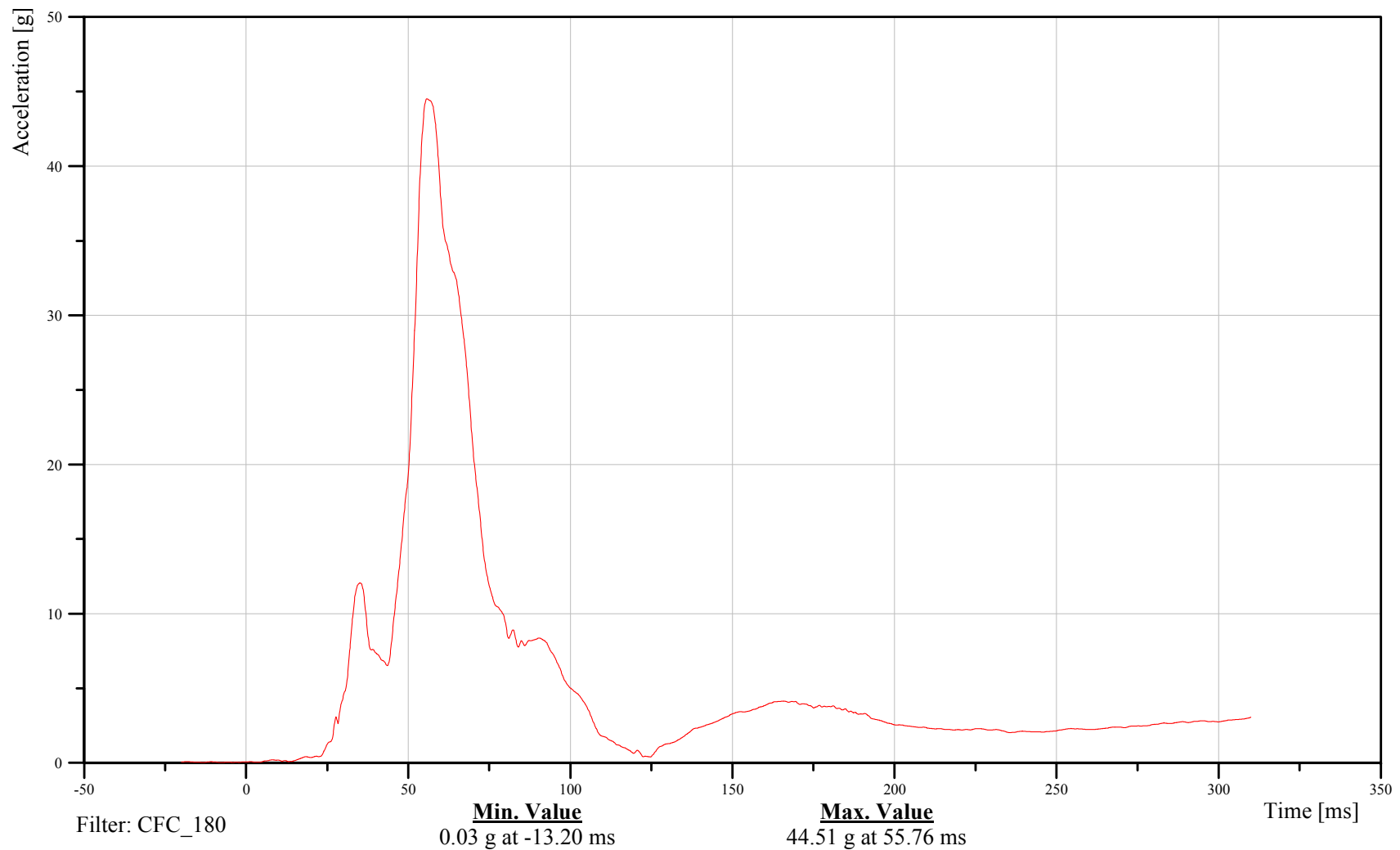
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP01RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 2 Accel X

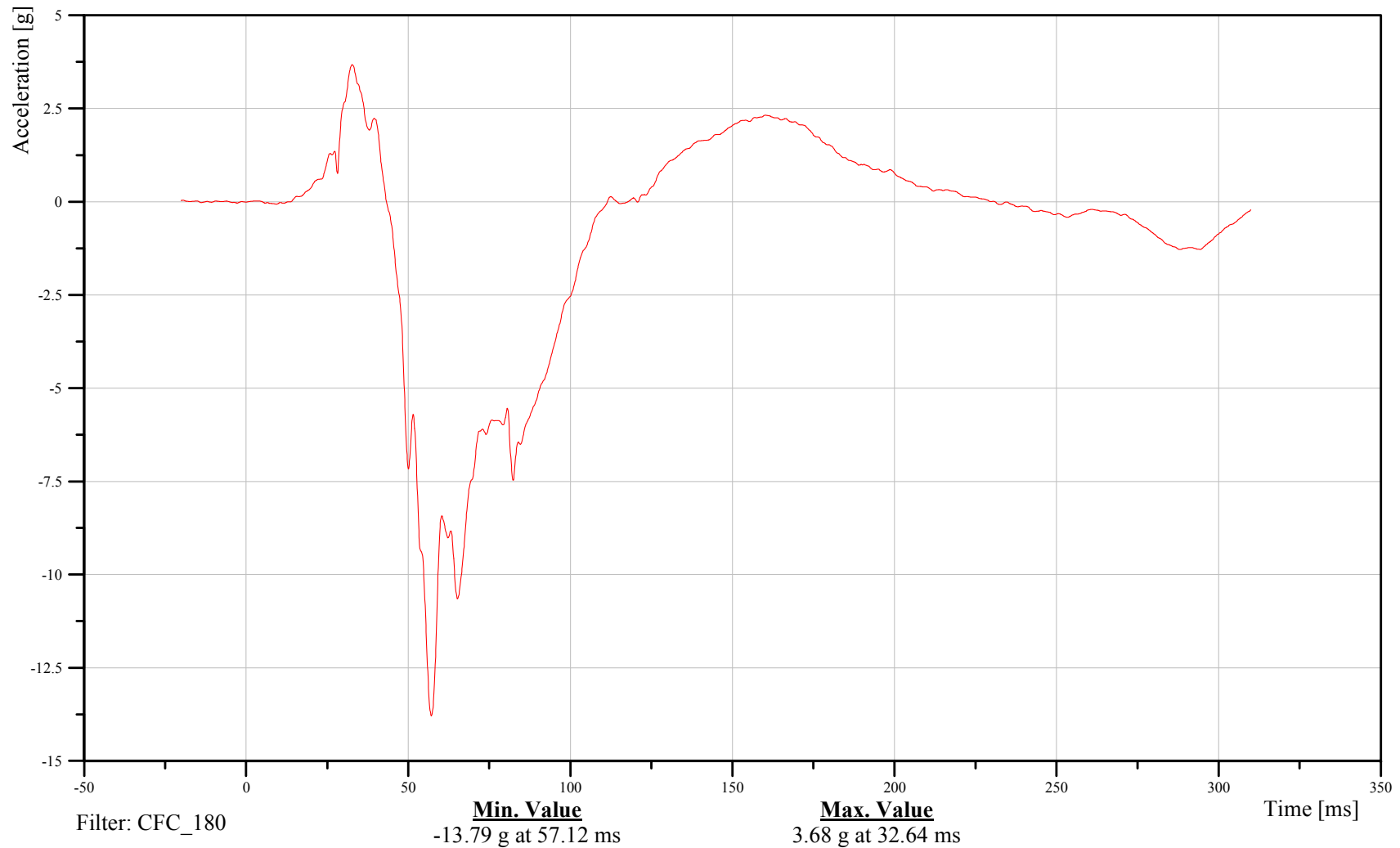
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP02RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 2 Accel Y

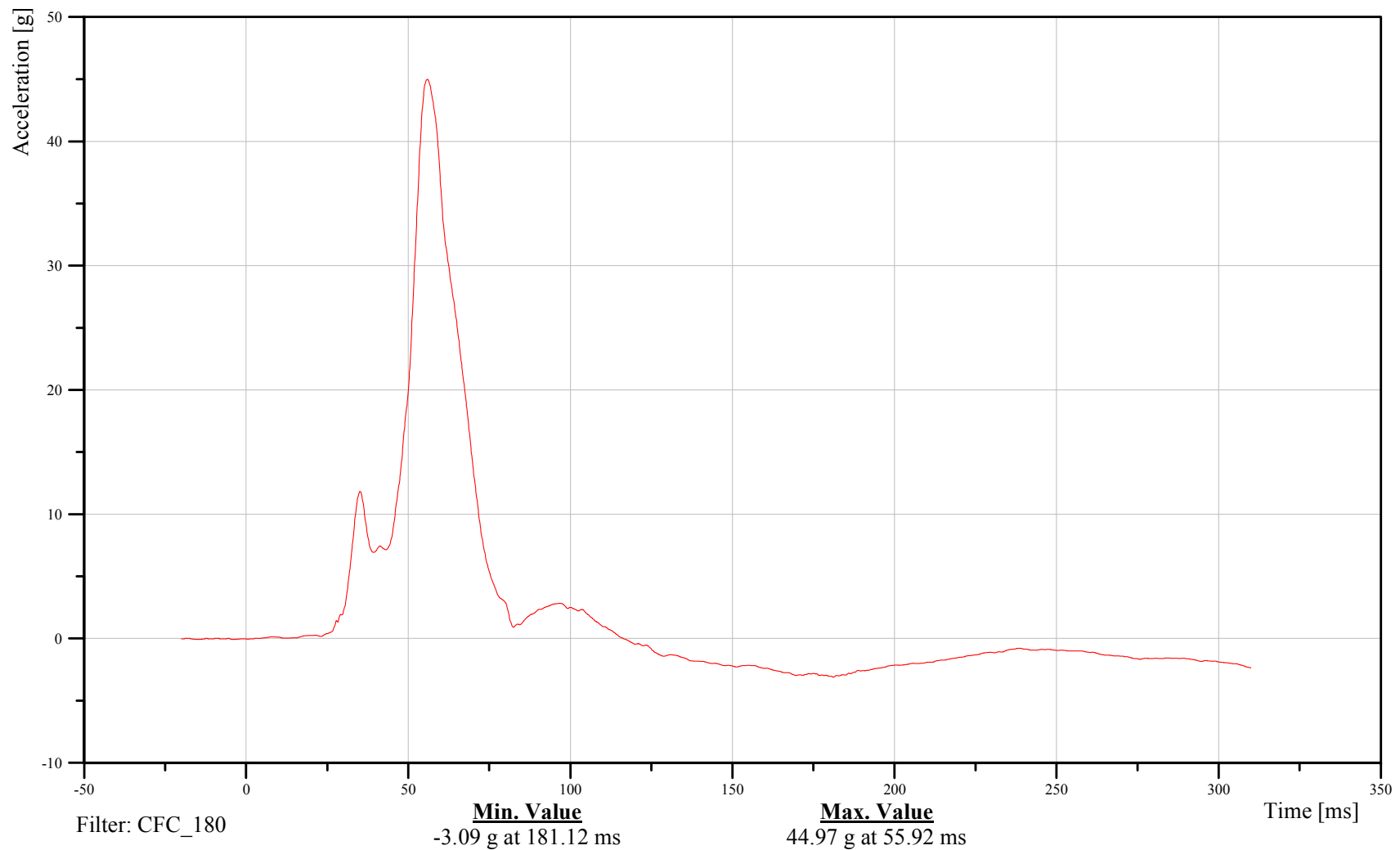
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP02RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

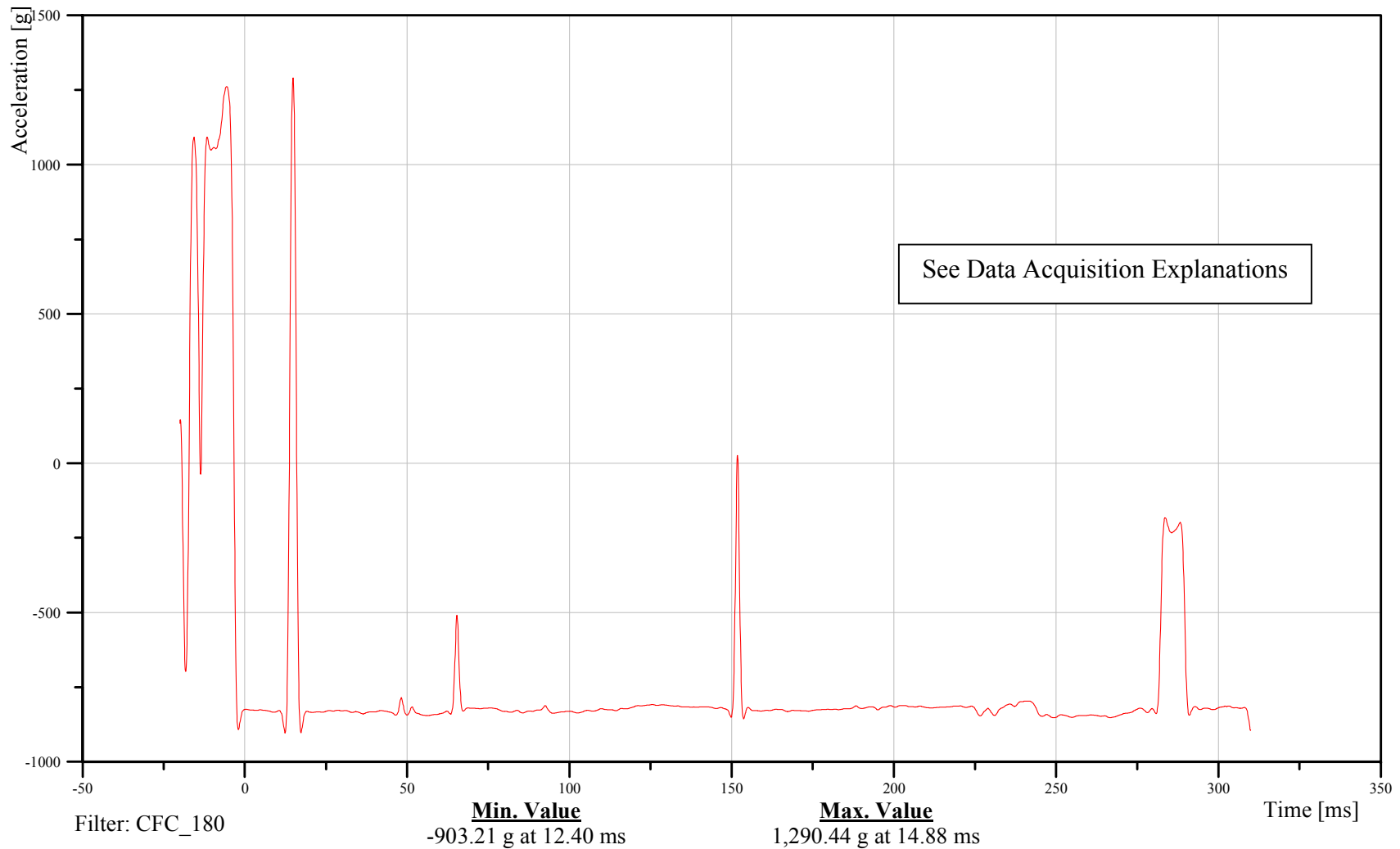
Spine Rib 2 Accel Z

Customer: VRTC

14THSP02RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 2 Accel Resultant

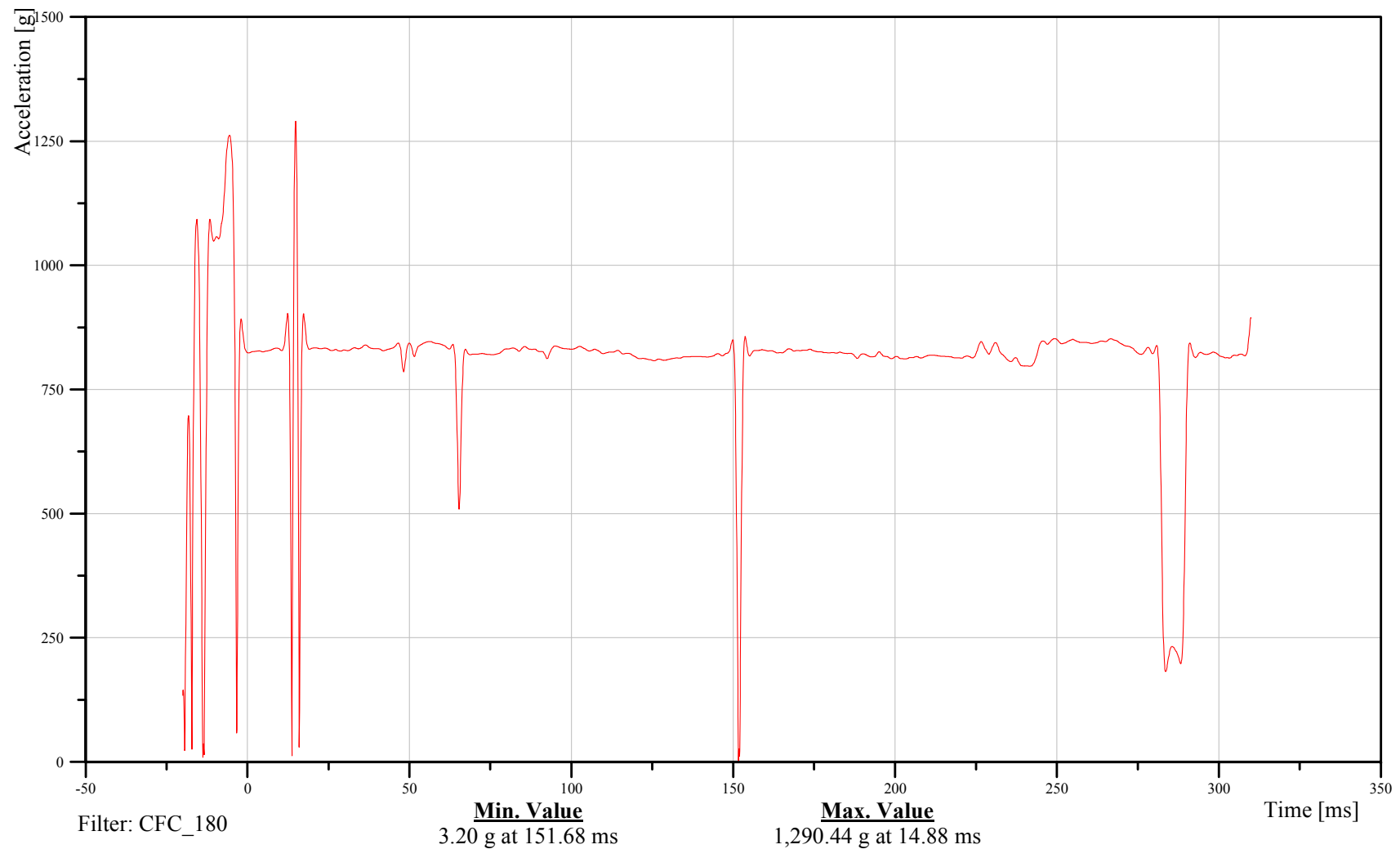
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP02RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 3 Accel X

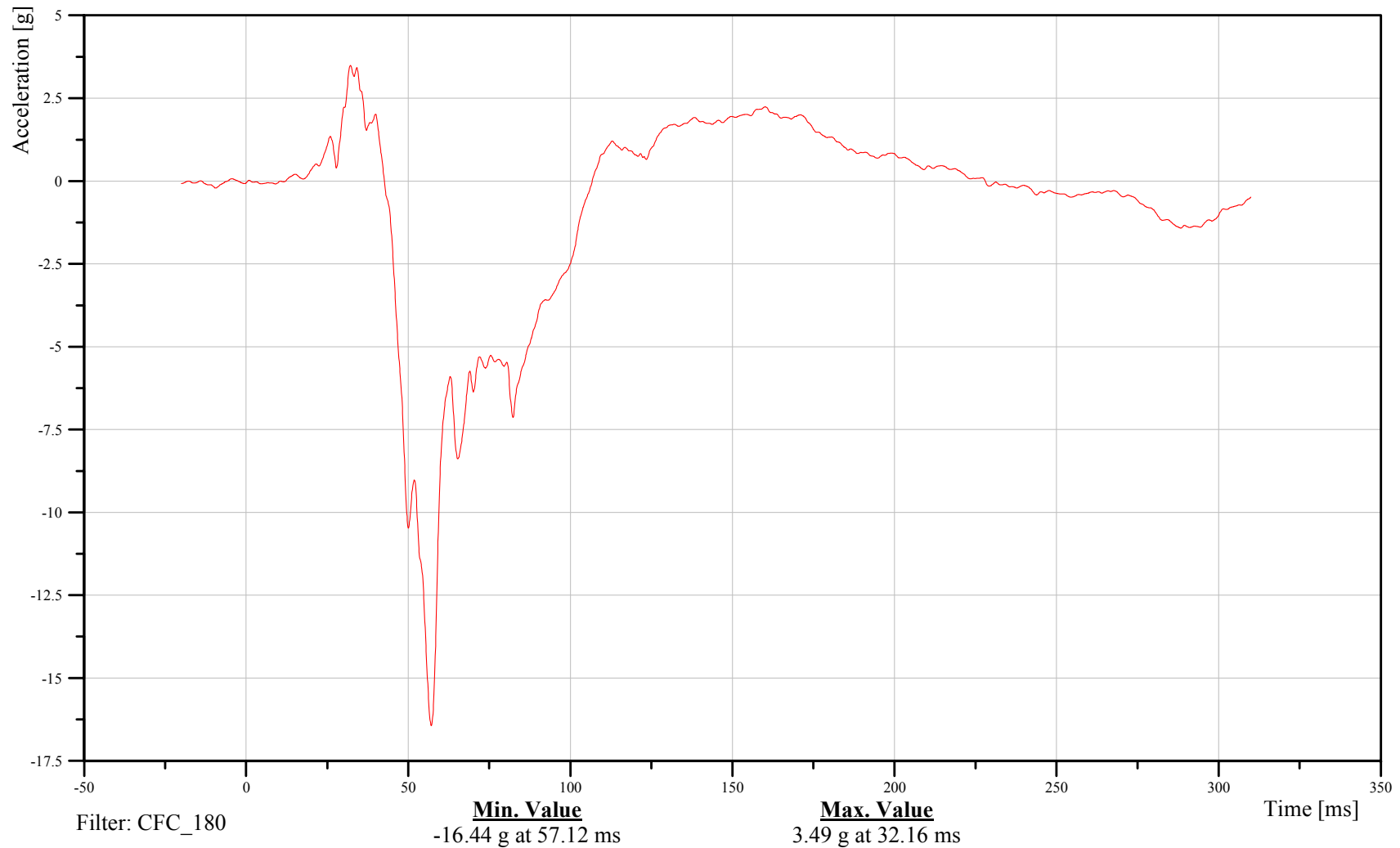
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP03RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 3 Accel Y

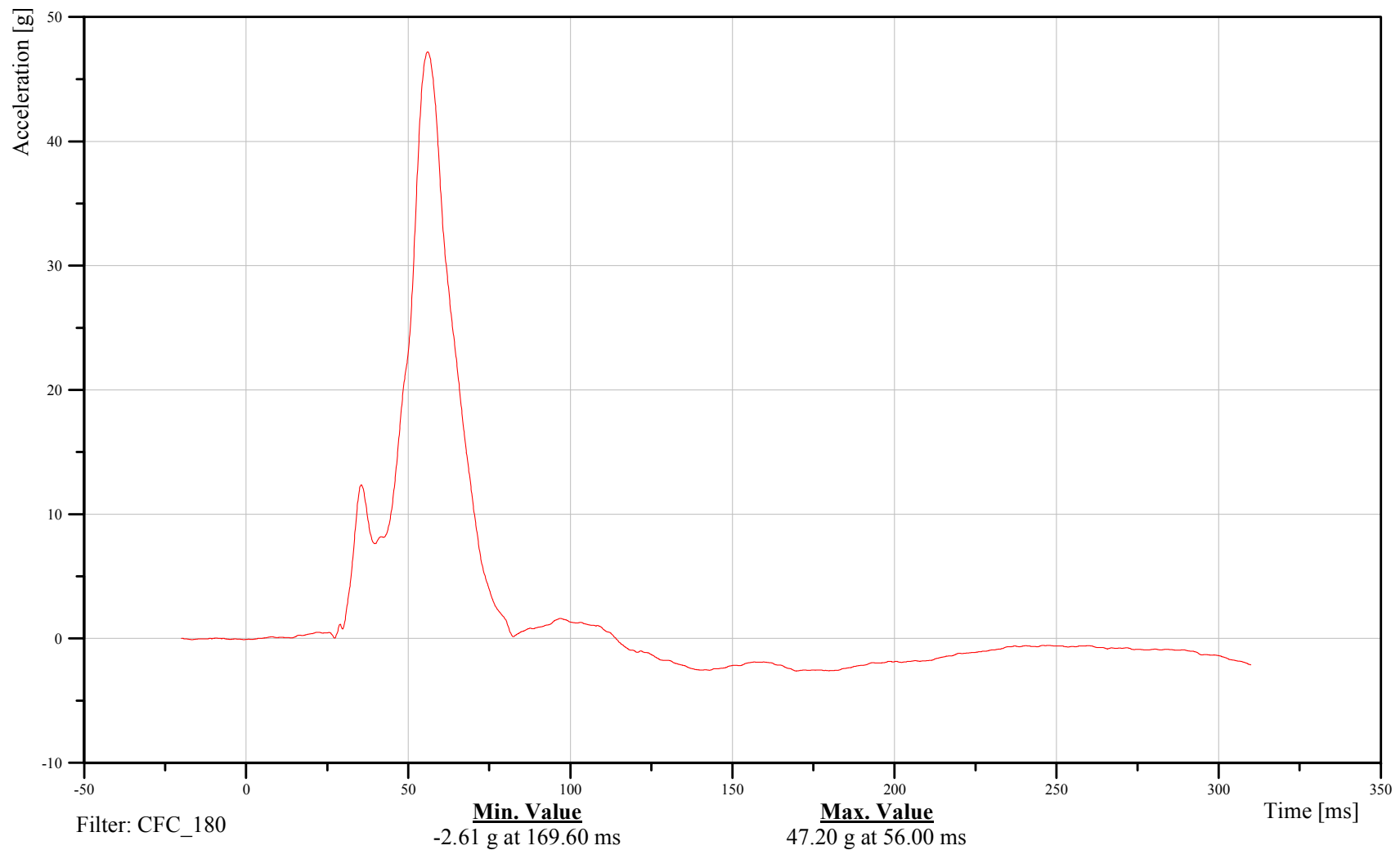
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP03RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

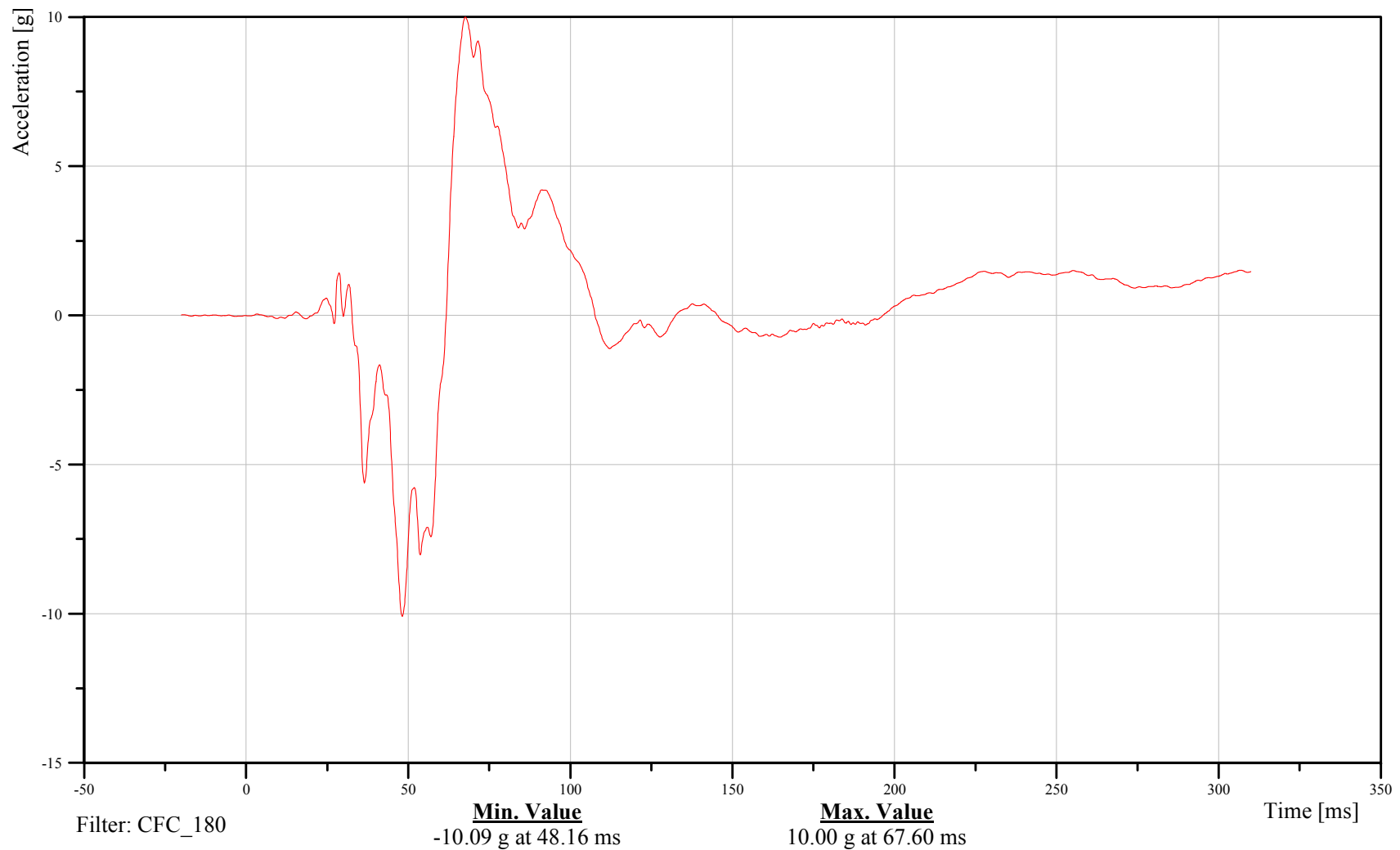
Spine Rib 3 Accel Z

Customer: VRTC

14THSP03RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 3 Accel Resultant

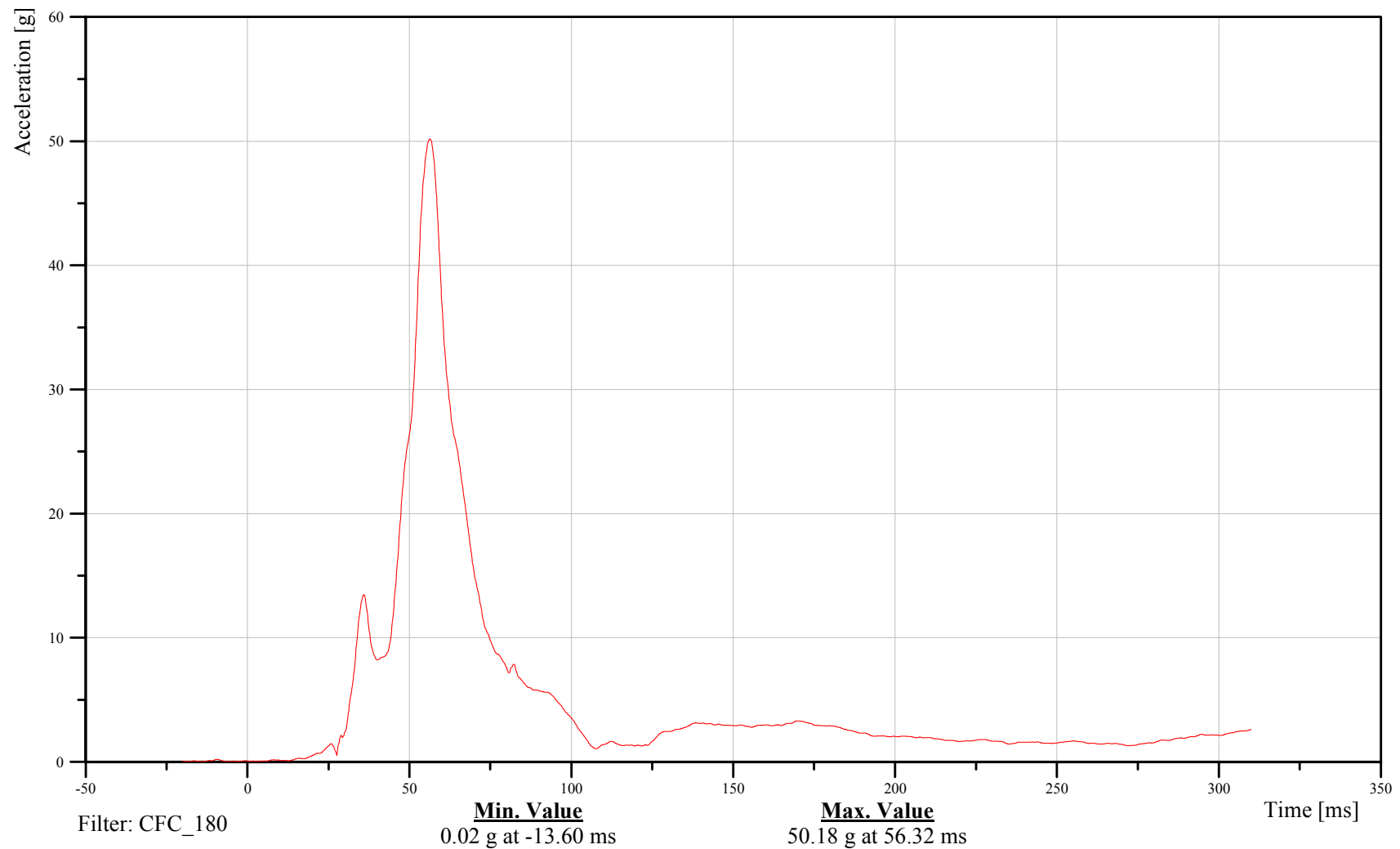
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14THSP03RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

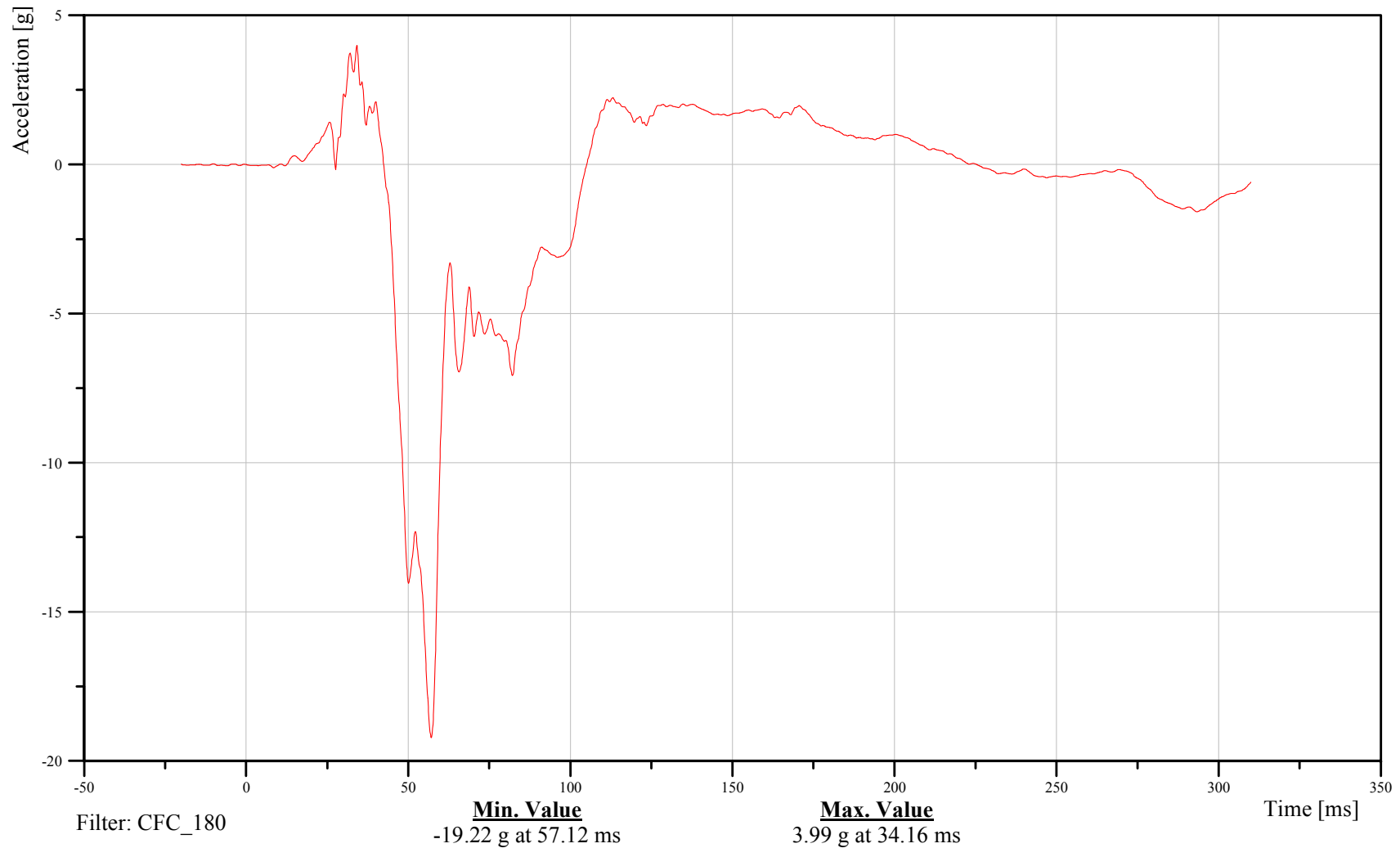
Lower Spine Accel X

Customer: VRTC

14SPIN1200S2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

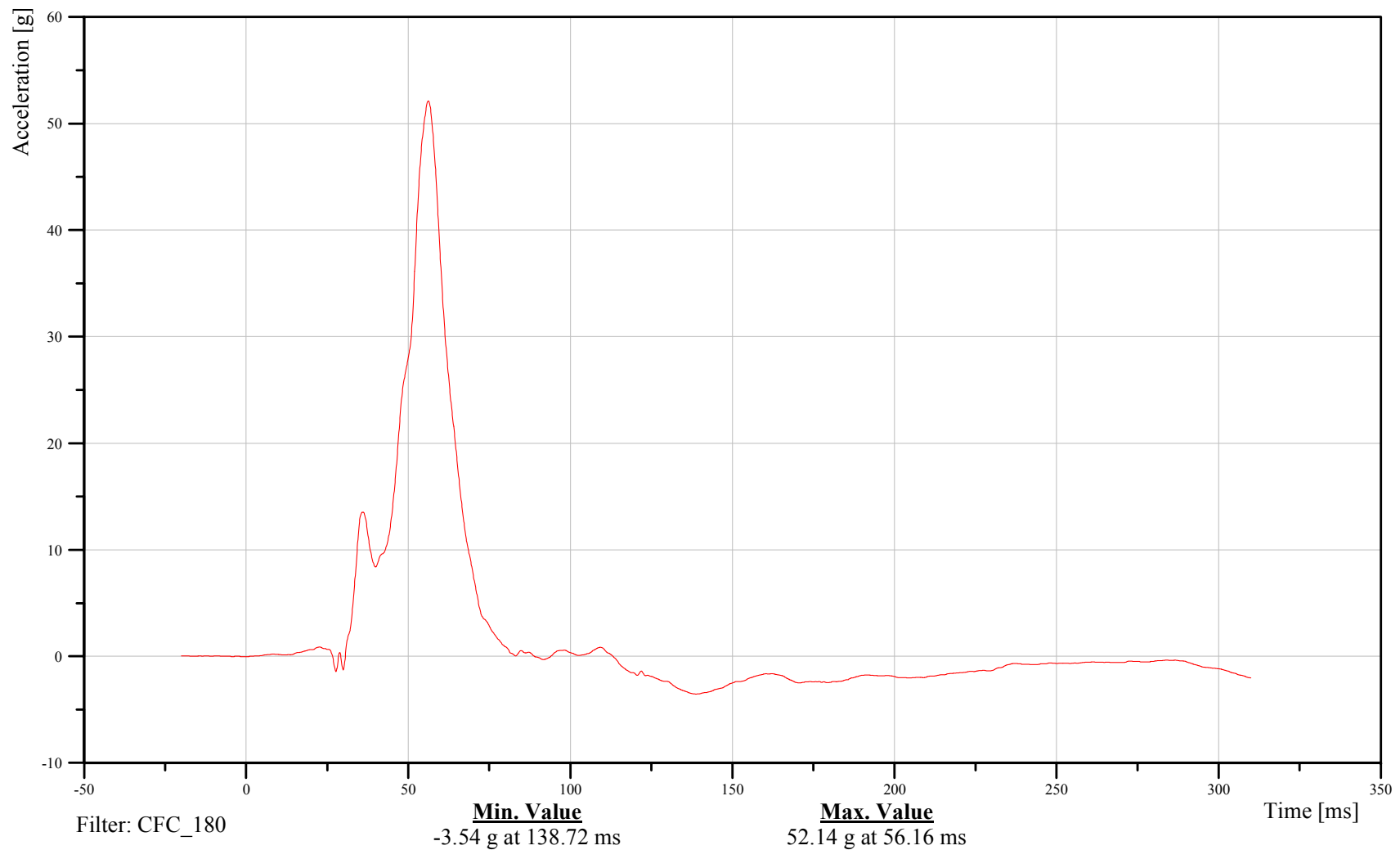
Lower Spine Accel Y

Customer: VRTC

14SPIN1200S2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

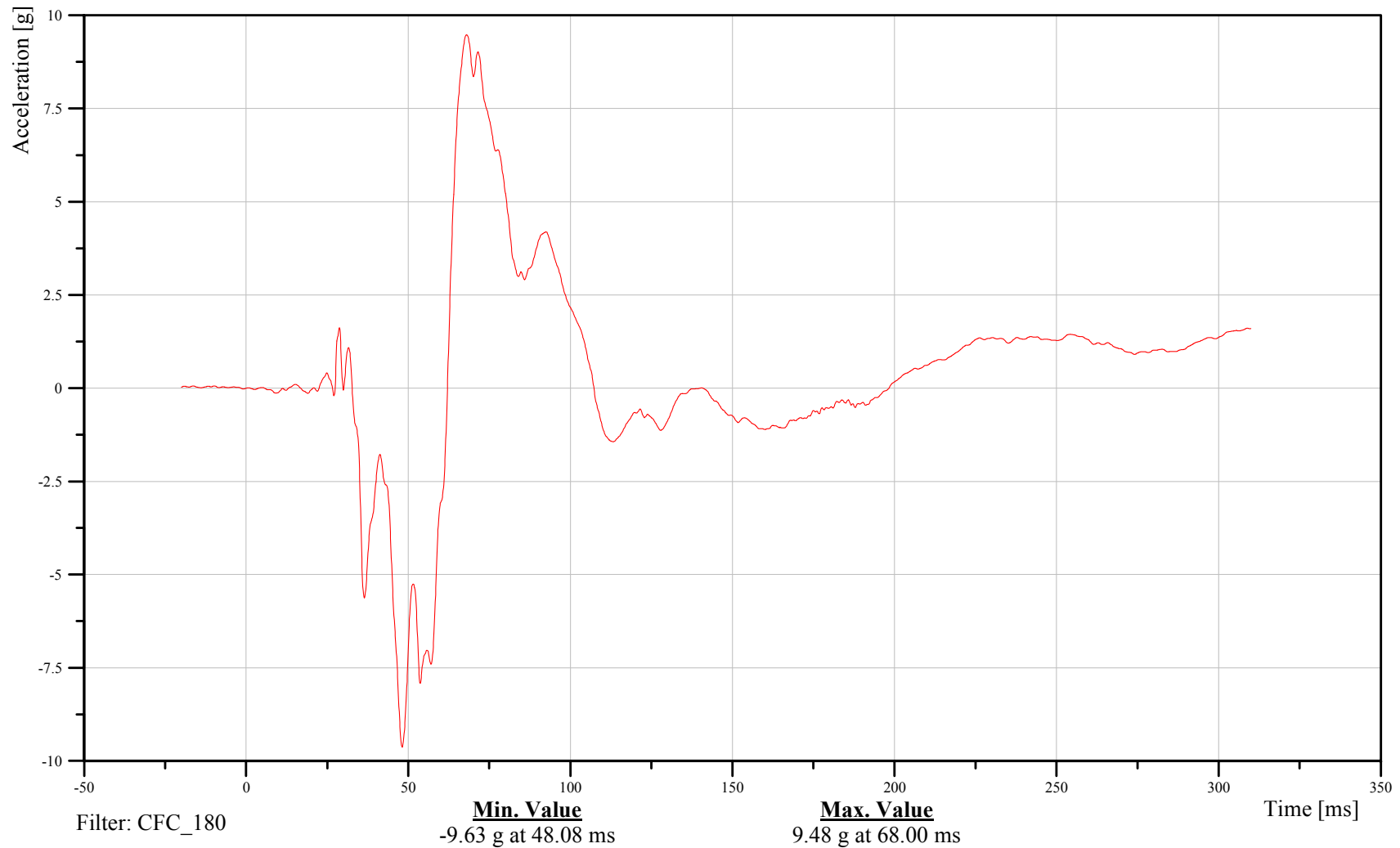
Lower Spine Accel Z

Customer: VRTC

14SPIN1200S2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

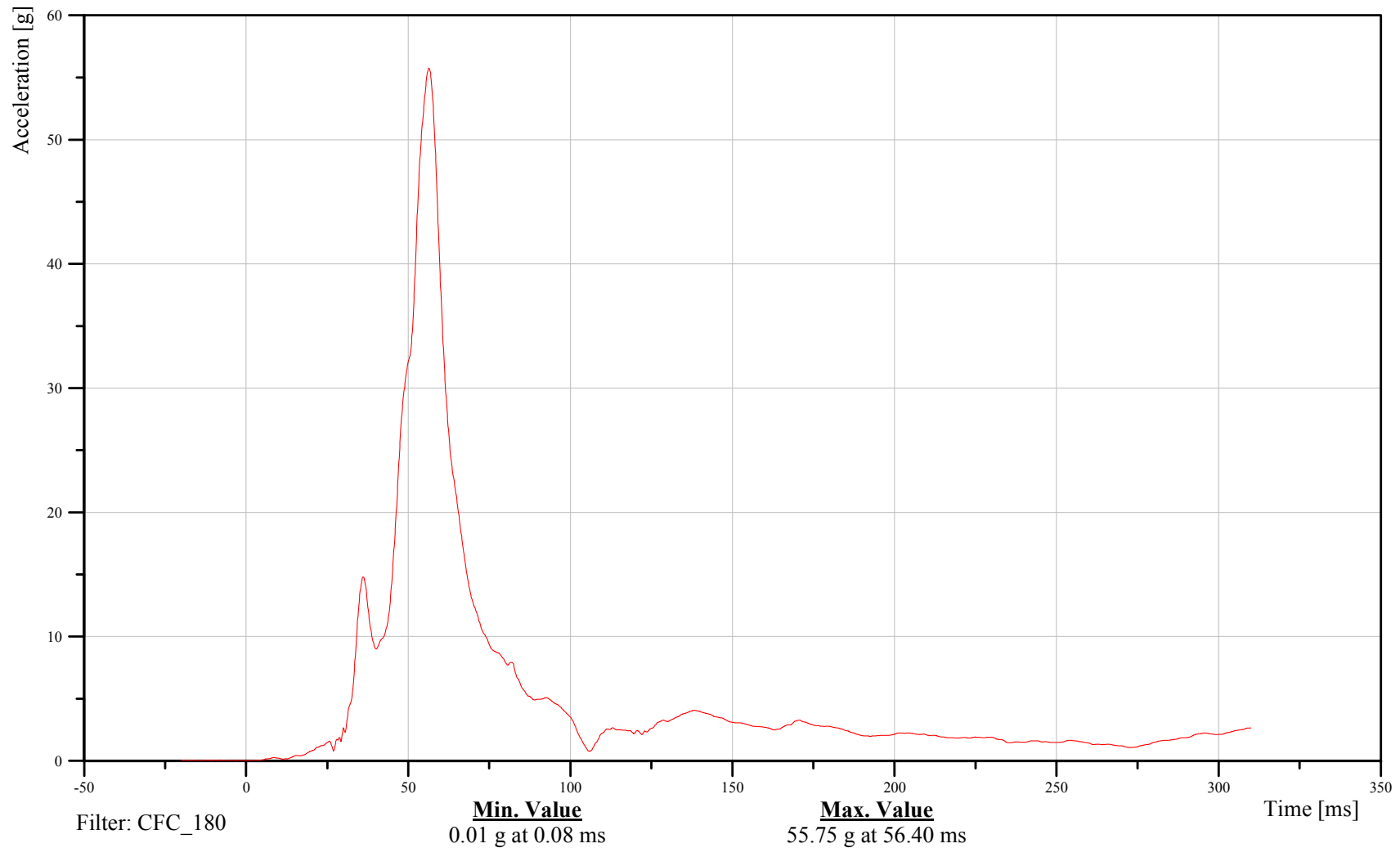
Lower Spine Accel Resultant

Customer: VRTC

14SPIN1200S2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 5 Accel X

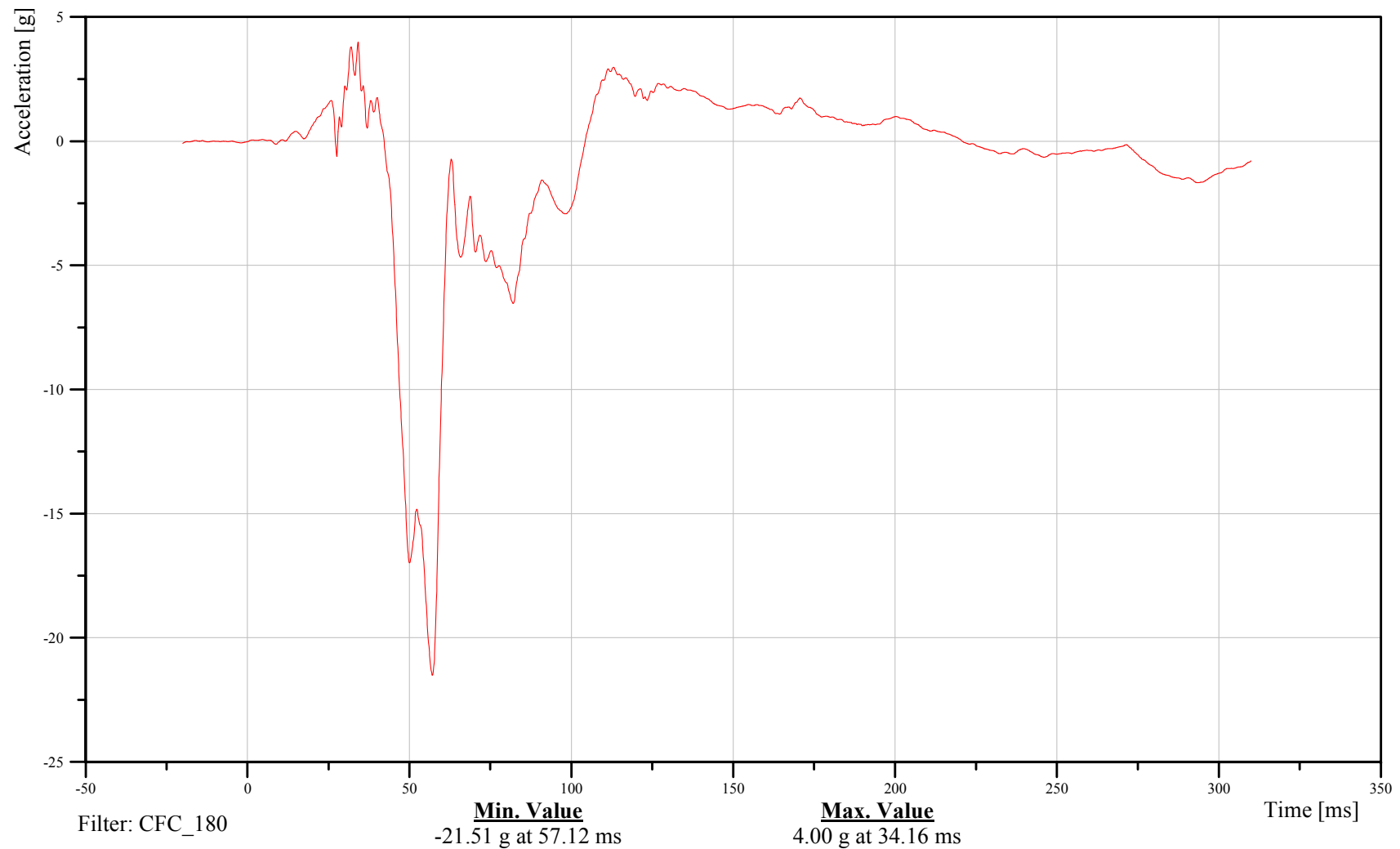
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABSP02RIS2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Spine Rib 5 Accel Y

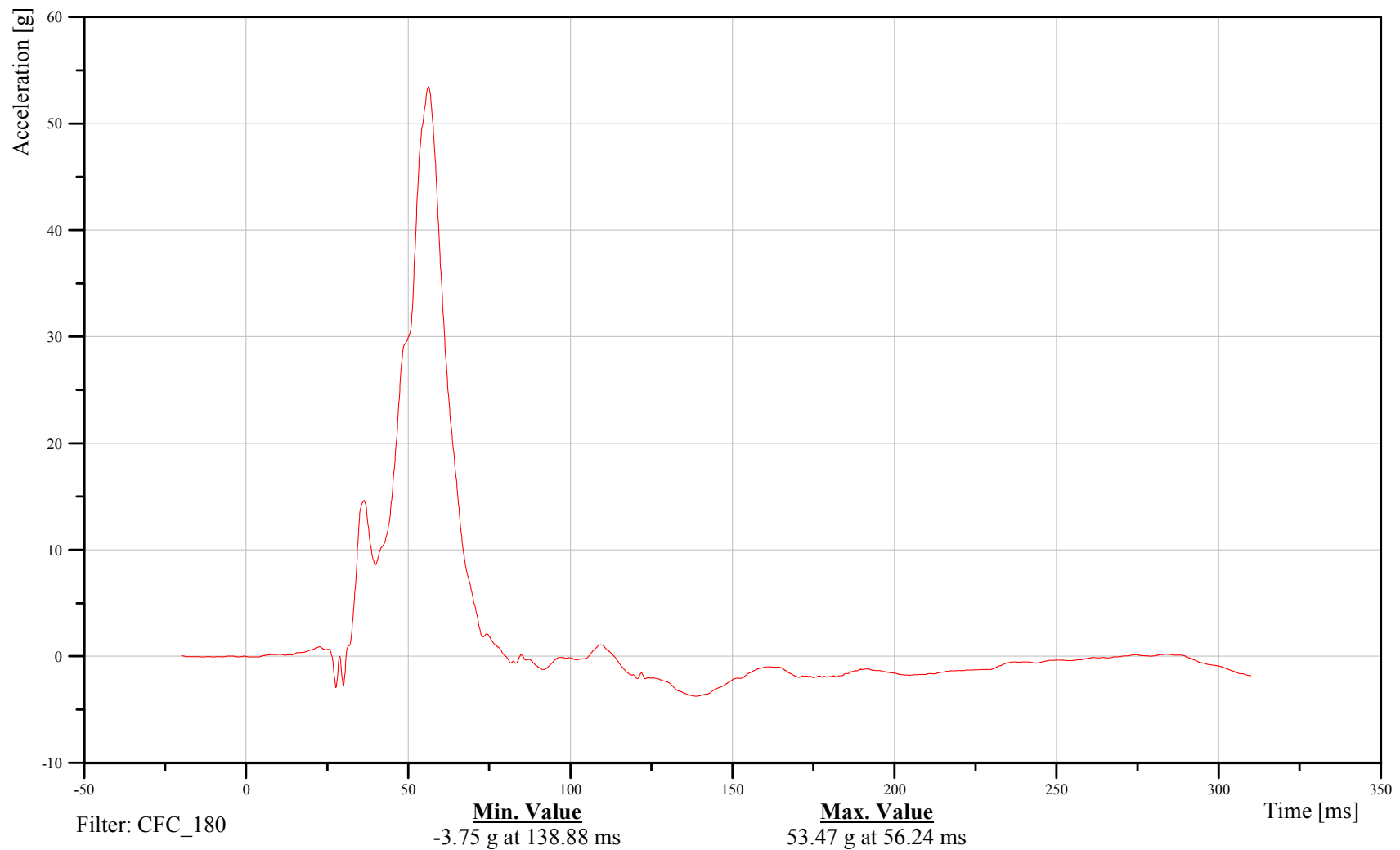
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABSP02RIS2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

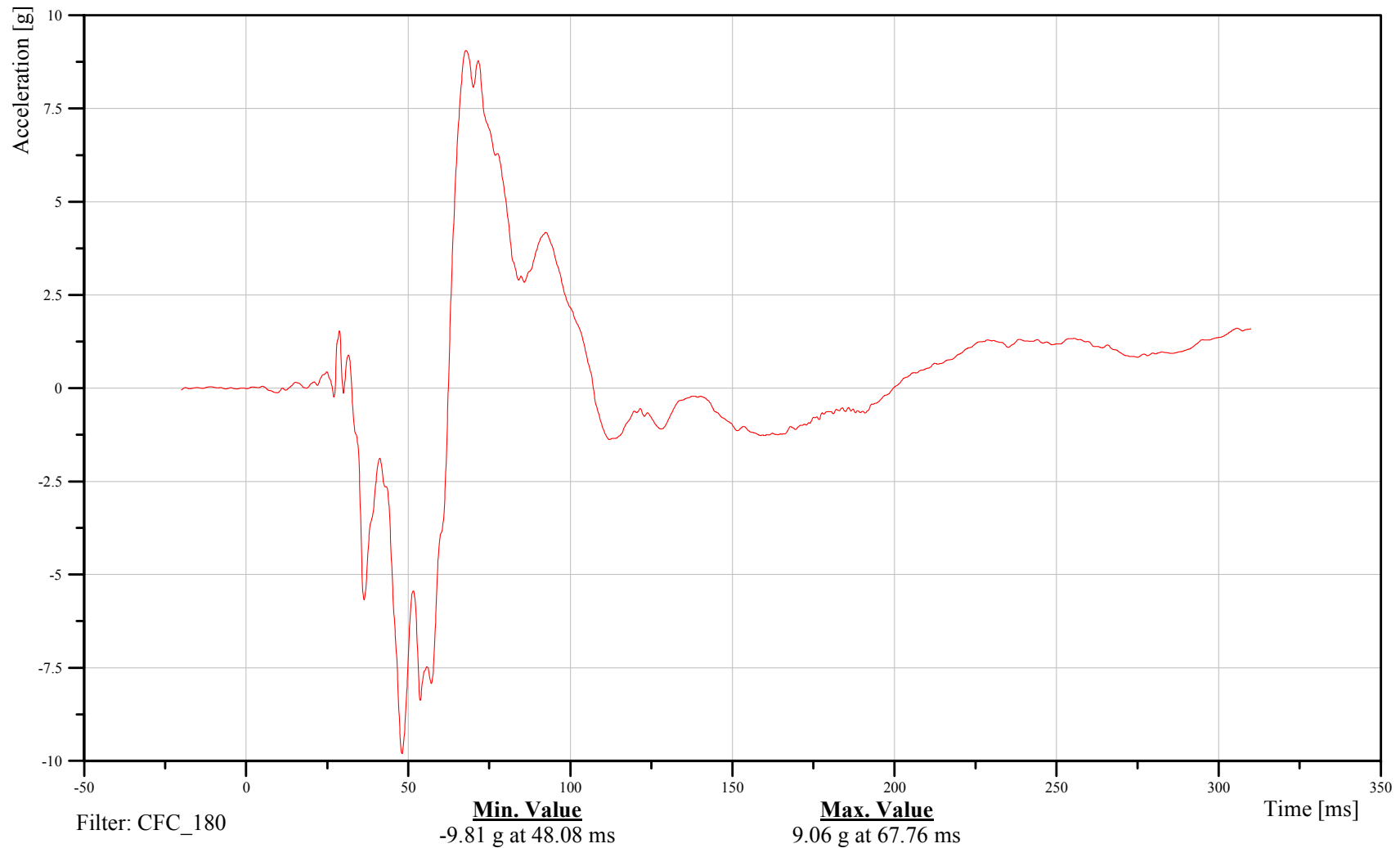
Spine Rib 5 Accel Z

Customer: VRTC

14ABSP02RIS2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

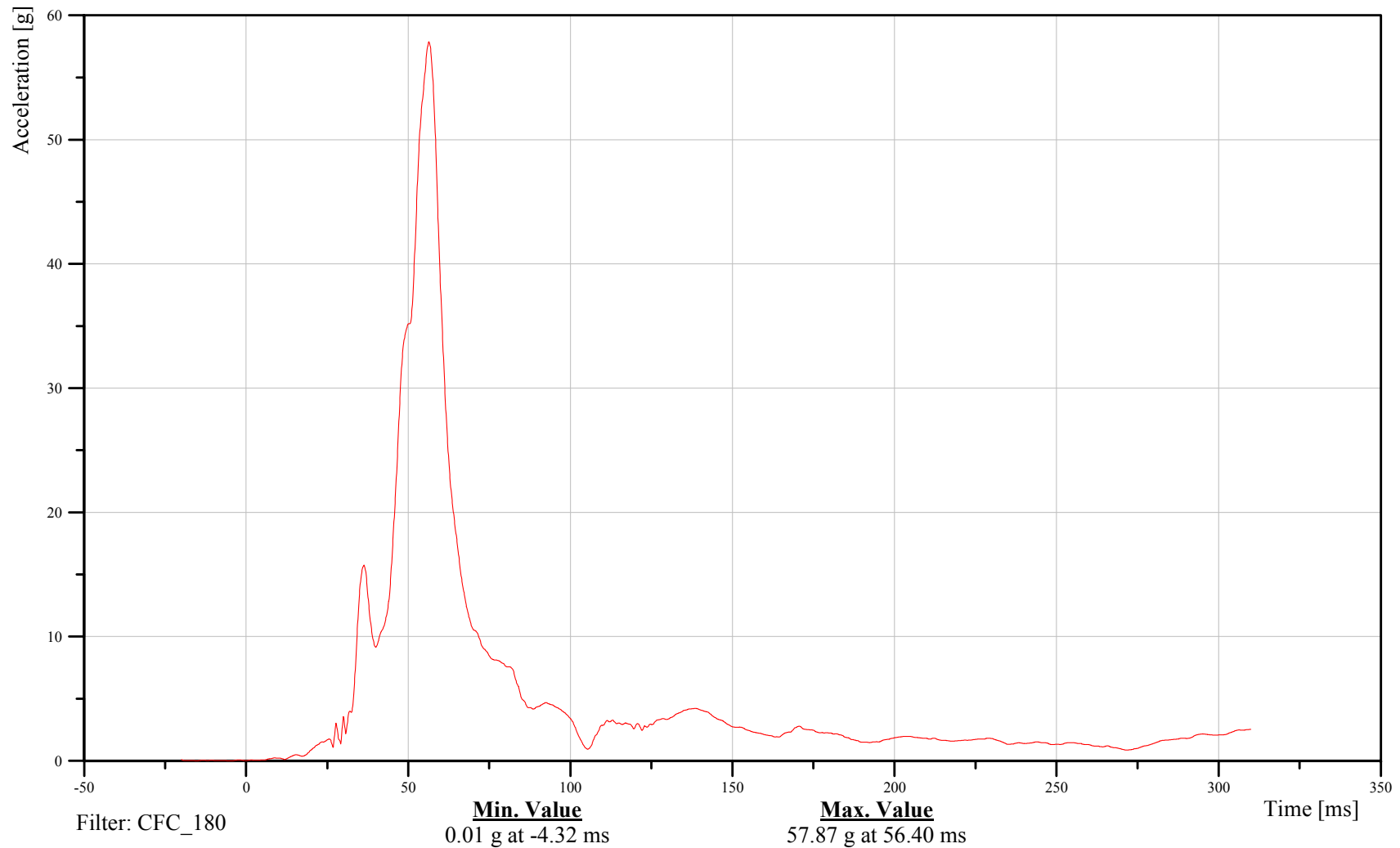
Spine Rib 5 Accel Resultant

Customer: VRTC

14ABSP02RIS2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

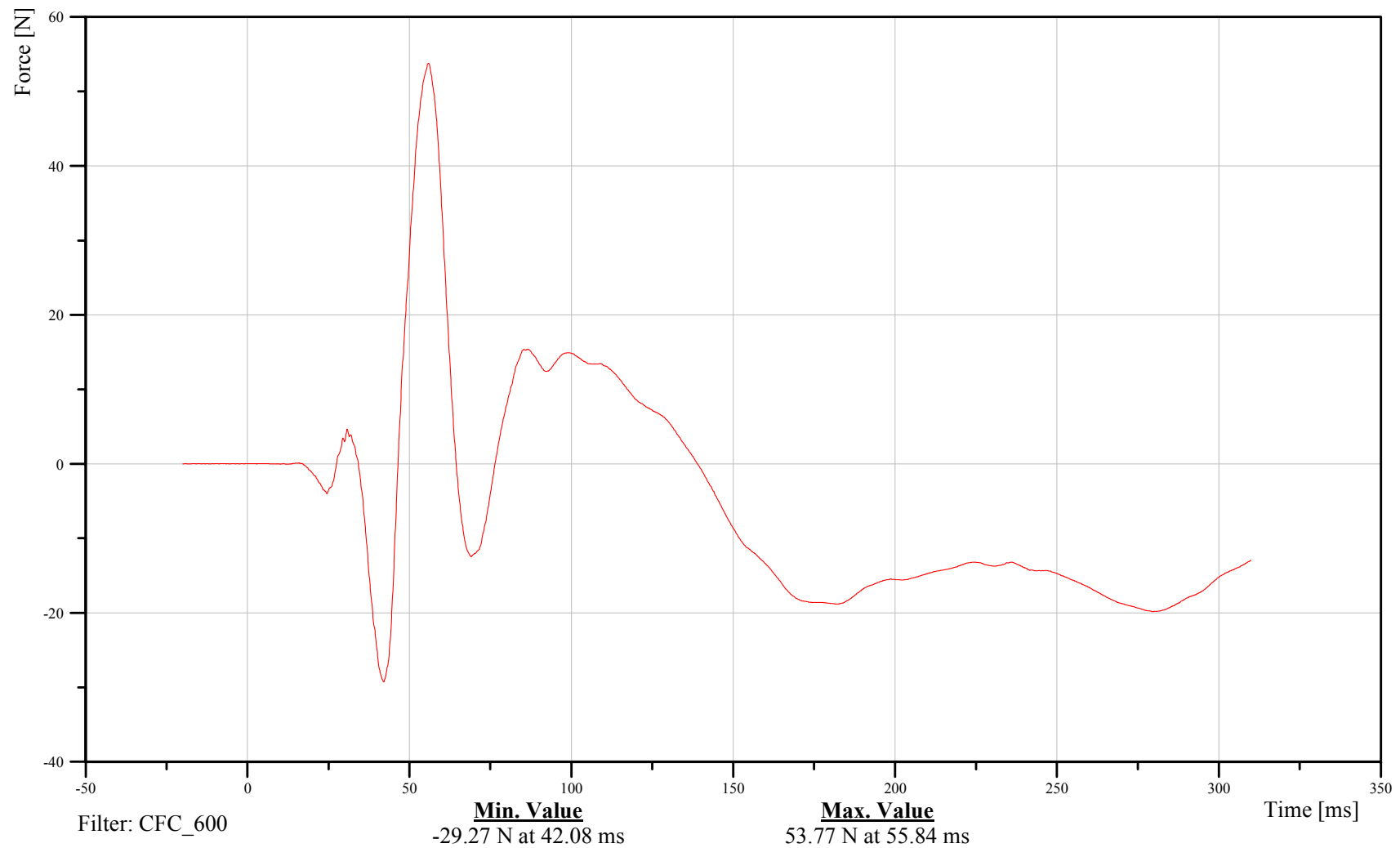
Lumbar Moment X

Customer: VRTC

14LUSP0000S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

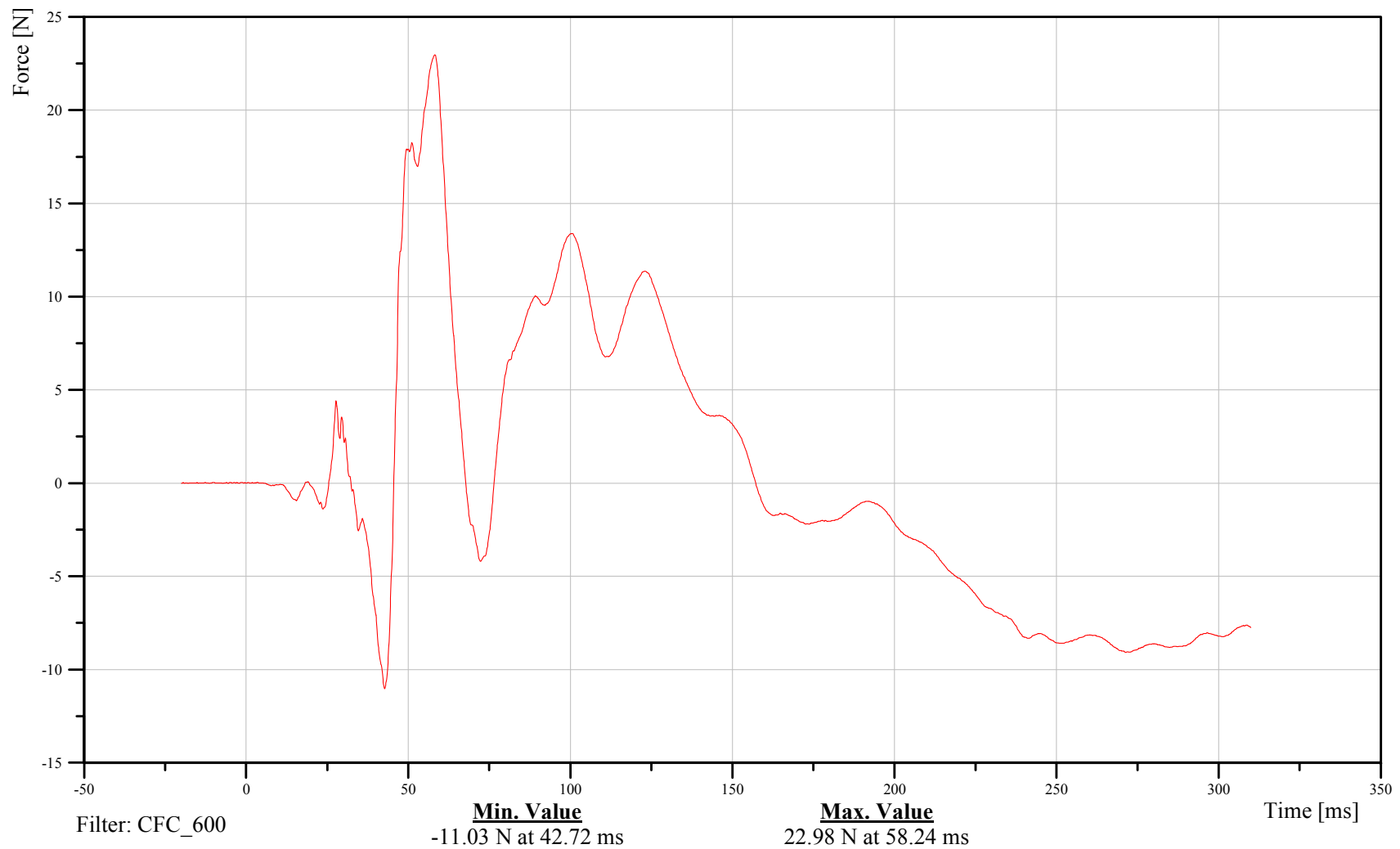
Lumbar Moment Y

Customer: VRTC

14LUSP0000S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

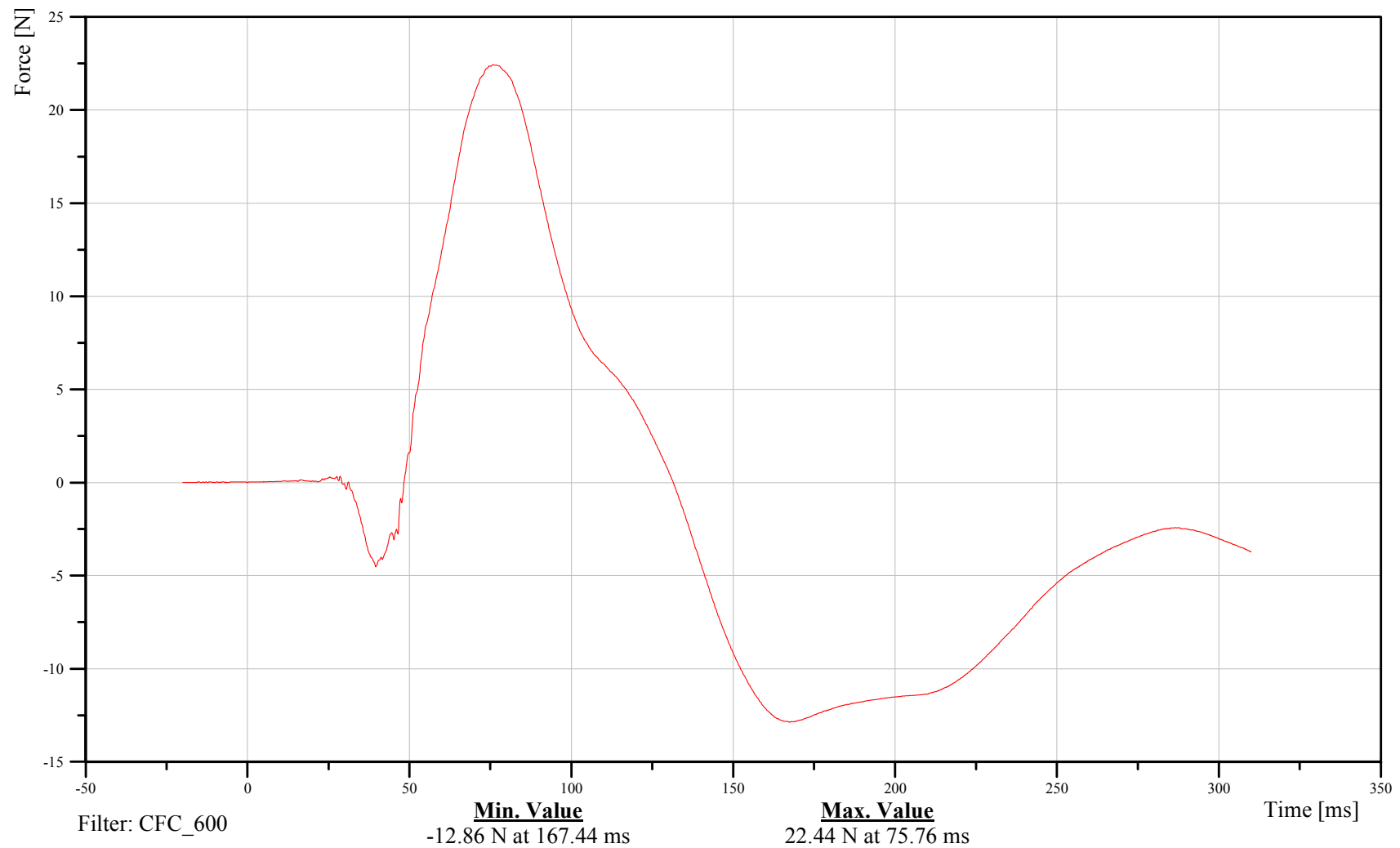
Lumbar Moment Z

Customer: VRTC

14LUSP0000S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel X

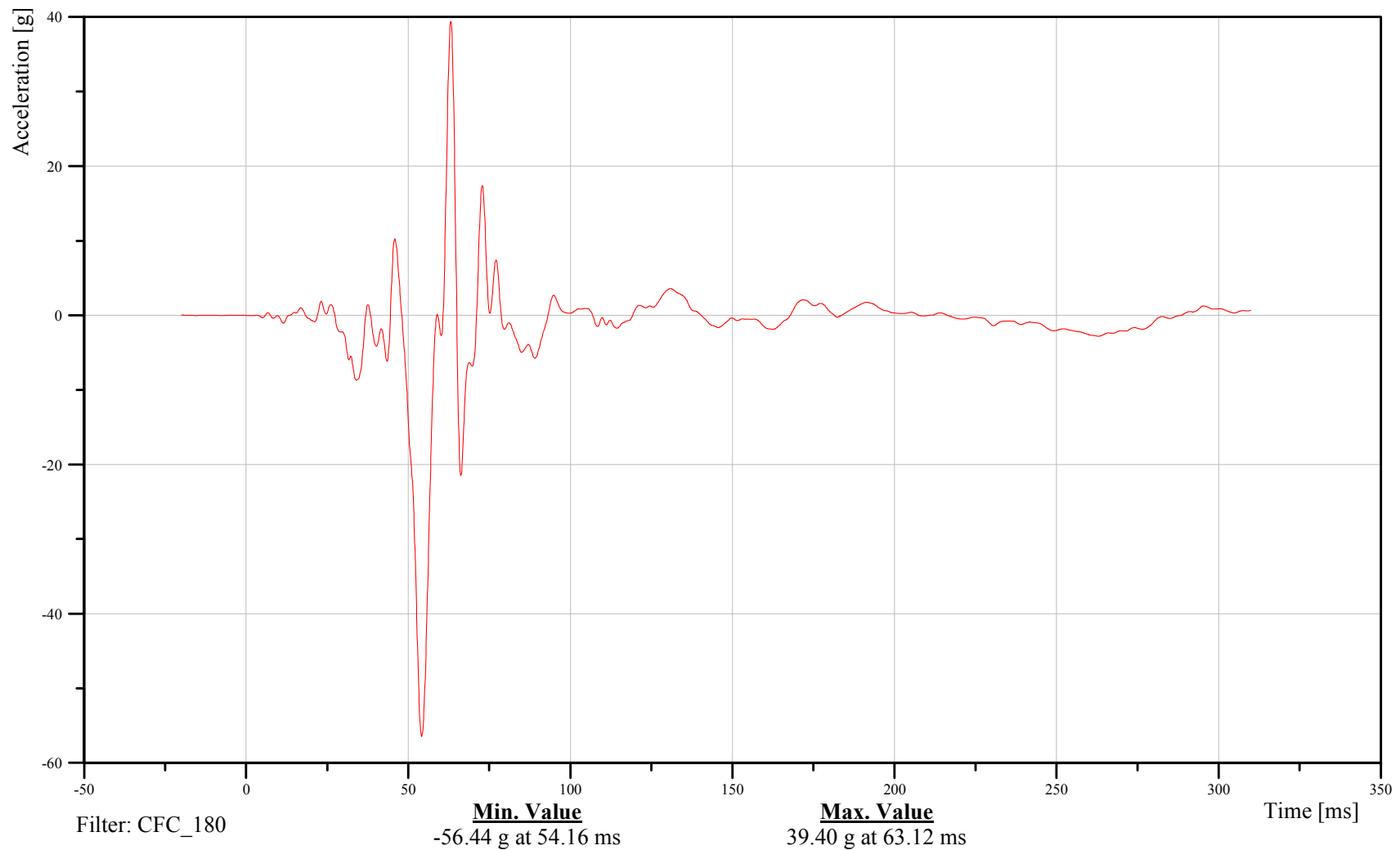
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI01LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel Y

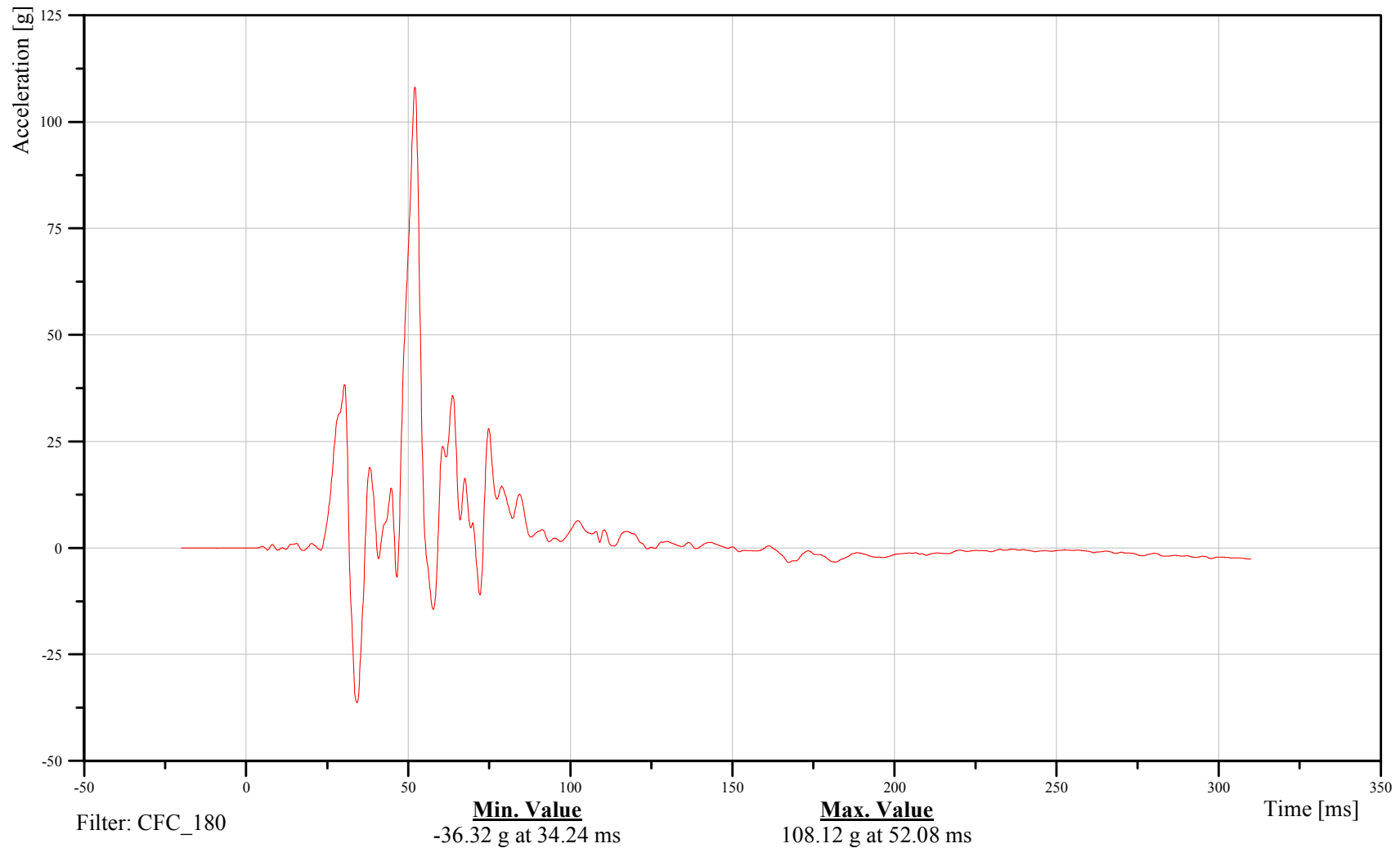
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI01LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel Z

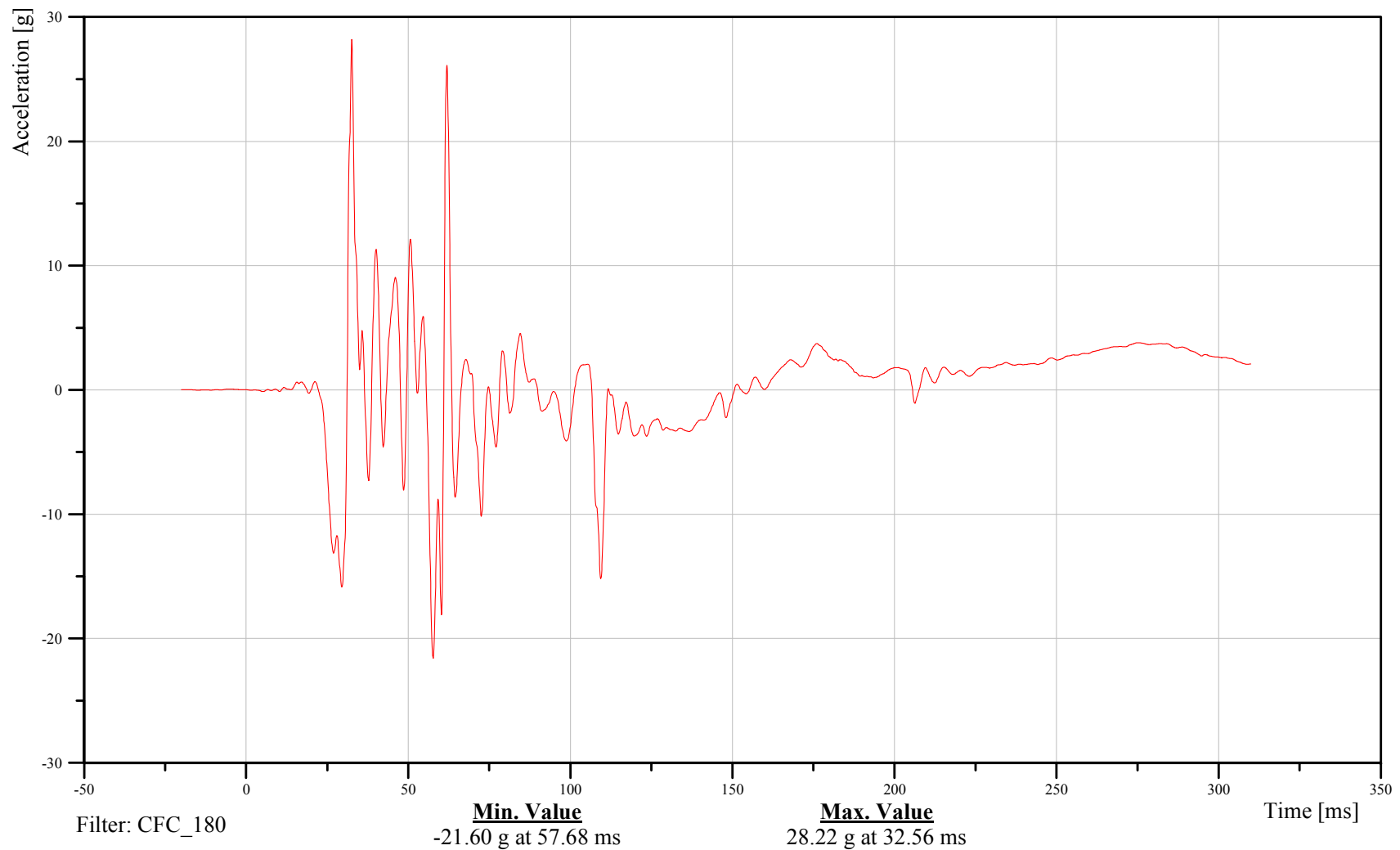
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI01LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Accel Resultant

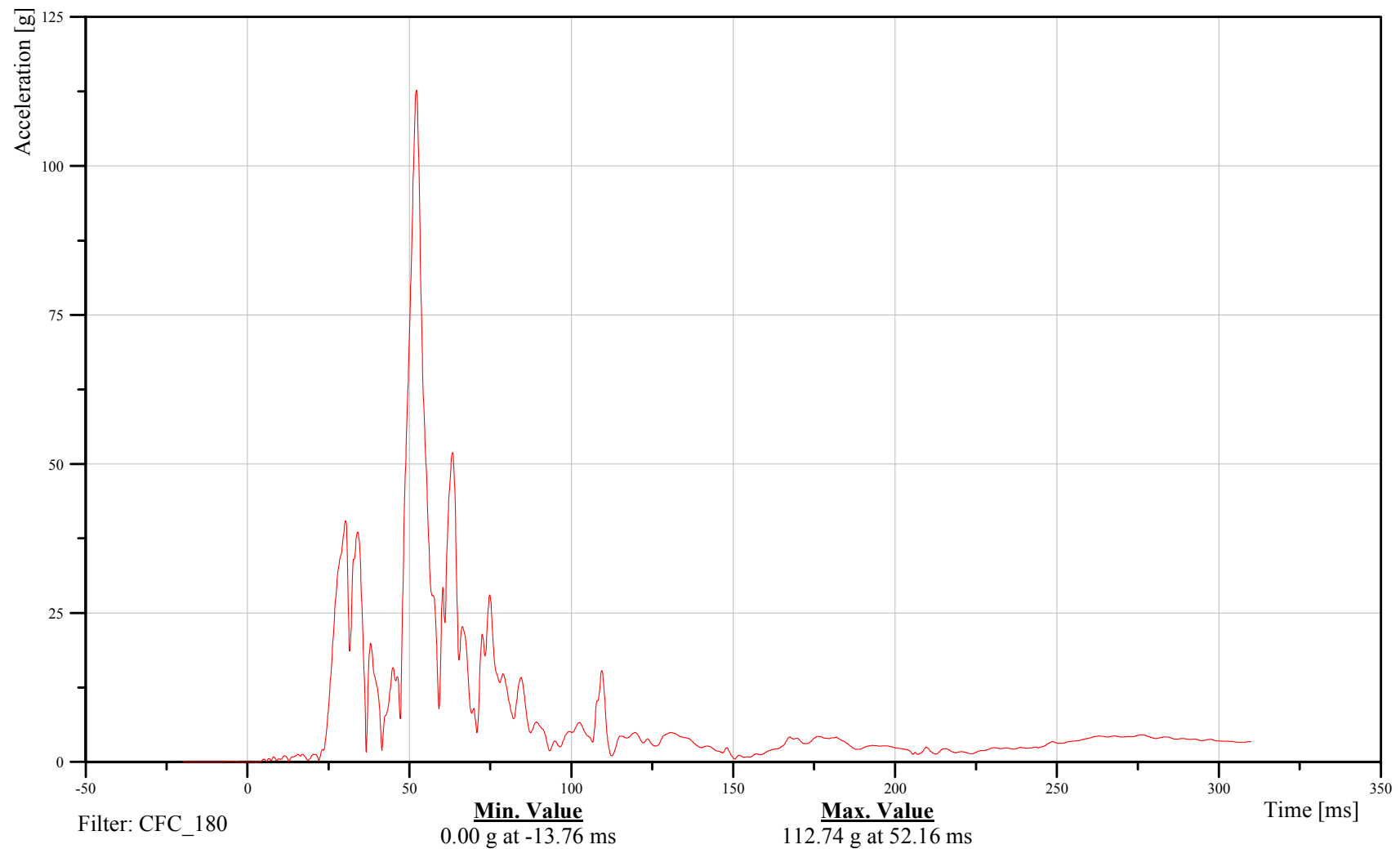
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI01LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel X

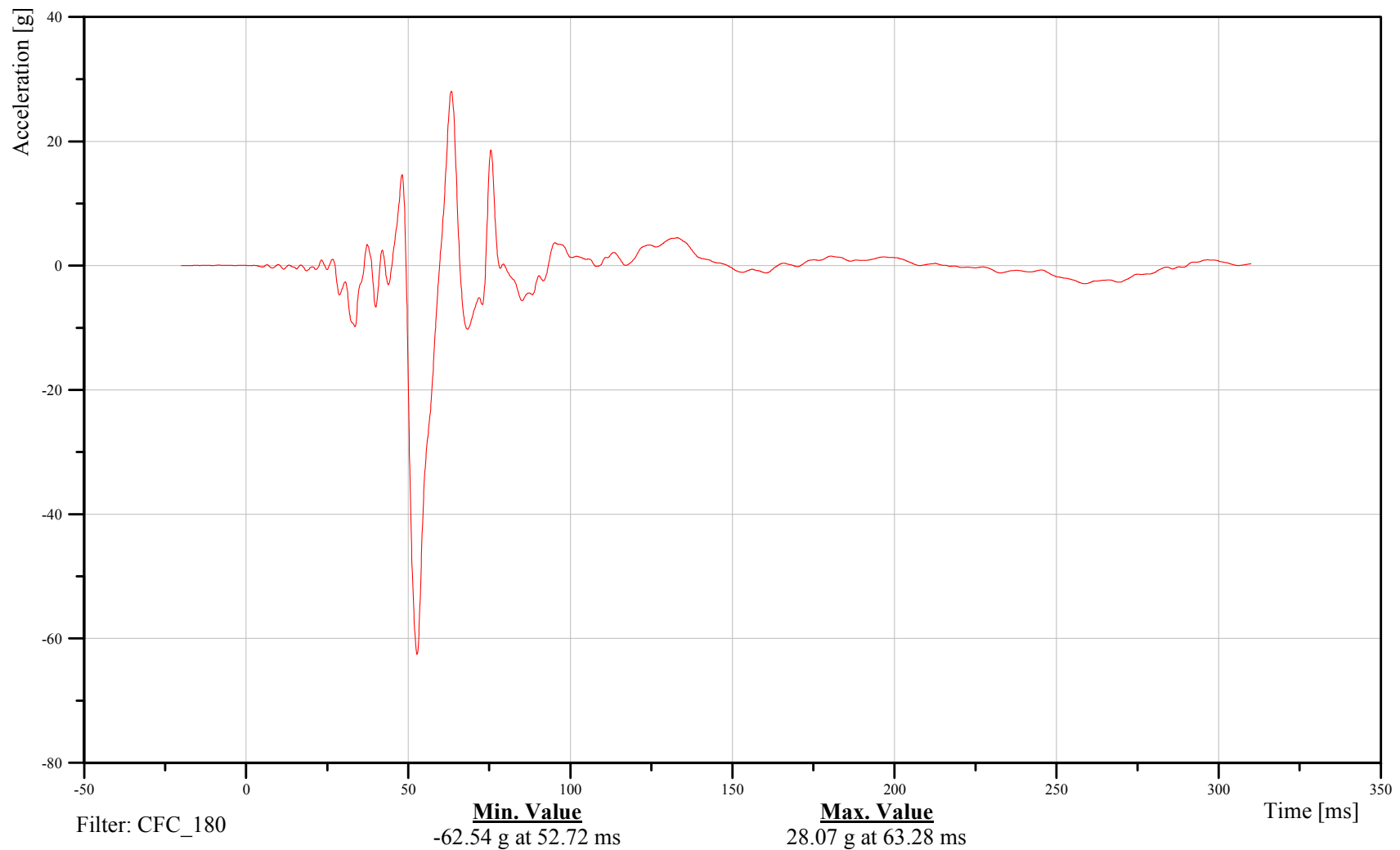
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI02LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel Y

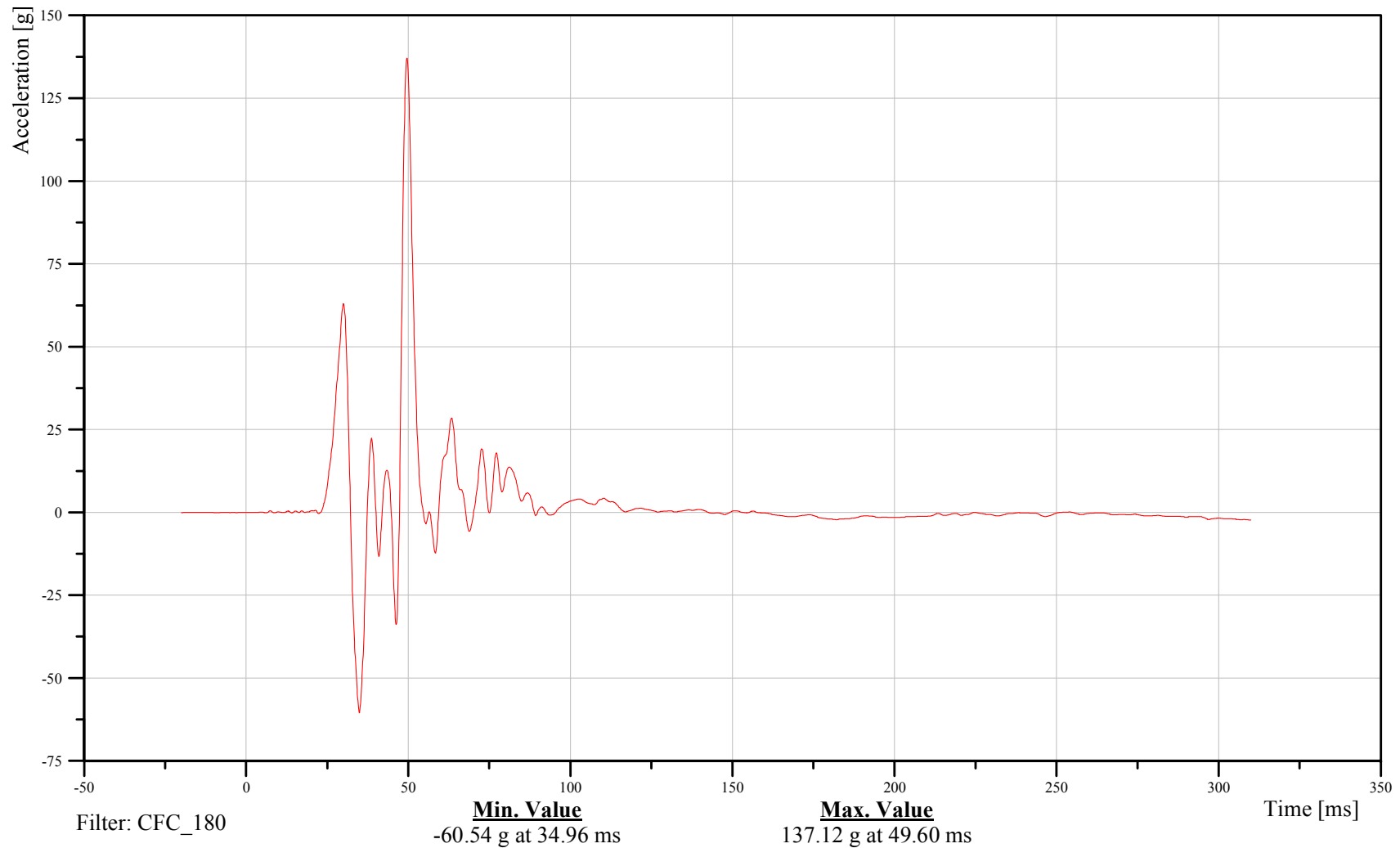
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI02LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel Z

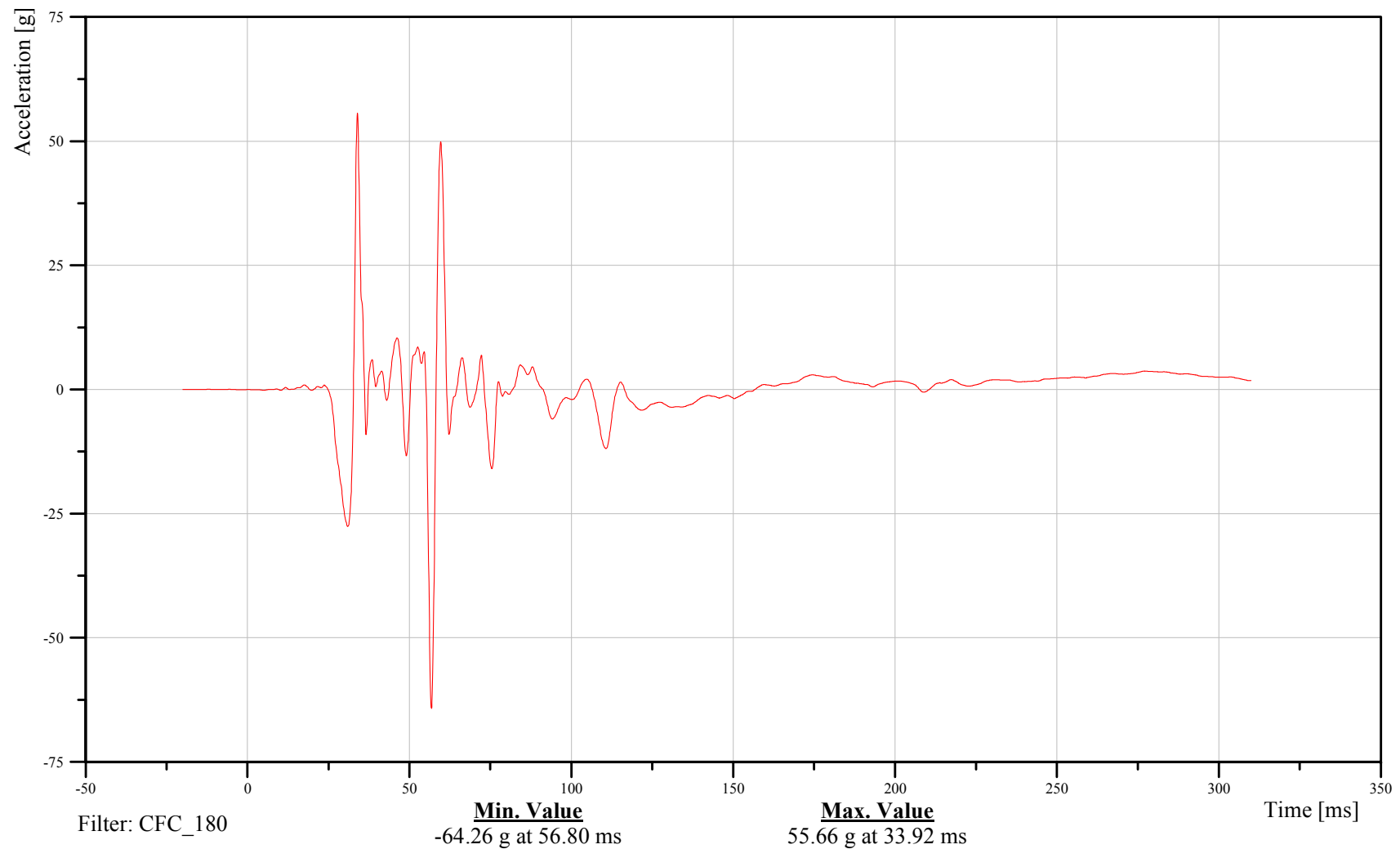
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI02LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Accel Resultant

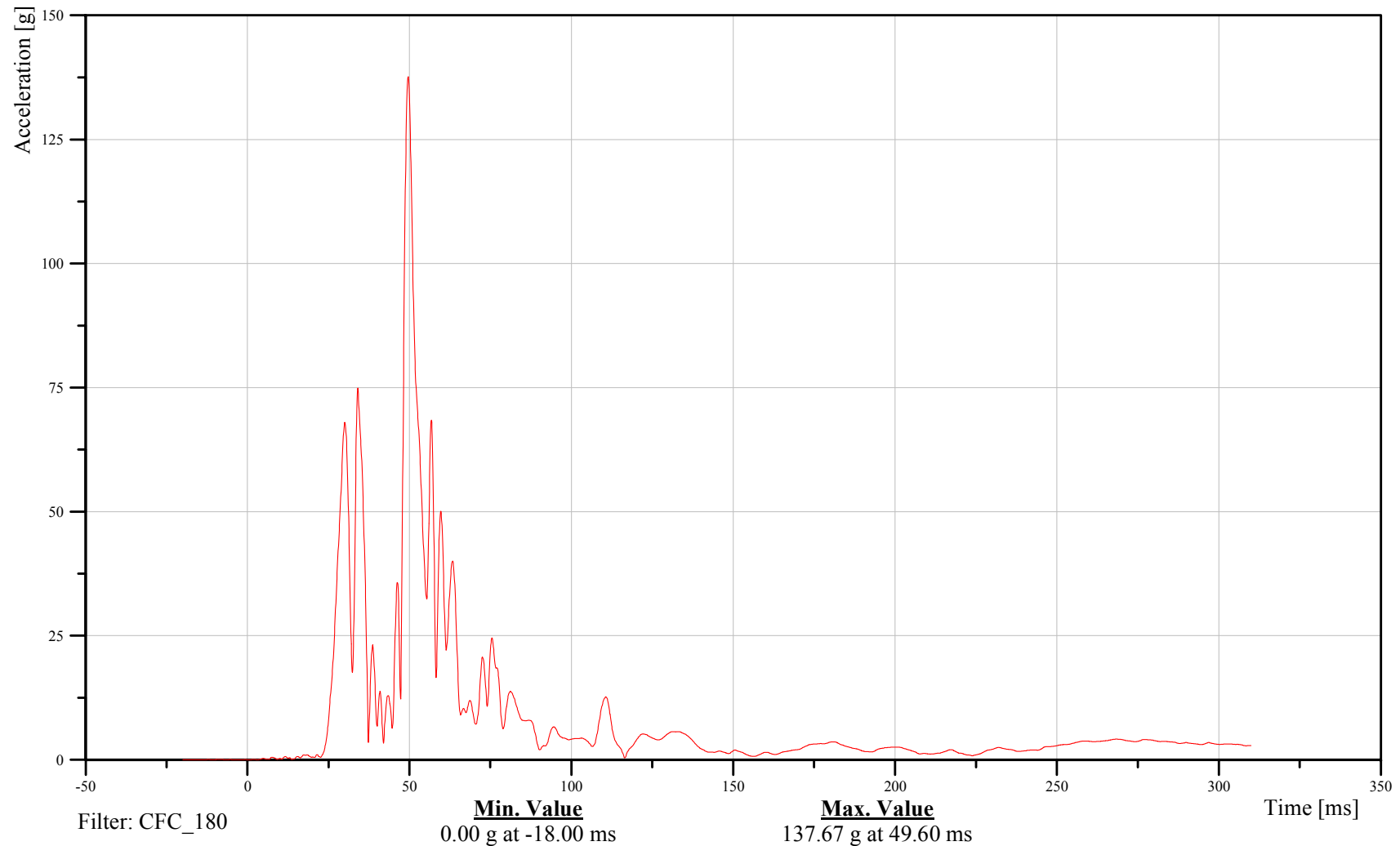
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI02LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel X

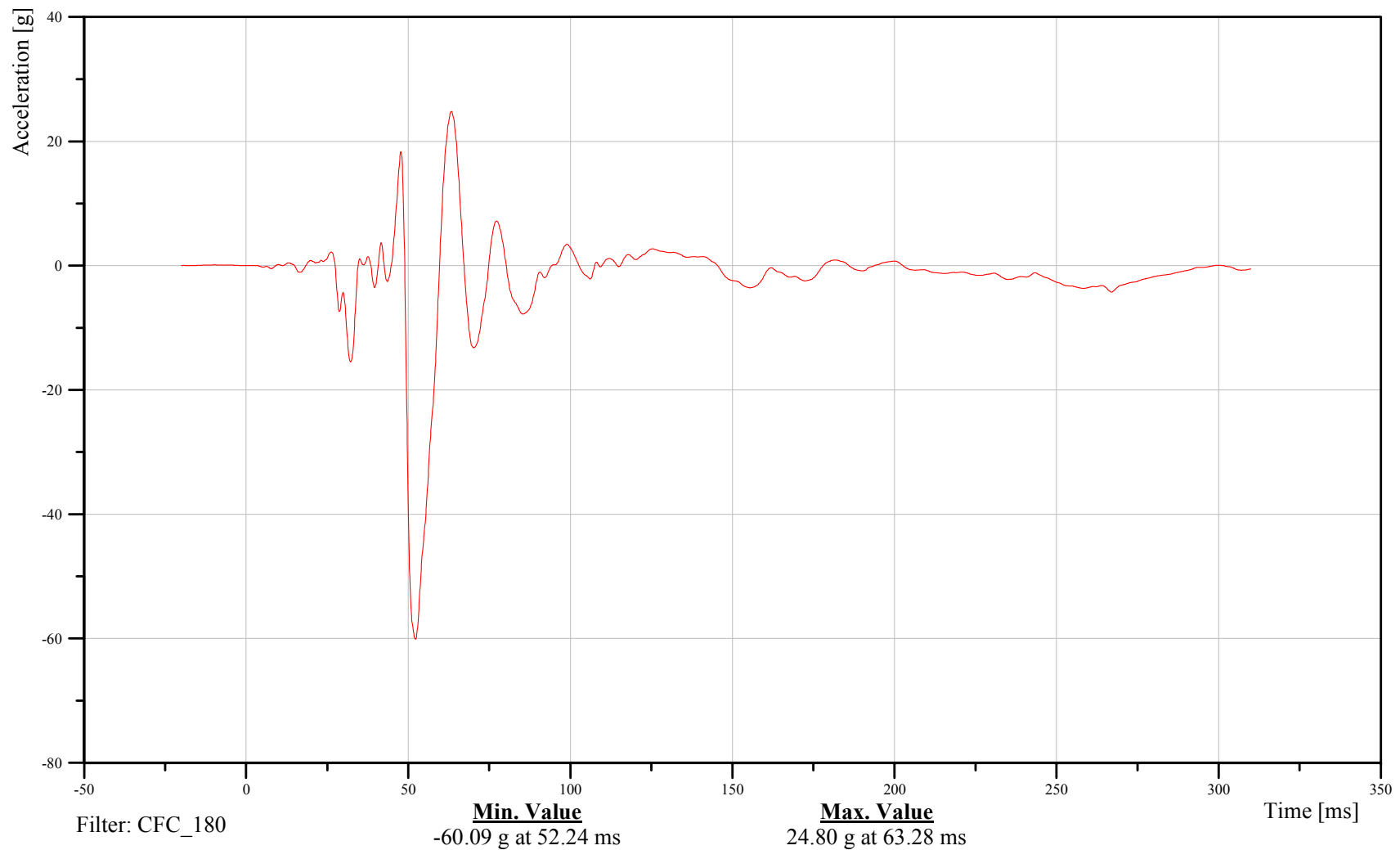
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI03LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel Y

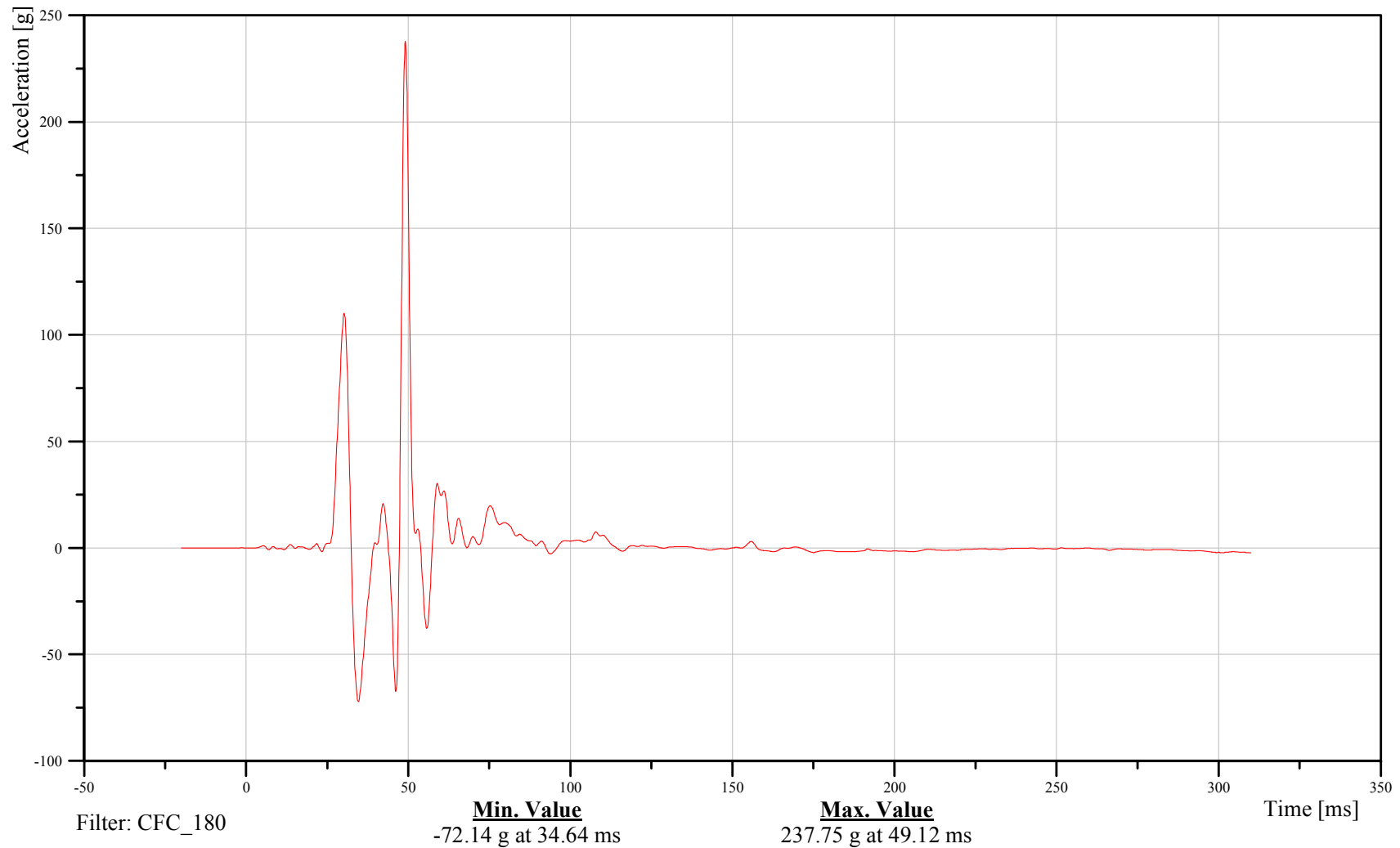
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI03LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel Z

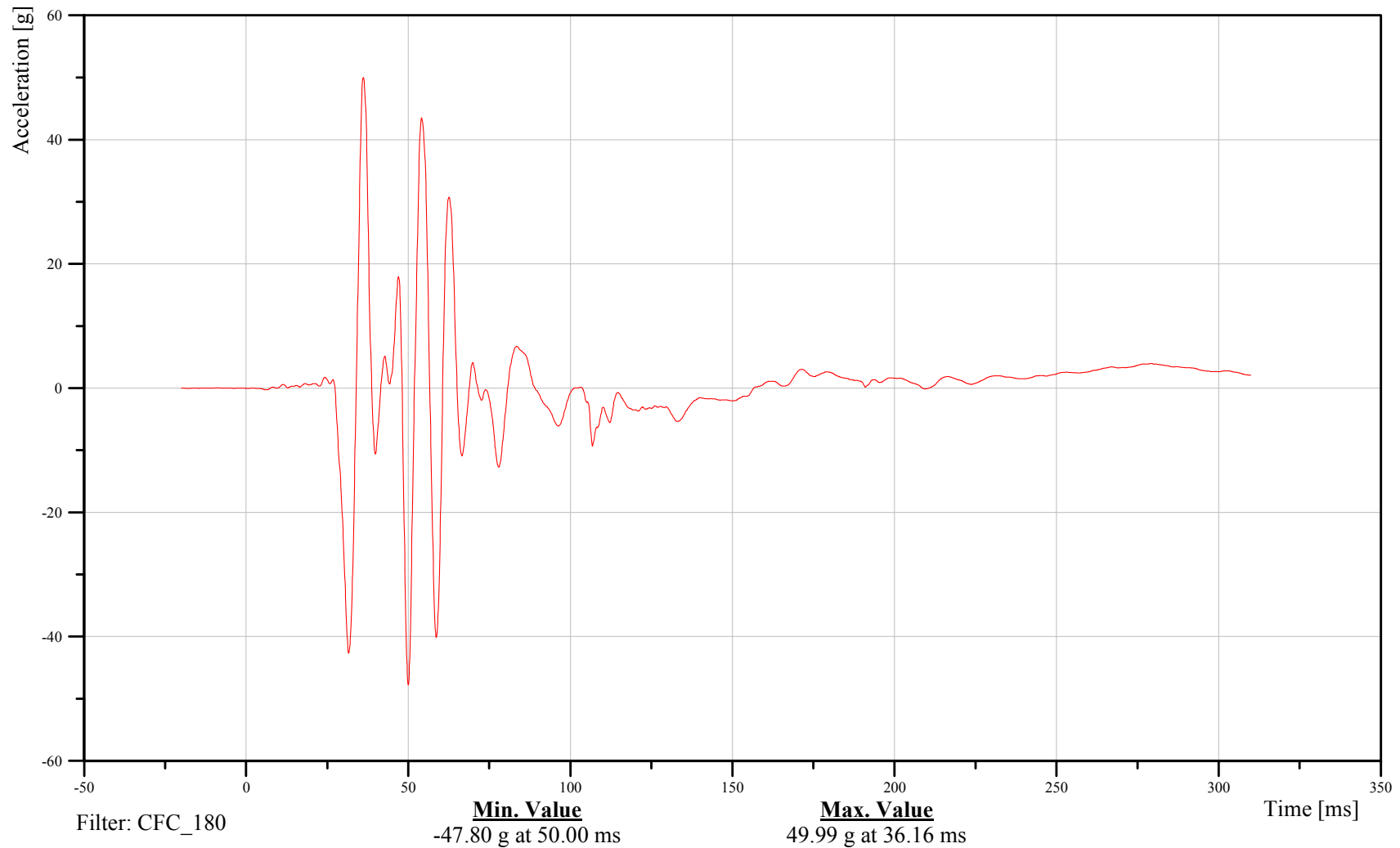
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI03LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Accel Resultant

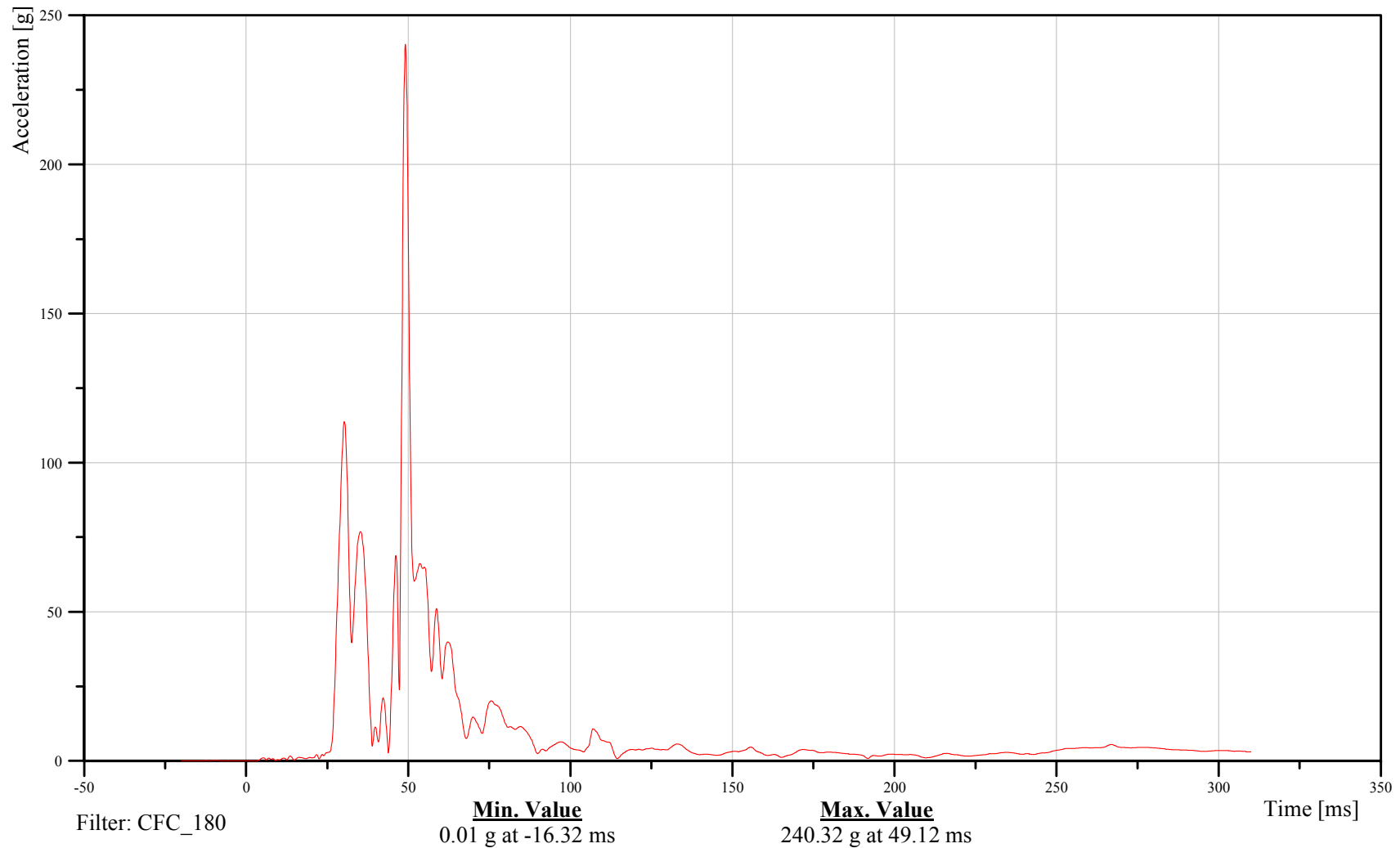
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI03LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 1 Accel X

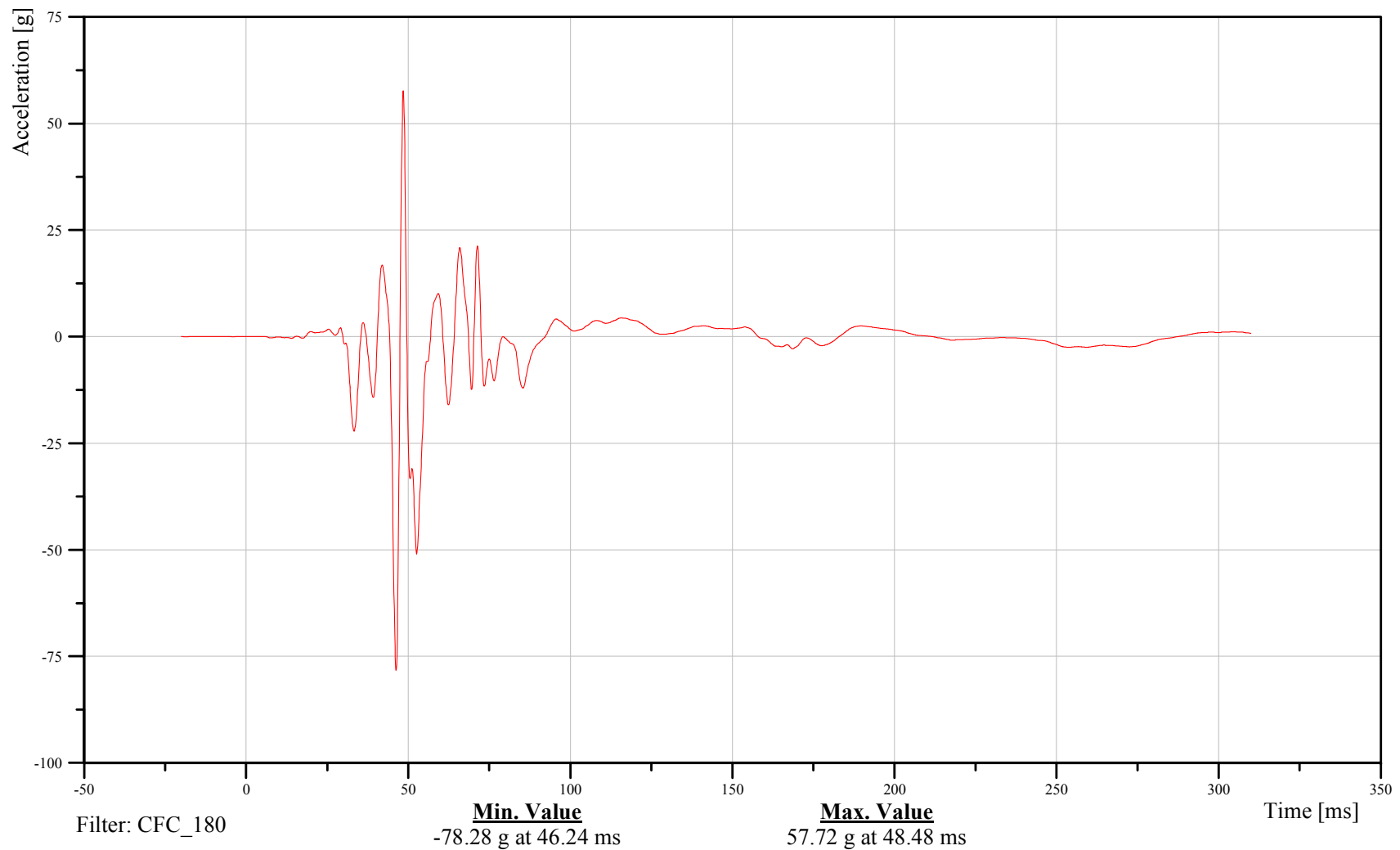
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABRI01LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 1 Accel Y

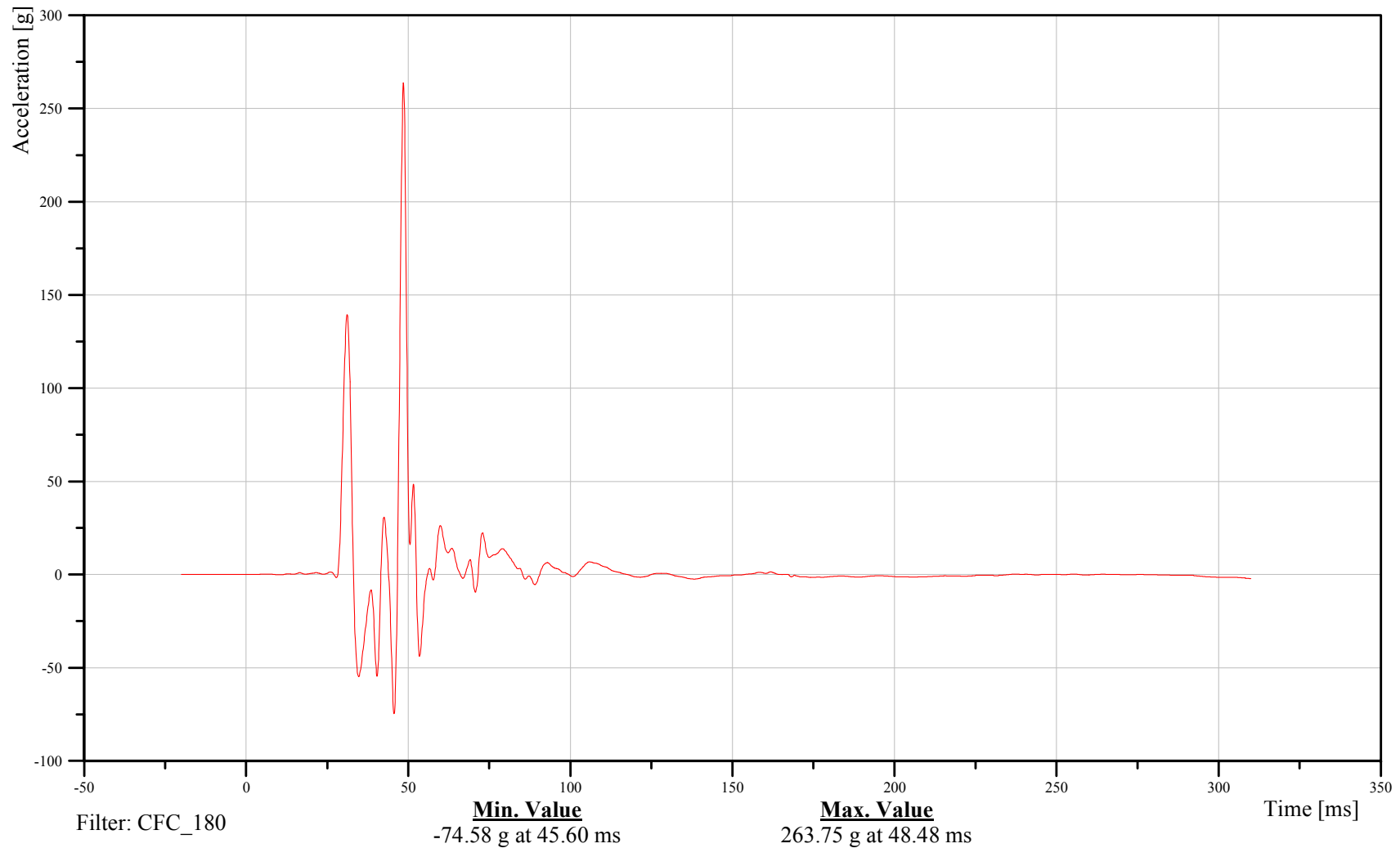
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABRI01LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 1 Accel Z

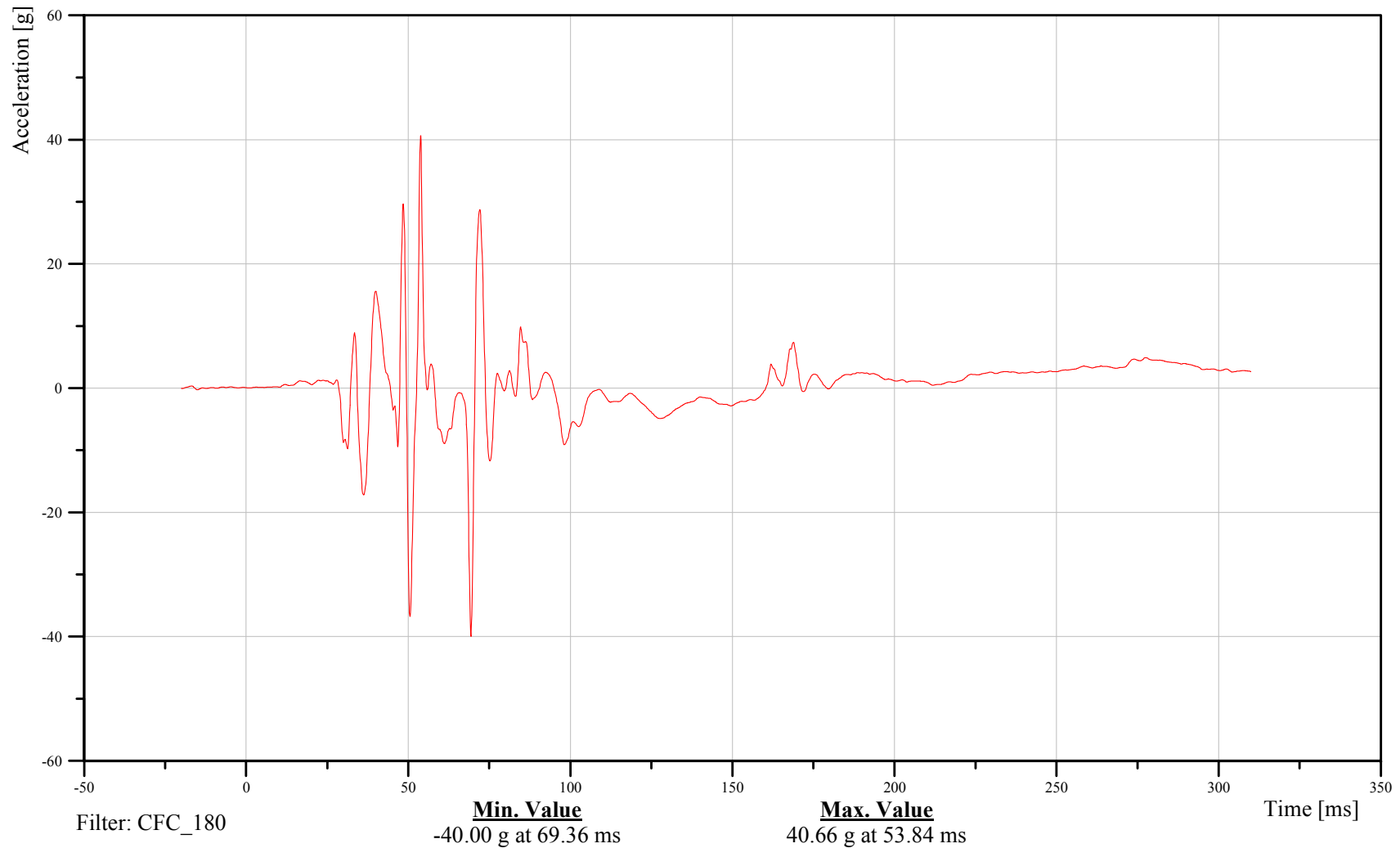
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABRI01LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

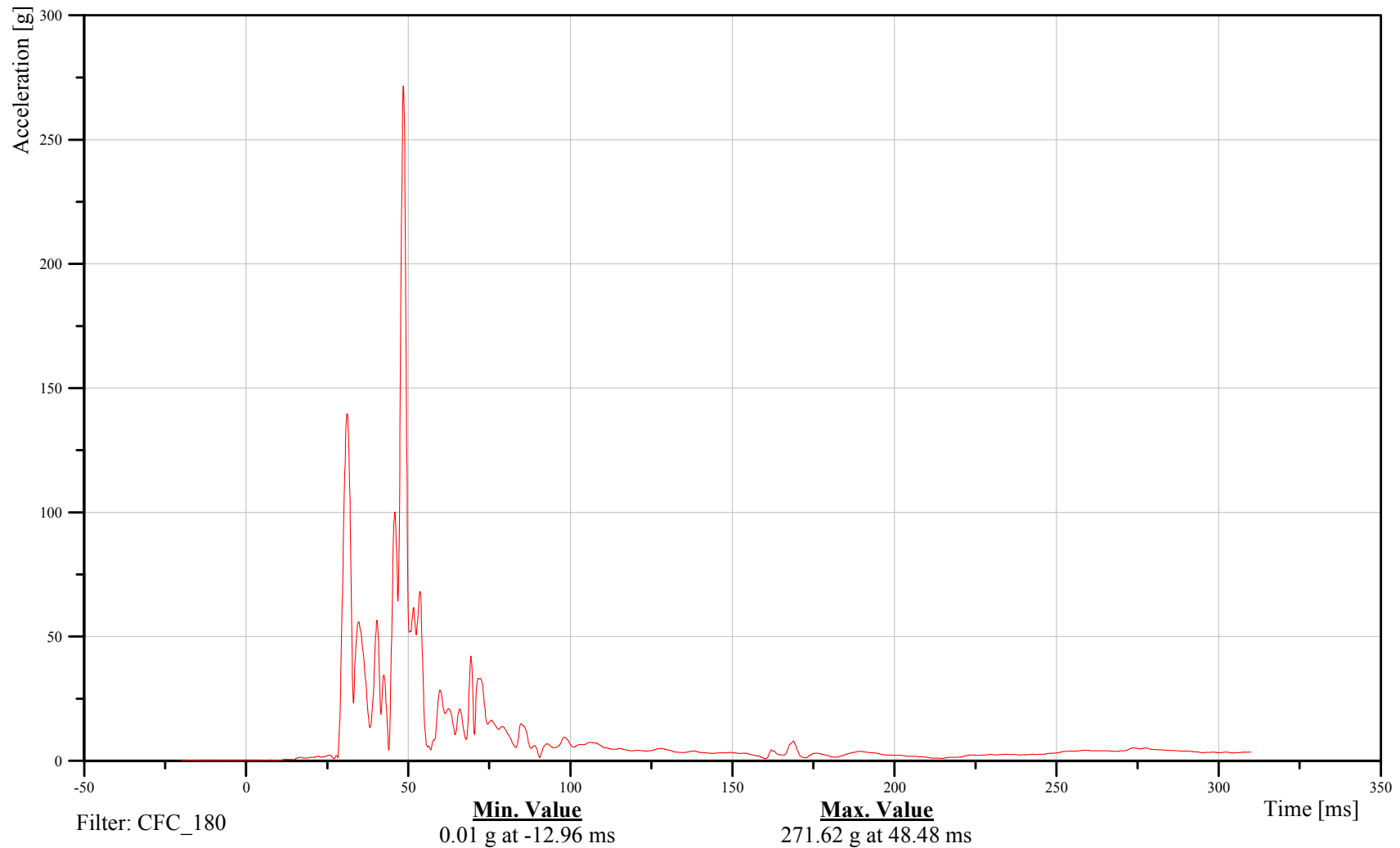
Abdomin Rib 1 Accel Resultant

Customer: VRTC

14ABRI01LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 2 Accel X

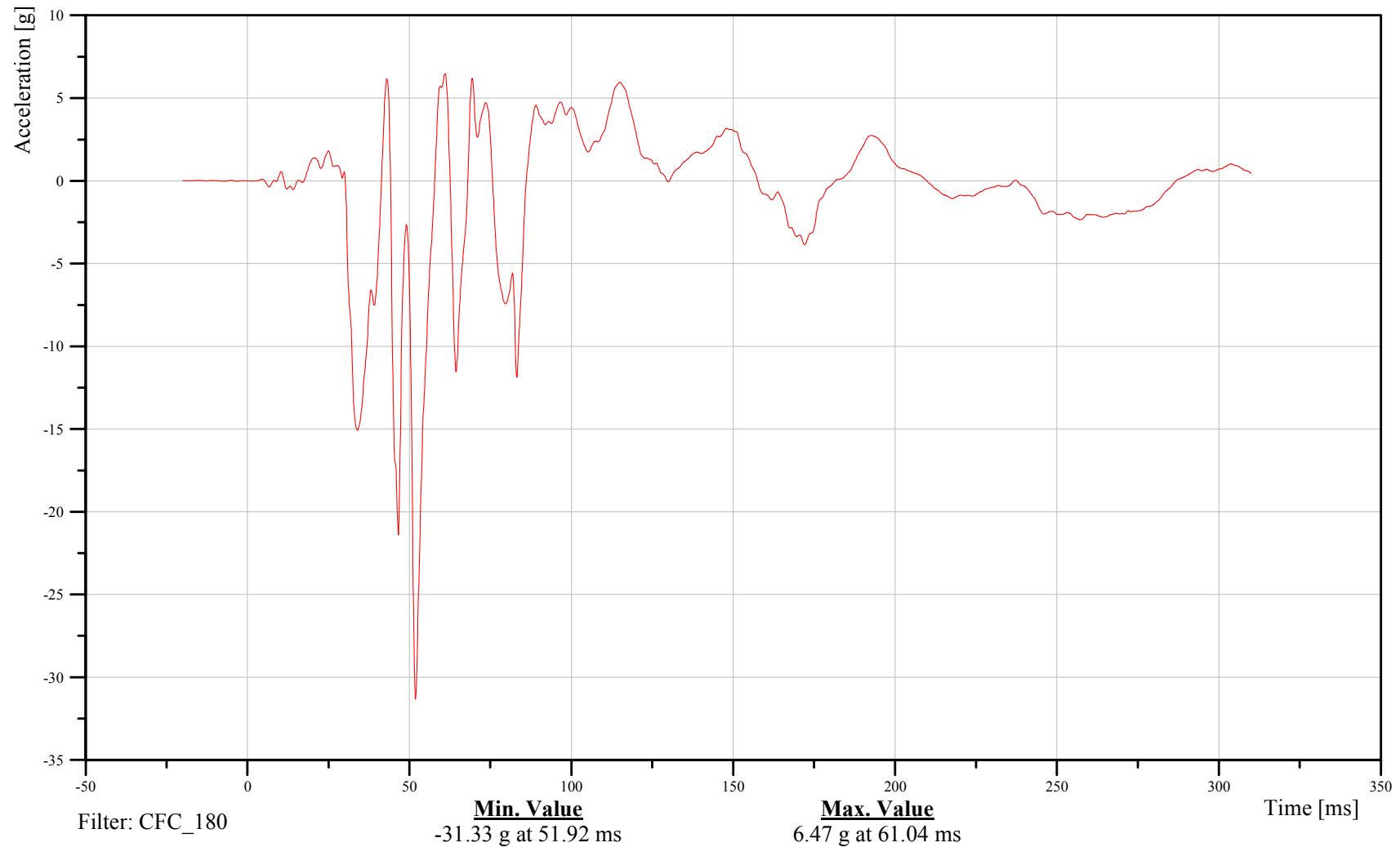
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABRI02LES2ACXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 2 Accel Y

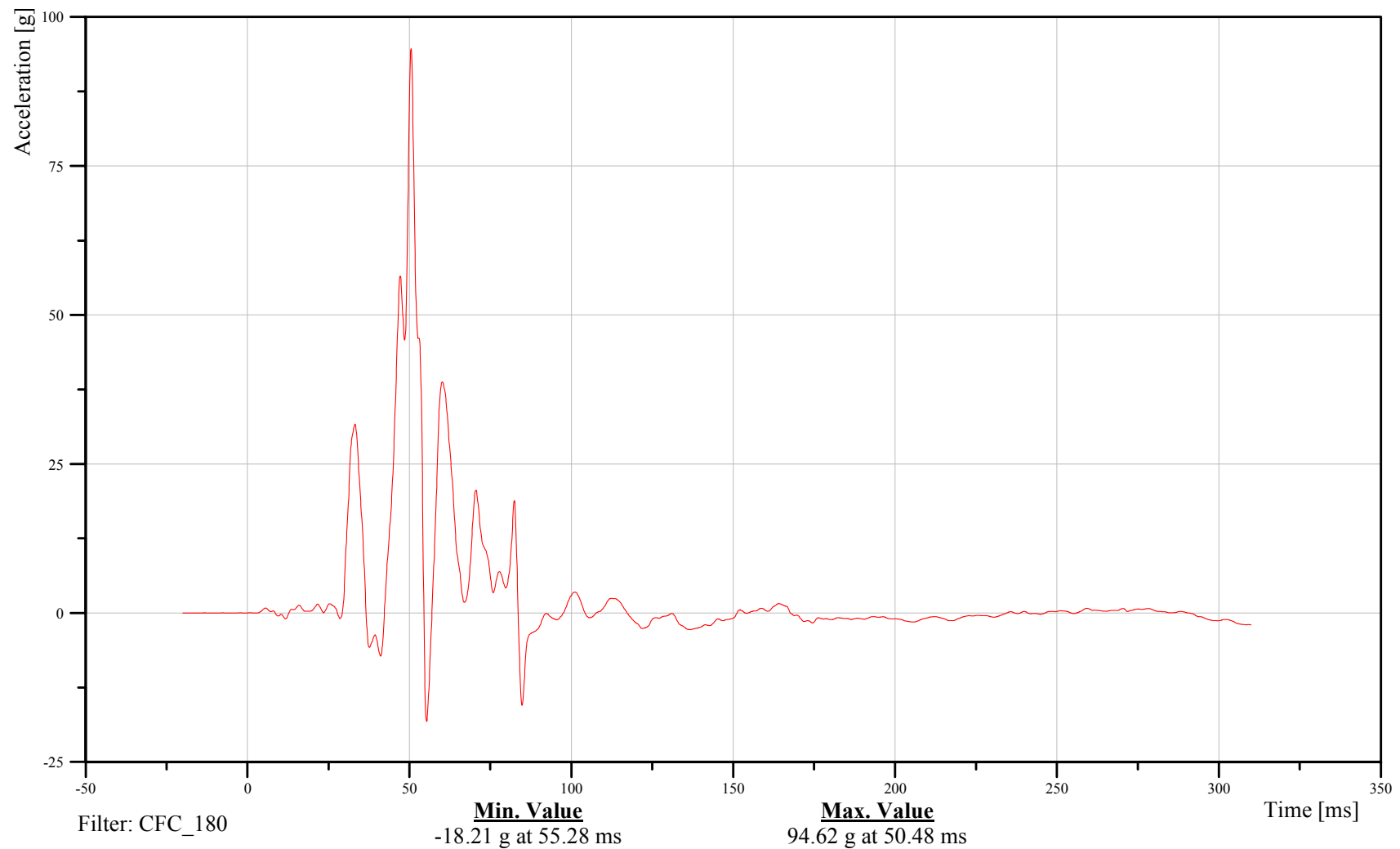
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABRI02LES2ACYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Abdomin Rib 2 Accel Z

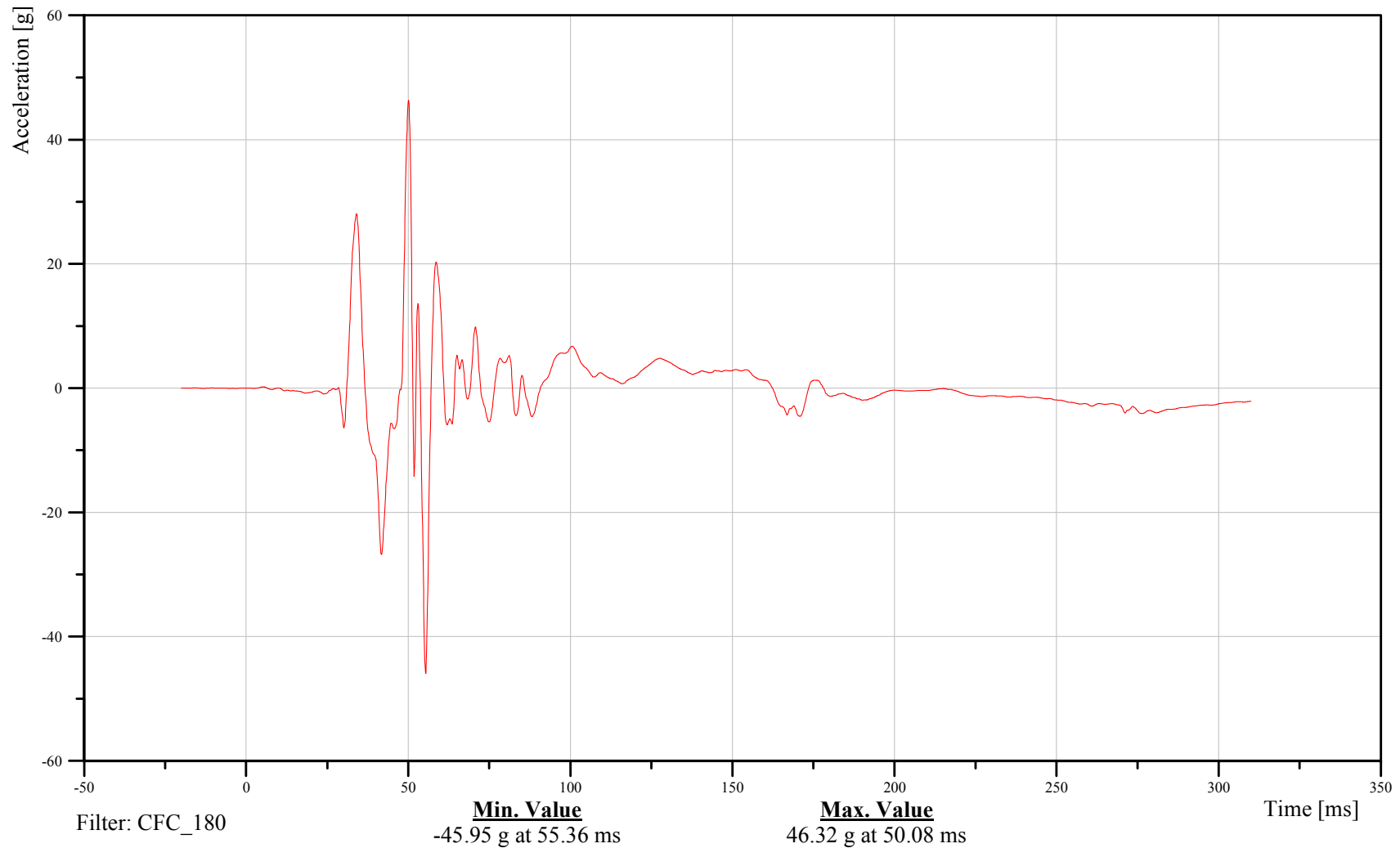
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ABRI02LES2ACZC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

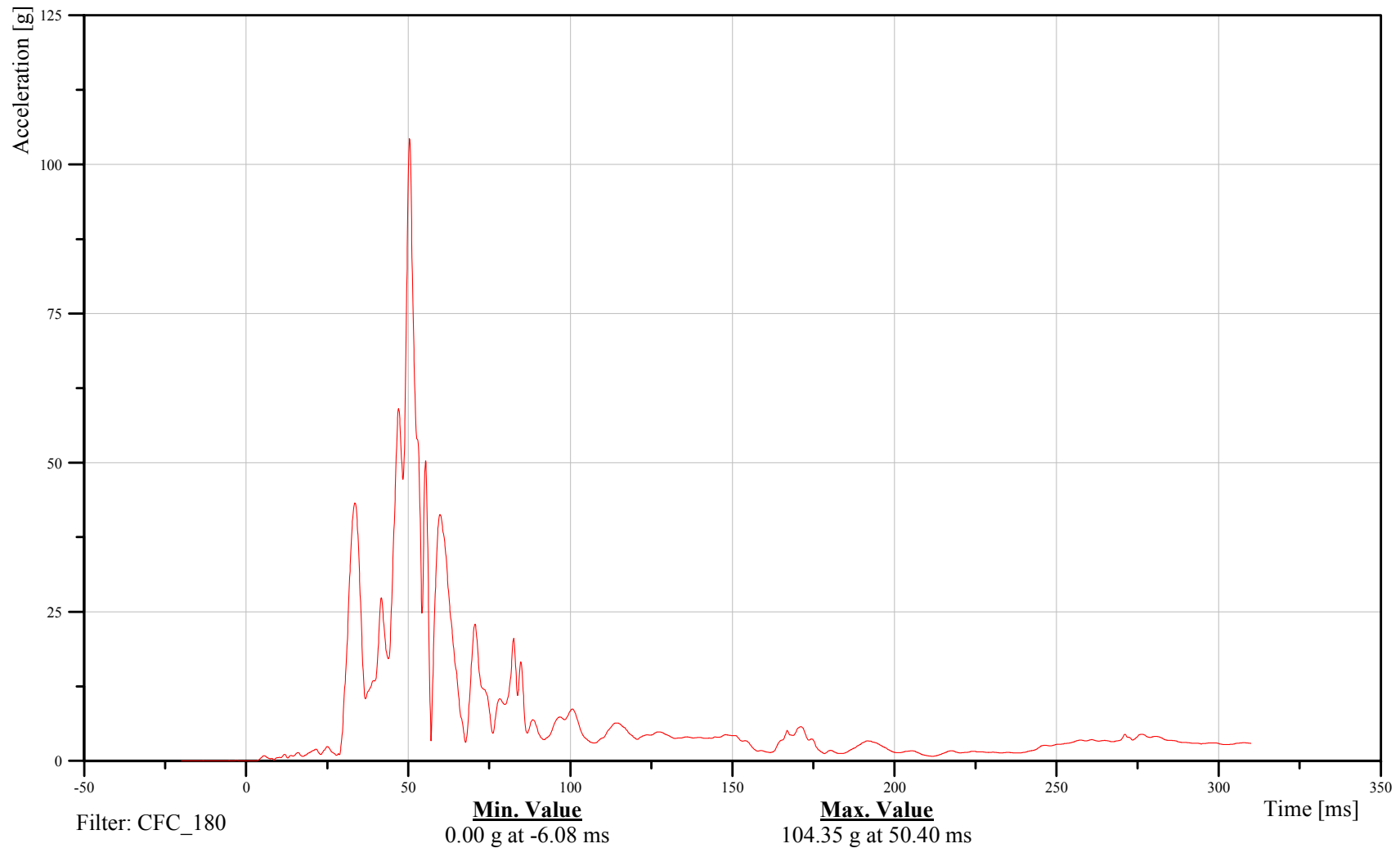
Abdomin Rib 2 Accel Resultant

Customer: VRTC

14ABRI02LES2ACRC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

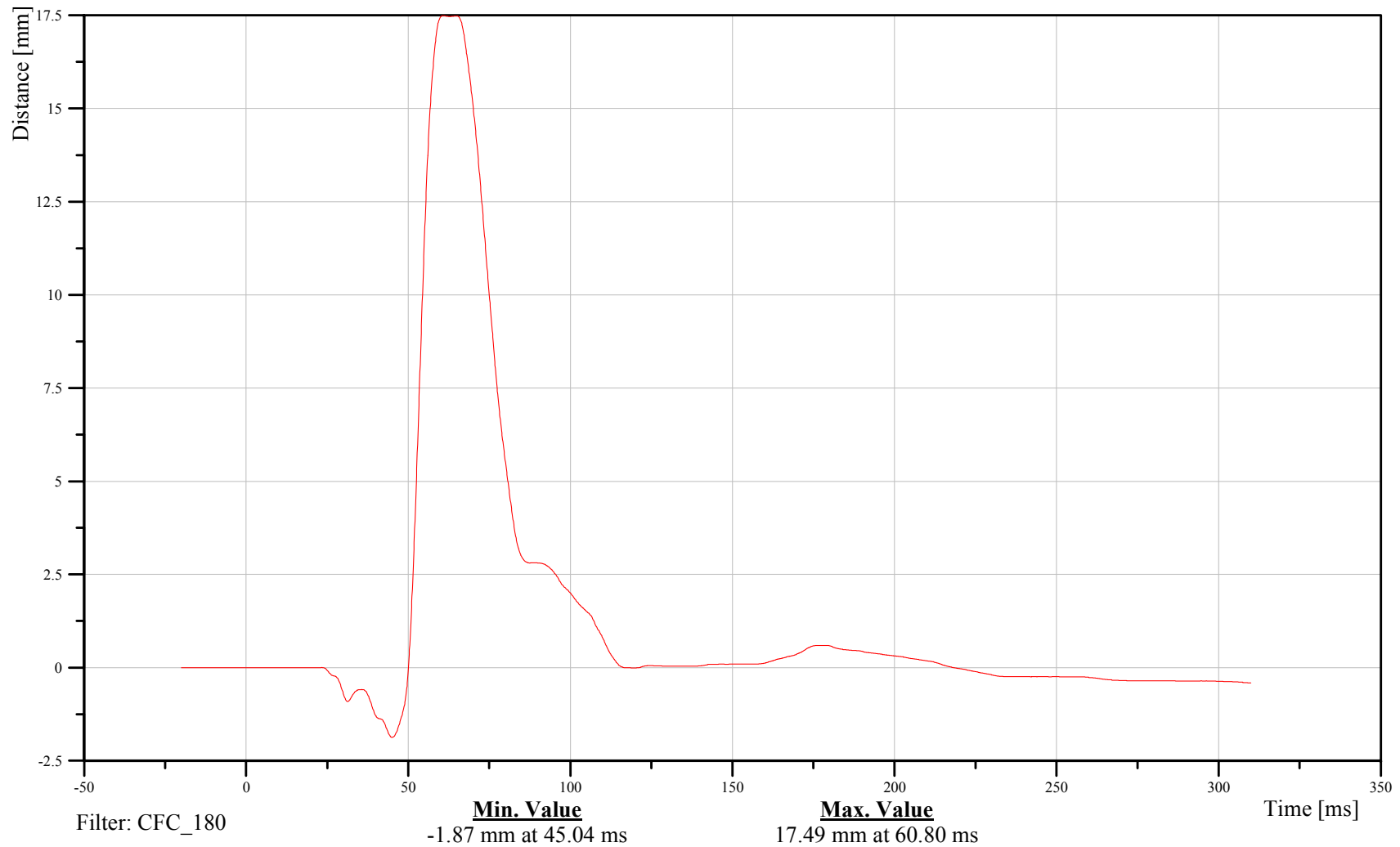
Shoulder Disp. Y

Customer: VRTC

14SHRILE00S2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 1 Disp. Y

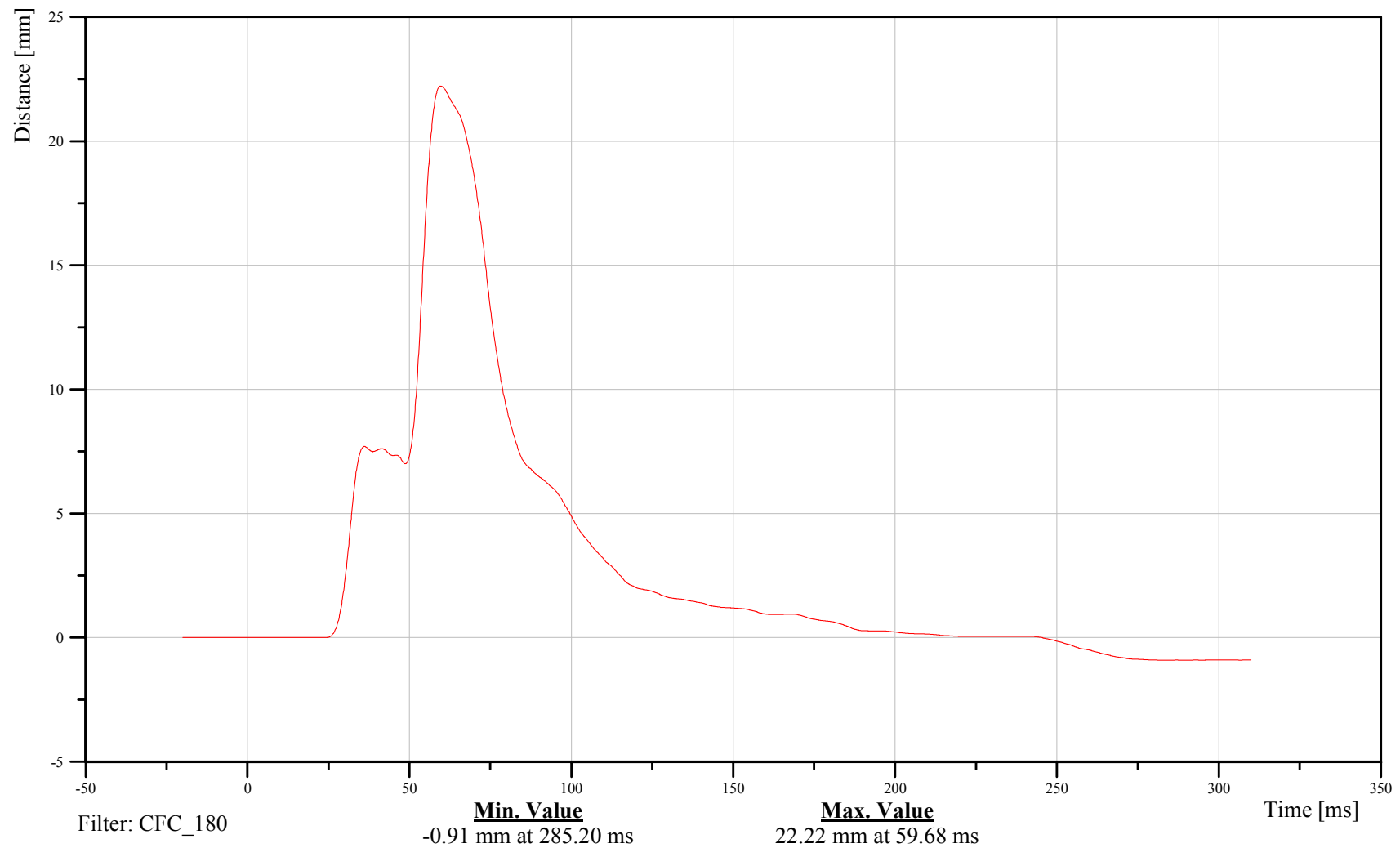
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI01LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 2 Disp. Y

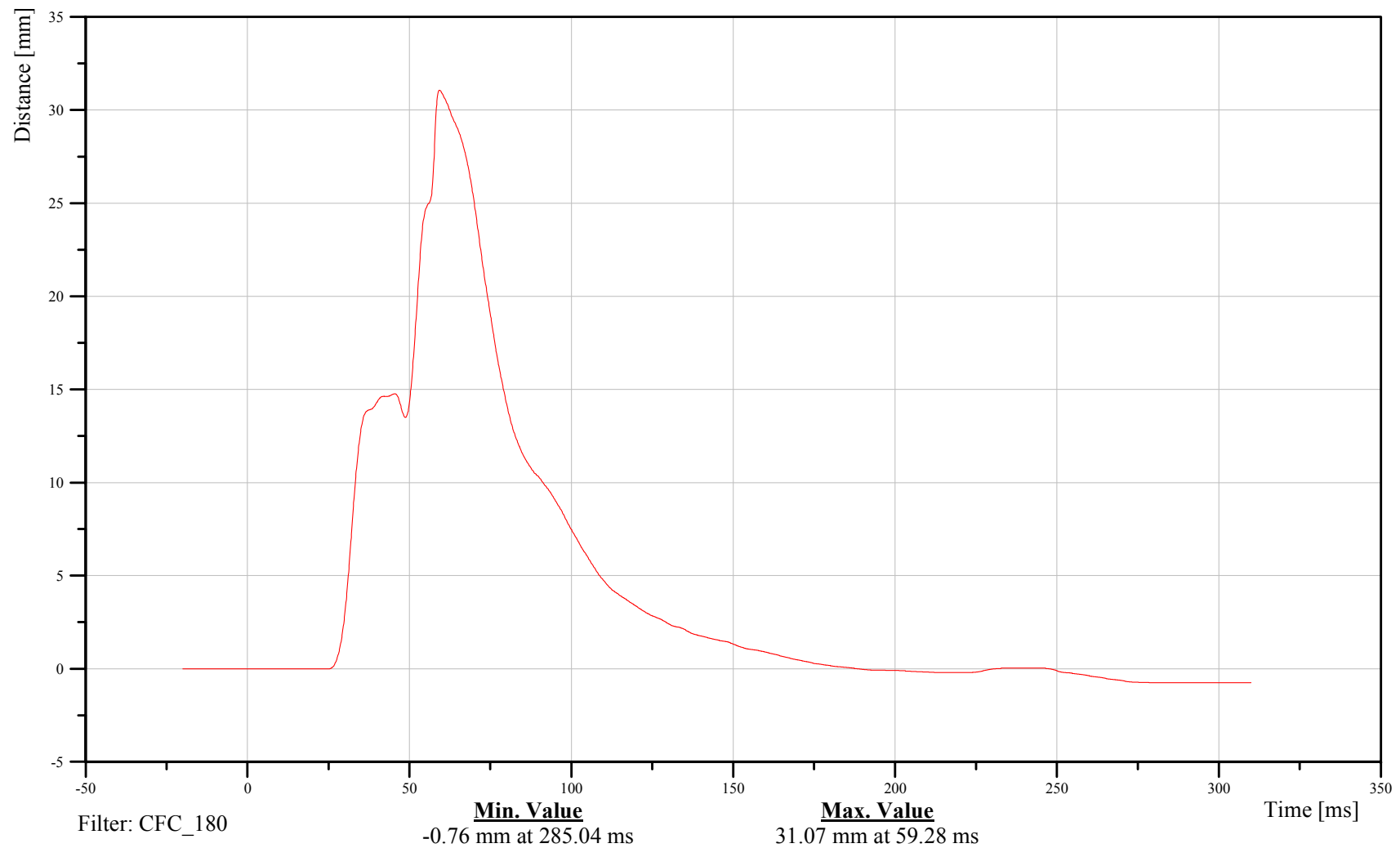
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI02LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Thorax Rib 3 Disp. Y

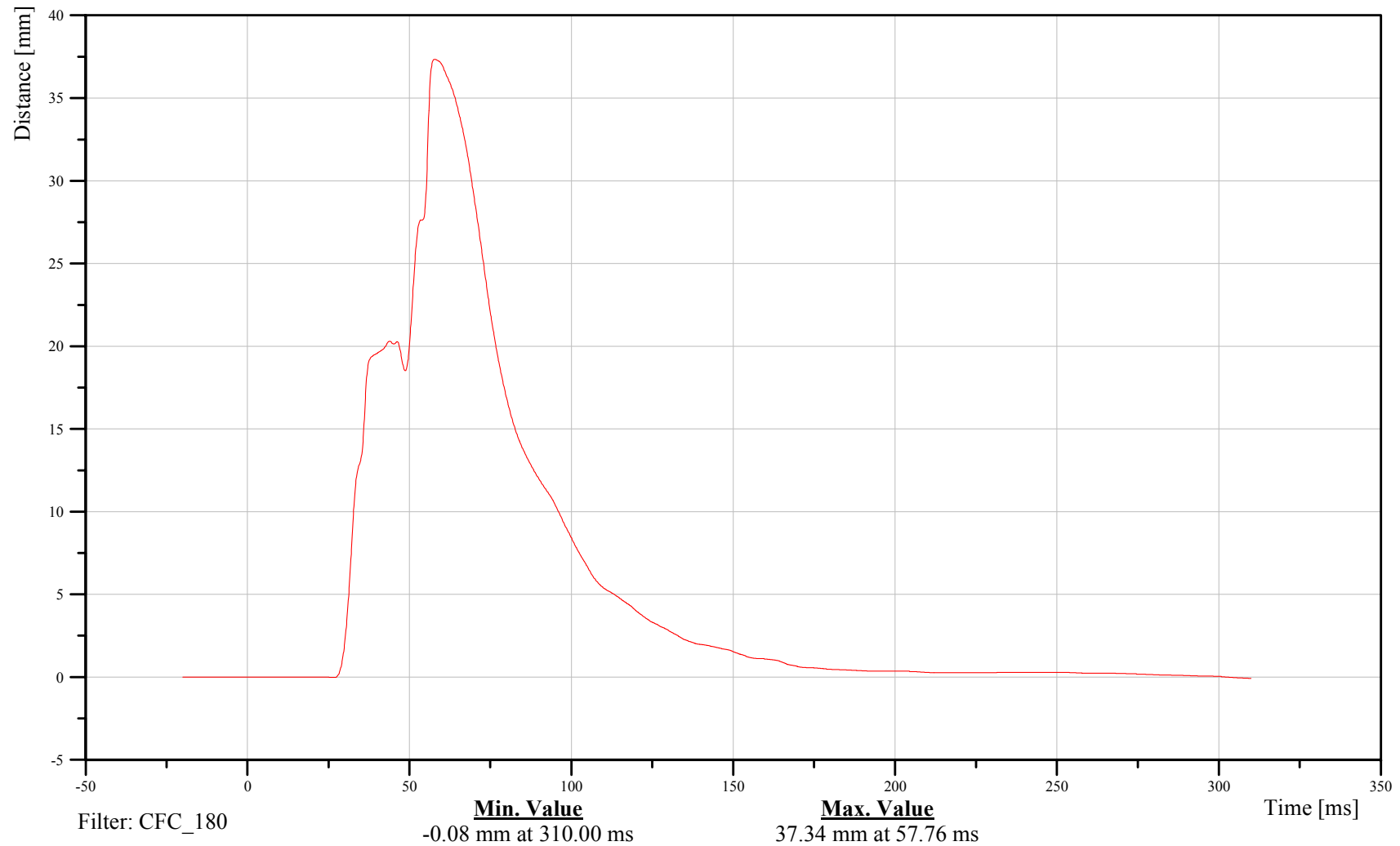
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14TRRI03LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

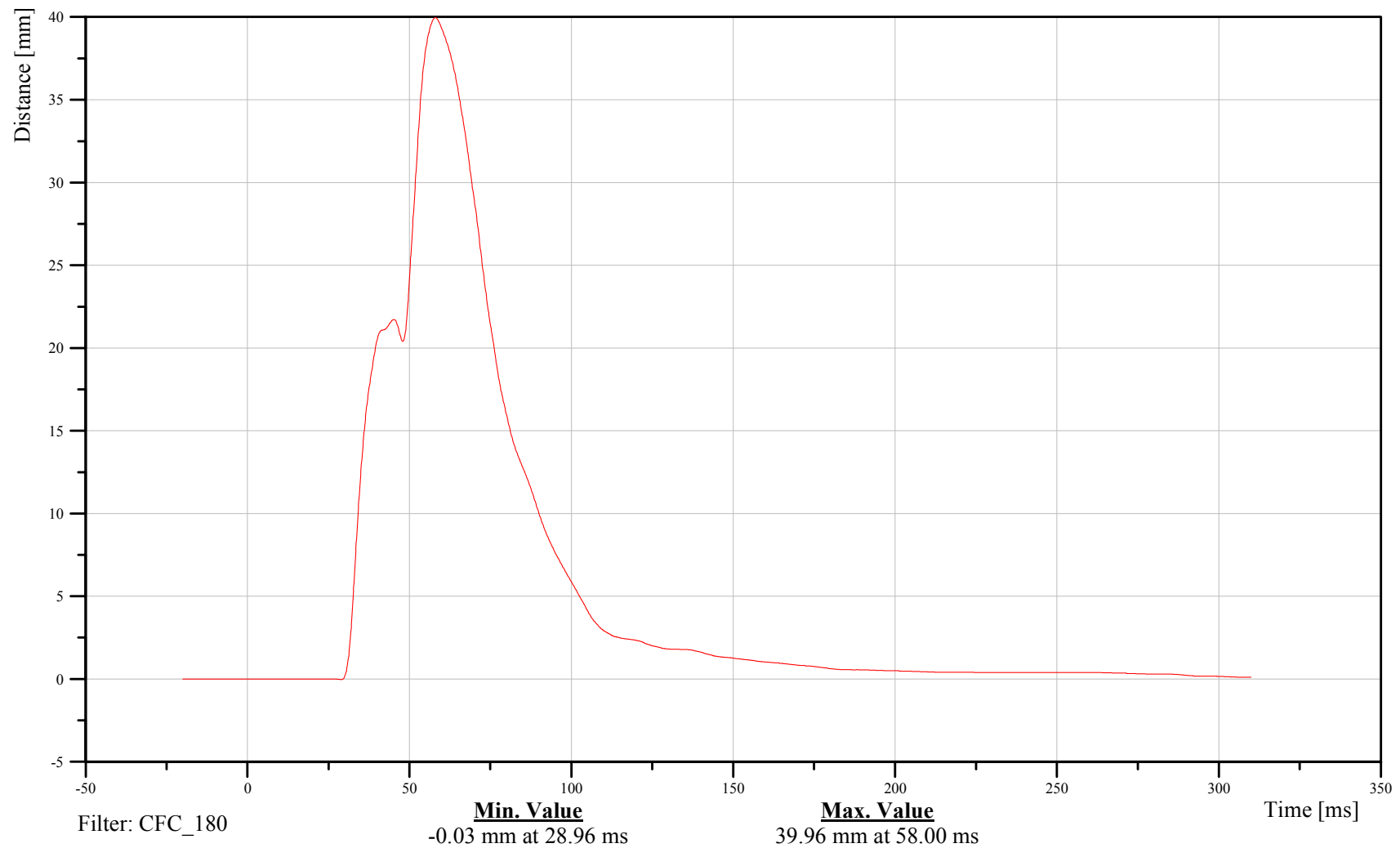
Abdomin Rib 1 Disp. Y

Customer: VRTC

14ABRI01LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

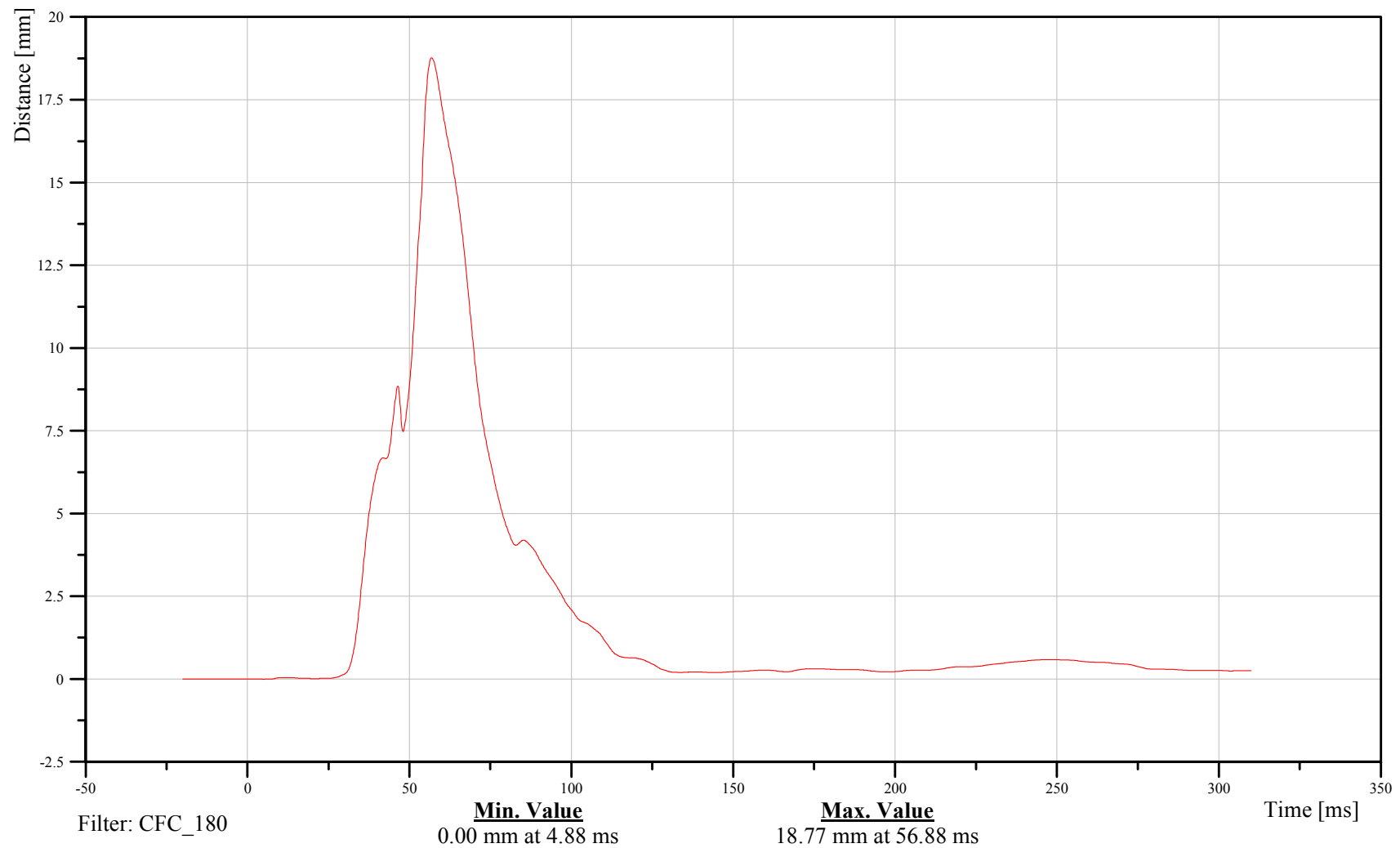
Abdomin Rib 2 Disp. Y

Customer: VRTC

14ABRI02LES2DSYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

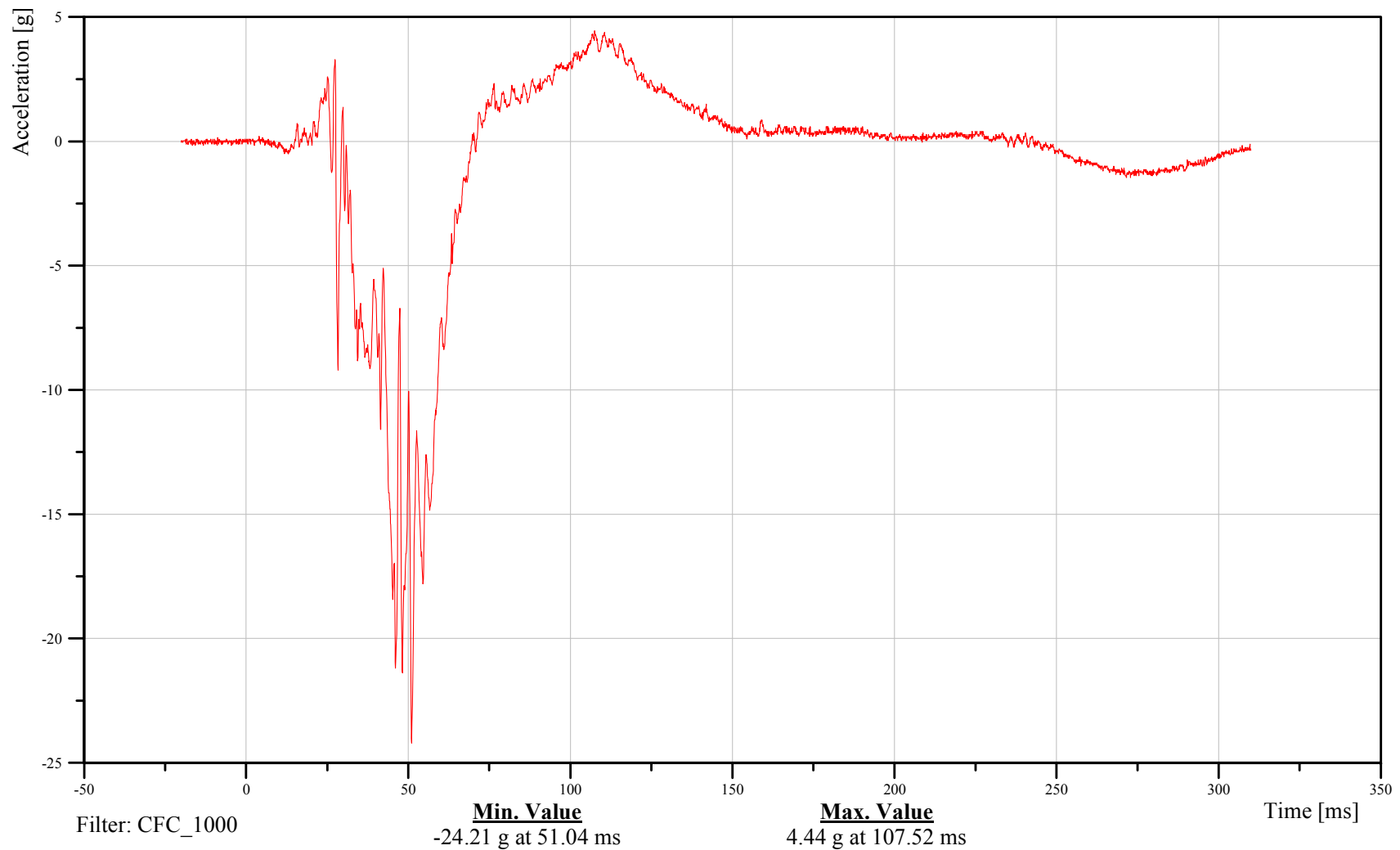
Pelvis Accel X

Customer: VRTC

14PELVCG00S2ACXA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

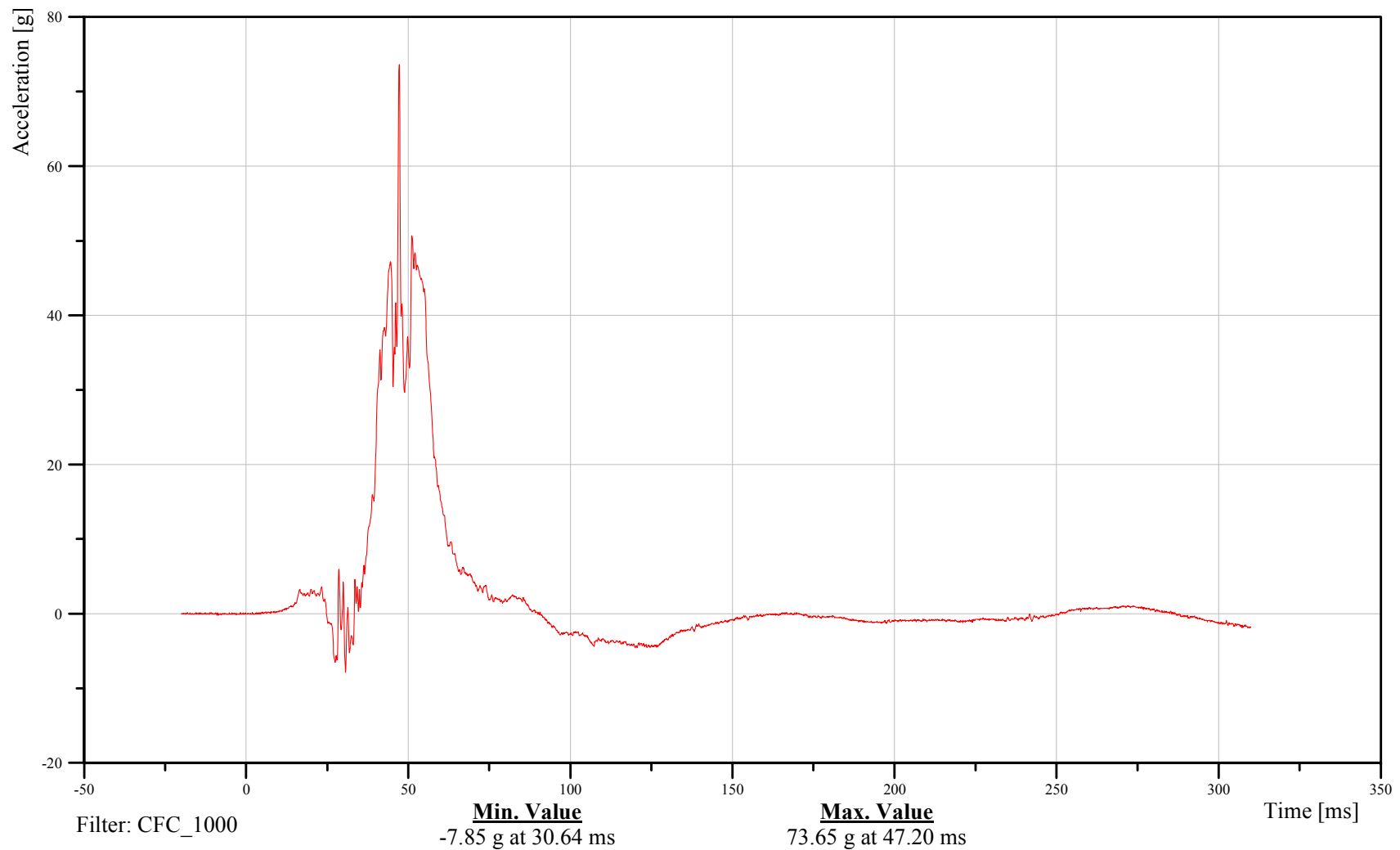
Pelvis Accel Y

Customer: VRTC

14PELVCG00S2ACYA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

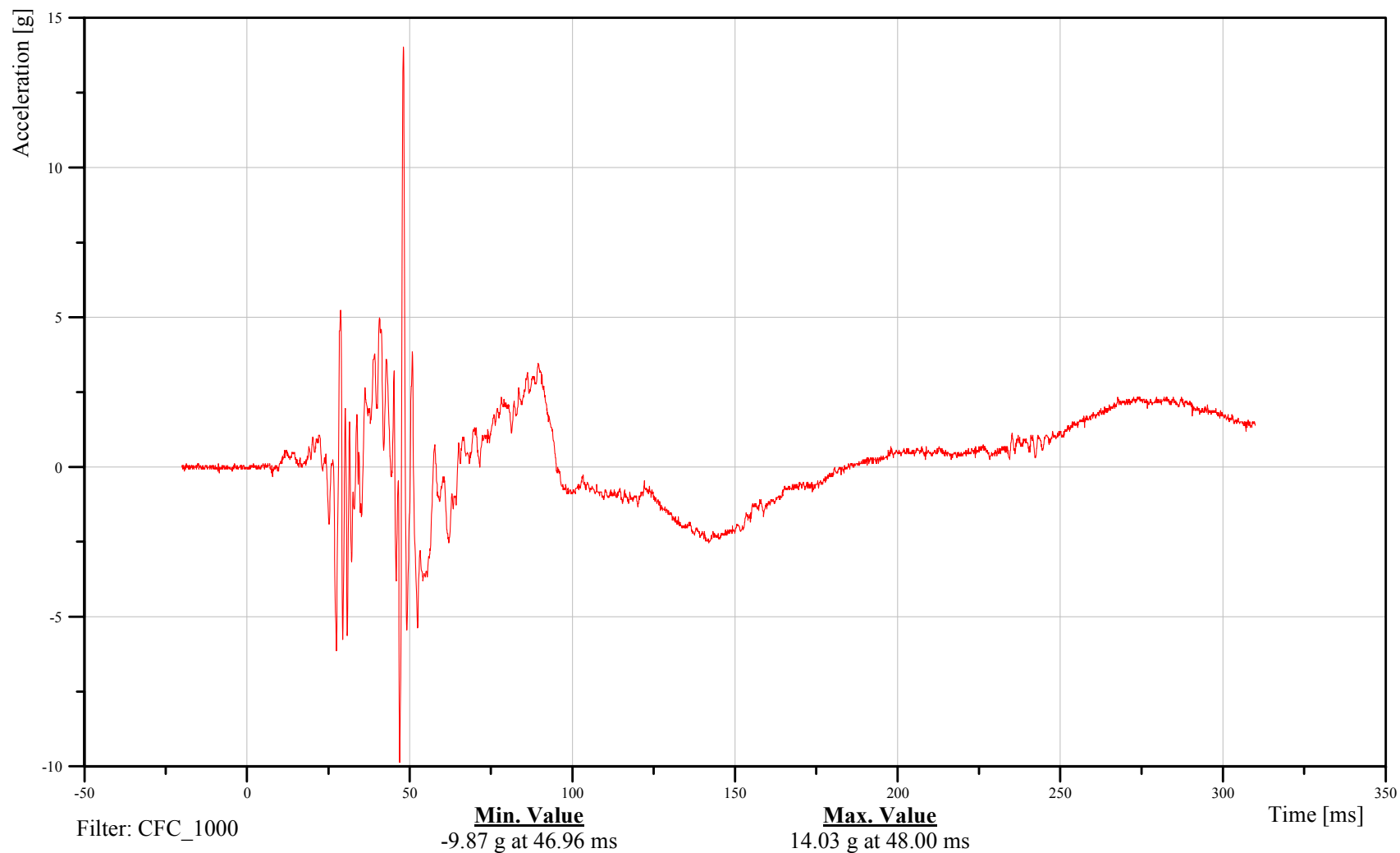
Pelvis Accel Z

Customer: VRTC

14PELVCG00S2ACZA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

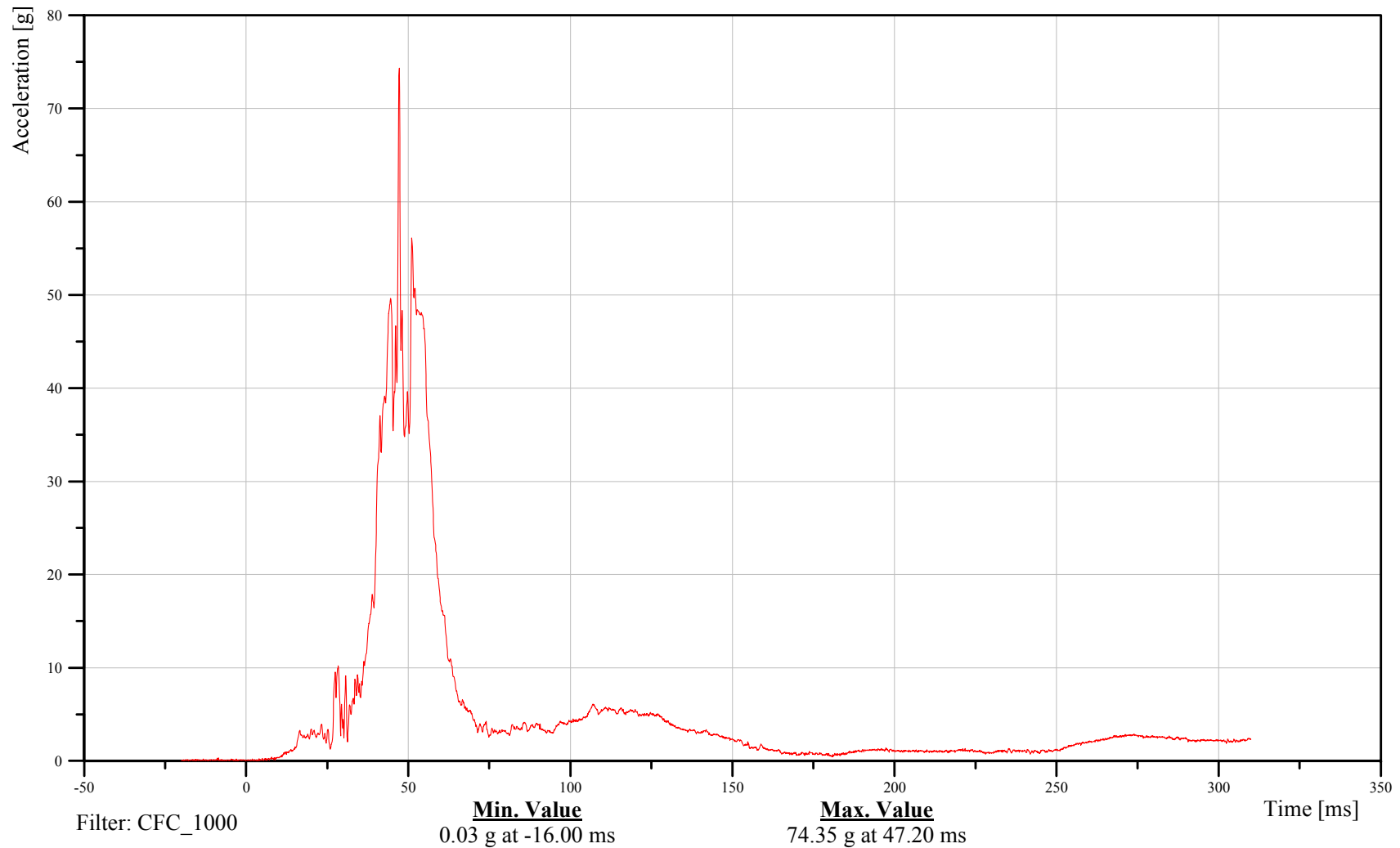
Pelvis Accel Resultant

Customer: VRTC

14PELVCG00S2ACRA

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Acetabulum Force Y

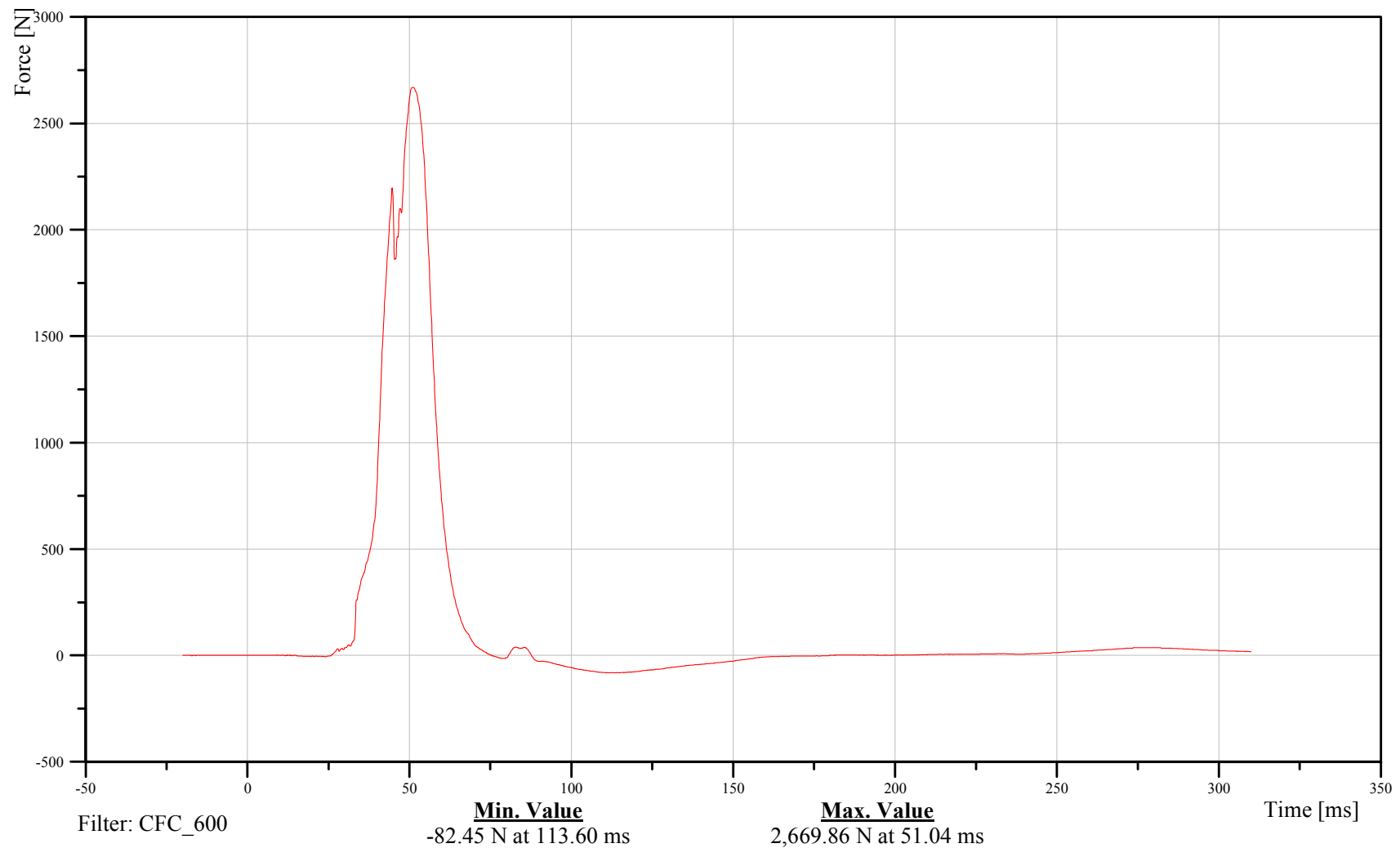
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ACTBLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Illiac Wing Force Y

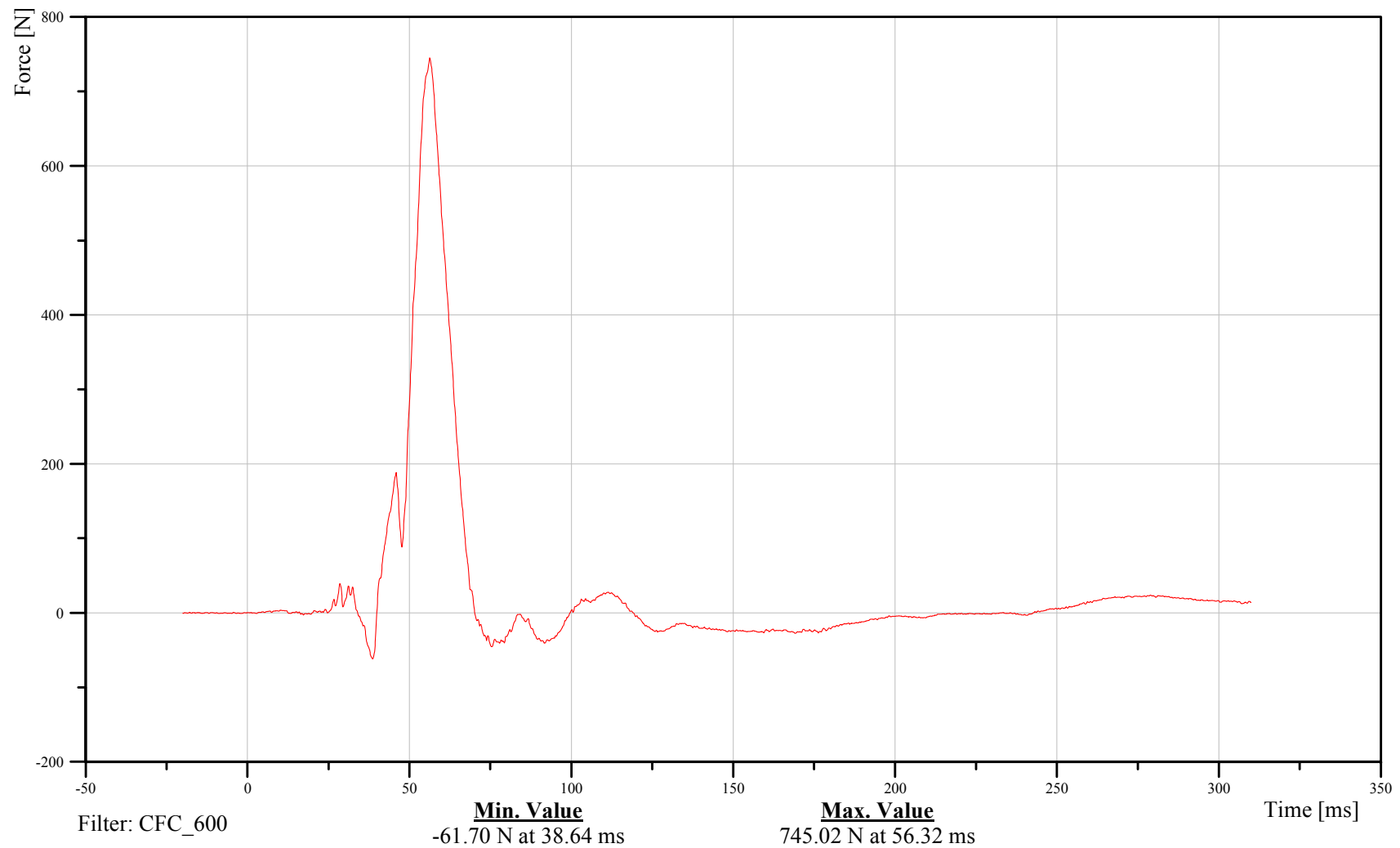
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14ILACLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

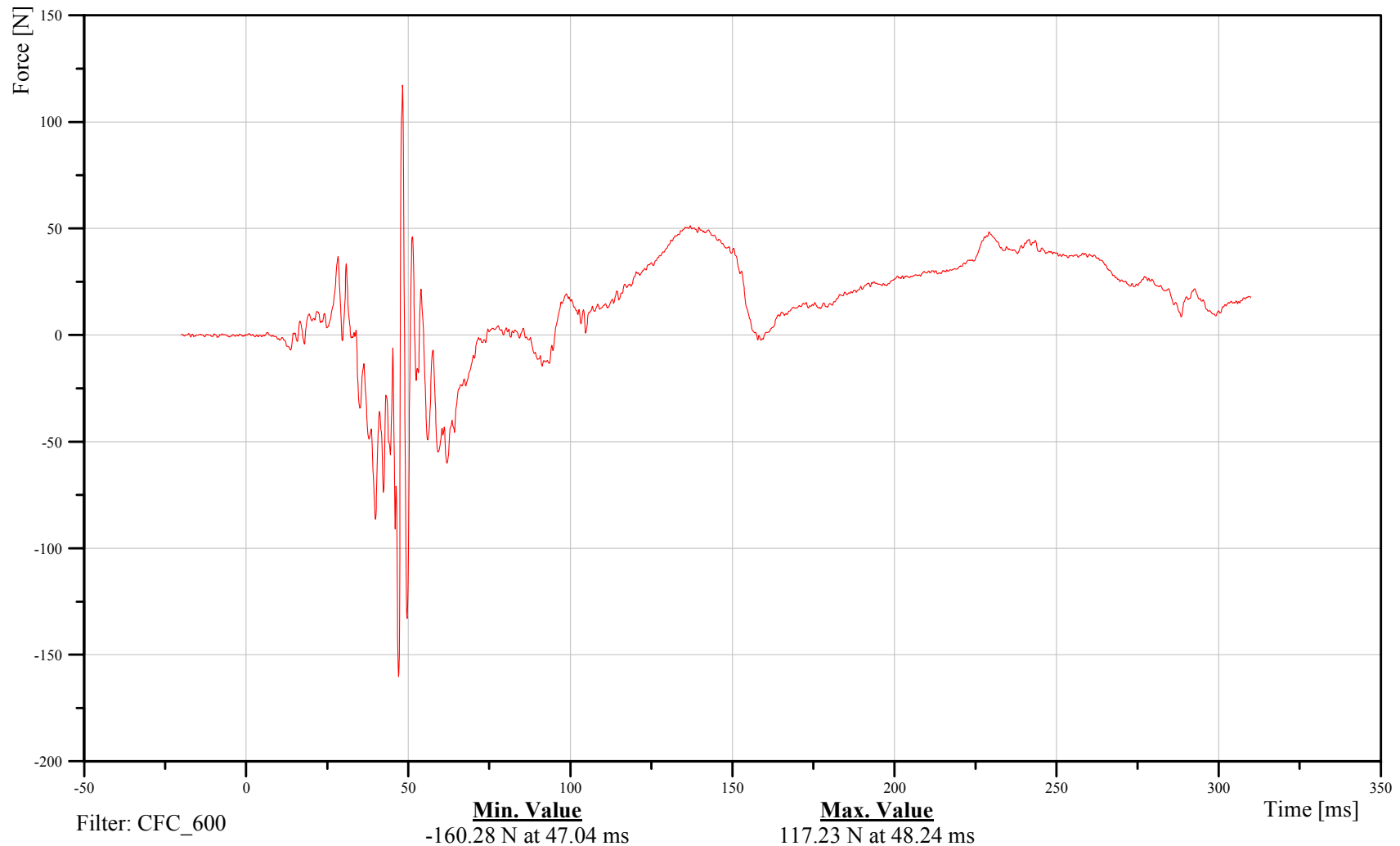
Right Femur Force X

Customer: VRTC

14FEMRRI00S2FOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

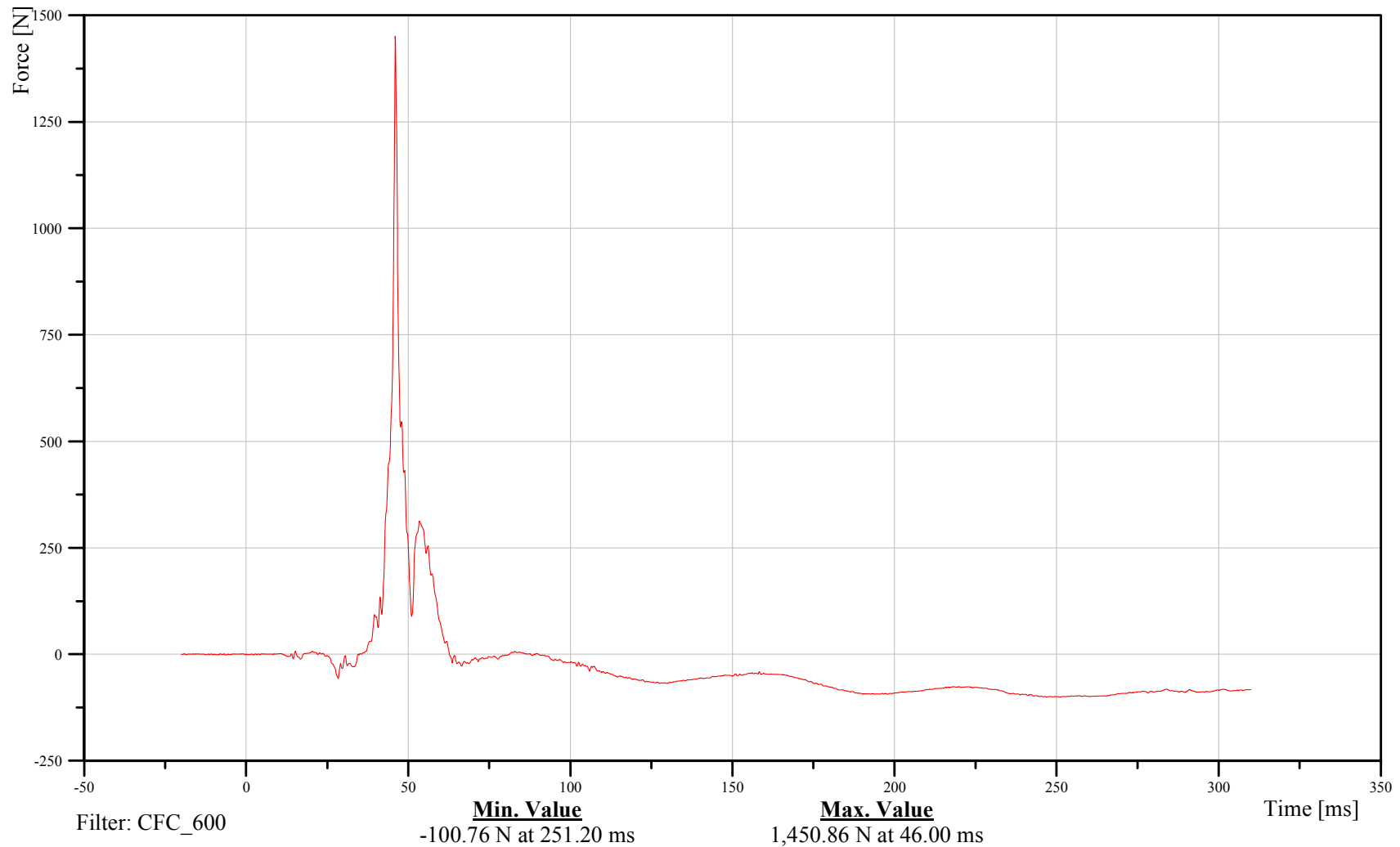
Right Femur Force Y

Customer: VRTC

14FEMRRI00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

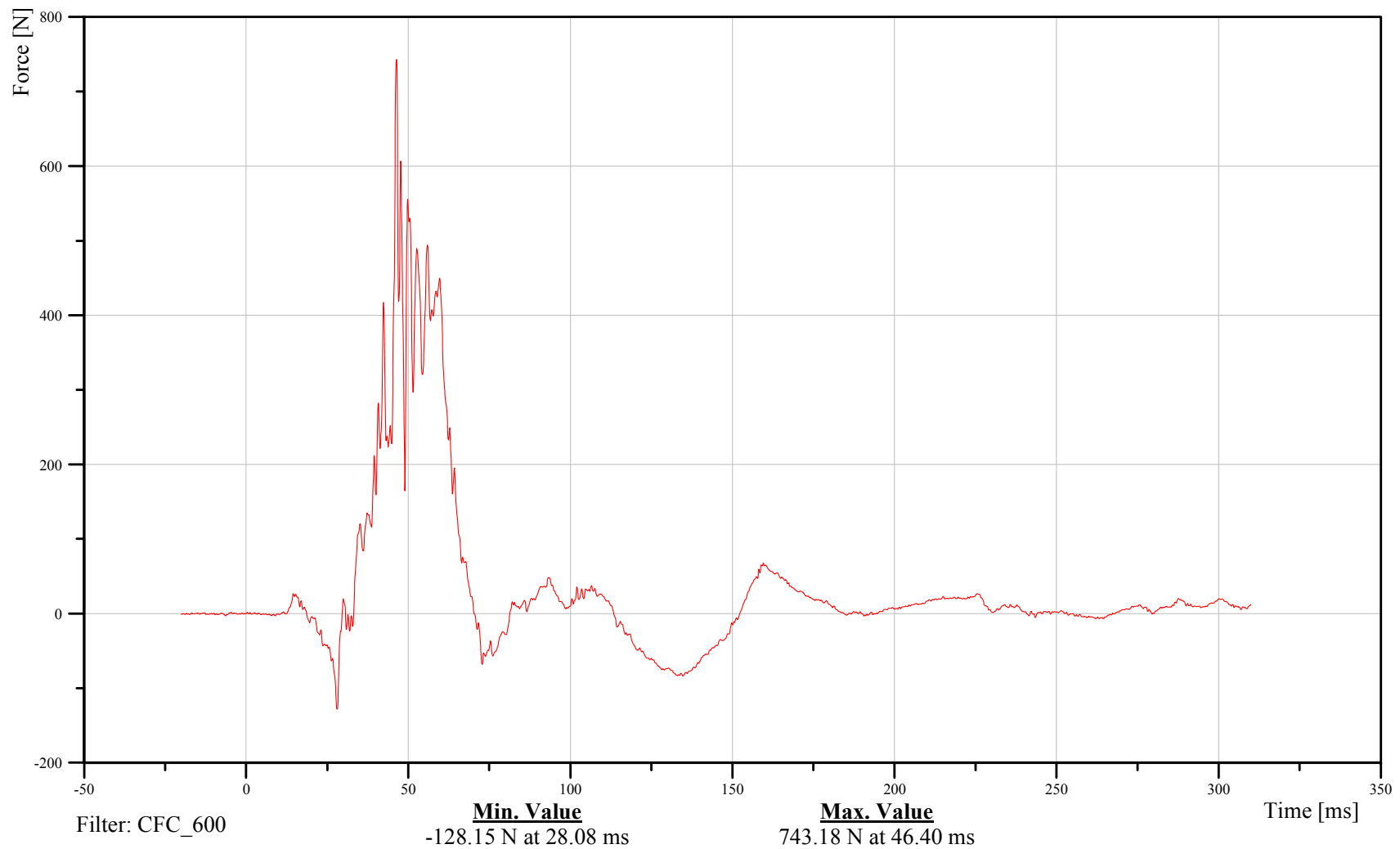
Right Femur Force Z

Customer: VRTC

14FEMRRI00S2FOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

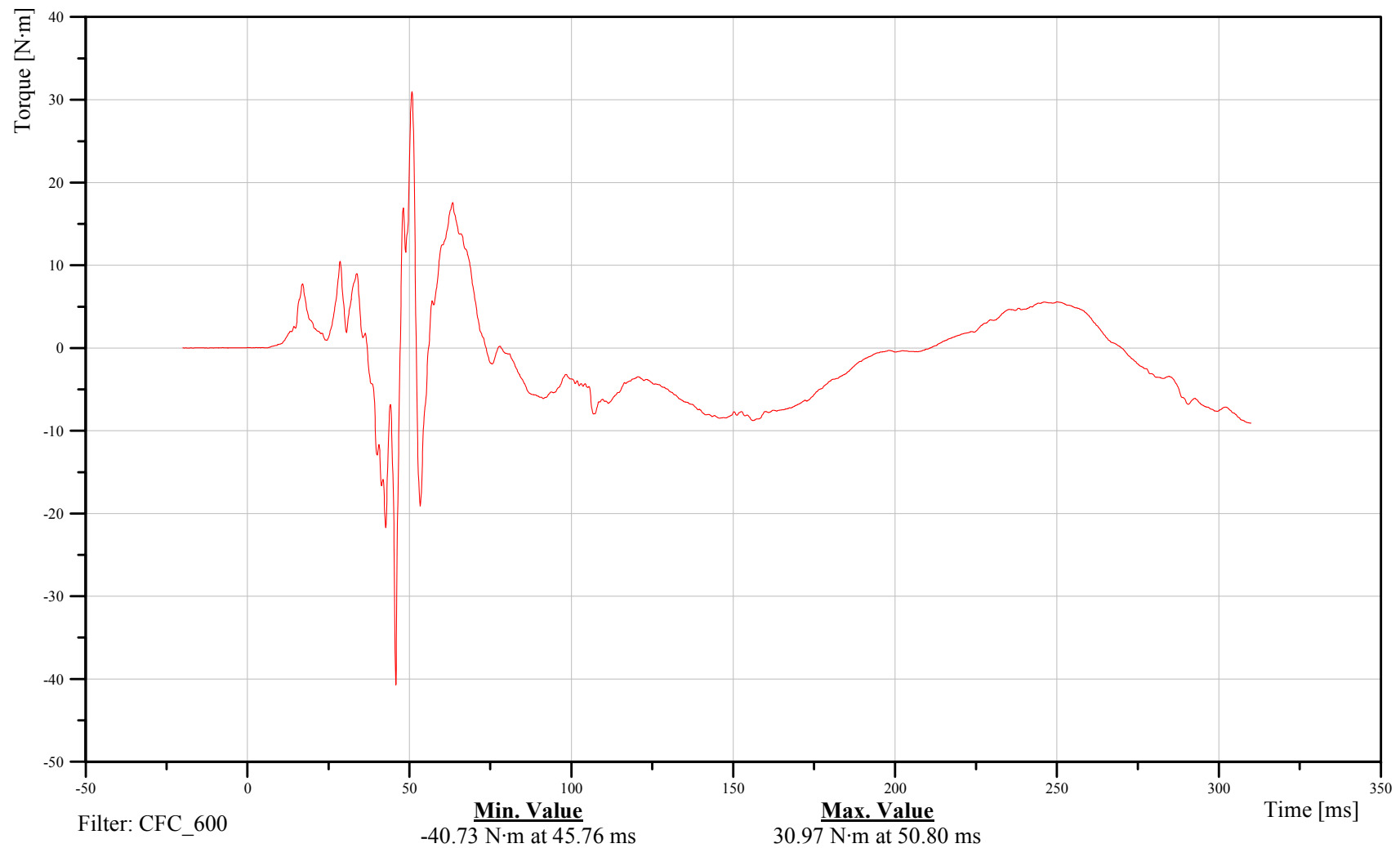
Right Femur Moment X

Customer: VRTC

14FEMRRI00S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

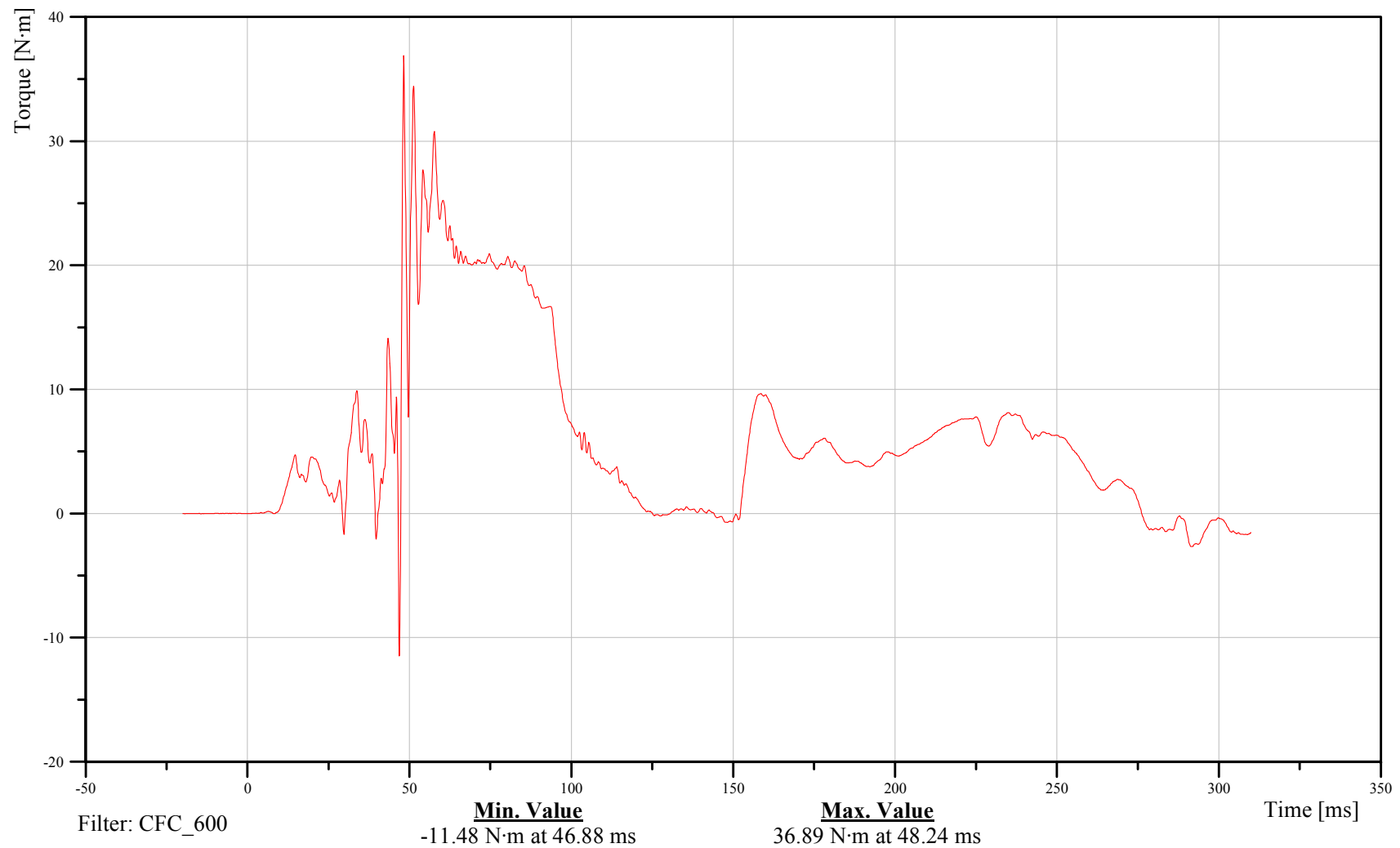
Right Femur Moment Y

Customer: VRTC

14FEMRRI00S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

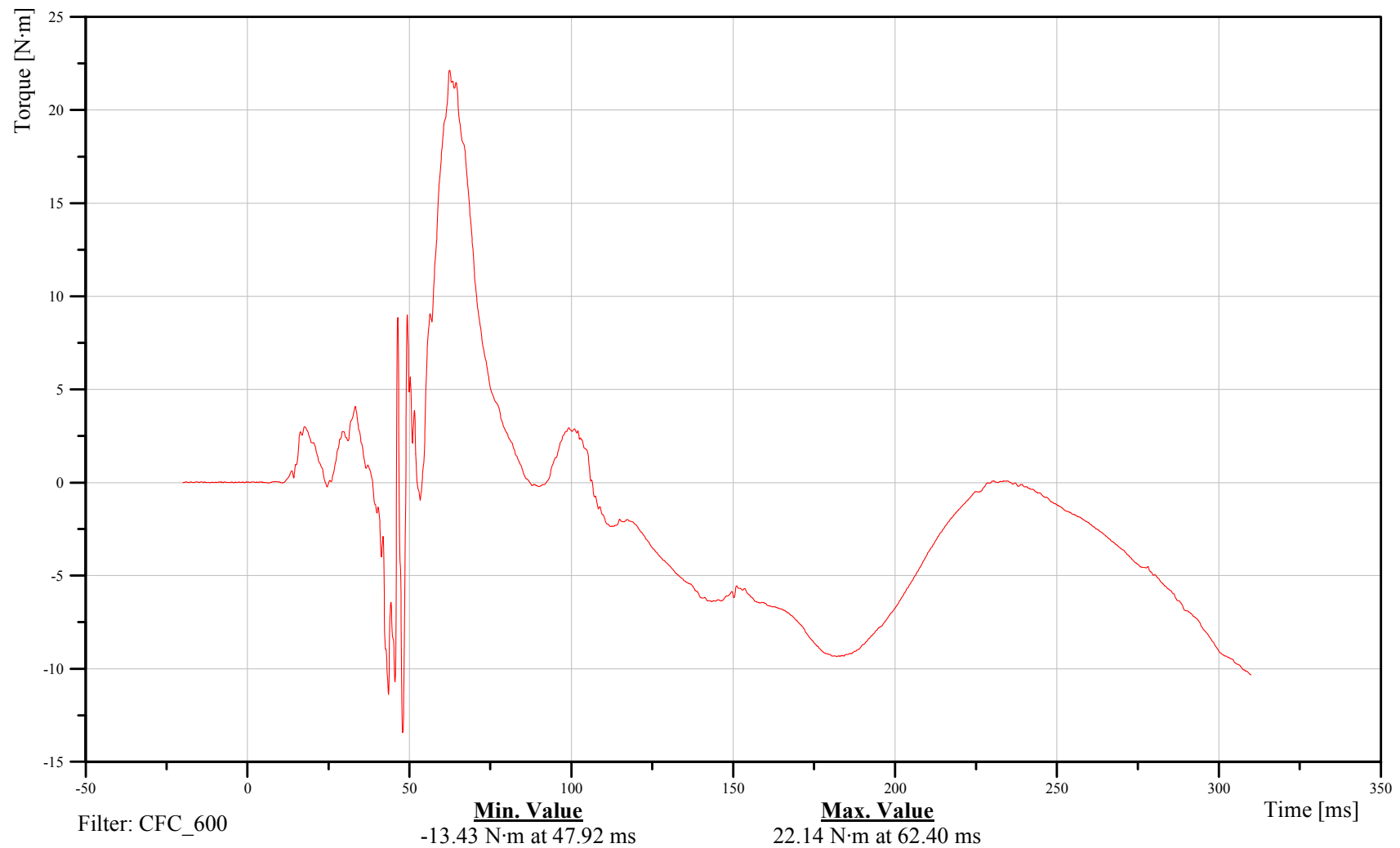
Right Femur Moment Z

Customer: VRTC

14FEMRRI00S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

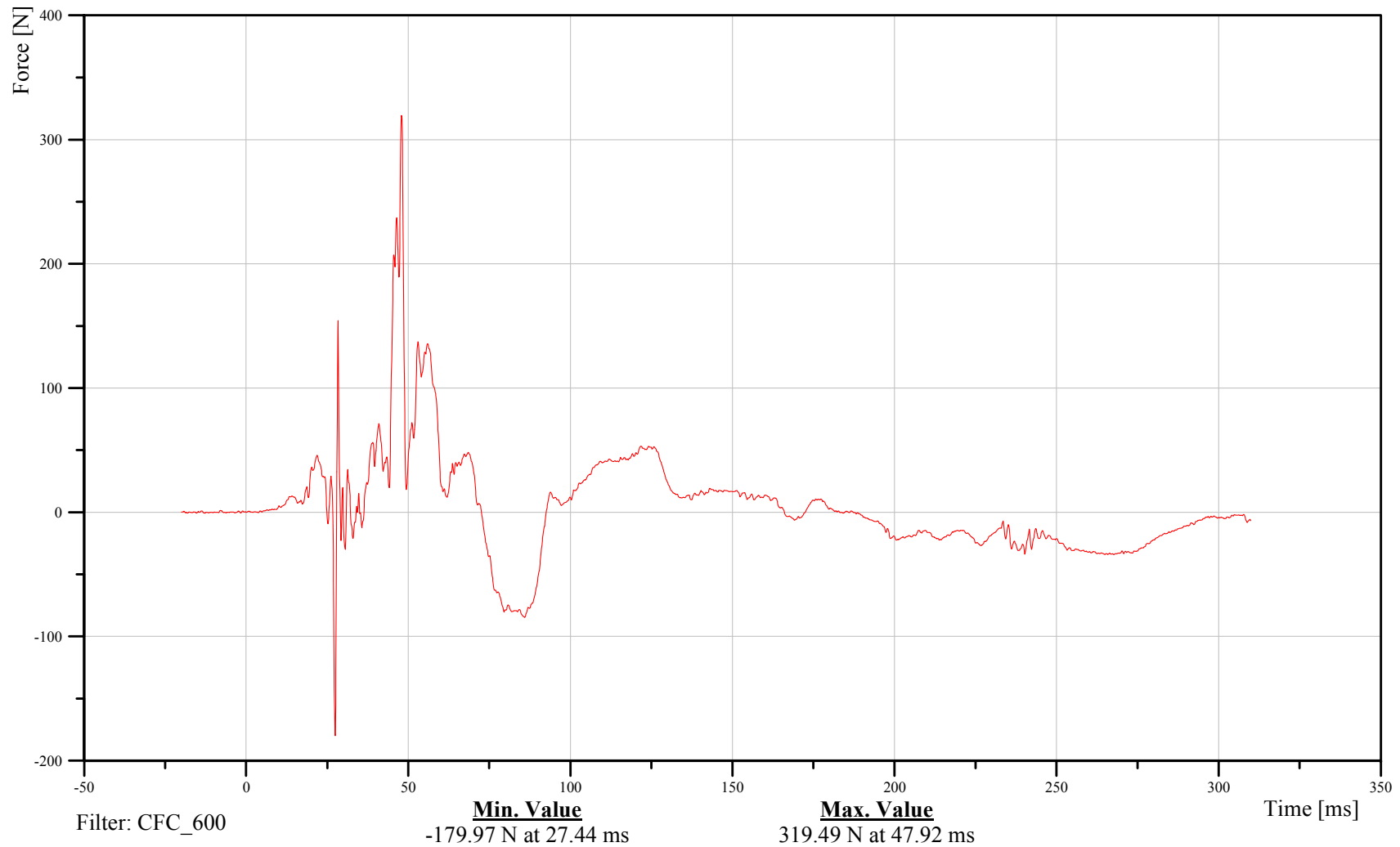
Left Femur Force X

Customer: VRTC

14FEMRLE00S2FOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Force Y

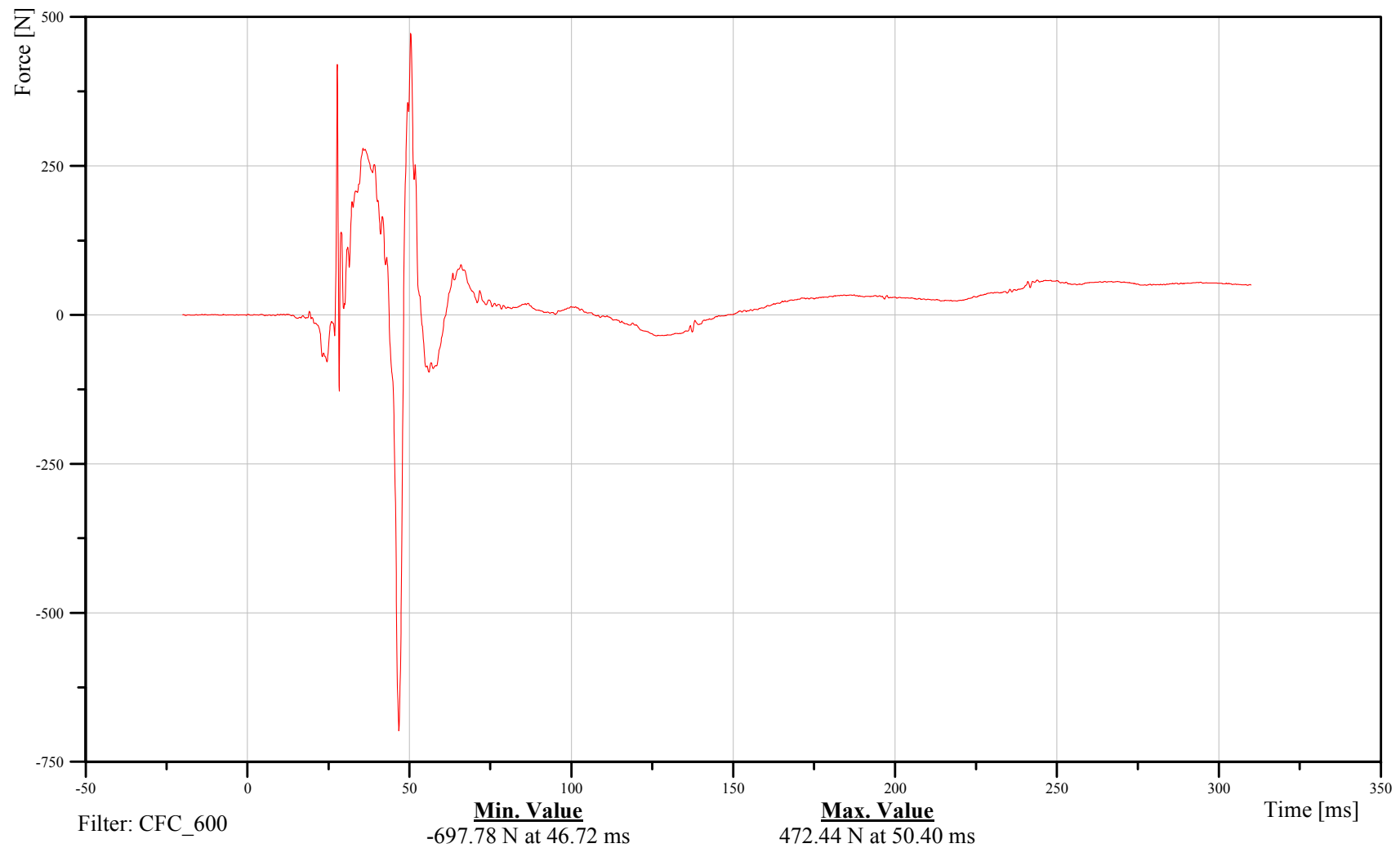
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14FEMRLE00S2FOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Force Z

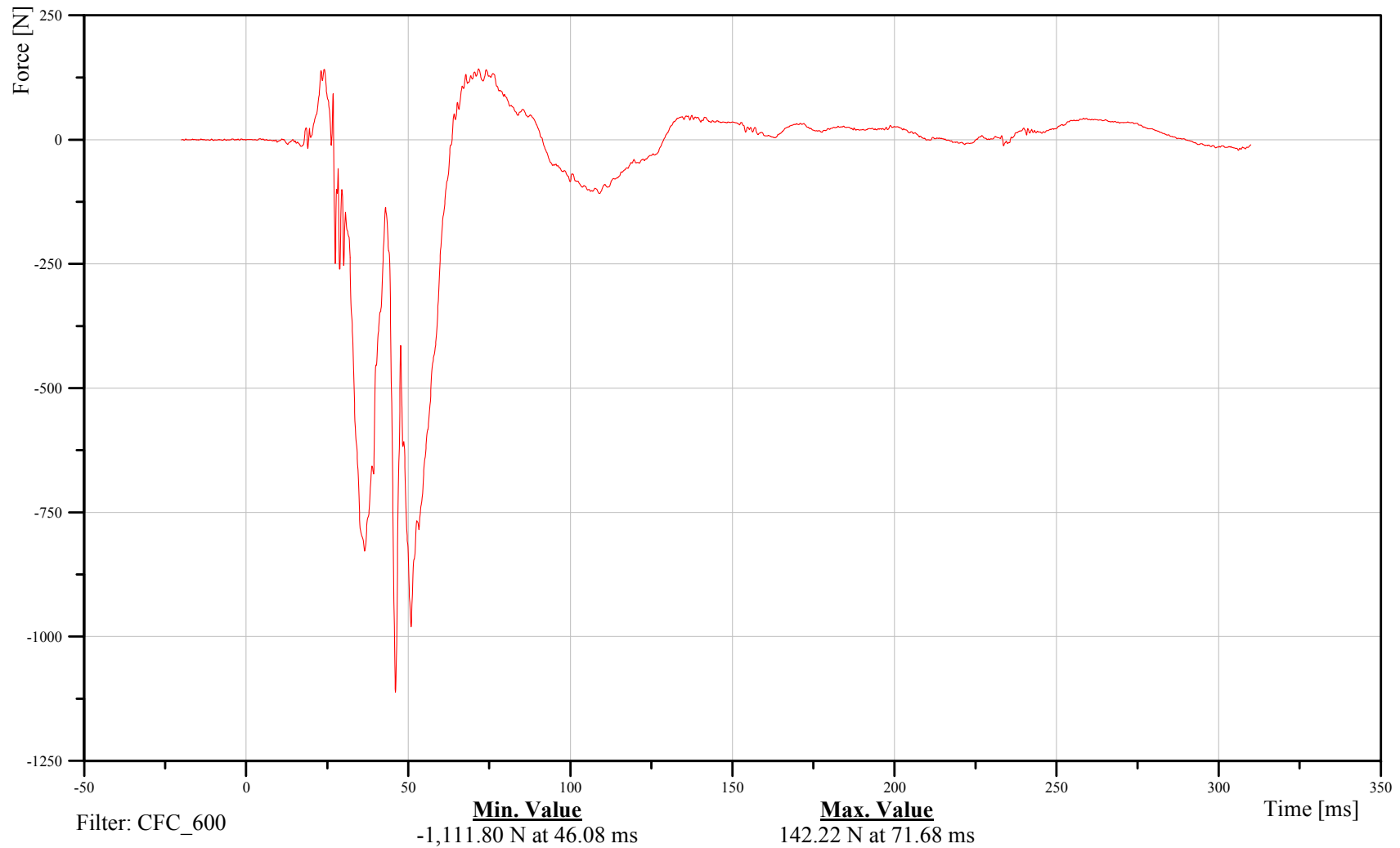
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14FEMRLE00S2FOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Moment X

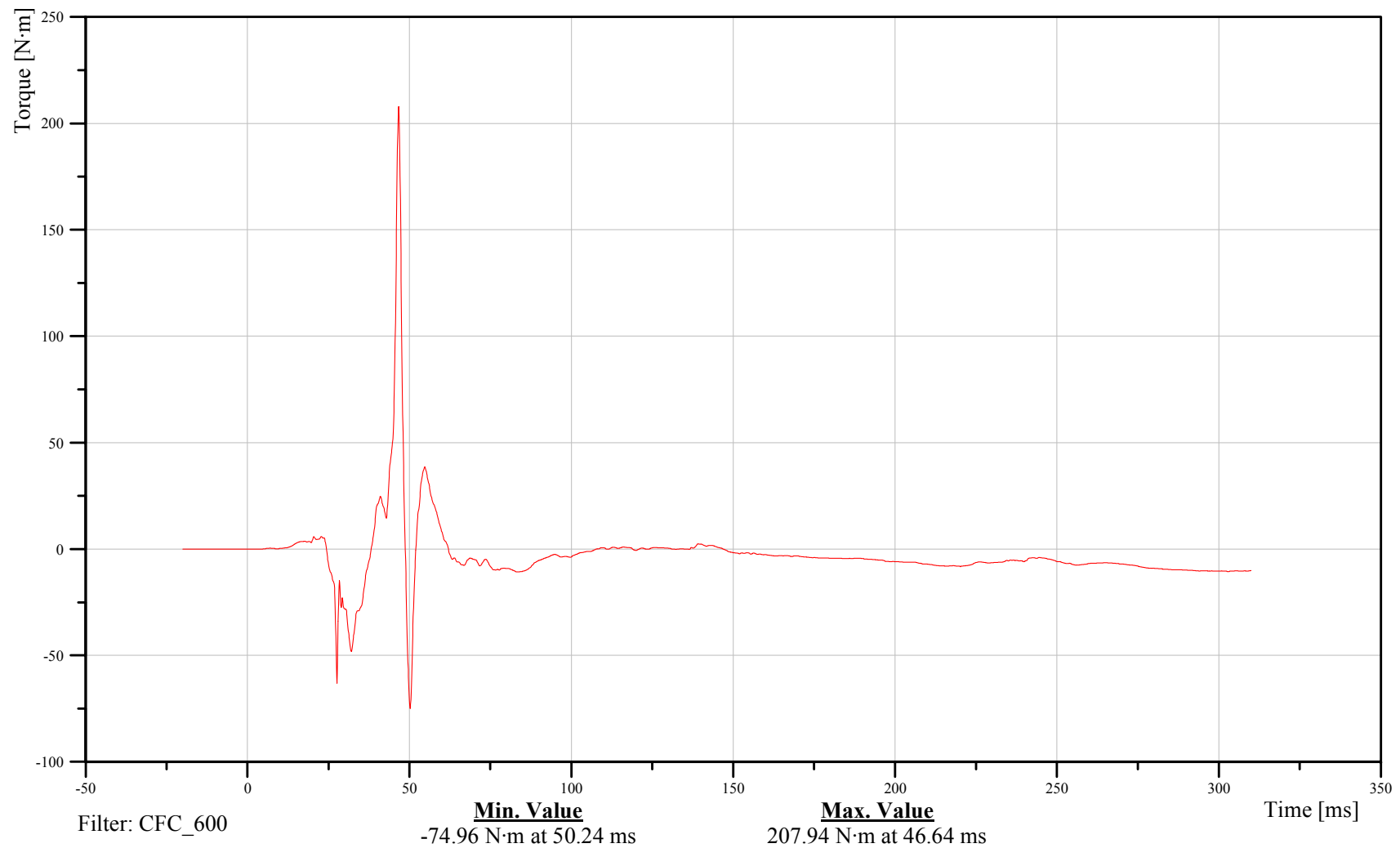
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14FEMRLE00S2MOXB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Moment Y

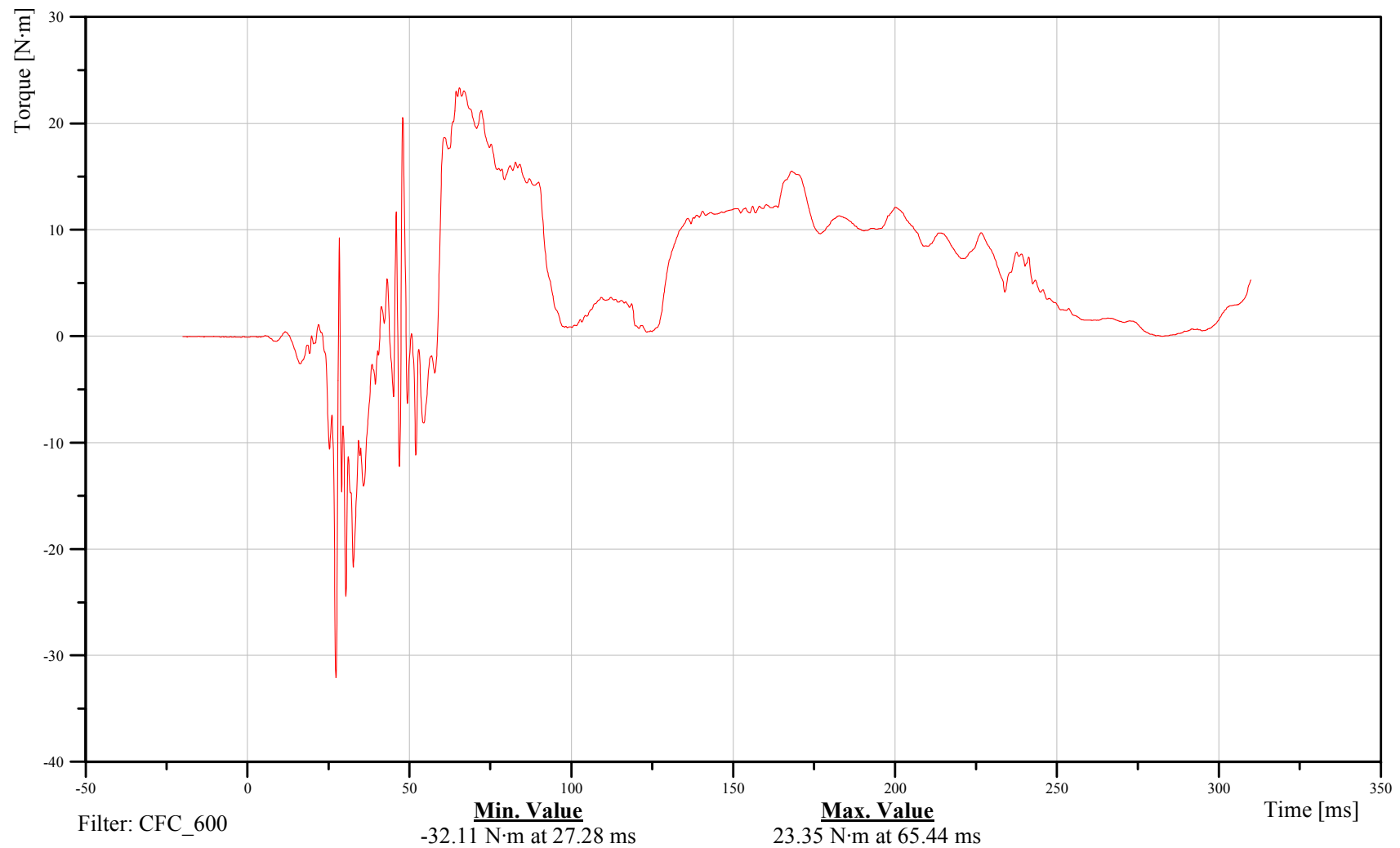
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14FEMRLE00S2MOYB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Femur Moment Z

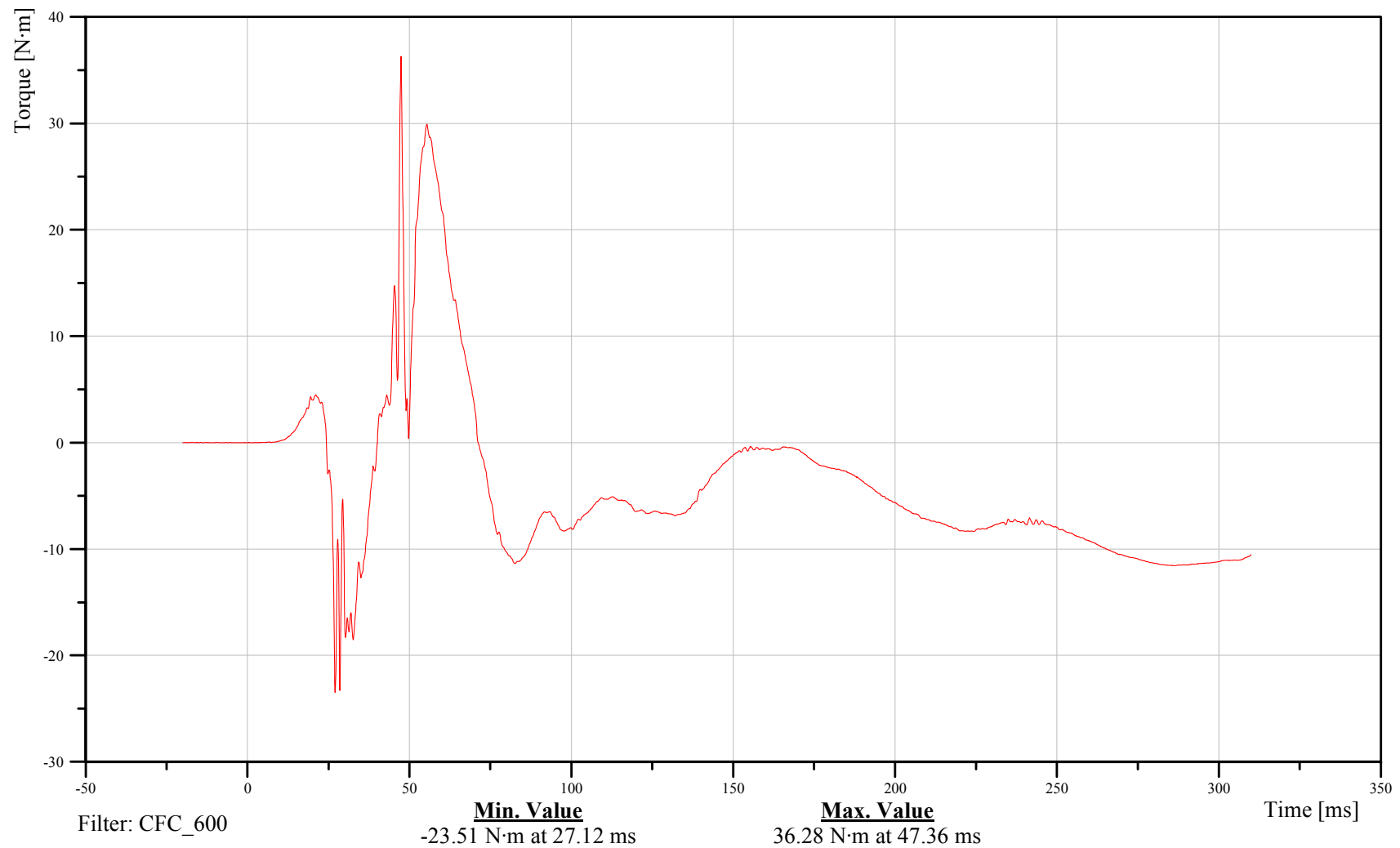
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14FEMRLE00S2MOZB

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

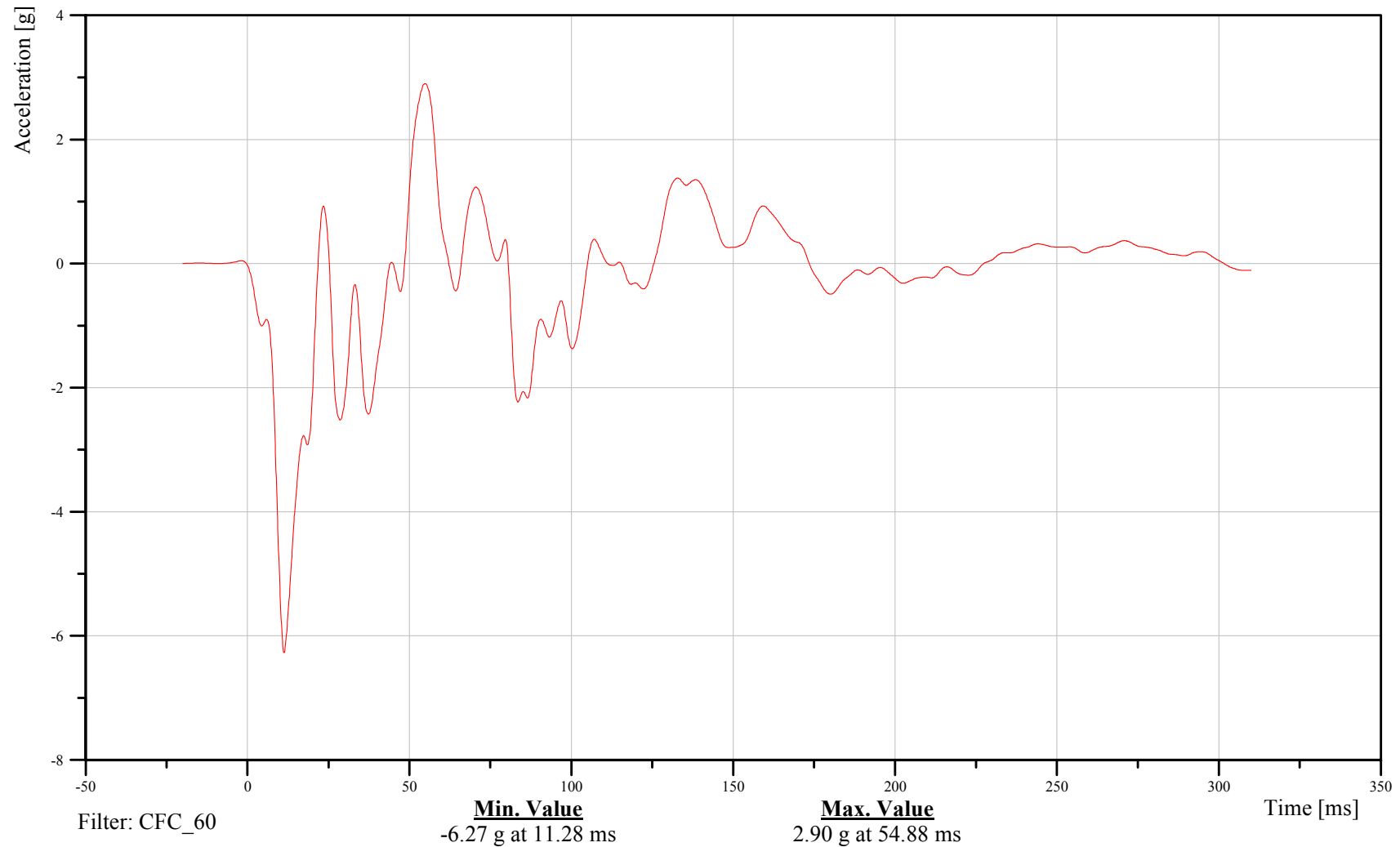
Right Side Sill at Front Seat X-Axis Acceleration

Customer: VRTC

16SILBFR0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Front Seat Y-Axis Acceleration

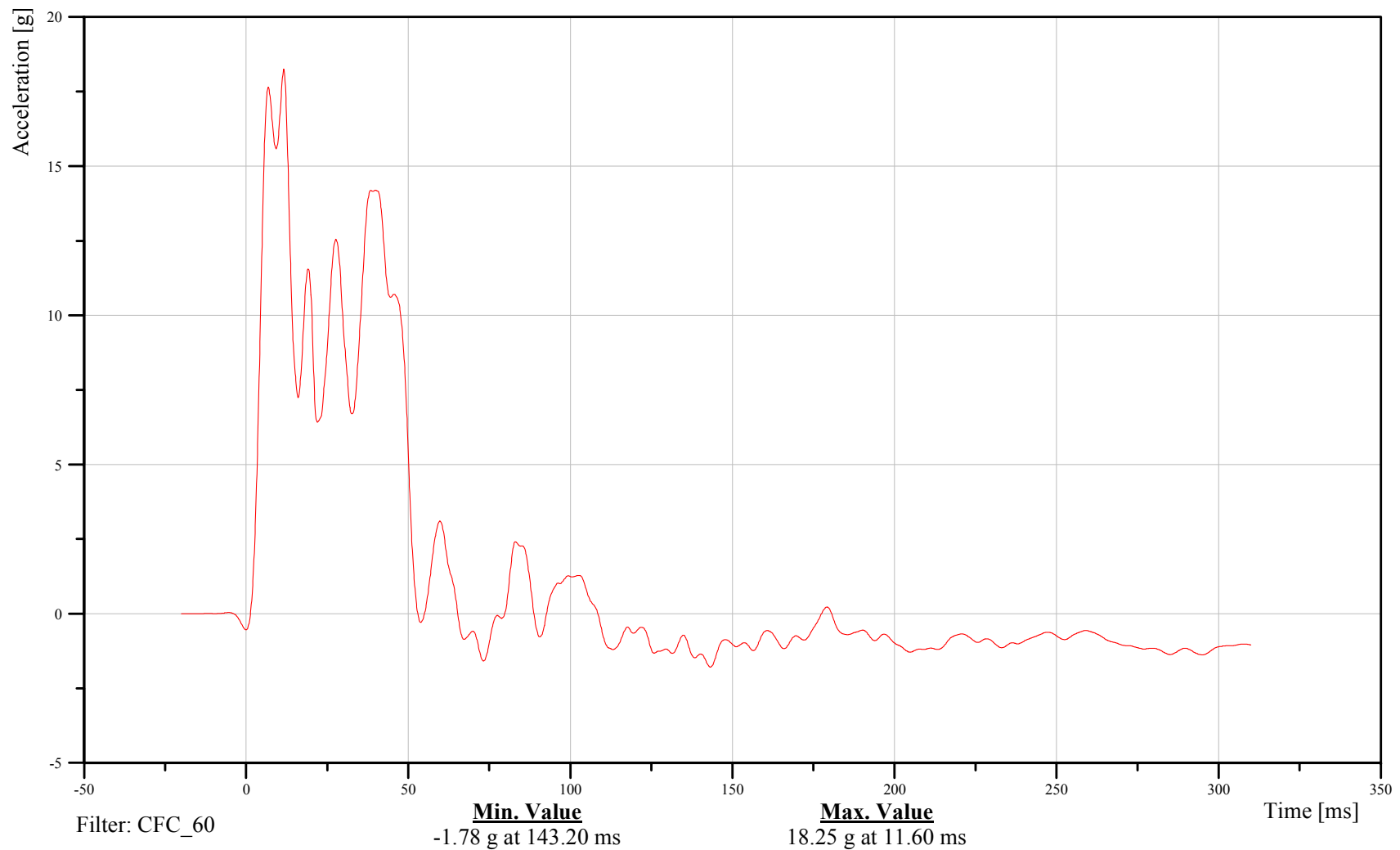
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBFR0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Front Seat Y-Axis Velocity

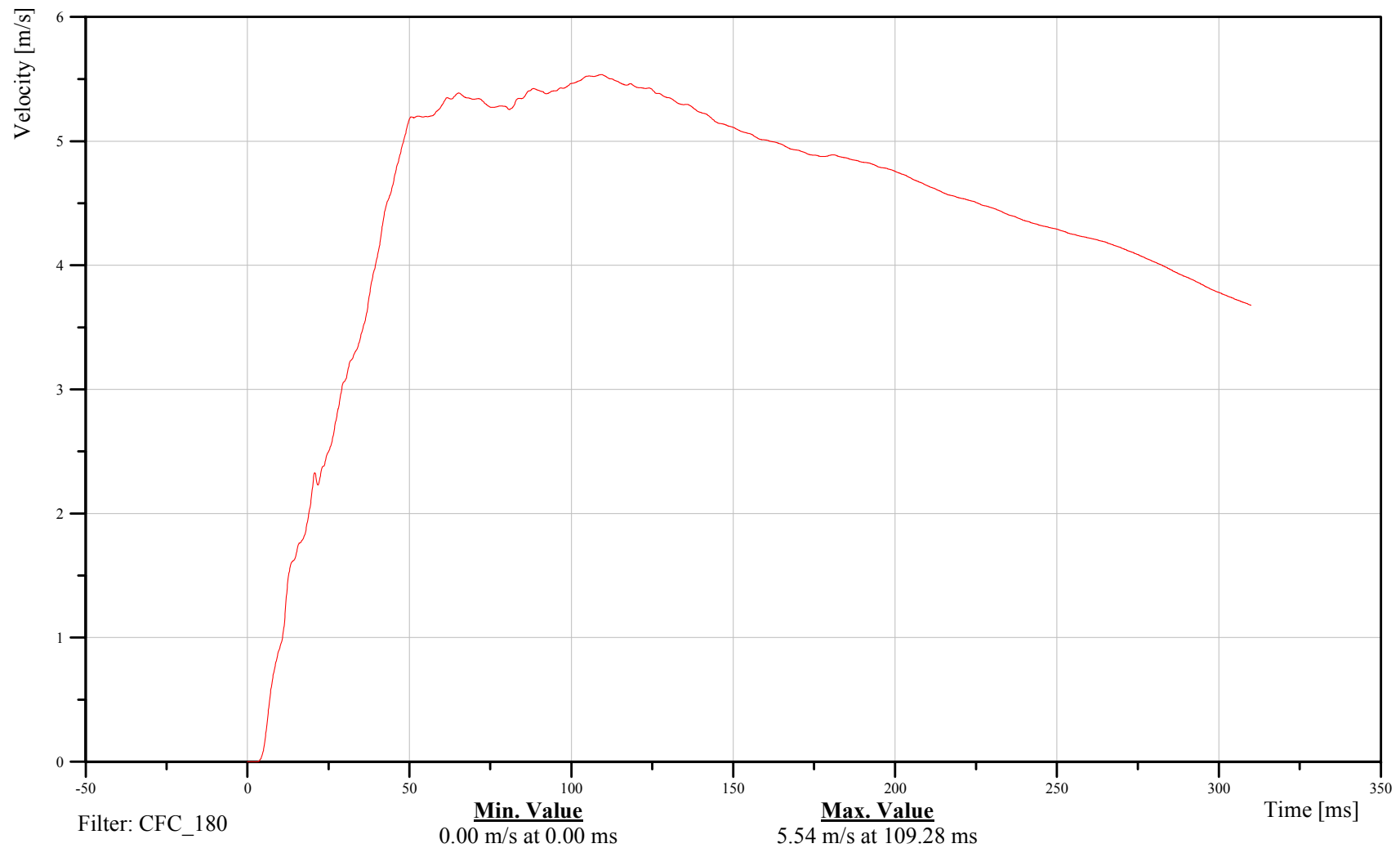
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBFR0000VEYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Front Seat Y-Axis Displacement

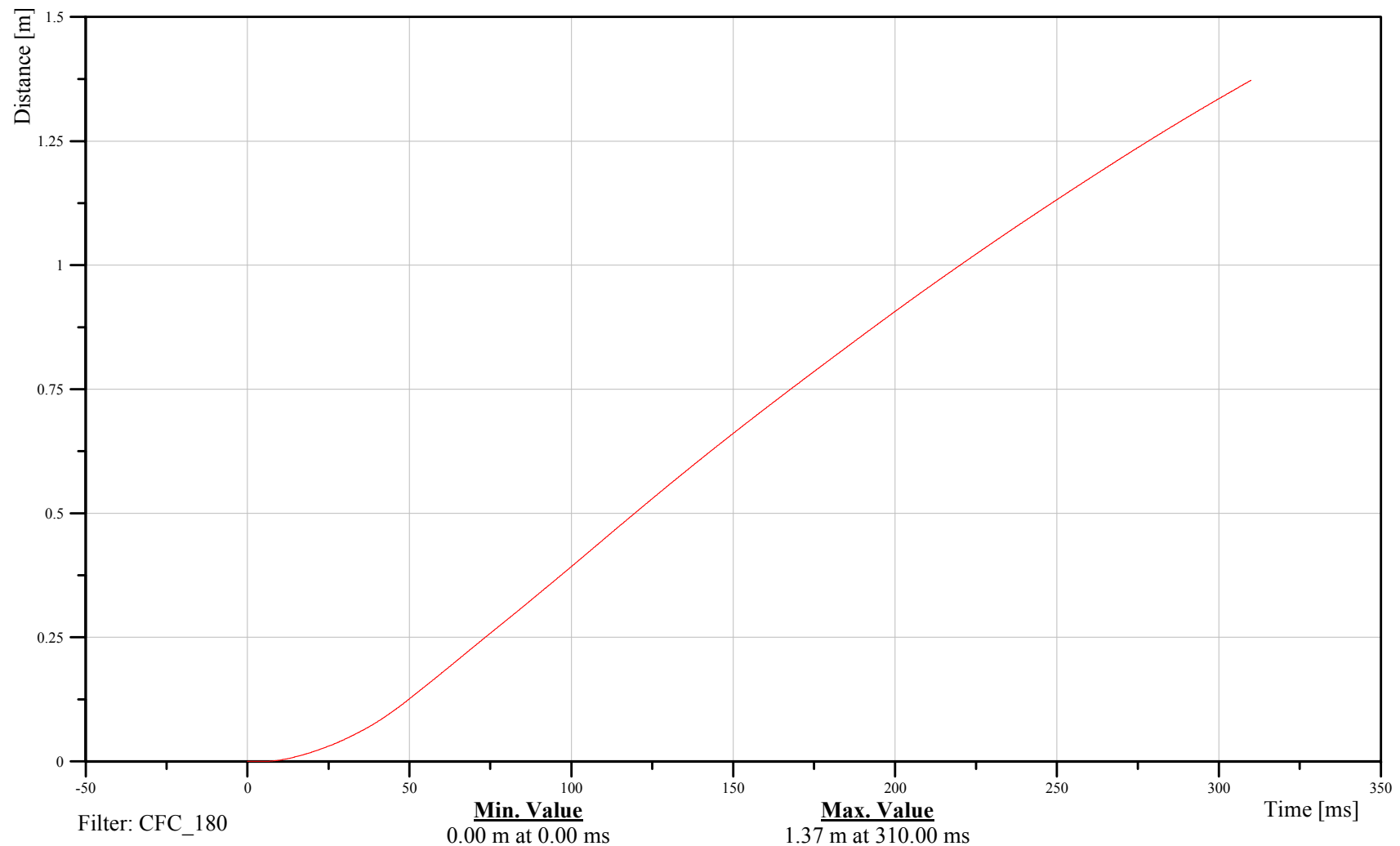
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBFR0000DCYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Front Seat Z-Axis Acceleration

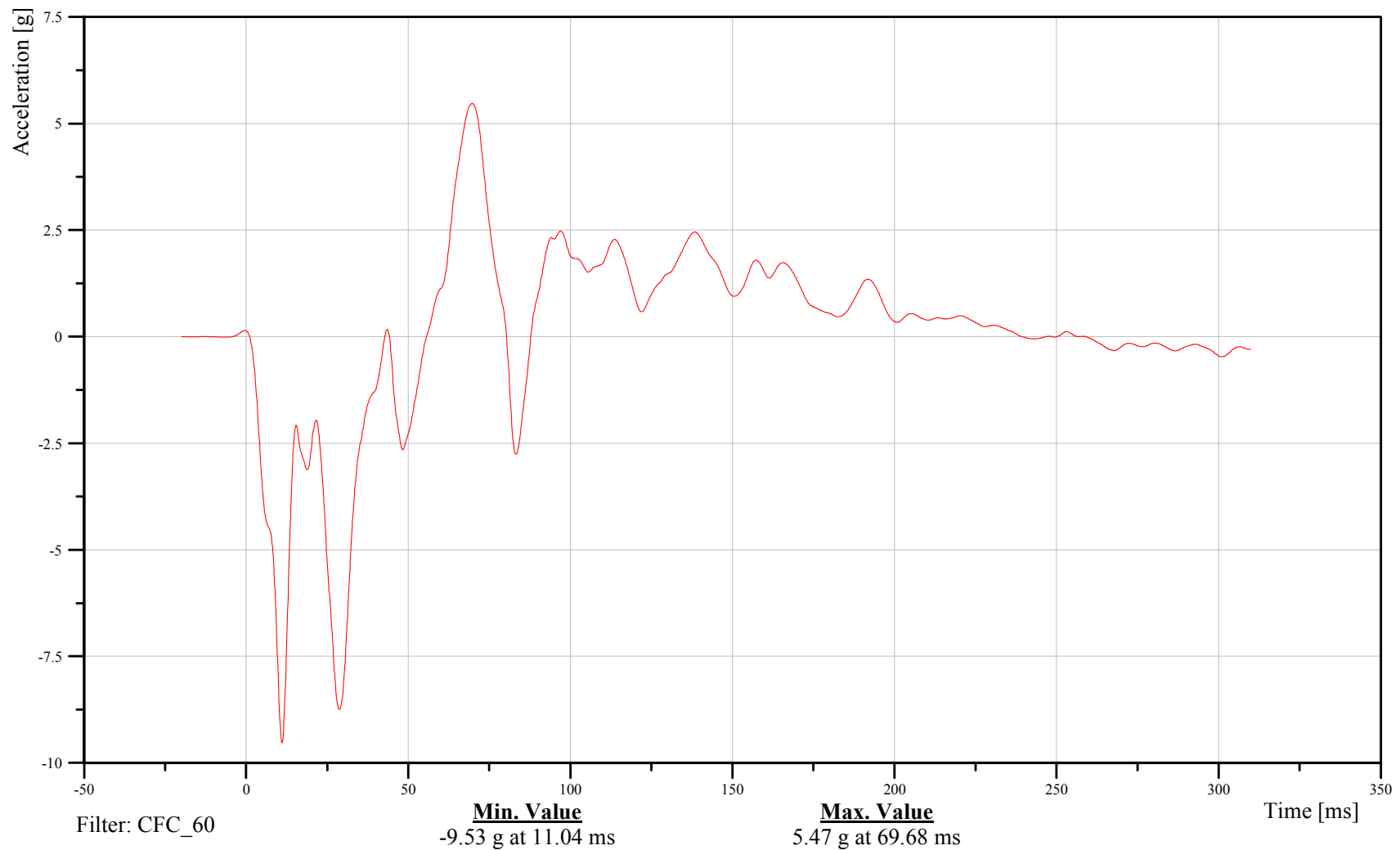
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBFR0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

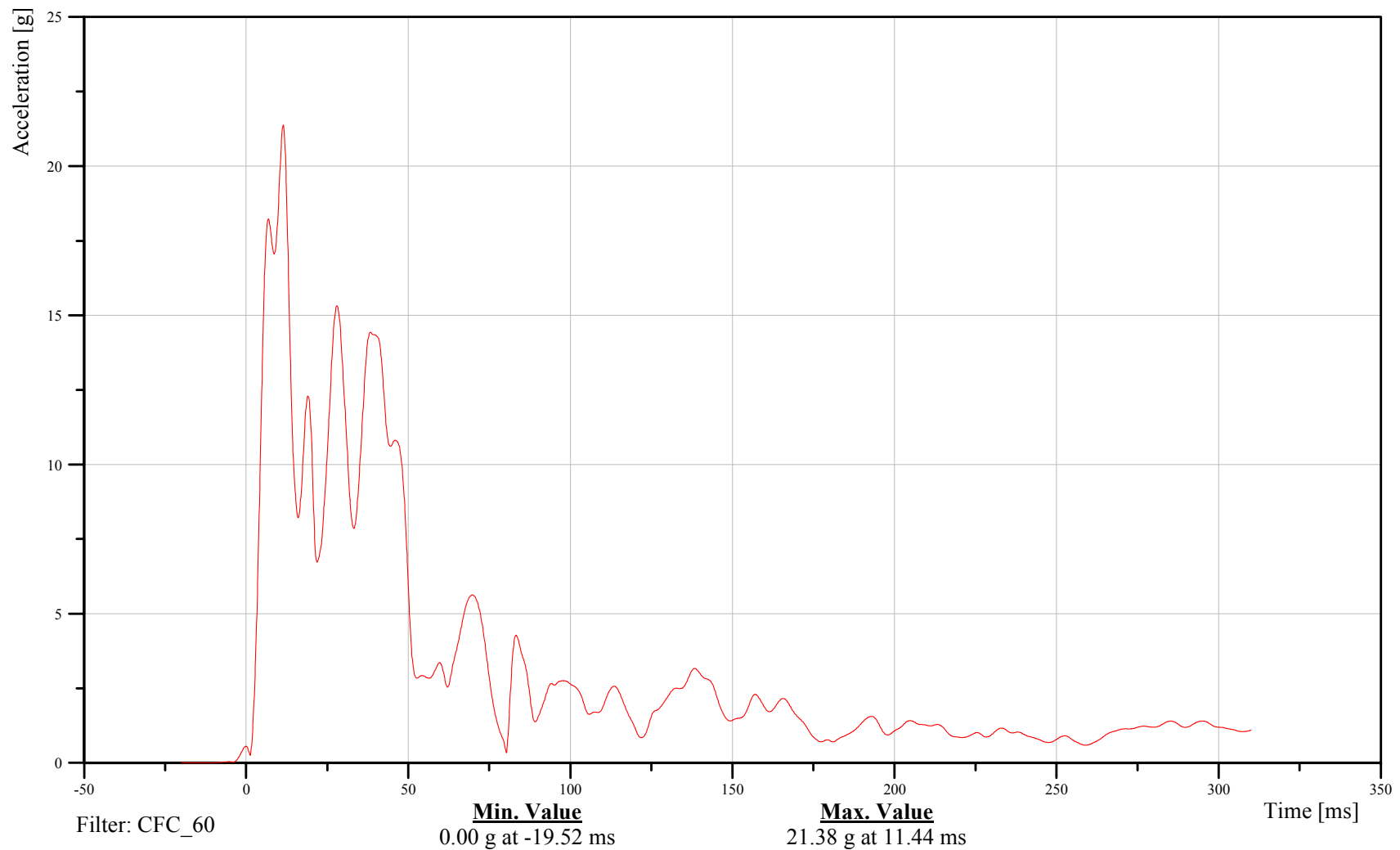
Right Side Sill at Front Seat Resultant Acceleration

Customer: VRTC

16SILBFR0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Rear Seat X-Axis Acceleration

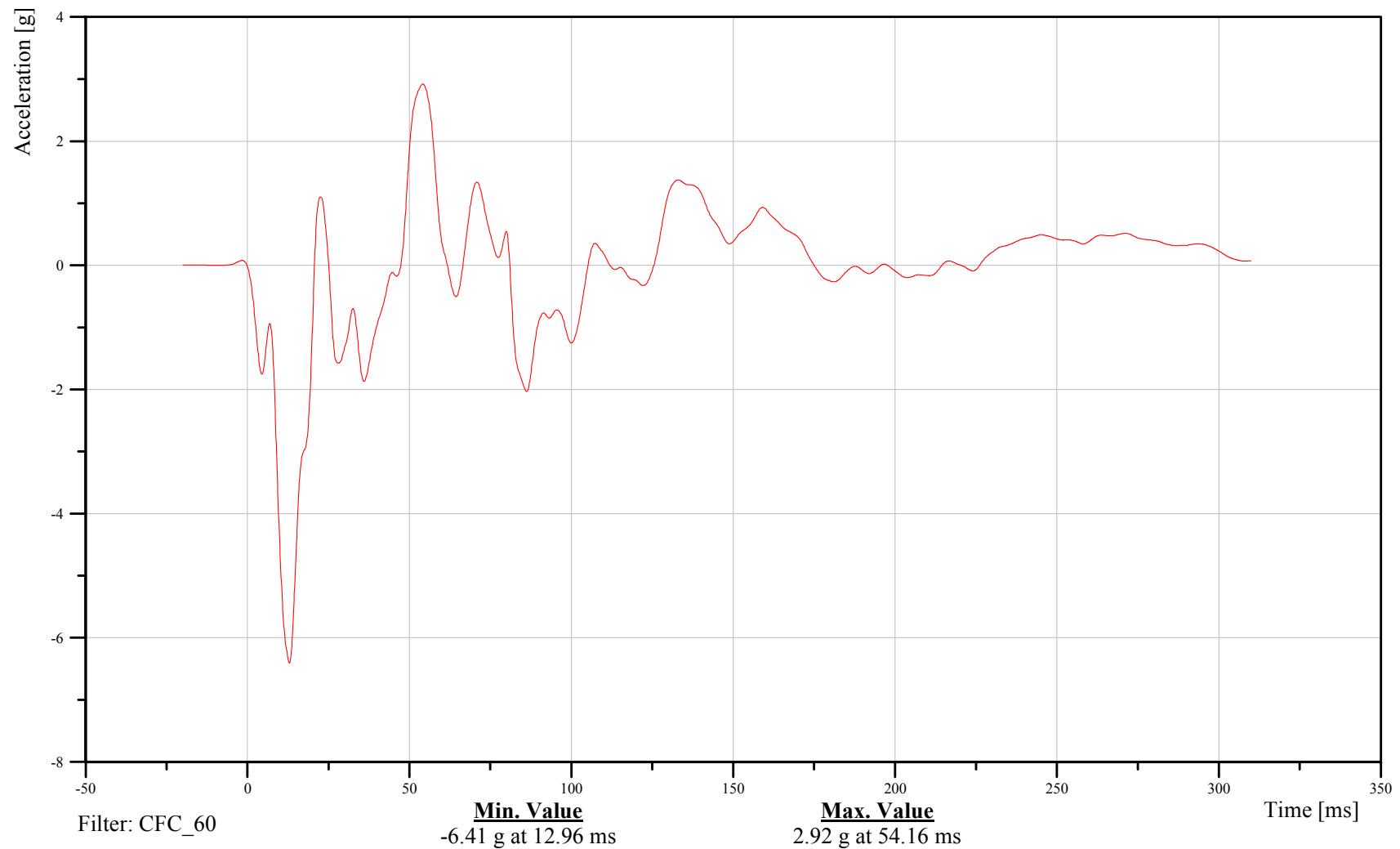
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBRE0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Rear Seat Y-Axis Acceleration

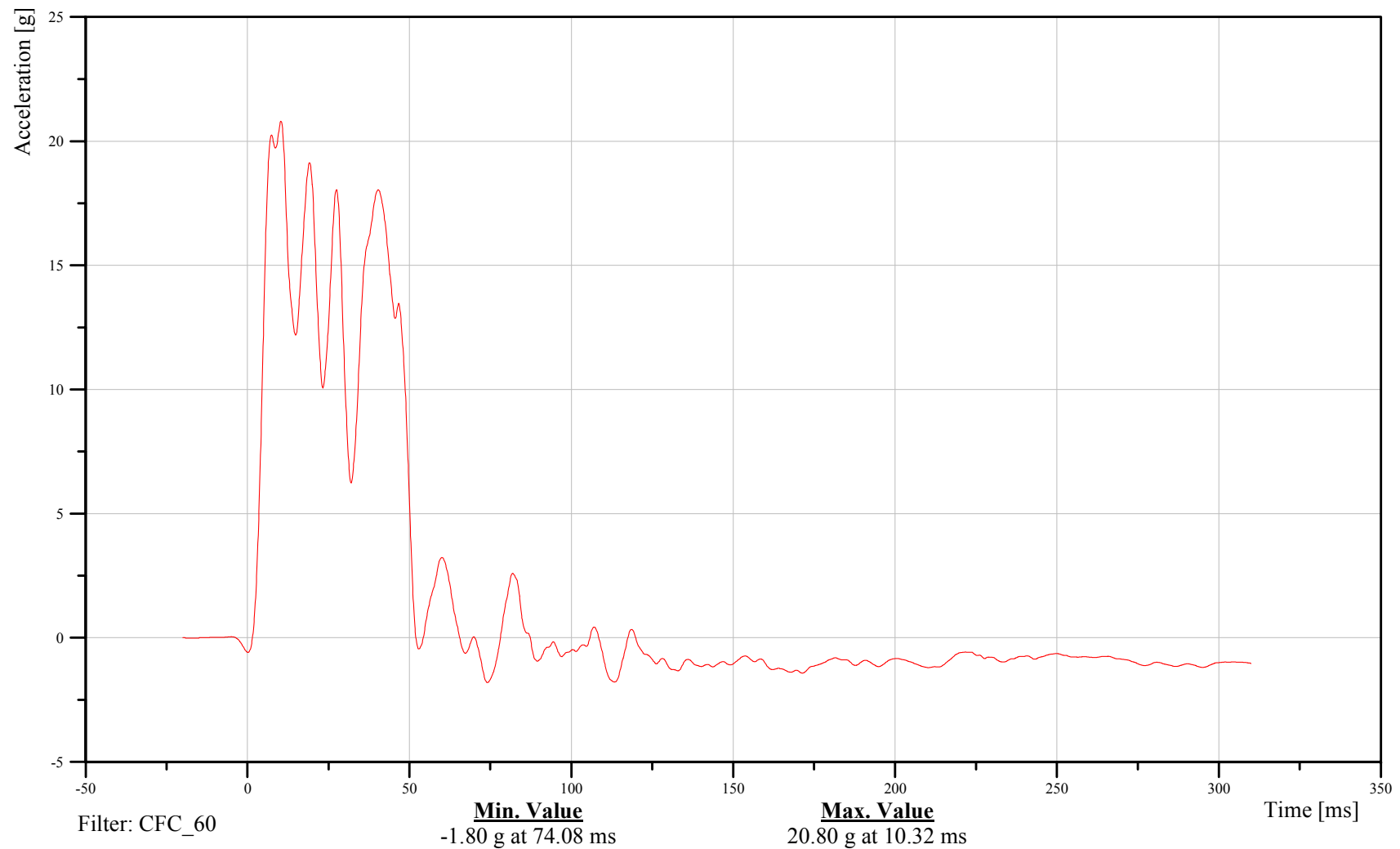
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBRE0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Right Side Sill at Rear Seat Y-Axis Velocity

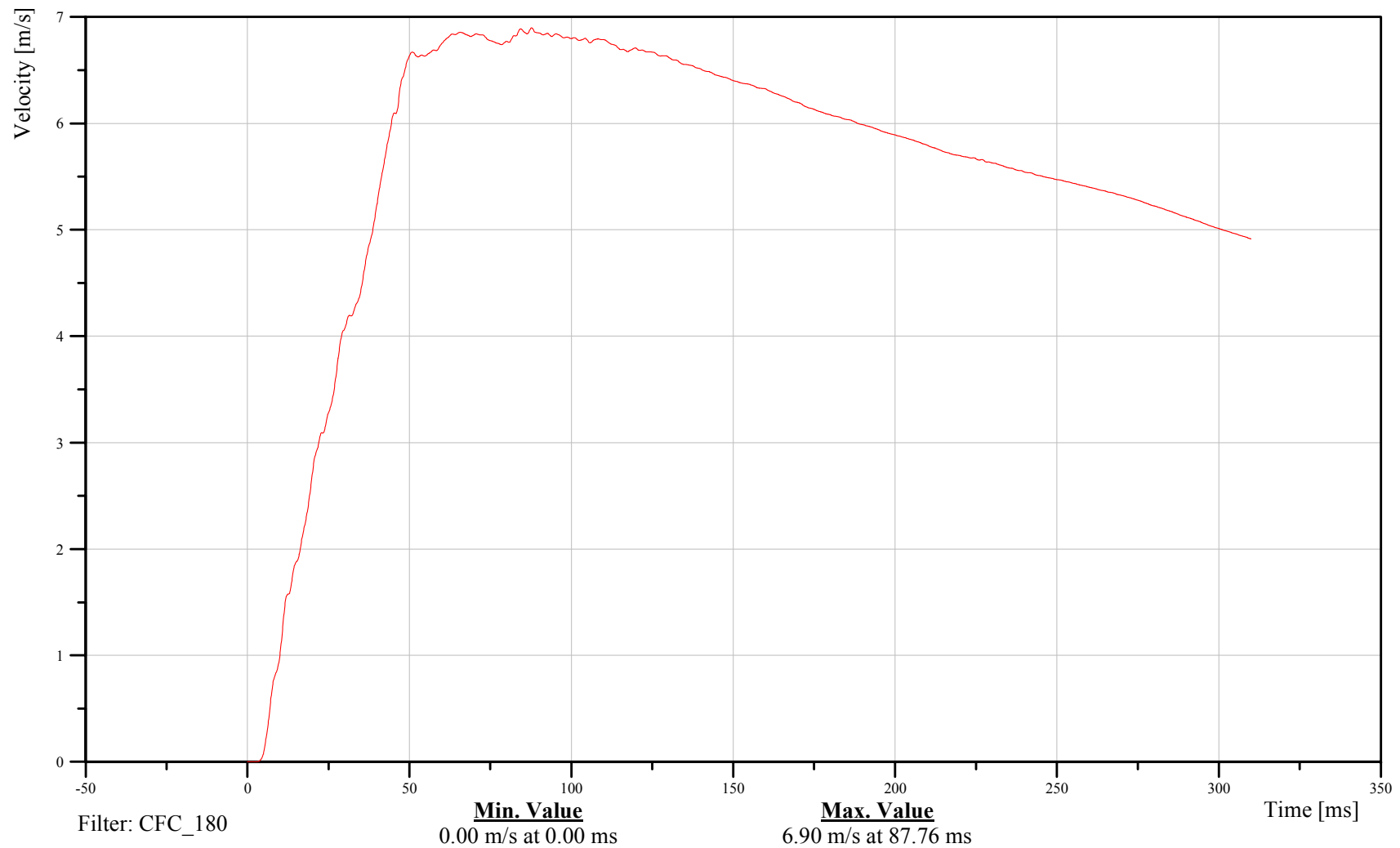
Time: 13:48

Customer: VRTC

16SILBRE0000VEYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Rear Seat Y-Axis Displacement

Date: 07/25/2005

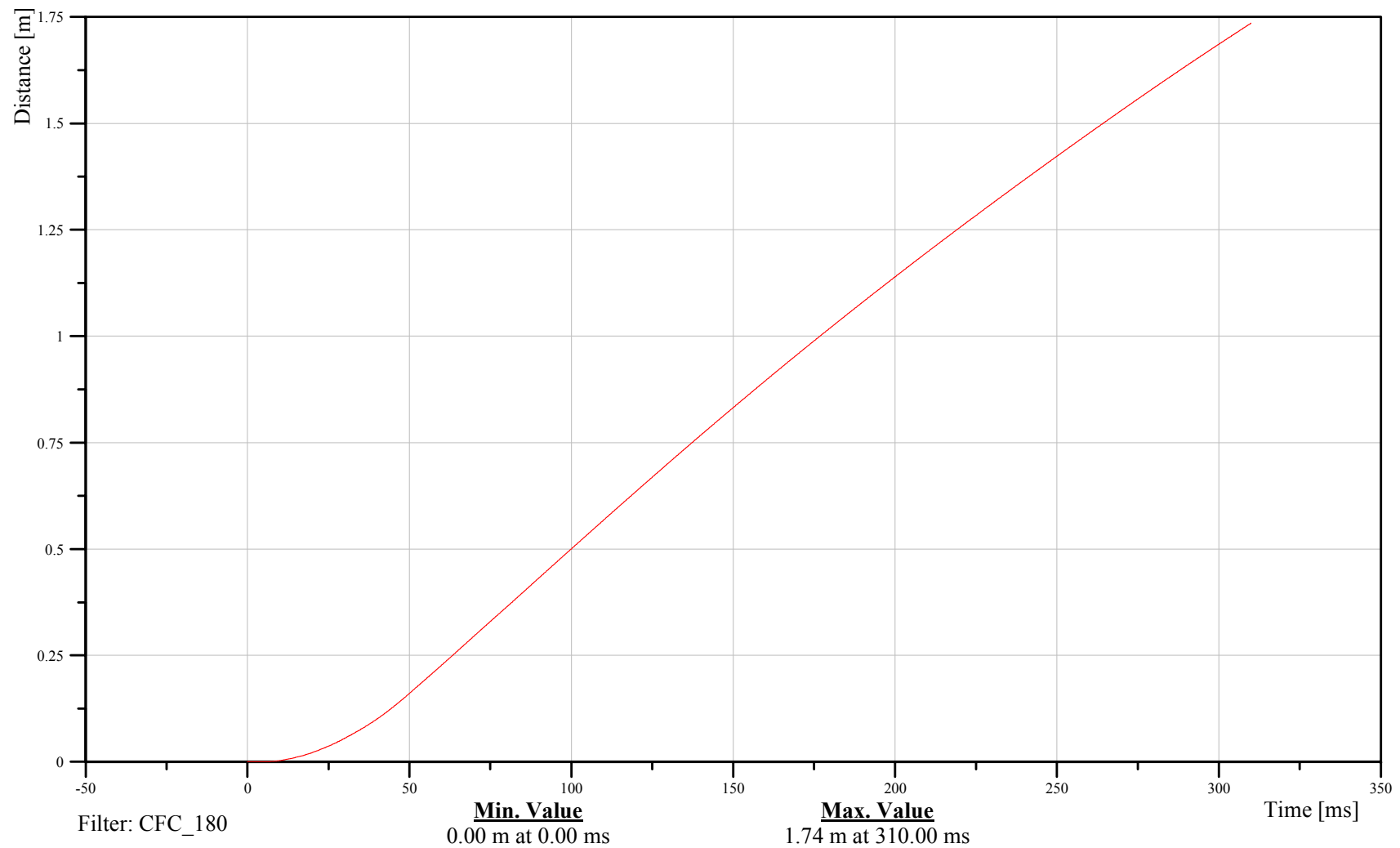
Time: 13:48

Customer: VRTC

16SILBRE0000DCYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Rear Seat Z-Axis Acceleration

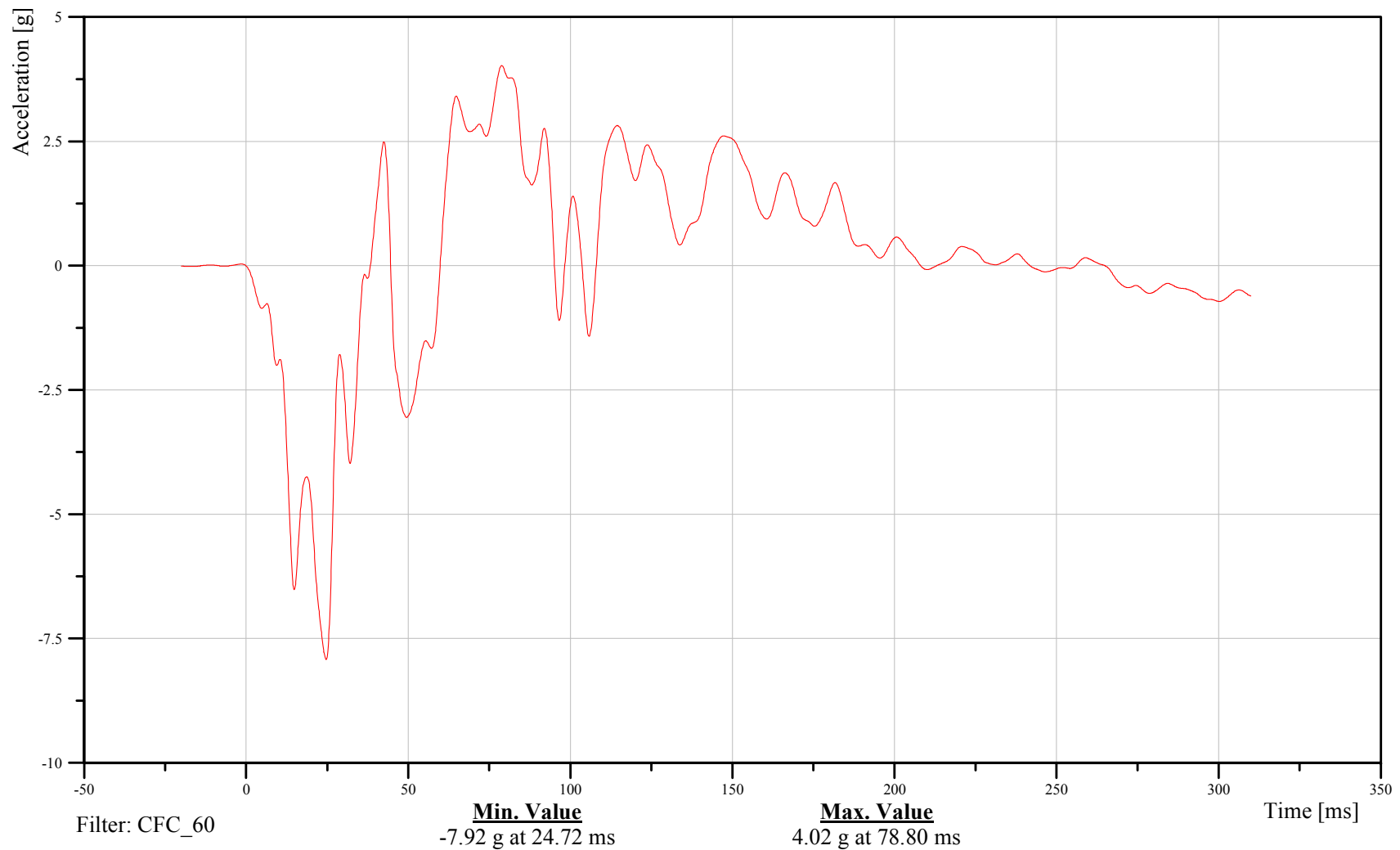
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBRE0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Right Side Sill at Rear Seat Resultant Acceleration

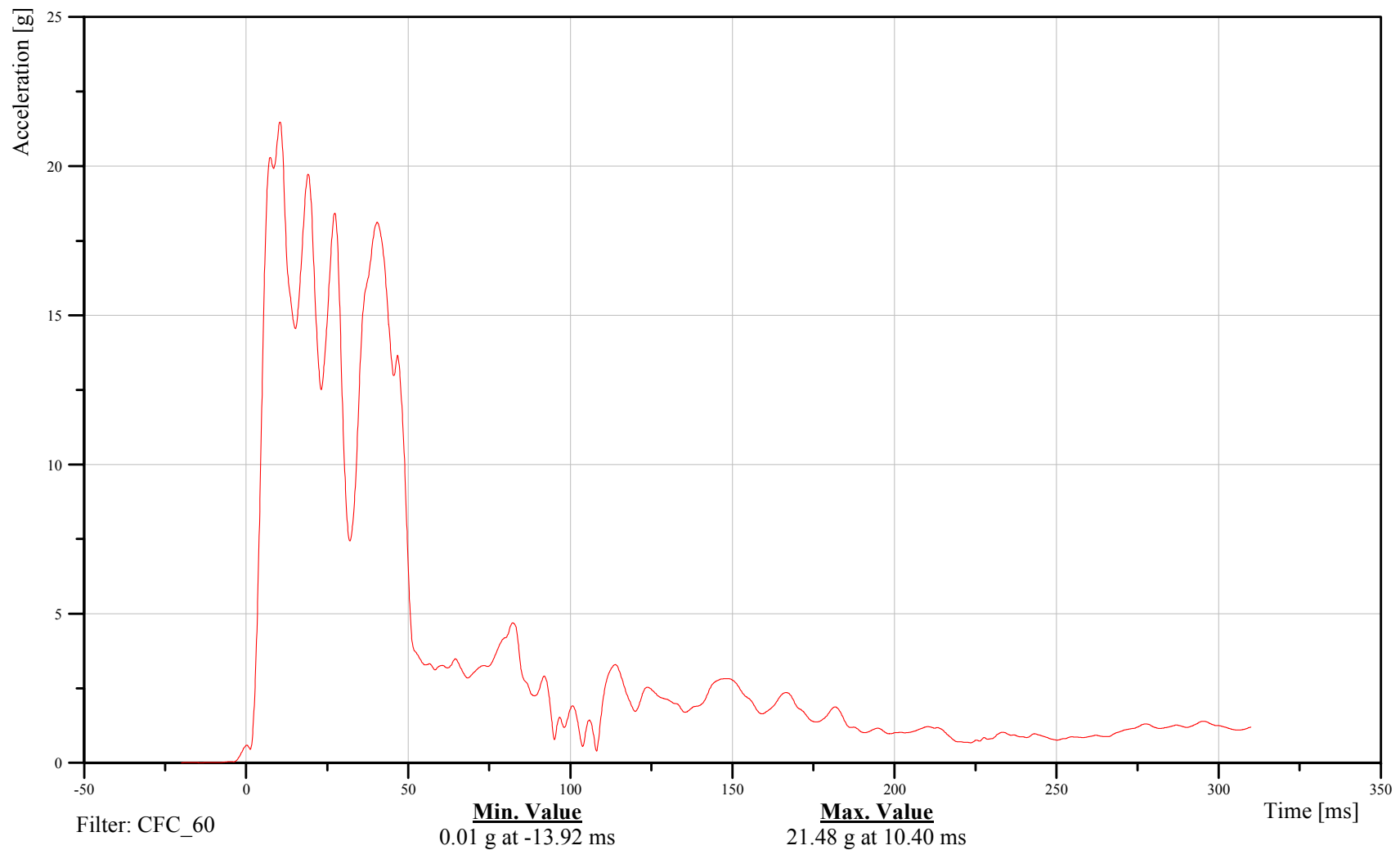
Date: 07/25/2005
Time: 13:48

Customer: VRTC

16SILBRE0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Rear Floorpan Above Axle X-Axis Acceleration

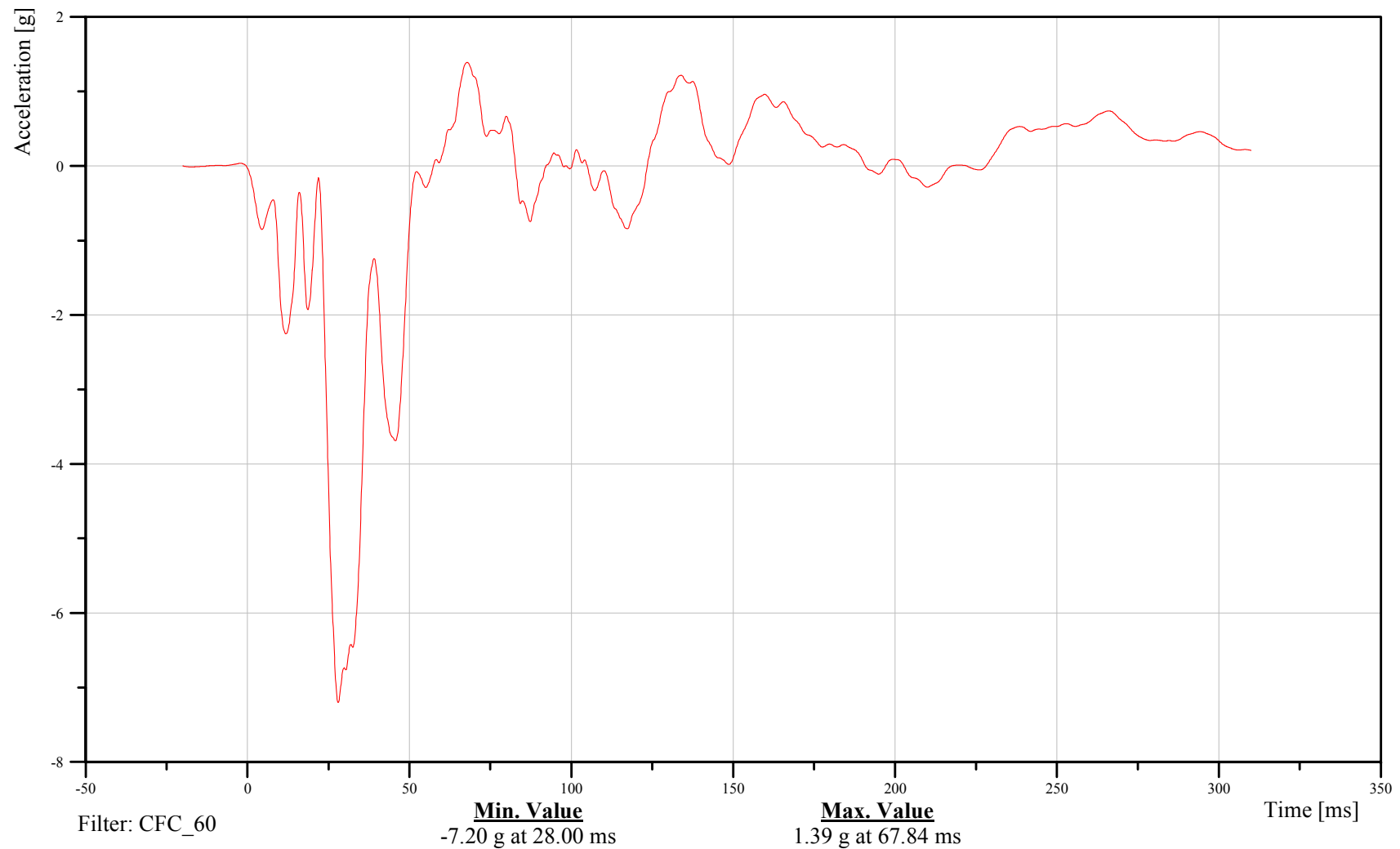
Date: 07/25/2005
Time: 13:48

Customer: VRTC

18FORA000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Rear Floorpan Above Axle Y-Axis Acceleration

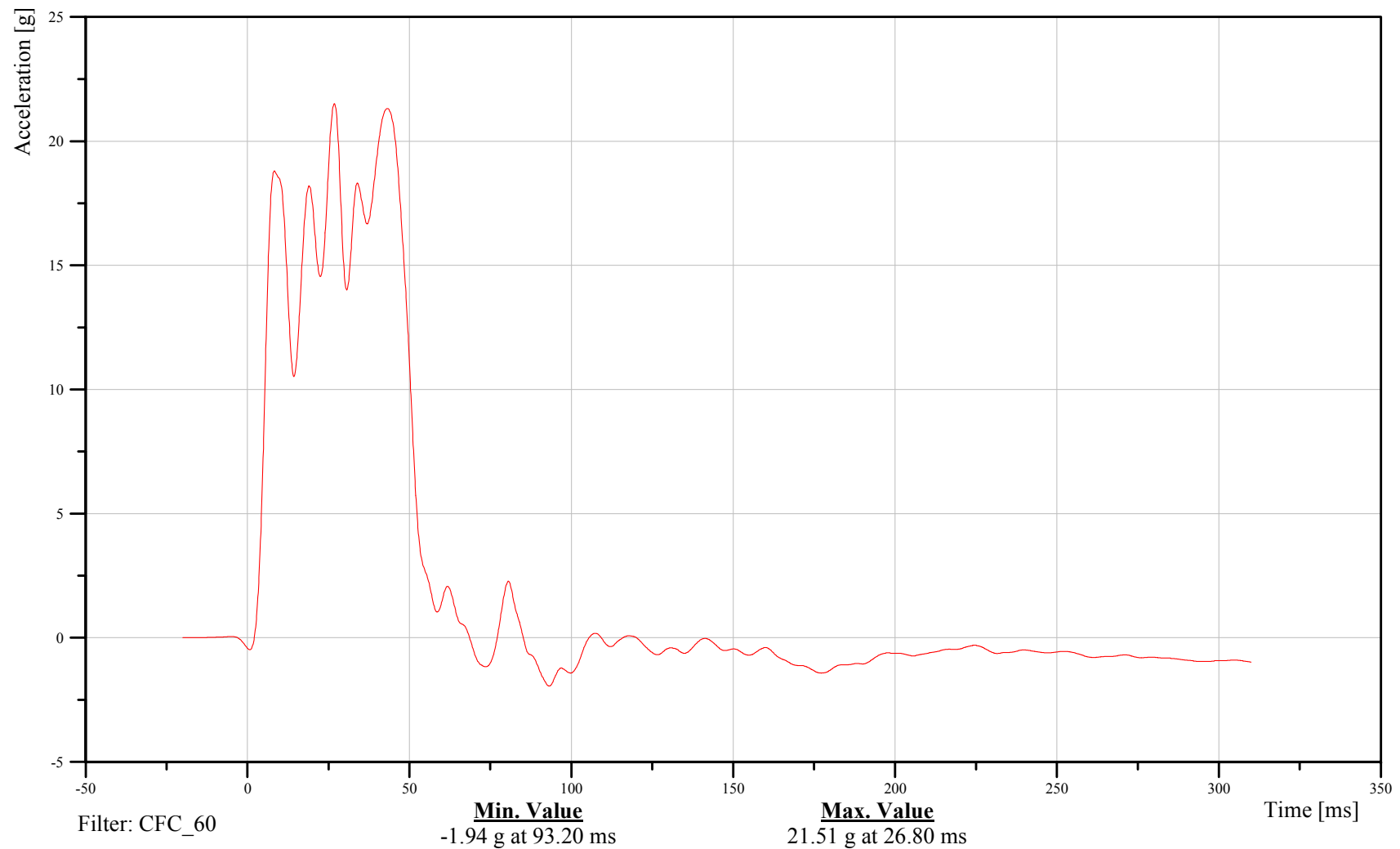
Date: 07/25/2005
Time: 13:48

Customer: VRTC

18FORA000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Rear Floorpan Above Axle Z-Axis Acceleration

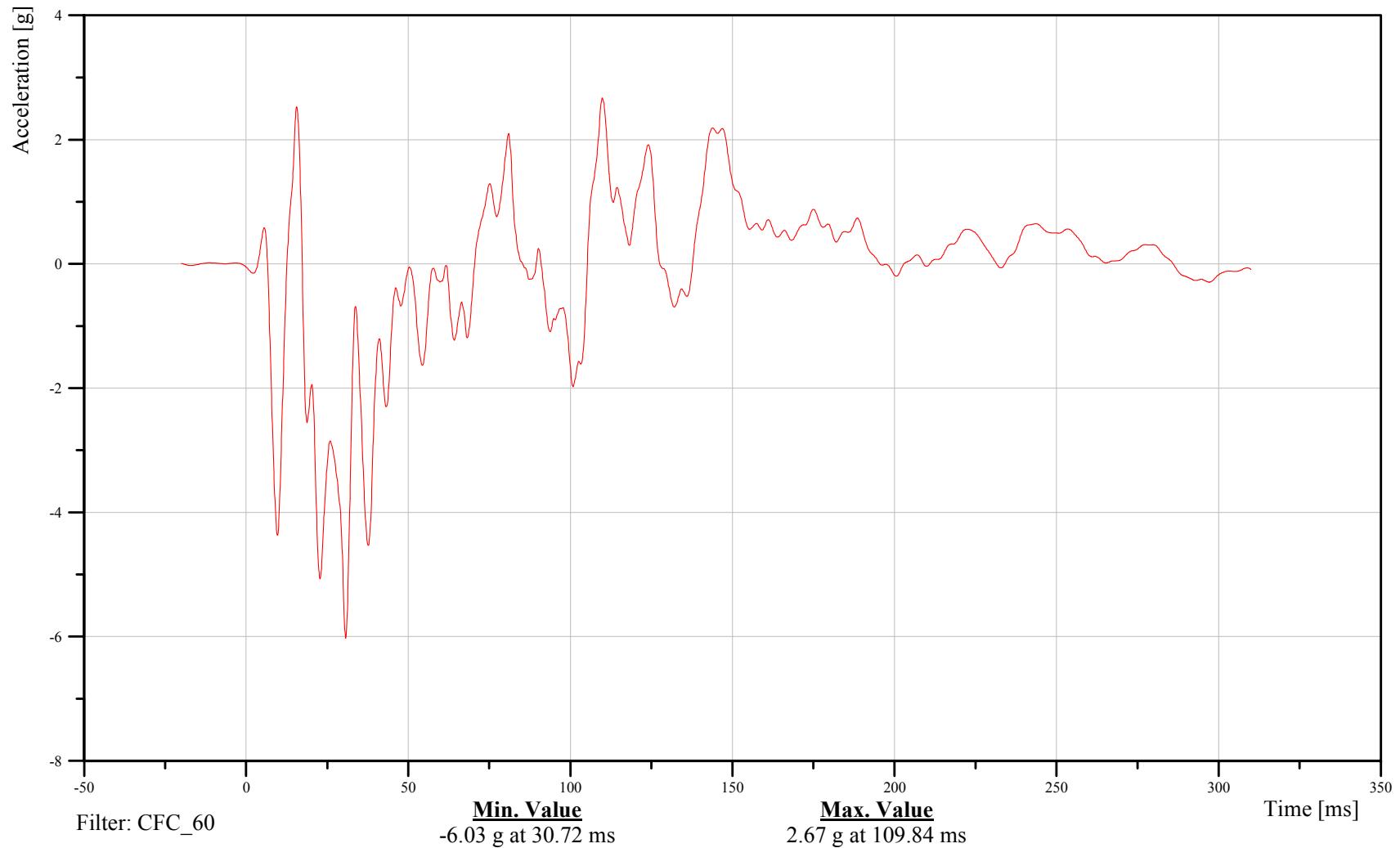
Date: 07/25/2005
Time: 13:48

Customer: VRTC

18FORA000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

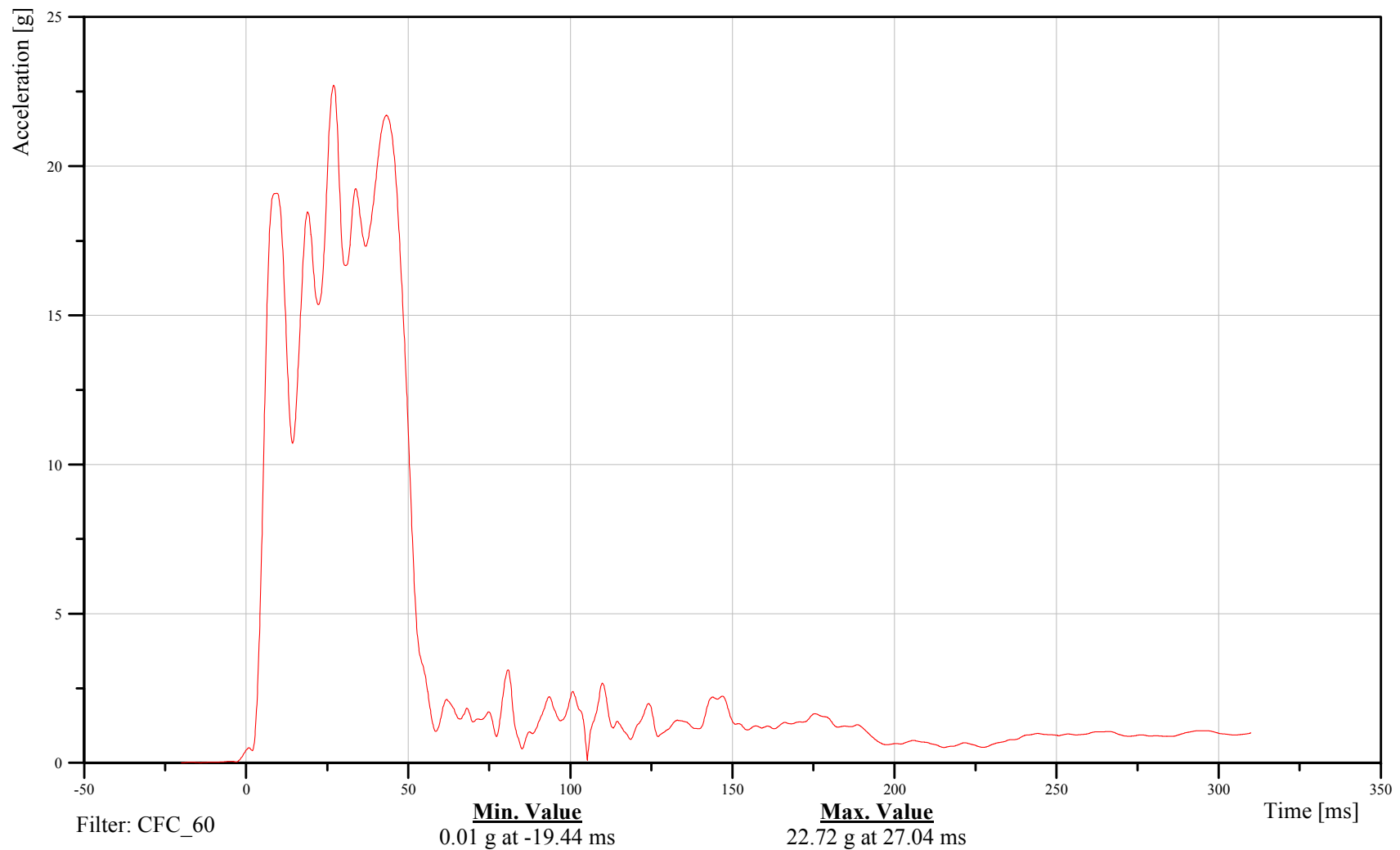
Rear Floorpan Above Axle Resultant Acceleration

Customer: VRTC

18FORA000000ACRD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

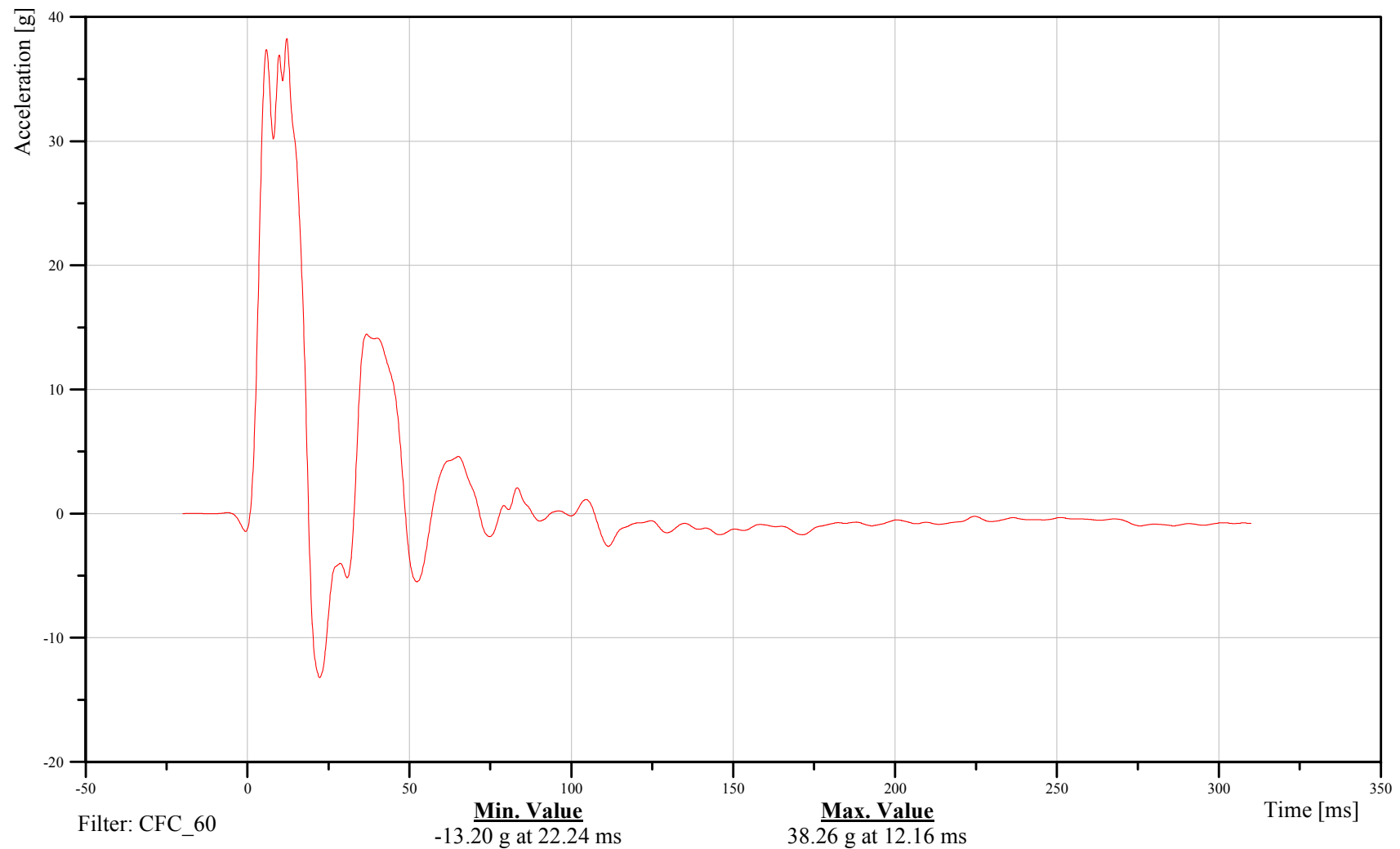
Left Side Sill at Rear Seat Y-Axis Acceleration

Customer: VRTC

14SILBRE0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Side Sill at Front Seat Y-Axis Acceleration

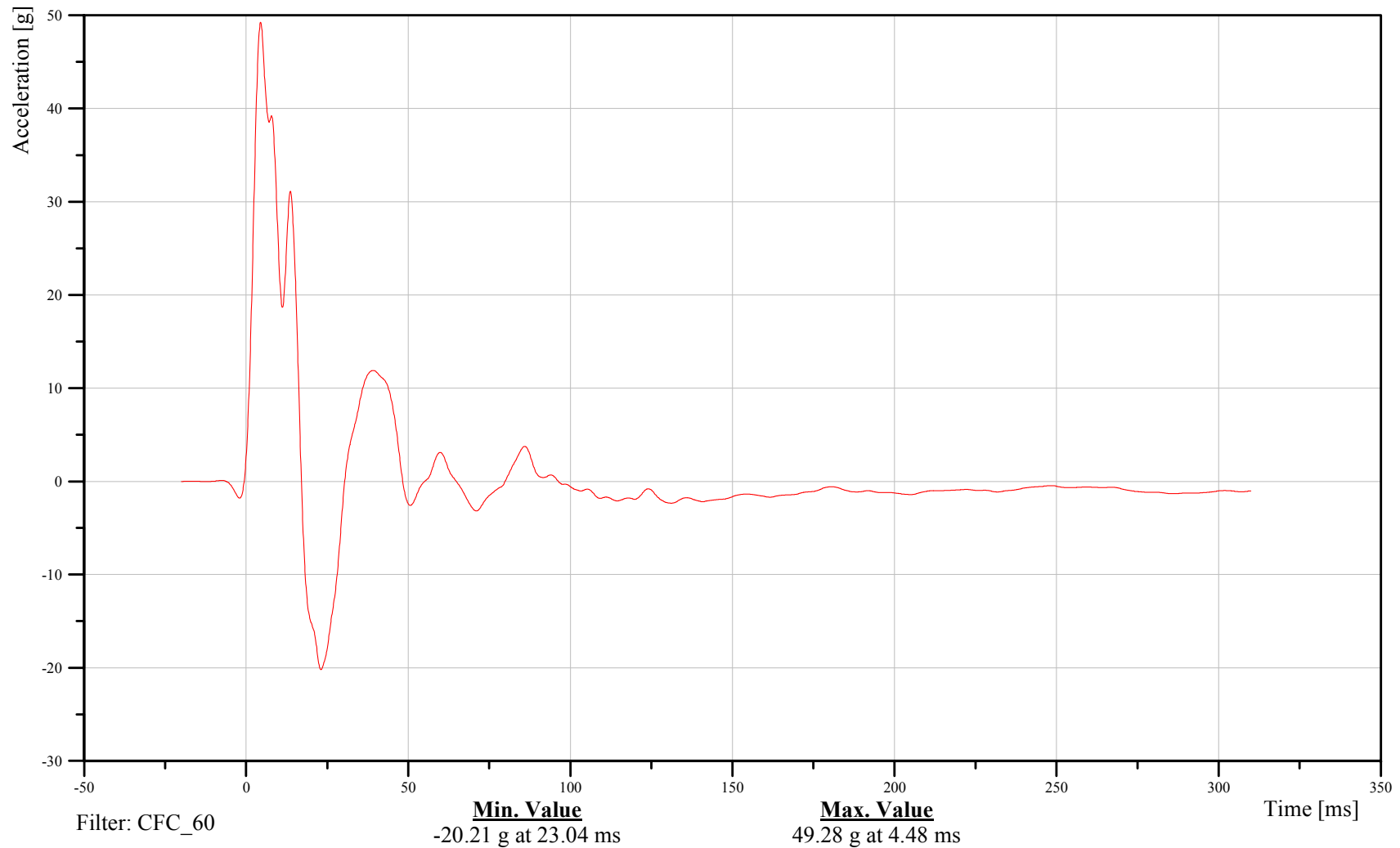
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14SILBFR0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

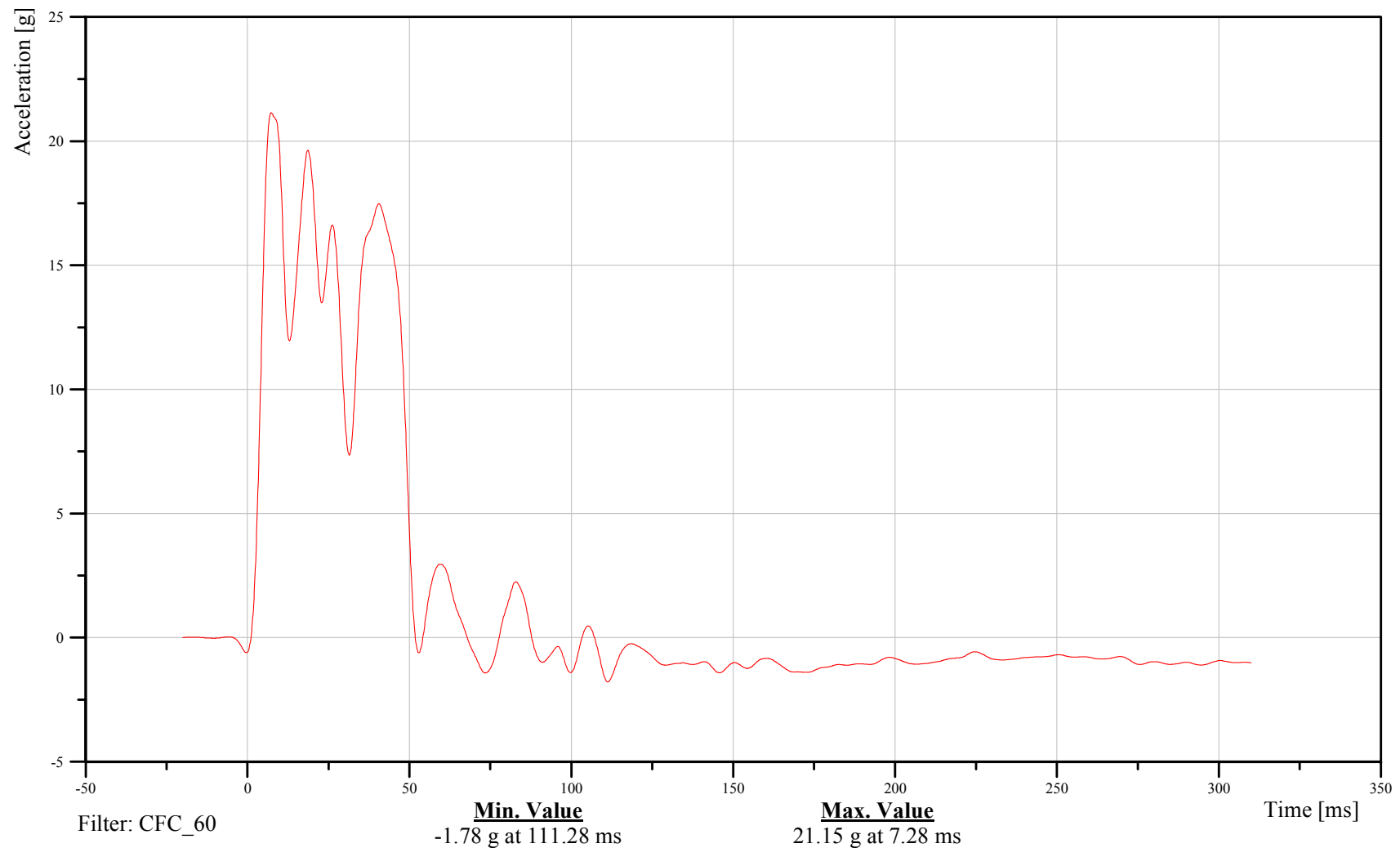
Right Rear Occupant Compartment Y-Axis Accel

Customer: VRTC

16VEHCRE0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Lower B-Post Y-Axis Accel

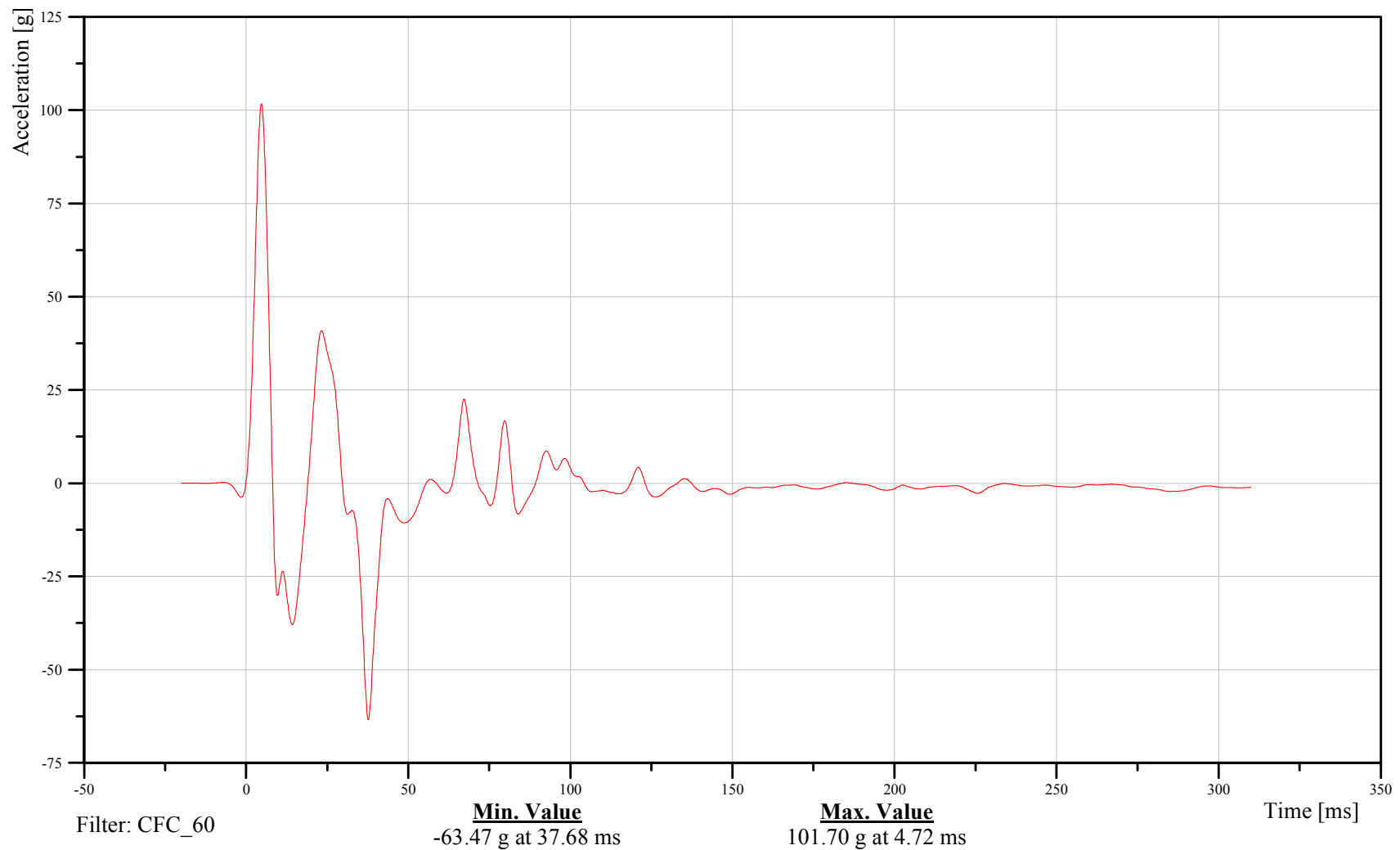
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14BPILLO0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Middle B-Post Y-Axis Accel

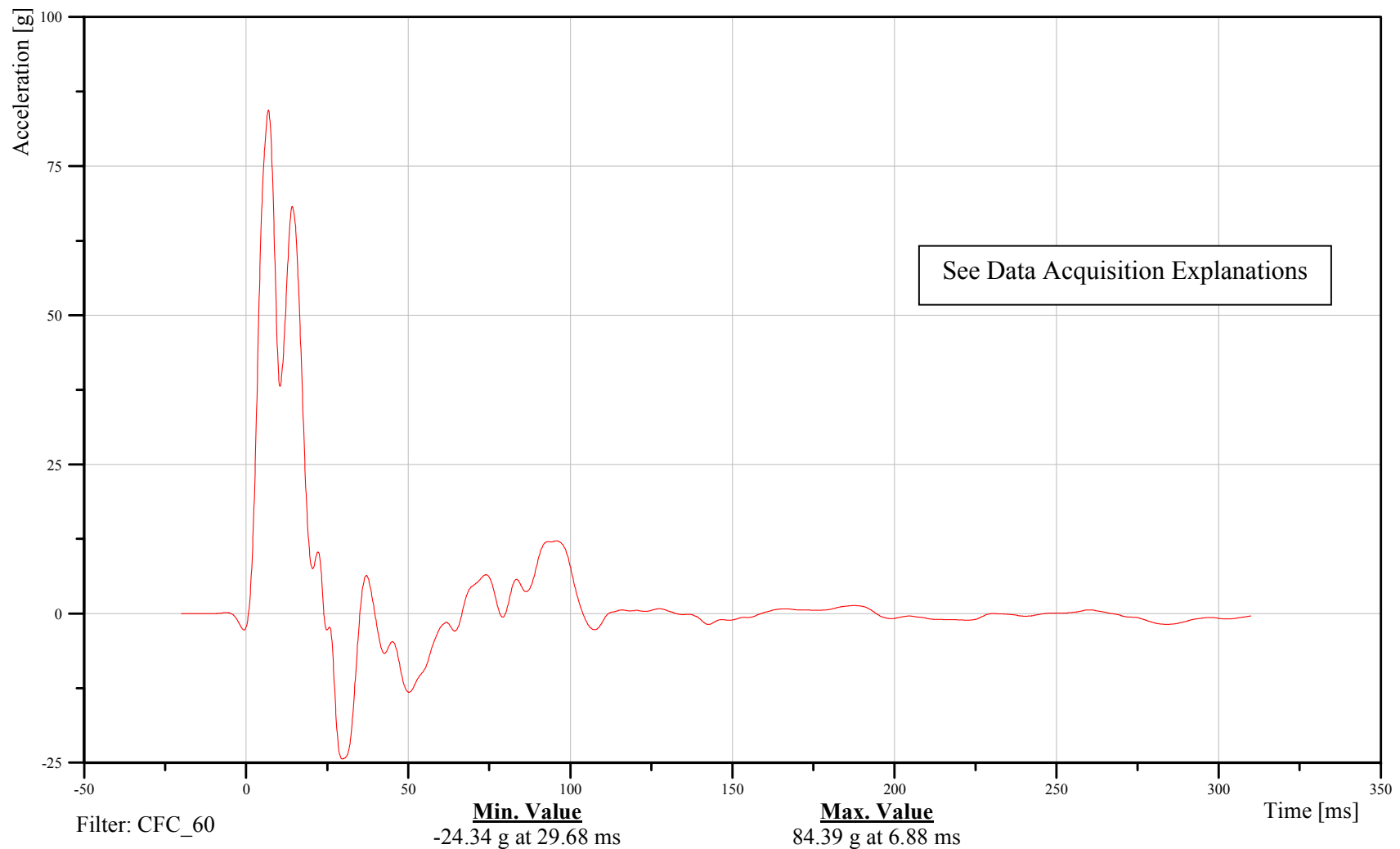
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14BPILMI0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

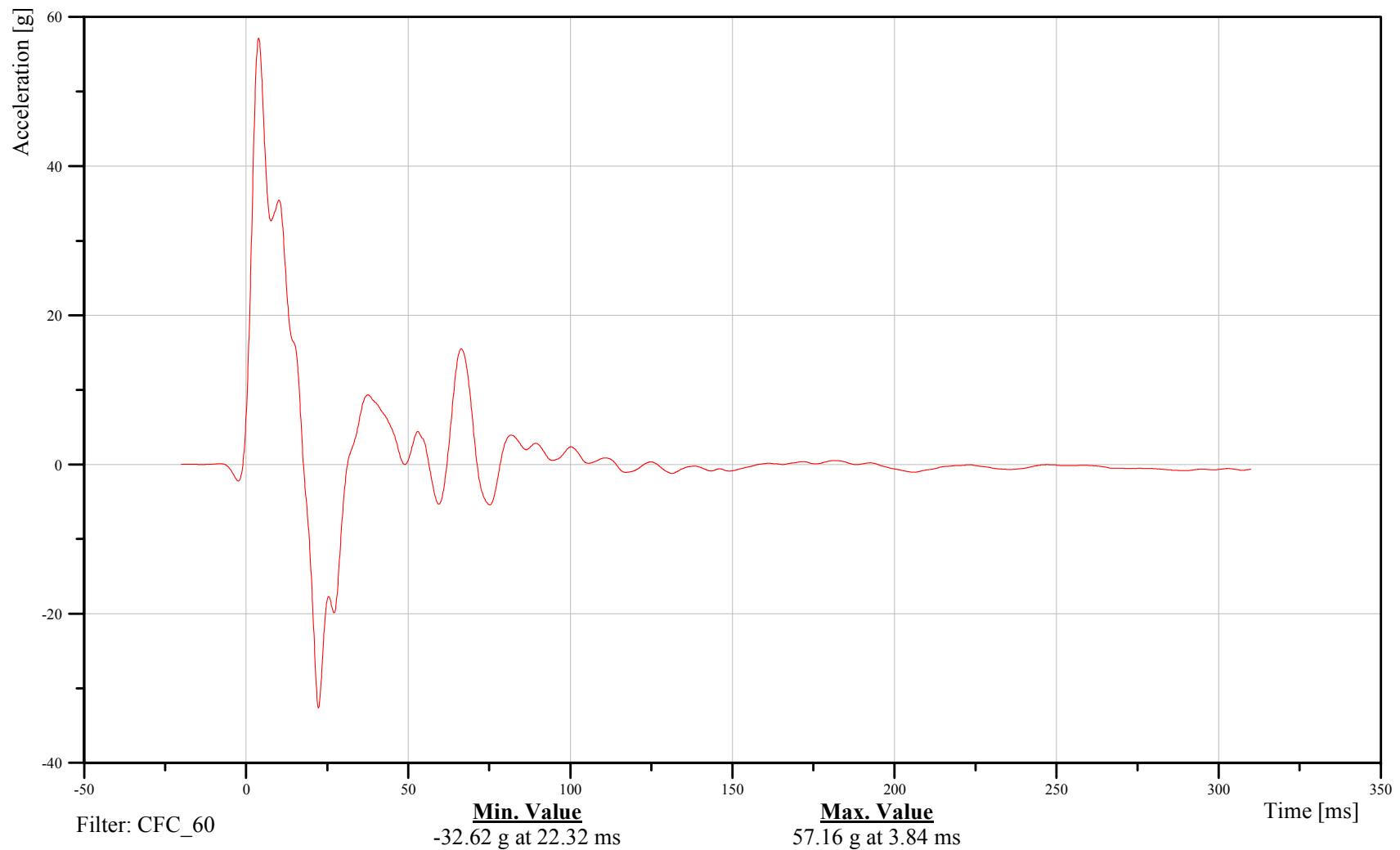
Left Lower A-Post Y-Axis Accel

Customer: VRTC

11APILO0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Middle A-Post Y-Axis Accel

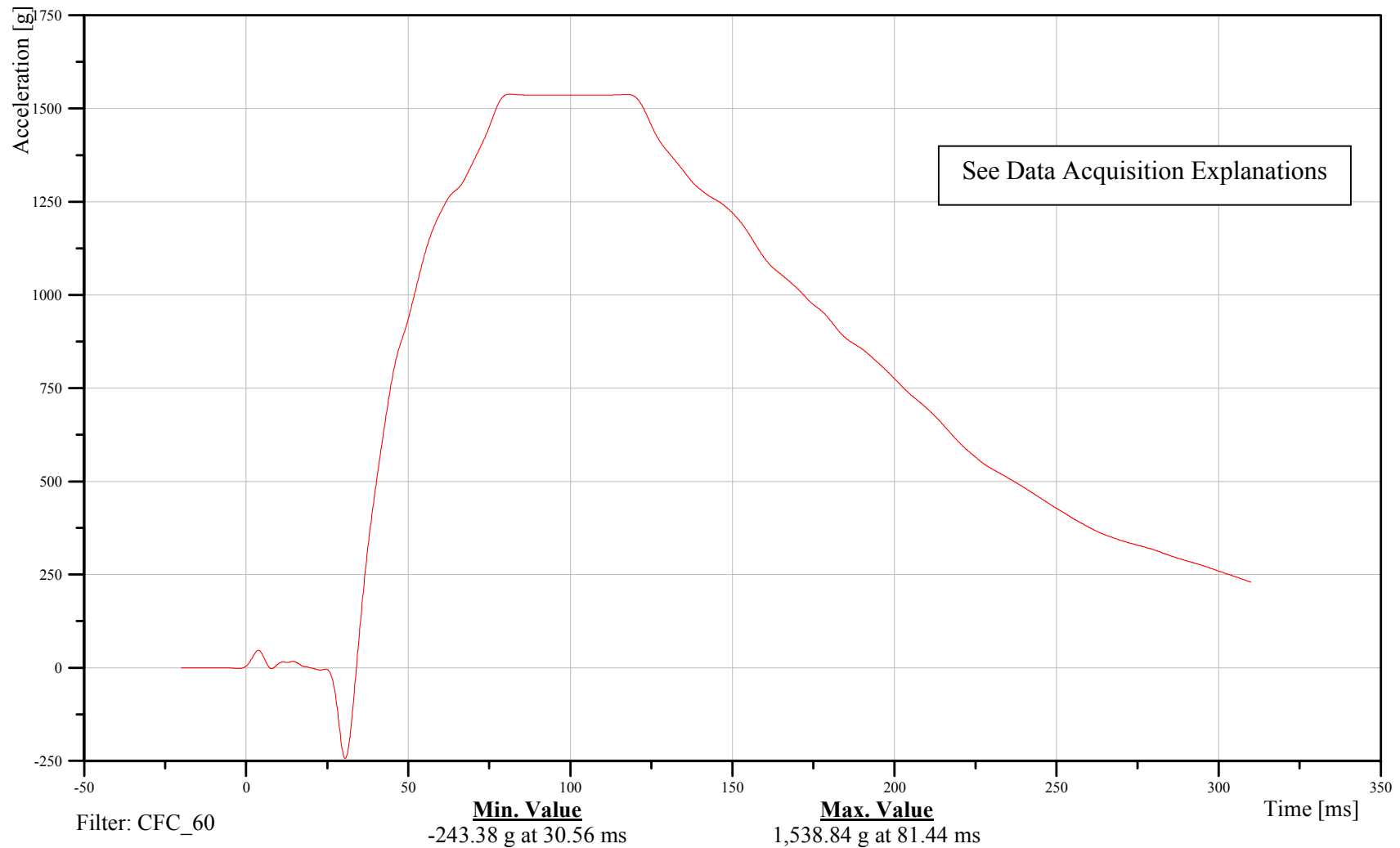
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11APILMI0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

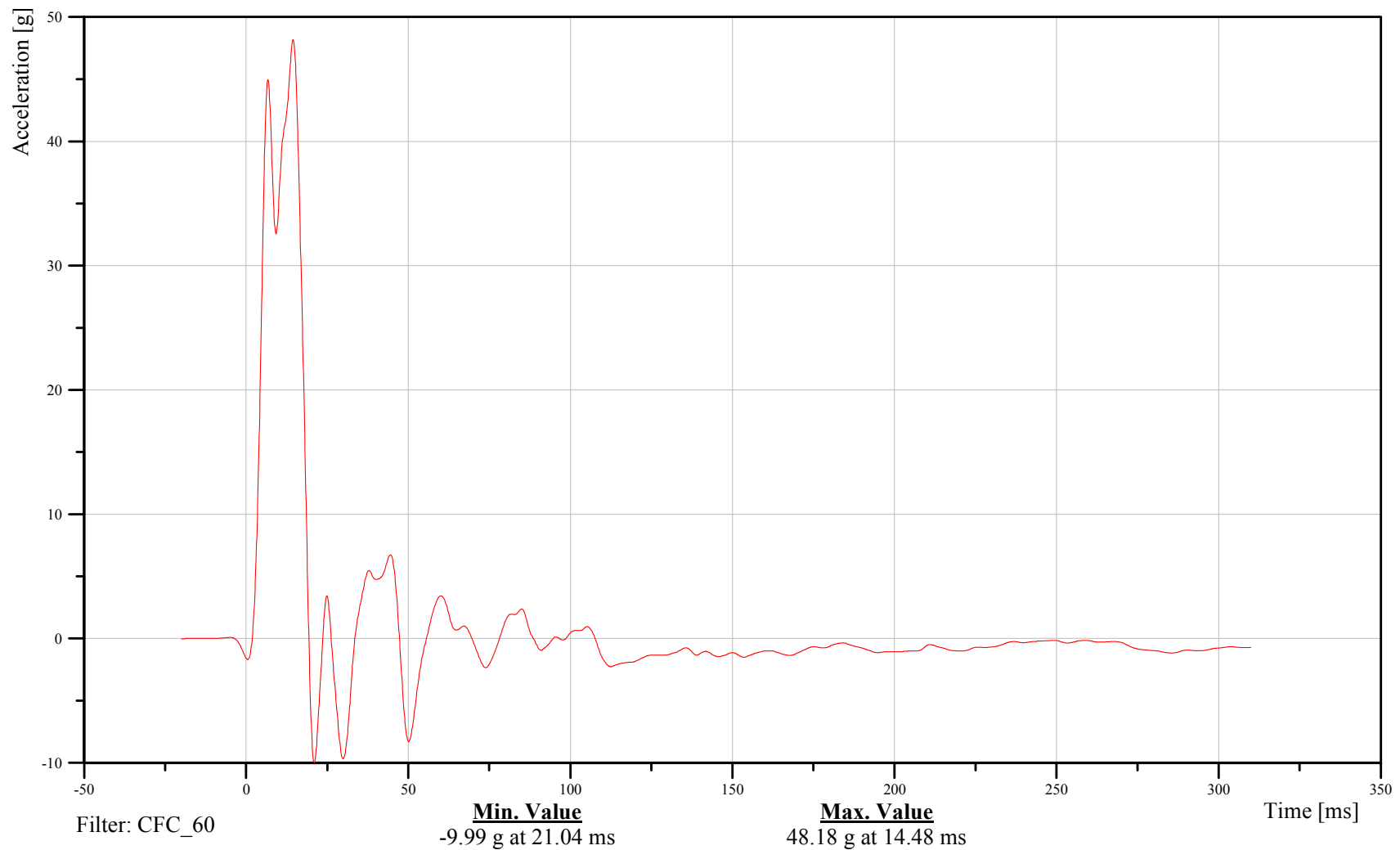
Left Front Seat Track Y-Axis Acceleration

Customer: VRTC

11SETRFR0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Rear Seat Track Y-Axis Acceleration

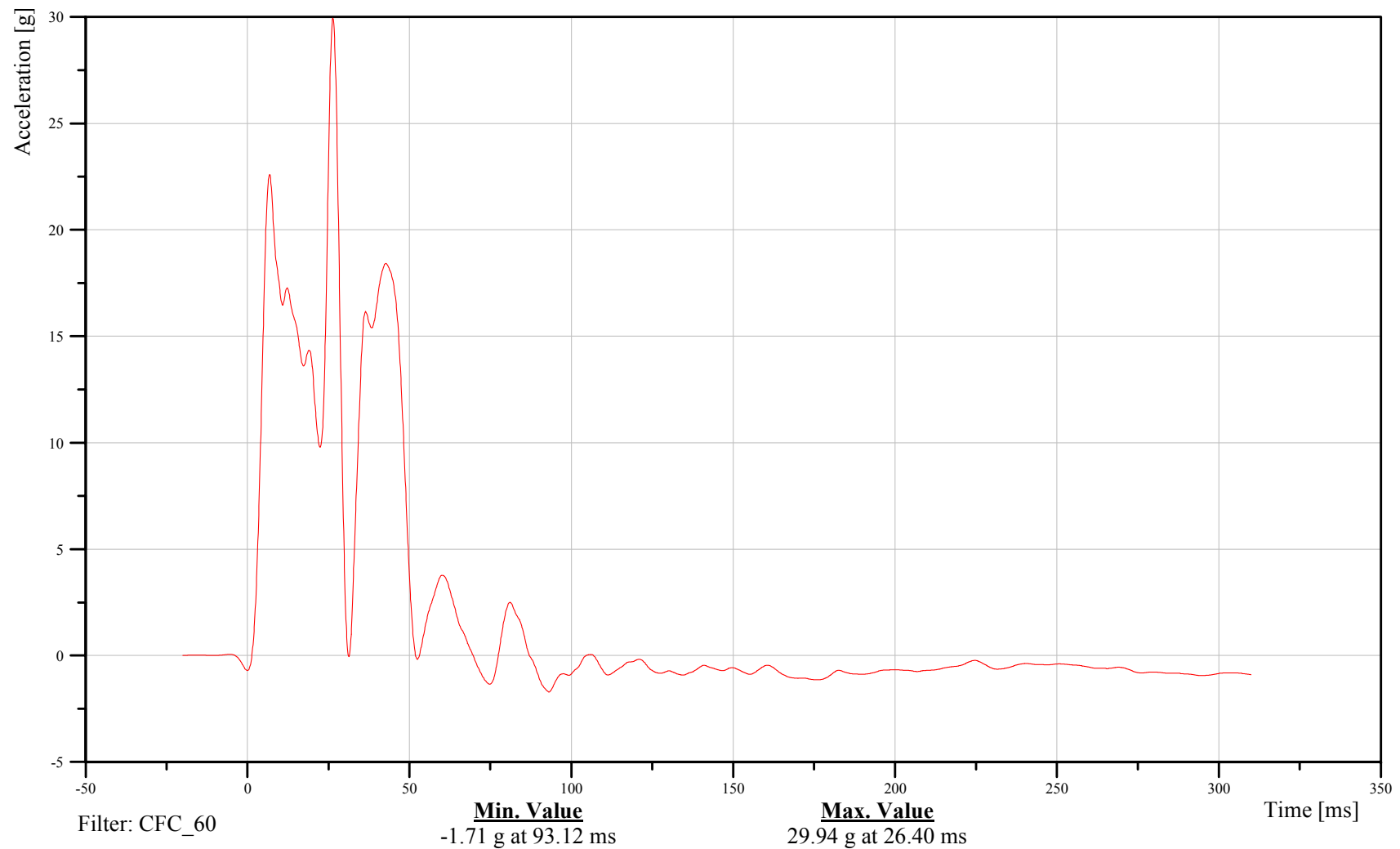
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14SETRLERE00ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Vehicle Center of Gravity X-Axis Acceleration

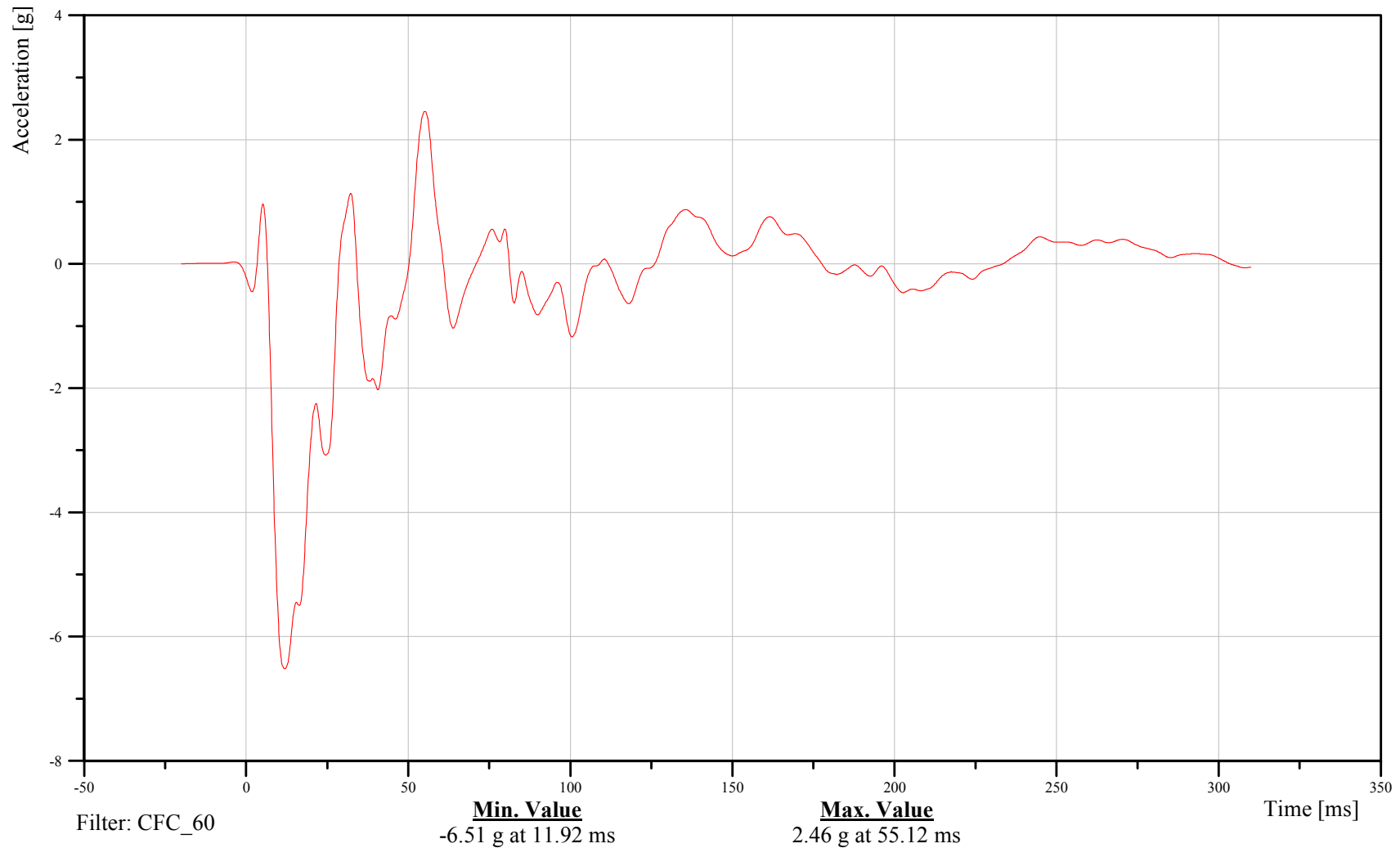
Date: 07/25/2005
Time: 13:48

Customer: VRTC

10VEHCCG0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Vehicle Center of Gravity Y-Axis Acceleration

Date: 07/25/2005

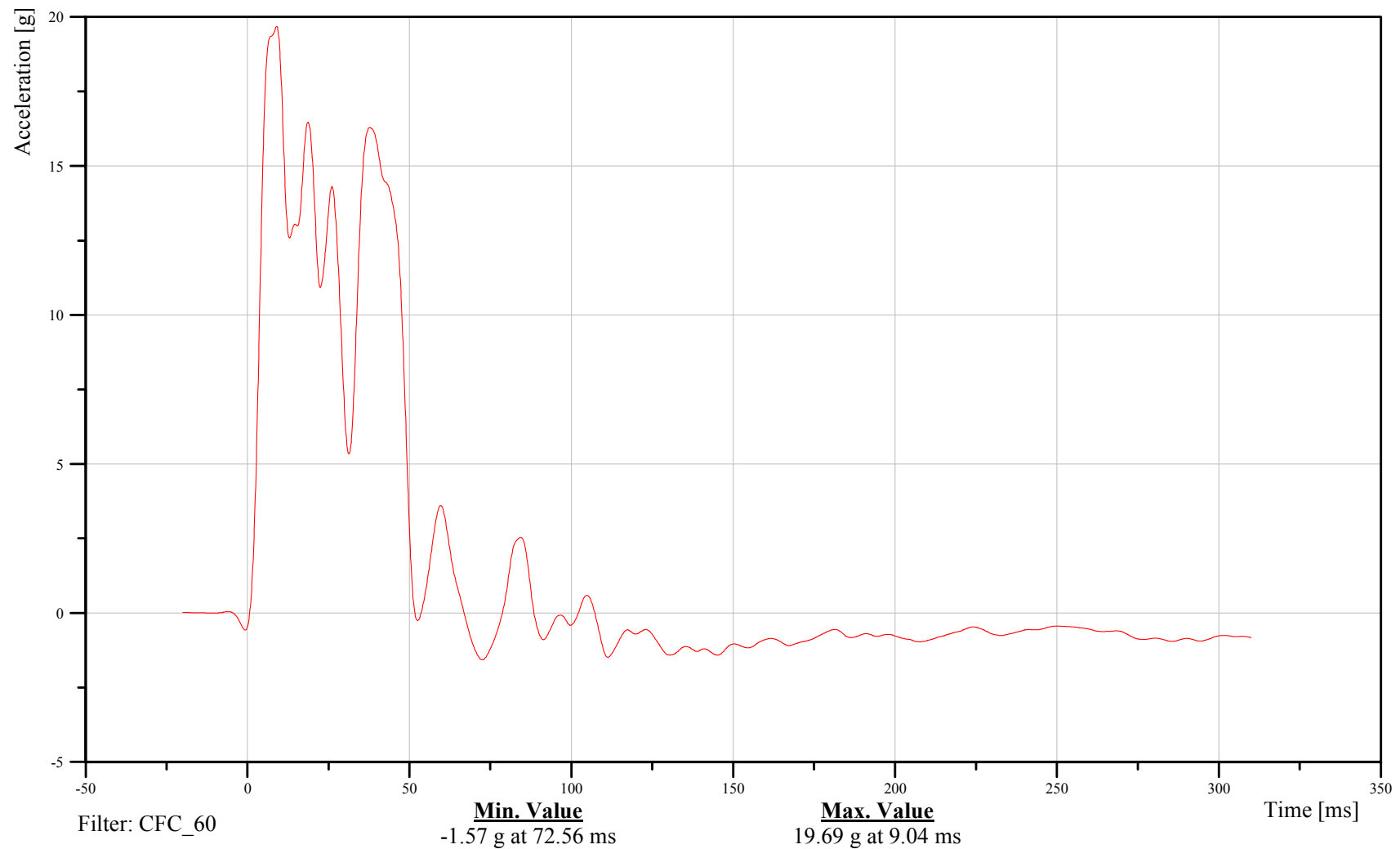
Time: 13:48

Customer: VRTC

10VEHCCG0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Vehicle Center of Gravity Z-Axis Acceleration

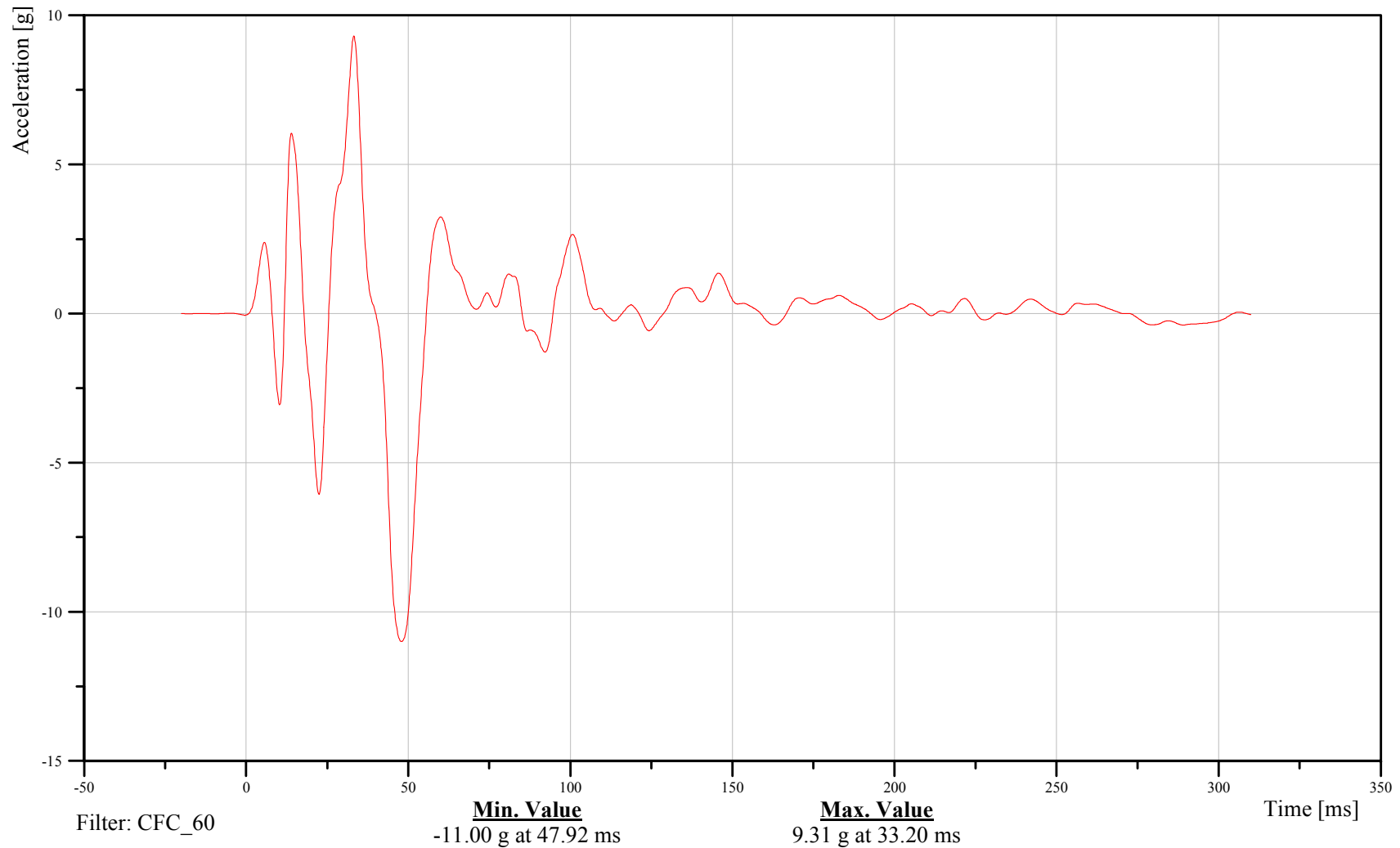
Date: 07/25/2005
Time: 13:48

Customer: VRTC

10VEHCCG0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

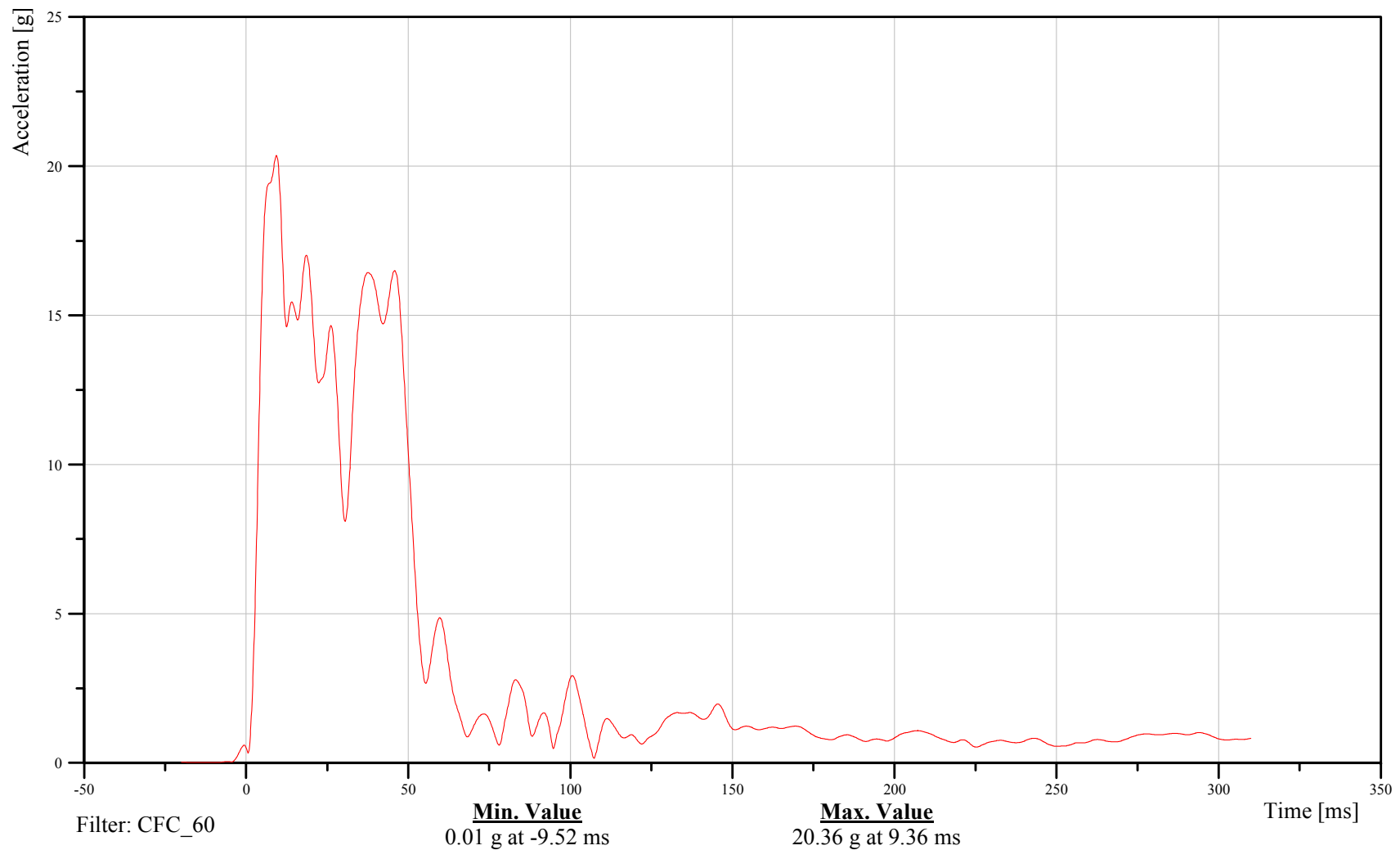
Vehicle Center of Gravity Resultant Acceleration

Customer: VRTC

10VEHCCG0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

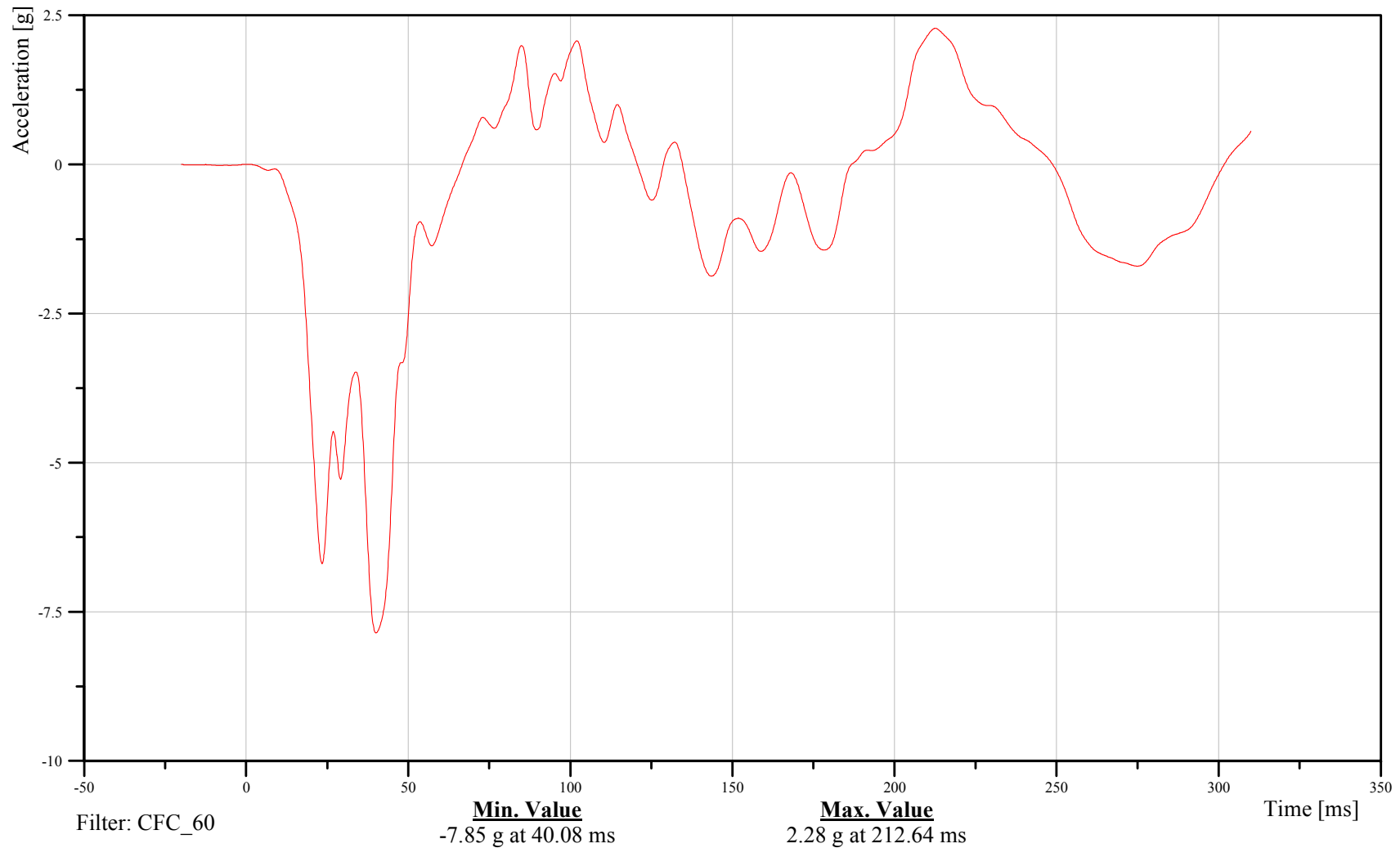
Top of Engine X-Axis Acceleration

Customer: VRTC

12ENGN000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

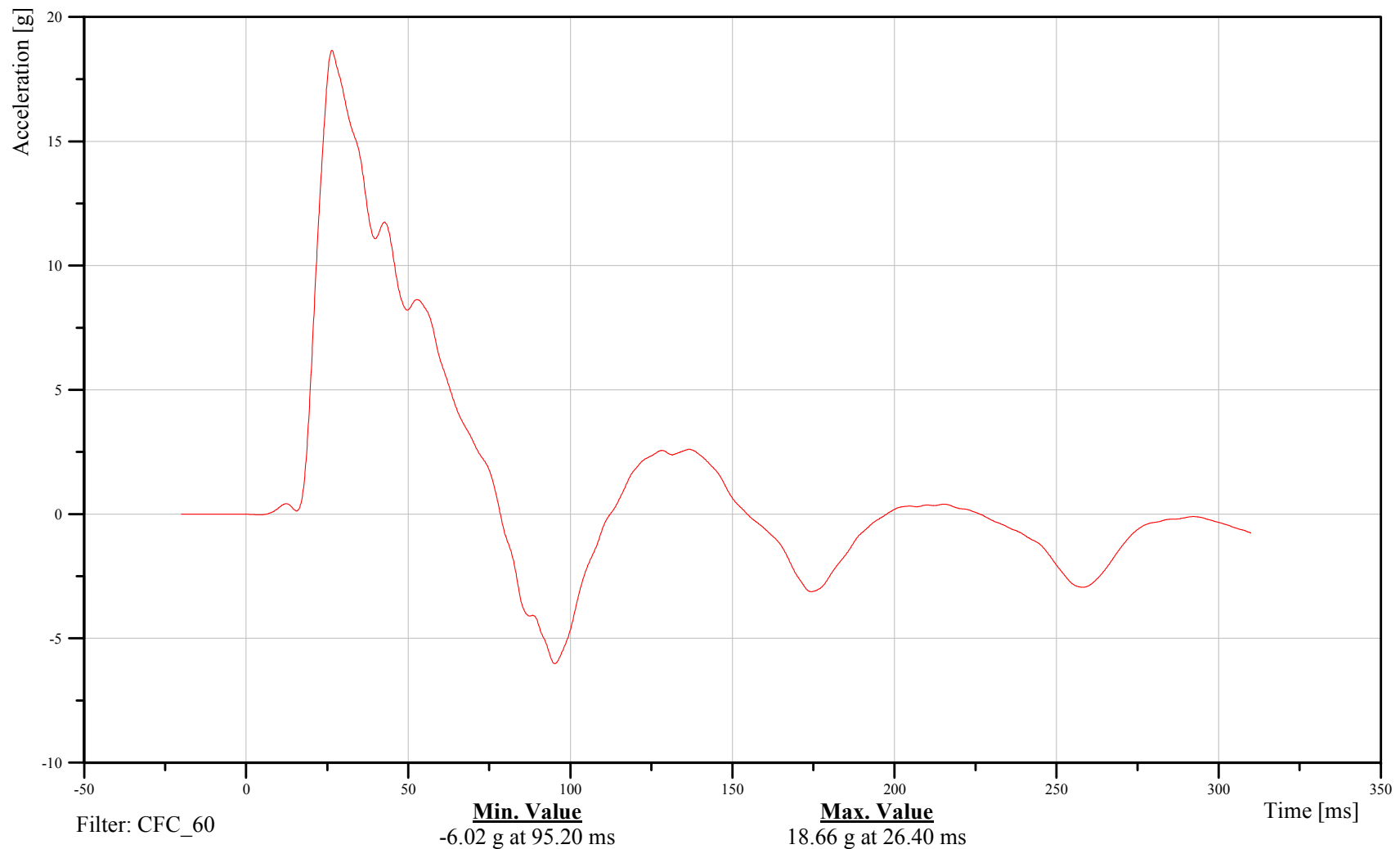
Top of Engine Y-Axis Acceleration

Customer: VRTC

12ENG000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Firewall X-Axis Acceleration

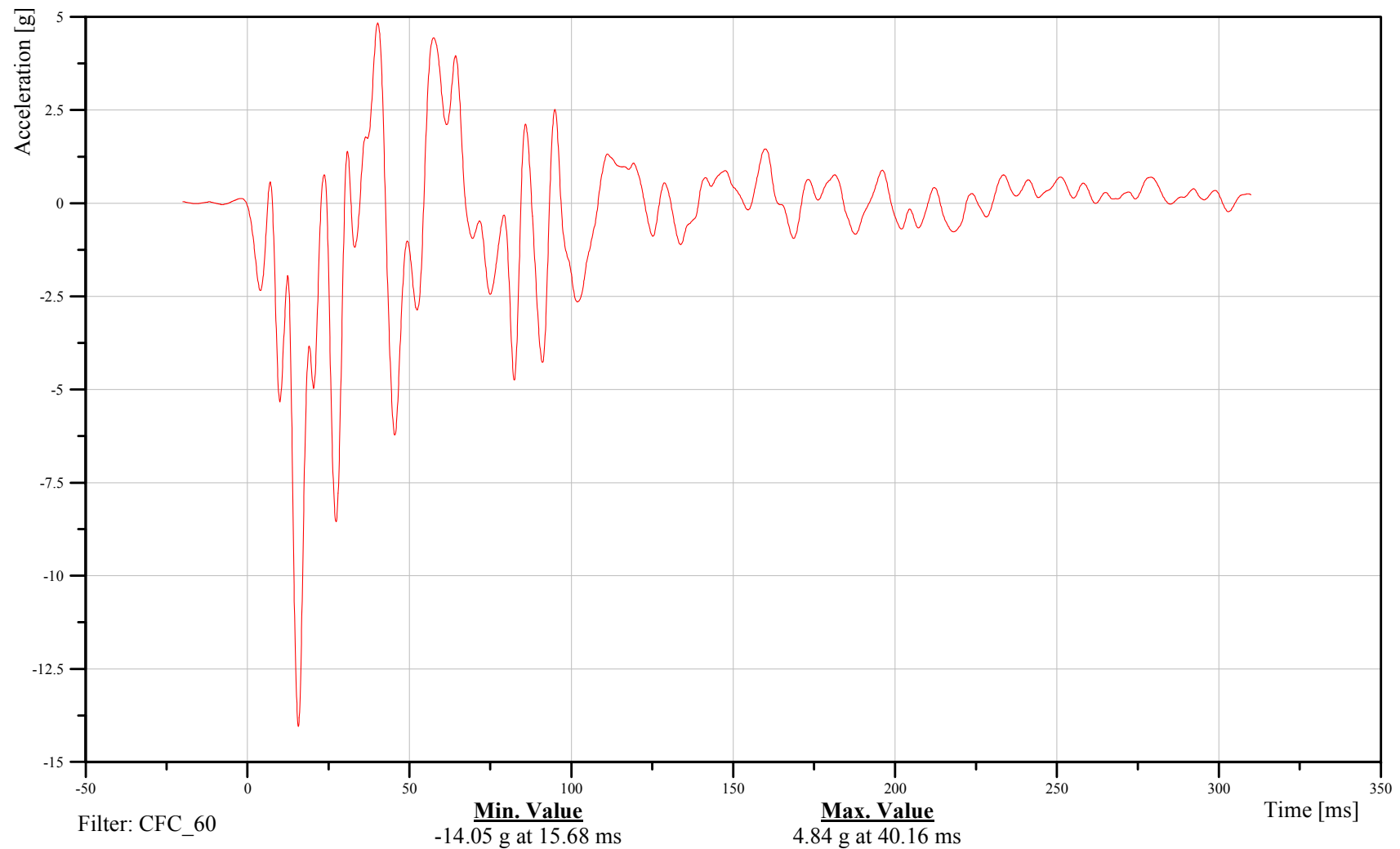
Date: 07/25/2005
Time: 13:48

Customer: VRTC

12VEHC000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Firewall Y-Axis Acceleration

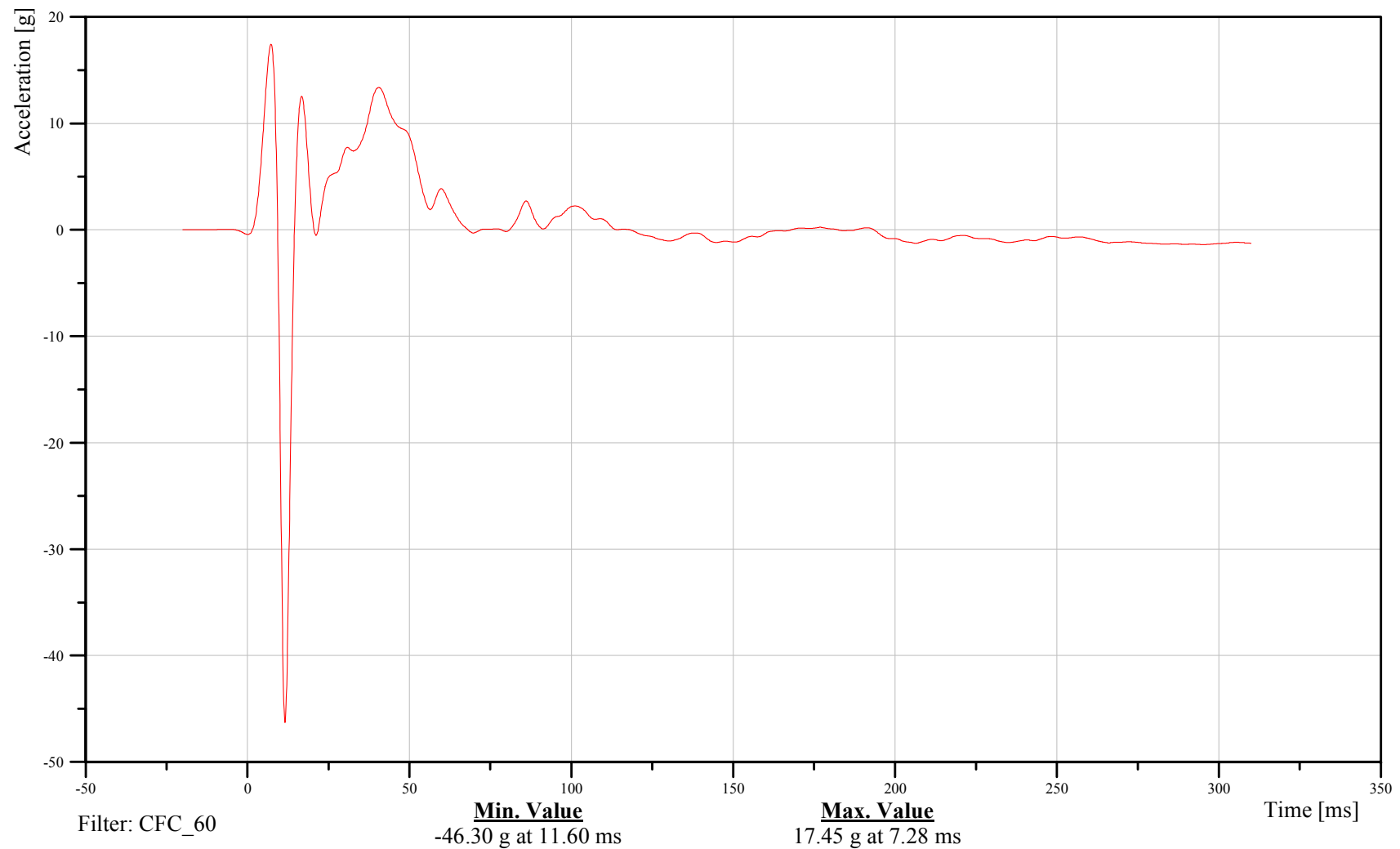
Date: 07/25/2005
Time: 13:48

Customer: VRTC

12VEHC000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

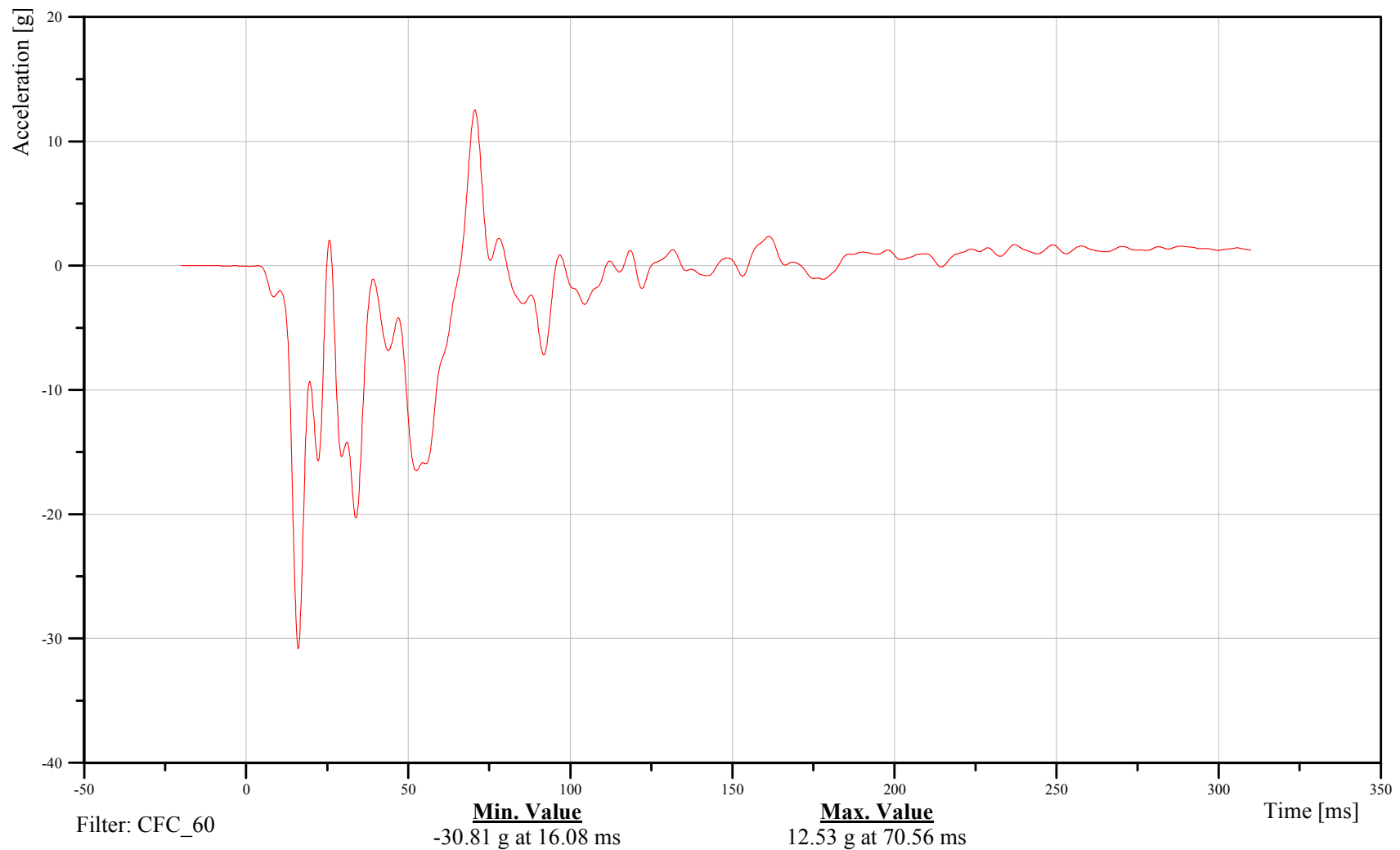
Right Roof Rail X-Axis Acceleration

Customer: VRTC

13ROFR000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

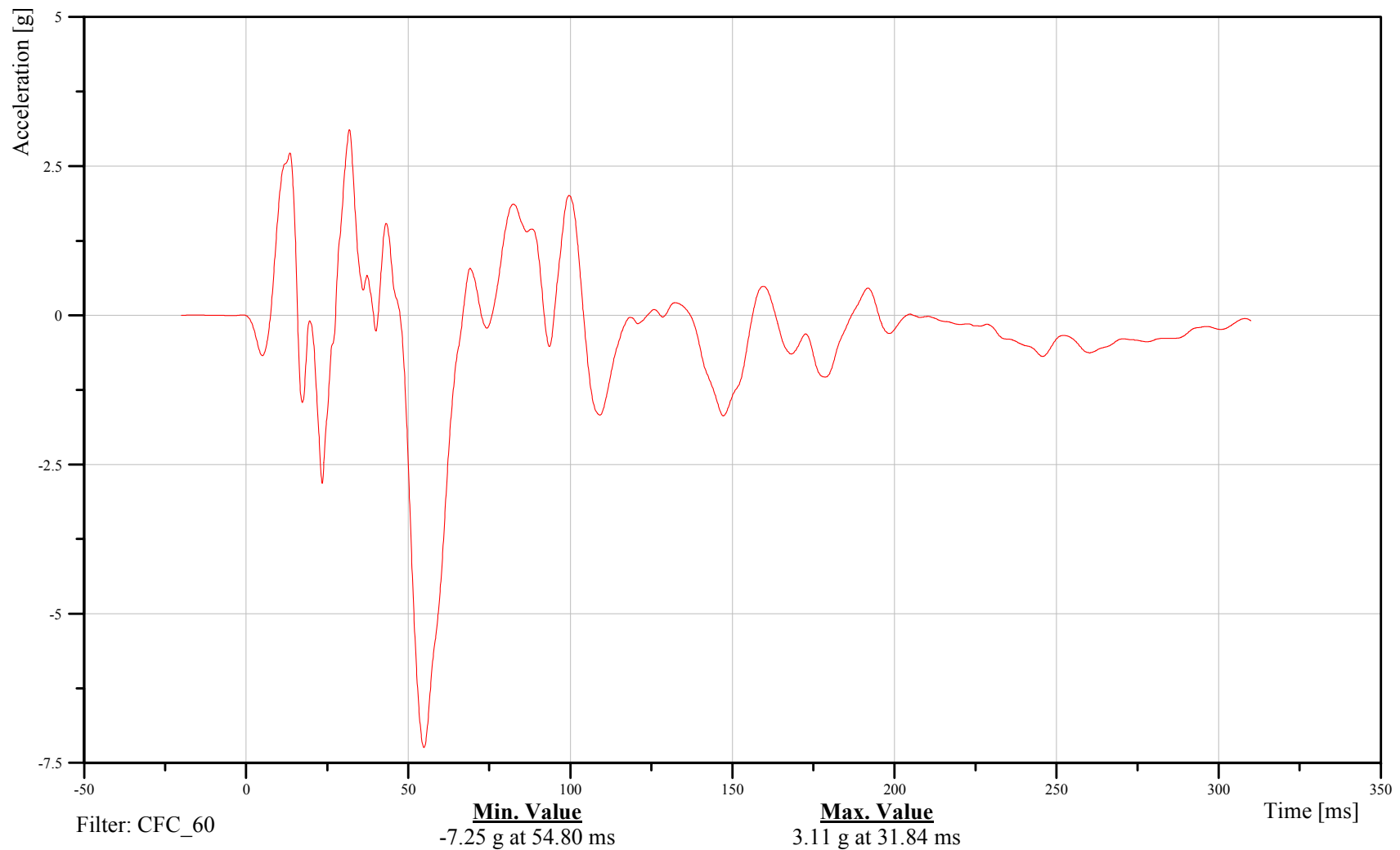
Right Roof Rail Y-Axis Acceleration

Customer: VRTC

13ROFR000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Front Door Centerline Y-Axis Acceleration

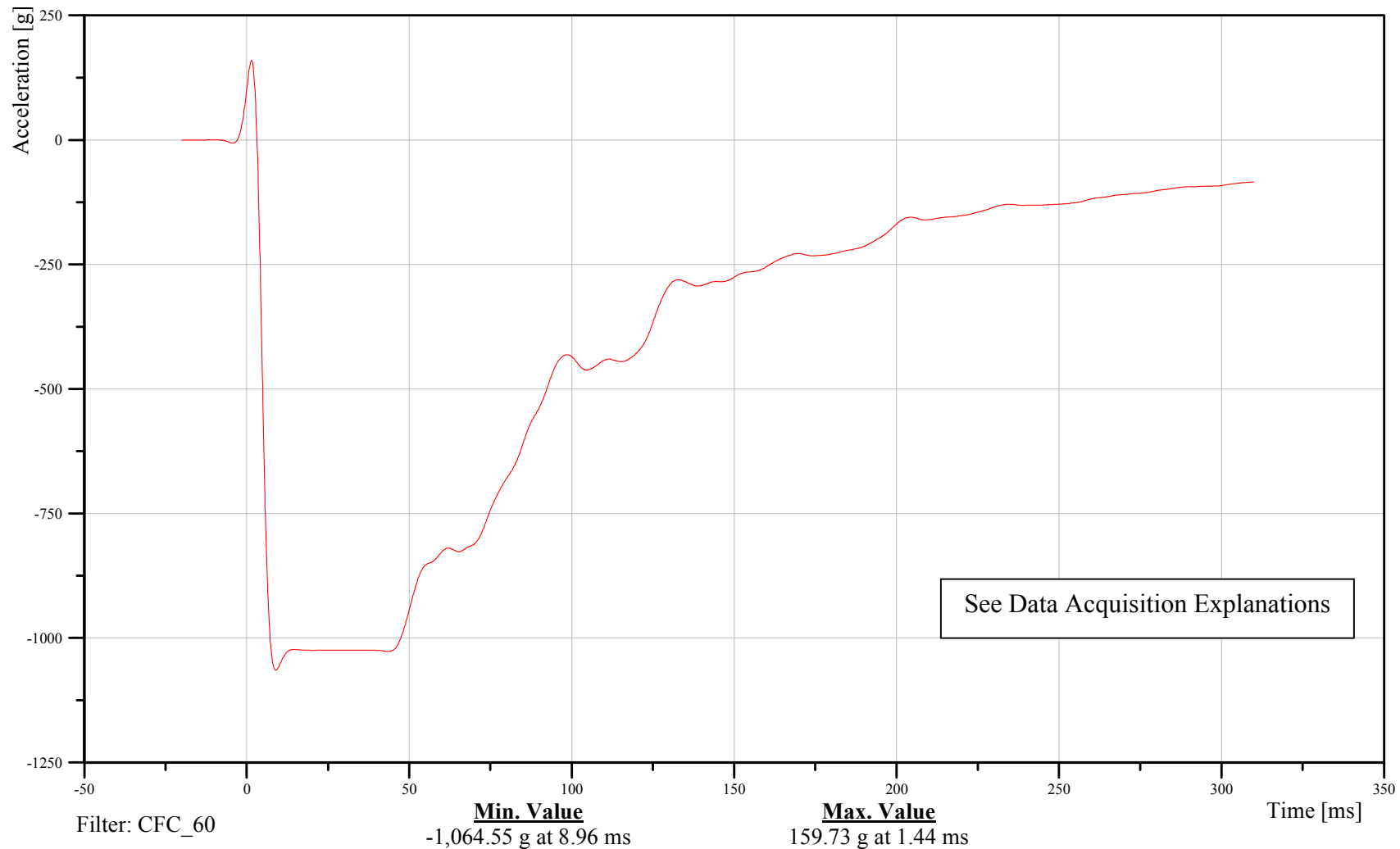
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11DOOR000001ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Front Door Mid-Rear Y-Axis Acceleration

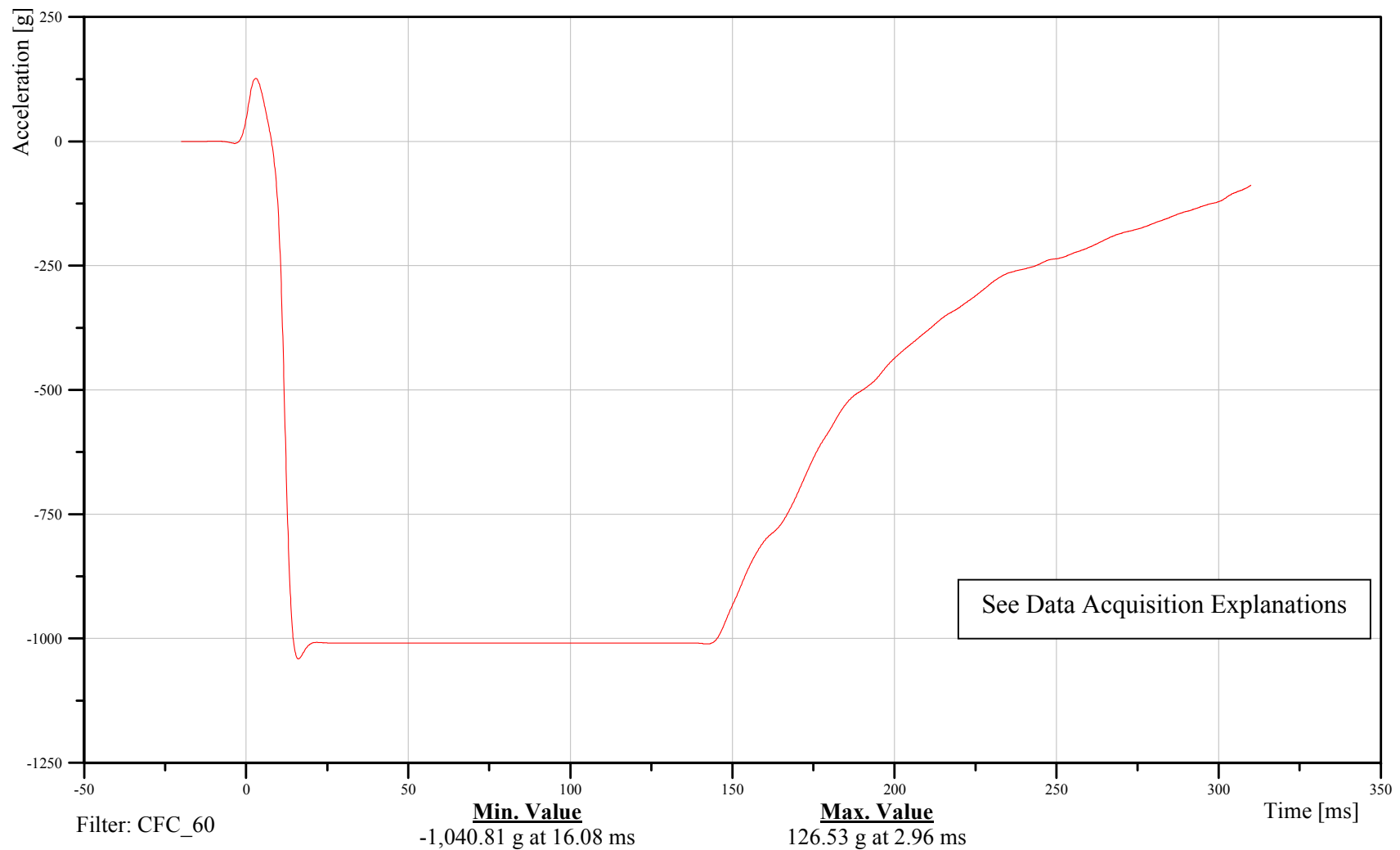
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11DOOR000002ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Left Front Door Upper Centerline Y-Axis Acceleration

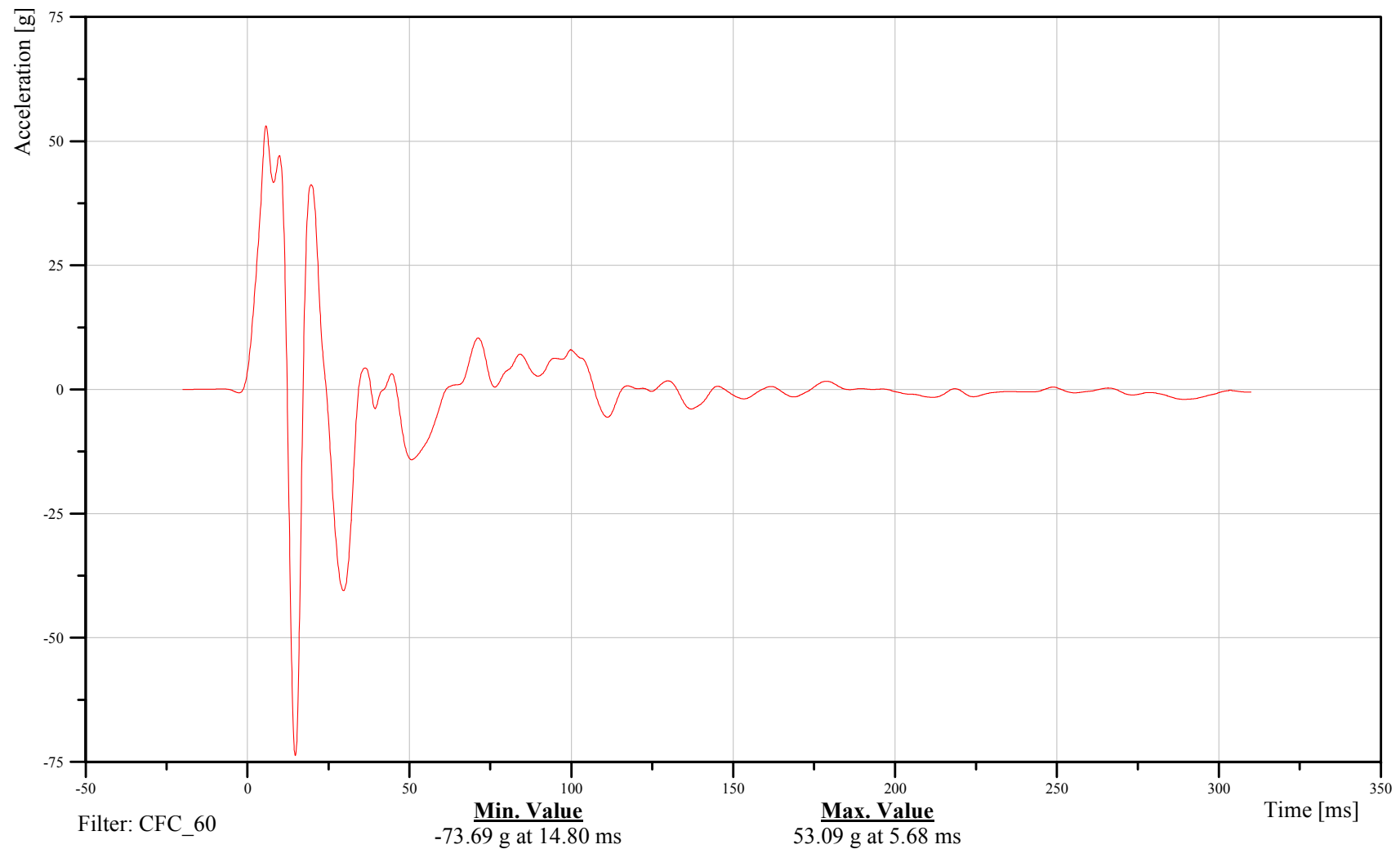
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11DOOR000003ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

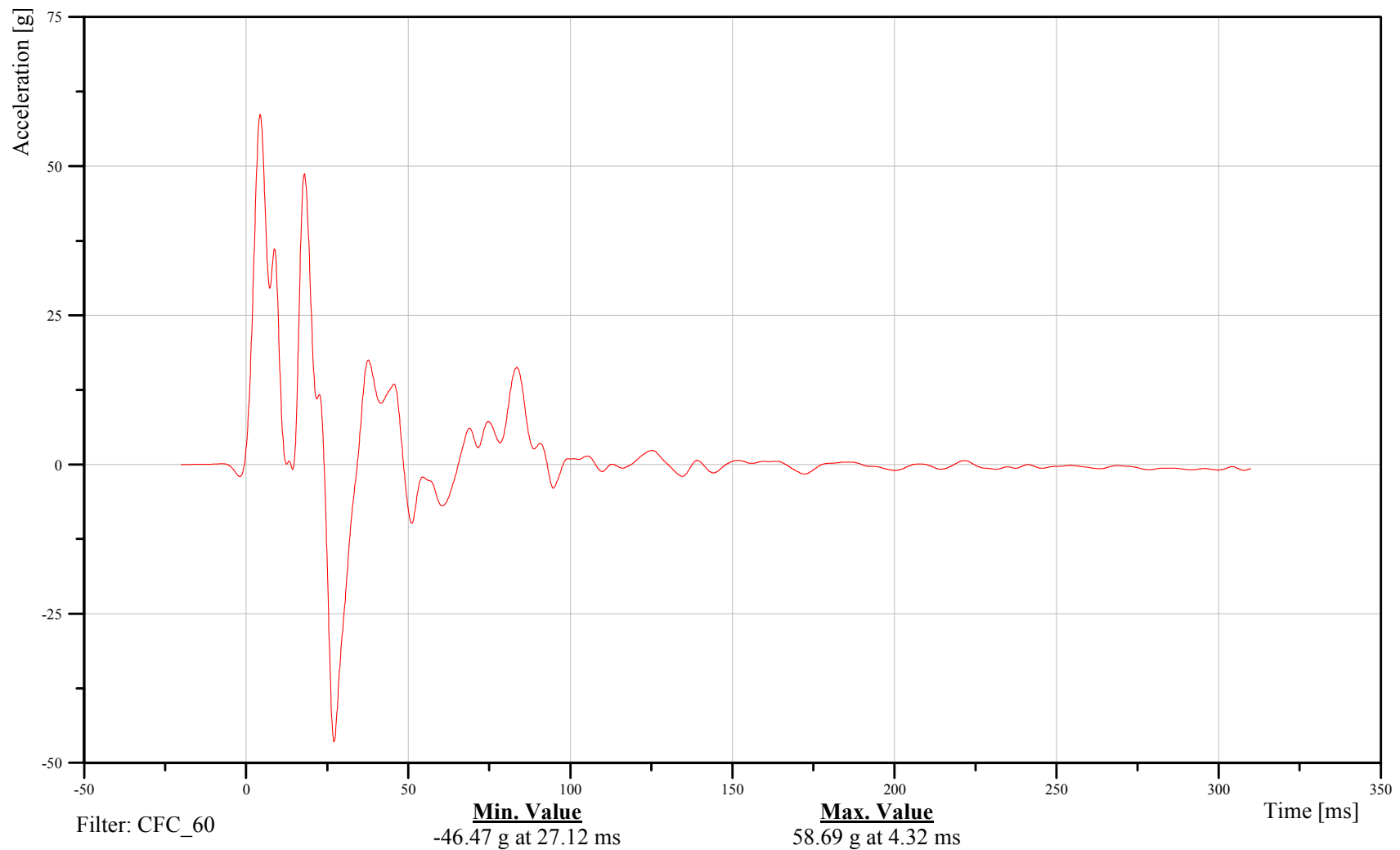
Left Rear Door Mid-Rear Y-Axis Acceleration

Customer: VRTC

14DOOR000001ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

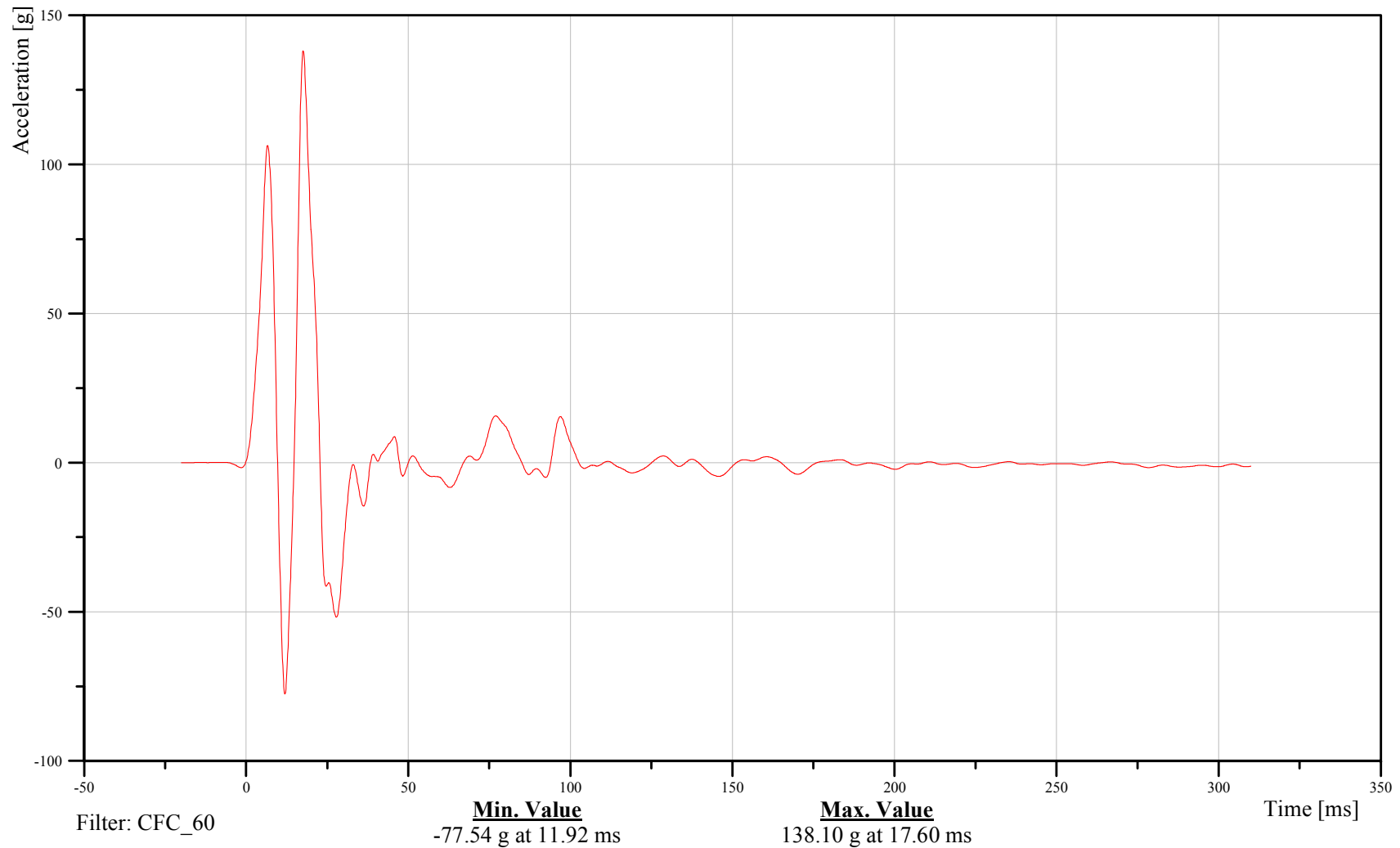
Left Rear Door Upper Centerline Y-Axis Acceleration

Customer: VRTC

14DOOR000002ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Side Torso Airbag Fire

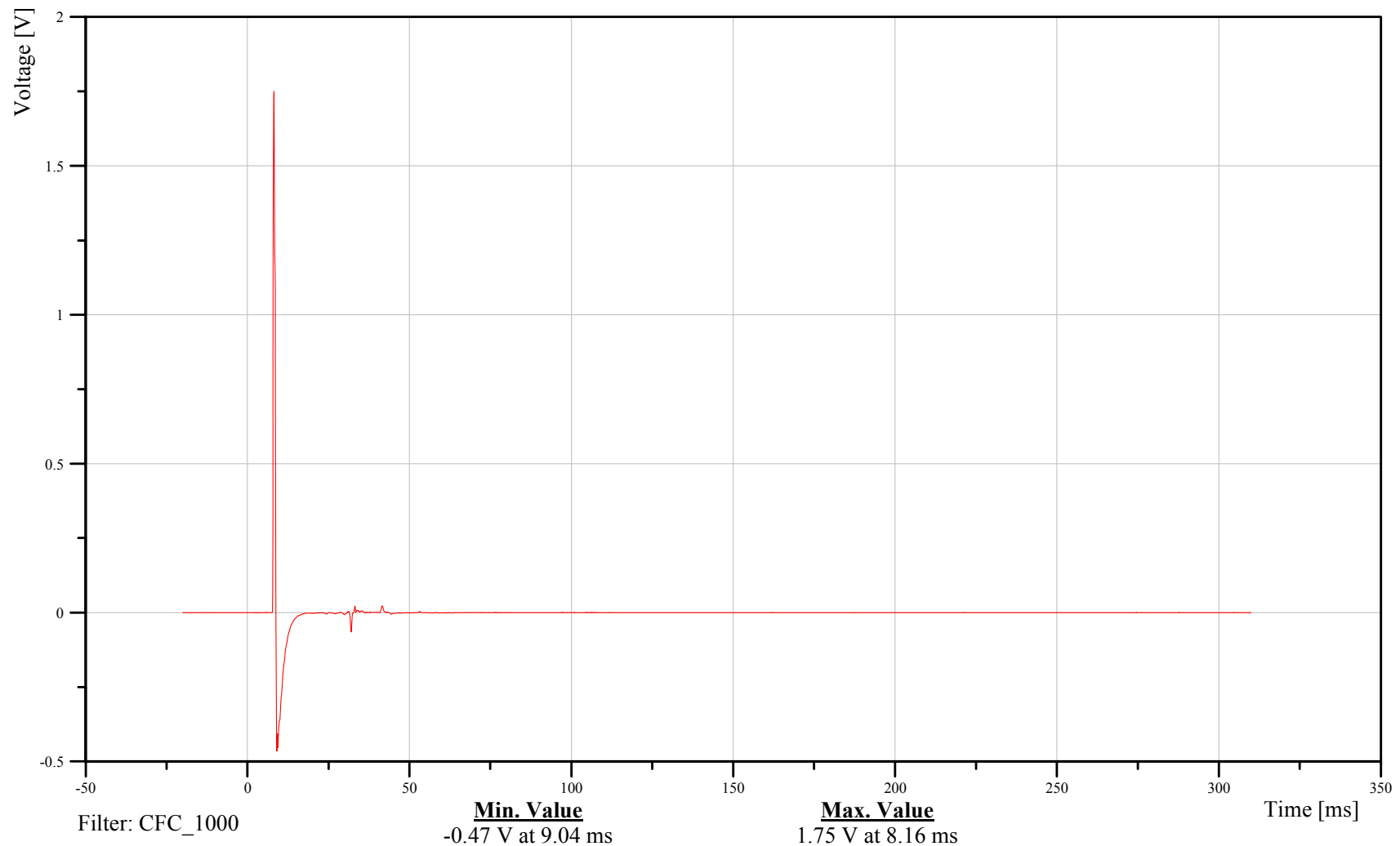
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11SENS000001VO0A

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Side Curtain Airbag Fire

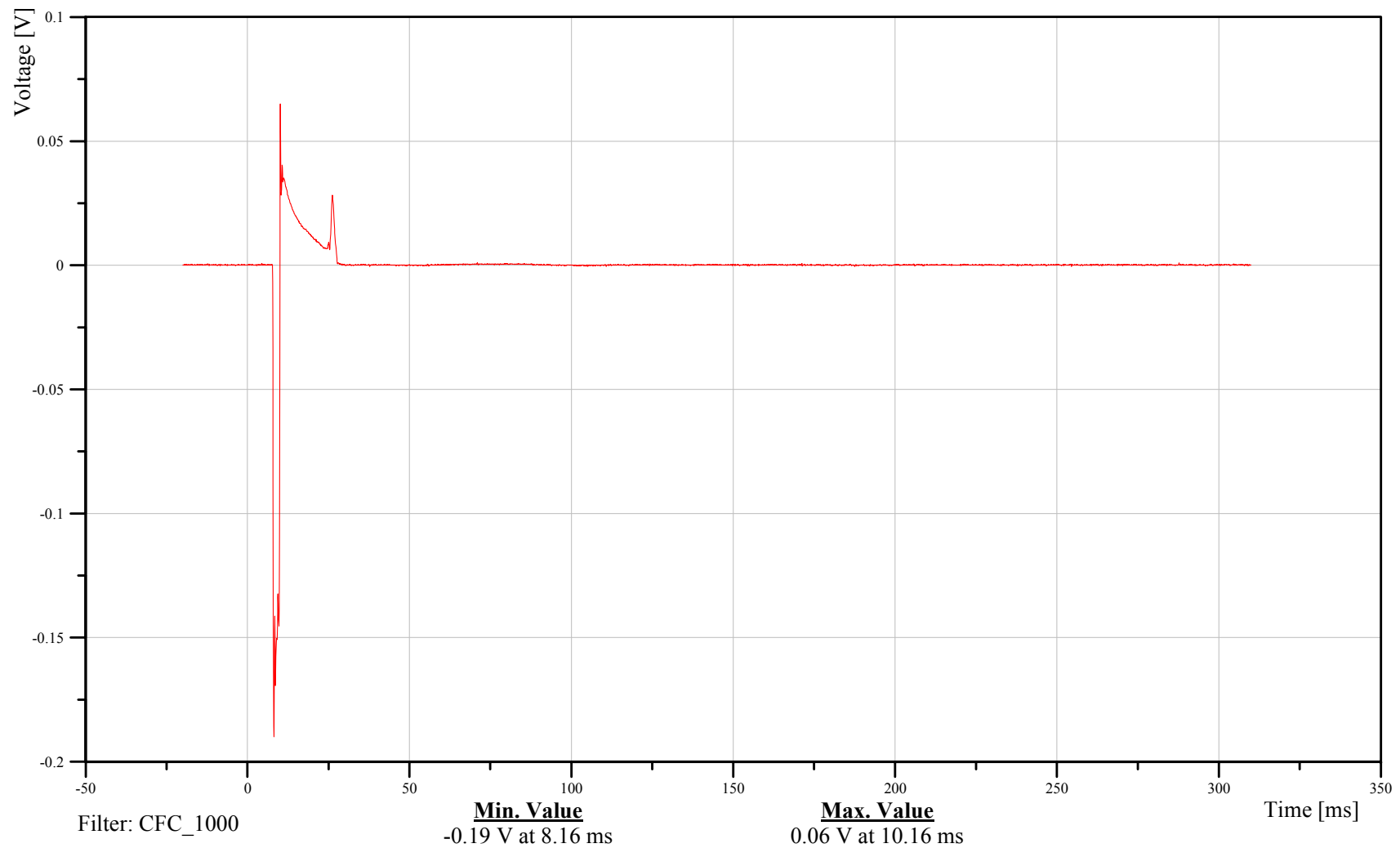
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11SENS000002VO0A

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Non-Struck Side Torso Airbag Fire (disable bag)

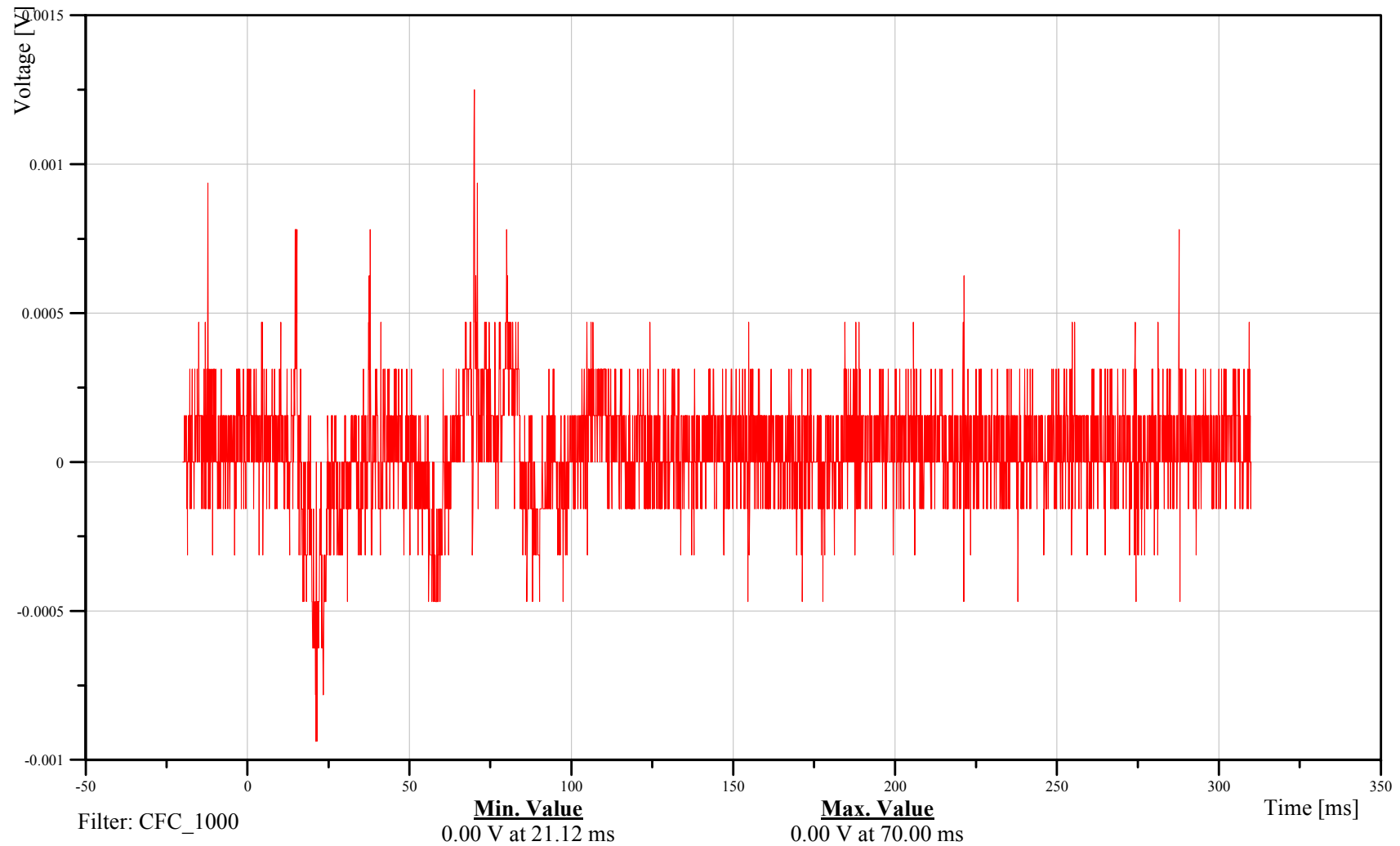
Date: 07/25/2005
Time: 13:48

Customer: VRTC

13SENS000001VO0A

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Non-Struck Side Curtain Airbag Fire (disable bag)

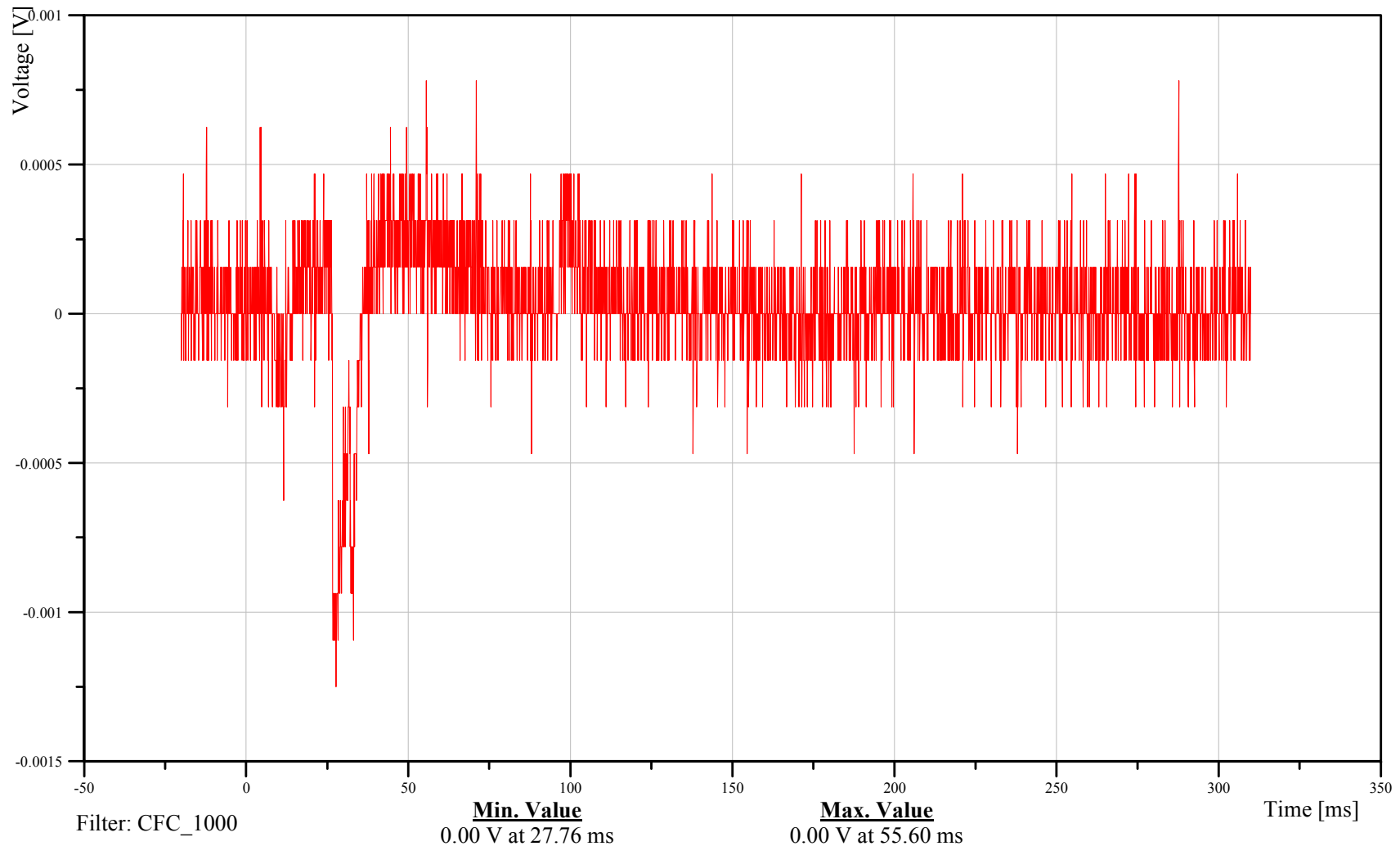
Date: 07/25/2005
Time: 13:48

Customer: VRTC

13SENS000002VO0A

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Dummy Head Contact

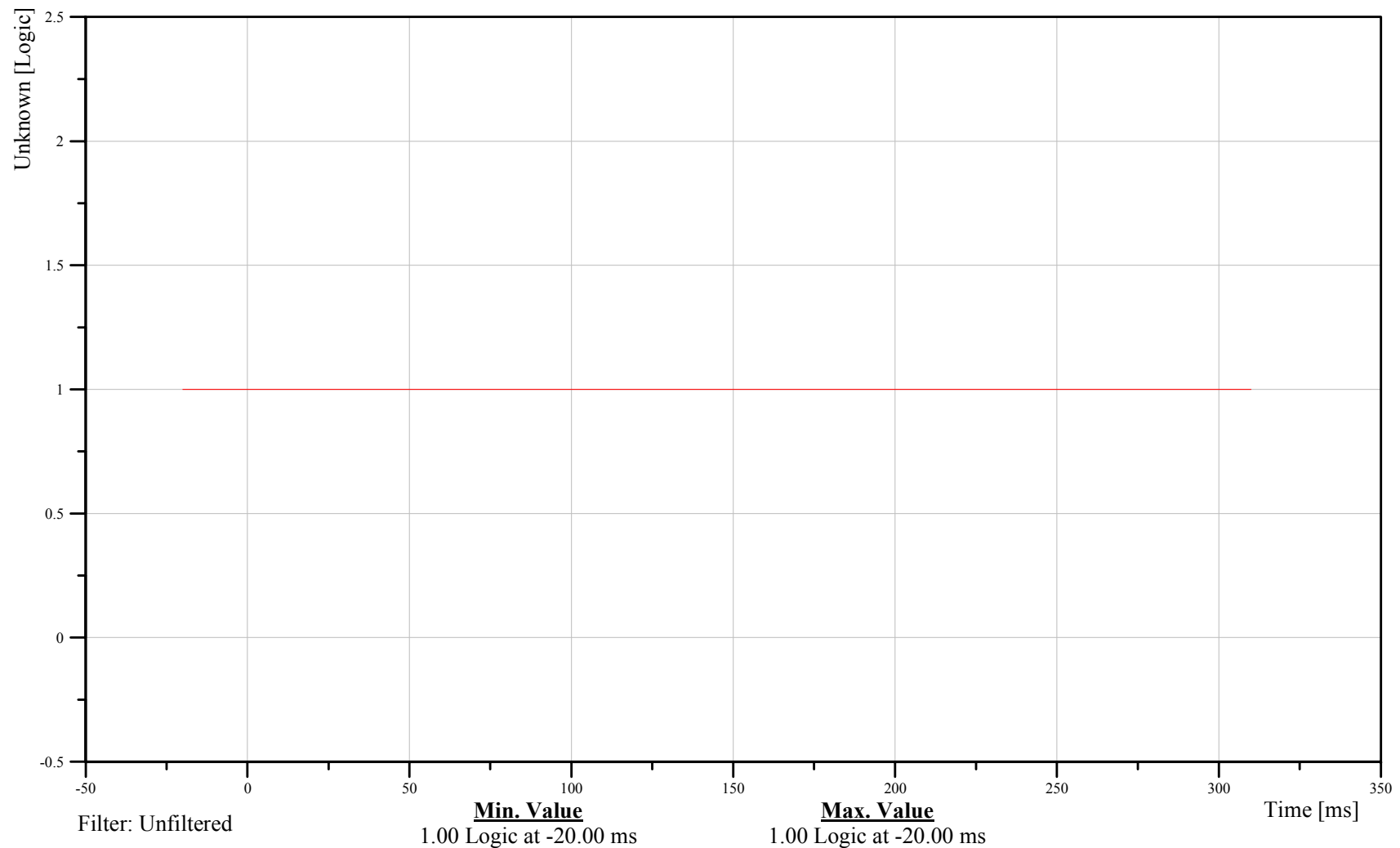
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11CONT000001EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Dummy Shoulder Contact

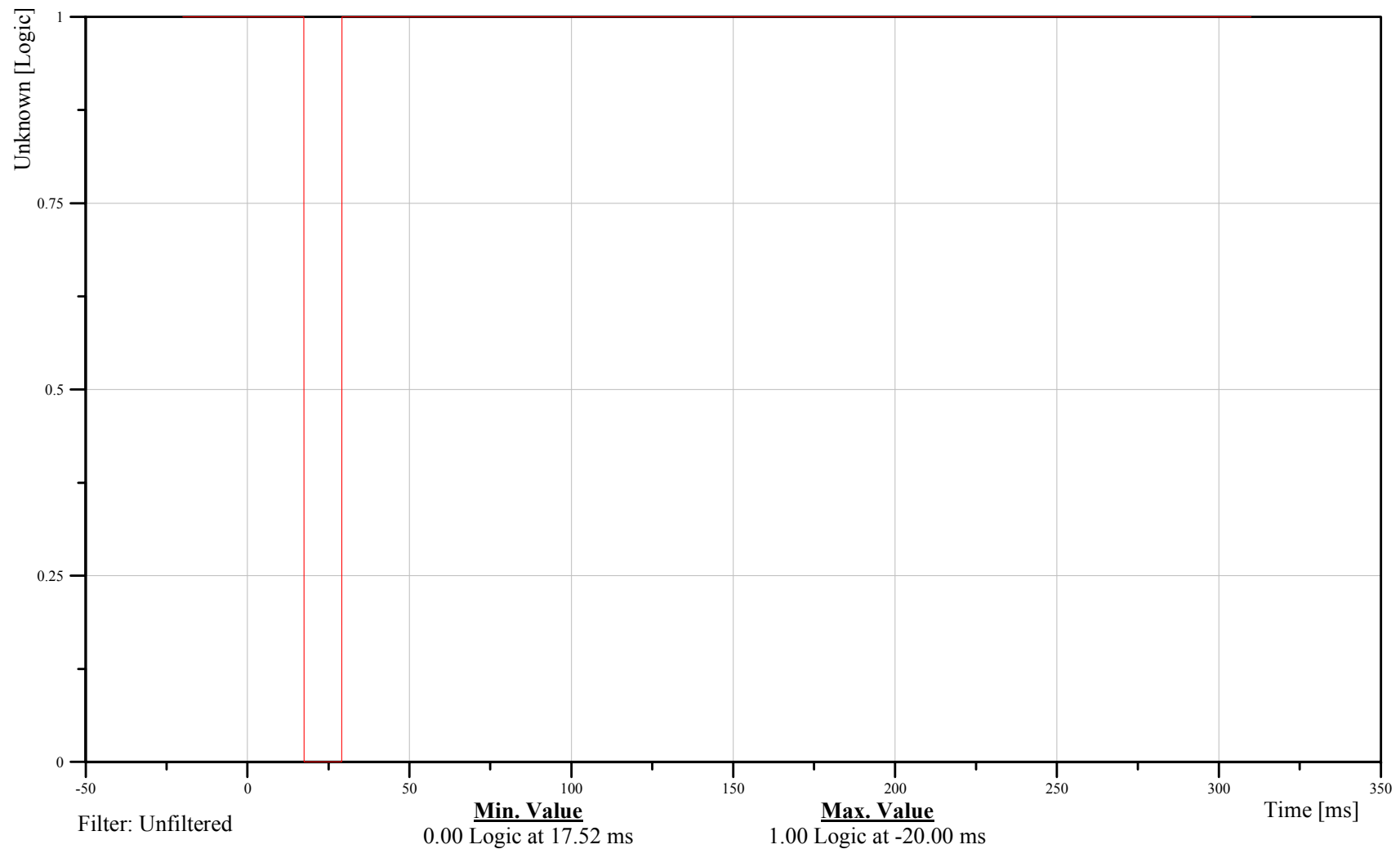
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11CONT000002EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Dummy Torso Contact

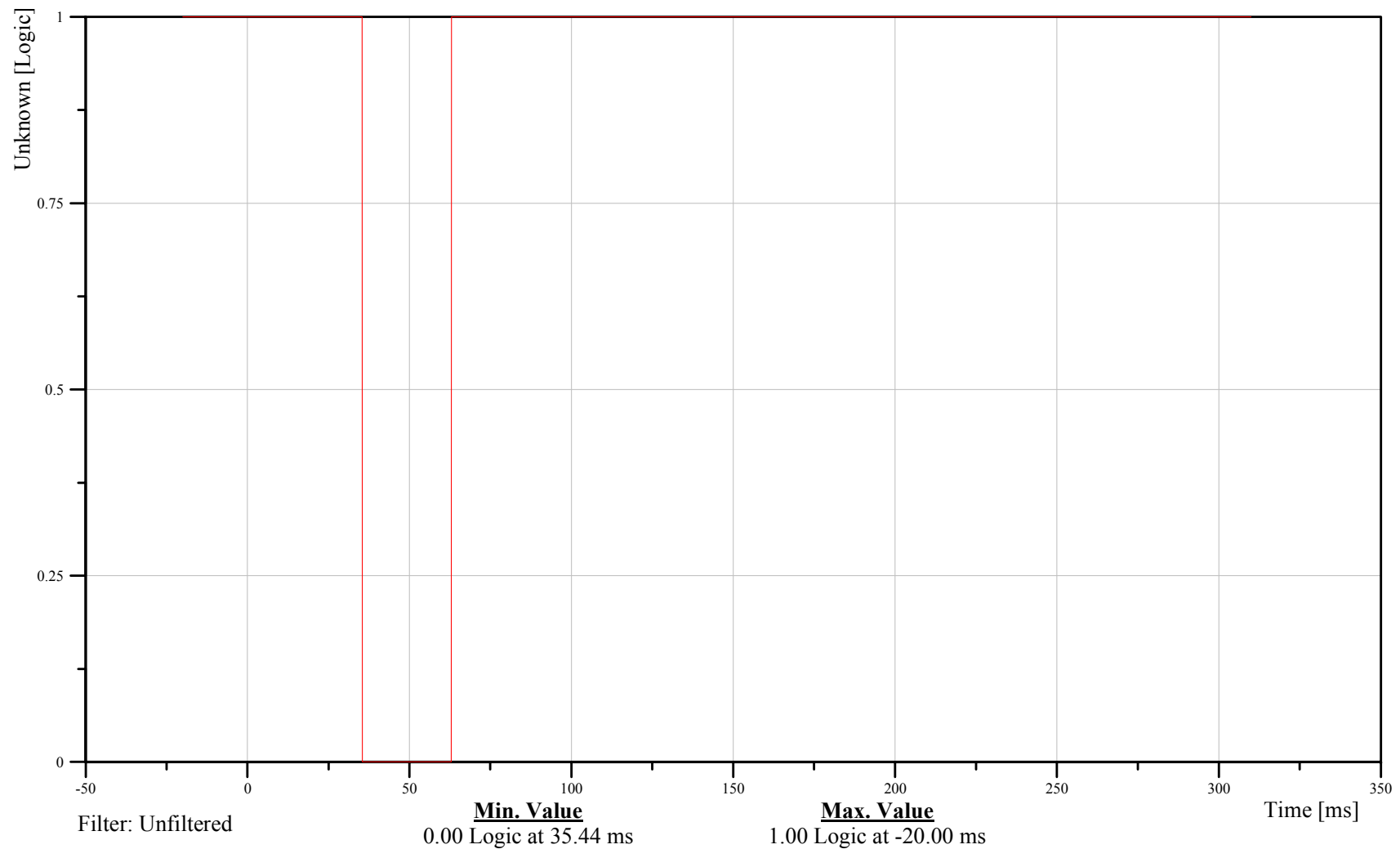
Date: 07/25/2005
Time: 13:48

Customer: VRTC

11CONT000003EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

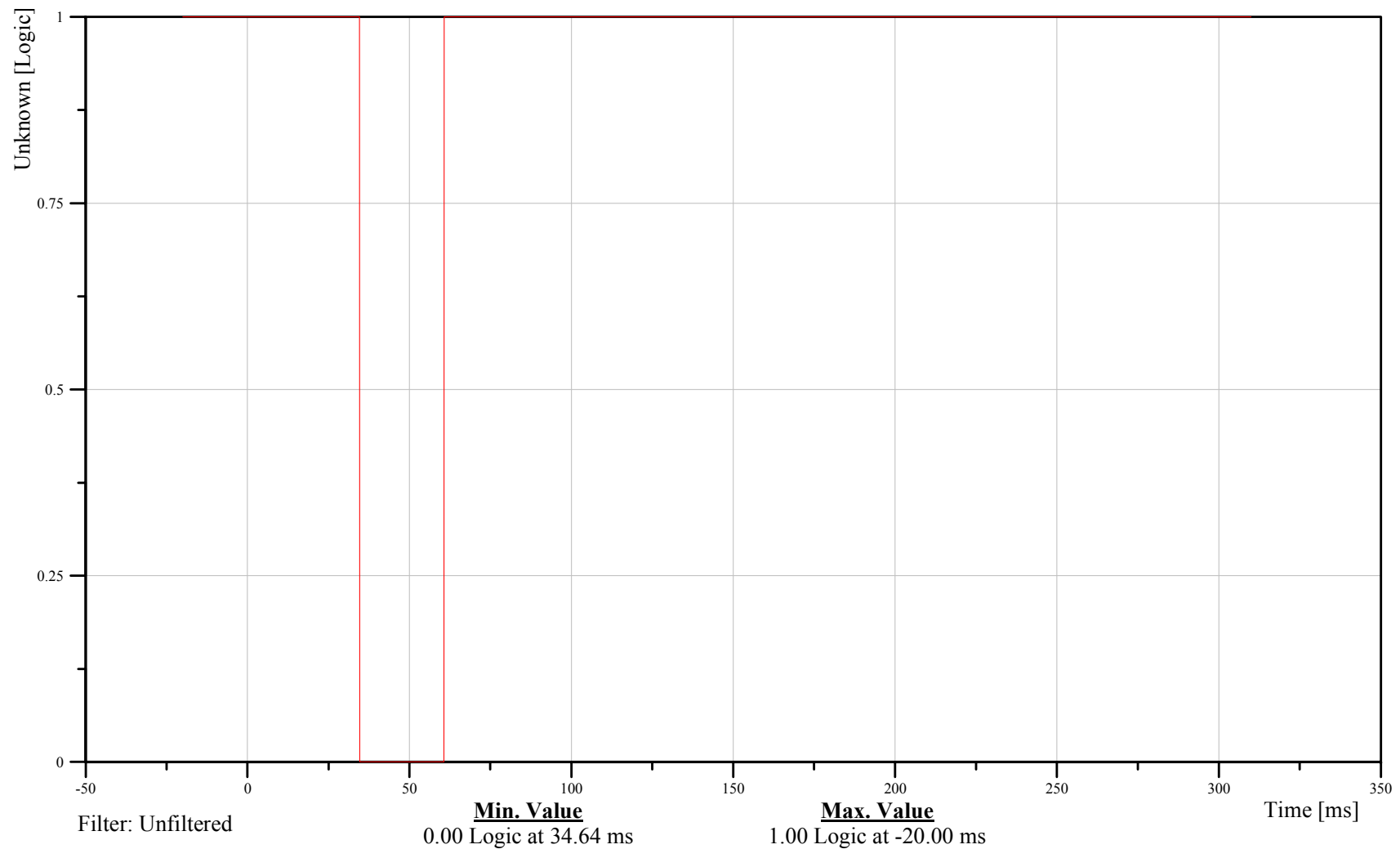
Dummy Leg Contact

Customer: VRTC

11CONT000004EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Dummy Head Contact

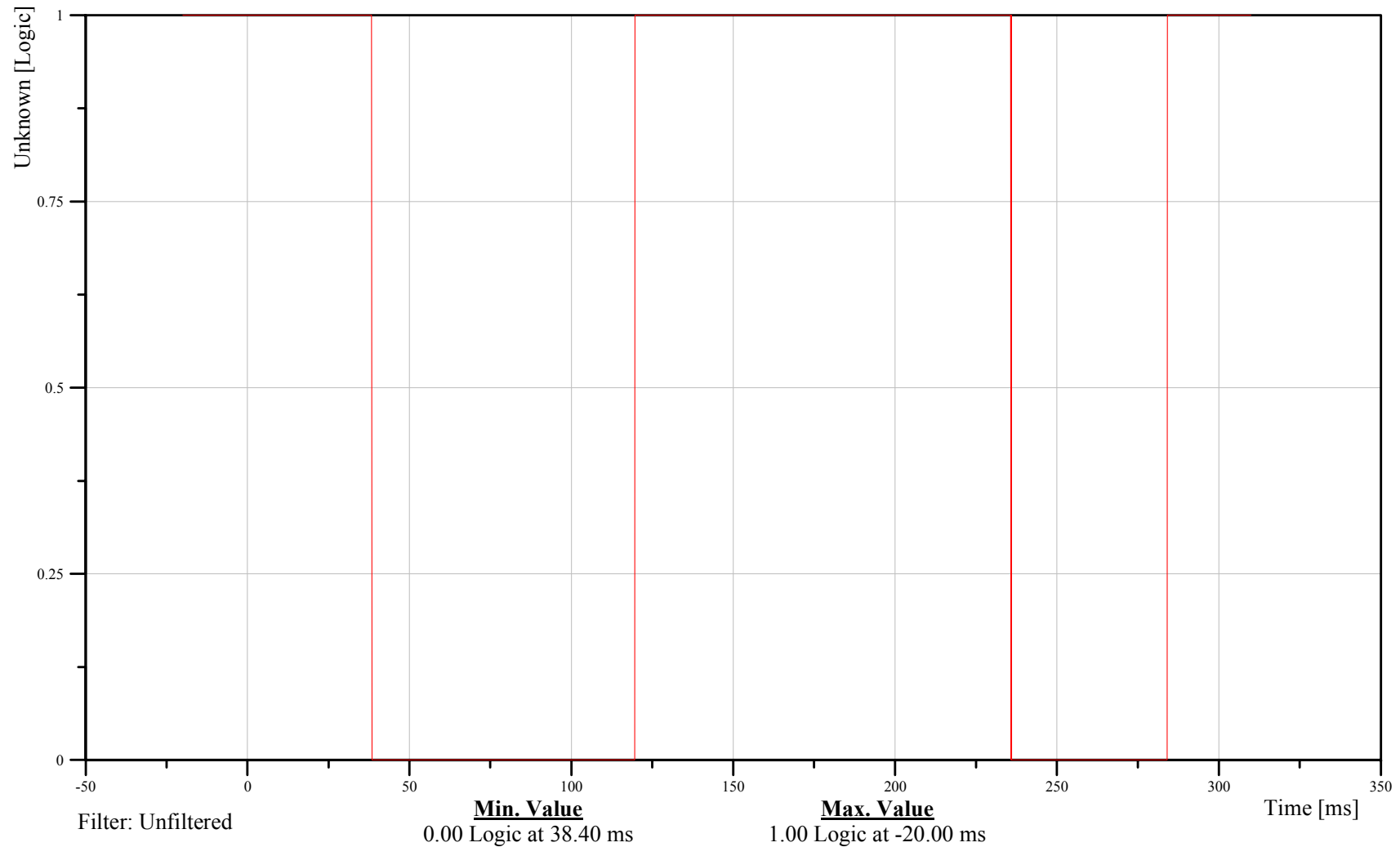
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14CONT000001EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Dummy Shoulder Contact

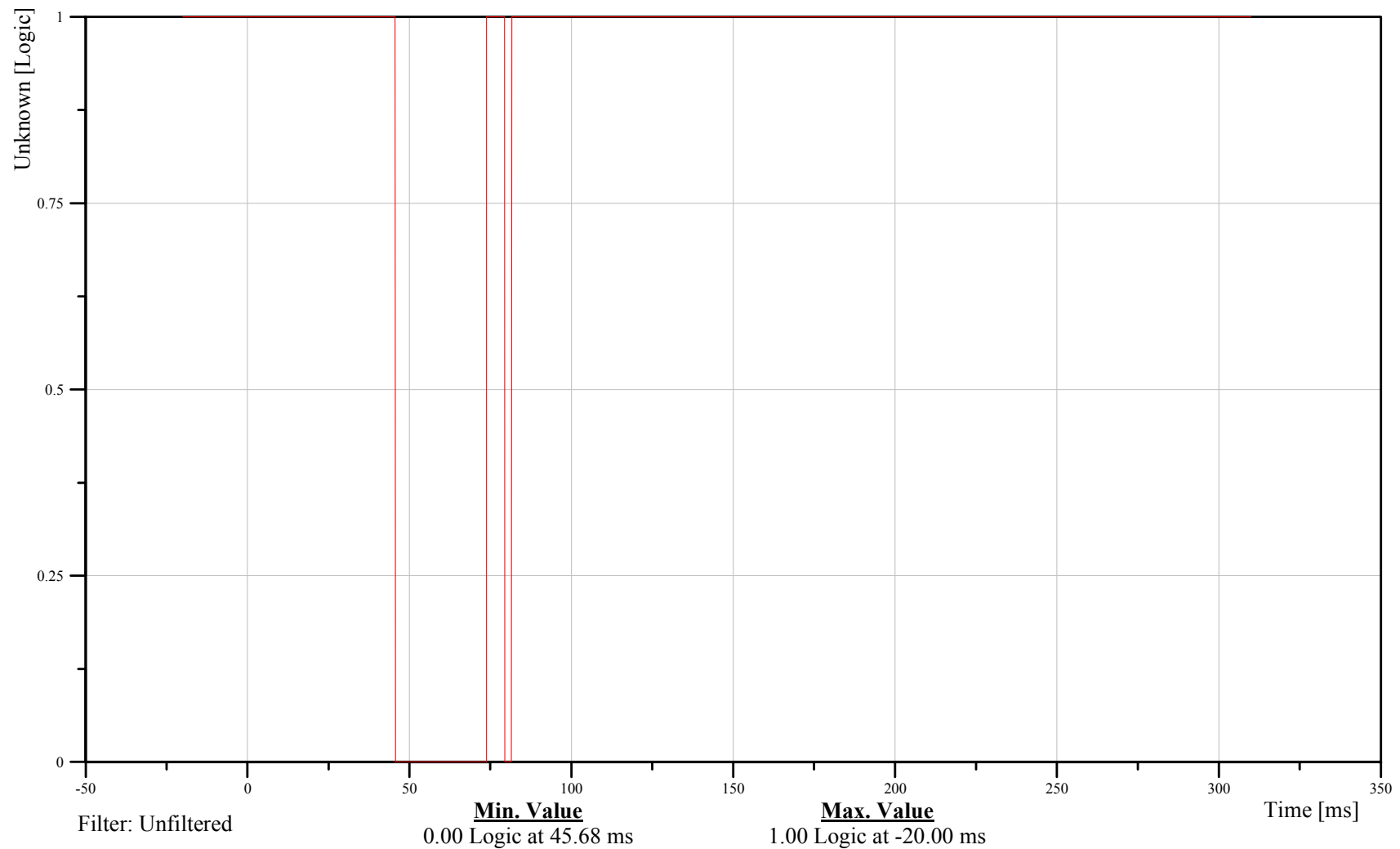
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14CONT000002EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Dummy Torso Contact

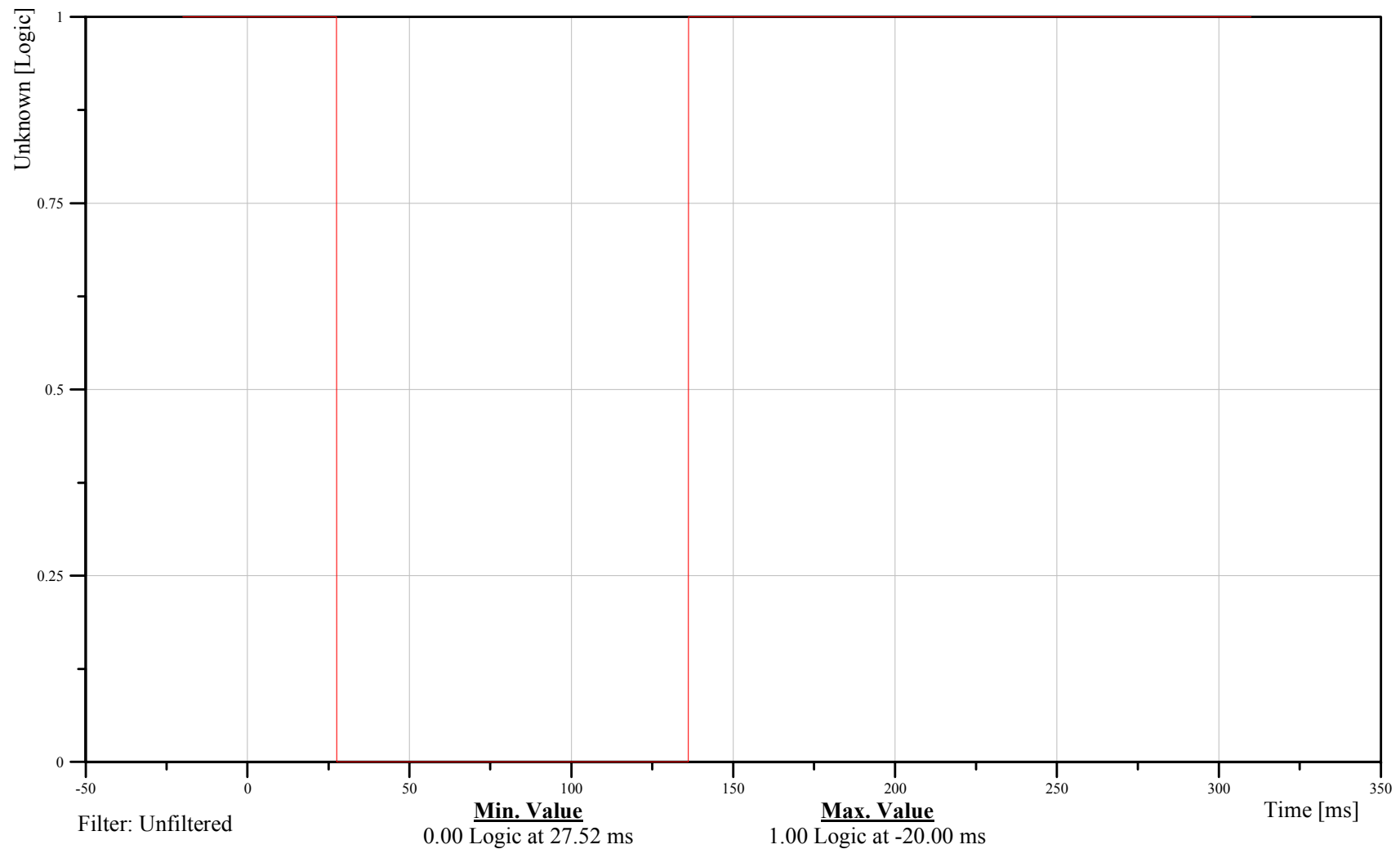
Date: 07/25/2005
Time: 13:48

Customer: VRTC

14CONT000003EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

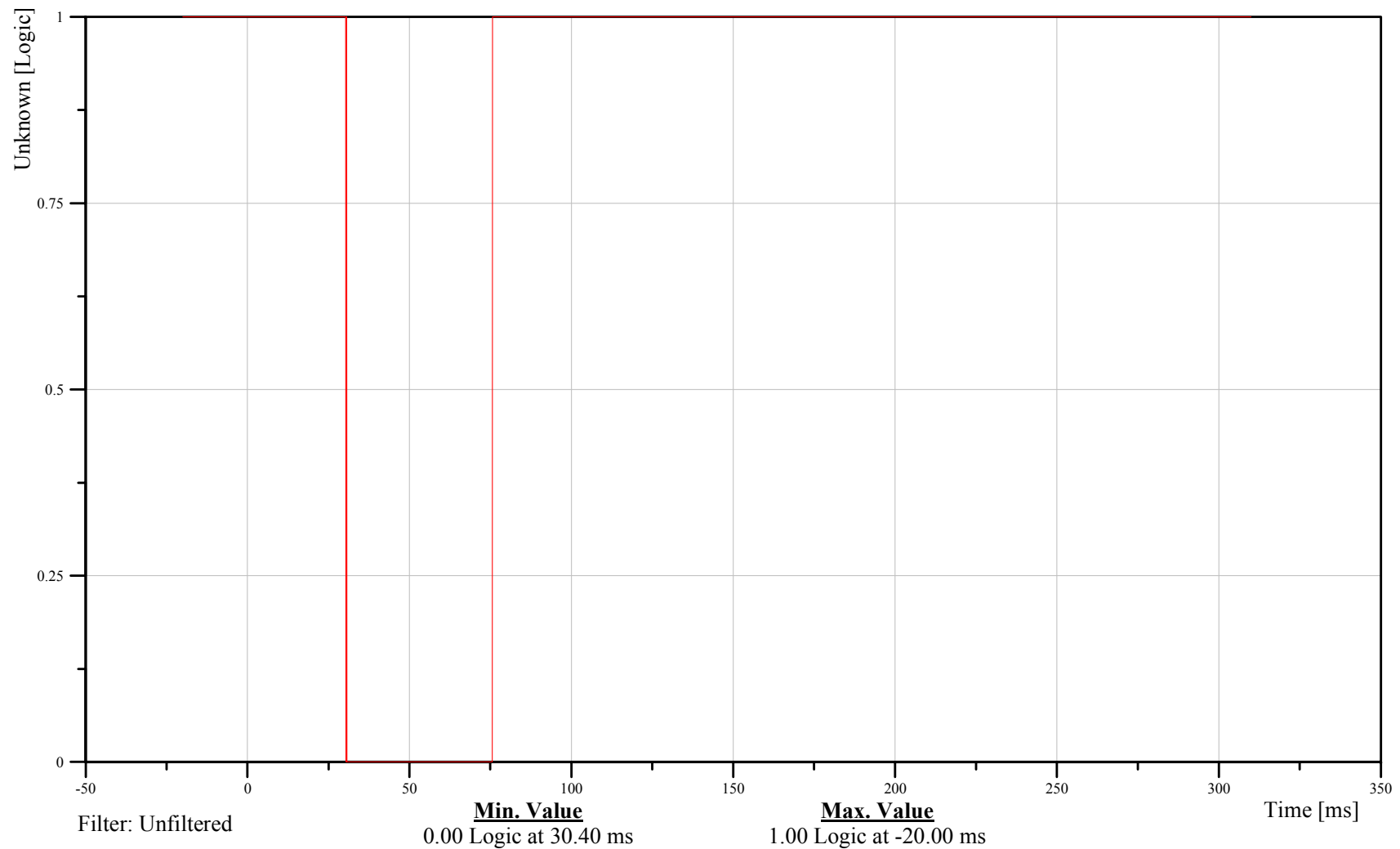
Dummy Leg Contact

Customer: VRTC

14CONT000004EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

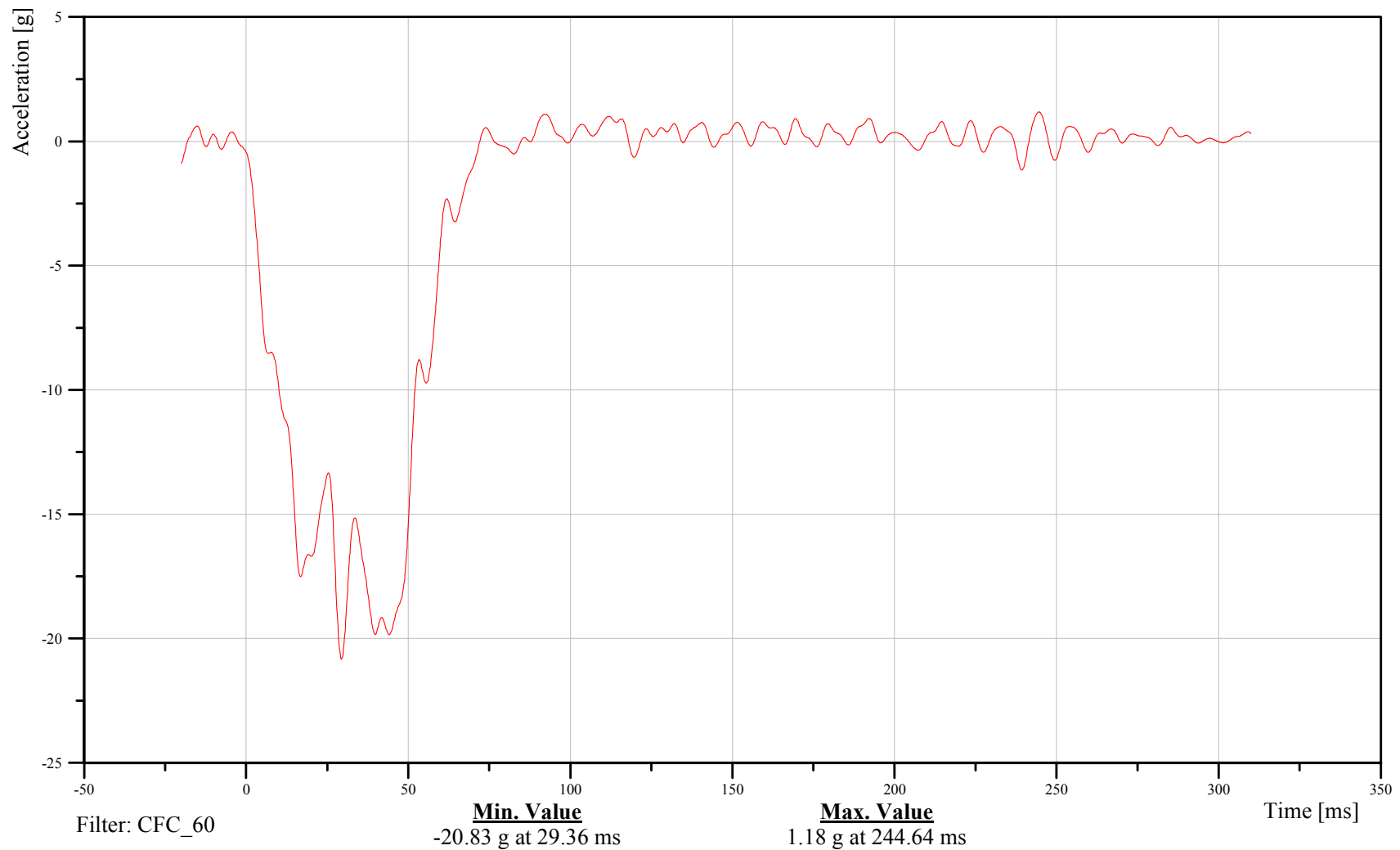
MDB Center of Gravity X-Axis Acceleration

Customer: VRTC

M0VEHCCG0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

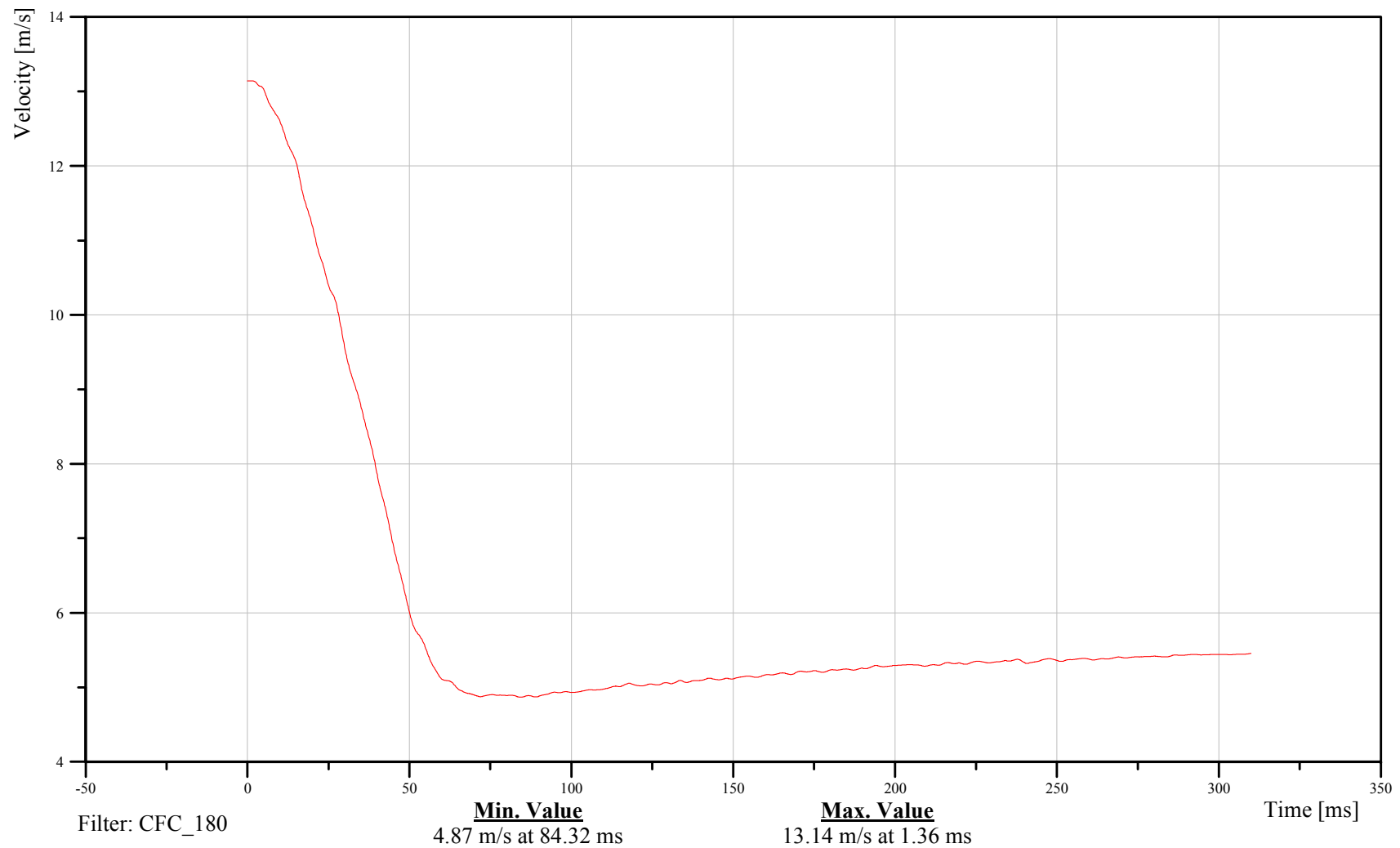
MDB Center of Gravity X-Axis Velocity

Customer: VRTC

M0VEHCCG0000VEXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

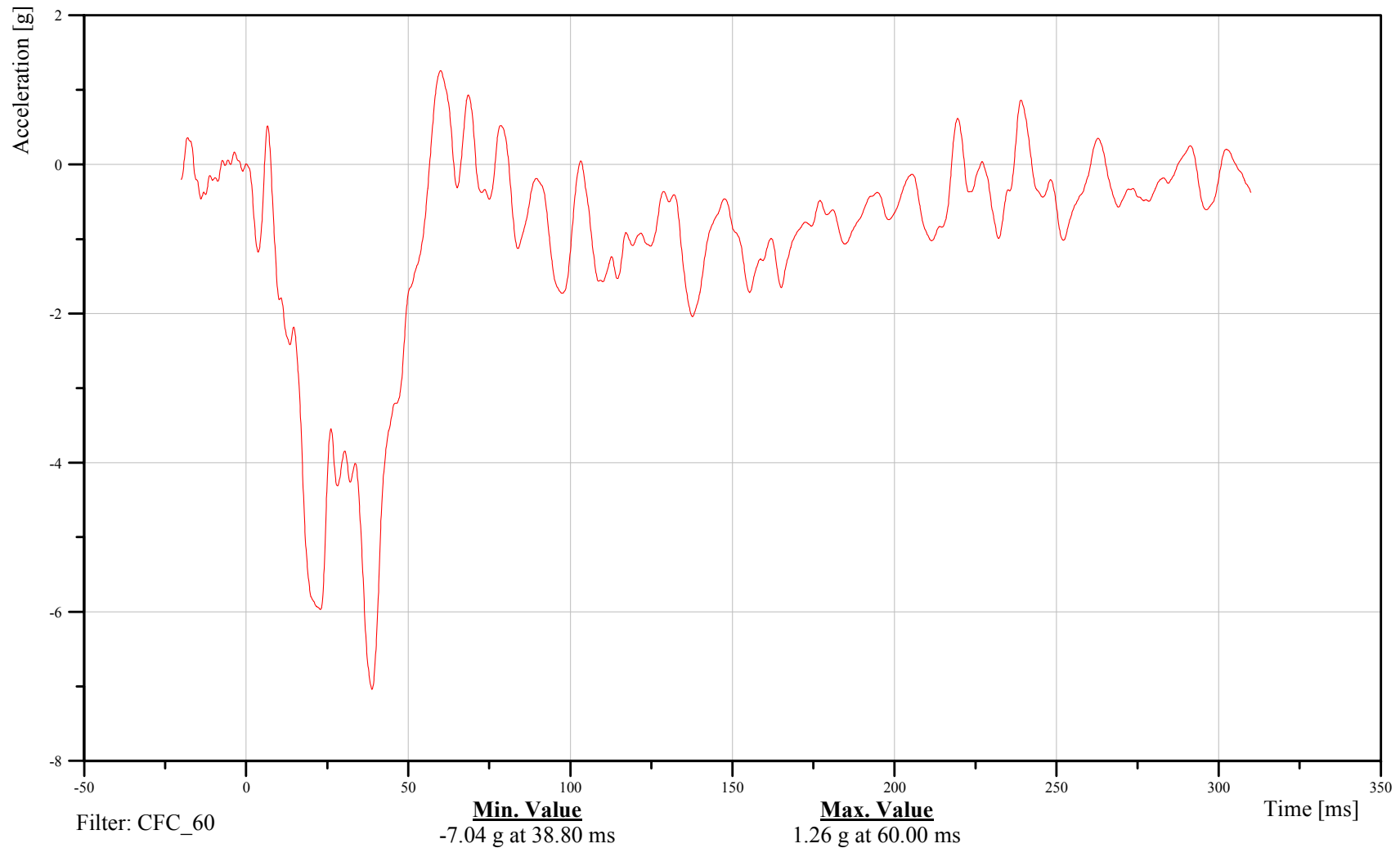
MDB Center of Gravity Y-Axis Acceleration

Customer: VRTC

M0VEHCCG0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

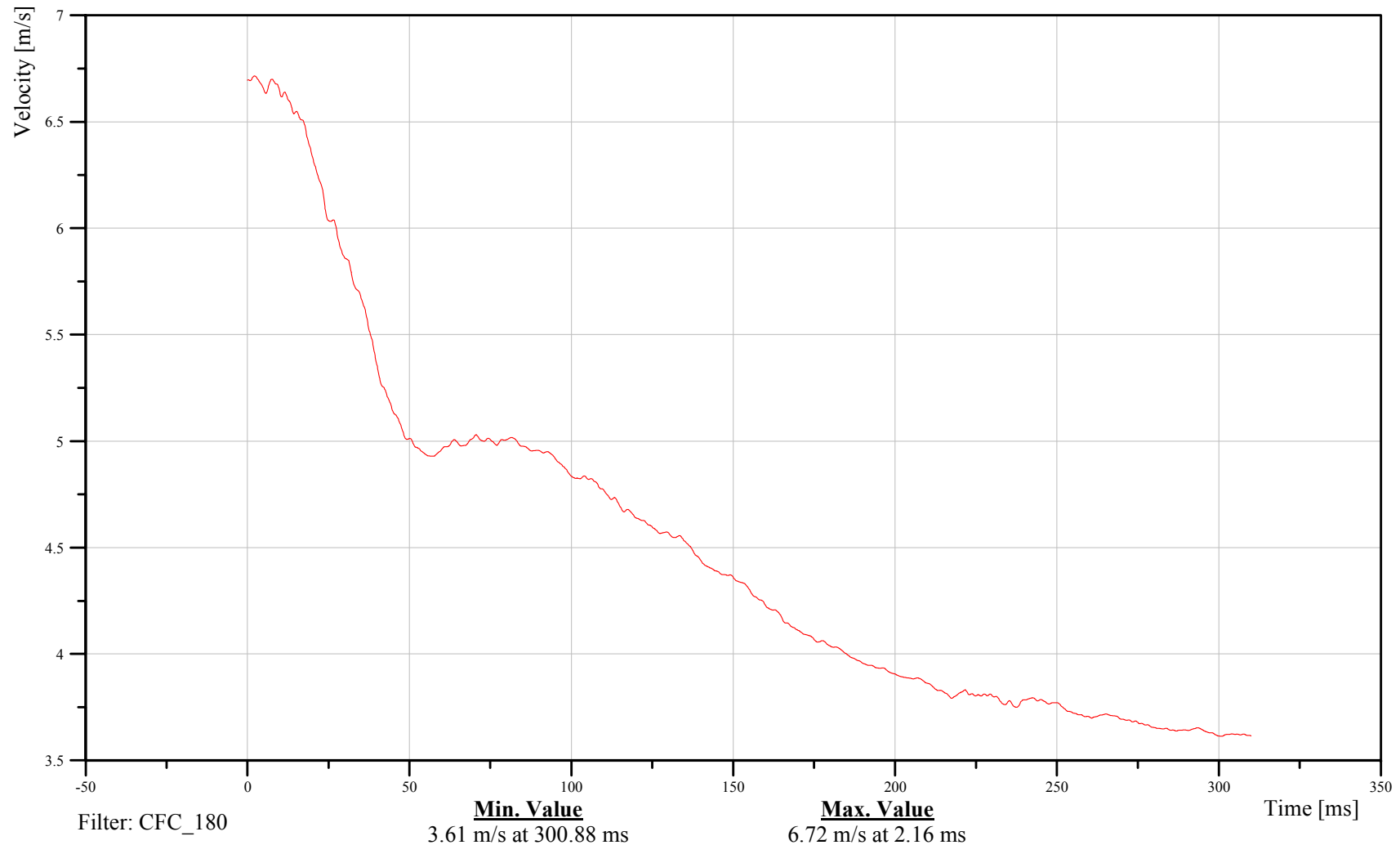
MDB Center of Gravity Y-Axis Velocity

Customer: VRTC

M0VEHCCG0000VEYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

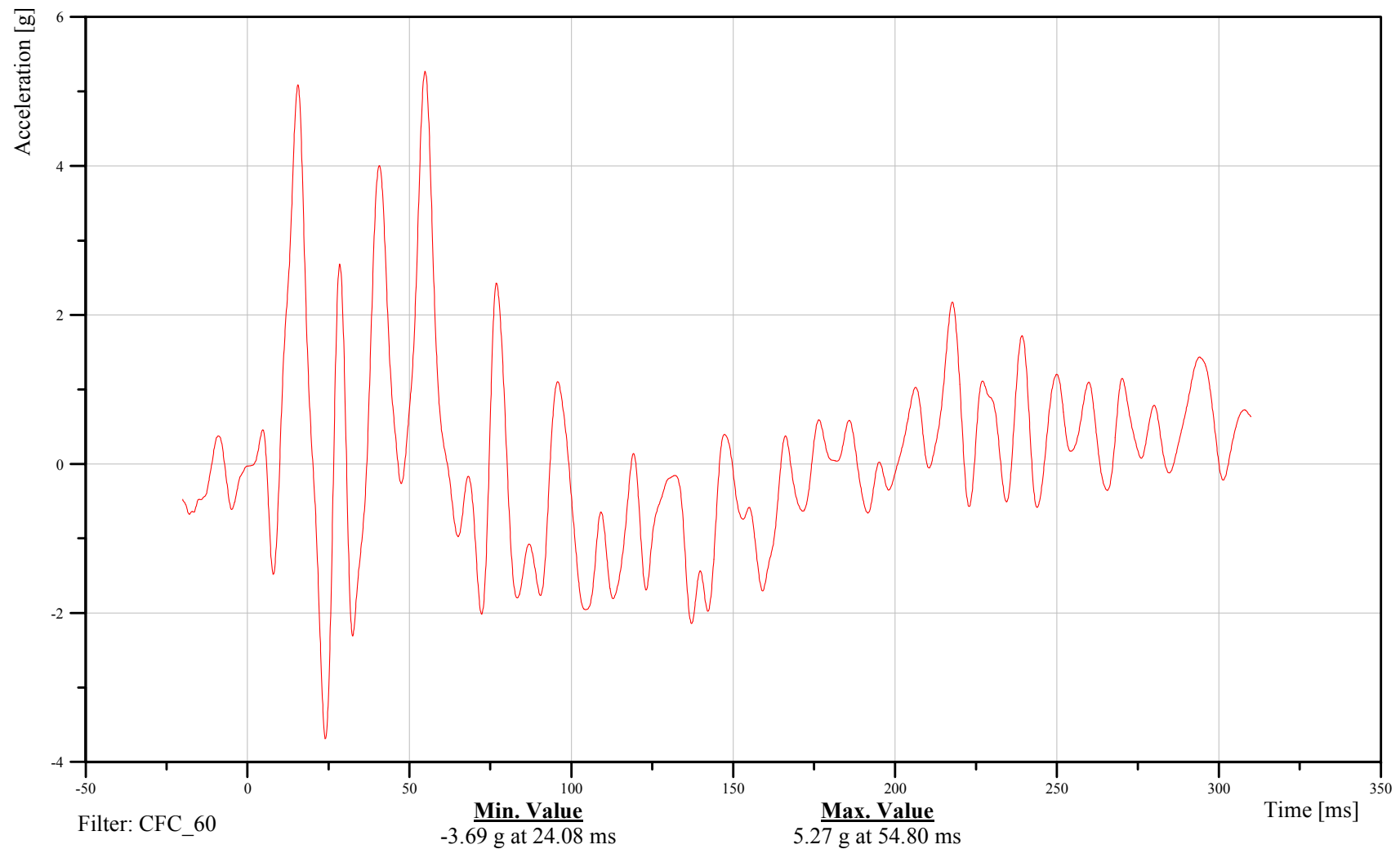
MDB Center of Gravity Z-Axis Acceleration

Customer: VRTC

M0VEHCCG0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

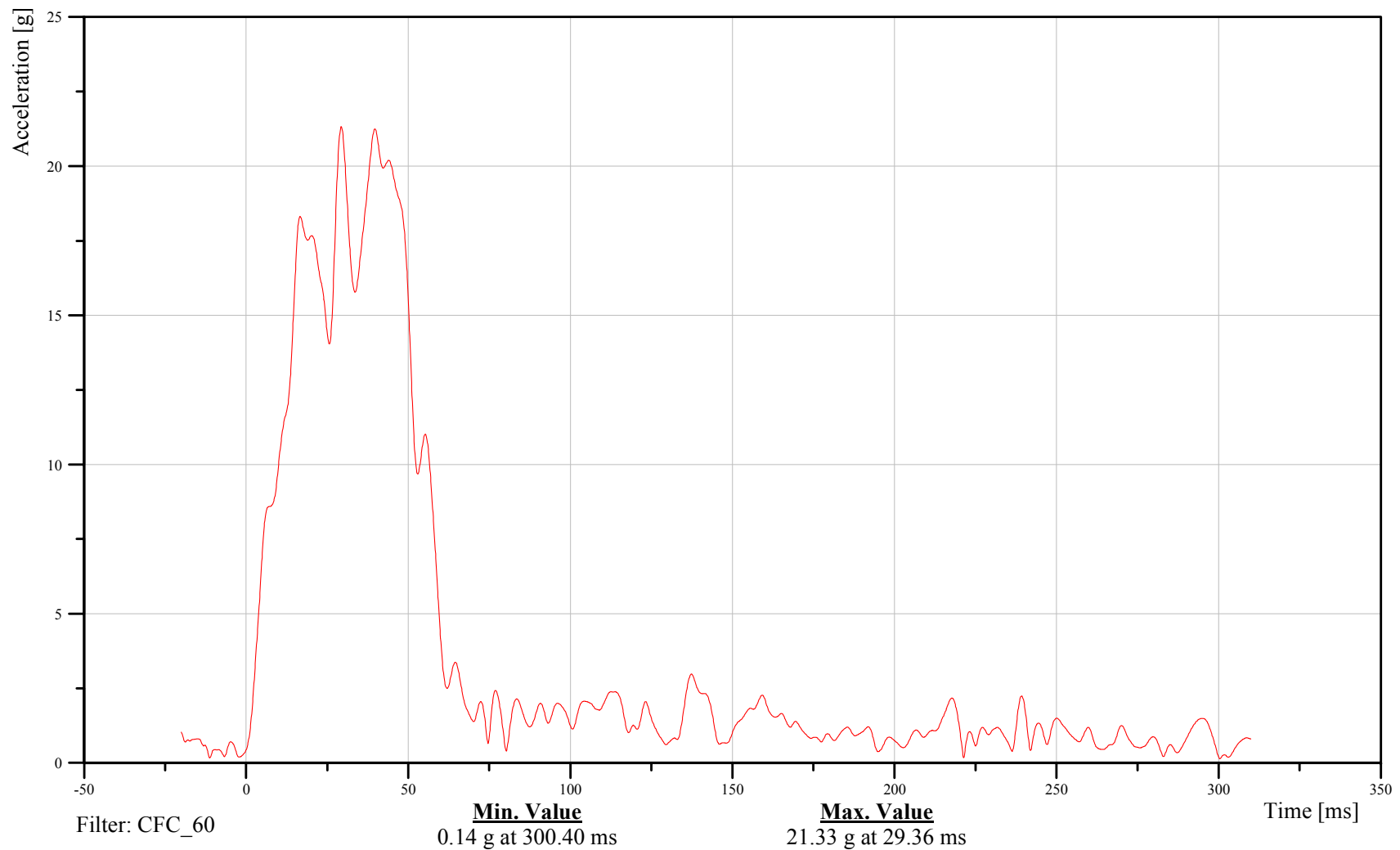
MDB Center of Gravity Resultant Acceleration

Customer: VRTC

M0VEHCCG0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

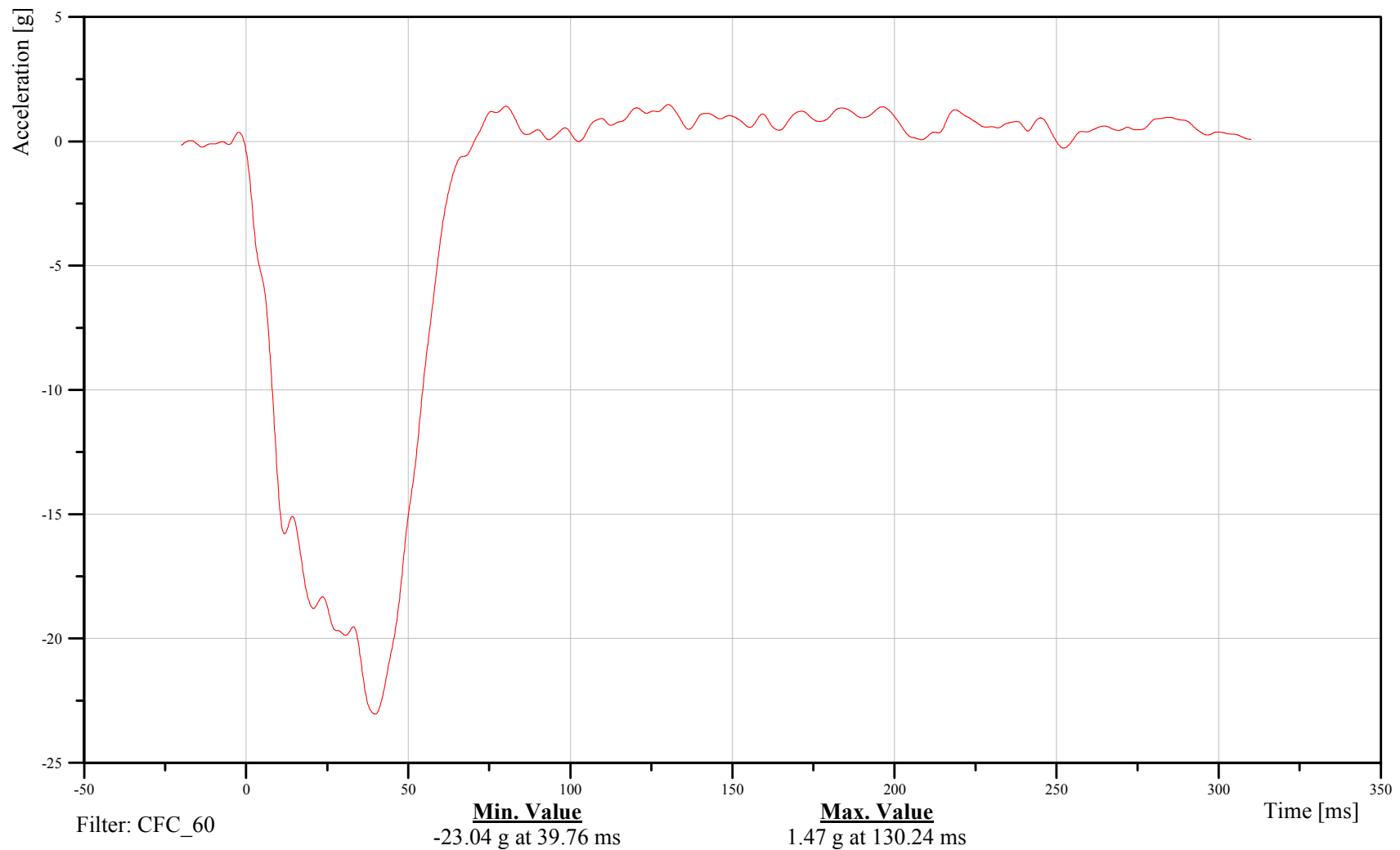
MDB Left Rear X-Axis Acceleration

Customer: VRTC

M7FRAM000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

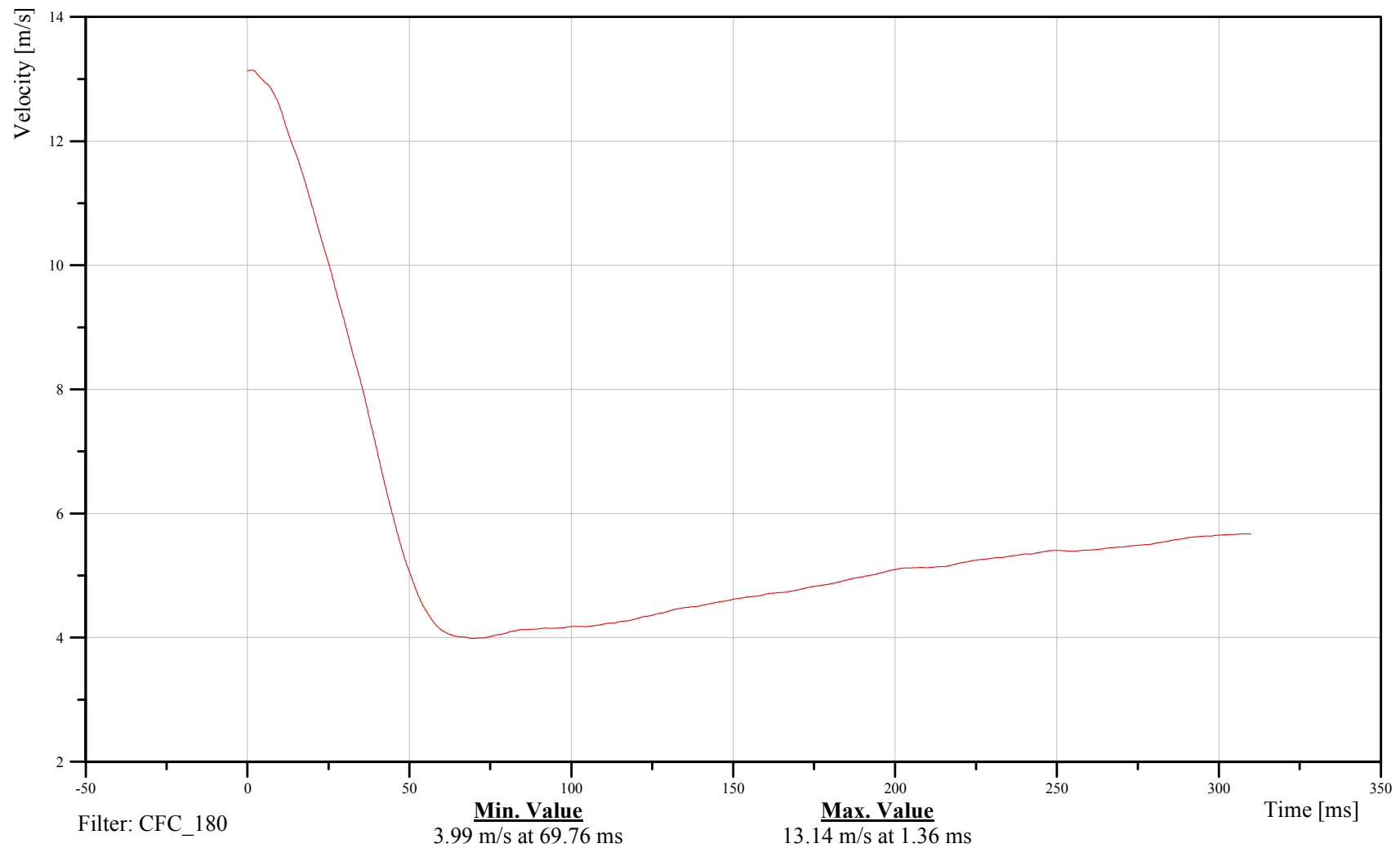
MDB Left Rear X-Axis Velocity

Customer: VRTC

M7FRAM000000VEXC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

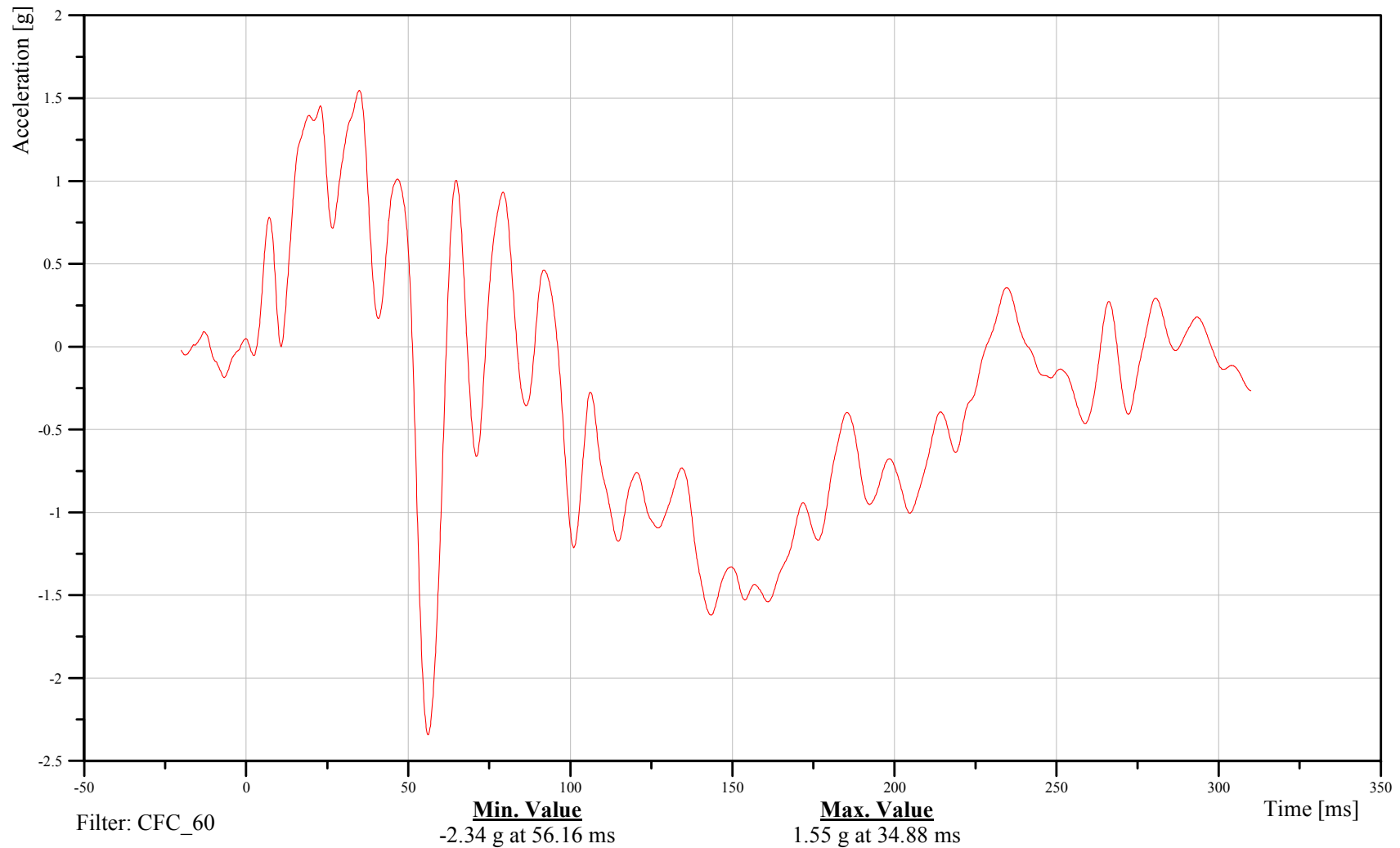
MDB Left Rear Y-Axis Acceleration

Customer: VRTC

M7FRAM000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

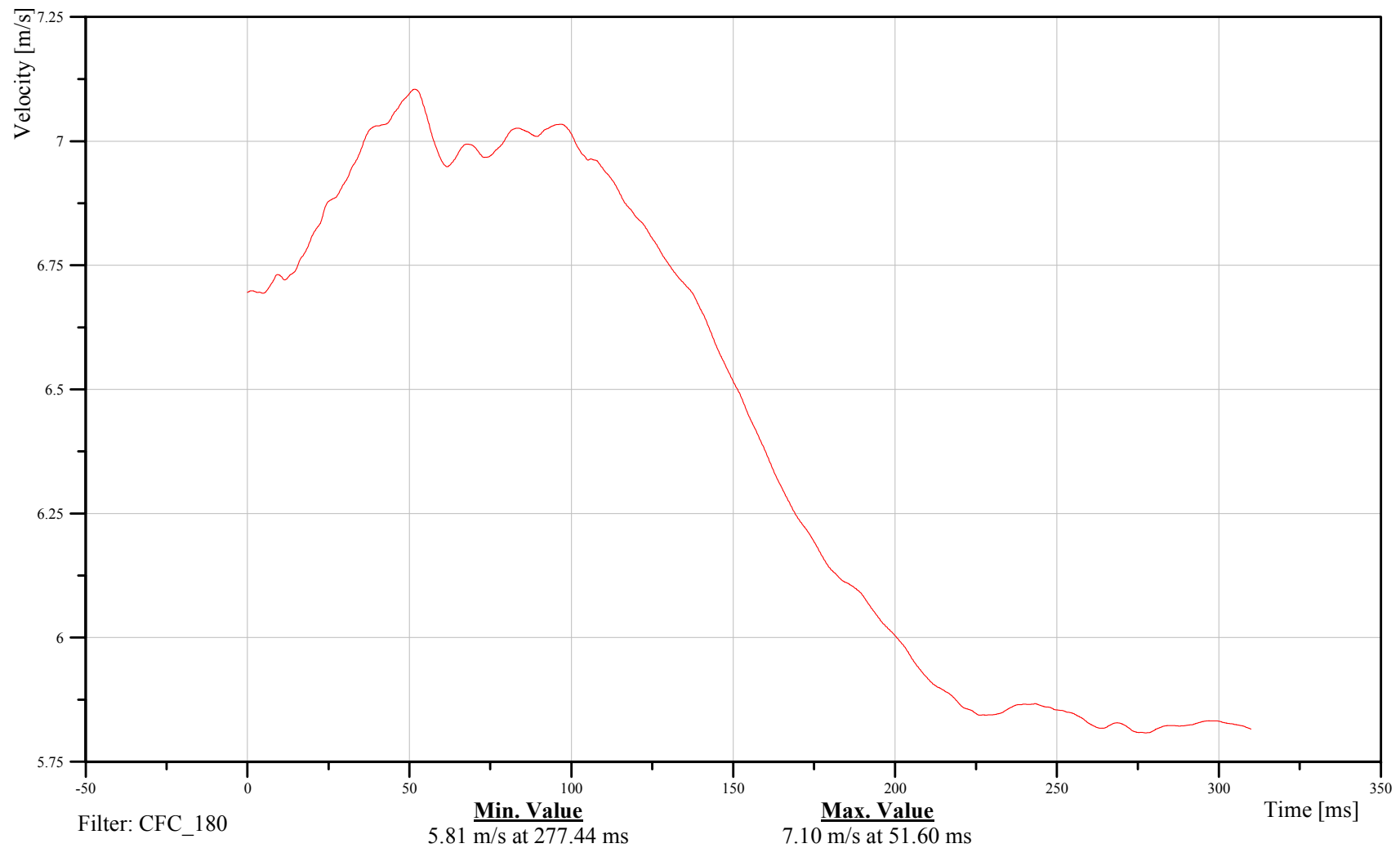
MDB Left Rear Y-Axis Velocity

Customer: VRTC

M7FRAM000000VEYC

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

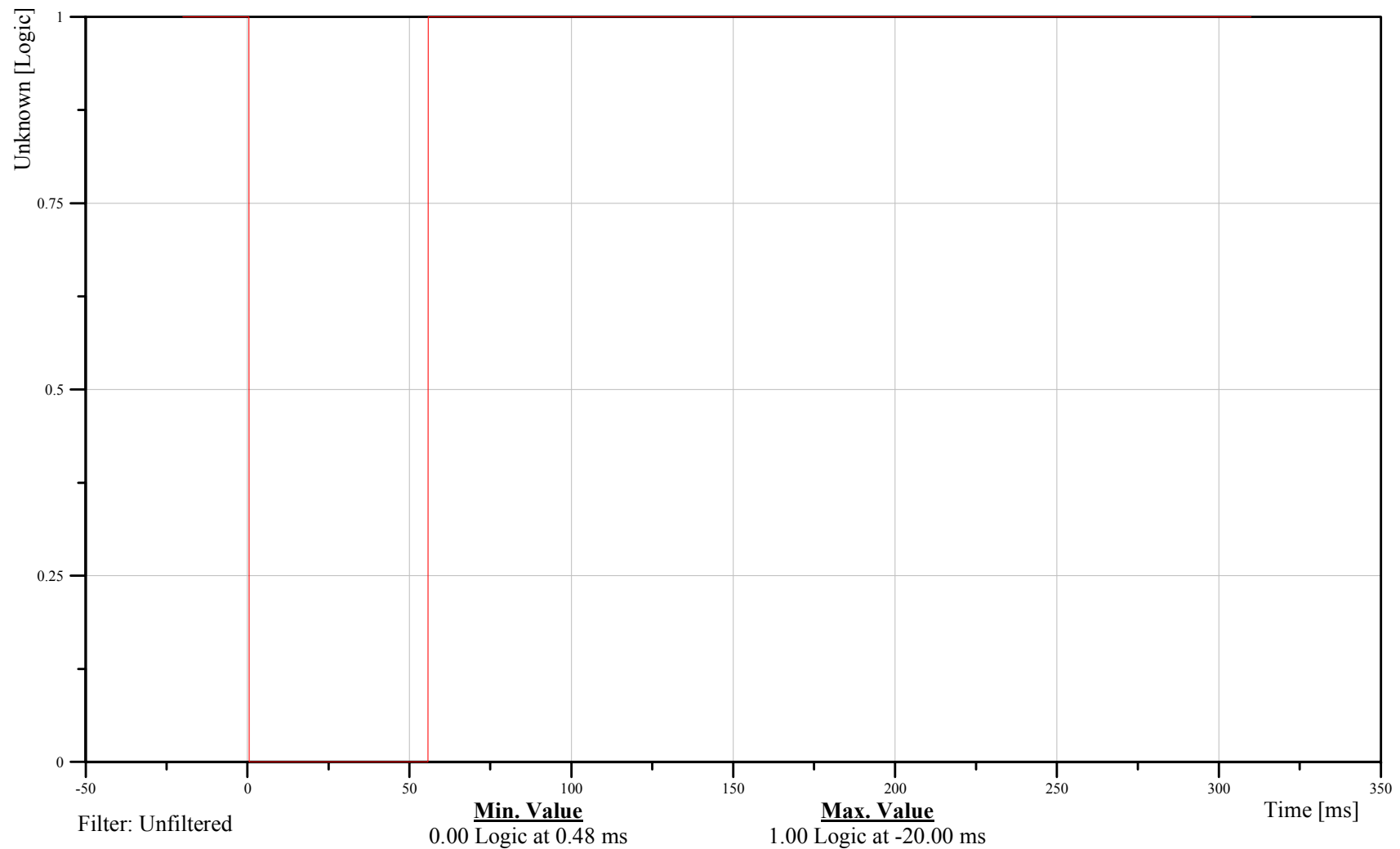
MDB Right Side Contact Switch

Customer: VRTC

M3CONT000000EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005
Time: 13:48

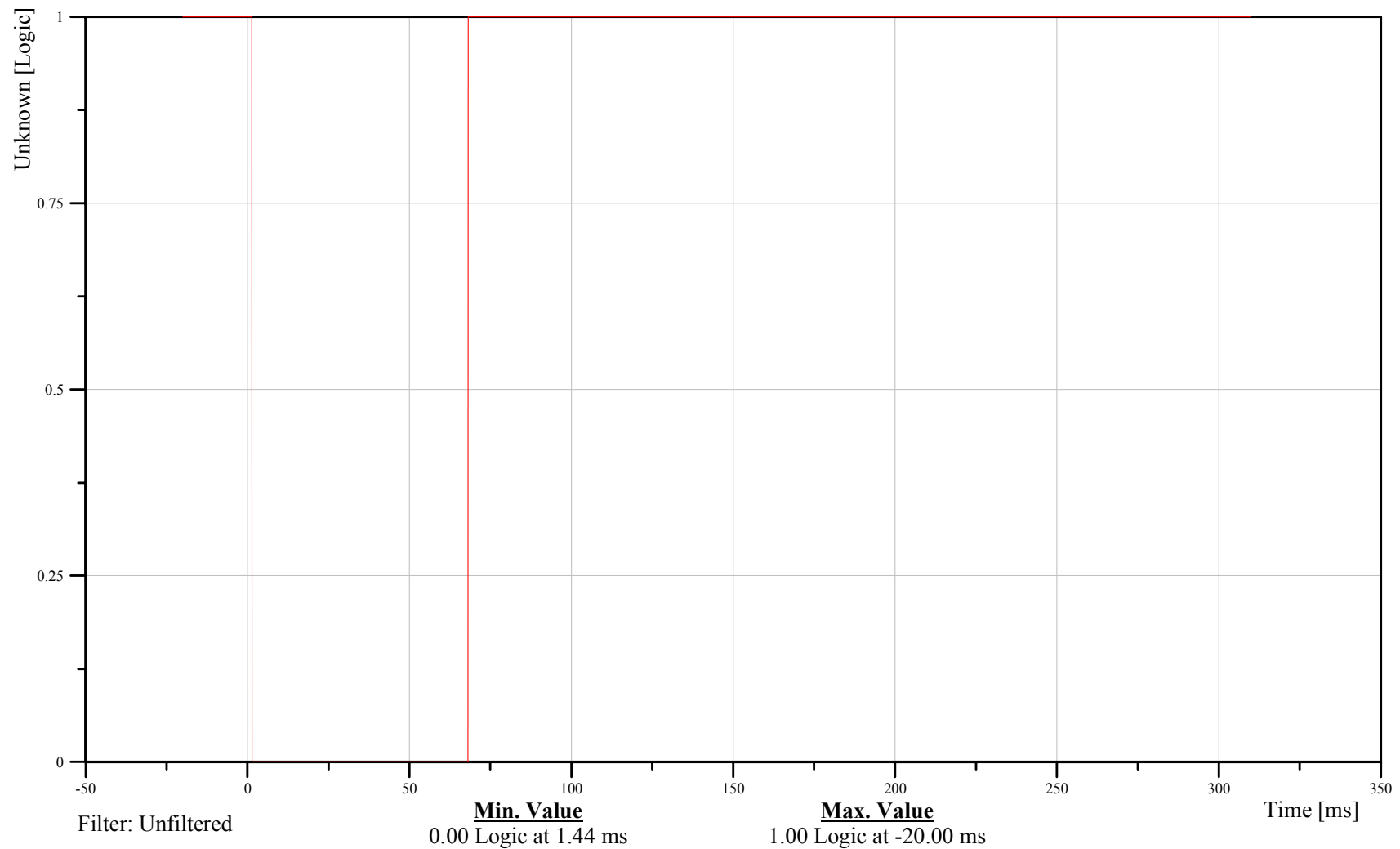
MDB Left Side Contact Switch

Customer: VRTC

M1CONT000000EV00

TRC Inc. Test Lab: CTF

Test Number: 050725





MDB into Left Side of 2005 Honda CRV at 52.9 kph

Head Injury Criterion (HIC)

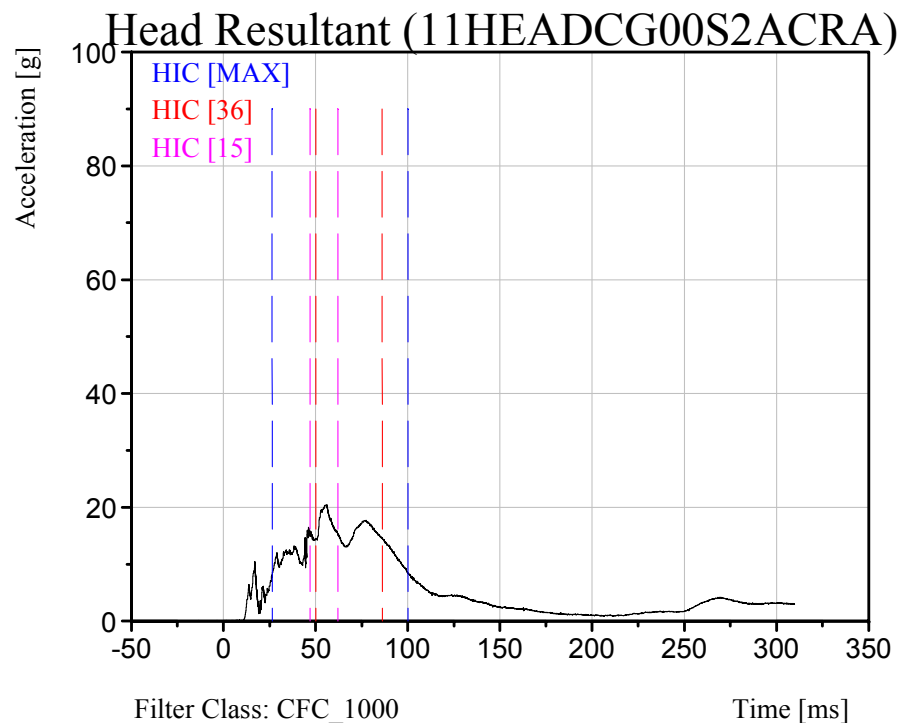
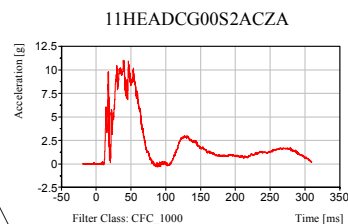
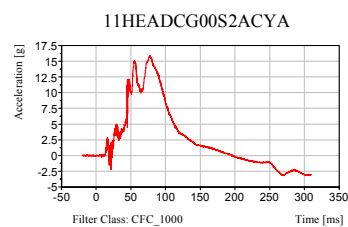
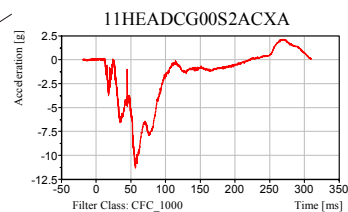
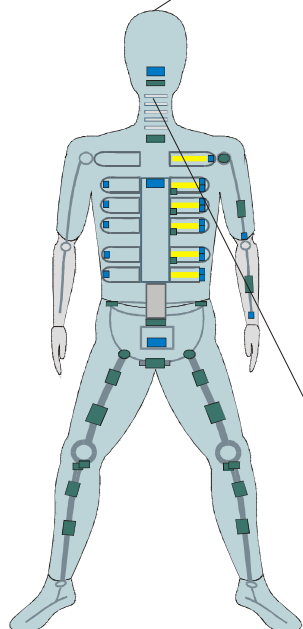
Date: 07/25/2005

Time: 13:48

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 050725



Dummy:SID IIs
Seating Position:
Driver

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 54.30	26.56 ms	100.16 ms	14.03 g
HIC [36] = 38.43	50.24 ms	86.24 ms	16.26 g
HIC [15] = 18.23	47.12 ms	62.16 ms	17.10 g

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16) 0



MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

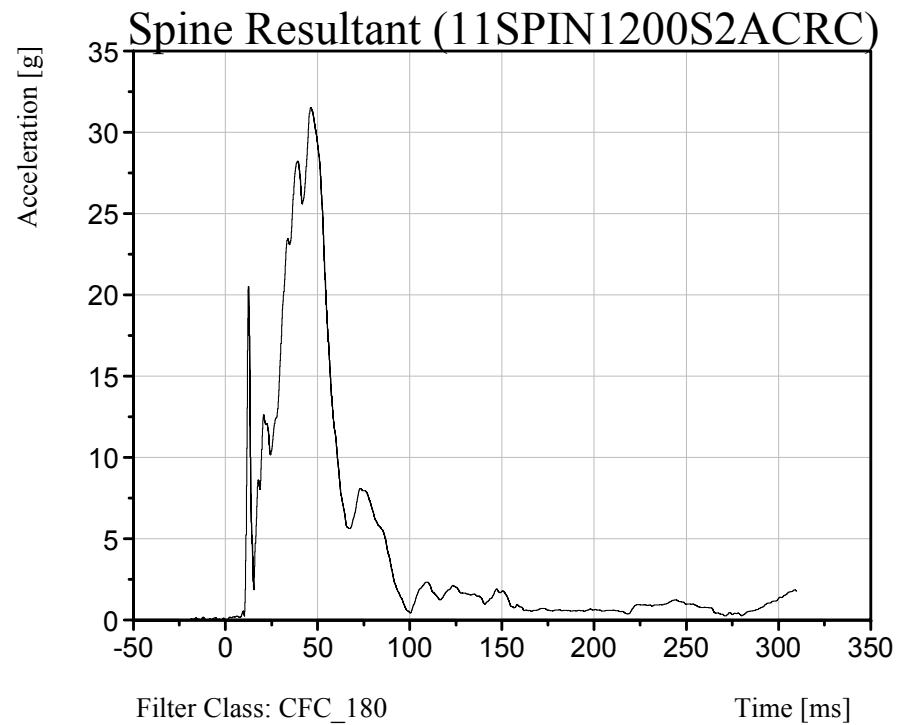
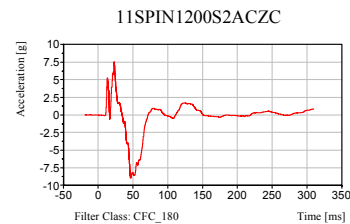
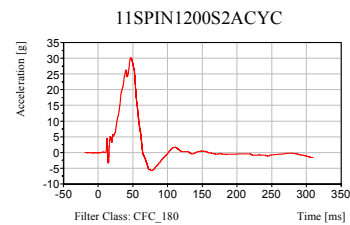
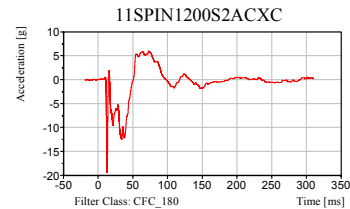
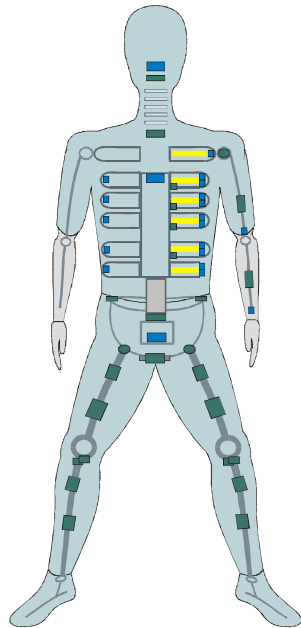
Time: 13:48

Resultant (Spine)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 050725



Dummy:SID IIs
Seating Position:
Driver

[Max.] 31.53 g at 46.16 ms

[Min.] 0.01 g at -13.84 ms

Resultant Source Code : $\text{Sqrt}(11\text{SPIN1200S2ACXC}^2 + 11\text{SPIN1200S2ACYC}^2 + 11\text{SPIN1200S2ACZC}^2)$



MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

Pelvis(LE) Summation

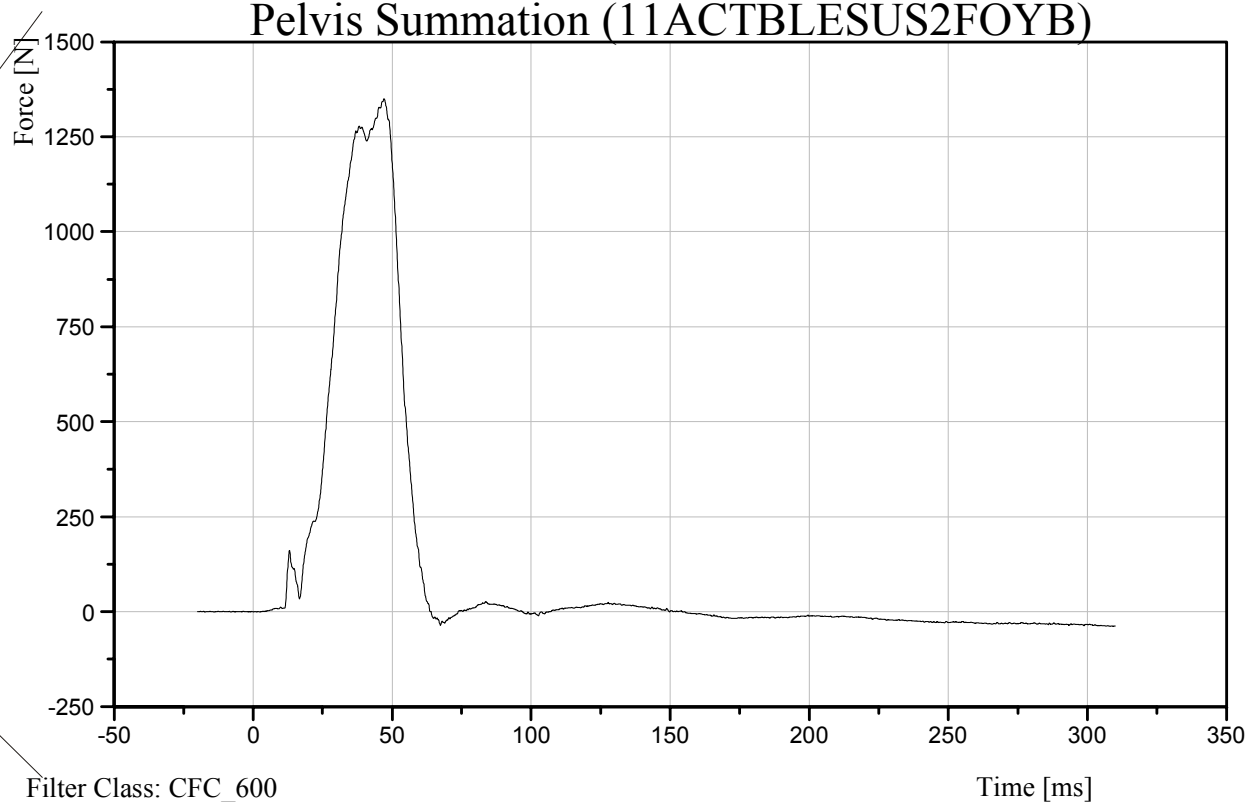
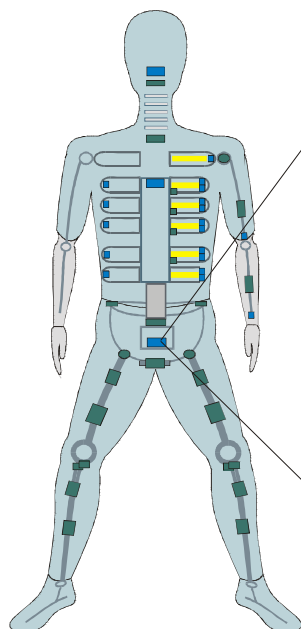
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 050725

Test Orientation = Side

Pelvis Summation (11ACTBLE00S2FOYB)



Dummy:SID IIs
Seating Position:
Driver

[Max.] 1,350.25 N at 47.04 ms

[Min.] -38.20 N at 309.28 ms

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



MDB into Left Side of 2005 Honda CRV at 52.9 kph

Head Injury Criterion (HIC)

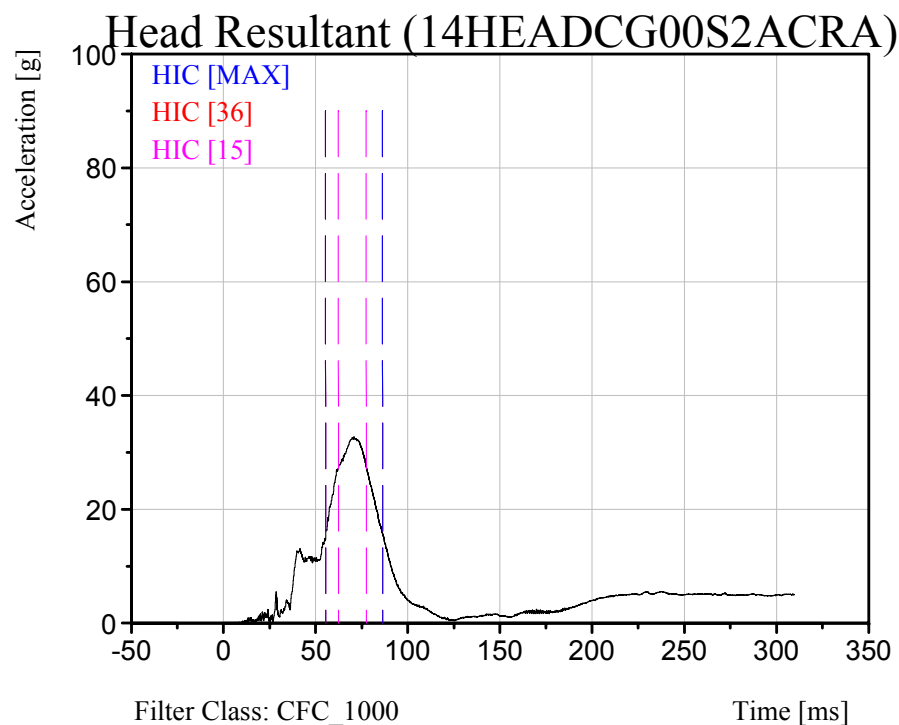
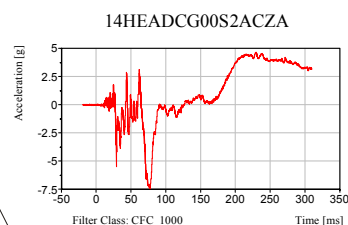
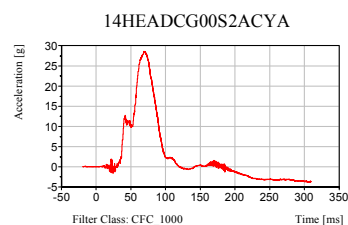
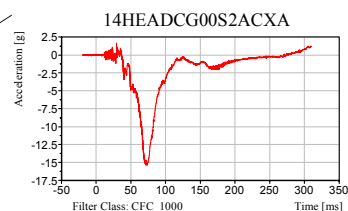
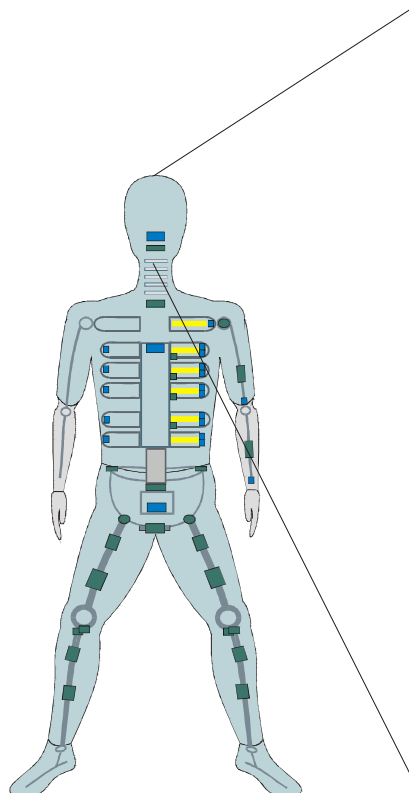
Date: 07/25/2005

Time: 13:48

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 050725



Dummy:SID IIs
Seating Position:
Left Rear Passenger

	<u>T1</u> (Begin)	<u>T2</u> (End)	<u>Avg. g T1 to T2</u>
HIC [Max.] = 106.95	55.52 ms	86.40 ms	26.02 g
HIC [36] = 106.95	55.52 ms	86.40 ms	26.02 g
HIC [15] = 77.75	62.48 ms	77.52 ms	30.56 g

HIC Source Code: SAE J2052 ISO/TC22/SC12/WG3 N 282 (Issued 1990-03-16) 102



MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

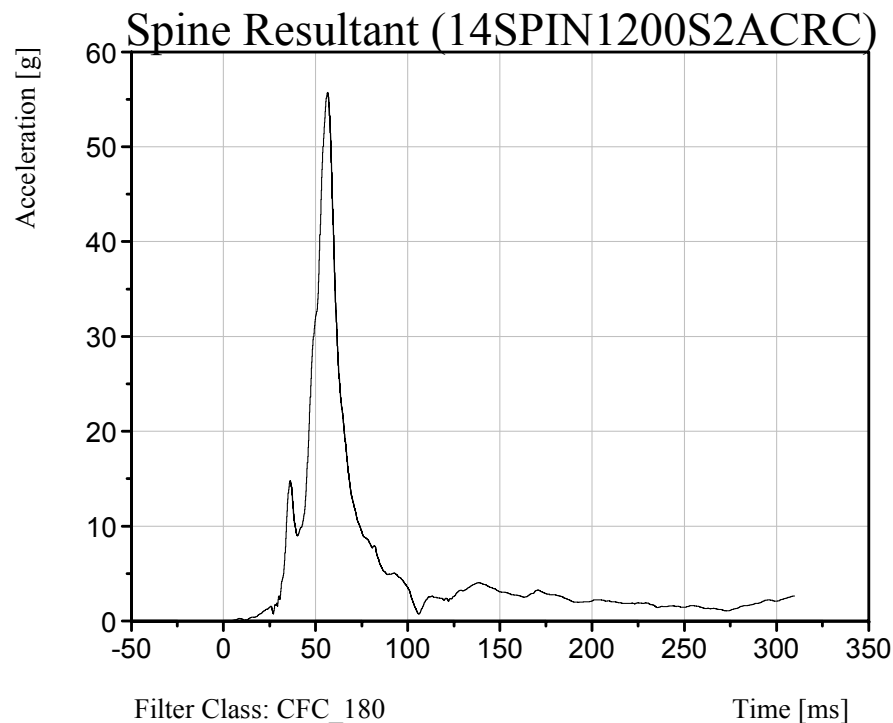
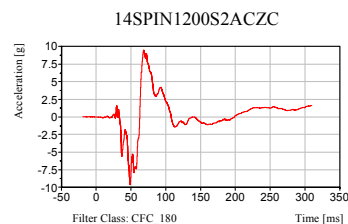
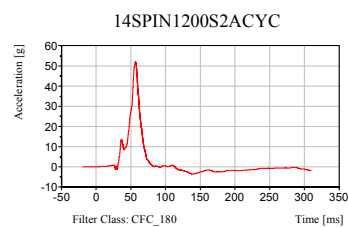
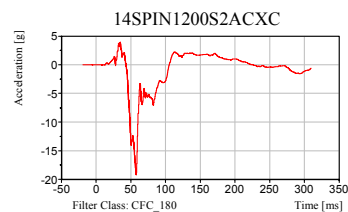
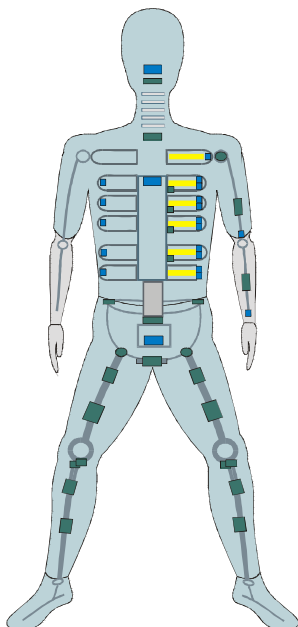
Time: 13:48

Resultant (Spine)

Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 050725



Dummy:SID IIs
Seating Position:
Left Rear Passenger

[Max.] 55.75 g at 56.40 ms

[Min.] 0.01 g at 0.08 ms

Resultant Source Code : $\text{Sqrt}(14\text{SPIN1200S2ACXC}^2 + 14\text{SPIN1200S2ACYC}^2 + 14\text{SPIN1200S2ACZC}^2)$



MDB into Left Side of 2005 Honda CRV at 52.9 kph

Date: 07/25/2005

Time: 13:48

Pelvis(LE) Summation

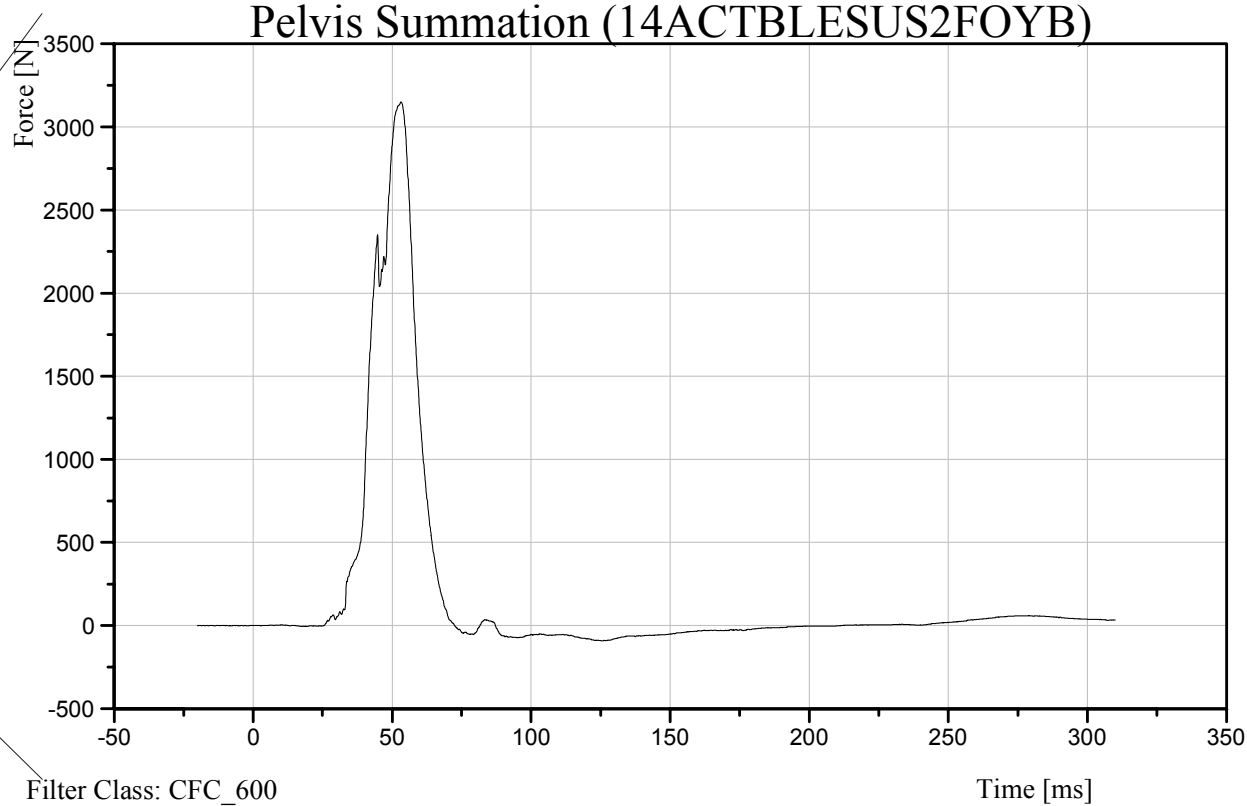
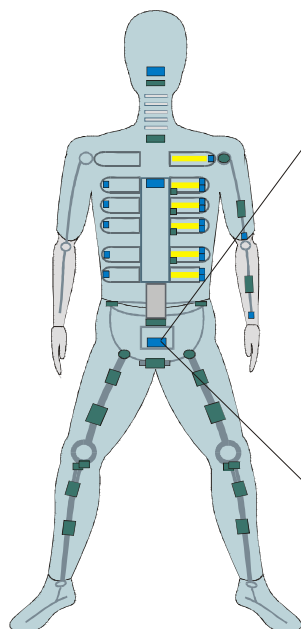
Customer: VRTC

TRC Inc. Test Lab: CTF

Test Number: 050725

Test Orientation = Side

Pelvis Summation (14ACTBLE00S2FOYB)



Dummy:SID IIs
Seating Position:
Left Rear Passenger

[Max.] 3,149.28 N at 53.20 ms

[Min.] -91.58 N at 125.44 ms

Pelvis Summation Source Code : Summation of Channels 14ILACLE00S2FOYB,14ACTBLE00S2FOYB

Appendix C

Dummy Configuration and Performance Verification Data

Pre-Test Dummy Configuration and Performance Verification Data

Driver Dummy S/N: 020

Tested per draft procedures and specifications provided by VRTC

Transportation Research Center Inc.
SIDIIs Dummy - Build Level D
External Dimensions
Serial No. 020 Calibration No. 07
Date: 22-Jul-05

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Sitting Height	779.0 - 795.0	781	Yes
B	Shoulder Pivot Height	437.0 - 453.0	441	Yes
C	H-Point Height	81.0 - 91.0	83	Yes
D	H-Point from Backline	141.0 - 151.0	142	Yes
E	Shoulder Pivot from Backline	104.0 - 114.0	107	Yes
F	Thigh Clearance	119.0 - 135.0	127	Yes
G	Head Breadth	140.0 - 148.0	143	Yes
H	Head Back from Backline	40.0 - 46.0	43	Yes
I	Head Depth	178.0 - 188.0	181	Yes
J	Head Circumference	541.0 - 551.0	543	Yes
K	Buttock to Knee Length	514.0 - 540.0	531	Yes
L	Popliteal Height	348.0 - 374.0	351	Yes
M	Knee to Floor Height	393.0 - 409.0	403	Yes
N	Buttock Popliteal Length	416.0 - 442.0	425	Yes
O	Chest Depth without Jacket	195.0 - 211.0	200	Yes
P	Foot Length (right)	218.0 - 234.0	224	Yes
P	Foot Length (left)	218.0 234.0	215	No
Q	Hip Breadth	313.0 - 323.0	318	Yes
R	Arm Length	249.0 - 259.0	251	Yes
S	Knee to Seat Back	477.0 - 493.0	481	Yes
V	Shoulder Width	337.0 - 353.0	346	Yes
W	Foot Width (right)	78.0 - 94.0	85	Yes
W	Foot Width (left)	78.0 94.0	81	Yes
Y	Chest Circumference with Jacket	861.0 - 891.0	872	Yes
Z	Waist Circumference	757.0 - 787.0	764	Yes

Technician



Approved





Transportation Research Center Inc.

Left Head Test

SID-IIs Serial No. 020 Calibration No. 07 - 1

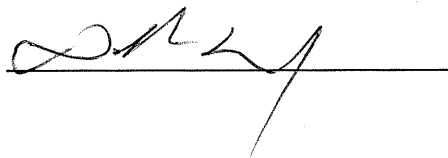
Test Date 07/14/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	49 %	Yes
Peak Resultant Acceleration	125 - 145 g	122.4 g	No
Peak Longitudinal Acceleration	15 g Max	-4.2 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

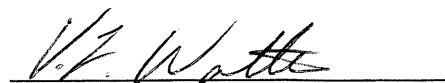
Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 13:05:18 231

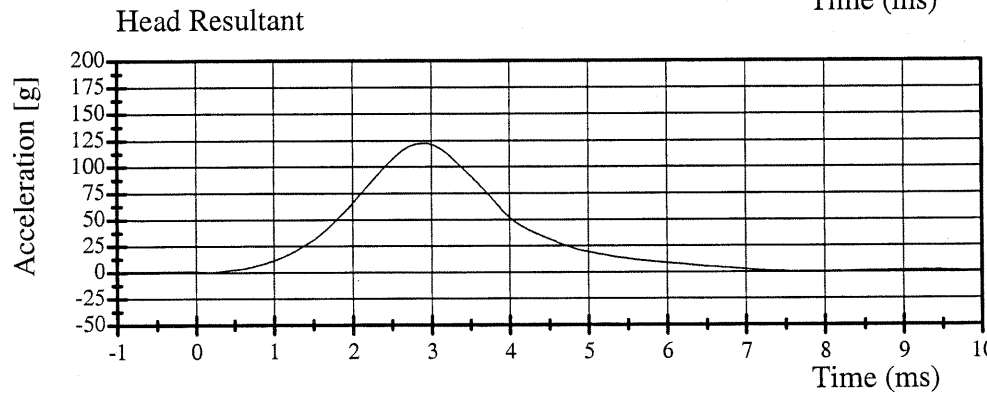
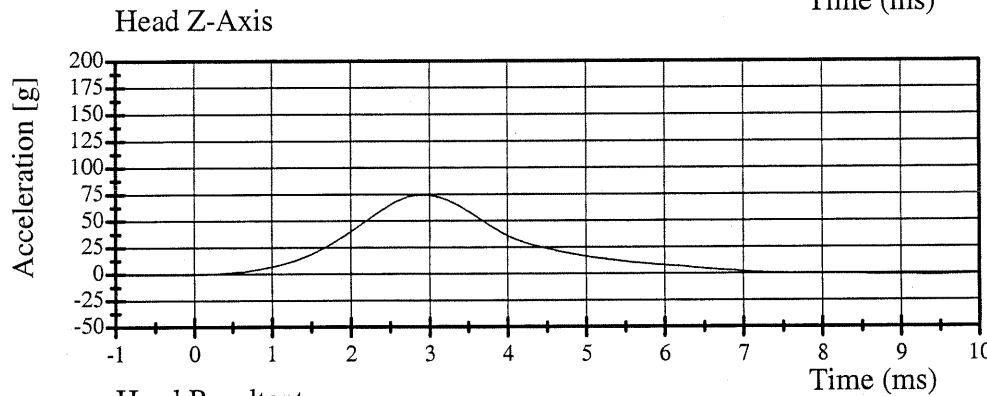
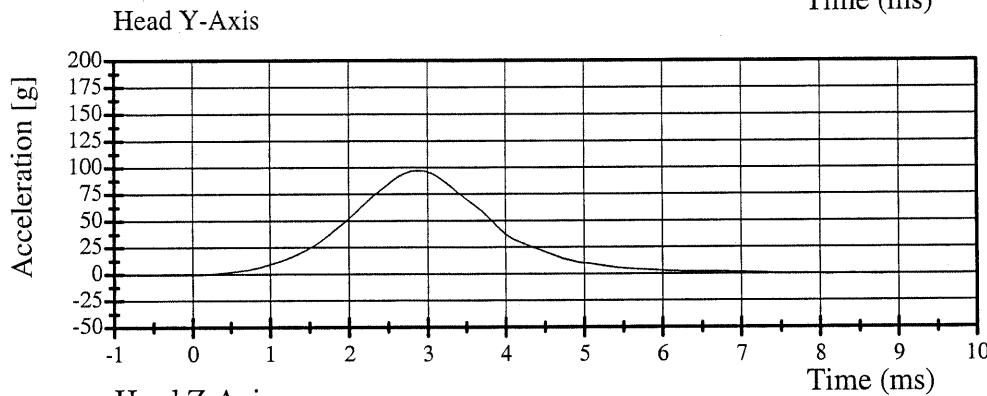
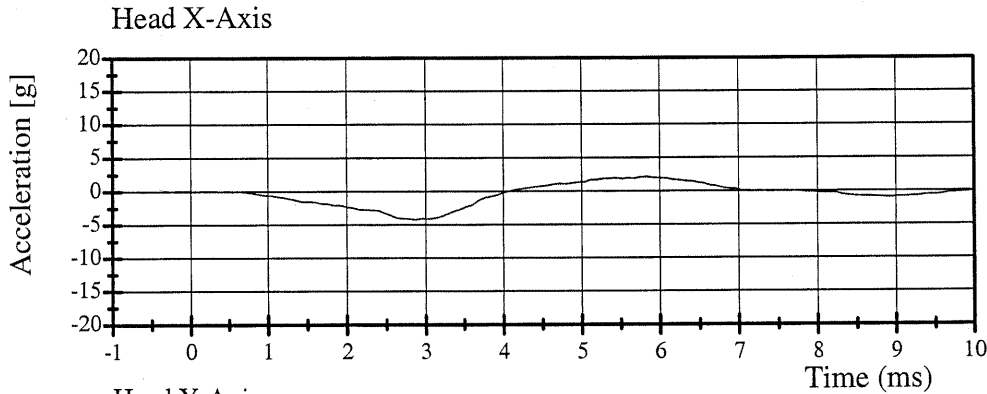


Transportation Research Center Inc.

Head Test

SID-II's Serial No. 020 Calibration No. 07 - 1

Test Date 07/14/2005



08.07.2005 13:05:19 231



Transportation Research Center Inc.

Left Lateral Neck Test

SID-IIs Serial No. 020 Calibration No. 07 - 4

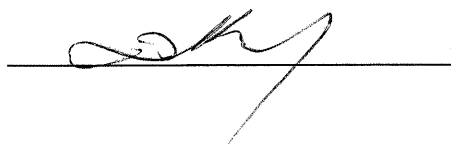
Test Date 07/15/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Impact Velocity	5.51 - 5.63 m/s	5.60 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.20 - 2.80 m/s	2.57 m/s	Yes
15 ms	3.40 - 4.10 m/s	3.73 m/s	Yes
20 ms	4.50 - 5.40 m/s	5.00 m/s	Yes
25 ms	5.50 - 6.10 m/s	5.97 m/s	Yes
25 - 100 ms	5.20 - 6.20 m/s	5.70 - 6.02 m/s	Yes
Peak D Plane Rotation	74 - 79 °	73.5 °	No
Time of Peak D-Plane Rotation	50 - 70 °	61.7 °	Yes
Peak Moment About Occipital Condyles during Rotation Interval	40.0 - 45.0 N·m	0 N·m	No
Time of Moment Decay To 0 N·m	113 - 123 ms	115.8 ms	Yes

Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 14:18:48 670



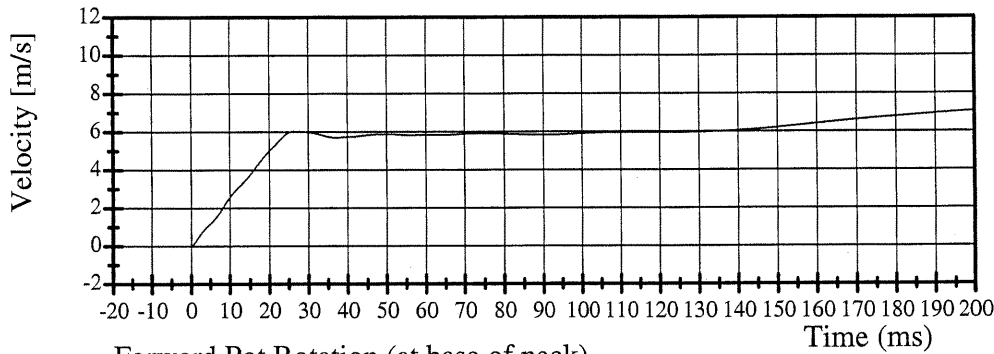
Transportation Research Center Inc.

Left Lateral Neck Test

SID-IIs Serial No. 020 Calibration No. 07 - 4

Test Date 07/15/2005

Integrated Pendulum Velocity

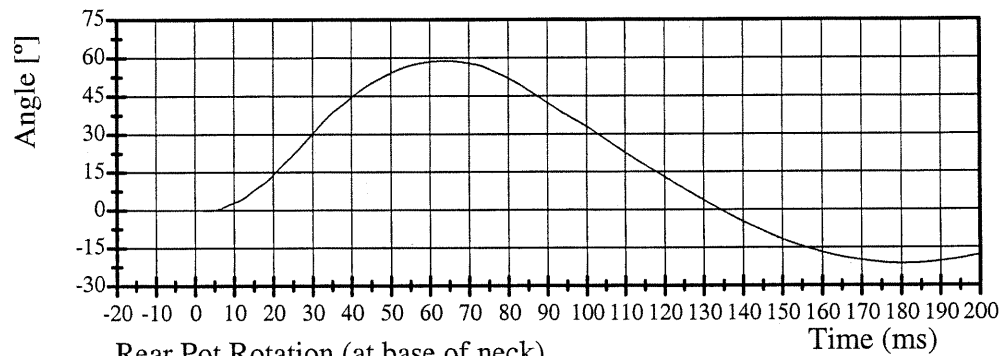


Filter Class: 180

Max: 7.2 m/s at 221.6 ms

Min: -0.0 m/s at -0.6 ms

Forward Pot Rotation (at base of neck)

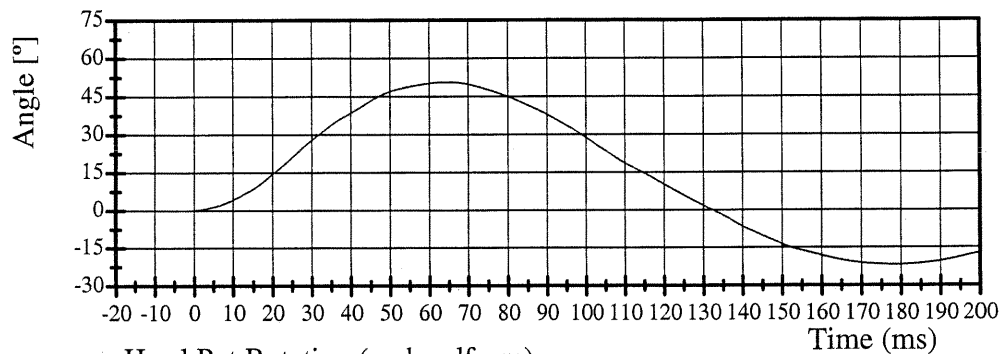


Filter Class: 60

Max: 58.8 ° at 63.9 ms

Min: -21.2 ° at 180.2 ms

Rear Pot Rotation (at base of neck)

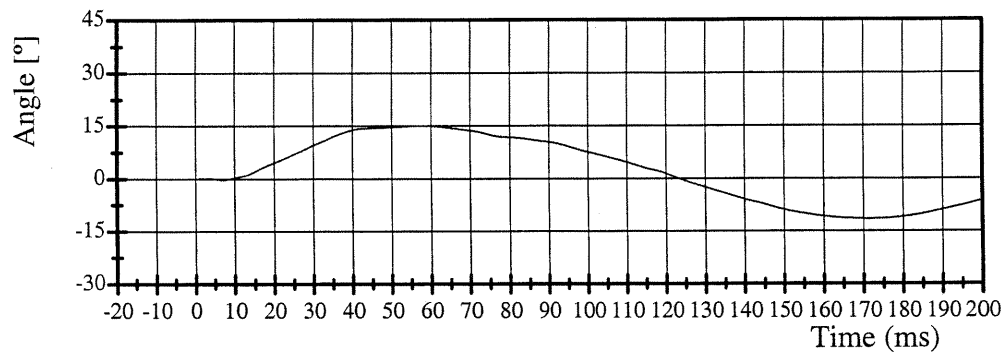


Filter Class: 60

Max: 50.7 ° at 64.2 ms

Min: -21.7 ° at 178.6 ms

Head Pot Rotation (on headform)



Filter Class: 60

Max: 15.1 ° at 57.9 ms

Min: -11.5 ° at 171.2 ms

08.07.2005 14:19:56 670



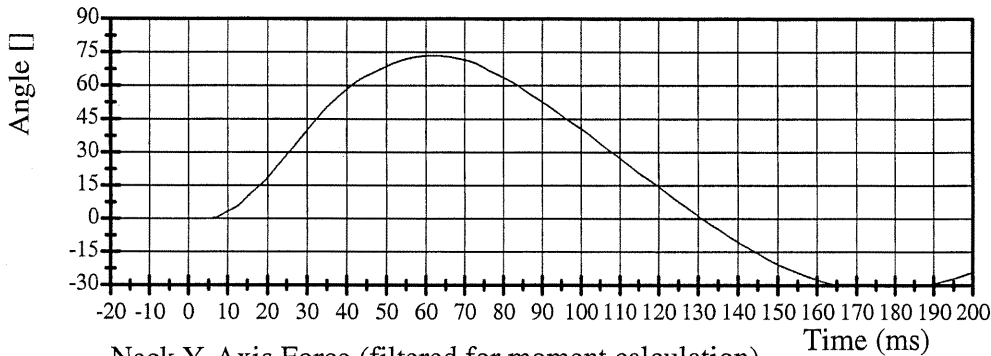
Transportation Research Center Inc.

Left Lateral Neck Test

SID-IIs Serial No. 020 Calibration No. 07 - 4

Test Date 07/15/2005

D-Plane Rotation (forward pot + head pot)

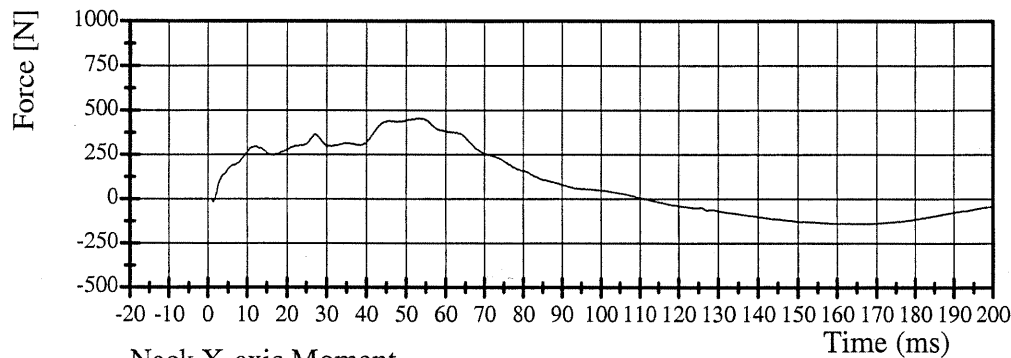


Filter Class: CFC 60

Max: 73.5 ° at 61.7 ms

Min: -32.4 ° at 177.3 ms

Neck Y-Axis Force (filtered for moment calculation)

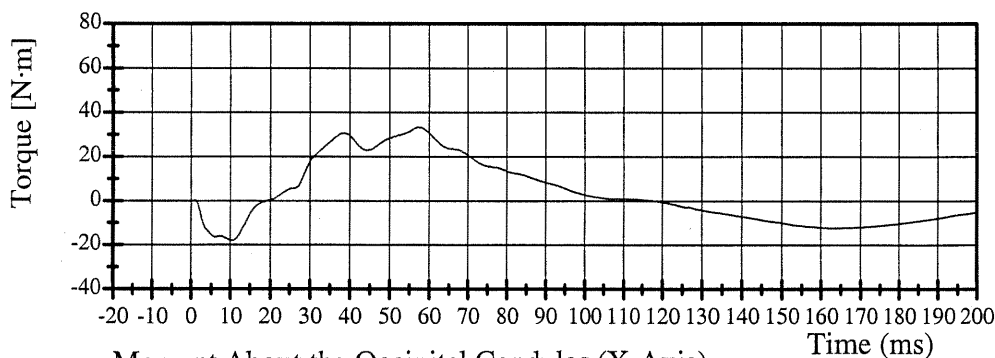


Filter Class: CFC 600

Max: 455 N at 52.6 ms

Min: -140 N at 166.6 ms

Neck X-axis Moment

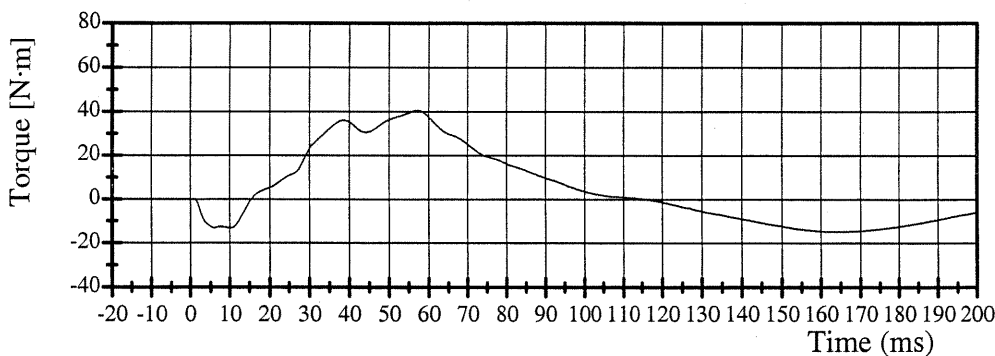


Filter Class: CFC 600

Max: 33.4 N·m at 57.6 ms

Min: -18.0 N·m at 10.6 ms

Moment About the Occipital Condyles (X-Axis)



Filter Class: 600

Max: 40.5 N·m at 57.2 ms

Min: -14.8 N·m at 163.9 ms

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Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 07 - 1

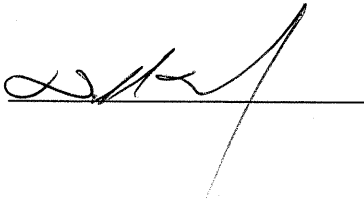
Test Date 07/16/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.3 C	Yes
Relative Humidity	10 - 70 %	58 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.47 m/sec	Yes
Probe Force	1600 - 2400 N	2274 N	Yes
Deflection	27 - 39 mm	33.7 mm	Yes

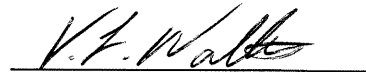
Test meets specifications.

Comments:

Technician



Approved



07.16.2005 09:28:13 578

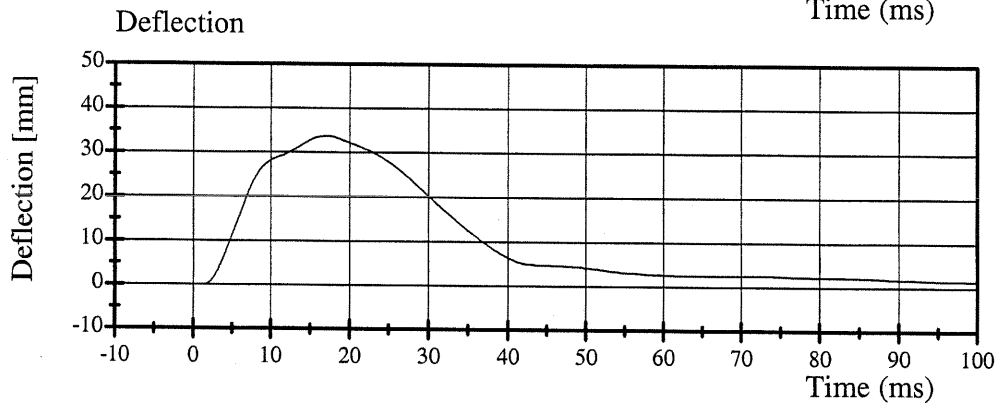
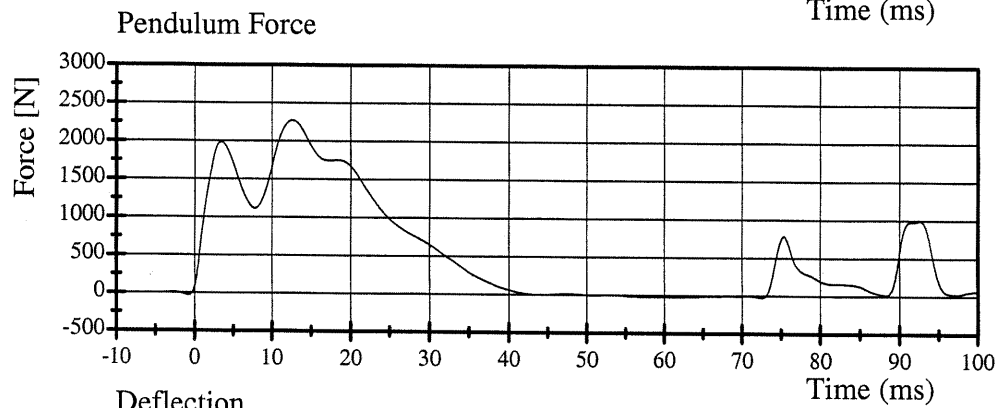
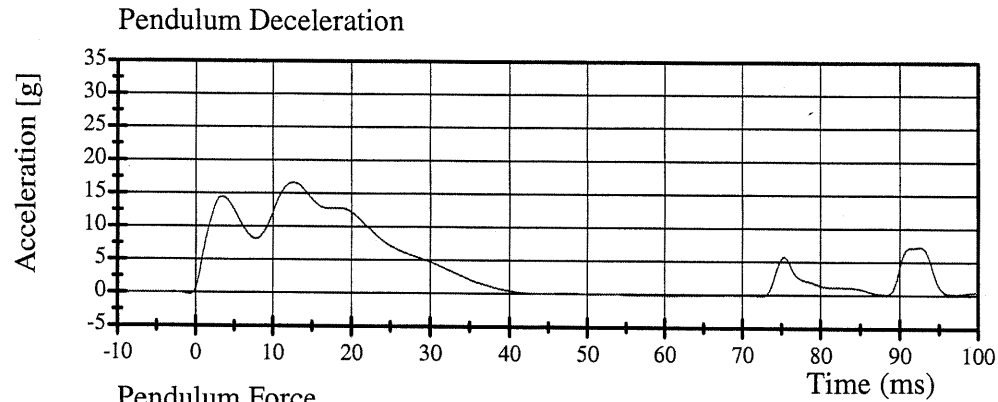


Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 020 Calibration No. 07 - 1

Test Date 07/16/2005



07.16.2005 09:28:15 578



Transportation Research Center Inc.

Left Thorax with Arm Test

SID-IIs Serial No. 020 Calibration No. 07 - 2

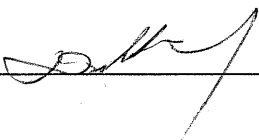
Test Date 07/16/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.2 C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Pendulum Velocity	6.60 - 6.80 m/sec	6.72 m/sec	Yes
Pendulum Force	4100 - 4700 N	4679 N	Yes
Upper Spine Peak Acceleration	34 - 48 g	37.3 g	Yes
Lower Spine Peak Acceleration	30 - 38 g	31.6 g	Yes
Upper Rib Peak Deflection	23 - 35 mm	28.0 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	32.5 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	36.5 mm	Yes
Shoulder Peak Deflectioin	30 - 42 mm	33.7 mm	Yes

Test meets specifications.

Comments:

Technician



Approved



08.07.2005 15:41:36 382



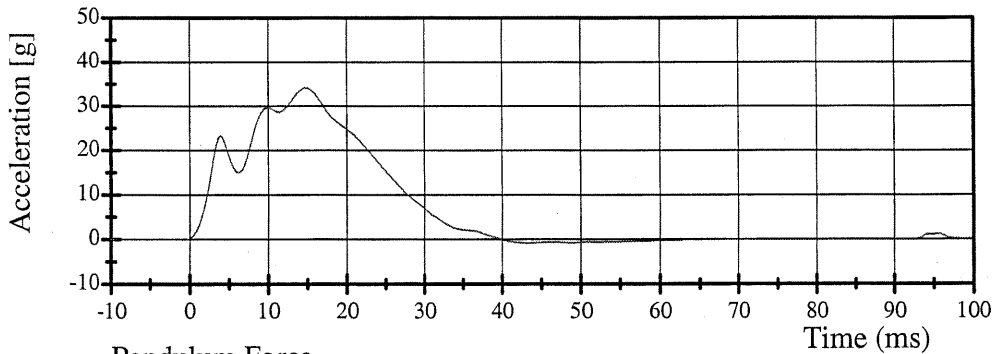
Transportation Research Center Inc.

Left Thorax with Arm Test

SID-IIIs Serial No. 020 Calibration No. 07 - 2

Test Date 07/16/2005

Pendulum Deceleration

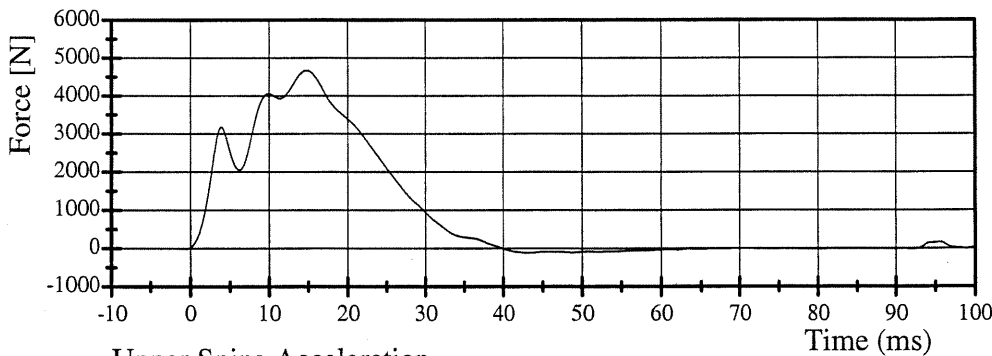


Filter Class: CFC 180

Max: 34.2 g at 14.8 ms

Min: -0.8 g at 43.3 ms

Pendulum Force

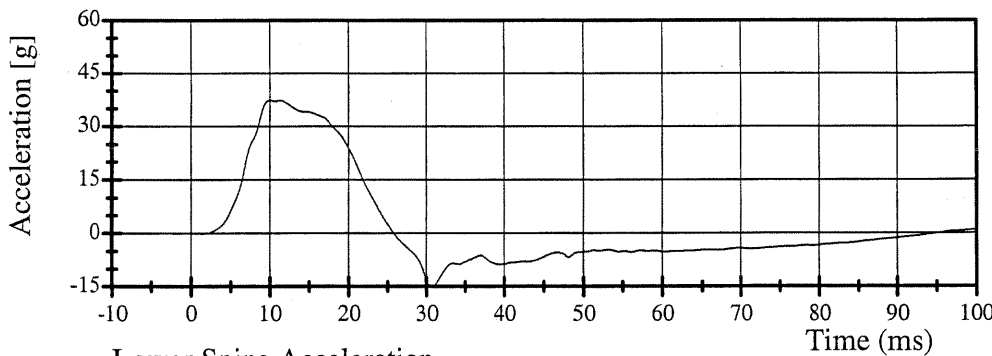


Filter Class: CFC 180

Max: 4679 N at 14.8 ms

Min: -116 N at 43.3 ms

Upper Spine Acceleration

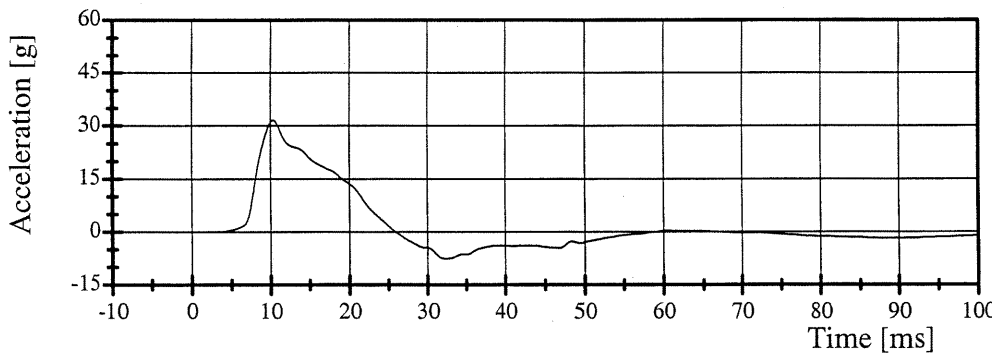


Filter Class: CFC 180

Max: 37.3 g at 11.3 ms

Min: -15.2 g at 30.6 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 31.6 g at 10.3 ms

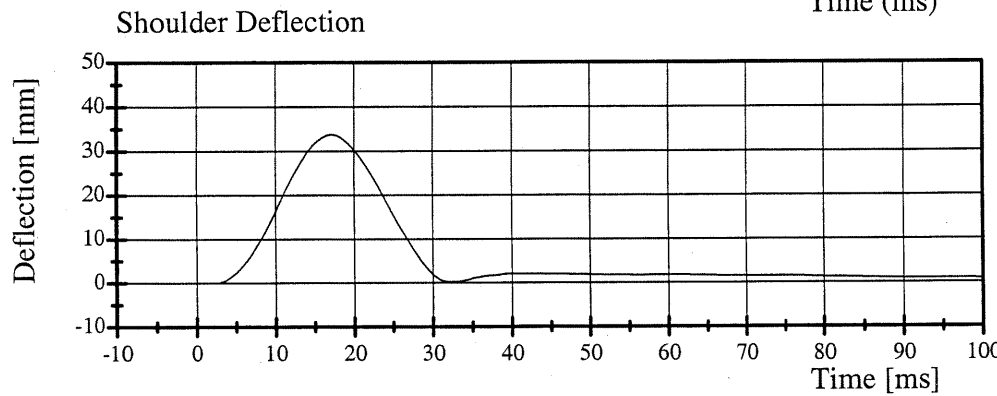
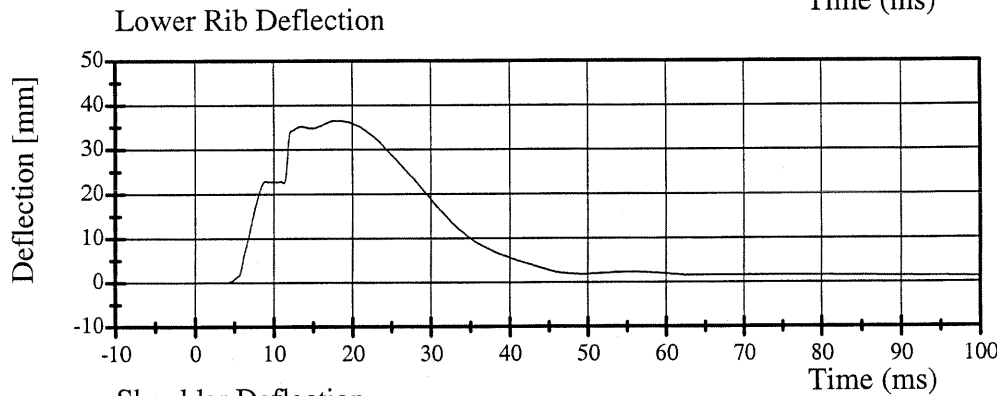
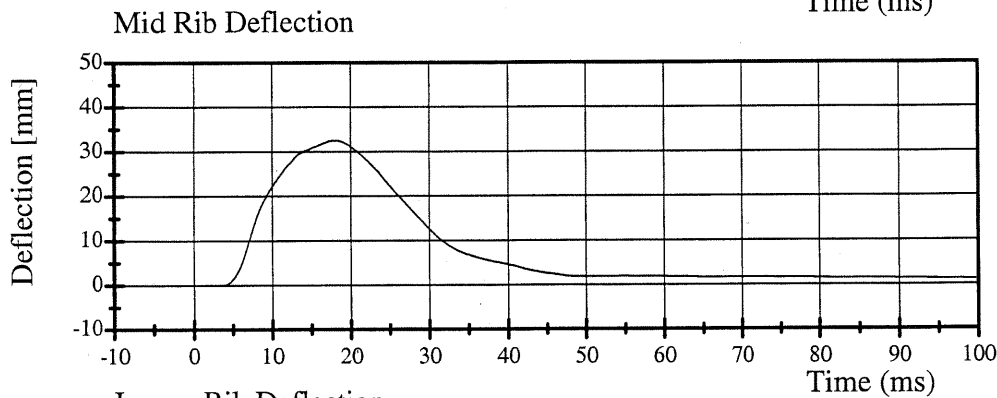
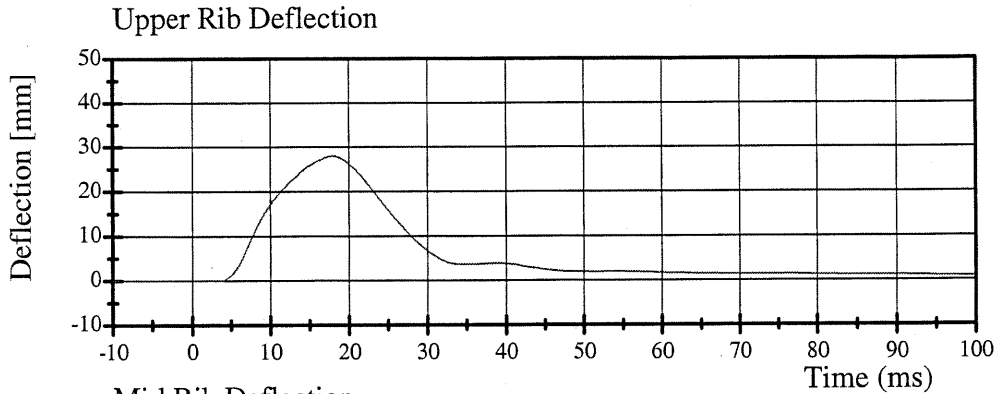
Min: -7.6 g at 32.3 ms

Transportation Research Center Inc.

Left Thorax with Arm Test

SID-II's Serial No. 020 Calibration No. 07 - 2

Test Date 07/16/2005



08.07.2005 15:41:37 382



Transportation Research Center Inc.

Left Thorax No Arm Test

SID-IIs Serial No. 020 Calibration No. 07 - 1

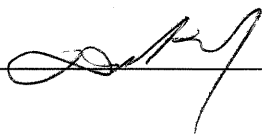
Test Date 07/16/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.5 C	Yes
Relative Humidity	10 - 70 %	58 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.31 m/sec	Yes
Pendulum Force	1800 - 2300 N	2294 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.8 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	9.2 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	34.4 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	41.0 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	40.6 mm	Yes

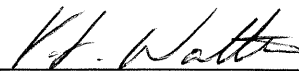
Test meets specifications.

Comments:

Technician



Approved



08.07.2005 15:51:44 617



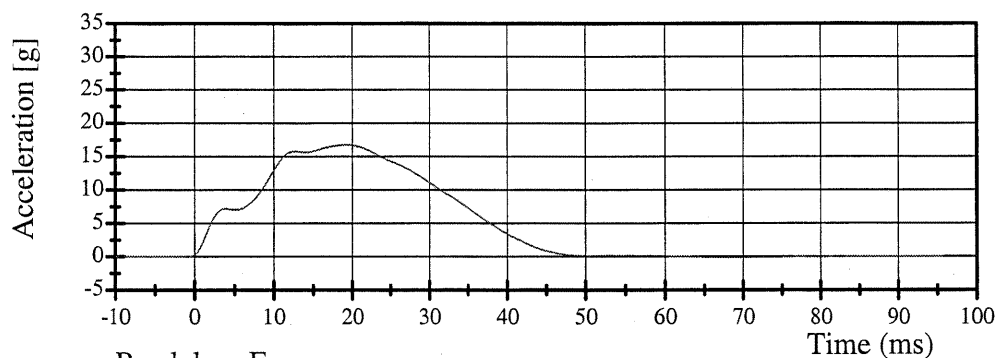
Transportation Research Center Inc.

Left Thorax No Arm Test

SID-IIIs Serial No. 020 Calibration No. 07 - 1

Test Date 07/16/2005

Pendulum Deceleration

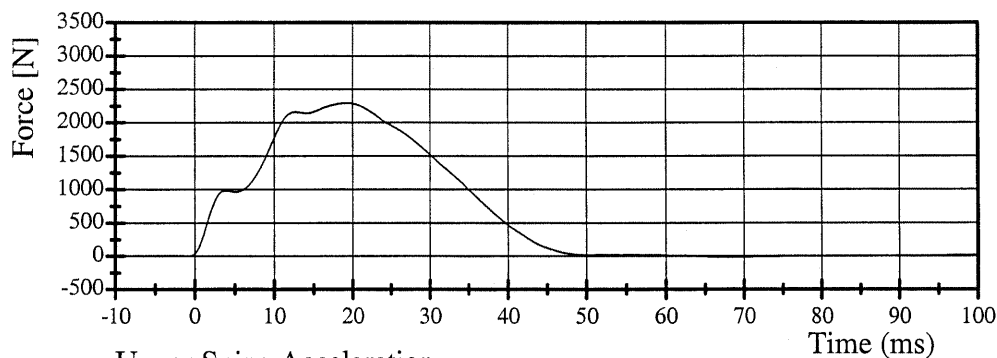


Filter Class: CFC 180

Max: 16.7 g at 19.4 ms

Min: -0.1 g at 69.5 ms

Pendulum Force

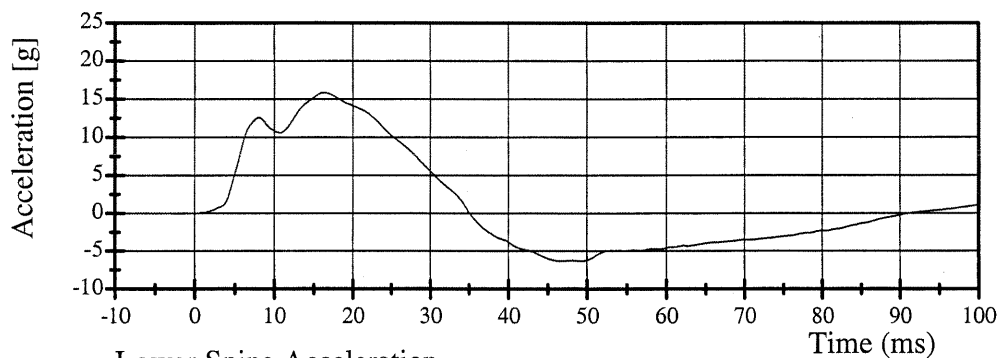


Filter Class: CFC 180

Max: 2294 N at 19.4 ms

Min: -16 N at 69.5 ms

Upper Spine Acceleration

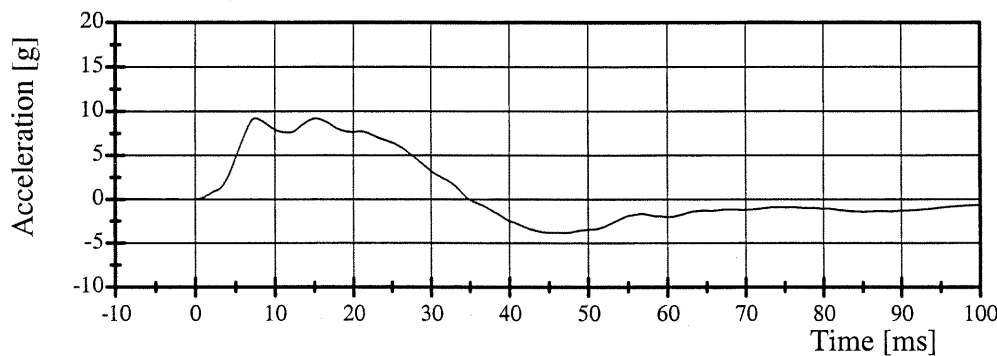


Filter Class: CFC 180

Max: 15.8 g at 16.2 ms

Min: -6.3 g at 49.4 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 9.2 g at 7.6 ms

Min: -3.8 g at 47.0 ms

08.07.2005 15:51:44 617



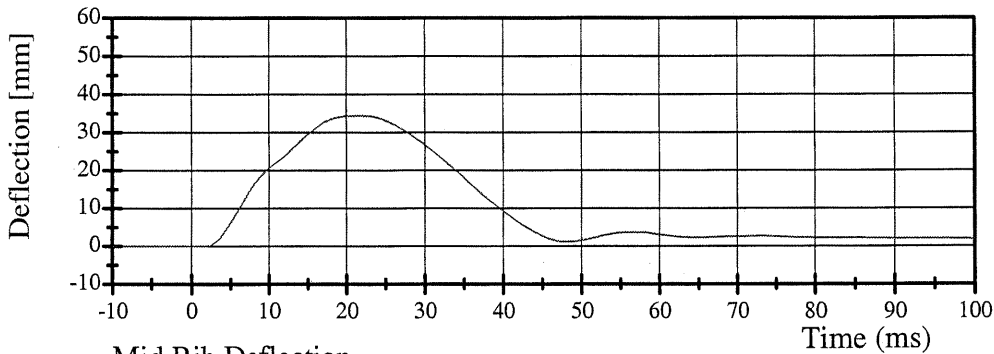
Transportation Research Center Inc.

Left Thorax No Arm Test

SID-II's Serial No. 020 Calibration No. 07 - 1

Test Date 07/16/2005

Upper Rib Deflection

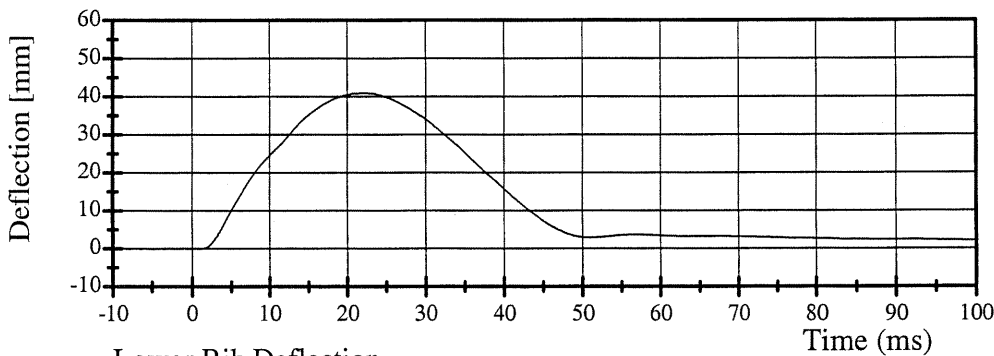


Filter Class: CFC 600

Max: 34.4 mm at 21.3 ms

Min: -0.0 mm at -43.0 ms

Mid Rib Deflection

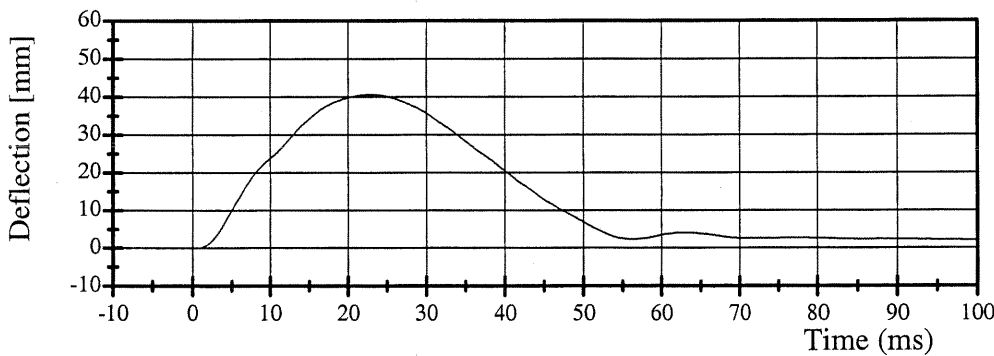


Filter Class: CFC 600

Max: 41.0 mm at 22.1 ms

Min: -0.0 mm at 1.0 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 40.6 mm at 23.0 ms

Min: -0.0 mm at 0.6 ms

Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 07 - 6

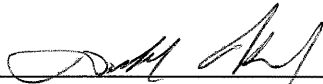
Test Date 07/16/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.1 C	Yes
Relative Humidity	10 - 70 %	51 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.38 m/sec	Yes
Pendulum Force	1300 - 1900 N	2007 N	No
Upper Spine Peak Acceleration	5 - 9 g	6.9 g	Yes
Lower Spine Peak Acceleration	9 - 13 g	12.1 g	Yes
Upper Abdomen Rib Peak Deflection	44 - 55 mm	40.2 mm	No
Lower Abdomen Rib Peak Deflection	44 - 56 mm	40.0 mm	No

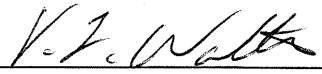
Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 17:10:49 637



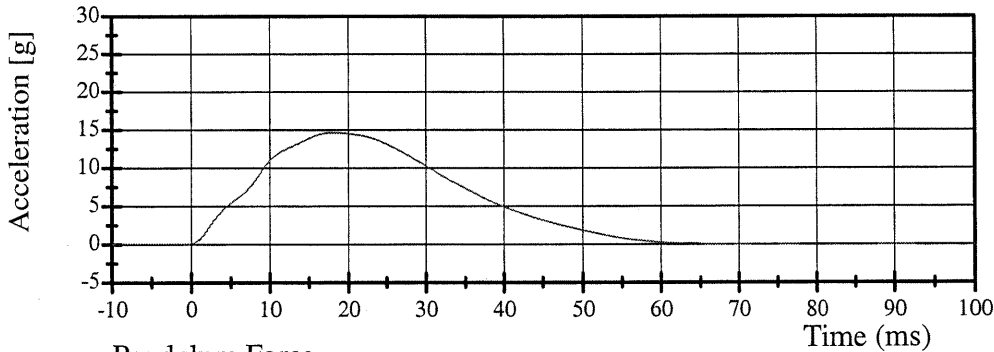
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 07 - 6

Test Date 07/16/2005

Pendulum Deceleration

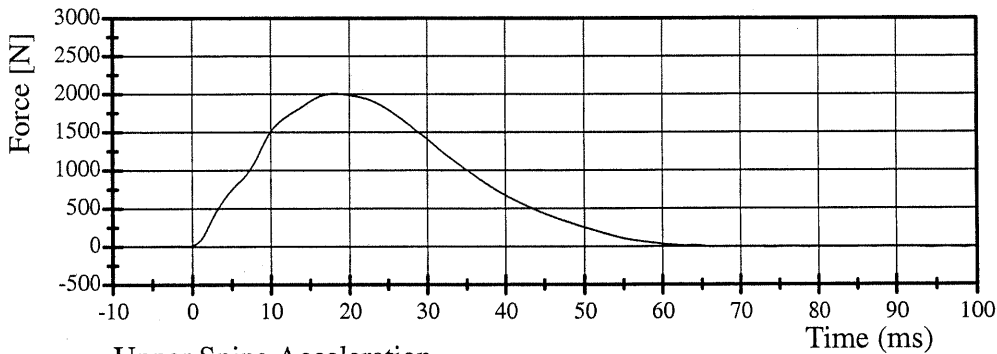


Filter Class: CFC 180

Max: 14.6 g at 18.1 ms

Min: -0.1 g at 160.4 ms

Pendulum Force

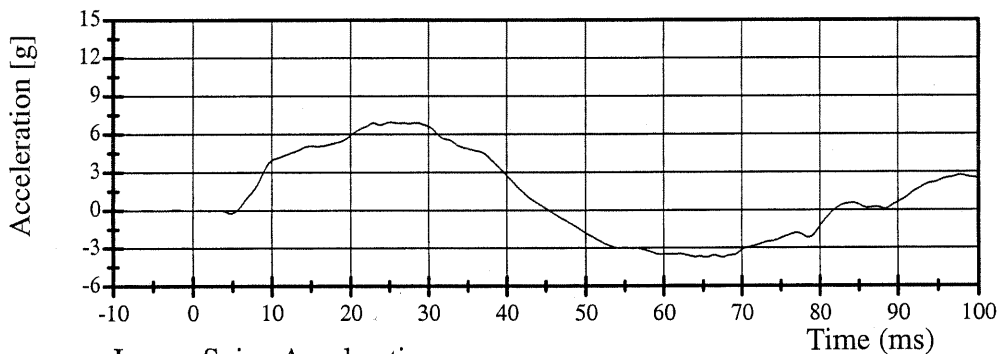


Filter Class: CFC 180

Max: 2007 N at 18.1 ms

Min: -14 N at 160.4 ms

Upper Spine Acceleration

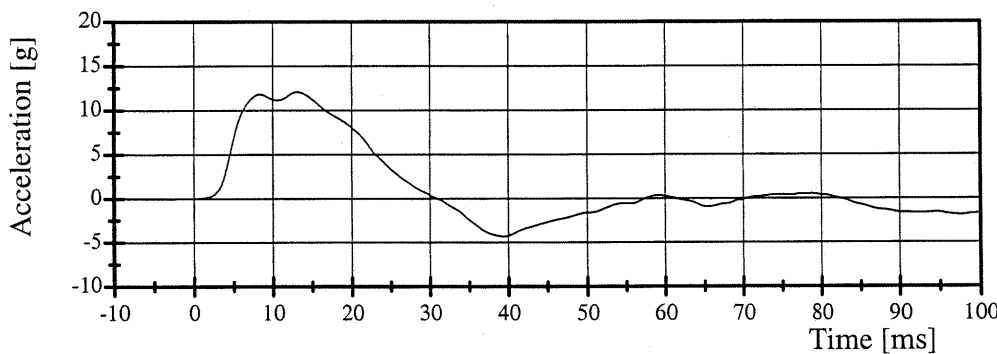


Filter Class: CFC 180

Max: 6.9 g at 25.2 ms

Min: -3.7 g at 65.4 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 12.1 g at 13.1 ms

Min: -4.3 g at 39.4 ms

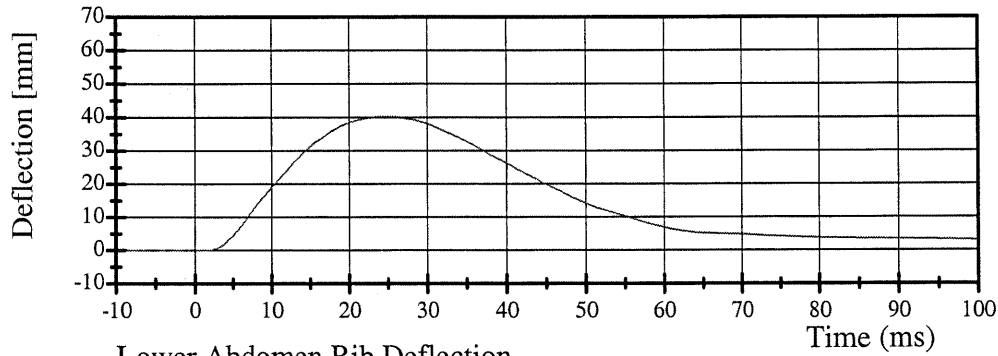
Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 020 Calibration No. 07 - 6

Test Date 07/16/2005

Upper Abdomen Rib Deflection

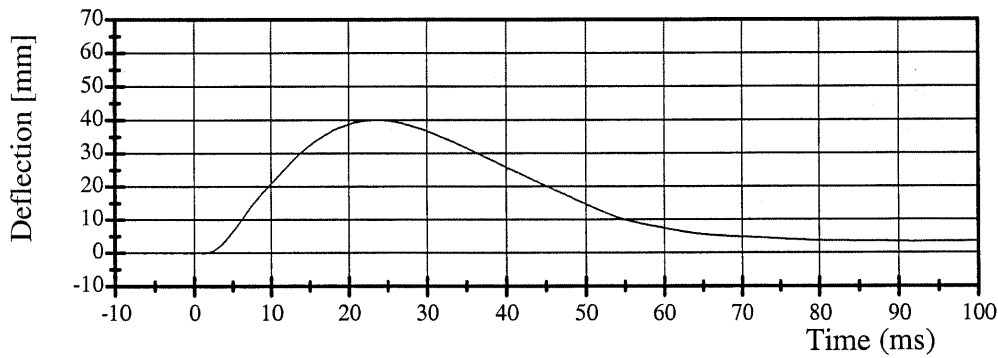


Filter Class: CFC 600

Max: 40.2 mm at 24.7 ms

Min: -0.0 mm at -37.8 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 40.0 mm at 23.7 ms

Min: -0.0 mm at 1.3 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 07 - 1

Test Date 07/16/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.5 C	Yes
Relative Humidity	10 - 70 %	59 %	Yes
Pendulum Velocity	6.60 - 6.80 m/sec	6.61 m/sec	Yes
Pendulum Acceleration	40 - 48 g	40.6 g	Yes
Pelvis Peak Acceleration	40 - 48 g	46.6 g	Yes
Peak Acetabulum Force	3803 - 4505 g	3803 N	Yes

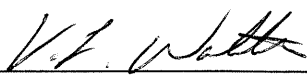
Test meets specifications.

Comments:

Technician



Approved



08.07.2005 16:48:28 392



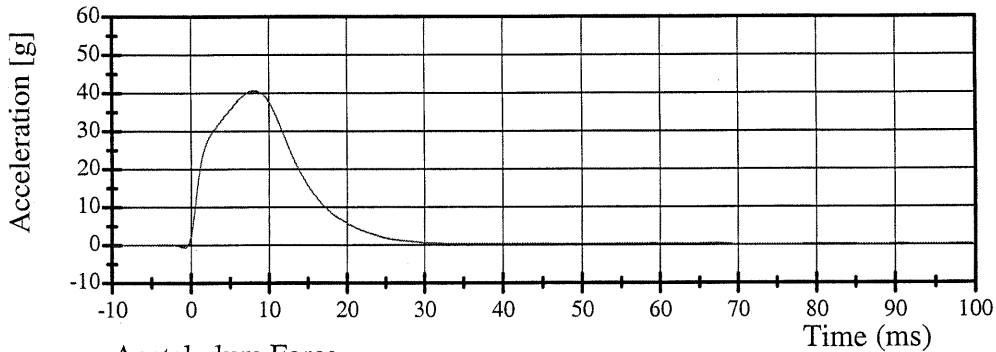
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 020 Calibration No. 07 - 1

Test Date 07/16/2005

Pendulum Deceleration

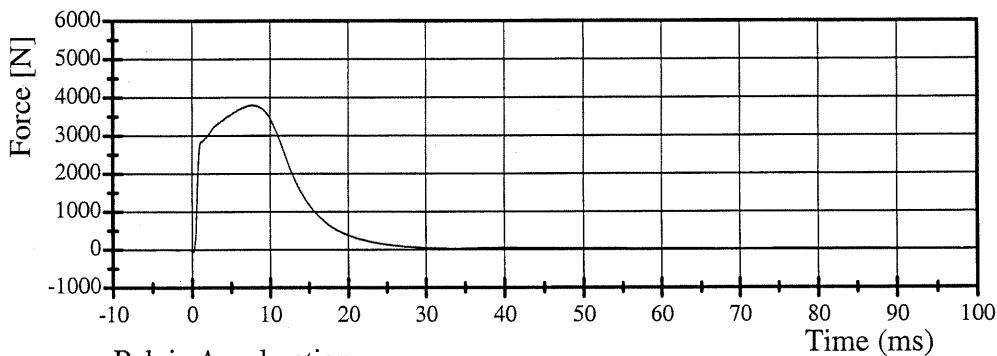


Filter Class: CFC 180

Max: 40.6 g at 8.0 ms

Min: -0.6 g at -0.8 ms

Acetabulum Force

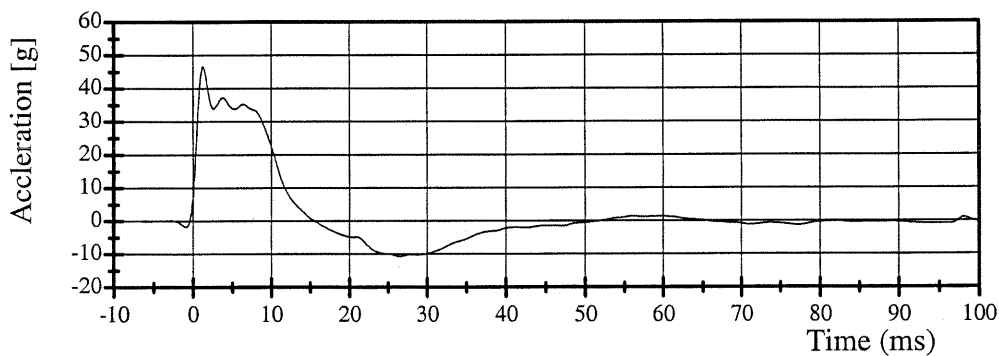


Filter Class: CFC 600

Max: 3803 N at 7.7 ms

Min: -55 N at 0.2 ms

Pelvis Acceleration



Filter Class: CFC 180

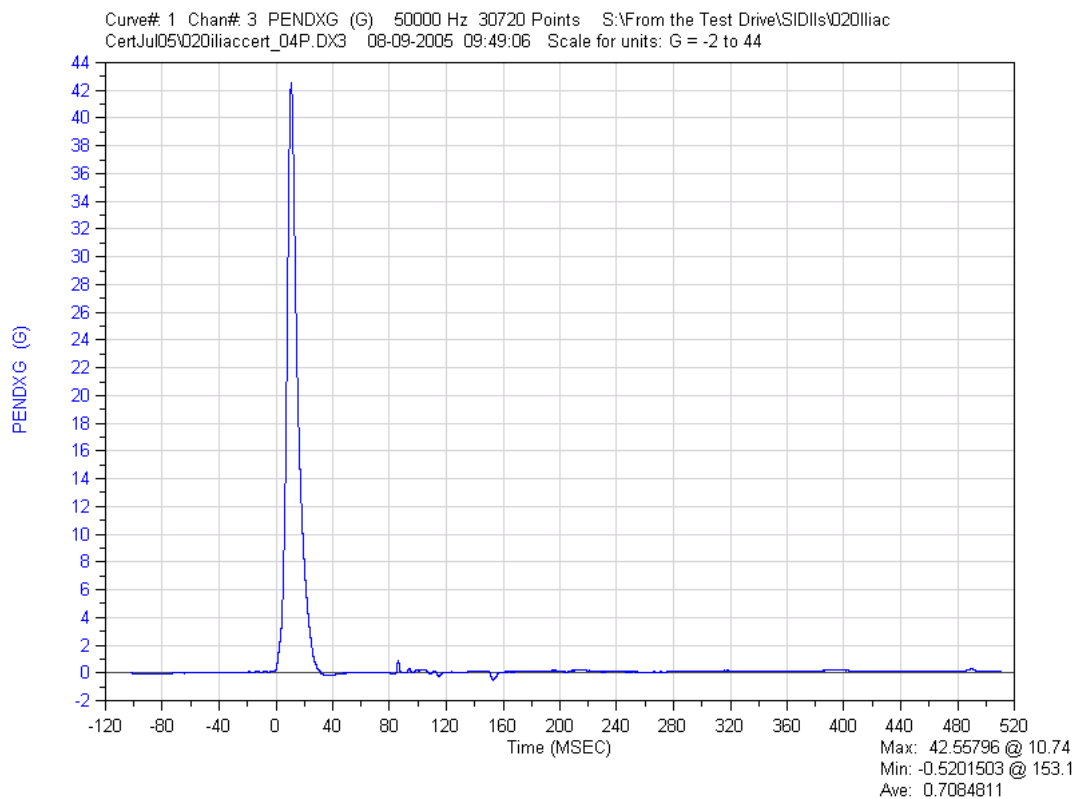
Max: 46.6 g at 1.3 ms

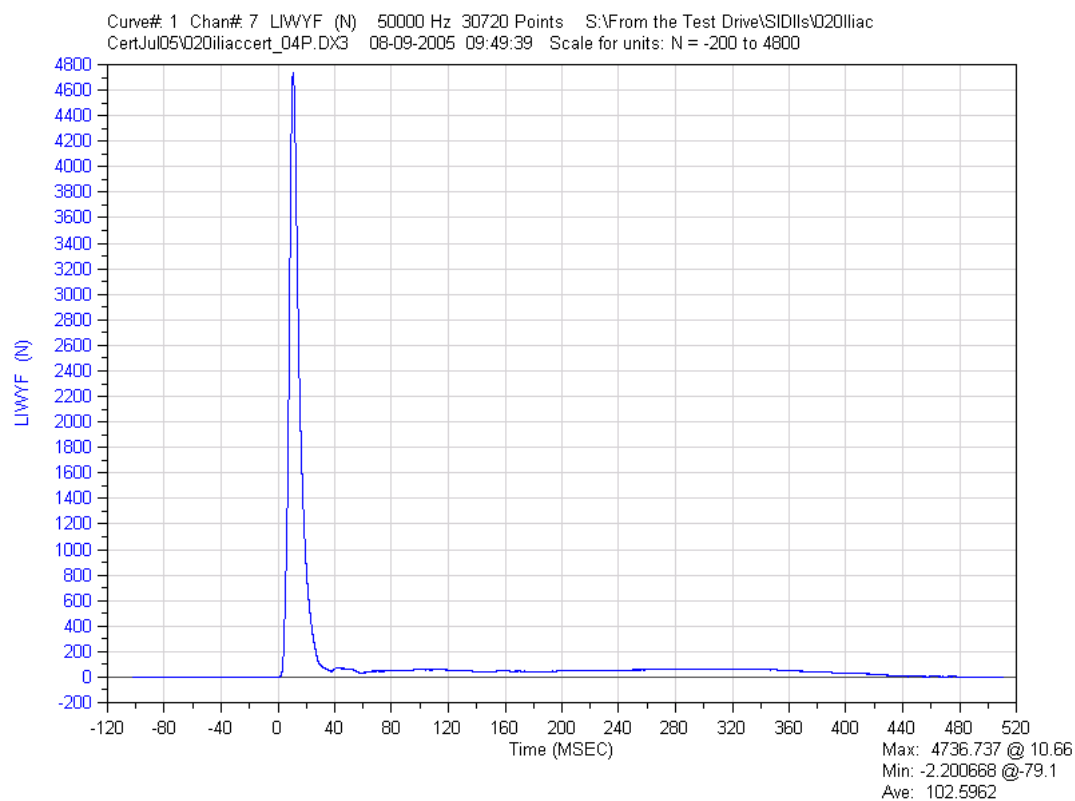
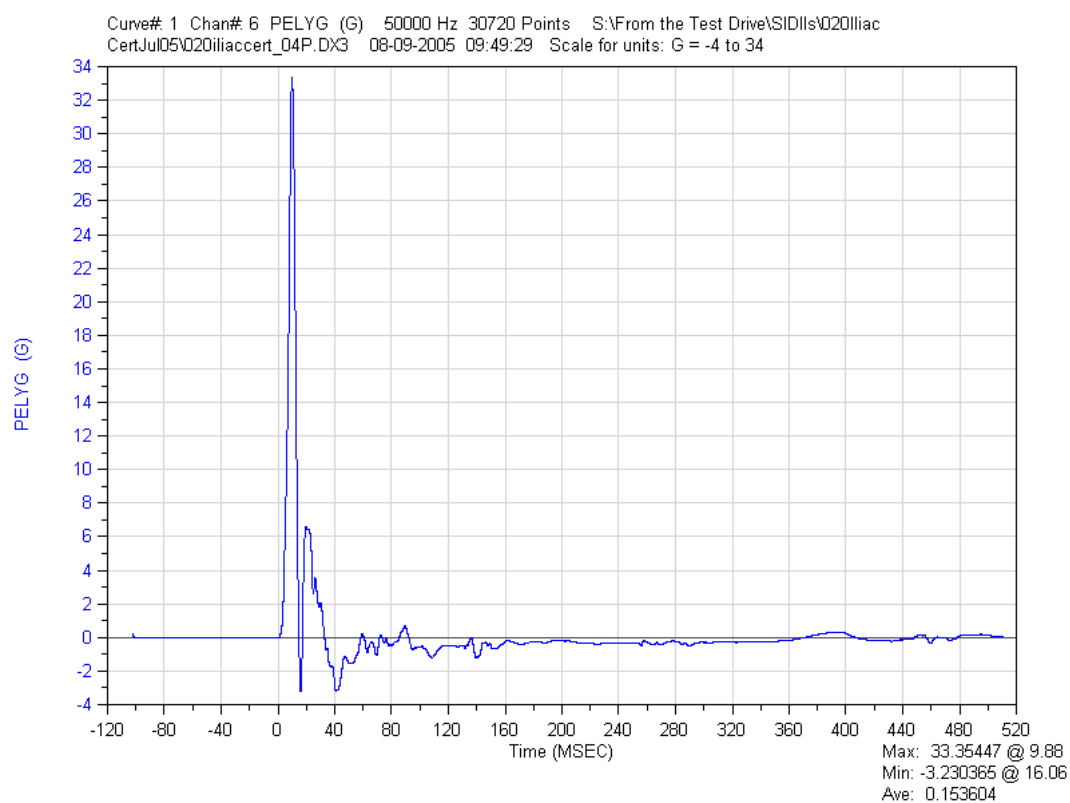
Min: -10.7 g at 26.5 ms

Test Parameter/Specification

Test Number	020iliaccert_04
Dummy S/N	020
Test Performer	VRTC
Date of Calibration	7/14/2005
Temperature (20.6 - 22.2 °C)	20
Relative Humidity (10 - 70 %)	50
Probe Velocity (4.2 - 4.4 m/s)	4.372
Maximum Probe Acceleration (41 - 47 g)	42.558
Maximum Pelvis Y Acceleration (32 - 40 g)	33.354
Maximum Iliac Force (4841 - 5491 N)	4736.737

Test Results





Pre-Test Dummy Configuration and Performance Verification Data

Passenger Dummy S/N: 056

Tested per draft procedures and specifications provided by VRTC

Transportation Research Center Inc.
SIDIIs Dummy - Build Level D
External Dimensions
Serial No. 056 Calibration No. 01
Date: 22-Jul-05

Symbol	Description	Specification	Results	Pass
		mm	mm	
A	Sitting Height	779.0 - 795.0	782	Yes
B	Shoulder Pivot Height	437.0 - 453.0	440	Yes
C	H-Point Height	81.0 - 91.0	84	Yes
D	H-Point from Backline	141.0 - 151.0	145	Yes
E	Shoulder Pivot from Backline	104.0 - 114.0	108	Yes
F	Thigh Clearance	119.0 - 135.0	125	Yes
G	Head Breadth	140.0 - 148.0	145	Yes
H	Head Back from Backline	40.0 - 46.0	43	Yes
I	Head Depth	178.0 - 188.0	184	Yes
J	Head Circumference	541.0 - 551.0	546	Yes
K	Buttock to Knee Length	514.0 - 540.0	537	Yes
L	Popliteal Height	348.0 - 374.0	354	Yes
M	Knee to Floor Height	393.0 - 409.0	404	Yes
N	Buttock Popliteal Length	416.0 - 442.0	432	Yes
O	Chest Depth without Jacket	195.0 - 211.0	202	Yes
P	Foot Length	218.0 - 234.0	223	Yes
Q	Hip Breadth	313.0 - 323.0	320	Yes
R	Arm Length	249.0 - 259.0	252	Yes
S	Knee to Seat Back	477.0 - 493.0	480	Yes
V	Shoulder Width	337.0 - 353.0	347	Yes
W	Foot Width	78.0 - 94.0	87	Yes
Y	Chest Circumference with Jacket	861.0 - 891.0	866	Yes
Z	Waist Circumference	757.0 - 787.0	774	Yes

Technician



Approved




Revised 3/19/3003

Transportation Research Center Inc.

Left Head Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

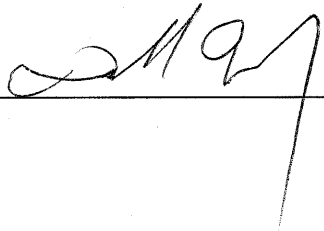
Test Date 07/14/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	54 %	Yes
Peak Resultant Acceleration	125 - 145 g	121.3 g	No
Peak Longitudinal Acceleration	15 g Max	-3.8 g	Yes
Is Acceleration Curve Unimodal?	Yes	Yes	Yes

Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 17:40:07 231



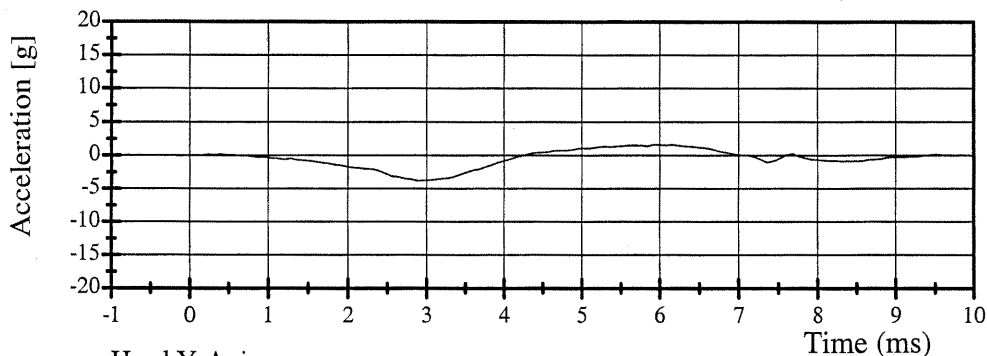
Transportation Research Center Inc.

Head Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

Test Date 07/14/2005

Head X-Axis

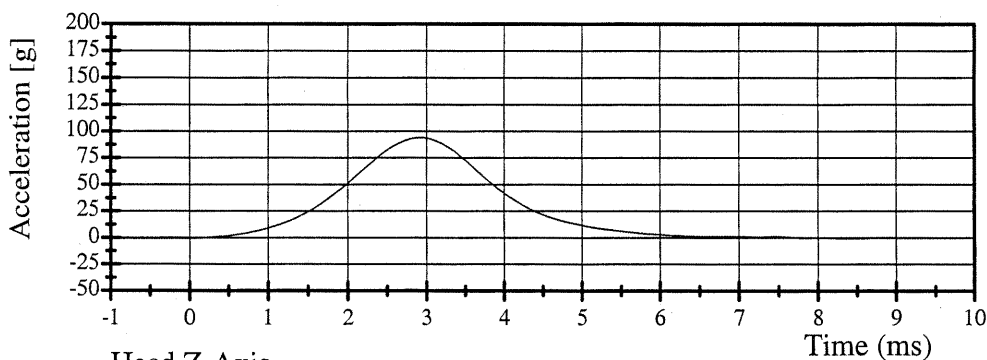


Filter Class: 1000

Max: 1.6 g at 5.9 ms

Min: -3.8 g at 2.9 ms

Head Y-Axis

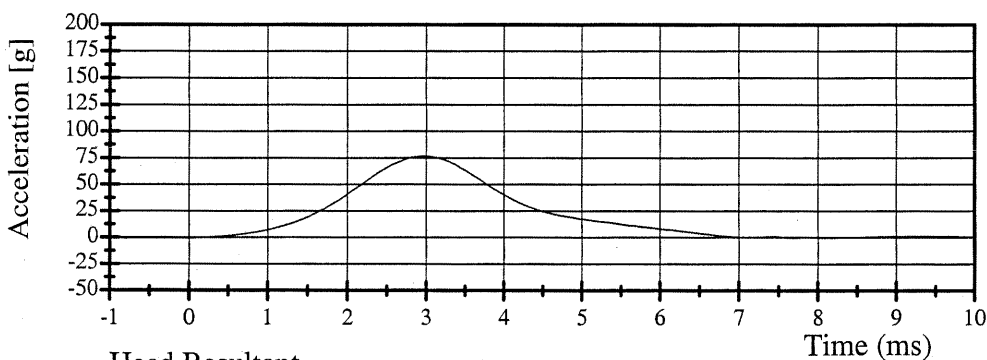


Filter Class: 1000

Max: 93.8 g at 2.9 ms

Min: -0.7 g at 8.5 ms

Head Z-Axis

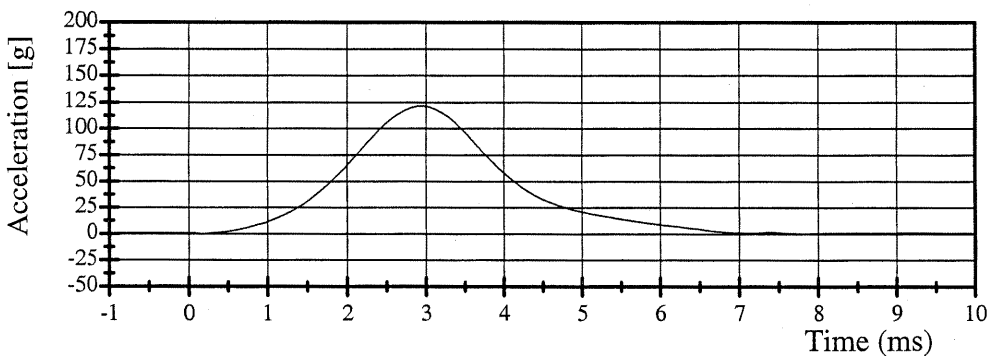


Filter Class: 1000

Max: 76.8 g at 3.0 ms

Min: -0.4 g at 0.1 ms

Head Resultant



Filter Class: 1000

Max: 121.3 g at 3.0 ms

Min: 0.2 g at 0.0 ms

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Transportation Research Center Inc.

Left Lateral Neck Test

SID-IIs Serial No. 056 Calibration No. 01 - 4

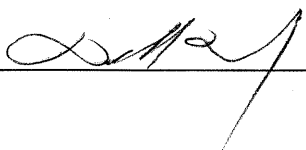
Test Date 07/16/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	54 %	Yes
Impact Velocity	5.51 - 5.63 m/s	5.60 m/s	Yes
Integrated Pendulum Velocity			
10 ms	2.20 - 2.80 m/s	2.65 m/s	Yes
15 ms	3.40 - 4.10 m/s	3.75 m/s	Yes
20 ms	4.50 - 5.40 m/s	5.00 m/s	Yes
25 ms	5.50 - 6.10 m/s	5.98 m/s	Yes
25 - 100 ms	5.20 - 6.20 m/s	5.70 - 6.03 m/s	Yes
Peak D Plane Rotation	74 - 79 °	74.2 °	Yes
Time of Peak D-Plane Rotation	50 - 70 °	61.0 °	Yes
Peak Moment About Occipital Condyles during Rotation Interval	40.0 - 45.0 N·m	39.3 N·m	No
Time of Moment Decay To 0 N·m	113 - 123 ms	117.4 ms	Yes

Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 17:33:42 673



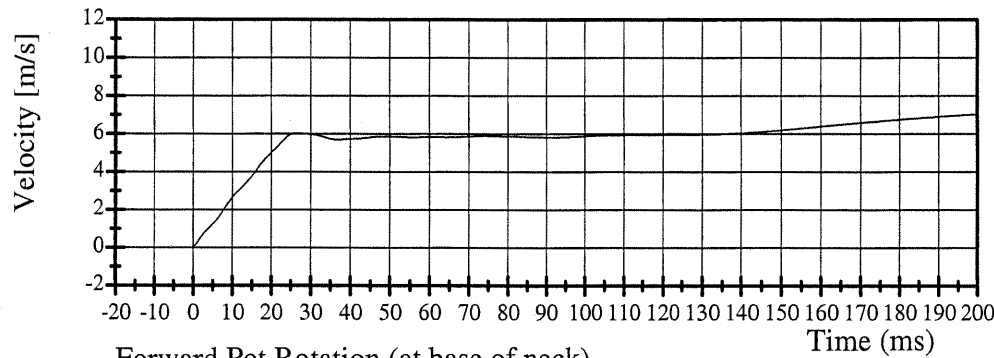
Transportation Research Center Inc.

Left Lateral Neck Test

SID-IIIs Serial No. 056 Calibration No. 01 - 4

Test Date 07/16/2005

Integrated Pendulum Velocity

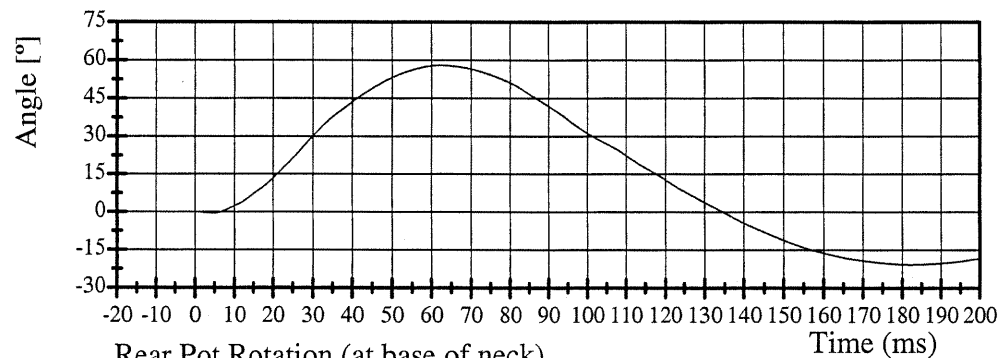


Filter Class: 180

Max: 7.2 m/s at 227.8 ms

Min: -0.0 m/s at -0.8 ms

Forward Pot Rotation (at base of neck)

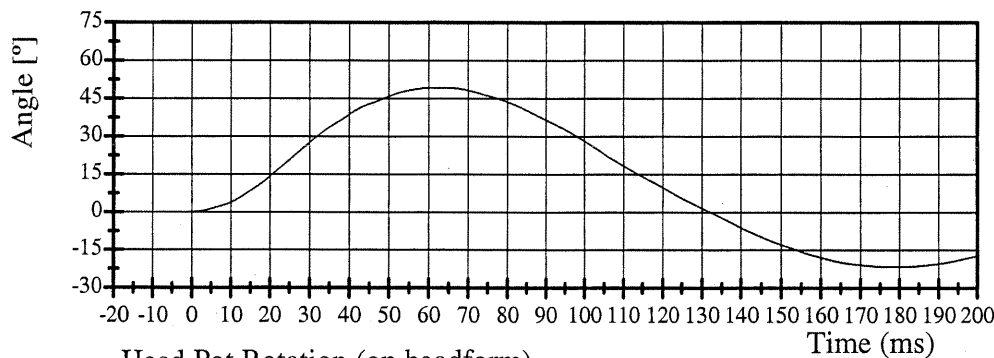


Filter Class: 60

Max: 58.0 ° at 62.2 ms

Min: -20.7 ° at 182.2 ms

Rear Pot Rotation (at base of neck)

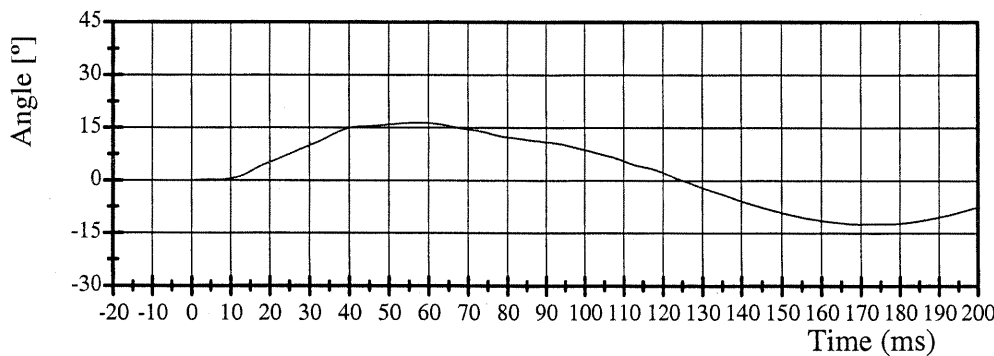


Filter Class: 60

Max: 49.3 ° at 61.7 ms

Min: -21.6 ° at 178.8 ms

Head Pot Rotation (on headform)



Filter Class: 60

Max: 16.5 ° at 57.6 ms

Min: -12.4 ° at 169.8 ms

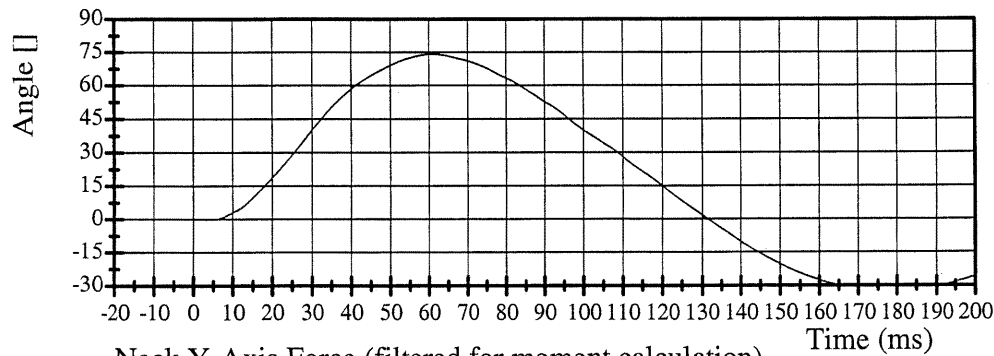
Transportation Research Center Inc.

Left Lateral Neck Test

SID-IIs Serial No. 056 Calibration No. 01 - 4

Test Date 07/16/2005

D-Plane Rotation (forward pot + head pot)

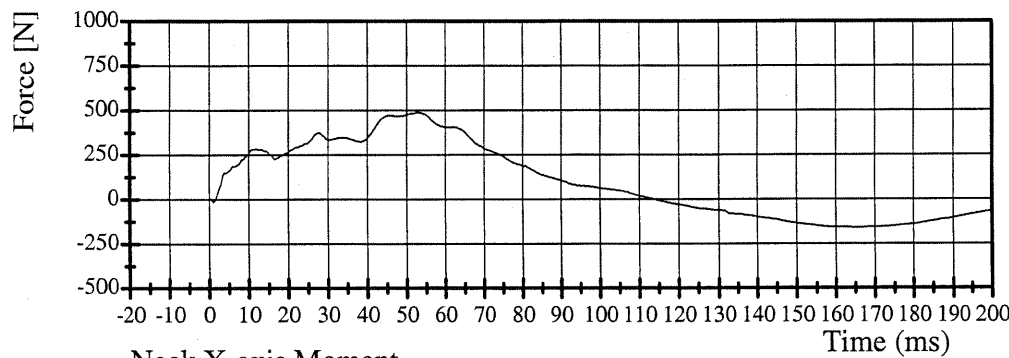


Filter Class: CFC 60

Max: 74.2 ° at 61.0 ms

Min: -32.9 ° at 179.4 ms

Neck Y-Axis Force (filtered for moment calculation)

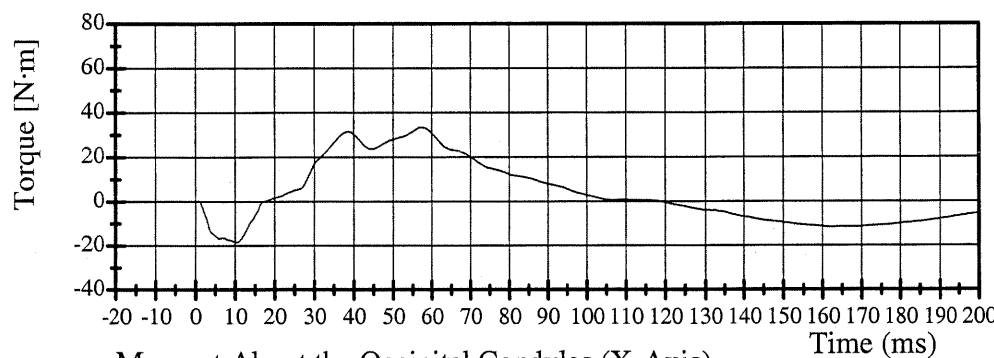


Filter Class: CFC 600

Max: 488 N at 53.0 ms

Min: -160 N at 164.9 ms

Neck X-axis Moment

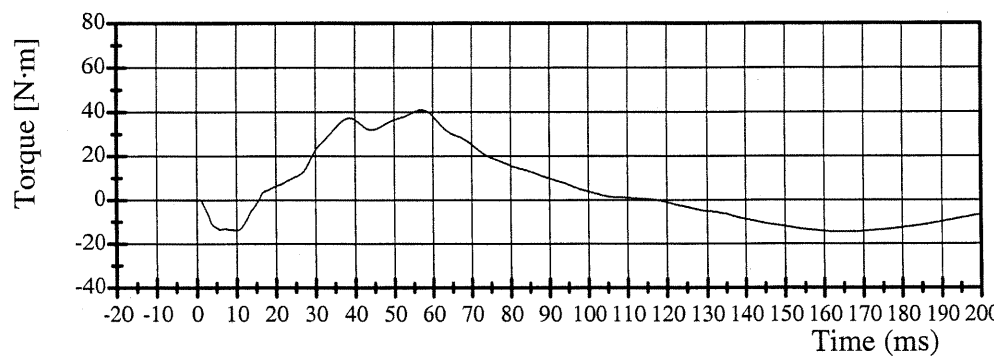


Filter Class: CFC 600

Max: 33.4 N·m at 57.5 ms

Min: -18.5 N·m at 10.5 ms

Moment About the Occipital Condyles (X-Axis)



Filter Class: 600

Max: 41.0 N·m at 57.3 ms

Min: -14.5 N·m at 162.7 ms

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Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

Test Date 07/16/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.5 C	Yes
Relative Humidity	10 - 70 %	60 %	Yes
Pendulum Velocity	4.41 - 4.59 m/sec	4.46 m/sec	Yes
Probe Force	1600 - 2400 N	2493 N	No
Deflection	27 - 39 mm	29.7 mm	Yes

Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 17:45:23 561



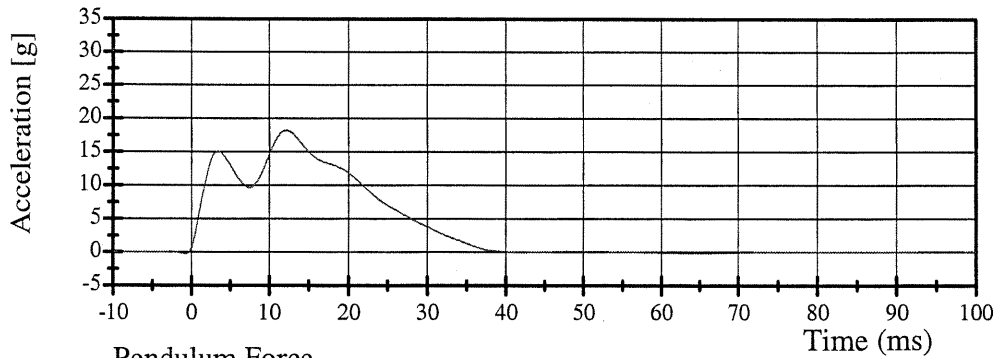
Transportation Research Center Inc.

Left Shoulder Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

Test Date 07/16/2005

Pendulum Deceleration

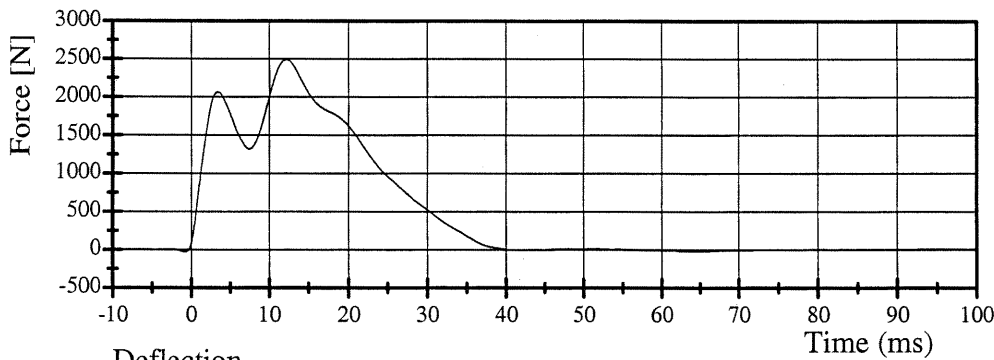


Filter Class: CFC 180

Max: 18.4 g at 12.2 ms

Min: -0.2 g at 63.0 ms

Pendulum Force

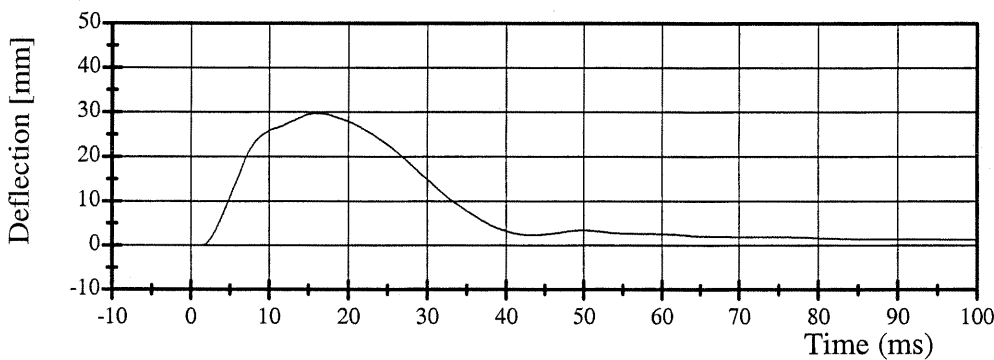


Filter Class: CFC 180

Max: 2493 N at 12.2 ms

Min: -27 N at -0.8 ms

Deflection



Filter Class: CFC 600

Max: 29.7 mm at 16.2 ms

Min: -0.0 mm at 1.4 ms

Transportation Research Center Inc.

Left Thorax with Arm Test

SID-IIs Serial No. 056 Calibration No. 01 - 2

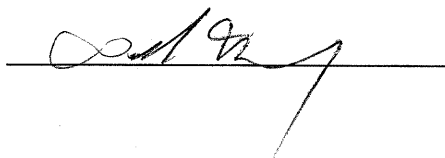
Test Date 07/15/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.2 C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Pendulum Velocity	6.60 - 6.80 m/sec	6.72 m/sec	Yes
Pendulum Force	4100 - 4700 N	4673 N	Yes
Upper Spine Peak Acceleration	34 - 48 g	36.7 g	Yes
Lower Spine Peak Acceleration	30 - 38 g	32.1 g	Yes
Upper Rib Peak Deflection	23 - 35 mm	26.6 mm	Yes
Mid Rib Peak Deflection	29 - 44 mm	32.4 mm	Yes
Lower Rib Peak Deflection	33 - 40 mm	35.6 mm	Yes
Shoulder Peak Deflection	30 - 42 mm	28.7 mm	No

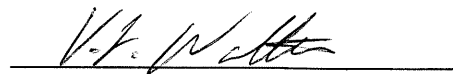
Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 17:51:24 319

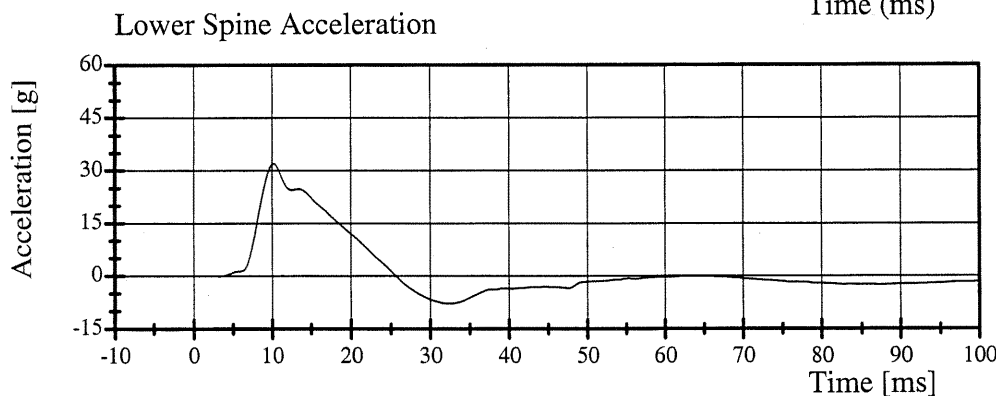
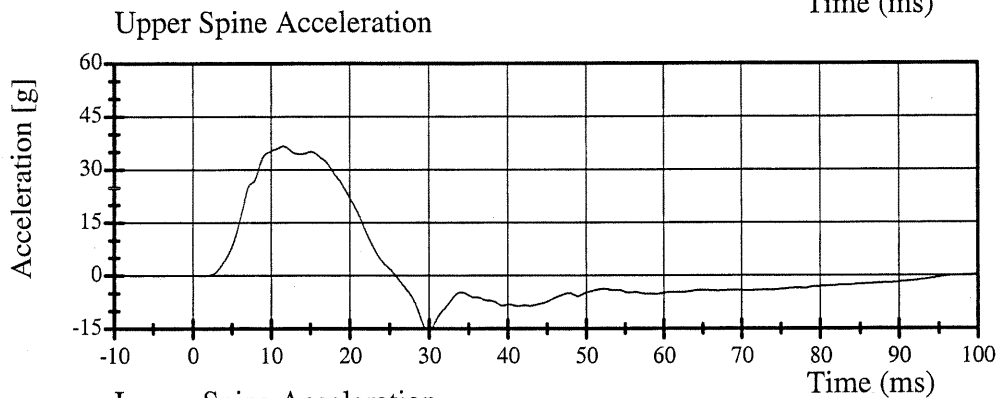
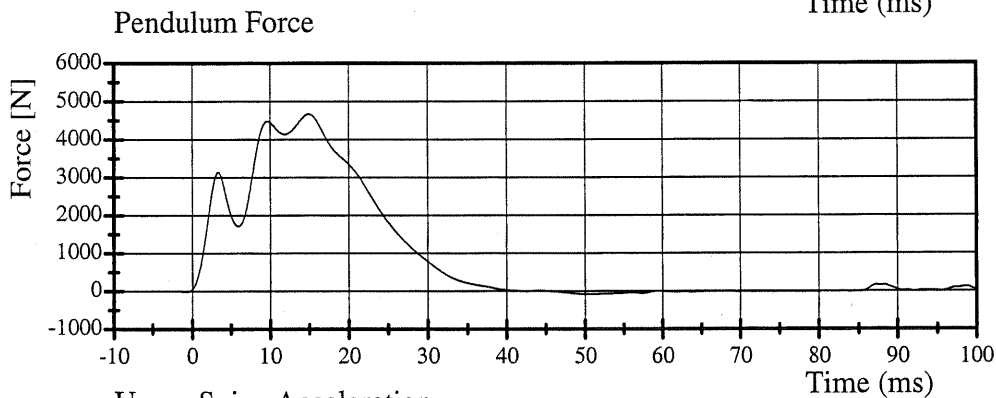
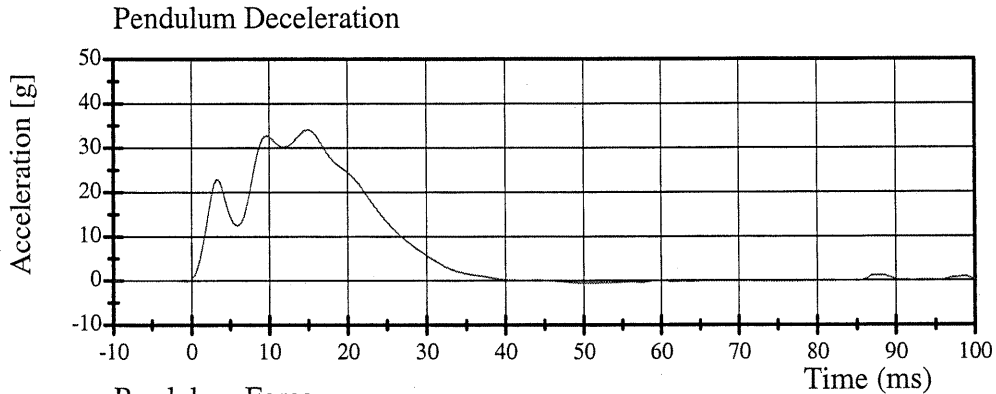


Transportation Research Center Inc.

Left Thorax with Arm Test

SID-II's Serial No. 056 Calibration No. 01 - 2

Test Date 07/15/2005



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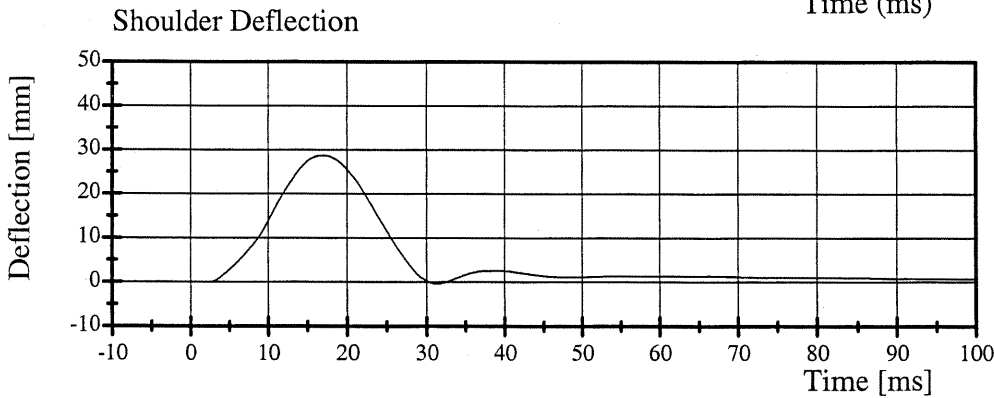
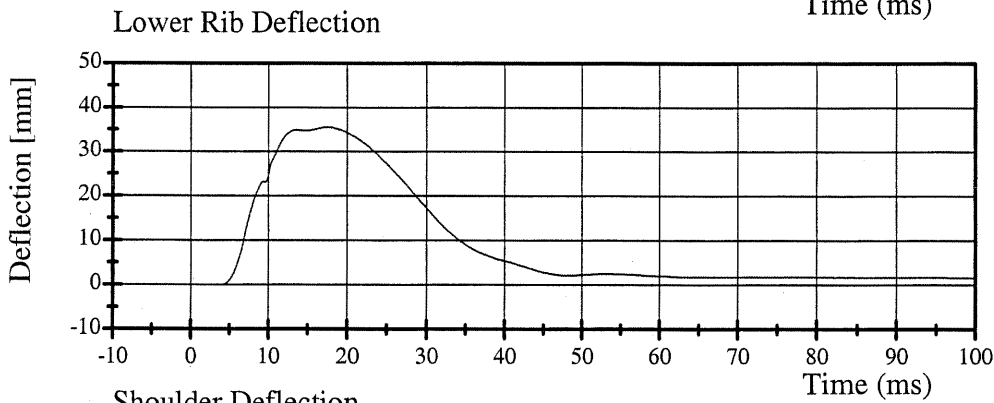
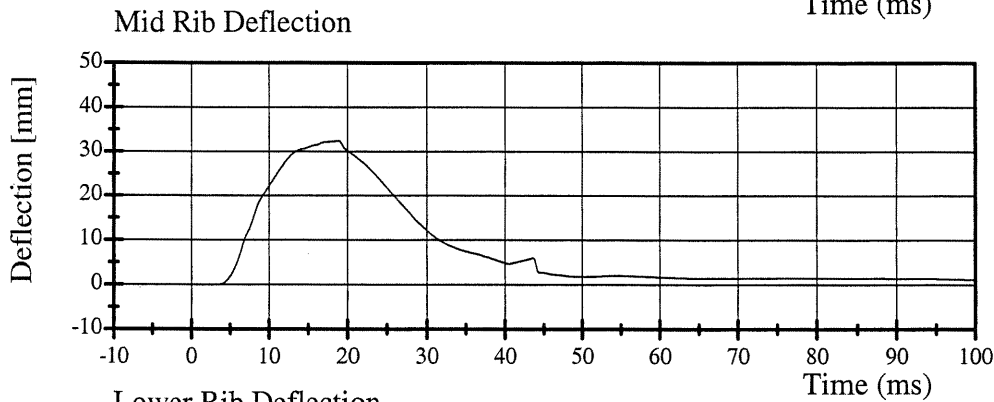
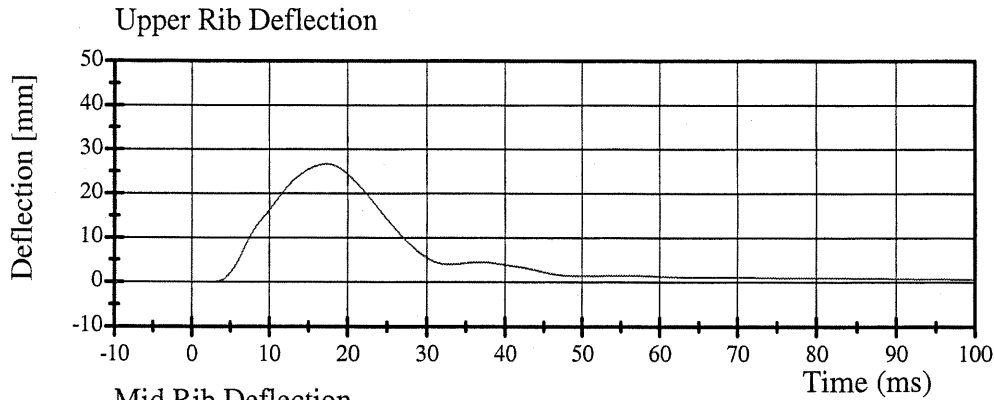


Transportation Research Center Inc.

Left Thorax with Arm Test

SID-II's Serial No. 056 Calibration No. 01 - 2

Test Date 07/15/2005



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Transportation Research Center Inc.

Left Thorax No Arm Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

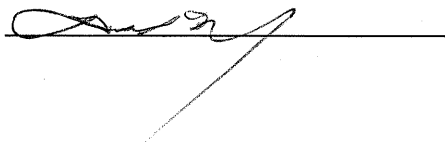
Test Date 07/15/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.4 C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.31 m/sec	Yes
Pendulum Force	1800 - 2300 N	2277 N	Yes
Upper Spine Peak Acceleration	13 - 18 g	15.4 g	Yes
Lower Spine Peak Acceleration	8 - 13 g	10.2 g	Yes
Upper Rib Peak Deflection	32 - 41 mm	35.8 mm	Yes
Mid Rib Peak Deflection	40 - 51 mm	41.3 mm	Yes
Lower Rib Peak Deflection	34 - 47 mm	38.9 mm	Yes

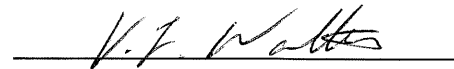
Test meets specifications.

Comments:

Technician



Approved



08.07.2005 17:52:39 611



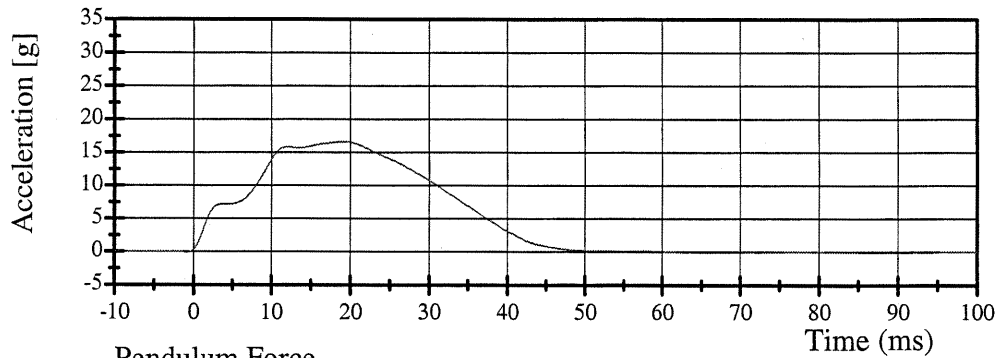
Transportation Research Center Inc.

Left Thorax No Arm Test

SID-II's Serial No. 056 Calibration No. 01 - 1

Test Date 07/15/2005

Pendulum Deceleration

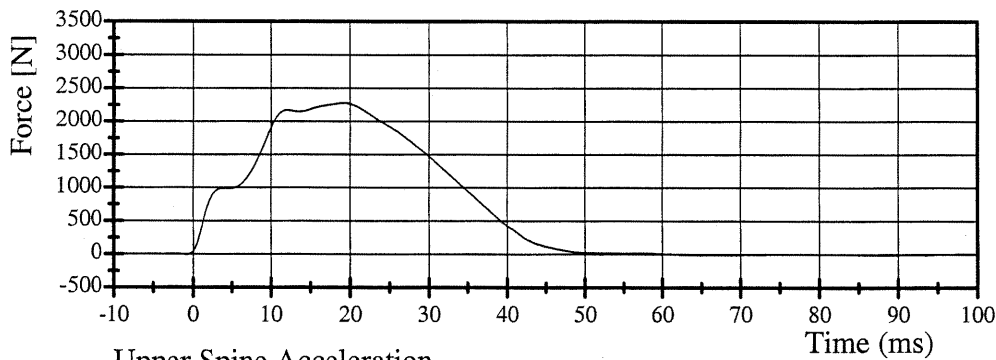


Filter Class: CFC 180

Max: 16.6 g at 19.2 ms

Min: -0.1 g at 69.4 ms

Pendulum Force

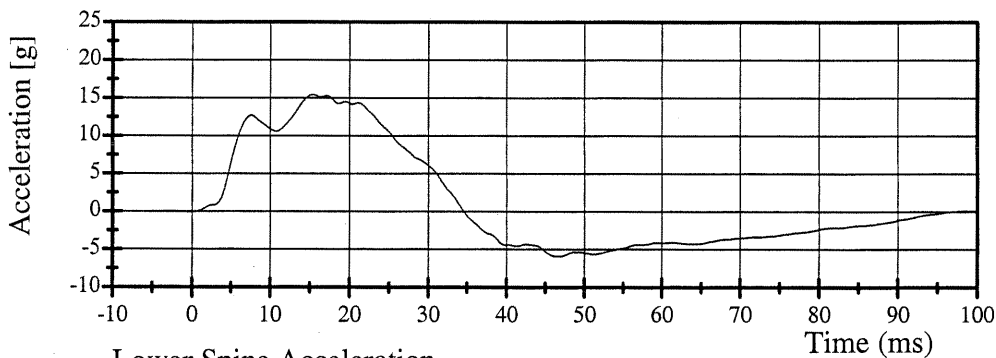


Filter Class: CFC 180

Max: 2277 N at 19.2 ms

Min: -10 N at 69.4 ms

Upper Spine Acceleration

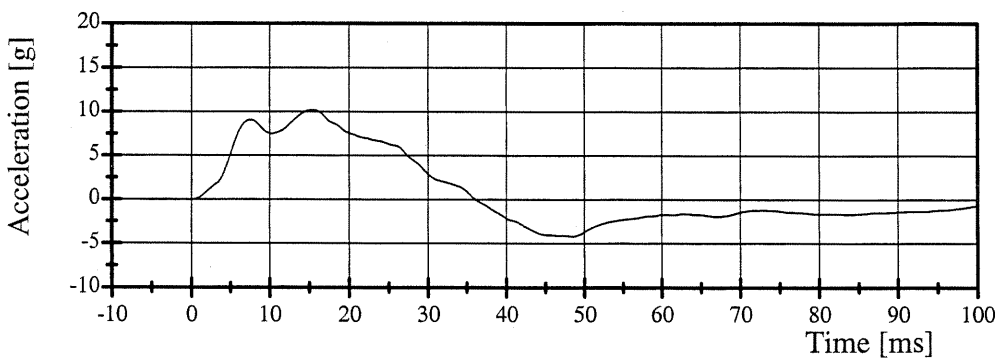


Filter Class: CFC 180

Max: 15.4 g at 15.4 ms

Min: -5.9 g at 46.6 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 10.2 g at 15.5 ms

Min: -4.2 g at 48.6 ms

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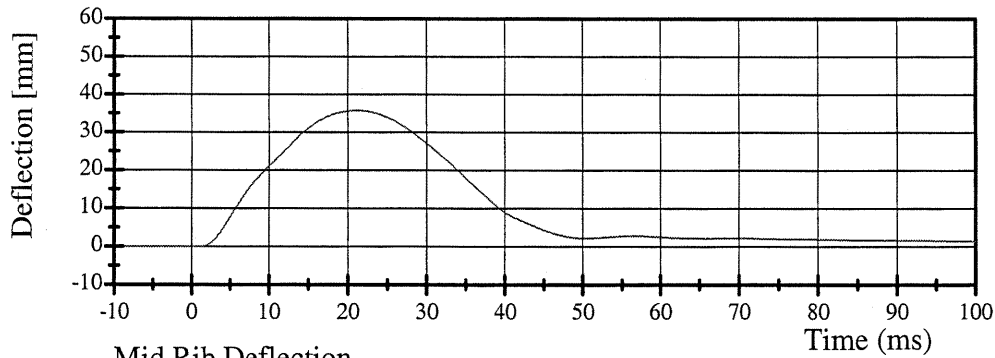
Transportation Research Center Inc.

Left Thorax No Arm Test

SID-IIIs Serial No. 056 Calibration No. 01 - 1

Test Date 07/15/2005

Upper Rib Deflection

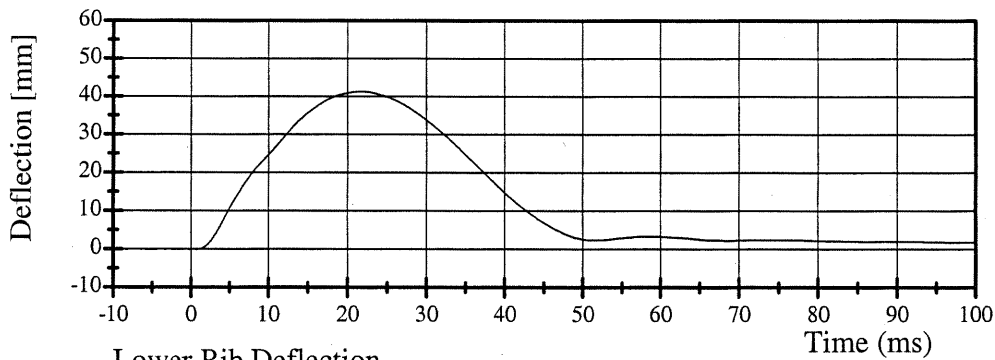


Filter Class: CFC 600

Max: 35.8 mm at 21.2 ms

Min: -0.0 mm at -23.8 ms

Mid Rib Deflection

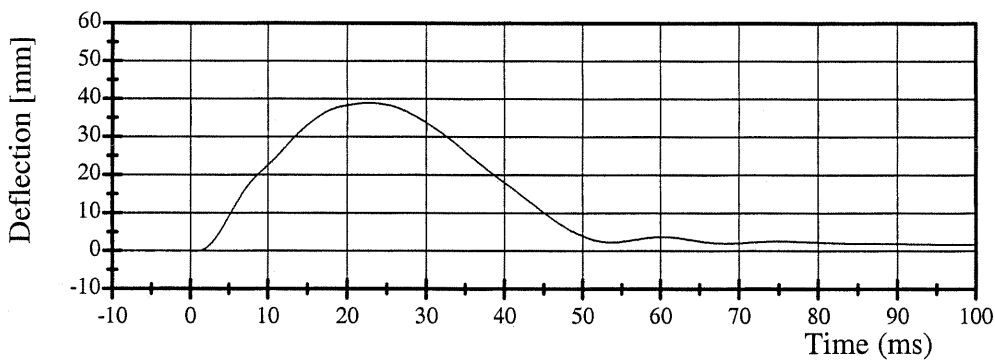


Filter Class: CFC 600

Max: 41.3 mm at 22.0 ms

Min: -0.0 mm at -37.8 ms

Lower Rib Deflection



Filter Class: CFC 600

Max: 38.9 mm at 22.6 ms

Min: -0.0 mm at -38.0 ms

Transportation Research Center Inc.

Left Abdomen Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

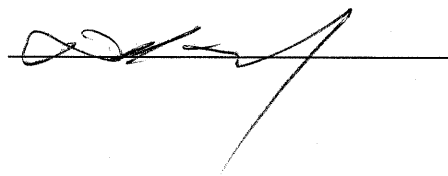
Test Date 07/15/2005

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.2 C	Yes
Relative Humidity	10 - 70 %	48 %	Yes
Pendulum Velocity	4.20 - 4.40 m/sec	4.38 m/sec	Yes
Pendulum Force	1300 - 1900 N	2028 N	No
Upper Spine Peak Acceleration	5 - 9 g	7.5 g	Yes
Lower Spine Peak Acceleration	9 - 13 g	11.9 g	Yes
Upper Abdomen Rib Peak Deflection	44 - 55 mm	44.5 mm	Yes
Lower Abdomen Rib Peak Deflection	44 - 56 mm	41.3 mm	No

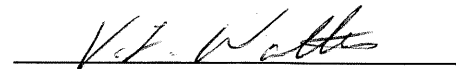
Test does not meet specifications.

Comments:

Technician



Approved



08.07.2005 17:58:23 607



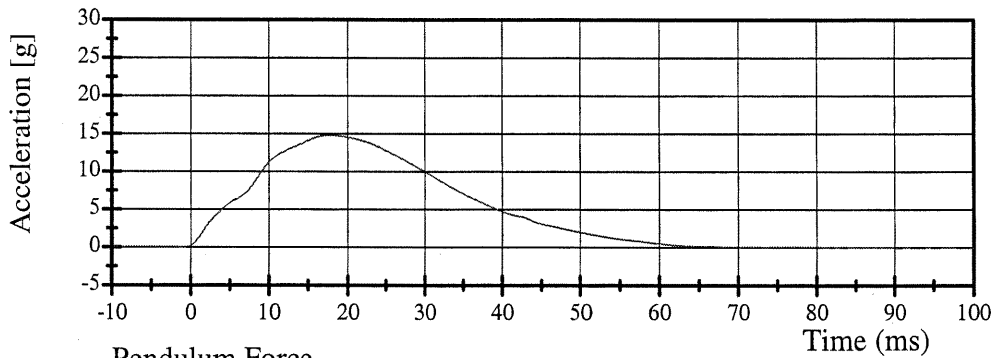
Transportation Research Center Inc.

Left Abdomen Test

SID-II's Serial No. 056 Calibration No. 01 - 1

Test Date 07/15/2005

Pendulum Deceleration

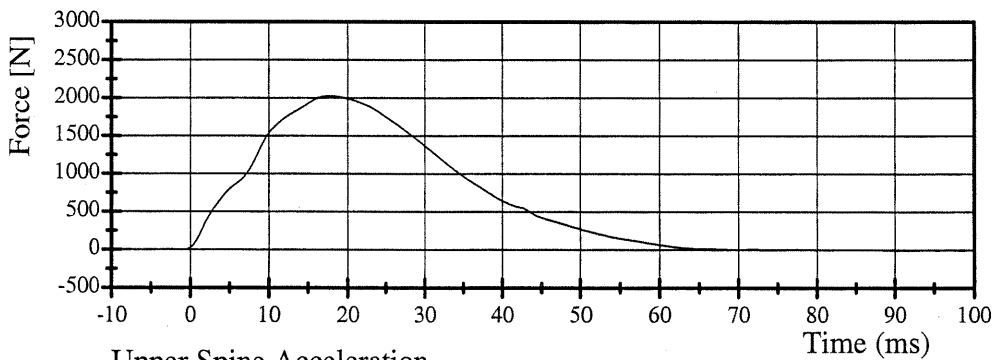


Filter Class: CFC 180

Max: 14.8 g at 17.8 ms

Min: -0.0 g at 98.5 ms

Pendulum Force

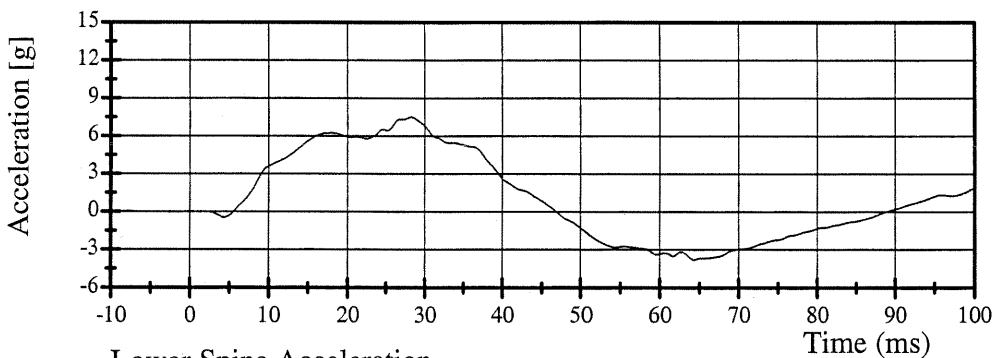


Filter Class: CFC 180

Max: 2028 N at 17.8 ms

Min: -6 N at 98.5 ms

Upper Spine Acceleration

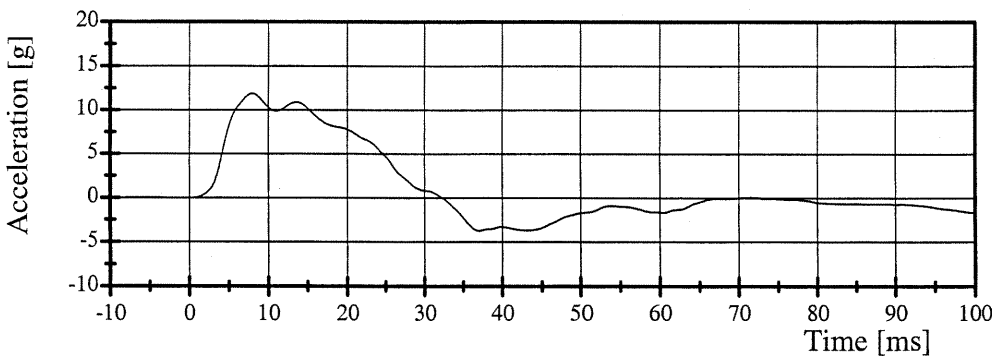


Filter Class: CFC 180

Max: 7.5 g at 28.2 ms

Min: -3.8 g at 64.3 ms

Lower Spine Acceleration



Filter Class: CFC 180

Max: 11.9 g at 8.0 ms

Min: -3.7 g at 37.0 ms

08.07.2005 17:58:23 607



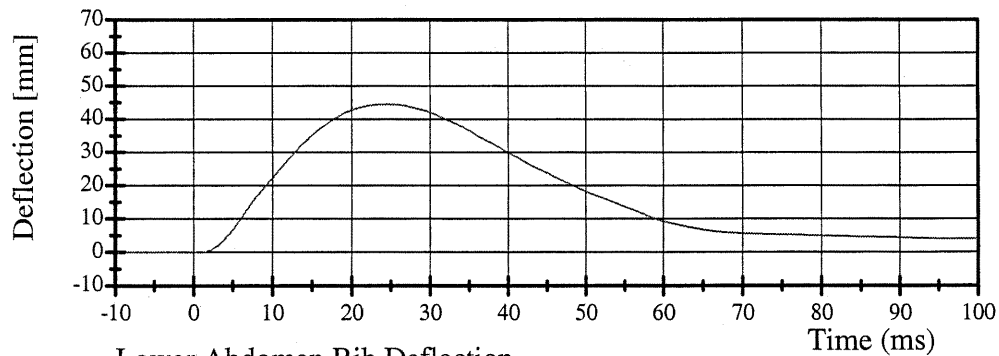
Transportation Research Center Inc.

Left Abdomen Test

SID-II's Serial No. 056 Calibration No. 01 - 1

Test Date 07/15/2005

Upper Abdomen Rib Deflection

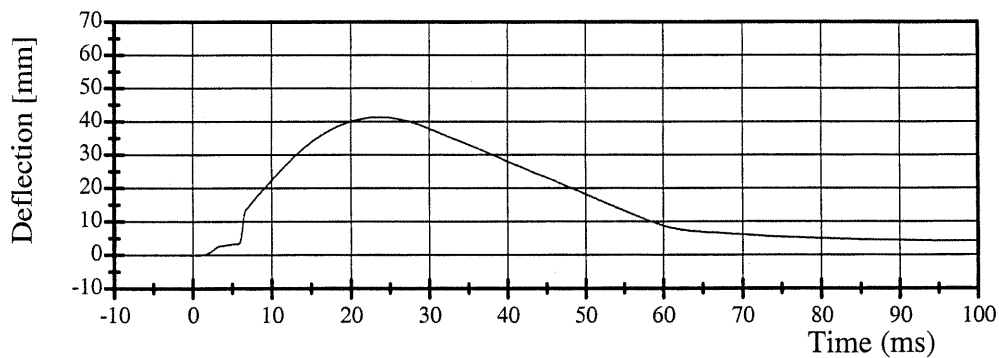


Filter Class: CFC 600

Max: 44.5 mm at 24.6 ms

Min: -0.0 mm at -28.4 ms

Lower Abdomen Rib Deflection



Filter Class: CFC 600

Max: 41.3 mm at 23.8 ms

Min: -0.0 mm at 0.8 ms

Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

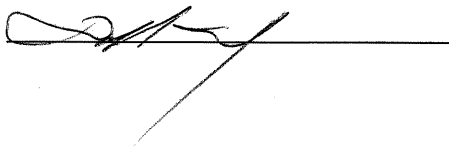
Test Date 07/15/05

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 C	21.5 C	Yes
Relative Humidity	10 - 70 %	52 %	Yes
Pendulum Velocity	6.60 - 6.80 m/sec	6.61 m/sec	Yes
Pendulum Acceleration	40 - 48 g	40.9 g	Yes
Pelvis Peak Acceleration	40 - 48 g	41.6 g	Yes
Peak Acetabulum Force	3803 - 4505 g	3972 N	Yes

Test meets specifications.

Comments:

Technician



Approved



08.07.2005 18:00:58 391



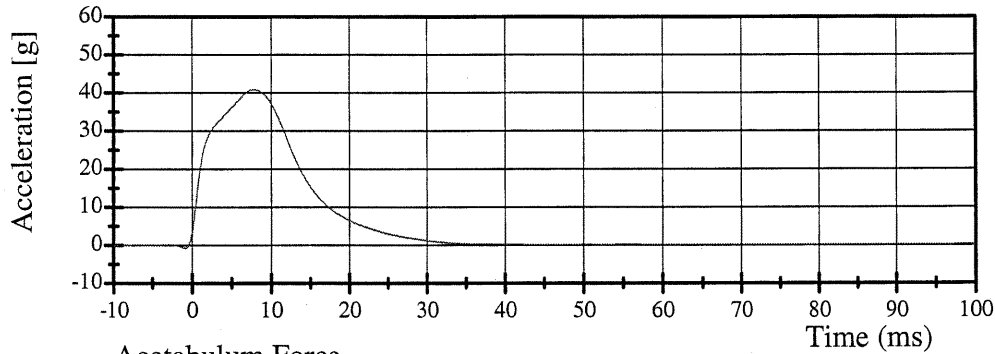
Transportation Research Center Inc.

Left Pelvis Test

SID-IIs Serial No. 056 Calibration No. 01 - 1

Test Date 07/15/05

Pendulum Deceleration

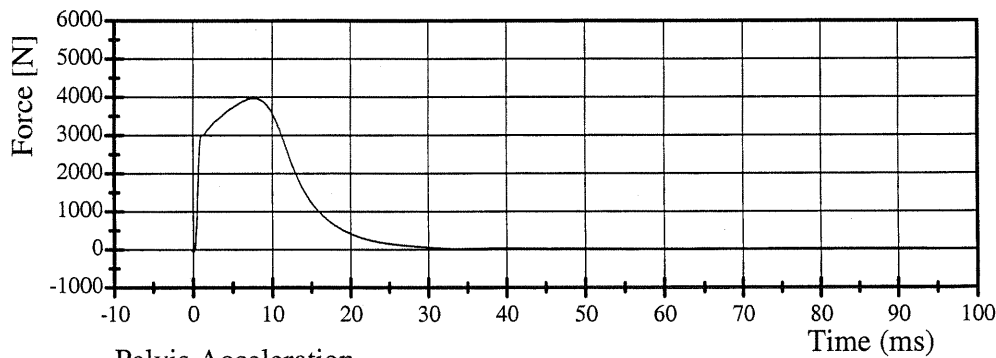


Filter Class: CFC 180

Max: 40.9 g at 7.8 ms

Min: -0.7 g at -0.9 ms

Acetabulum Force

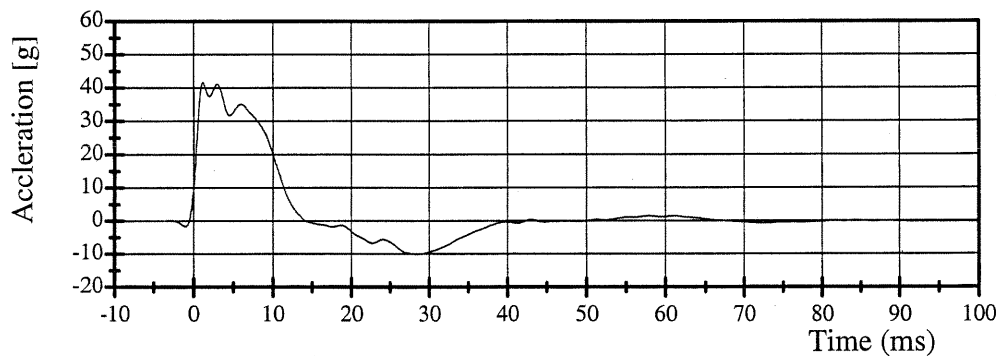


Filter Class: CFC 600

Max: 3972 N at 7.7 ms

Min: -54 N at 0.1 ms

Pelvis Acceleration



Filter Class: CFC 180

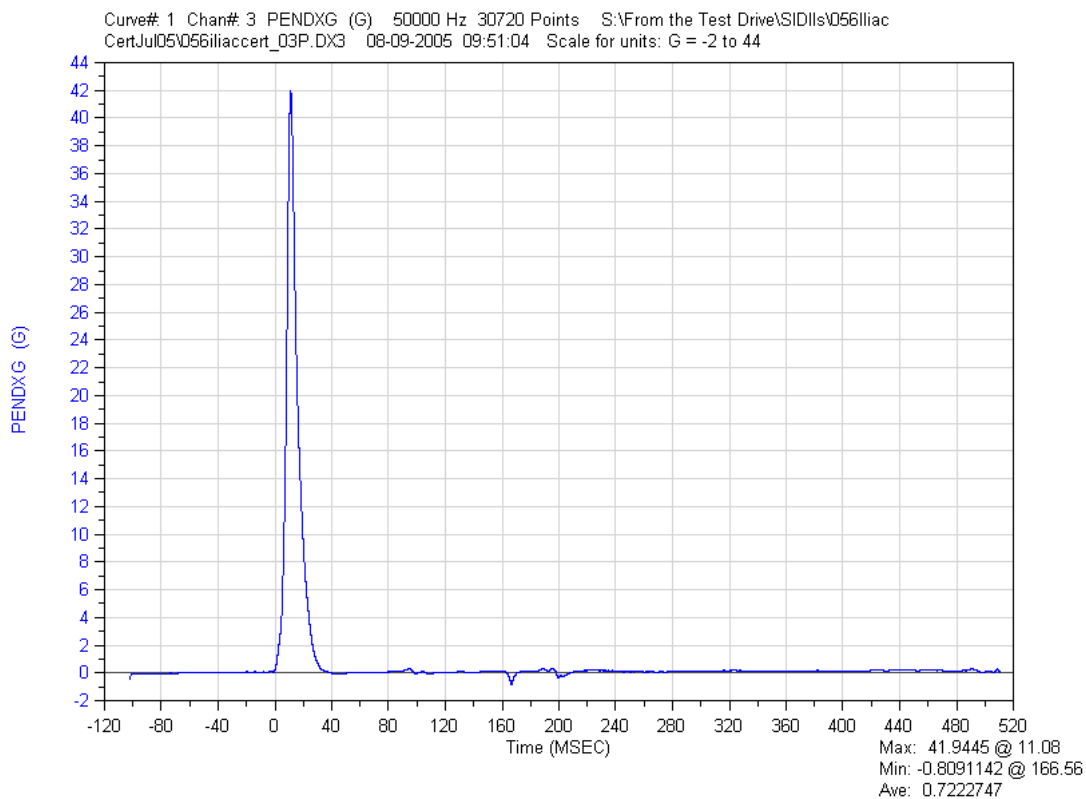
Max: 41.6 g at 1.1 ms

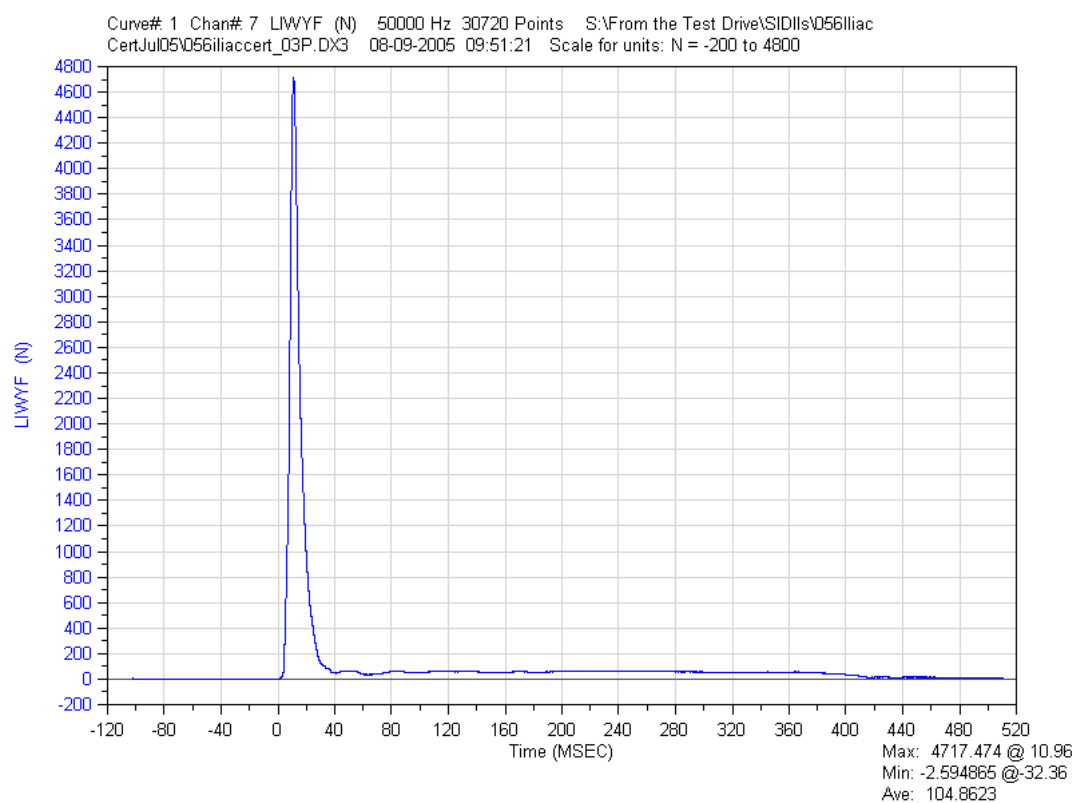
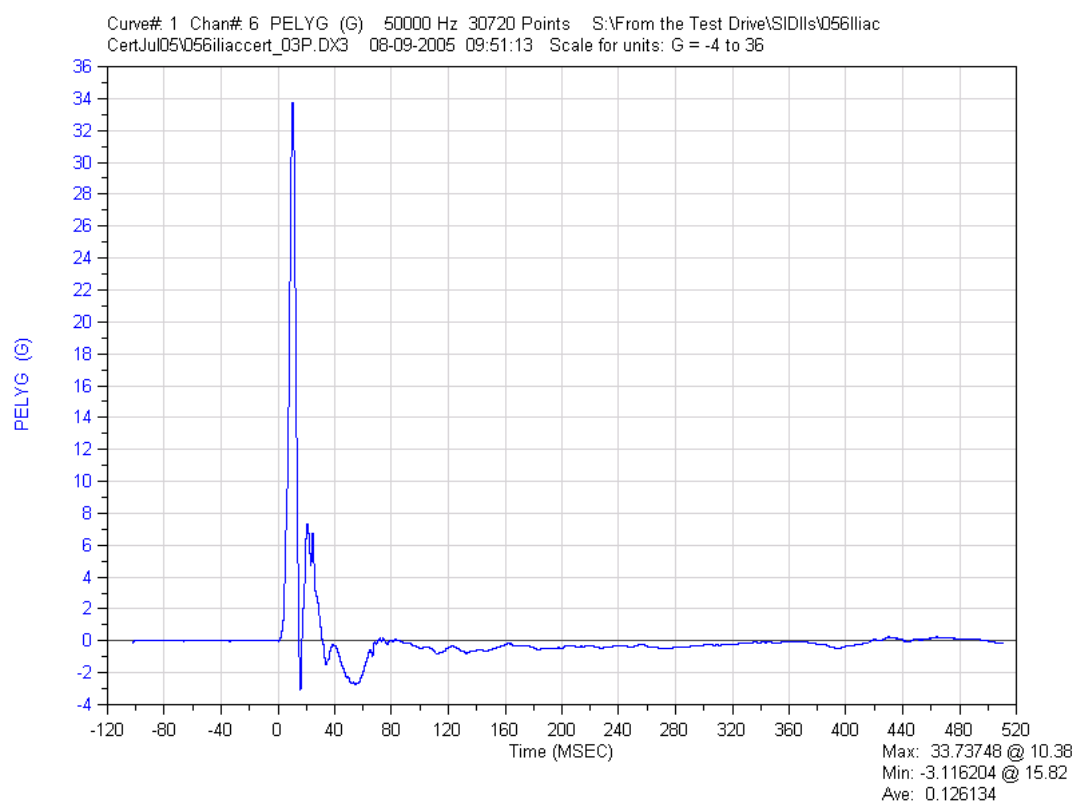
Min: -10.0 g at 28.4 ms

Test Parameter/Specification

Test Number	056iliaccert_03
Dummy S/N	056
Test Performer	VRTC
Date of Calibration	7/13/2005
Temperature (20.6 - 22.2 °C)	20
Relative Humidity (10 - 70 %)	49
Probe Velocity (4.2 - 4.4 m/s)	4.425
Maximum Probe Acceleration (41 - 47 g)	41.945
Maximum Pelvis Y Acceleration (32 - 40 g)	33.737
Maximum Iliac Force (4841 - 5491 N)	4717.474

Test Results





Appendix D

Miscellaneous Test 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

<u>Lumbar load cells:</u>	+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
Used for 050725 Test

<u>Typical Test Measurements</u>	<u>Channel Class</u>
Vehicle Structural Accelerations for use in:	
Total vehicle comparison	60
Integration for velocity or displacement	180
Anthropomorphic Test Device	
Head accelerations	1000
Upper neck force	1000
Upper neck moment	600
Shoulder accelerations	1000
Shoulder force	600
Shoulder displacement	180
Spine acceleration	180
Rib Y-axis acceleration	180
Rib displacement	180
Lumbar moment	600
Pelvis acceleration	1000
Iliac wing force	600
Acetabulum force	600
Femur force	600
Femur moment	600

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 050725

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	Assembly
1	Trig D1	10ZERO000000EV00	EVENT		1 Logic	
2	02I02I24-N07	11HEADCG00S2ACXA	Head Accel X	1000	g	1-020 SIDIIIs FTSS.001
3	04J04I20-Z24	11HEADCG00S2ACYA	Head Accel Y	1000	g	1-020 SIDIIIs FTSS.002
4	04J04I08-F24	11HEADCG00S2ACZA	Head Accel Z	1000	g	1-020 SIDIIIs FTSS.003
5	IF-205-286-FX	11NECKUP00S2FOXA	Neck Force X	8896	N	1-020 SIDIIIs FTSS.004
6	IF-205-286-FY	11NECKUP00S2FOYA	Neck Force Y	8896	N	1-020 SIDIIIs FTSS.005
7	IF-205-286-FZ	11NECKUP00S2FOZA	Neck Force Z	13344	N	1-020 SIDIIIs FTSS.006
8	IF-205-286-MX	11NECKUP00S2MOXA	Neck Moment X	282	N·m	1-020 SIDIIIs FTSS.007
9	IF-205-286-MY	11NECKUP00S2MOYA	Neck Moment Y	282	N·m	1-020 SIDIIIs FTSS.008
10	IF-205-286-MZ	11NECKUP00S2MOZA	Neck Moment Z	282	N·m	1-020 SIDIIIs FTSS.009
11	01G18-F05	11SHLDLE00S2ACXA	Shoulder Accel X	2000	g	1-020 SIDIIIs FTSS.016
12	04J04I20-Z06	11SHLDLE00S2ACYA	Shoulder Accel Y	2000	g	1-020 SIDIIIs FTSS.017
13	03E03E18-F18	11SHLDLE00S2ACZA	Shoulder Accel Z	2000	g	1-020 SIDIIIs FTSS.018
14	IF-344-110-FX	11SHLDLE00S2FOXA	Shoulder Force X	4448	N	1-020 SIDIIIs FTSS.013
15	IF-344-110-FY	11SHLDLE00S2FOYA	Shoulder Force Y	4448	N	1-020 SIDIIIs FTSS.014
16	IF-344-110-FZ	11SHLDLE00S2FOZA	Shoulder Force Z	4448	N	1-020 SIDIIIs FTSS.015
17	3860-020SHD	11SHRILE00S2DSYA	Shoulder Disp. Y	75	mm	1-020 SIDIIIs FTSS.019
18	03E03E18-F09	11SPIN0100S2ACXA	Upper Spine Accel X	2000	g	1-020 SIDIIIs FTSS.010
19	04J04I01-R24	11SPIN0100S2ACYA	Upper Spine Accel Y	2000	g	1-020 SIDIIIs FTSS.011
20	02I02I05-F04	11SPIN0100S2ACZA	Upper Spine Accel Z	2000	g	1-020 SIDIIIs FTSS.012
21	04J04I07-Z15	11THSP01RIS2ACXA	Spine Rib 1 Accel X	2000	g	1-020 SIDIIIs FTSS.020
22	04J04I20-A17	11THSP01RIS2ACYA	Spine Rib 1 Accel Y	2000	g	1-020 SIDIIIs FTSS.021
23	03F03E29-N17	11THSP01RIS2ACZA	Spine Rib 1 Accel Z	2000	g	1-020 SIDIIIs FTSS.022
24	03F03F09-N03	11THSP02RIS2ACXA	Spine Rib 2 Accel X	2000	g	1-020 SIDIIIs FTSS.023
25	03E03E20-N14	11THSP02RIS2ACYA	Spine Rib 2 Accel Y	2000	g	1-020 SIDIIIs FTSS.024
26	03E03E20-N12	11THSP02RIS2ACZA	Spine Rib 2 Accel Z	2000	g	1-020 SIDIIIs FTSS.025
27	01H02-N07	11THSP03RIS2ACXA	Spine Rib 3 Accel X	2000	g	1-020 SIDIIIs FTSS.026
28	00L20-A14	11THSP03RIS2ACYA	Spine Rib 3 Accel Y	2000	g	1-020 SIDIIIs FTSS.027
29	03F03E29-N10	11THSP03RIS2ACZA	Spine Rib 3 Accel Z	2000	g	1-020 SIDIIIs FTSS.028
30	01J02-F22	11SPIN1200S2ACXA	Lower Spine Accel X	750	g	1-020 SIDIIIs FTSS.029
31	B02A09-F04	11SPIN1200S2ACYA	Lower Spine Accel Y	750	g	1-020 SIDIIIs FTSS.030
32	01G25-N16	11SPIN1200S2ACZA	Lower Spine Accel Z	750	g	1-020 SIDIIIs FTSS.031
33	01G18-F13	11ABSP02RIS2ACXA	Spine Rib 5 Accel X	2000	g	1-020 SIDIIIs FTSS.032
34	00L13-F37	11ABSP02RIS2ACYA	Spine Rib 5 Accel Y	2000	g	1-020 SIDIIIs FTSS.033
35	01J02-F07	11ABSP02RIS2ACZA	Spine Rib 5 Accel Z	2000	g	1-020 SIDIIIs FTSS.034
36	IF-414-107-MX	11LUSP0000S2MOXA	Lumbar Moment X	452	N·m	1-020 SIDIIIs FTSS.058
37	IF-414-107-MY	11LUSP0000S2MOYA	Lumbar Moment Y	452	N·m	1-020 SIDIIIs FTSS.059
38	IF-414-107-MZ	11LUSP0000S2MOZA	Lumbar Moment Z	226	N·m	1-020 SIDIIIs FTSS.060
39	02I02I05-F24	11TRRI01LES2ACXA	Thorax Rib 1 Accel X	2000	g	1-020 SIDIIIs FTSS.035
40	04J04I01-R11	11TRRI01LES2ACYA	Thorax Rib 1 Accel Y	2000	g	1-020 SIDIIIs FTSS.036
41	98H10-F03	11TRRI01LES2ACZA	Thorax Rib 1 Accel Z	2000	g	1-020 SIDIIIs FTSS.037

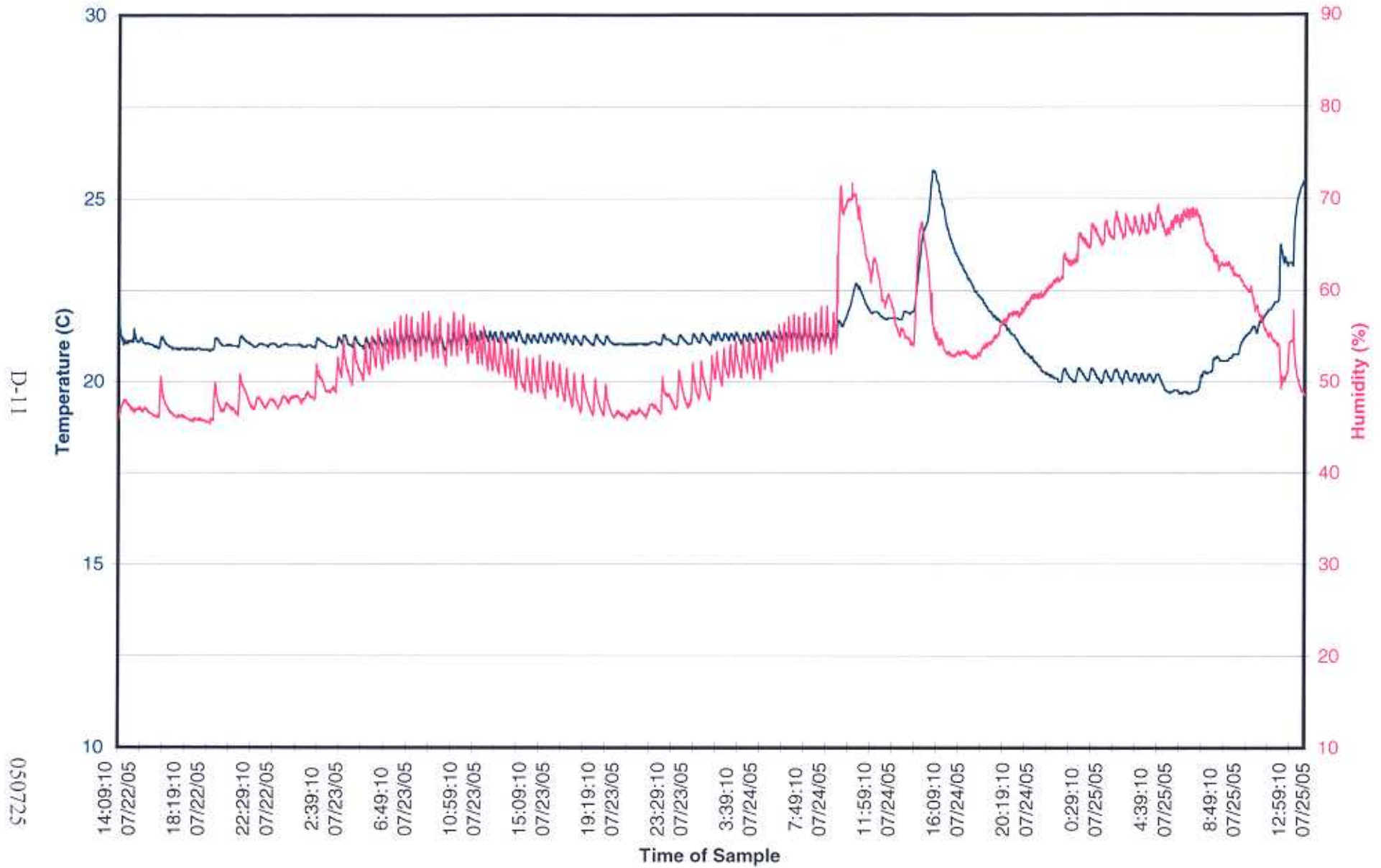
42	03E03E21-M09	11TRRI02LES2ACXA	Thorax Rib 2 Accel X	2000 g	1-020 SIDIIIs FTSS.038
43	01G18-F03	11TRRI02LES2ACYA	Thorax Rib 2 Accel Y	2000 g	1-020 SIDIIIs FTSS.039
44	03E03E20-N13	11TRRI02LES2ACZA	Thorax Rib 2 Accel Z	2000 g	1-020 SIDIIIs FTSS.040
45	04J04I01-R09	11TRRI03LES2ACXA	Thorax Rib 3 Accel X	2000 g	1-020 SIDIIIs FTSS.041
46	98H13-F11	11TRRI03LES2ACYA	Thorax Rib 3 Accel Y	2000 g	1-020 SIDIIIs FTSS.042
47	03D03D09-N02	11TRRI03LES2ACZA	Thorax Rib 3 Accel Z	2000 g	1-020 SIDIIIs FTSS.043
48	02A16-A15	11ABRI01LES2ACXA	Abdomen Rib 1 Accel X	2000 g	1-020 SIDIIIs FTSS.044
49	99H12-F26	11ABRI01LES2ACYA	Abdomen Rib 1 Accel Y	2000 g	1-020 SIDIIIs FTSS.045
50	02I02I05-F22	11ABRI01LES2ACZA	Abdomen Rib 1 Accel Z	2000 g	1-020 SIDIIIs FTSS.046
51	04J04I10-H10	11ABRI02LES2ACXA	Abdomen Rib 2 Accel X	2000 g	1-020 SIDIIIs FTSS.047
52	04J04I20-Z18	11ABRI02LES2ACYA	Abdomen Rib 2 Accel Y	2000 g	1-020 SIDIIIs FTSS.048
53	02I02I05-F09	11ABRI02LES2ACZA	Abdomen Rib 2 Accel Z	2000 g	1-020 SIDIIIs FTSS.049
54	3861-020RB1	11TRRI01LES2DSYA	Thorax Rib 1 Disp. Y	75 mm	1-020 SIDIIIs FTSS.050
55	3861-020RB2	11TRRI02LES2DSYA	Thorax Rib 2 Disp. Y	75 mm	1-020 SIDIIIs FTSS.051
56	3861-020RB3	11TRRI03LES2DSYA	Thorax Rib 3 Disp. Y	75 mm	1-020 SIDIIIs FTSS.052
57	3861-020RB4	11ABRI01LES2DSYA	Abdomen Rib 1 Disp. Y	75 mm	1-020 SIDIIIs FTSS.053
58	3861-020RB5	11ABRI02LES2DSYA	Abdomen Rib 2 Disp. Y	75 mm	1-020 SIDIIIs FTSS.054
59	01J02-F16	11PELVCG00S2ACXA	Pelvis Accel X	2000 g	1-020 SIDIIIs FTSS.061
60	03E03E18-F03	11PELVCG00S2ACYA	Pelvis Accel Y	2000 g	1-020 SIDIIIs FTSS.062
61	03F03E29-N13	11PELVCG00S2ACZA	Pelvis Accel Z	2000 g	1-020 SIDIIIs FTSS.063
62	IF-520-115-FY	11ACTBLE00S2FOYA	Left Acetabulum Force Y	8896 N	1-020 SIDIIIs FTSS.064
63	IF-507-112-FY	11ILACLE00S2FOYA	Left Iliac Wing Force Y	13344 N	1-020 SIDIIIs FTSS.065
64	IF-625-142-FX	11FEMRRI00S2FOXA	Right Femur Force X	13344 N	1-020 SIDIIIs FTSS.072
65	IF-625-142-FY	11FEMRRI00S2FOYA	Right Femur Force Y	13344 N	1-020 SIDIIIs FTSS.073
66	IF-625-142-FZ	11FEMRRI00S2FOZA	Right Femur Force Z	22240 N	1-020 SIDIIIs FTSS.074
67	IF-625-142-MX	11FEMRRI00S2MOXA	Right Femur Moment X	339 N	1-020 SIDIIIs FTSS.075
68	IF-625-142-MY	11FEMRRI00S2MOYA	Right Femur Moment Y	339 N	1-020 SIDIIIs FTSS.076
69	IF-625-142-MZ	11FEMRRI00S2MOZA	Right Femur Moment Z	339 N	1-020 SIDIIIs FTSS.077
70	IF-625-107-FX	11FEMRLE00S2FOXA	Left Femur Force X	13344 N	1-020 SIDIIIs FTSS.066
71	IF-625-107-FY	11FEMRLE00S2FOYA	Left Femur Force Y	13344 N	1-020 SIDIIIs FTSS.067
72	IF-625-107-FZ	11FEMRLE00S2FOZA	Left Femur Force Z	22240 N	1-020 SIDIIIs FTSS.068
73	IF-625-107-MX	11FEMRLE00S2MOXA	Left Femur Moment X	339 N-m	1-020 SIDIIIs FTSS.069
74	IF-625-107-MY	11FEMRLE00S2MOYA	Left Femur Moment Y	339 N-m	1-020 SIDIIIs FTSS.070
75	IF-625-107-MZ	11FEMRLE00S2MOZA	Left Femur Moment Z	339 N-m	1-020 SIDIIIs FTSS.071
76	03F03E29-N04	14HEADCG00S2ACXA	Head Accel X	1000 g	4-056 SIDIIIs FTSS.001
77	01G18-F08	14HEADCG00S2ACYA	Head Accel Y	1000 g	4-056 SIDIIIs FTSS.002
78	03E03E18-F21	14HEADCG00S2ACZA	Head Accel Z	1000 g	4-056 SIDIIIs FTSS.003
79	IF-205-283-FX	14NECKUP00S2FOXA	Neck Force X	8896 N	4-056 SIDIIIs FTSS.004
80	IF-205-283-FY	14NECKUP00S2FOYA	Neck Force Y	8896 N	4-056 SIDIIIs FTSS.005
81	IF-205-283-FZ	14NECKUP00S2FOZA	Neck Force Z	13344 N	4-056 SIDIIIs FTSS.006
82	IF-205-283-MX	14NECKUP00S2MOXA	Neck Moment X	282 N	4-056 SIDIIIs FTSS.007
83	IF-205-283-MY	14NECKUP00S2MOYA	Neck Moment Y	282 N	4-056 SIDIIIs FTSS.008
84	IF-205-283-MZ	14NECKUP00S2MOZA	Neck Moment Z	282 N	4-056 SIDIIIs FTSS.009

85	03E03E20-N05	14SHLDLE00S2ACXA	Shoulder Accel X	2000 g	4-056 SIDIs FTSS.016
86	03D03D16-F13	14SHLDLE00S2ACYA	Shoulder Accel Y	2000 g	4-056 SIDIs FTSS.017
87	02I02I05-F07	14SHLDLE00S2ACZA	Shoulder Accel Z	2000 g	4-056 SIDIs FTSS.018
88	3167-142-FX	14SHLDLE00S2FOXA	Shoulder Force X	4448 N	4-056 SIDIs FTSS.013
89	3167-142-FY	14SHLDLE00S2FOYA	Shoulder Force Y	4448 N	4-056 SIDIs FTSS.014
90	3167-142-FZ	14SHLDLE00S2FOZA	Shoulder Force Z	4448 N	4-056 SIDIs FTSS.015
91	180-3860-056SHLD	14SHRILE00S2DSYA	Shoulder Disp. Y	75 mm	4-056 SIDIs FTSS.019
92	P17846	14SPIN0100S2ACXA	Upper Spine Accel X	2000 g	4-056 SIDIs FTSS.010
93	00L13-F71	14SPIN0100S2ACYA	Upper Spine Accel Y	2000 g	4-056 SIDIs FTSS.011
94	02I02I05-F14	14SPIN0100S2ACZA	Upper Spine Accel Z	2000 g	4-056 SIDIs FTSS.012
95	03F03E29-N21	14THSP01RIS2ACXA	Spine Rib 1 Accel X	2000 g	4-056 SIDIs FTSS.020
96	04J04I01-R04	14THSP01RIS2ACYA	Spine Rib 1 Accel Y	2000 g	4-056 SIDIs FTSS.021
97	04J04I20-Z05	14THSP01RIS2ACZA	Spine Rib 1 Accel Z	2000 g	4-056 SIDIs FTSS.022
98	03D03D16-F18	14THSP02RIS2ACXA	Spine Rib 2 Accel X	2000 g	4-056 SIDIs FTSS.023
99	01G18-F15	14THSP02RIS2ACYA	Spine Rib 2 Accel Y	2000 g	4-056 SIDIs FTSS.024
100	03E03E02-N16	14THSP02RIS2ACZA	Spine Rib 2 Accel Z	2000 g	4-056 SIDIs FTSS.025
101	04J04I20-Z14	14THSP03RIS2ACXA	Spine Rib 3 Accel X	2000 g	4-056 SIDIs FTSS.026
102	03D03D09-N10	14THSP03RIS2ACYA	Spine Rib 3 Accel Y	2000 g	4-056 SIDIs FTSS.027
103	03F03F09-N17	14THSP03RIS2ACZA	Spine Rib 3 Accel Z	2000 g	4-056 SIDIs FTSS.028
104	04J04I01-R18	14SPIN1200S2ACXA	Lower Spine Accel X	2000 g	4-056 SIDIs FTSS.029
105	03E03D30-N04	14SPIN1200S2ACYA	Lower Spine Accel Y	2000 g	4-056 SIDIs FTSS.030
106	04J04I01-R10	14SPIN1200S2ACZA	Lower Spine Accel Z	2000 g	4-056 SIDIs FTSS.031
107	04J04I08-F25	14ABSP02RIS2ACXA	Spine Rib 5 Accel X	2000 g	4-056 SIDIs FTSS.032
108	00L13-F04	14ABSP02RIS2ACYA	Spine Rib 5 Accel Y	2000 g	4-056 SIDIs FTSS.033
109	04J04I20-Z08	14ABSP02RIS2ACZA	Spine Rib 5 Accel Z	2000 g	4-056 SIDIs FTSS.034
110	IF-414-101-MX	14LUSP0000S2MOXA	Lumbar Moment X	452 N	4-056 SIDIs FTSS.058
111	IF-414-101-MY	14LUSP0000S2MOYA	Lumbar Moment Y	452 N	4-056 SIDIs FTSS.059
112	IF-414-101-MZ	14LUSP0000S2MOZA	Lumbar Moment Z	226 N	4-056 SIDIs FTSS.060
113	02I02I10-N22	14TRRI01LES2ACXA	Thorax Rib 1 Accel X	2000 g	4-056 SIDIs FTSS.035
114	99H12-F11	14TRRI01LES2ACYA	Thorax Rib 1 Accel Y	2000 g	4-056 SIDIs FTSS.036
115	03E03E20-N04	14TRRI01LES2ACZA	Thorax Rib 1 Accel Z	2000 g	4-056 SIDIs FTSS.037
116	02A16-A07	14TRRI02LES2ACXA	Thorax Rib 2 Accel X	2000 g	4-056 SIDIs FTSS.038
117	02I02I05-F23	14TRRI02LES2ACYA	Thorax Rib 2 Accel Y	2000 g	4-056 SIDIs FTSS.039
118	02A16-A10	14TRRI02LES2ACZA	Thorax Rib 2 Accel Z	2000 g	4-056 SIDIs FTSS.040
119	04J04I07-Z16	14TRRI03LES2ACXA	Thorax Rib 3 Accel X	2000 g	4-056 SIDIs FTSS.041
120	04J04I01-R06	14TRRI03LES2ACYA	Thorax Rib 3 Accel Y	2000 g	4-056 SIDIs FTSS.042
121	04J04I01-R13	14TRRI03LES2ACZA	Thorax Rib 3 Accel Z	2000 g	4-056 SIDIs FTSS.043
122	03D03D16-F04	14ABRI01LES2ACXA	Abdomen Rib 1 Accel X	750 g	4-056 SIDIs FTSS.044
123	03D03D09-N07	14ABRI01LES2ACYA	Abdomen Rib 1 Accel Y	750 g	4-056 SIDIs FTSS.045
124	04J04I20-Z23	14ABRI01LES2ACZA	Abdomen Rib 1 Accel Z	750 g	4-056 SIDIs FTSS.046
125	99H12-F20	14ABRI02LES2ACXA	Abdomen Rib 2 Accel X	2000 g	4-056 SIDIs FTSS.047
126	99H12-F24	14ABRI02LES2ACYA	Abdomen Rib 2 Accel Y	2000 g	4-056 SIDIs FTSS.048
127	03E03E21-M19	14ABRI02LES2ACZA	Abdomen Rib 2 Accel Z	2000 g	4-056 SIDIs FTSS.049

128	180-3860-056RIB1	14TRRI01LES2DSYA	Thorax Rib 1 Disp. Y	75 mm	4-056 SIDIs FTSS.050
129	180-3860-056RIB2	14TRRI02LES2DSYA	Thorax Rib 2 Disp. Y	75 mm	4-056 SIDIs FTSS.051
130	180-3860-056RIB3	14TRRI03LES2DSYA	Thorax Rib 3 Disp. Y	75 mm	4-056 SIDIs FTSS.052
131	180-3860-056RIB4	14ABRI01LES2DSYA	Abdomen Rib 1 Disp. Y	75 mm	4-056 SIDIs FTSS.053
132	180-3860-056RIB5	14ABRI02LES2DSYA	Abdomen Rib 2 Disp. Y	75 mm	4-056 SIDIs FTSS.054
133	01G25-N14	14PELVCG00S2ACXA	Pelvis Accel X	2000 g	4-056 SIDIs FTSS.061
134	01G25-N05	14PELVCG00S2ACYA	Pelvis Accel Y	2000 g	4-056 SIDIs FTSS.062
135	03E03E18-F05	14PELVCG00S2ACZA	Pelvis Accel Z	2000 g	4-056 SIDIs FTSS.063
136	IF-520-102-FY	14ACTBLE00S2FOYA	Left Acetabulum Force Y	8896 N	4-056 SIDIs FTSS.064
137	IF-507-101-FY	14ILACLE00S2FOYA	Left Iliac Wing Force Y	13344 N	4-056 SIDIs FTSS.065
138	IF-625-111-FX	14FEMRRI00S2FOXA	Right Femur Force X	13344 N	4-056 SIDIs FTSS.072
139	IF-625-111-FY	14FEMRRI00S2FOYA	Right Femur Force Y	13344 N	4-056 SIDIs FTSS.073
140	IF-625-111-FZ	14FEMRRI00S2FOZA	Right Femur Force Z	13344 N	4-056 SIDIs FTSS.074
141	IF-625-111-MX	14FEMRRI00S2MOXA	Right Femur Moment X	339 N-m	4-056 SIDIs FTSS.075
142	IF-625-111-MY	14FEMRRI00S2MOYA	Right Femur Moment Y	339 N-m	4-056 SIDIs FTSS.076
143	IF-625-111-MZ	14FEMRRI00S2MOZA	Right Femur Moment Z	339 N-m	4-056 SIDIs FTSS.077
144	IF-625-110-FX	14FEMRLE00S2FOXA	Left Femur Force X	13344 N	4-056 SIDIs FTSS.066
145	IF-625-110-FY	14FEMRLE00S2FOYA	Left Femur Force Y	13344 N	4-056 SIDIs FTSS.067
146	IF-625-110-FZ	14FEMRLE00S2FOZA	Left Femur Force Z	22240 N	4-056 SIDIs FTSS.068
147	IF-625-110-MX	14FEMRLE00S2MOXA	Left Femur Moment X	339 N-m	4-056 SIDIs FTSS.069
148	IF-625-110-MY	14FEMRLE00S2MOYA	Left Femur Moment Y	339 N-m	4-056 SIDIs FTSS.070
149	IF-625-110-MZ	14FEMRLE00S2MOZA	Left Femur Moment Z	339 N-m	4-056 SIDIs FTSS.071
150	P34812	16SILBFR0000ACXA	Right Side Sill at Front Seat X-axis Acceleration	400 g	
151	P46009	16SILBFR0000ACYA	Right Side Sill at Front Seat Y-axis Acceleration	1000 g	
152	P30339	16SILBFR0000ACZA	Right Side Sill at Front Seat Z-axis Acceleration	400 g	
153	P46067	16SILBRE0000ACXA	Right Side Sill at Rear Seat X-axis Acceleration	400 g	
154	P45767	16SILBRE0000ACYA	Right Side Sill at Rear Seat Y-axis Acceleration	1000 g	
155	P45722	16SILBRE0000ACZA	Right Side Sill at Rear Seat Z-axis Acceleration	400 g	
156	P41059	18FORA000000ACXA	Rear Floorpan Above Axle X-axis Acceleration	1000 g	
157	P34836	18FORA000000ACYA	Rear Floorpan Above Axle Y-axis Acceleration	1000 g	
158	P28974	18FORA000000ACZA	Rear Floorpan Above Axle Z-axis Acceleration	1000 g	
159	P40041	14SILBRE0000ACYA	Left Side Sill at Rear Seat Y-axis Acceleration	1000 g	
160	P45730	14SILBFR0000ACYA	Left Side Sill at Front Seat Y-axis Acceleration	1000 g	
161	P46025	16VEHCRE0000ACYA	Right Rear Occupant Compartment Y-axis Accel	1500 g	
162	P39329	14BPILLO0000ACYA	Left Lower B-Post Y-axis Accel	1500 g	
163	P46503	14BPILMI0000ACYA	Left Middle B-Post Y-axis Accel	1500 g	
164	P41712	11APILLO0000ACYA	Left Lower A-Post Y-axis Accel	1500 g	
165	P42222	11APILMI0000ACYA	Left Middle A-Post Y-axis Accel	1500 g	
166	P46011	11SETRFR0000ACYA	Left Front Seat Track Y-axis Acceleration	1500 g	
167	P45762	14SETRLERE00ACYA	Left Rear Seat Track Y-axis Acceleration	1500 g	
168	P39840	10VEHCCG0000ACXA	Vehicle Center of Gravity X-axis Acceleration	1000 g	
169	P39974	10VEHCCG0000ACYA	Vehicle Center of Gravity Y-axis Acceleration	1000 g	
170	P41564	10VEHCCG0000ACZA	Vehicle Center of Gravity Z-axis Acceleration	1000 g	

171 P42215	12ENGN000000ACXA	Top of Engine X-axis Acceleration	1000 g
172 P41592	12ENGN000000ACYA	Top of Engine Y-axis Acceleration	1000 g
173 P33531	12VEHC000000ACXA	Firewall X-axis Acceleration	1000 g
174 P34369	12VEHC000000ACYA	Firewall Y-axis Acceleration	1000 g
175 P35041	13ROFR000000ACXA	Right Roof Rail X-axis Acceleration	1000 g
176 P46006	13ROFR000000ACYA	Right Roof Rail Y-axis Acceleration	1000 g
177 P45772	11DOOR000001ACYA	Left Front Door centerline 430 mm above ground Y-axis accel (NHTSA #6)	1000 g
178 P45996	11DOOR000002ACYA	Left Front Door mid-rear 430 mm above ground Y-axis accel (NHTSA #8)	1000 g
179 P47492	11DOOR000003ACYA	Left Front Door upper centerline 685 mm above ground Y-axis accel (NHTSA #9)	1000 g
180 P41746	14DOOR000001ACYA	Left Rear Door mid-rear 685 mm above ground Y-axis accel (NHTSA #10)	1000 g
181 P41189	14DOOR000002ACYA	Left Rear Door upper centerline 685 mm above ground Y-axis accel (NHTSA #11)	1000 g
182 ABFire1	11SENS000001VO0A	Side torso Airbag fire	5 V
183 ABFire2	11SENS000002VO0A	Side curtain airbag fire	5 V
184 ABFire3	13SENS000001VO0A	Non-struck Side torso Airbag fire (disable bag)	5 V
185 ABFire4	13SENS000002VO0A	Non-struck Side curtain airbag fire (disable bag)	5 V
186 P45717	M0VEHCCG00000ACXA	MDB Center of Gravity X-axis Acceleration	600 g
187 P45731	M0VEHCCG00000ACYA	MDB Center of Gravity Y-axis Acceleration	600 g
188 P45728	M0VEHCCG00000ACZA	MDB Center of Gravity Z-axis Acceleration	600 g
189 P39845	M7FRAM000000ACXA	MDB Left Rear X-axis Acceleration (on left frame over axle)	600 g
190 P39982	M7FRAM000000ACYA	MDB Left Rear Y-axis Acceleration (on left frame over axle)	600 g
191 Bit.00	M3CONT000000EV00	MDB Right Side Contact Switch	1 Logic
192 Bit.01	M1CONT000000EV00	MDB Left Side Contact Switch	1 Logic
193 Bit.00	11CONT000001EV00	Dummy head contact	1 Logic
194 Bit.01	11CONT000002EV00	Dummy shoulder contact	1 Logic
195 Bit.02	11CONT000003EV00	Dummy torso contact	1 Logic
196 Bit.03	11CONT000004EV00	Dummy leg contact	1 Logic
197 Bit.04	14CONT000001EV00	Dummy head contact	1 Logic
198 Bit.05	14CONT000002EV00	Dummy shoulder contact	1 Logic
199 Bit.06	14CONT000003EV00	Dummy torso contact	1 Logic
200 Bit.07	14CONT000004EV00	Dummy leg contact	1 Logic

LEFT SIDE IMPACT OF 2005 HONDA CRV / 050725





CERTIFICATE OF CONFORMITY

Certificate No. 19951
Serial No. EH 334

Cellbond Composites Ltd
5 Stukeley Business Centre
Blackstone Road
Huntingdon
Cambridgeshire
PE29 6EF
United Kingdom

Product Description	FMVSS 214 - 1750x740x550mm Spec with 1.6 3/8 5052 Painted Grey
Cellbond Part No.	70NHTSASIUS G

telephone
+44 (0) 1480 435302
telefax
+44 (0) 1480 450181
email
sales@cellbond.com
website
www.cellbond.com

	Test Results	GR No.	Blk No.
1	27020-27	P140923-B00	N/A
2	27557-64	P142611-B01	N/A

Declaration.

The above moving deformable barrier has been manufactured in accordance with the provisions of FMVSS 214.

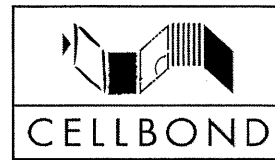
Additional Information...

company registration
England 1944904

registered office
5 Stukeley Business Centre
Blackstone Road
Huntingdon
Cambridgeshire
PE29 6EF

Cellbond Offices
United Kingdom
Germany
United States of America





NHTSA DEFORMABLE SIDE IMPACT BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

MAIN BLOCK
Core: 1.6 3/8 5052

Required Crush Strength
42.5 PSI to 47.5 PSI

Test No: 27020-27

GR No: P140923-B00
Block No: N/A

	Crush Strength (PSI)			RESULT
	0.25 to 0.38 inch	0.38 to 0.52 inch	0.52 to 0.65 inch	
Sample* 1	42.858	44.056	43.101	PASS
Sample 2	44.691	45.770	45.345	PASS
Sample 3	43.714	44.150	43.778	PASS
Sample 4	44.240	44.602	45.382	PASS
Sample 5	43.495	43.963	44.195	PASS
Sample 6	43.285	42.874	44.258	PASS
Sample 7	43.464	44.911	44.664	PASS
Sample 8	45.012	45.278	45.481	PASS

Seven out of the eight samples must fulfil the crush strength
requirement in order to pass the block certification

*Sample size and location as per R94.

RESULT: PASSED

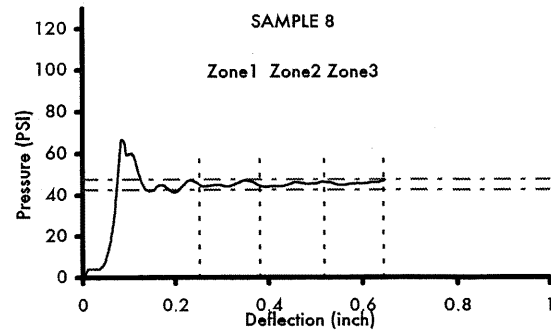
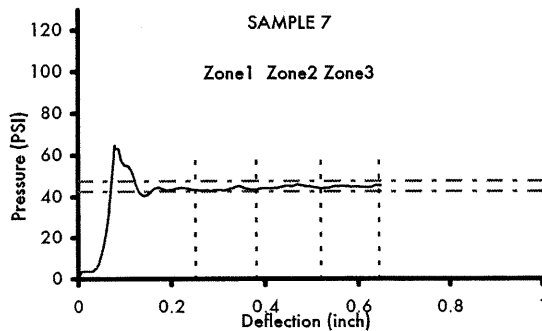
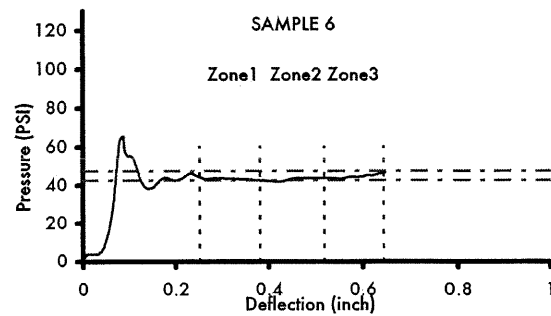
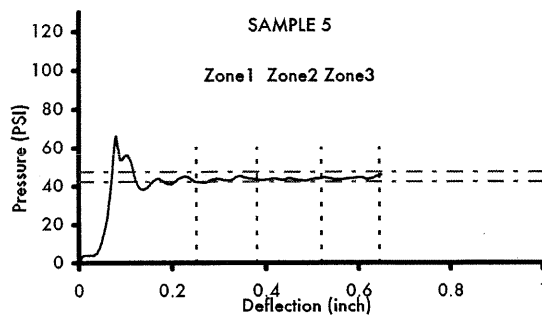
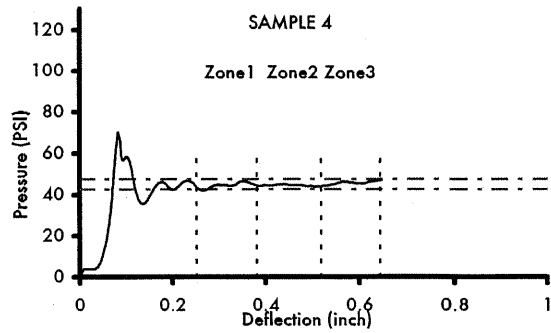
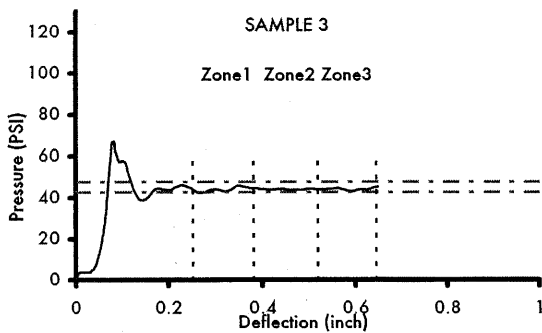
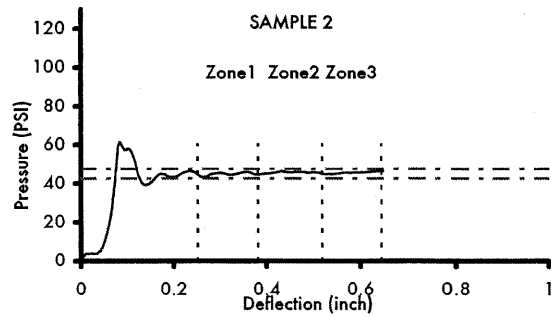
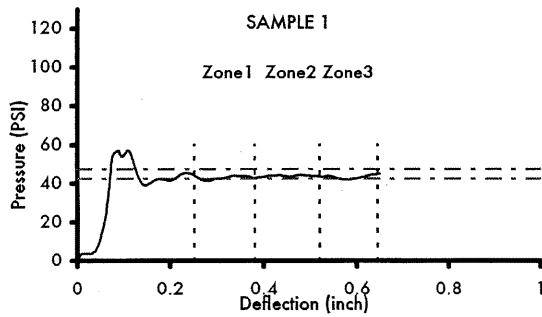
NHTSA DEFORMABLE SIDE IMPACT BARRIER
MAIN BLOCK

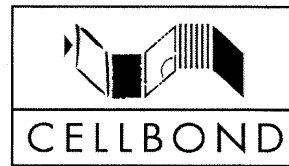
Honeycomb Type: 1.6 3/8 5052
Higher Acceptable Crush Strength Limit: 47.5 PSI
Lower Acceptable Crush Strength Limit: 42.5 PSI

Section 1: 0.25 - 0.38 inch
Section 2: 0.38 - 0.52 inch
Section 3: 0.52 - 0.65 inch
Speed: 0.25 inch/min
Block No: N/A

Test No: 27020-27

GR No: P140923-B00





NHTSA DEFORMABLE SIDE IMPACT BARRIER
ALUMINIUM HONEYCOMB CERTIFICATION
STATIC TEST RESULTS

BUMPER

Core: 5.2 1/4 3003

Required Crush Strength
230 PSI to 260 PSI

Test No: 27557-64

GR No: P142611-B01

Block No: N/A

	Crush Strength (PSI)			RESULT
	0.25 to 0.38	0.38 to 0.52	0.52 to 0.65	
Sample* 1	251.93	249.17	247.96	PASS
Sample 2	256.67	257.42	257.66	PASS
Sample 3	253.33	252.23	252.03	PASS
Sample 4	255.75	254.79	253.81	PASS
Sample 5	258.12	258.58	257.48	PASS
Sample 6	251.35	248.38	246.05	PASS
Sample 7	253.79	252.83	253.92	PASS
Sample 8	243.90	242.13	237.15	PASS

Seven out of the eight samples must fulfil the crush strength
requirement in order to pass the block certification

*Sample size and location as per R94.

RESULT: PASSED

NHTSA DEFORMABLE SIDE IMPACT BARRIER BUMPER

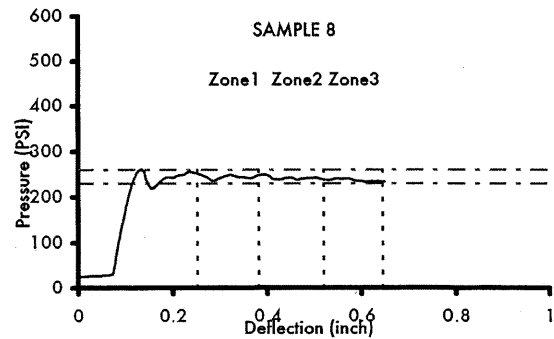
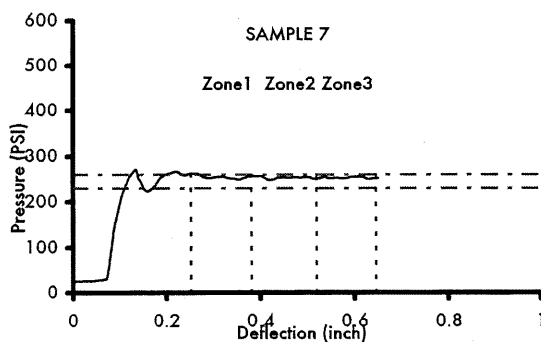
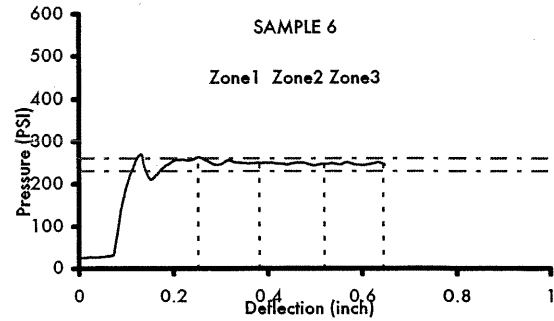
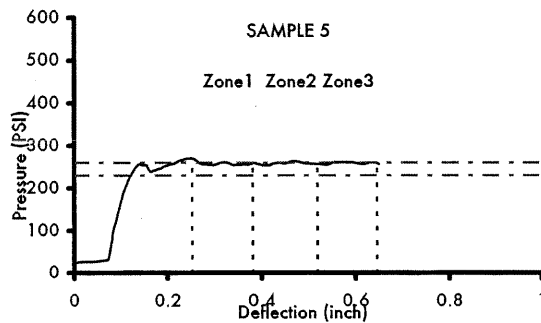
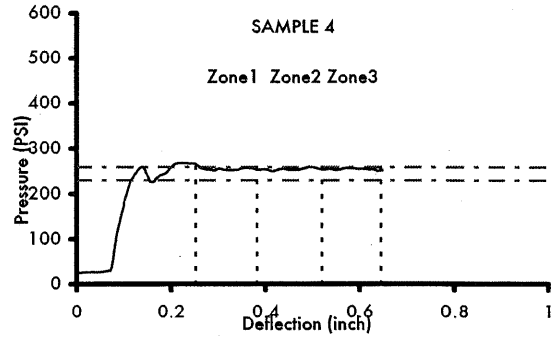
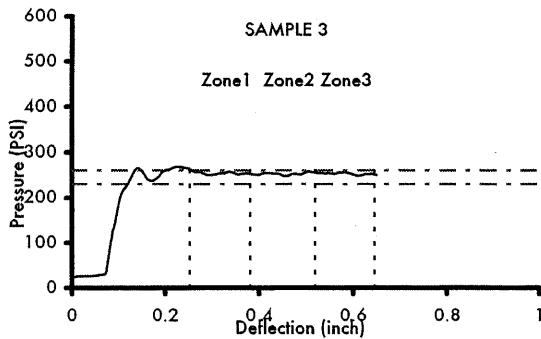
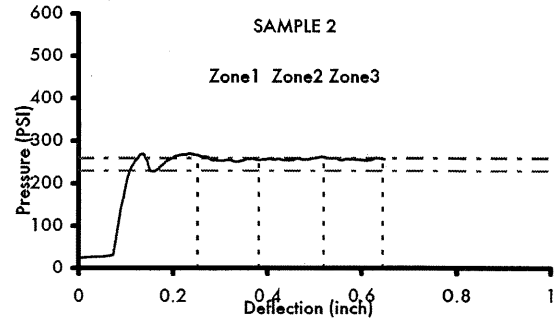
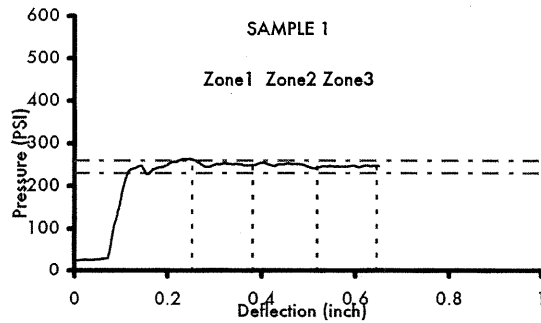
Honeycomb Type: 5.2 1/4 3003
Higher Acceptable Crush Strength Limit: 260 PSI
Lower Acceptable Crush Strength Limit: 230 PSI

Section 1: 0.25 - 0.38 inch
Section 2: 0.38 - 0.52 inch
Section 3: 0.52 - 0.65 inch
Speed: 0.25 inch/min

Test No: 27557-64

GR No: P142611-B01

Block No: N/A



Appendix E

INSIA Report on Structural Measurements



UPM



INSIA

Compatibility Project
EEVC - WG15

STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY

**APARICIO IZQUIERDO, FRANCISCO
PÁEZ AYUSO, FRANCISCO JAVIER**

**INSIA
Carretera de Valencia, km. 7
Campus Sur de la Universidad Politécnica de Madrid
28031 – MADRID – (SPAIN)**

March, 1999

REPORT DOCUMENTATION PAGE	
Title:	<i>STRUCTURAL SURVEY OF CARS. MEASUREMENT METHODOLOGY OF THE MAIN RESISTANT ELEMENTS IN THE CAR BODY</i>
Author(s):	Aparicio Izquierdo, Francisco Páez Ayuso, Francisco Javier
Performing Organisation name and address:	INSIA – University Institute for Automobile Research Carretera de Valencia, Km. 7 – Campus Sur de la Universidad Politécnica de Madrid 28031 – Madrid – Spain
Supplementary notes:	Under contract to: THE EUROPEAN COMMUNITY Project: “Improvement of Crash Compatibility between Cars” Contract N°: RO – 97 – SC.1064
Abstract:	The main aim of this working package -<i>Structural Survey of Cars</i>- is the reduction of incompatibilities, both structural and geometric, between passenger vehicles and their potential collision partners. The understanding of these incompatibilities needs a previous step for the knowledge of the existing car fleet. Firstly, it is necessary to select the main resistant elements in the car body. These elements have to be chosen from the point of view of the sort of collision that we want to study, that is to say, frontal and side impacts. Detailed measurements have been taken from exterior and interior elements, spread to a total number of 74 models selected from the main vehicle manufacturers at Spain. All of them are being sold this year. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars will be defined. This report shows the methodology followed to get these measurements.
Subject terms:	Crash compatibility, geometric compatibility, resistant elements, measure methodology
Date:	March, 1999

1.- METHODOLOGY.

Detailed measurements have been taken from exterior and interior elements. Using the information available from the previous measurements in vehicles, the geometric characteristics of the main resistant elements involved in the geometric compatibility between cars have been defined. These elements are presented in the following figures, and have been divided in two main groups according to the vehicle zones studied in this project.

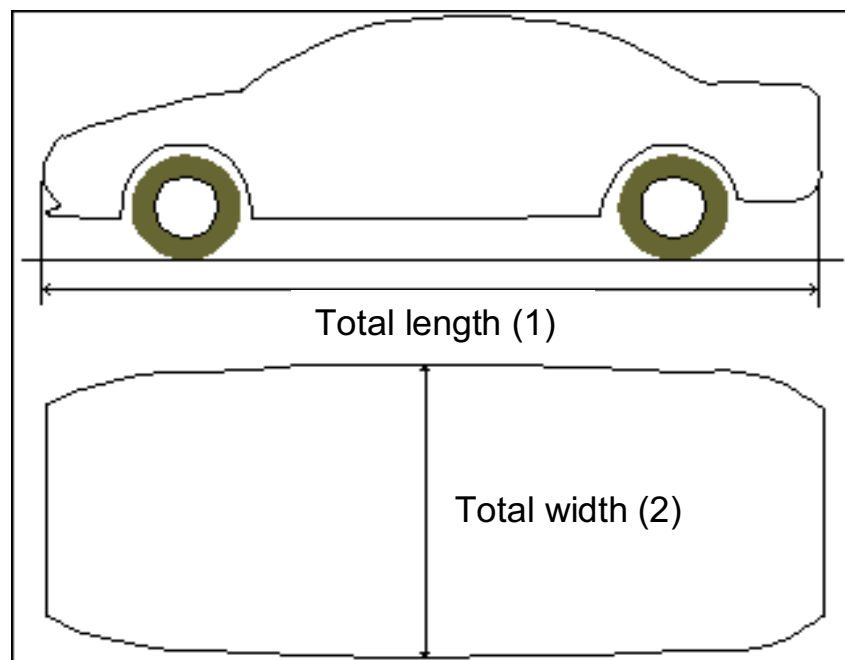


Figure 1.- Definition of the main resistant elements. General dimensions.

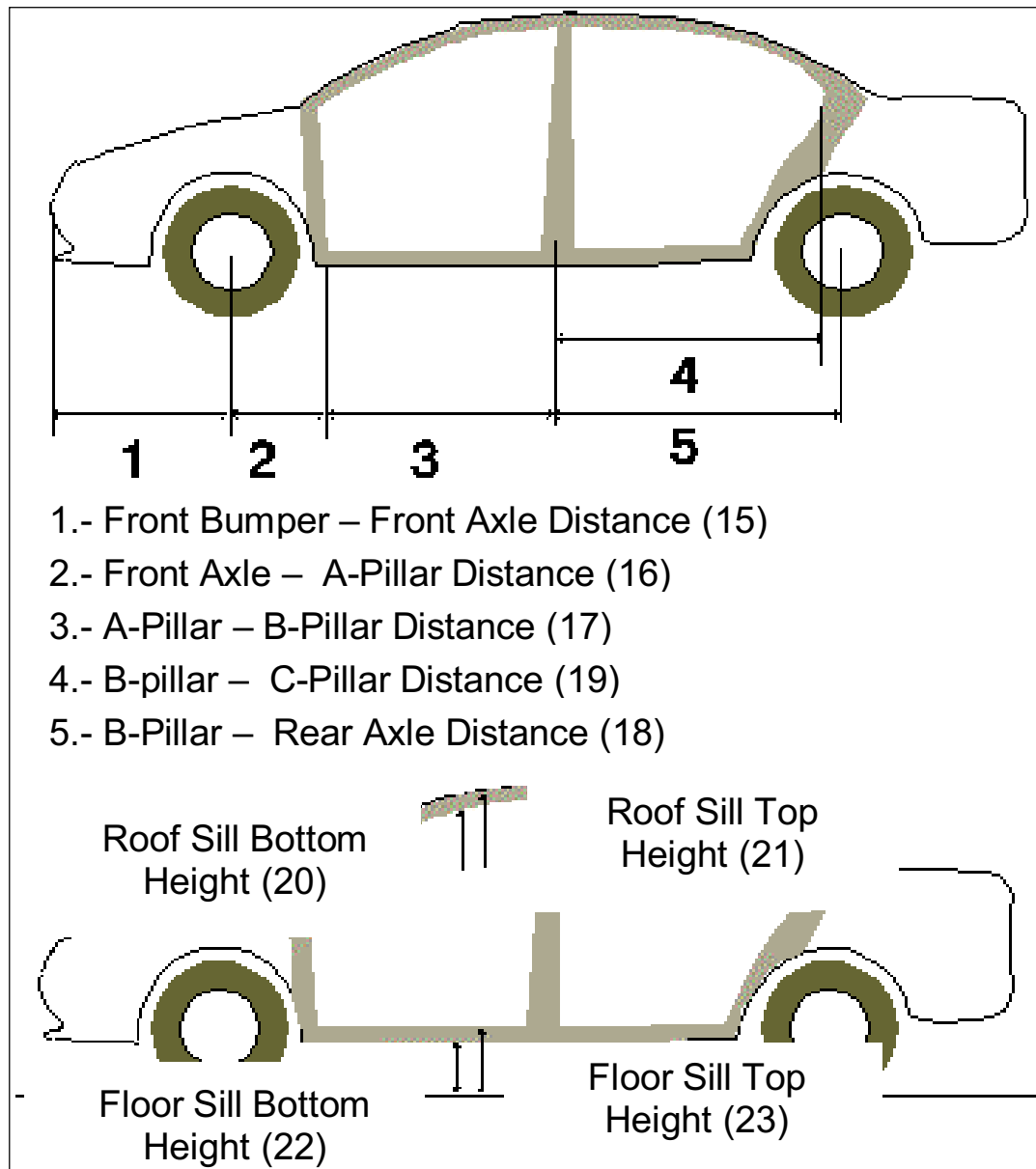


Figure 2.- Definition of the main resistant elements. Side elements.

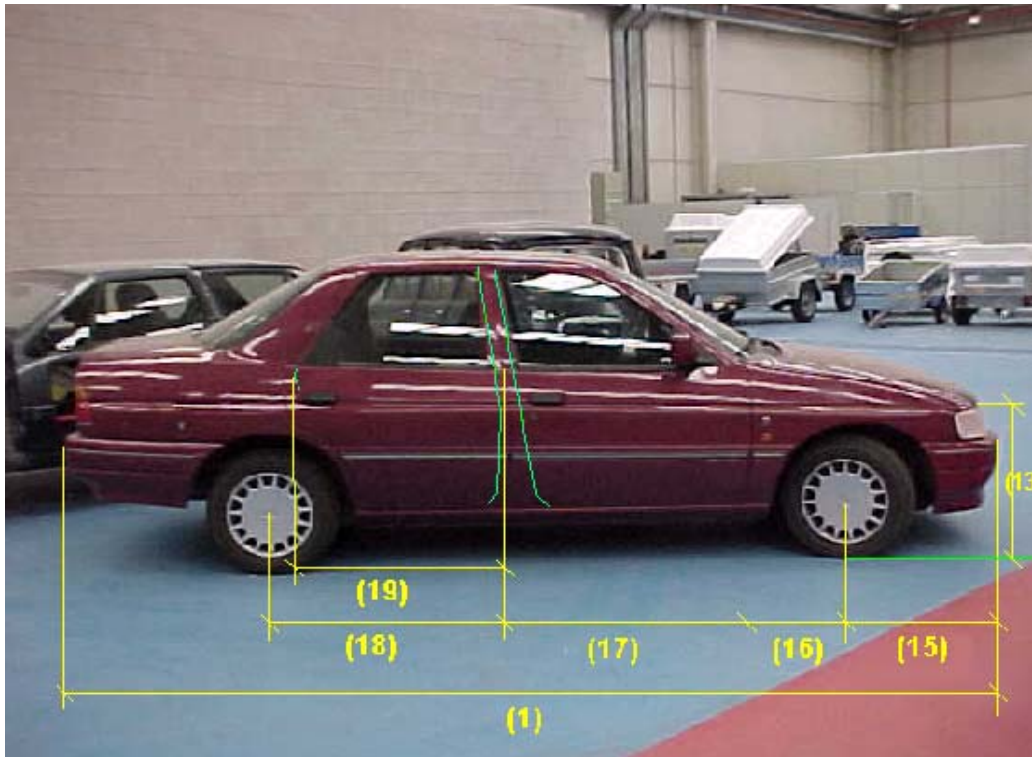


Figure 3.-
Measurements of
the side resistant
elements (outer).

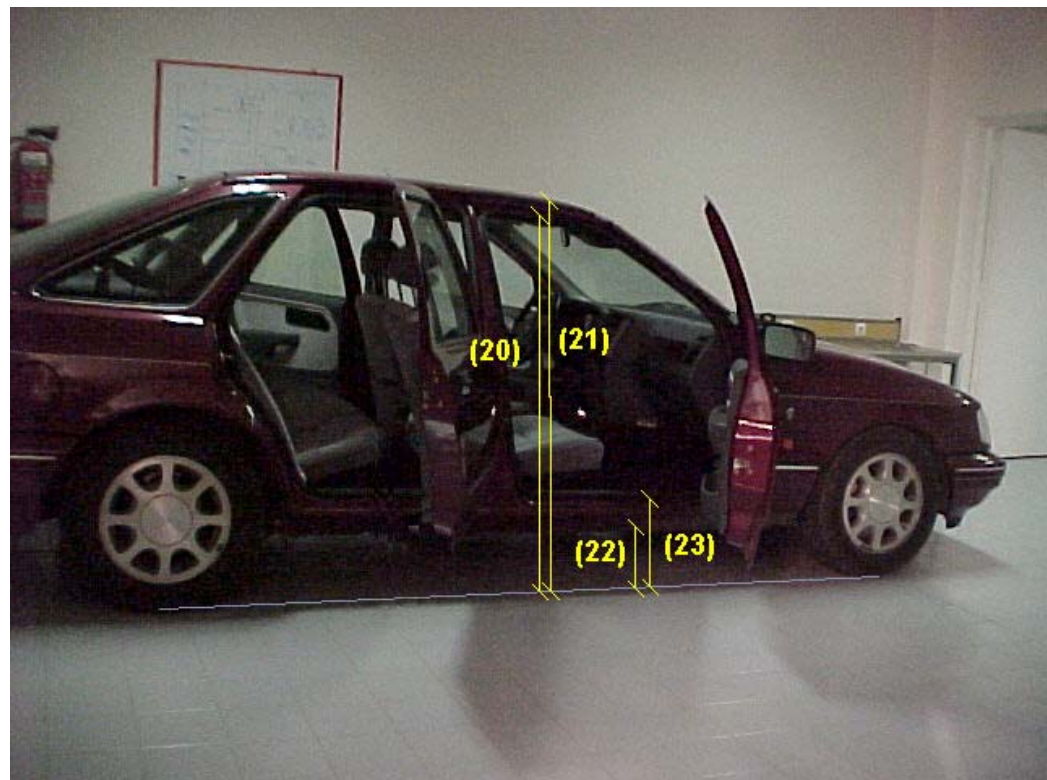


Figure 4.- Measurements
of the side resistant
elements (inner).

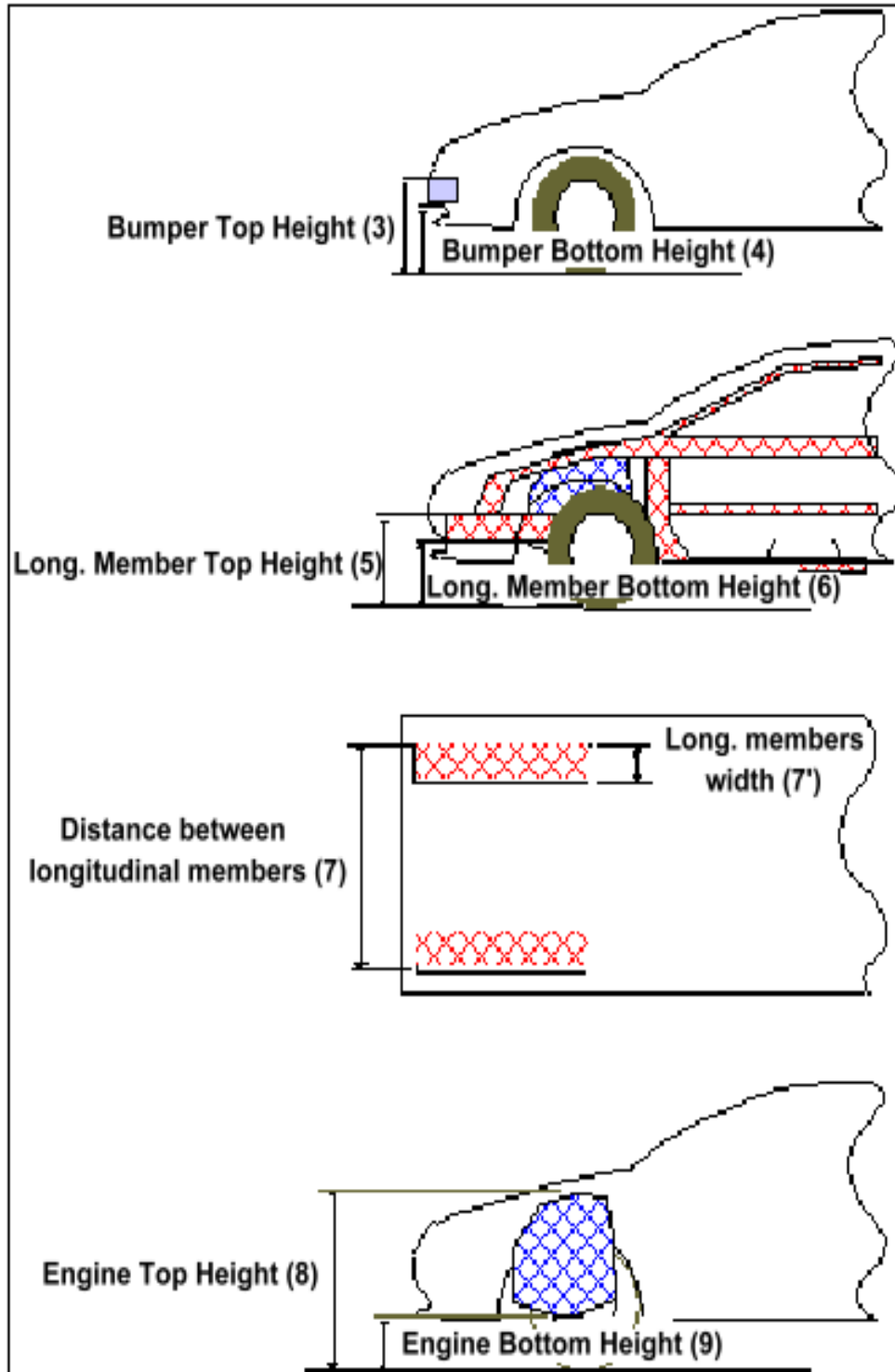


Figure 5.- Definition of the main resistant elements. Front elements.

Figure 6.-
Measurements of the
main resistant elements.
Front elements 1.

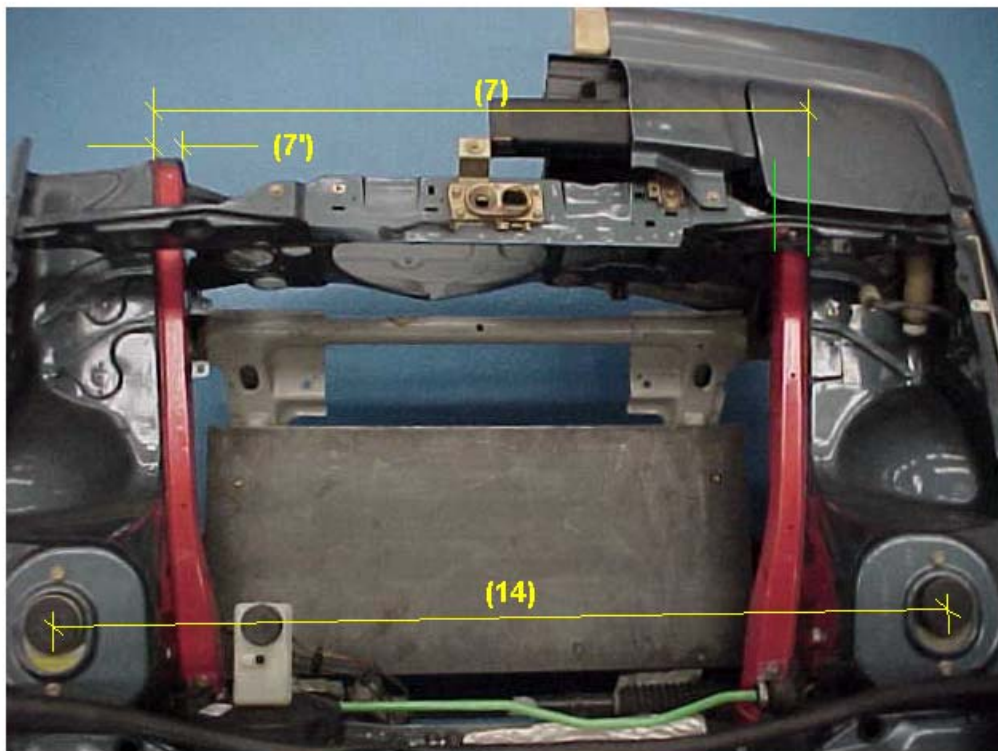
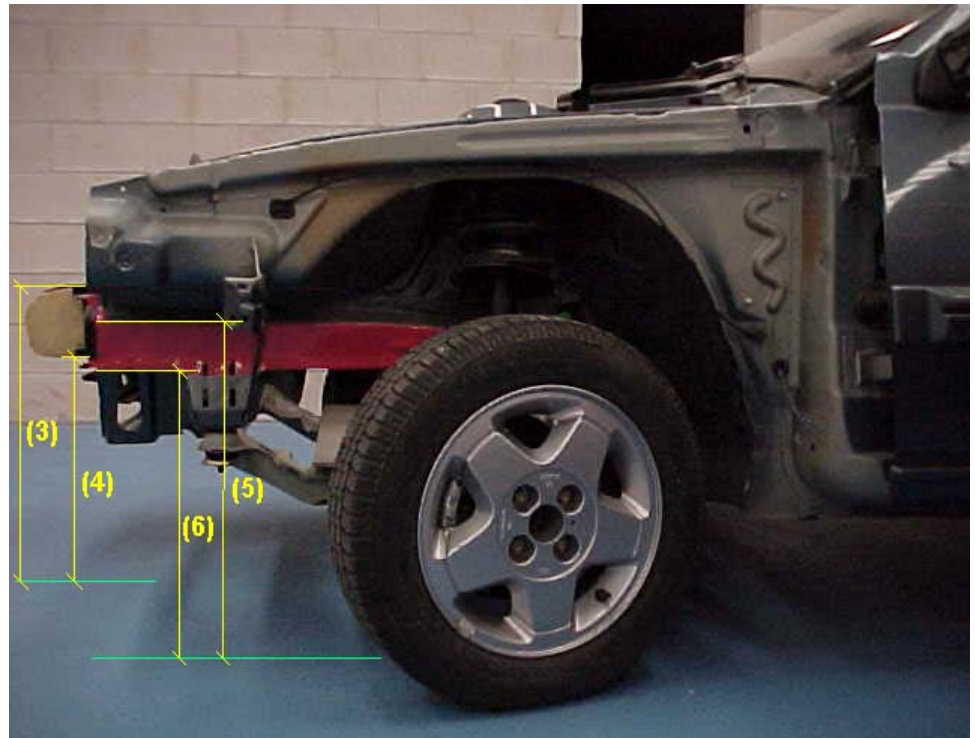


Figure 7.-
Measurements
of the main
resistant
elements. Front
elements 2.

Figure 8.-
Measurements of
the main resistant
elements. Front
elements 3.

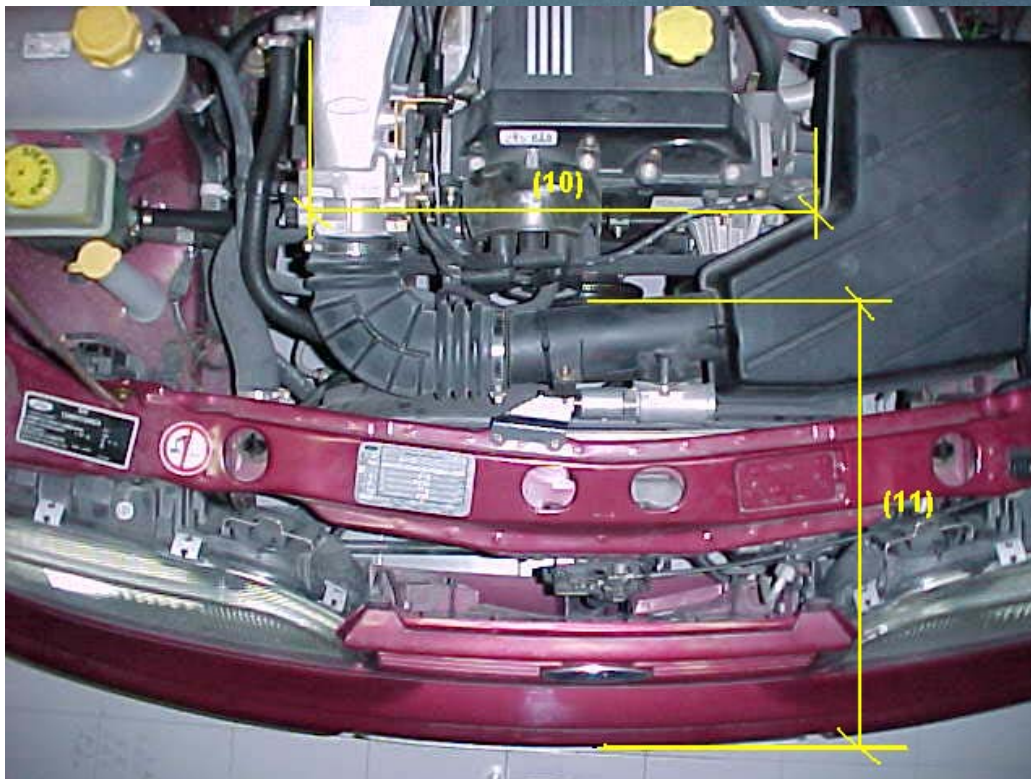
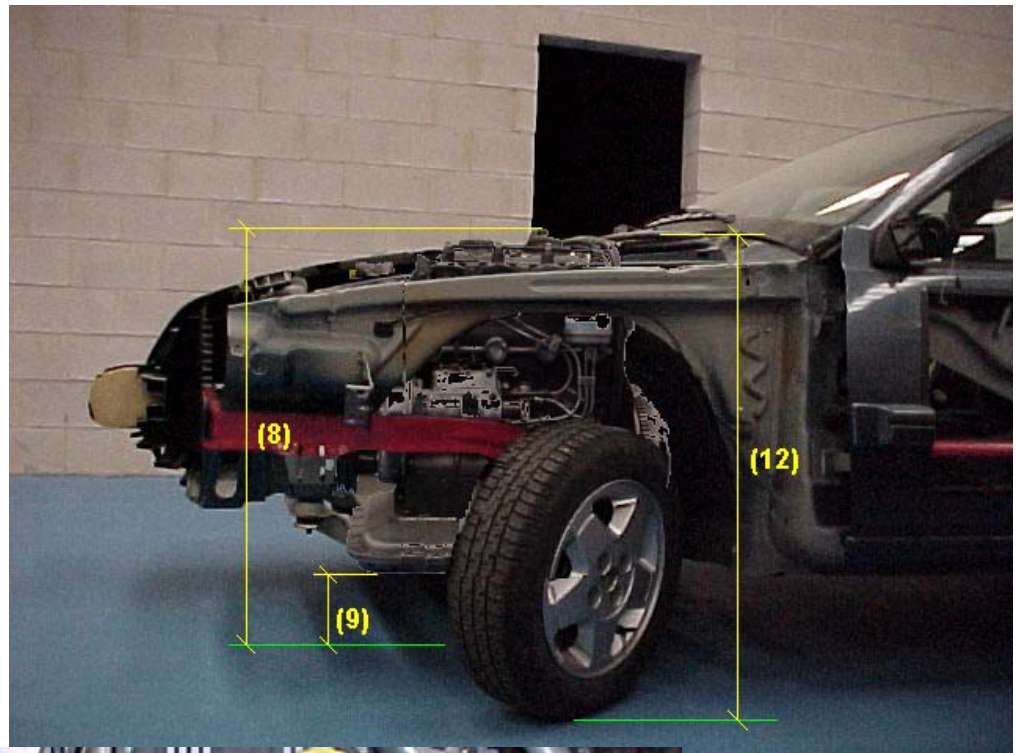


Figure 9.-
Definition of
the main
resistant
elements. Front
elements
(Longitudinal
engine).



The procedure considered to measure these elements is described as follows, where it is indicated the location of these ones in the Excel Sheet (SURVEY.XLS) into brackets:

FRONT ELEMENTS

- **Total Length –(1)- (Side & Front Sheets - C column):** distance between the point in the front bumper further on and the point in the rear bumper further back.
- **Weight (Side & Front Sheets - D column):** mass, including an average driver weight (70 kg), and the fuel tank mass (at half-capacity).
- **Total Width –(2)- (Side & Front Sheets - E column):** distance between the outer side points in a transverse plane of the vehicle (middle plane between the front and rear axles).
- **Bumper bottom height –(4)- (Front Sheet G column):** distance between the ground and the lowest point on the front bumper, being a resistant member (aerodynamic elements under the front bumper are not considered).
- **Bumper top height –(3)- (Front Sheet H column):** distance between the ground and the highest point on the front bumper, being a resistant member (aerodynamic elements are not considered).
- **Longitudinal member top height –(5)- (Front Sheet I column):** distance between the ground and the highest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint (when accessible).
- **Longitudinal member bottom height –(6)- (Front Sheet J column):** distance between the ground and the lowest point on the longitudinal members, measured approximately in the front bumper-longitudinal member joint.
- **Distance between longitudinal members (Front Sheet K column):** transverse distance between extreme points in longitudinal members, measured approximately in the front bumper-longitudinal member joint.

Depending on the accessibility of these members, the extreme points are the inner points (I) or the outer points (O).

- **Longitudinal member width -7'- (Front Sheet L column):** width of one of the longitudinal members, measured approximately in the front bumper-longitudinal member joint.



- **Engine top height (8) (Front Sheet N column):** distance between the ground and the highest point on the engine that can be a resistant member in case of accident (usually, the highest point on the head, or the highest point of the inlet or exhaust manifolds).
- **Engine bottom height (9) (Front Sheet M column):** distance between the ground and the lowest point on the engine (usually, the lowest point on the crankcase).
- **Engine and Gearbox width (10) (Front Sheet O & P columns):**
 - *Transverse configuration engine:* distance between extreme points in the gearbox-cylinder block unit or others resistant members attached to the cylinder block unit, i.e. fan belts (from a front point of view).
 - *Longitudinal configuration engine:* distance between extreme points in the cylinder block unit (from a front point of view).
- **Front bumper - Engine distance (11) (Front Sheet Q column):** distance between the point in the front bumper further on and the point in the engine further on that is a resistant element, i.e. the further on point of the exhaust manifold placed in the front of the engine.
- **Front shock absorber fixing width (14) (Front Sheet R column):** transverse distance between the front shock absorber - body car joints.
- **Front shock absorber fixing height (12) (Front Sheet S column):** distance between the ground and the front shock absorber-body car joint.
- **Bonnet leading edge height (Front Sheet T column):** distance between the ground and the bonnet edge further on.

SIDE ELEMENTS

- **Front bumper - Front axle distance (15) (Side Sheet G column):** distance between the point in the front bumper further on and the middle point in the front tyre-road contact patch.
- **Front axle - A Pillar distance (16) (Side Sheet H column):** distance between the middle point in the front tyre-road contact patch and the point in the A-pillar further back.
- **A Pillar - B Pillar distance (17) (Side Sheet I column):** distance between the point in the A-pillar further back and the middle point in the B-pillar.
- **B Pillar - C Pillar distance (19) (Side Sheet J column):** distance between the middle point in the B-pillar and the point in the C-pillar further back (only 4/5-door vehicles).
- **B Pillar - Rear axle distance (18) (Side Sheet K column):** distance between the middle point in the B-pillar and the middle point in the rear tyre-road contact patch.
- **Roof sill bottom height (20) (Side Sheet L column):** distance between the ground and the lowest point on the roof sill, measured in the front door middle point.
- **Roof sill top height (21) (Side Sheet M column):** distance between the ground and the highest point on the roof sill (usually located in the sill-roof joint), measured in the front door middle point.
- **Floor sill bottom height (22) (Side Sheet N column):** distance between the ground and the lowest point on the floor sill, measured in the front door middle point.
- **Floor sill top height (23) (Side Sheet O column):** distance between the ground and the highest point on the floor sill, measured in the front door middle point.

NOTE

- N/A: dimension not available.