

**Vehicle Research and Test Center
Left Crabbed Moving Barrier Impact
WorldSID
2012 Chevrolet Traverse
TRC Inc. Test Number: 130326**

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Final Report

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TRC TEST NUMBER: 130326

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Section 1

Purpose and Test Procedure

Purpose

This moving deformable barrier side impact test is part of Federal Motor Vehicle Safety Standard 214 Side Impact Protection. It was conducted for the National Highway Traffic Safety Administration (NHTSA) and Vehicle Research and Test Center (VRTC) by Transportation Research Center Inc. (TRC Inc.). The purpose of this test was to refine the seating procedure for the 50th male and 5th female WorldSID dummies and to begin to evaluate the performance of the post-FMVSS 214 fleet. The test was conducted in accordance with the National Highway Traffic Safety Administration's modified test procedures FMVSS 214/NCAP side impact moving deformable barrier (January, 2010) along with VRTC seating procedure for the WorldSID dummies.

Section 2

Side Impact Test Results

Summary of Side Impact Test

A 2012 Chevrolet Traverse was impacted on the left side by a crabbed moving deformable barrier, at a velocity of 61.8 km/h (38.4 mph). The target vehicle was stationary and was positioned at an angle of 62.5° to the line of forward motion. The side impact test was conducted by Transportation Research Center Inc. in East Liberty, Ohio on March 26, 2013. Pre-test and post-test photographs of the test vehicle, the moving barrier, and the side impact dummy (WorldSID) are included in Appendix A.

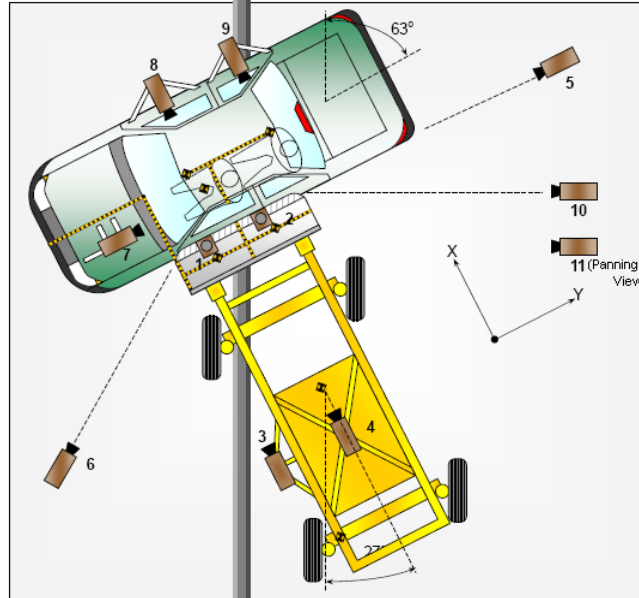
One restrained Side Impact Dummy, (WorldSID) S/N 016, was placed in the driver (Position #1) designated seating position, one restrained Side Impact Dummy, (WorldSID) S/N 014, was placed in the right front passenger (Position #2) designated seating position, and one restrained Side Impact Dummy, (WorldSID) S/N DG 236, was placed in the left rear passenger (Position #4) designated seating position according to the instructions specified in the VRTC WorldSID Seating Procedures. The WorldSID's were calibrated prior to this test. The side impact test was documented by one (1) real-time camera and nine (9) high-speed digital cameras. Camera locations and other pertinent camera information are included in this report.

The driver front airbag and passenger front airbag were disabled prior to the test performance.

The WorldSID instrumentation is detailed in Table 4. The 50th male (Driver) and 5th female (rear passenger) WorldSID dummies each had 2D IRTRAC data channels. Two hundred and twenty eight (228) dummy channels of acceleration, force, moment, and displacement data were collected for this test.

A summary of the side impact dummies (WorldSID) configuration and verification test data can be found in Appendix C. A total of two hundred and ninety seven (297) channels of data were recorded. Appendix B contains the vehicle, barrier, and dummy response data traces.

Test Results Summary



	Left Front WorldSID (#16)	Right Front WorldSID (#014)	Left Rear WorldSID (#236)
HIC36 (g) CFC 1000	19	55	122
Upper Rib Deflection (mm) CFC 600	See Table 4	See Table 4	See Table 4
Lower Rib Deflection (mm) CFC 600	See Table 4	See Table 4	See Table 4
Lower Spine Resultant (g) CFC 180	25.3 g	15.0 g	44.5 g
Pubic Symphysis Force (N) CFC 600	-1032.3 N	-428.2 N	-942.4 N

	2012 Chevrolet Traverse
Vehicle Test Weight	2538.8 kg (5597.1 lbs)
Impact Point (Horizontal) rearward of front axle	511 mm
Impact Angle	62.5
Maximum Crush	223 mm Level 3
Impact Speed	61.8 km/h

Data Acquisition Explanations

The Driver Dummy Abdominal Rib 1 rotational angle data channel did not record any valid data.

The Driver Dummy Abdominal Rib 1 IRTRAC X deflection channel calculated no valid data.

The Driver Dummy Abdominal Rib 1 IRTRAC Y deflection data channel calculated no valid data.

The Left Rear Passenger Dummy Pubic Force Y axis channel recorded a data spike at approximately 200 milliseconds.

The Vehicle Left Lower A-Post Y axis acceleration data channel recorded no valid data.

The Vehicle Left Middle B-Post Y axis acceleration data channel lost data after approximately 57 milliseconds and exceeded the full scale.

The Vehicle Center of Gravity Pitch Rate angular rate data channel exceeded the full scale throughout the event.

Section 3

Summary of Test Results

Table 1 General Test Vehicle Parameter Data

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

TEST VEHICLE INFORMATION

Make	Chevrolet
Model	Traverse
Body Style	MPV
VIN	1GNKVGED9CJ111456
Color	White
Odometer Reading	30945
Transmission	Automatic
Final Drive	4-wheel
Number of Cylinders	6
Engine Displacement	3.6
Engine Placement	V
Air Conditioning	Yes
Power Windows	Yes
Power Seats	Yes, Driver
Cruise Control	Yes
Tinted Glass	Yes
Keyless Entry	No

TEST VEHICLE OPTIONS

Driver Front Airbag	Yes ¹
Driver Side Curtain Airbag	Yes
Driver Side Torso Airbag	Yes
Rear Passenger Side/Curtain Airbag	Yes
Rear Passenger Side Torso Airbag	No
Power Steering	Yes
Power Door Locks	Yes
Tilt Wheel	Yes
Anti-lock Brakes	Yes
Traction Control	No
Bucket Seats	Yes
Rear Defroster	Yes
4-Door	Yes
AM/FM Radio	Yes
CD Player	Yes
Sun Roof	No
Telescoping Steering Wheel/Column	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors
Date of Manufacture	07/11

GVWR (kg)	2930
GAWR Front (kg)	1450
GAWR Rear (kg)	1600

Measured Parameter	Front	Mid	Rear	Total
Type of Seats	Bucket	Split Bench	Split bench	
Number Of Occupants	2	3	3	8
Capacity Wt. (VCW) (kg)				695

¹ Airbags were disabled prior to the test performance

Table 1 General Test Vehicle Parameter Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

TEST VEHICLE WEIGHTS

	Units	As Delivered (Axle)			As Tested (ATW) (Axle)		
		Front	Rear	Total	Front	Rear	Total
Left	kg	611.6	495.4		687.0	605.0	
Right	kg	619.0	482.2		651.2	595.6	
Ratio	%	55.7	44.3		52.7	47.3	
Totals	kg	1230.6	977.6	2208.2	1338.2	1200.6	2538.8

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight	kg	2208.2
Weight of WorldSID ATD	kg	201.0
Rated Cargo/Luggage Weight (RCLW)	kg	136.0
Calculated Vehicle Target Weight (TVTW)	kg	2545.2

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG(aft of front axle)
As Delivered	mm	850	850	878	880	1337
As Tested	mm	835	837	850	857	1428
Fully Loaded	mm	838	843	840	847	1468

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheelbase	mm	3020
Total Vehicle Length at Left Side	mm	4890
Total Vehicle Length at Centerline	mm	5180
Total Vehicle Length at Right Side	mm	4890
Weight of Ballast	kg	68.0
Amount of Stoddard Solvent in Fuel Tank	liters	77.6

TEST VEHICLE IMPACT ACCURACY DATA

Measurement Description	Units	Intended	Actual	Difference
Impact Reference Line From Front Axle	mm	508	511	3 Rt
Impact Point Angle	Degrees	63	62.5	0.5

Table 1 General Test Vehicle Parameter Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

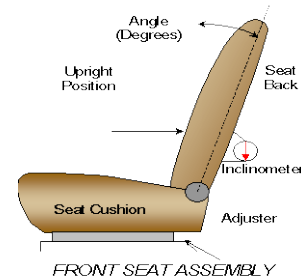
Test Date: 03/26/13

WORLD SID RIDING POSITION

The driver seat back is positioned according to the procedure defined in SAE J826, "Devices for use in Defining and Measuring Vehicle Seating Accommodation", November, 2008.

Driver seat back angle: The back was adjusted to 3.5° as measured at headrest.

Front passenger seat back angle: The back was adjusted to 3.3° as measured at headrest.

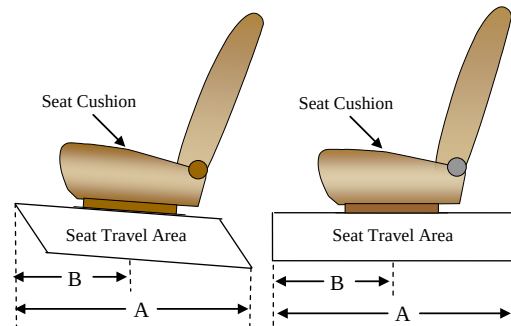


SEAT FORE/AFT POSITIONS

The total seat travel was measured from forward most position to rearmost position, irrespective of vertical seat height in those positions. The seat was set at the longitudinal mid position with vertical adjustment at the lowest position obtainable for the driver. The rear seating position was not tested.

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position No.
Driver Seat	240 mm	140 mm
Front Passenger Seat	240 mm	15
Rear Seat	180 mm	14



SEAT BELT UPPER ANCHORAGE

	Total No. of Positions	Placed in Position No.
Driver Seat	5	1
Front Passenger Seat	5	1
Rear Seat	1	1

Position number one is the uppermost adjustment position.

Table 1 General Test Vehicle Parameter Data, Continued

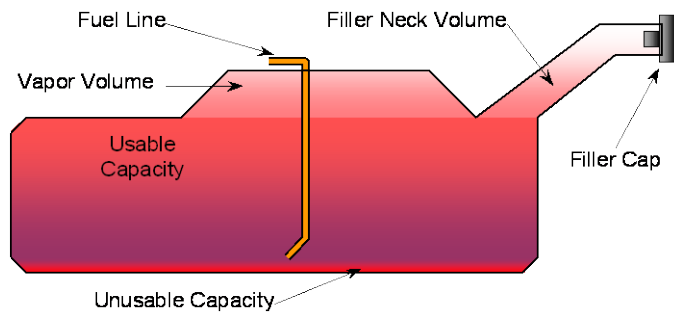
Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	83.3
Usable Capacity used for FMVSS 301	76.6-78.3
Actual Amount of Solvent used	77.6

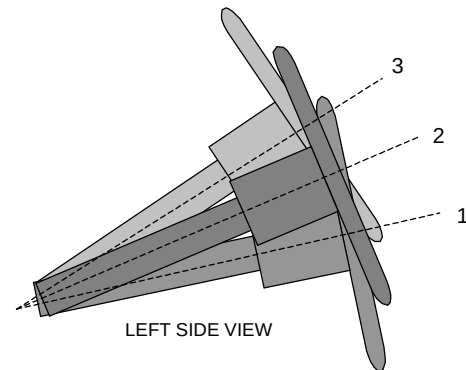
The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies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



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

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



STEERING COLUMN ASSEMBLY

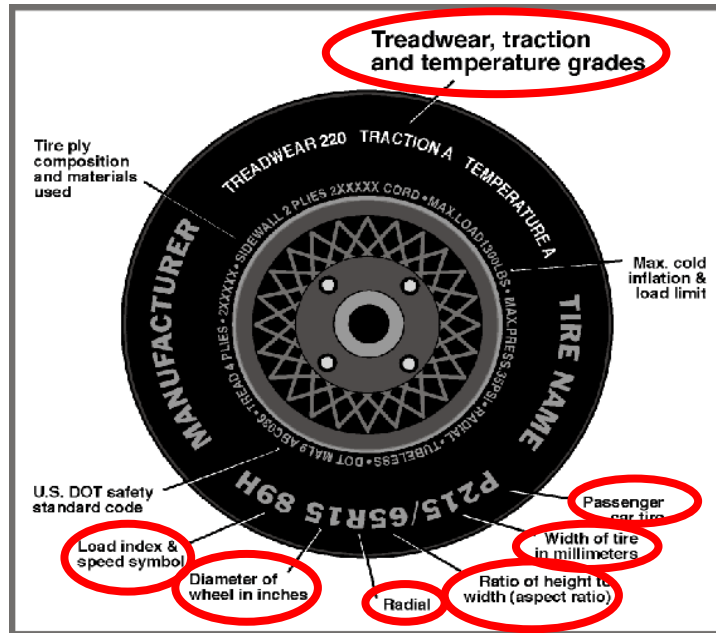
Steering Column Tilt Position	Degrees
Lowermost Position	18.5
Geometric Center Position	21.5
Uppermost Position	24.6

Steering Column Telescoping Position	(mm)
Full In Position	0
Full Out Position	50
Test Position	25

Table 2 Test Vehicle Tire Information

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	300	300
Cold / Test Pressure (kPa)	240	240
Recommended Tire Size	P255/65R18	P255/65R18
Tire Size on Vehicle	P255/65R18	P255/65R18
Tire Manufacturer	Goodyear	Goodyear
Tire Name	Fortera	Fortera
Radial	Yes	Yes
Wheel Diameter	18	18
Load Index & Speed Symbol	109S	109S
Tread wear	540	540
Traction Grade	A	A
Temperature Grade	A	A

Table 3 Post-Test Observations

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Driver Seat WorldSID	Right Front Seat WorldSID	Left Rear Seat WorldSID
Dummy Type / Serial No.	WorldSID / 016	WorldSID / 014	WorldSID / 236
Head Contact	SCAB; Headliner	Headliner; Other Occupant	SCAB
Upper Torso Contact	Seatback; Torso Airbag	N/A	Door Panel
Lower Torso Contact	Seatback; Torso Airbag	Armrest	Door Panel
Left Knee Contact	Door Panel	Door Panel	Door Panel
Right Knee Contact	N/A	N/A	N/A

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

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

POST-TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	B-Pillar deformation
Sill Separation	No
Windshield Damage	None
Window Damage	None
Other Notable Effects	None

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 01		Right Front (Passenger) Occupant Location 02		Left Rear (Passenger) Occupant Location 04	
	Installed	Operation	Installed	Operation	Installed	Operation
Front Airbag	Yes	No ¹	Yes	No ¹	N/A	N/A
Torso Airbag	Yes	Yes	N/A	N/A	N/A	N/A
Head Airbag	N/A	N/A	N/A	N/A	N/A	N/A
Curtain Airbag	Yes	Yes	Yes	Yes	Yes	Yes
Seat Belt Pre-tensioner	N/A	N/A	N/A	N/A	N/A	N/A
Seat Belt Load Limiter	N/A	N/A	N/A	N/A	N/A	N/A

¹ The driver and front passenger's front airbags were disabled for this test.

Section 4

Occupant, Vehicle and MDB Information

Table 4 WorldSID Instrumentation Data

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Driver Dummy Serial Number: 016

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
Head Acceleration (g)	X	6.7	15.2	-8.9	73.4
	Y	15.3	14.4	-4.0	294.7
	Z	7.1	37.3	-5.2	91.7
	R	16.3	14.4	---	---
Head Rotational Acceleration (rad/sec ²)	X	2291.8	15.4	-890.3	41.6
	Y	820.8	14.6	-2056.9	14.9
	Z	1559.0	15.1	-1118.0	42.0
Head Angular Velocity (°/sec)	X	502.4	49.1	-852.5	15.0
	Y	624.4	15.3	-3365.4	14.6
	Z	1130.6	15.0	-974.4	14.6
Upper Neck Force (N)	X	100.6	208.6	-191.6	112.1
	Y	67.3	42.8	-93.3	305.8
	Z	284.8	36.9	-278.9	90.0
Upper Neck Moment (N-m)	X	4.3	138.6	-16.7	42.5
	Y	13.6	121.9	-18.7	63.8
	Z	21.4	72.8	-11.4	288.2
Lower Neck Force (N)	X	109.1	49.5	-158.4	113.5
	Y	257.0	41.1	-122.2	302.5
	Z	380.1	37.0	-229.7	101.0
Lower Neck Moment (N-m)	X	9.7	42.1	-19.7	310.0
	Y	41.2	113.2	-24.9	211.3
	Z	22.5	74.8	-11.0	288.1
Shoulder Acceleration (g)	X	77.1	16.3	-48.7	16.6
	Y	55.6	19.7	-36.1	17.0
	Z	104.6	16.3	-82.9	17.0
	R	138.6	16.3	---	---
Shoulder Force (N)	X	26.1	270.9	-293.0	44.5
	Y	204.6	76.1	-1063.6	33.3
	Z	284.8	37.0	-43.6	119.8
Shoulder Displacement (mm)	Y	13.9	36.2	-3.1	79.9

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Driver Dummy Serial Number: 016

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
T1 Acceleration (g)	X	5.5	17.9	-7.6	68.8
	Y	16.9	29.7	-2.5	189.0
	Z	4.0	86.8	-6.1	43.0
	R	17.2	29.7	---	---
Thorax Rib 1 Acceleration (g)	X	22.8	26.0	-25.0	44.6
	Y	45.3	22.8	-14.8	44.4
	Z	18.8	44.2	-8.5	17.1
	R	47.8	22.8	---	---
Thorax Rib 1 Displacement (mm)	Y	9.0	33.8	-3.3	18.7
Thorax Rib 2 Acceleration (g)	X	23.9	26.1	-17.0	12.0
	Y	33.5	26.0	-20.0	13.3
	Z	18.5	21.4	-8.2	92.9
	R	41.2	26.1	---	---
Thorax Rib 2 IRTRAC Compression. (mm)	Y	7.1	36.3	-2.1	226.3
Thorax Rib 2 Rotational Pot (deg)	Z	11.9	45.3	--- ¹	--- ¹
Thorax Rib 2 IRTRAC Deflection (mm)	X	21.8	45.2	--- ¹	--- ¹
Thorax Rib 2 IRTRAC Deflection (mm)	Y	9.0	42.7	-2.0	226.3
Thorax Rib 3 Acceleration (g)	X	23.7	8.8	-29.6	15.3
	Y	39.9	26.5	-21.4	14.0
	Z	19.2	21.5	-10.2	14.1
	R	40.8	26.6	---	---
Thorax Rib 3 IRTRAC Compression. (mm)	Y	7.9	43.0	-0.3	0.7
Thorax Rib 3 Rotational Pot (deg)	Z	11.1	42.5	--- ¹	--- ¹
Thorax Rib 3 IRTRAC Deflection (mm)	X	20.5	40.8	--- ¹	--- ¹
Thorax Rib 3 IRTRAC Deflection (mm)	Y	9.9	43.0	-0.2	0.7
Abdominal Rib 1 Acceleration (g)	X	29.4	13.6	-43.9	15.8
	Y	43.5	9.9	-36.4	13.1
	Z	22.0	16.7	-18.5	14.0
	R	44.8	11.4	---	---

¹ No Negative Value

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Driver Dummy Serial Number: 016

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
Abdominal Rib 1 IRTRAC Compression. (mm)	Y	13.1	42.6	-1.0	185.1
Abdominal Rib 1 Rotational Pot (deg)	Z	2.4	291.3	-146.1	24.2
Abdominal Rib 1 IRTRAC Deflection (mm)	X	4.8	291.3	-89.6	24.7
Abdominal Rib 1 IRTRAC Deflection (mm)	Y	206.3	10.2	-1.2	172.2
Abdominal Rib 2 Acceleration (g)	X	41.3	16.1	-81.2	13.8
	Y	63.1	38.6	-42.7	11.7
	Z	40.3	12.1	-37.3	13.4
	R	84.7	13.9	---	---
Abdominal Rib 2 Displacement (mm)	Y	17.6	42.5	-1.5	158.8
T4 Acceleration (g)	X	2.8	46.3	-5.9	69.1
	Y	18.4	33.4	-2.5	214.4
	Z	5.9	43.3	-4.4	86.3
	R	18.6	30.8	---	---
T12 Acceleration (g)	X	2.5	43.3	-8.7	18.5
	Y	24.9	32.5	-5.8	89.6
	Z	4.2	42.9	-3.6	93.7
	R	25.3	32.5	---	---
Pelvis Acceleration (g)	X	3.4	51.0	-12.7	13.5
	Y	37.5	38.1	-15.4	75.2
	Z	16.9	19.5	-13.4	43.8
	R	37.8	38.1	---	---
Pubic Force (N)	Y	23.6	253.6	-1032.3	38.8
Lumbar Force (N)	X	272.4	115.9	-249.9	13.9
	Y	552.7	42.2	-152.0	94.1
	Z	1023.1	54.7	-244.4	134.4
Lumbar Moment (N-m)	X	38.2	52.9	-4.2	99.5
	Y	11.5	14.6	-10.6	62.0
	Z	7.9	39.3	-14.8	185.9

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Driver Dummy Serial Number: 016

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
Sacro-Iliac Right Moment (N-m)	X	35.9	54.7	-10.2	94.8
	Y	9.0	16.2	-9.2	66.0
	Z	22.3	13.9	-18.6	55.2
Sacro-Iliac Right Force (N)	X	186.8	61.7	-209.0	14.1
	Y	2.0	1.9	-1169.6	36.0
	Z	530.1	54.6	-62.1	94.9
Sacro-Iliac Left Moment (N-m)	X	14.7	234.6	-29.9	38.8
	Y	11.1	51.2	-9.8	13.8
	Z	21.9	13.5	-14.4	52.5
Sacro-Iliac Left Force (N)	X	167.7	13.7	-214.4	39.4
	Y	3.6	-12.6	-2110.4	37.9
	Z	154.4	132.5	-480.6	31.0
Left Femoral Neck Force (N)	X	488.7	41.0	-235.4	75.9
	Y	87.9	76.4	-1482.6	39.9
	Z	59.1	136.4	-1419.5	36.4
Right Femoral Neck Force (N)	X	65.9	144.3	-252.3	64.1
	Y	199.8	60.0	-532.3	38.7
	Z	1040.8	53.9	-216.4	86.4

Positive Direction

Longitudinal: Forward
 Lateral: Rightward
 Vertical: Downward

Negative Direction

Longitudinal: Rearward
 Lateral: Leftward
 Vertical: Upward

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Left Front Passenger Dummy Serial Number: 014

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
Head Acceleration (g)	X	8.6	14.4	-3.5	17.1
	Y	30.5	140.4	-21.0	13.3
	Z	18.6	112.8	-8.3	17.9
	R	33.8	140.0	---	---
Head Rotational Acceleration (rad/sec ²)	X	2396.3	140.0	-2642.0	13.3
	Y	1948.1	20.8	-1909.5	15.3
	Z	1852.5	13.1	-1985.7	15.6
Upper Neck Force (N)	X	247.5	142.7	-137.1	222.7
	Y	503.7	142.7	-122.4	310.0
	Z	737.5	116.1	-313.2	17.1
Upper Neck Moment (N-m)	X	26.6	149.8	-12.5	89.0
	Y	12.1	68.8	-28.7	147.8
	Z	14.7	166.7	-5.8	127.9
Lower Neck Force (N)	X	271.4	131.5	-150.4	222.7
	Y	622.1	137.4	-171.6	309.6
	Z	767.0	111.4	-410.4	143.3
Lower Neck Moment (N-m)	X	109.7	139.2	-33.1	310.0
	Y	29.8	223.3	-60.3	137.6
	Z	21.1	156.3	-10.1	220.8
Shoulder Acceleration (g)	X	15.1	14.7	-16.5	17.3
	Y	16.3	90.8	-15.1	17.1
	Z	11.1	21.2	-8.0	17.1
	R	21.9	17.2	---	---
Shoulder Force (N)	X	134.3	113.4	-105.6	73.6
	Y	355.8	90.8	-46.9	13.4
	Z	295.2	169.2	-14.4	297.9
Shoulder Displacement (mm)	Y	1.3	39.7	-5.0	98.6

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Left Front Passenger Dummy Serial Number: 014

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
T1 Acceleration (g)	X	5.2	16.8	-5.0	46.2
	Y	12.7	88.0	-6.9	15.4
	Z	5.2	142.0	-2.1	183.8
	R	13.7	88.2	---	---
Thorax Rib 1 Acceleration (g)	X	25.8	14.9	-29.8	17.0
	Y	22.0	19.1	-27.4	17.4
	Z	14.4	25.8	-4.0	178.4
	R	38.6	17.4	---	---
Thorax Rib 1 Displacement (mm)	Y	1.2	129.2	-1.4	106.4
Thorax Rib 2 Acceleration (g)	X	22.7	22.5	-51.9	16.7
	Y	72.9	16.7	-47.6	14.8
	Z	33.0	13.8	-13.3	12.4
	R	90.8	16.7	---	---
Thorax Rib 2 Displacement (mm)	Y	5.0	151.6	-5.0	83.6
Thorax Rib 3 Acceleration (g)	X	27.6	16.1	-102.8	13.5
	Y	40.6	17.7	-65.8	12.6
	Z	40.7	13.0	-33.1	12.5
	R	103.6	13.5	---	---
Thorax Rib 3 Displacement (mm)	Y	3.6	144.7	-3.7	92.2
Abdominal Rib 1 Acceleration (g)	X	35.3	15.3	-66.3	13.1
	Y	48.6	15.0	-36.0	12.6
	Z	21.3	13.0	-12.7	12.6
	R	76.3	13.1	---	---
Abdominal Rib 1 Displacement (mm)	Y	1.4	152.9	-3.7	88.4
Abdominal Rib 2 Acceleration (g)	X	46.8	12.6	-88.5	13.2
	Y	49.7	15.2	-53.7	12.8
	Z	31.8	12.5	-12.3	16.6
	R	91.1	13.2	---	---
Abdominal Rib 2 Displacement (mm)	Y	2.4	35.7	-3.7	96.4

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse Test Date: 03/26/13
 Left Front Passenger Dummy Serial Number: 014

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
T4 Acceleration (g)	X	4.3	90.6	-4.5	24.0
	Y	10.4	96.0	-2.4	130.6
	Z	5.0	142.1	-2.4	182.5
	R	11.8	96.3	---	---
T12 Acceleration (g)	X	6.5	16.8	-4.6	83.6
	Y	5.1	142.6	-14.7	59.1
	Z	4.7	74.6	-4.9	142.1
	R	15.0	59.2	---	---
Pelvis Acceleration (g)	X	8.5	16.3	-20.0	13.7
	Y	14.3	66.4	-4.2	153.5
	Z	13.3	14.7	-7.7	28.0
	R	21.7	13.7	---	---
Pubic Force (N)	Y	53.2	14.4	-428.2	73.0

Positive Direction

Longitudinal: Forward
 Lateral: Rightward
 Vertical: Downward

Negative Direction

Longitudinal: Rearward
 Lateral: Leftward
 Vertical: Upward

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Left Rear Passenger Dummy Serial Number: DG-236

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
Head Acceleration (g)	X	3.7	25.9	-9.1	96.8
	Y	43.1	76.0	-5.3	239.6
	Z	5.5	85.3	-9.1	70.3
	R	44.0	74.8	---	---
Head Rotational Acceleration (rad/sec ²)	X	1716.6	74.9	-1518.3	65.2
	Y	814.9	61.6	-1038.4	77.6
	Z	2457.2	85.8	-1636.9	73.5
Head Angular Velocity (°/sec)	X	890.8	92.8	-306.7	71.9
	Y	442.4	71.1	-456.5	100.7
	Z	934.3	77.1	-737.7	97.2
Upper Neck Force (N)	X	63.0	68.6	-71.1	127.8
	Y	81.0	63.4	-282.6	102.0
	Z	128.8	234.4	-232.4	95.4
Upper Neck Moment (N-m)	X	0.8	213.6	-25.4	68.0
	Y	4.9	119.2	-18.4	79.9
	Z	14.3	85.7	-8.1	274.1
Lower Neck Force (N)	X	178.3	63.3	-92.0	125.4
	Y	221.9	65.9	-447.7	86.4
	Z	125.0	61.1	-413.8	91.7
Lower Neck Moment (N-m)	X	3.4	65.8	-39.5	89.2
	Y	15.9	116.7	-14.5	73.6
	Z	13.2	98.9	-9.6	271.6
Shoulder Acceleration (g)	X	40.9	60.8	-53.2	65.0
	Y	103.2	66.2	-24.1	45.6
	Z	28.8	66.4	-43.3	59.5
	R	119.4	66.2	---	---
Shoulder Force (N)	X	63.8	45.2	-254.9	67.1
	Y	160.5	65.6	-836.0	51.8
	Z	412.7	56.8	-21.3	142.5
Shoulder Displacement (mm)	Y	13.2	53.8	-2.8	67.5

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Left Rear Passenger Dummy Serial Number: DG-236

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
T1 Acceleration (g)	X	4.8	60.5	-7.1	76.3
	Y	31.8	72.6	-4.4	220.0
	Z	10.7	80.3	-5.5	50.5
	R	32.3	72.6	---	---
Thorax Rib 1 Acceleration (g)	X	71.9	58.7	-49.2	63.6
	Y	109.8	59.5	-56.7	60.2
	Z	94.7	74.2	-191.0	59.2
	R	197.2	59.2	---	---
Thorax Rib 1 IRTAC Compression (mm)	Y	5.0	74.5	-1.2	91.9
Thorax Rib 1 Rotational Pot (deg)	Z	5.3	65.5	--- ¹	--- ¹
Thorax Rib 1 IRTAC Deflection (mm)	X	7.8	65.5	--- ¹	--- ¹
Thorax Rib 1 IRTAC Deflection (mm)	Y	5.0	74.5	-1.1	91.9
Thorax Rib 2 Acceleration (g)	X	166.2	57.7	-205.1	58.9
	Y	168.3	57.7	-106.2	59.0
	Z	58.0	58.8	-69.8	59.7
	R	237.3	57.7	---	---
Thorax Rib 2 IRTAC Compression. (mm)	Y	5.0	60.0	-0.7	201.5
Thorax Rib 2 Rotational Pot (deg)	Z	7.3	64.8	--- ¹	--- ¹
Thorax Rib 2 IRTAC Deflection (mm)	X	10.8	64.8	--- ¹	--- ¹
Thorax Rib 2 IRTAC Deflection (mm)	Y	5.5	65.4	-0.6	201.5
Thorax Rib 3 Acceleration (g)	X	38.8	57.9	-63.0	59.1
	Y	78.5	58.5	-18.9	59.7
	Z	24.4	69.1	-19.4	60.1
	R	84.2	58.5	---	---
Thorax Rib 3 IRTAC Compression. (mm)	Y	4.9	66.9	-1.1	46.6
Thorax Rib 3 Rotational Pot (deg)	Z	0.3	-5.1	-3.3	74.4
Thorax Rib 3 IRTAC Deflection (mm)	X	0.4	-5.1	-4.9	74.4

¹ No Negative Value

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Left Rear Passenger Dummy Serial Number: DG-236

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
Thorax Rib 3 IRTAC Deflection (mm)	Y	5.0	66.9	-1.1	46.6
Abdominal Rib 1 Acceleration (g)	X	71.2	53.7	-35.7	55.6
	Y	60.5	53.2	-22.6	59.3
	Z	54.0	45.6	-36.3	45.9
	R	72.0	53.7	---	---
Abdominal Rib 1 IRTAC Compression. (mm)	Y	9.1	55.2	-1.5	201.5
Abdominal Rib 1 Rotational Pot (deg)	Z	1.6	167.1	-4.6	68.2
Abdominal Rib 1 IRTAC Deflection (mm)	X	2.5	167.1	-6.9	69.3
Abdominal Rib 1 IRTAC Deflection (mm)	Y	9.2	55.2	-1.5	201.5
Abdominal Rib 2 Acceleration (g)	X	69.3	53.4	-45.9	53.7
	Y	95.5	53.2	-21.9	42.9
	Z	86.9	42.9	-54.5	43.3
	R	96.8	53.2	---	---
Abdominal Rib 2 IRTAC Compression (mm)	Y	13.2	56.4	-0.4	93.2
Abdominal Rib 2 Rotational Pot (deg)	Z	0.1	43.4	-7.5	69.4
Abdominal Rib 2 IRTAC Deflection (mm)	X	0.2	43.4	-10.7	69.4
Abdominal Rib 2 IRTAC Deflection (mm)	Y	13.5	56.4	-0.2	93.2

Table 4 WorldSID Instrumentation Data, Continued

Test Vehicle: 2012 Chevrolet Traverse Test Date: 03/26/13
 Left Rear Passenger Dummy Serial Number: DG-236

Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
T4 Acceleration (g)	X	3.5	61.3	-6.3	75.9
	Y	26.3	72.5	-3.8	218.7
	Z	10.6	80.4	-6.6	50.3
	R	26.7	72.6	---	---
T12 Acceleration (g)	X	5.5	85.5	-10.9	49.8
	Y	43.0	52.5	-9.6	86.1
	Z	7.1	80.8	-8.3	61.2
	R	44.5	52.4	---	---
Pelvis Acceleration (g)	X	1.4	35.4	-14.5	38.4
	Y	62.2	38.4	-8.0	77.5
	Z	14.4	123.6	-9.8	37.6
	R	64.1	38.4	---	---
Pubic Force (N)	Y	--- ¹	--- ¹	-942.4	41.4

²See Data Acquisition Explanations

Positive Direction

Longitudinal: Forward
 Lateral: Rightward
 Vertical: Downward

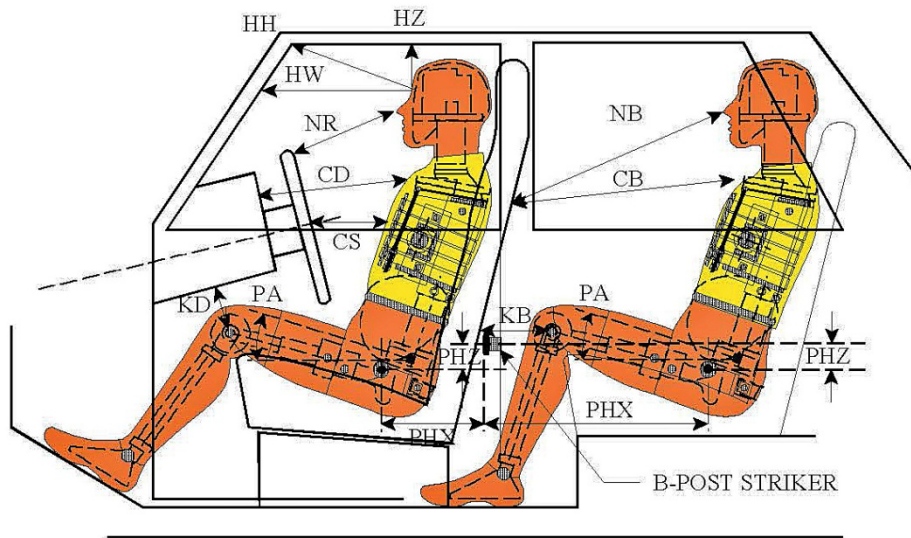
Negative Direction

Longitudinal: Rearward
 Lateral: Leftward
 Vertical: Upward

Figure 1 WorldSID Longitudinal Clearance Dimensions

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



Left Side View

Left Side View

Measurement	Measurement Description	Driver WorldSID #016		Front Passenger WorldSID #014		Rear Passenger WorldSID #236	
		Length (mm)	Angle	Length (mm)	Angle	Length (mm)	Angle
HH	Header to Header	457		527			
HW	Header to Windshield	859		800			
HZ	Head to Roof Liner	259		236			
NR ¹	Nose to Rim/Seat Back	509				585	
CD	Chest to Dash/Seat Back	682		677		556	
CS	Chest to Steering Wheel	413					
KD(L)/KDA(L)°	Left Knee to Dash/Seat Back	96	4.9	188	4	186	10.9
KD(R)/KDA(R)°	Right Knee to Dash/Seat Back	95	3.1	181	11	161	12.5
PAX°	Pelvic Tilt Angle X		0.1		2.7		-0.4
PAY°	Pelvic Tilt Angle Y		2.5		-3.8		1.1
PHX	Hip Point to Striker (X-Axis)	208		186		246	
PHZ	Hip Point to Striker (Z-Axis)	20		31		204	
HAX°	Head Tilt Angle X		-2.0		-1.5		-0.4
HAY ¹ °	Head Tilt Angle Y		-0.5		1.2		1.1
TAX°	Thorax Tilt Angle X		0.0		-1.6		-1.6
TAY°	Thorax Tilt Angle Y		1.9		-1.3		-1.9

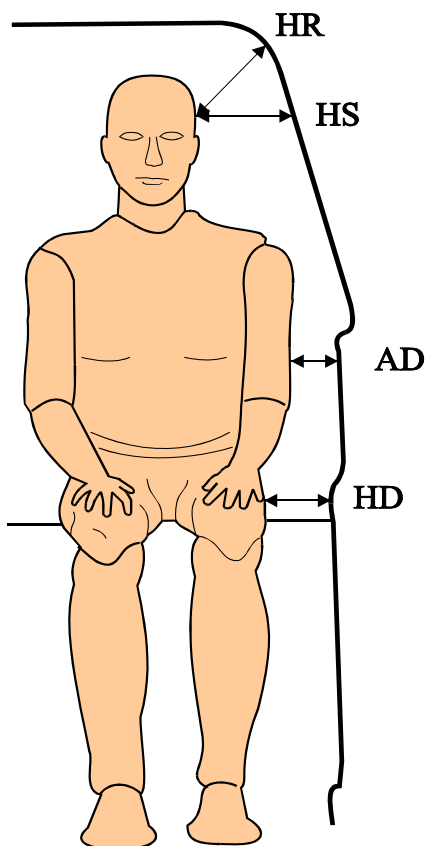
Note: All measurements are in millimeters.

¹NR was measured from bridge of nose

Figure 2 WorldSID Lateral Clearance Dimensions

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



Measurement	Driver WorldSID # 016	Front Passenger WorldSID # 014	Rear Passenger WorldSID # 236
HR	240	221	268
HS	377	367	376
AD	Lower: 148 Upper: 77	Lower: 141 Upper: 126	Lower: 148 Upper: 172
HD	129	129	147

Note: All measurements are in millimeters.

Table 5 WorldSID Position Relative to Striker

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

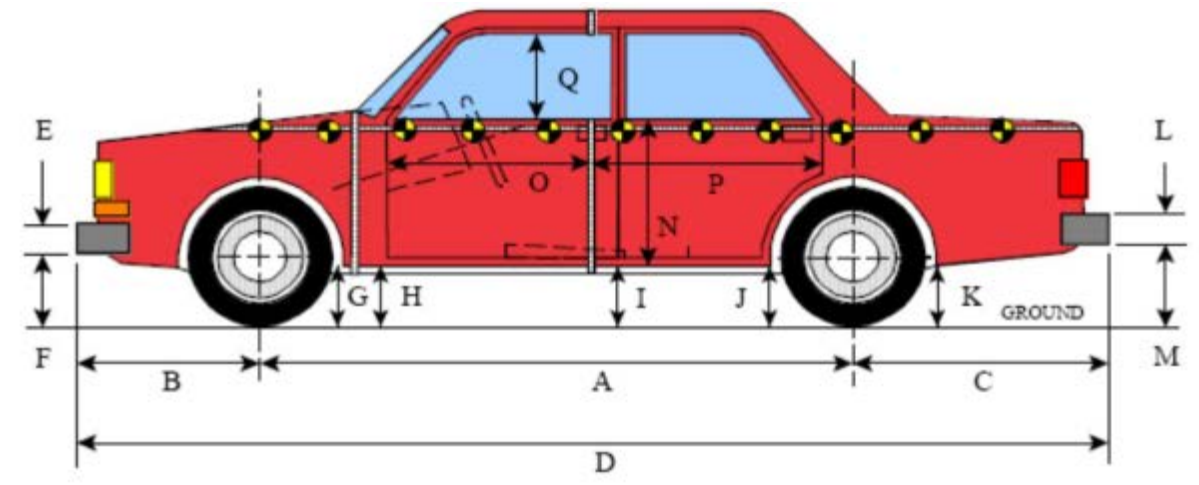
Location	Driver Dummy Serial Number: 016		Passenger Dummy Serial Number: 014		Passenger Dummy Serial Number: 236	
	Longitudinal X (mm)	Vertical Z (mm)	Longitudinal X (mm)	Vertical Z (mm)	Longitudinal X (mm)	Vertical Z (mm)
M_HEAD CG	2642	-752	2656	-789	1668	-704
M_H POINT	2843	-101	2819	-103	1885	-150
M_KNEE	3275	-194	3260	-181	2223	-271
M_ANKLE	3560	106	3550	103	2370	59
M_RIB 1	2704	-532	2705	-560	1745	-488
M_RIB 2	2742	-458	2742	-482	1775	-430
M_RIB 3	2780	-395	2780	-418	1792	-376
M_RIB 4	2802	-348	2799	-369	1814	-335
M_RIB 5	2827	-294	2818	-314	1833	-293
M_RIB 6	2849	-250	2834	-269	1852	-254

Note: All measurements are in millimeters.
Positive values are forward and down relative to the striker.

Figure 3 Vehicle Pre-Test And Post-Test Measurements

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



Left Side View

Note: Measurements were achieved by using a tape measure.

All dimensions are in millimeters.

	Pre-Test (as delivered)	Pre-Test (as tested)	Post-Test (as tested)	Change
A	3020	3020	3025	-5
B	1000	1000	1000	0
C	1160	1160	1160	0
D	5180	5180	5170	10
E	150	150	150	0
F	450	450	464	-14
G	373	373	371	2
G1	345	338	358	-20
H	350	342	366	-24
I	368	343	395	-52
J1	332	295	355	-60
J2	389	350	410	-60
K	370	325	370	-45
L	150	150	150	0
M	540	495	525	-30
N	875	875	785	90
O	853	853	828	25
P	1257	1257	1220	37
Q	470	470	473	-3
R	4890	4890	4890	0
S	4890	4890	4890	0
T	1430	1439	1355	84

D = Length at centerline

E and L = Bumper Thickness

R = Right Side Length

S = Left Side Length

T = Width at B-pillar

J1 = To Pinch Weld

J2 = To Sill

Table 6 Vehicle Structural Measurements^{1,2}

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

	Elements	Pre-Test
1	Total Length	5180
2	Total Width	1950
3	Bumper Top Height	589
4	Bumper Bottom Height	469
5	Longitudinal Member Top Height	687
6	Longitudinal Member Bottom Height	447
7	Distance Between Longitudinal Members	860
7'	Longitudinal Member Width	90
8	Engine Top Height	925
9	Engine Bottom Height	218
10	Engine and Gearbox Width	780
11	Front Bumper - Engine Distance	530
12	Front Shock Absorber Fixing Height	975
13	Bonnet Leading Edge Height	909
14	Front Shock Absorber Fixing Width	1300
15	Front Bumper - Front Axle Distance	1000
16	Front Axle - A Pillar Distance	590
17	A Pillar - B Pillar Distance	1016
18	B Pillar - Rear Axle Distance	1430
19	B Pillar - C Pillar Distance	975
20	Roof Sill Bottom Height	1547
21	Roof Sill Top Height	1615
22	Floor Sill Bottom Height	417
23	Floor Sill Top Height	462

All distance measurements are in millimeters and achieved by using a tape measure.

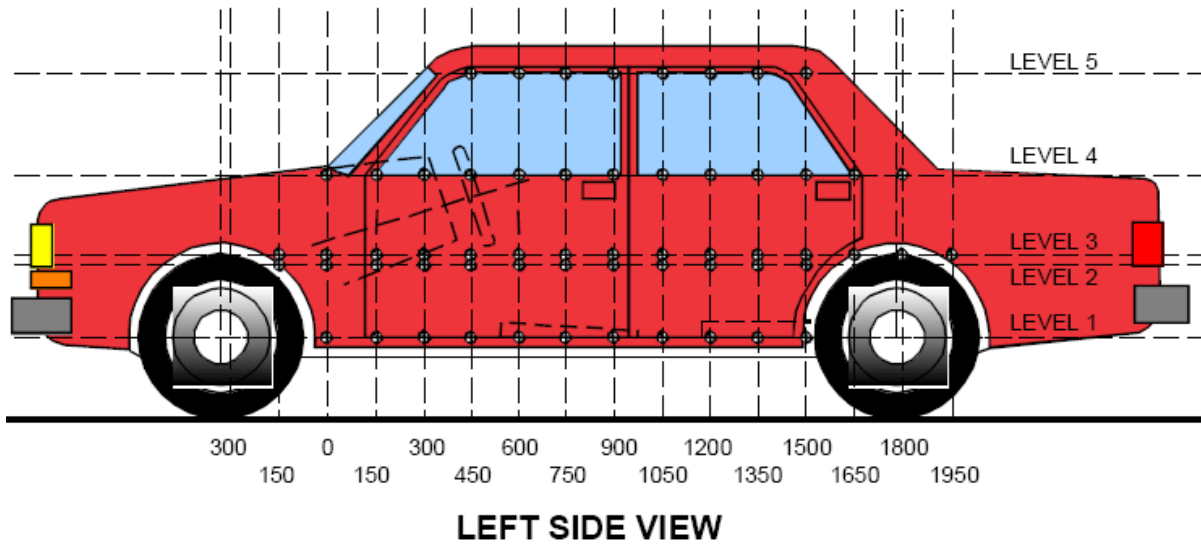
¹ Taken from INSIA report, "Structural Survey of Cars, Methodology of the Main Resistant Elements in the Car Body", March 1999.

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

Figure 4 Vehicle Side Measurements

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



MAXIMUM EXTERIOR CRUSH MEASUREMENTS

Level	Measurement Description	Height Above Ground	Maximum Exterior Crush	Distance from Impact
5	Window Top	1698	N/A	N/A
4	Window Sill	1112	48	1650
3	Mid Door	762	223	1350
2	Occupant H-Point	735	216	1500
1	Side Sill	425	58	600

Note: Measurements were taken using a FARO arm at crush grid zero vertical line.
 Measurements are taken when the vehicle is in the "As Tested" configuration.
 Measurements forward of the vehicle impact reference line are negative.
 All measurements are in mm.

Table 7 Vehicle Exterior Crush Profiles - All Levels

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Location	Height		(mm) From Impact Point													
			-1200	-1050	-900	-750	-600	-450	-300	-150	0	150	300	450	600	750
Level 1	425	Pre									940	926	927	928	927	925
		Post									946	890	874	871	869	874
		Crush									-6	36	53	57	58	51
Level 2	735	Pre									985	965	961	962	964	966
		Post									991	967	862	786	773	769
		Crush									-6	-2	99	176	191	189
Level 3	762	Pre									986	964	962	963	964	965
		Post									990	966	858	793	777	775
		Crush									-4	-2	104	170	187	190
Level 4	1112	Pre								862	882	895	902	909	915	921
		Post								869	887	900	930	924	924	918
		Crush								-7	-5	-5	-28	-15	-9	3
Level 5	1698	Pre														
		Post														
		Crush														

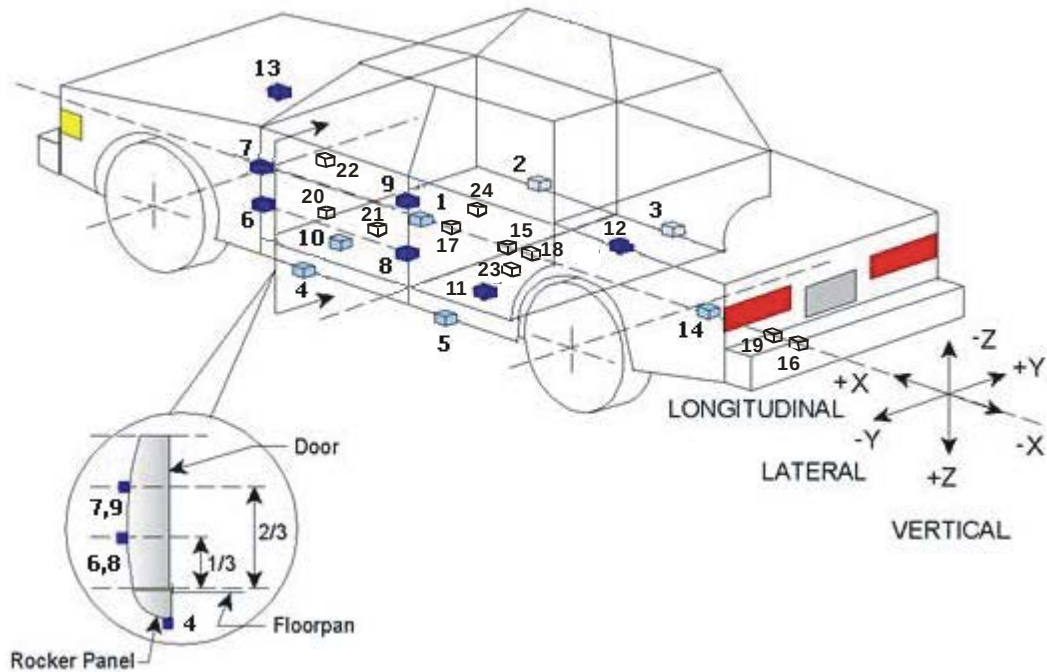
Location	Height		(mm) From Impact Point													
			900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850
Level 1	425	Pre	923	921	919	917	914	911	908	923						
		Post	872	866	873	872	873	876	888	934						
		Crush	51	55	46	45	41	35	20	-11						
Level 2	735	Pre	969	969	970	970	968	965	959	957	980					
		Post	773	804	766	759	752	756	772	881	961					
		Crush	196	165	204	211	216	209	187	76	19					
Level 3	762	Pre	965	964	964	964	963	961	956	957	981					
		Post	773	789	746	741	742	748	767	883	958					
		Crush	192	175	218	223	221	213	189	74	23					
Level 4	1112	Pre	930	935	937	939	940	940	940	940	937	937	938	936	928	
		Post	913	908	892	897	901	892	916	940	900	926	928	923	919	
		Crush	17	27	45	42	39	48	24	0	37	11	10	13	9	
Level 5	1698	Pre	620	633	638	641	642	642	641	639	635	628	617	604	584	
		Post	627	638	643	645	646	646	644	643	639	632	621	607	588	
		Crush	-7	-5	-5	-4	-4	-4	-3	-4	-4	-4	-4	-3	-4	

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

Figure 5 Test Vehicle Accelerometer Locations and Data Summary

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



- | | |
|-------------------------------------|--------------------------------------|
| 1-Vehicle CG | 13-Engine Block |
| 2-Right Side Sill Front | 14-Rear Floorpan |
| 3-Right Side Sill Rear | 15-Vehicle at EDR ¹ |
| 4-Left Side Sill Front | 16-Rear Deck |
| 5-Left Side Sill Rear | 17-Vehicle CG Gyros |
| 6-Left Side Lower A-Pillar | 18-Vehicle at EDR Gyros ¹ |
| 7-Left Side Middle A-Pillar | 19-Rear Deck Gyros |
| 8-Left Side Lower B-Pillar | 20-Left Front Door Mid Centerline |
| 9-Left Side Middle B-Pillar | 21-Left Front Door Mid Rear |
| 10-Left Front Seat Track | 22-Left Front Door Upper Centerline |
| 11-Left Rear Seat Track | 23-Left Rear Door Mid Rear |
| 12- Right Rear Occupant Compartment | 24-Left Rear Door Upper Centerline |

¹Location of accelerometer may change depending on vehicle EDR location.

Table 8 Test Vehicle Transducer Locations and Data Summary

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Location		Coordinates (mm)			Positive Direction		Negative Direction	
		X	Y	Z	Max	Time (ms)	Max	Time (ms)
1	Vehicle CG	3965	40	395				
	Longitudinal (g)				1.8	62.7	-3.8	32.5
	Lateral (g)				40.5	6.5	-2.6	11.6
	Vertical (g)				6.0	8.7	-2.7	44.4
	Resultant				40.7	6.5	---	---
2	Right Side Sill Front	3810	680	402				
	Longitudinal (g)				3.3	13.4	-9.4	8.0
	Lateral (g)				40.0	6.7	-2.8	11.7
	Vertical (g)				8.3	4.7	-16.5	8.6
	Resultant				40.8	6.8	---	---
3	Right Side Sill Rear	2645	710	380				
	Longitudinal (g)				2.5	13.1	-11.2	7.1
	Lateral (g)				34.6	6.2	-4.1	10.2
	Vertical (g)				4.3	70.2	-6.6	9.1
	Resultant				36.1	6.3	---	---
4	Left Side Sill Front	3770	-815	405				
	Lateral (g)				40.5	6.0	-1.2	-0.7
5	Left Side Sill Rear	2655	-705	423				
	Lateral (g)				33.4	5.7	-2.3	10.3
6	Left Side Lower A-Pillar	4170	-875	652				
	Lateral (g)				--- ¹	--- ¹	--- ¹	--- ¹
7	Left Side Middle A-Pillar	4185	-880	990				
	Lateral (g)				45.4	10.7	-10.3	17.0
8	Left Side Lower B-Pillar	3075	-885	1015				
	Lateral (g)				240.9	18.3	-159.6	14.7
9	Left Side Middle B-Pillar	3070	-890	660				
	Lateral (g)				--- ¹	--- ¹	--- ¹	--- ¹
10	Left Front Seat Track	3270	-560	452				
	Lateral (g)				30.2	18.7	-32.7	14.3

¹ See Data Acquisition Explanations

Table 8 Test Vehicle Transducer Locations and Data Summary, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Location		Coordinates (mm)			Positive Direction		Negative Direction	
		X	Y	Z	Max	Time (ms)	Max	Time (ms)
11	Left Rear Seat Track	2540	-570	490				
	Lateral (g)				34.3	6.0	-4.2	10.3
12	Right Rear Occupant Compartment	2490	715	385				
	Lateral (g)				32.5	6.4	-2.6	10.3
13	Engine Block	4985	155	805				
	Longitudinal (g)				2.8	104.9	-4.4	32.8
	Lateral (g)				16.6	32.2	-2.9	124.1
14	Rear Floorpan	1535	0	590				
	Longitudinal (g)				1.8	64.1	-5.0	29.6
	Lateral (g)				18.6	7.4	-1.3	120.1
	Vertical (g)				3.4	6.4	-3.6	11.4
	Resultant				19.0	7.3	---	---
15	Vehicle at EDR	3810	-30	340				
	Longitudinal (g)				2.3	61.8	-3.7	26.3
	Lateral (g)				40.5	6.4	-4.2	11.3
	Vertical (g)				9.1	18.5	-4.4	60.0
	Resultant				40.6	6.4	---	---
16	Rear Deck	840	40	705				
	Longitudinal (g)				3.8	63.8	-5.7	9.7
	Lateral (g)				19.9	31.2	-1.5	125.2
	Vertical (g)				7.2	57.7	-7.7	63.9
	Resultant				20.2	30.6	---	---
17	Vehicle CG	3960	-45	395				
	Roll (°/sec)				268.8	24.1	-95.9	99.4
	Pitch (°/sec)				---	---	---	---
	Yaw (°/sec)				45.3	22.1	-70.8	34.1
18	Vehicle at EDR	3810	-60	340				
	Roll (°/sec)				207.3	28.6	-73.5	127.9
	Pitch (°/sec)				128.8	17.5	-32.0	67.7
	Yaw (°/sec)				165.4	19.4	-64.1	99.4
19	Rear Deck	835	-40	705				
	Roll (°/sec)				230.3	70.8	-70.8	190.9
	Pitch (°/sec)				123.2	51.8	-136.8	11.7
	Yaw (°/sec)				103.8	11.4	-257.1	71.0

¹ See Data Acquisition Explanations

Table 8 Test Vehicle Transducer Locations and Data Summary, Continued

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13

Location		Coordinates (mm)			Positive Direction		Negative Direction	
		X	Y	Z	Max	Time (ms)	Max	Time (ms)
20	Left Front Door Mid Centerline	3630	-835	1082				
	Lateral (g)				111.4	8.2	-54.4	14.9
21	Left Front Door Mid Rear	3300	-820	799				
	Lateral (g)				72.1	12.4	-47.3	16.3
22	Left Front Door Upper Centerline	3630	-825	1082				
	Lateral (g)				52.0	16.6	-25.6	60.4
23	Left Rear Door Mid Rear	3300	-820	799				
	Lateral (g)				95.9	13.9	-69.1	17.3
24	Left Rear Door Upper Centerline	2640	-825	1138				
	Lateral (g)				72.2	9.1	-35.2	37.7

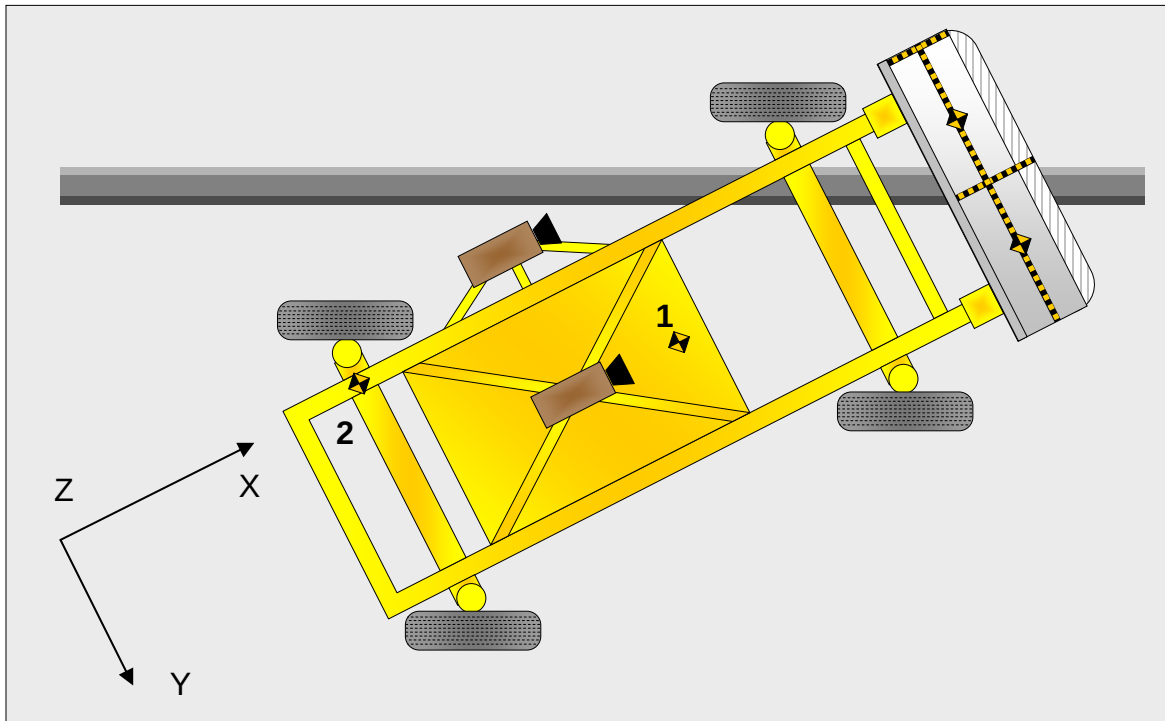
Reference: X: + Forward from rear bumper
Y: + Rightward from vehicle centerline
Z: + Upward from ground level

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

Table 9 MDB Test Data Summary

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



Location		Positive Direction		Negative Direction	
		Max.	Time (ms)	Max.	Time (ms)
1	MDB CG				
	Longitudinal (g)	3.6	101.0	-26.3	13.8
	Lateral (g)	2.2	66.1	-9.8	33.7
	Vertical (g)	8.3	36.4	-10.7	20.4
	Resultant	27.2	13.6	---	---
2	MDB Rear Frame				
	Longitudinal (g)	2.8	146.5	-25.8	34.7
	Lateral (g)	3.8	30.1	-3.4	69.8

Reference : X - Face of MDB (+ forward)
Y - MDB Centerline (+ to right)
Z - Ground Plane (+ down)

Table 9 MDB Test Data Summary, Continued

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	415.8	264.2	
Right	kg	359.6	328.0	
Ratio	%	56.7	43.3	
Totals	kg	775.4	592.2	1367.6

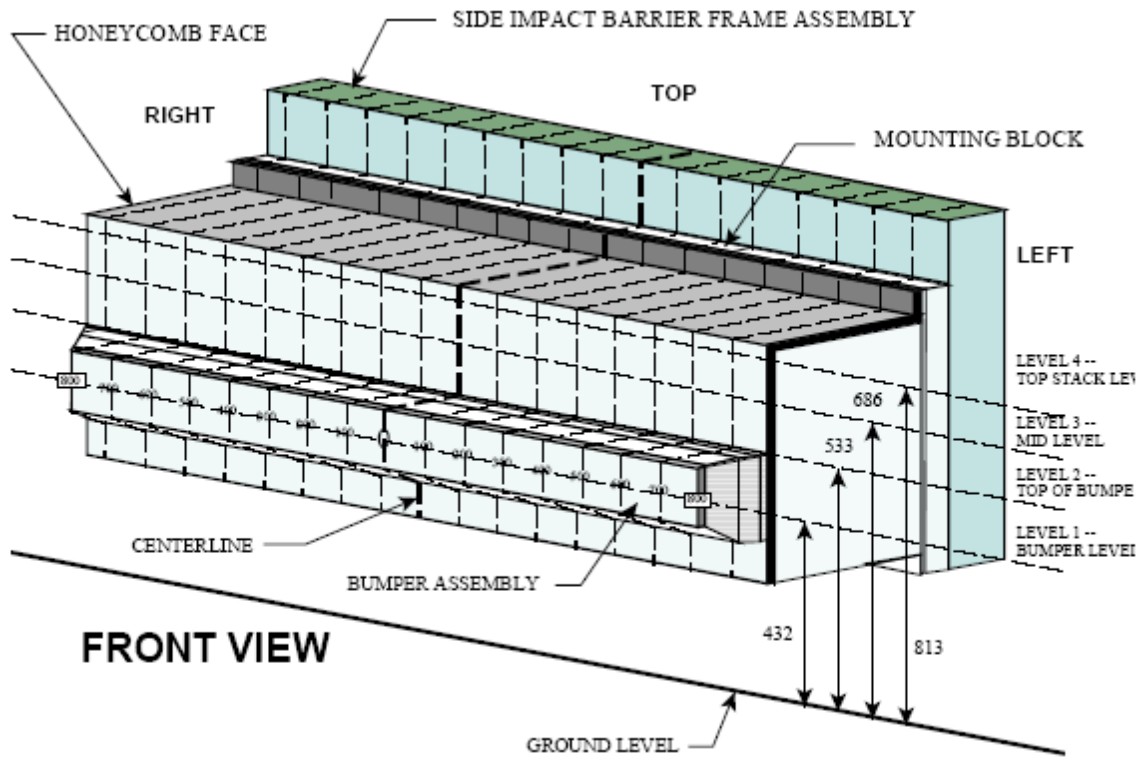
SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.84
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	61.78
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	91.5
MDB Forward Line of Motion to Target Vehicle CL	degrees	62.5 to 63.5	62.5
MDB Crabbed Angle to MDB Forward Line of Motion	degrees	26 to 28	26.0

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE

Vertical Location			From Centerline		Maximum Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	Right	-287
B	Top of Bumper	533	0	Center	-372
C	Mid-Level	686	800	Left	-136
D	Top of Stack	813	800	Left	-155

Table 9 MDB Test Data Summary, Continued



NOTE: Dimensions are shown in millimeters, mm

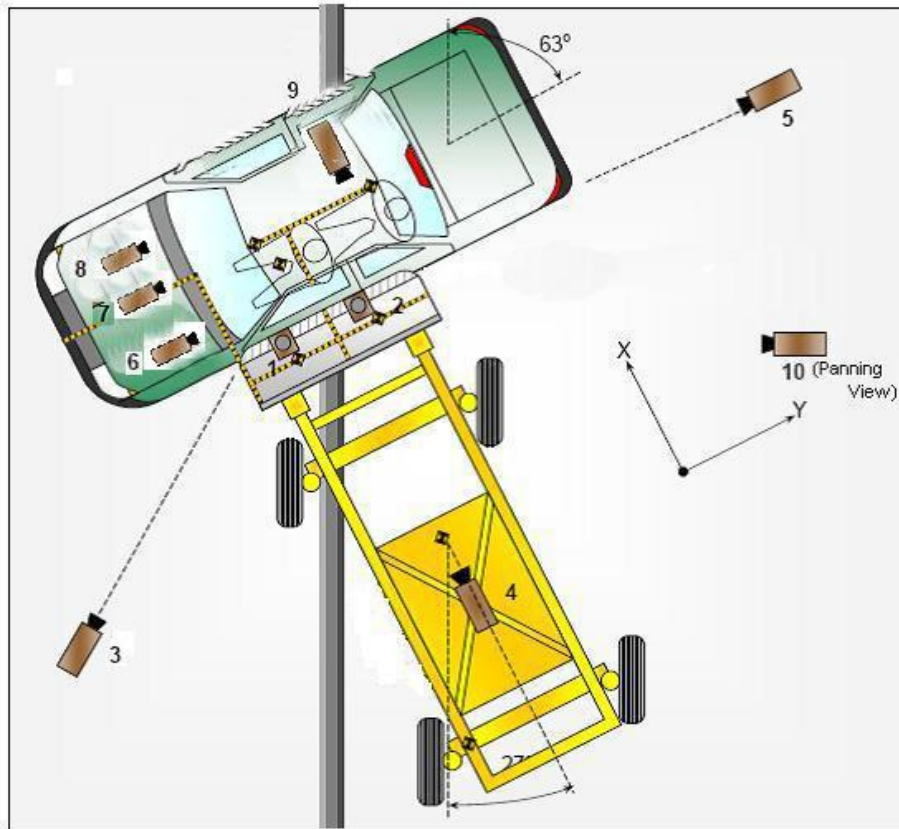
DEFORMABLE BARRIER STATIC CRUSH

Stack Level	Distance Right of Center								C/L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
4	-101	-88	-77	-69	-66	-72	-89	-110	-95	-75	-74	-76	-90	-100	-111	-121	-155
3	-117	-101	-98	-100	-100	-100	-117	-109	-80	-71	-68	-66	-62	-60	-63	-82	-136
2	-174	---	---	---	---	---	---	---	-372	-140	-134	-131	-126	-121	-117	-113	-110
1	-287	-286	-282	-278	-275	-272	-268	-264	-260	-256	-252	-246	-242	-237	-233	-228	-226

Figure 6 High-Speed Camera Locations and Data Summary

Test Vehicle: 2012 Chevrolet Traverse

Test Date: 03/26/13



No.	Camera View	Lens (mm)	Speed (fps)
1	Overhead wide view	8.5	1000
2	Overhead close up view	16	1000
3	Left side front oblique view	12.5	1000
4	Struck side view at impact	12.5	1000
5	Rear impact view of struck side	8.5	1000
6	Onboard driver front view	12.5	1000
7	Onboard middle front view	12.5	1000
8	Onboard front passenger front view	12.5	1000
9	Onboard rear passenger side view	6	1000
10	Real-time	zoom	30

Appendix A

Photographs



Figure A-1 Pre-Test Front View

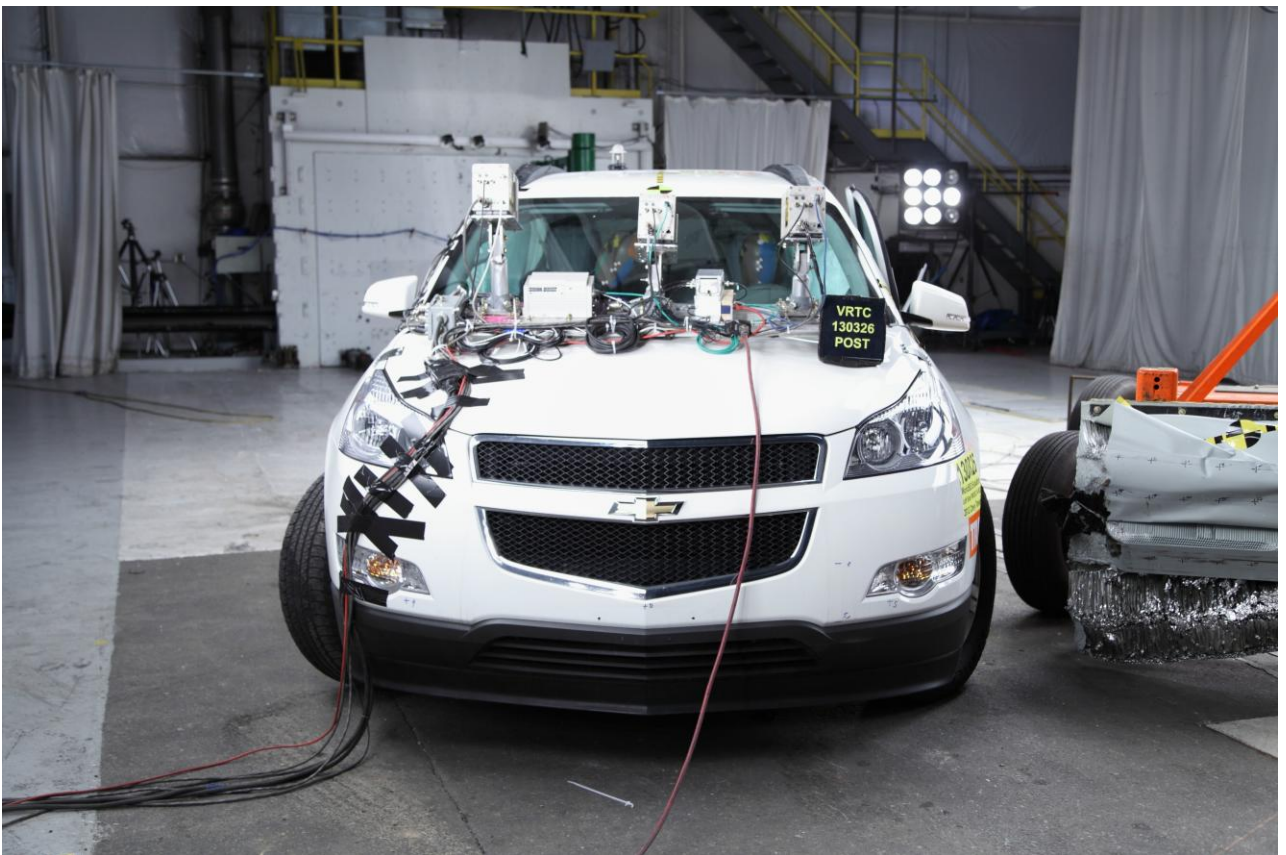


Figure A-2 Post-Test Front View

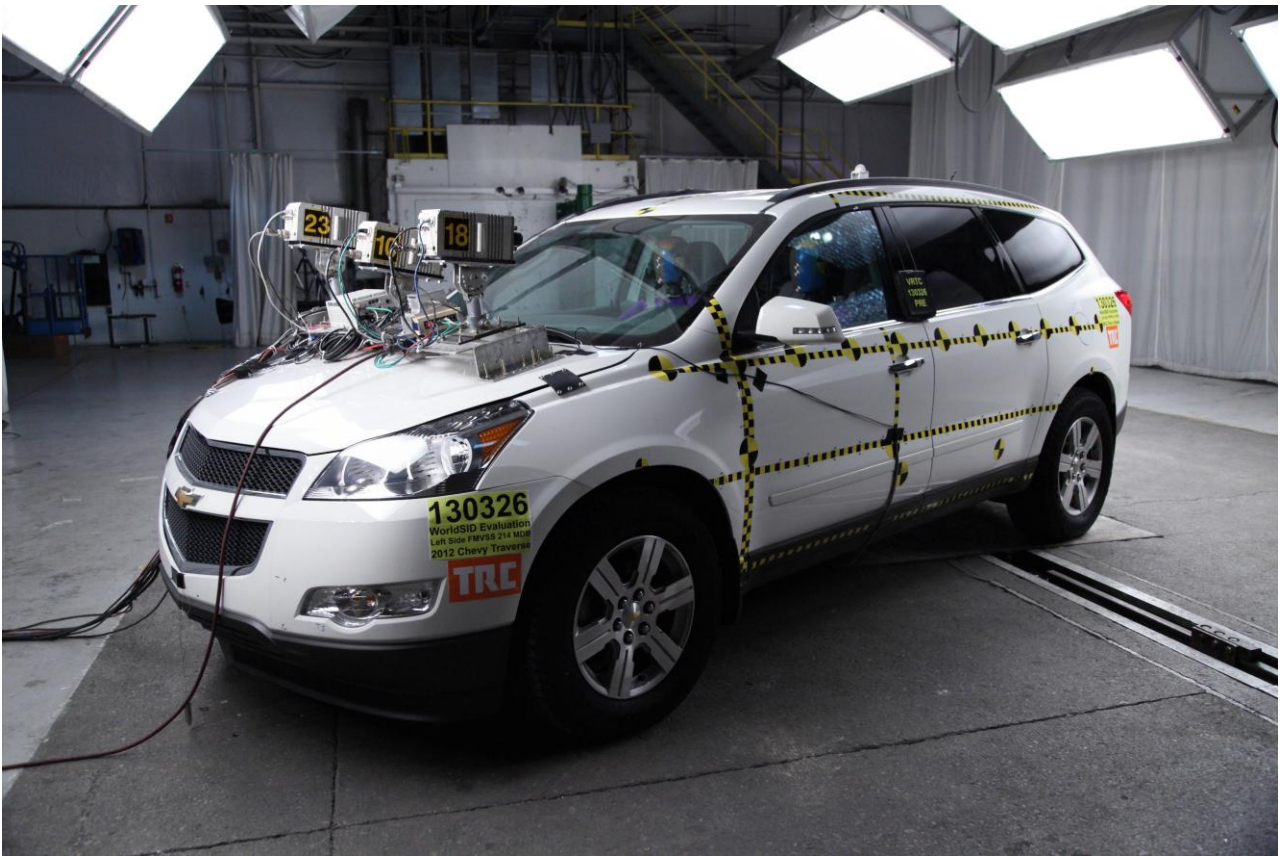


Figure A-3 Pre-Test Left Front View

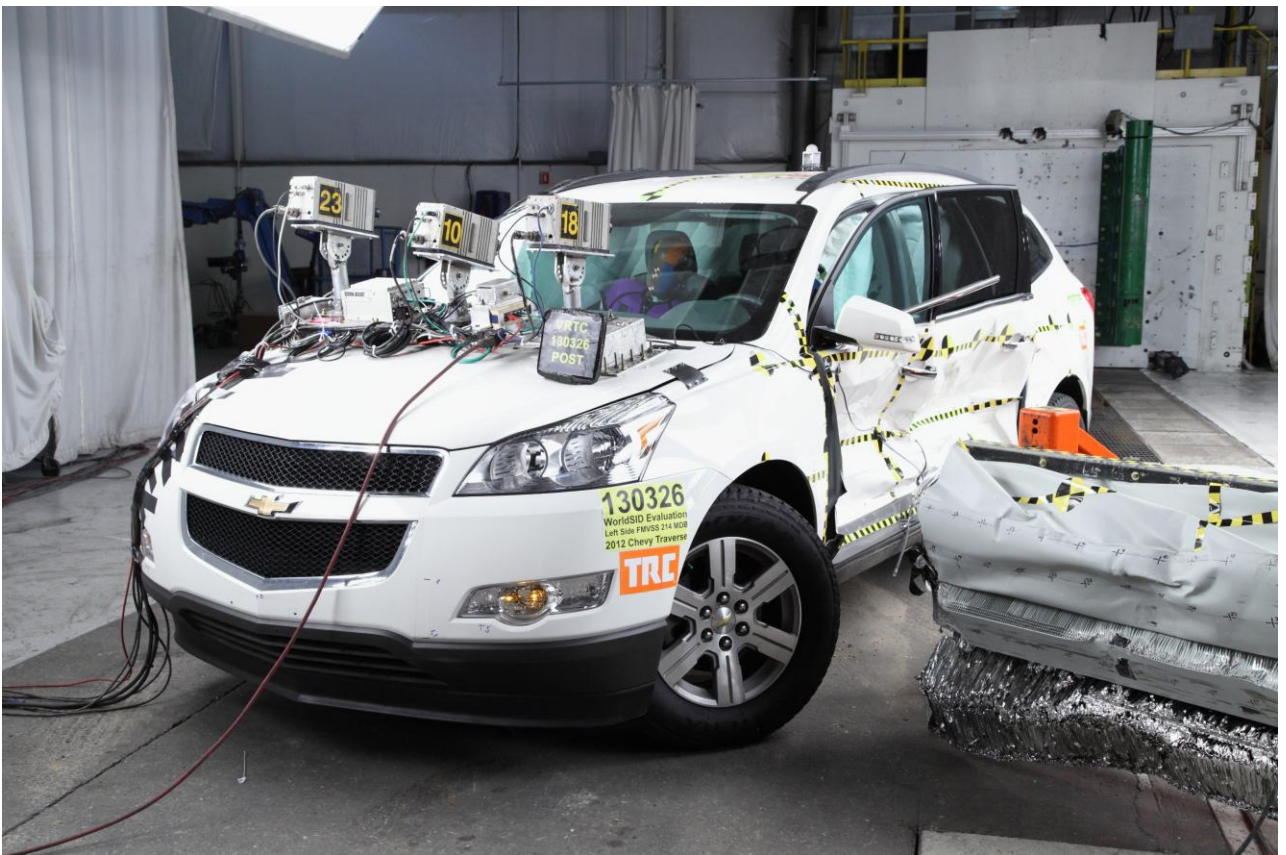


Figure A-4 Post-Test Left Front View

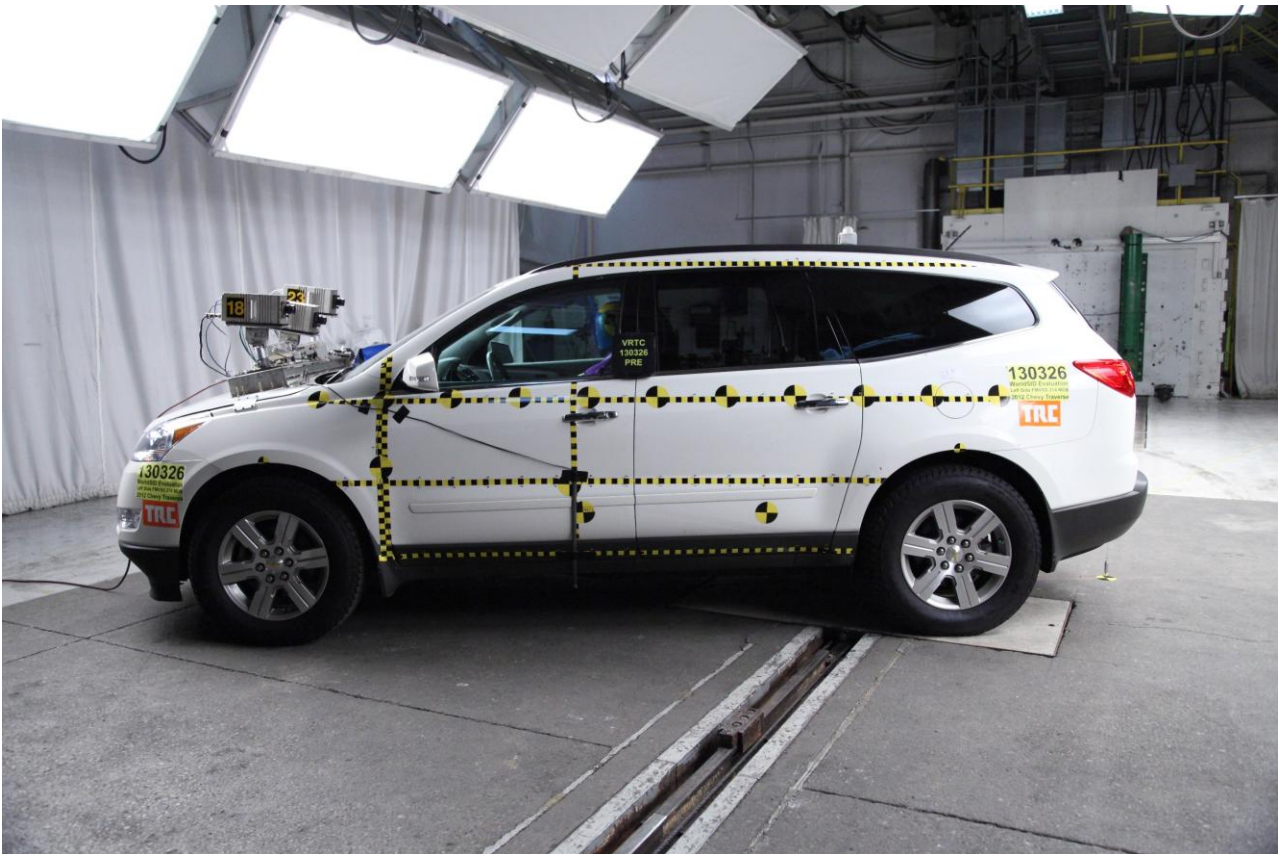


Figure A-5 Pre-Test Left Side View



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



Figure A-11 Pre-Test Right Side View



Figure A-12 Post-Test Right Side View



Figure A-13 Pre-Test Overhead View

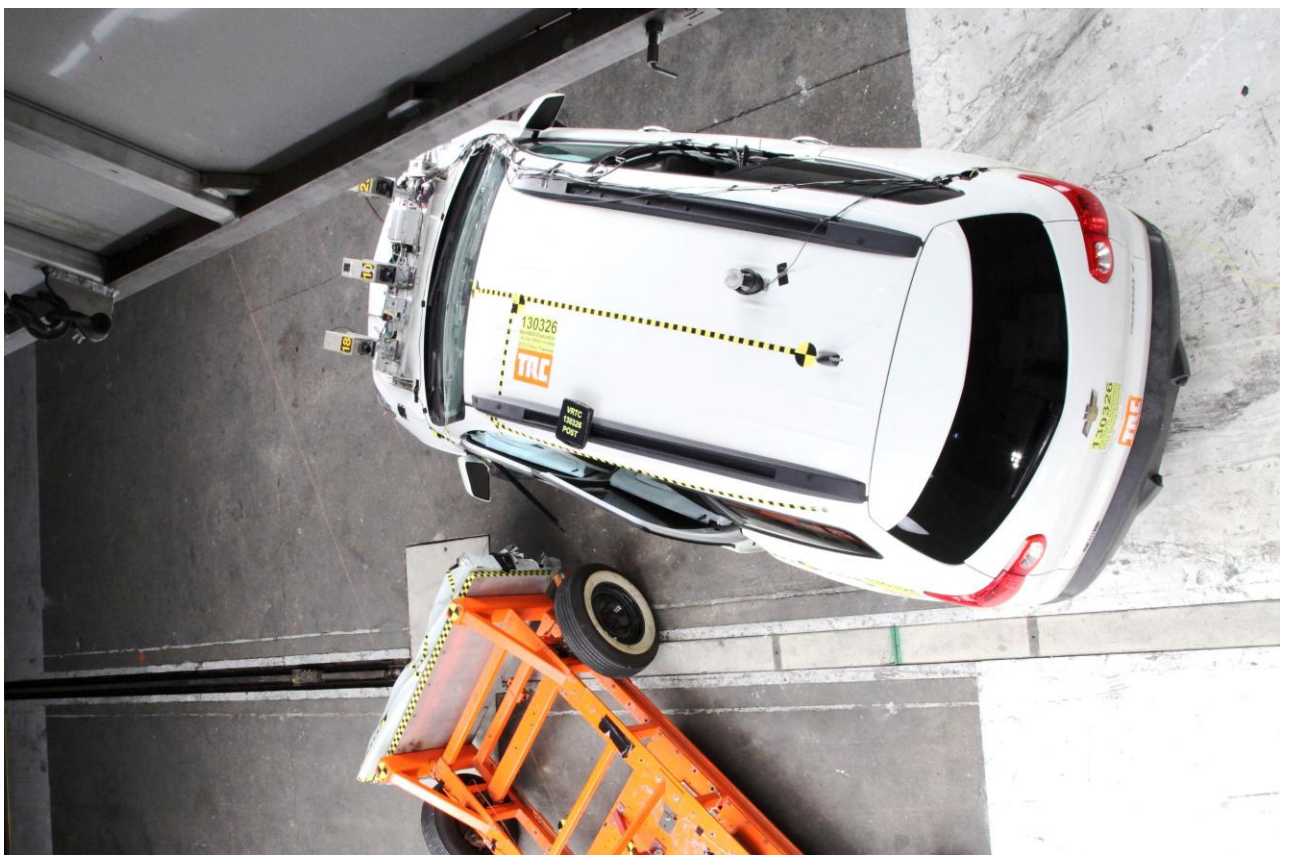


Figure A-14 Post-Test Overhead View



Figure A-15 Pre-Test Primary Impact Point View



Figure A-16 Post-Test Primary Impact Point View



Figure A-17 Pre-Test Secondary Impact Point View



Figure A-18 Post-Test Secondary Impact Point View



Figure A-19 Pre-Test Driver Dummy - View 1



Figure A-20 Post-Test Driver Dummy - View 1



Figure A-21 Pre-Test Driver Dummy - View 2



Figure A-22 Post-Test Driver Dummy - View 2



Figure A-23 Pre-Test Driver Dummy - View 3



Figure A-24 Post-Test Driver Dummy - View 3



Figure A-25 Pre-Test Driver Door Panel View



Figure A-26 Post-Test Driver Door Panel View



Figure A-27 Post-Test Driver Dummy Contact - View 1



Figure A-28 Post-Test Driver Dummy Contact – View 2

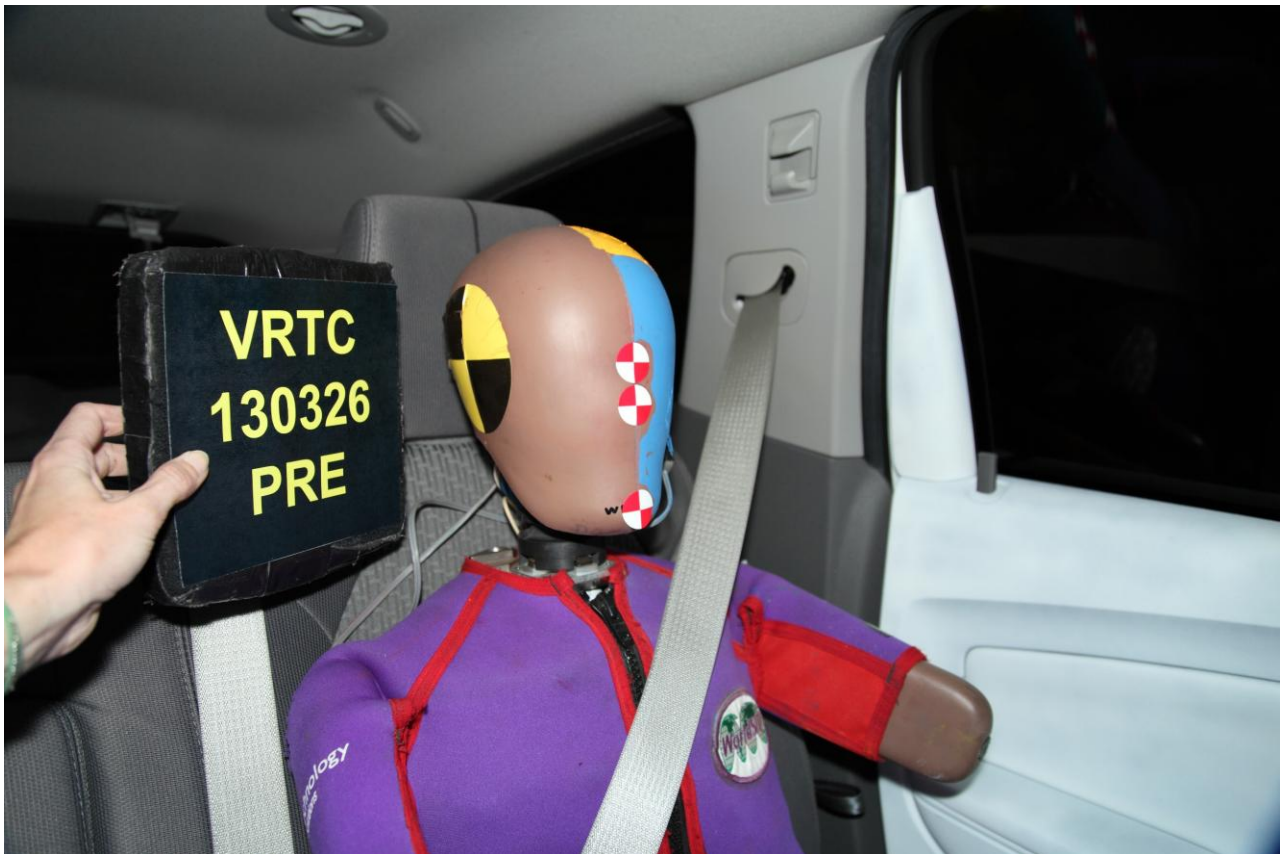


Figure A-29 Pre-Test Rear Passenger Dummy - View 1



Figure A-30 Post-Test Rear Passenger Dummy - View 1



Figure A-31 Pre-Test Rear Passenger Dummy - View 2



Figure A-32 Post-Test Rear Passenger Dummy - View 2



Figure A-33 Pre-Test Rear Passenger Dummy - View 3

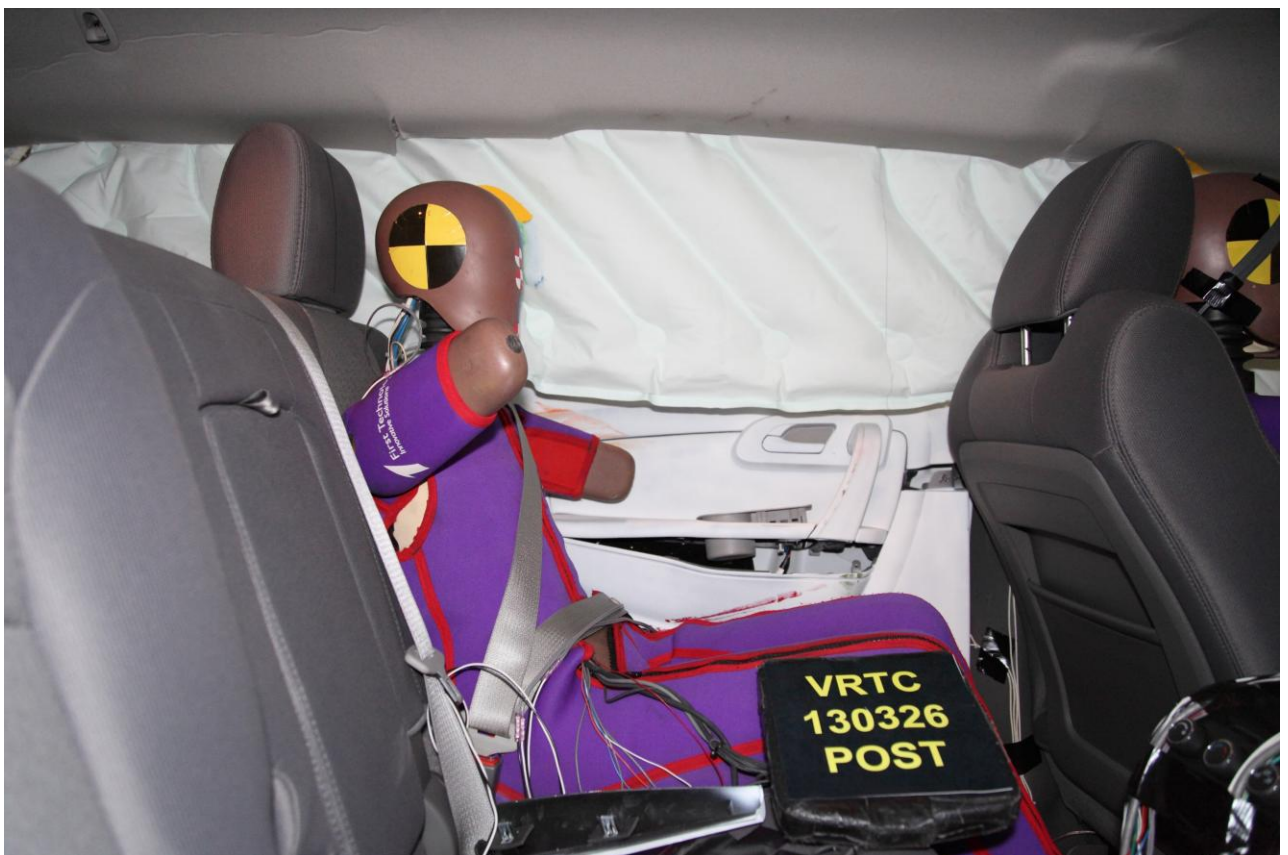


Figure A-34 Post-Test Rear Passenger Dummy - View 3



Figure A-35 Pre-Test Rear Passenger Door Panel View



Figure A-36 Post-Test Rear Passenger Door Panel View



Figure A-37 Post-Test Rear Passenger Dummy Contact – View 1



Figure A-38 Post-Test Rear Passenger Dummy Contact – View 2



Figure A-39 Pre-Test Front Passenger Dummy - View 1



Figure A-40 Post-Test Front Passenger Dummy - View 1



Figure A-41 Pre-Test Front Passenger Dummy - View 2



Figure A-42 Post-Test Front Passenger Dummy Contact View



Figure A-43 Pre-Test MDB Face Front View



Figure A-44 Post-Test MDB Face Front View



Figure A-45 Pre-Test MDB Face Top View



Figure A-46 Post-Test MDB Face Top View



Figure A-47 Pre-Test MDB Face Left Front View



Figure A-48 Post-Test MDB Face Left Front View



Figure A-49 Pre-Test MDB Face Right Front View

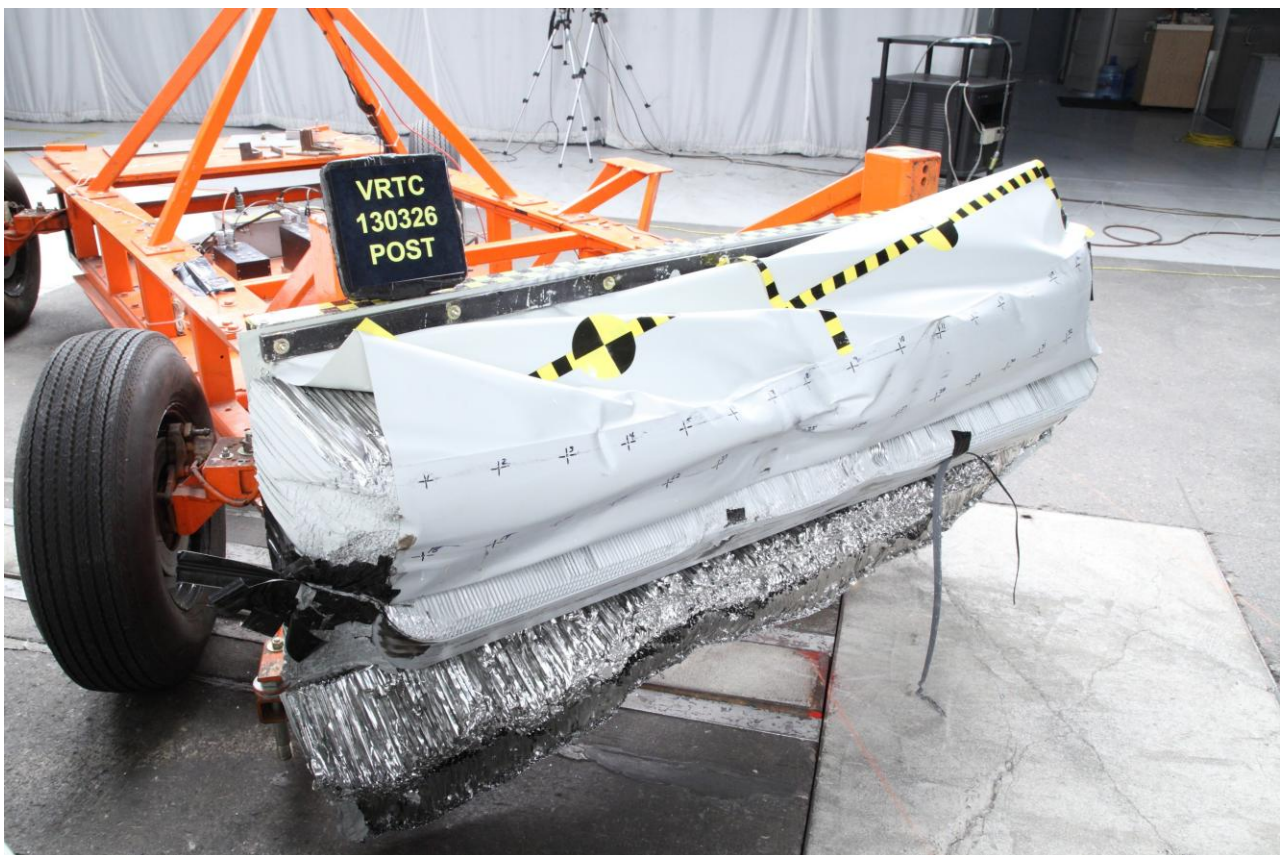


Figure A-50 Post-Test MDB Face Right Front View



Figure A-51 Pre-Test MDB Face Left Side View



Figure A-52 Pre-Test MDB Face Right Side View

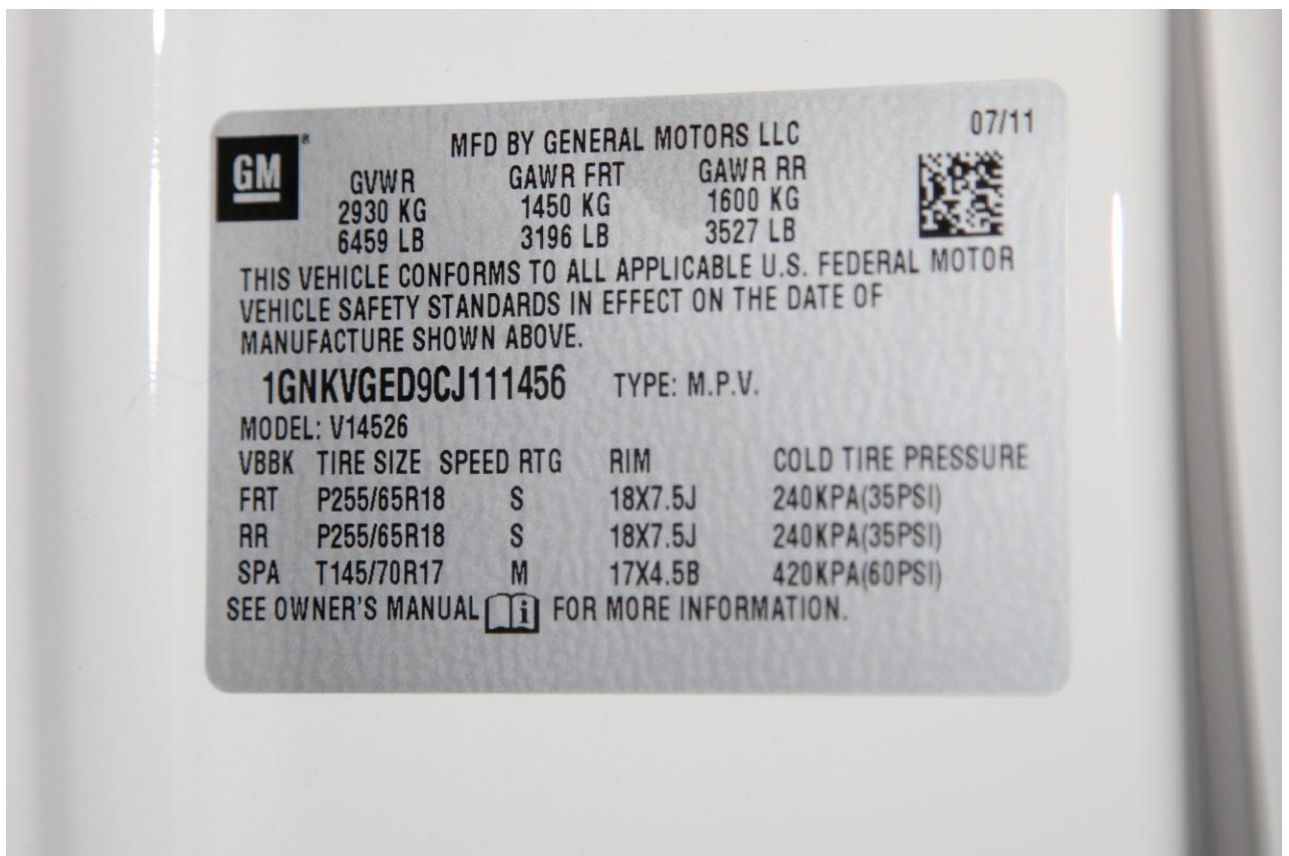


Figure A-53 Vehicle Certification Label

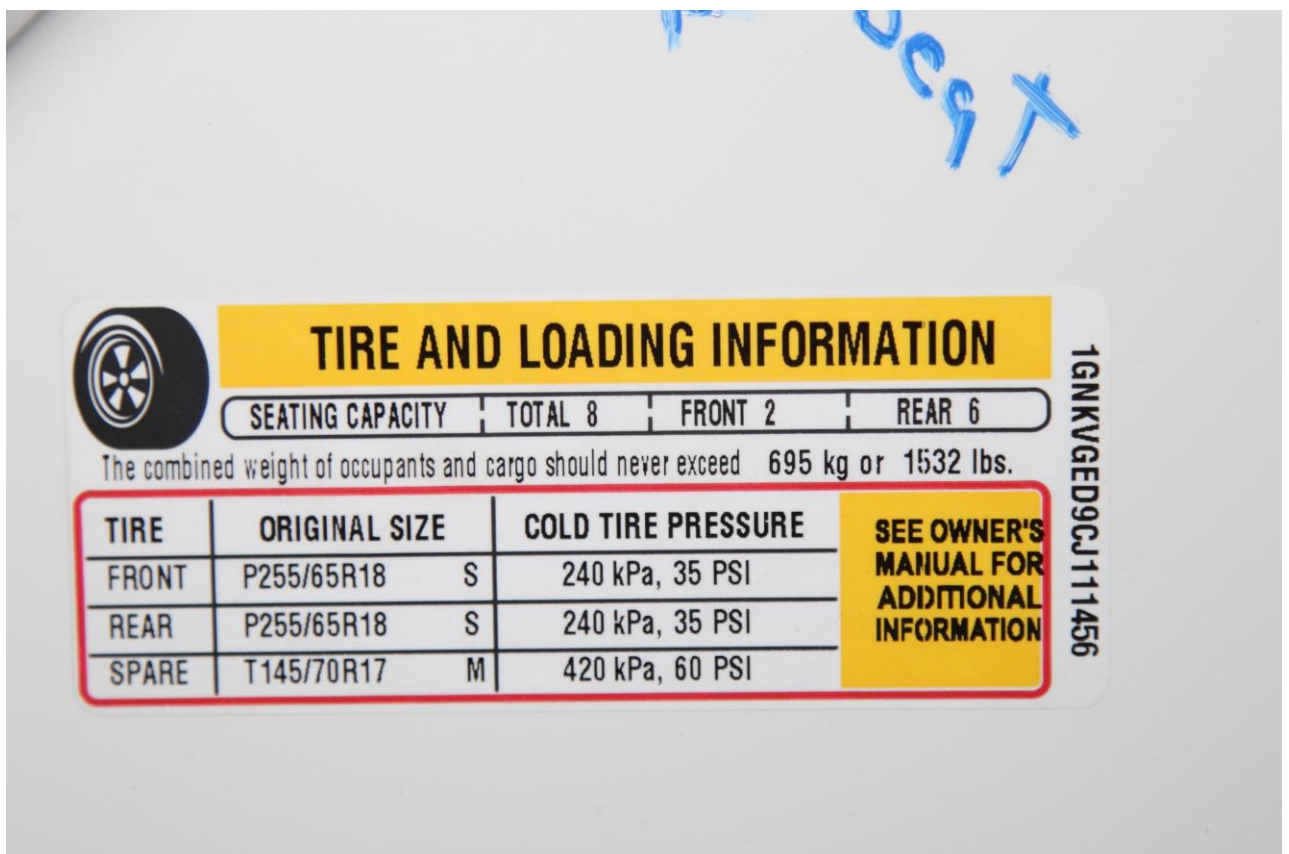


Figure A-54 Tire Pressure Label

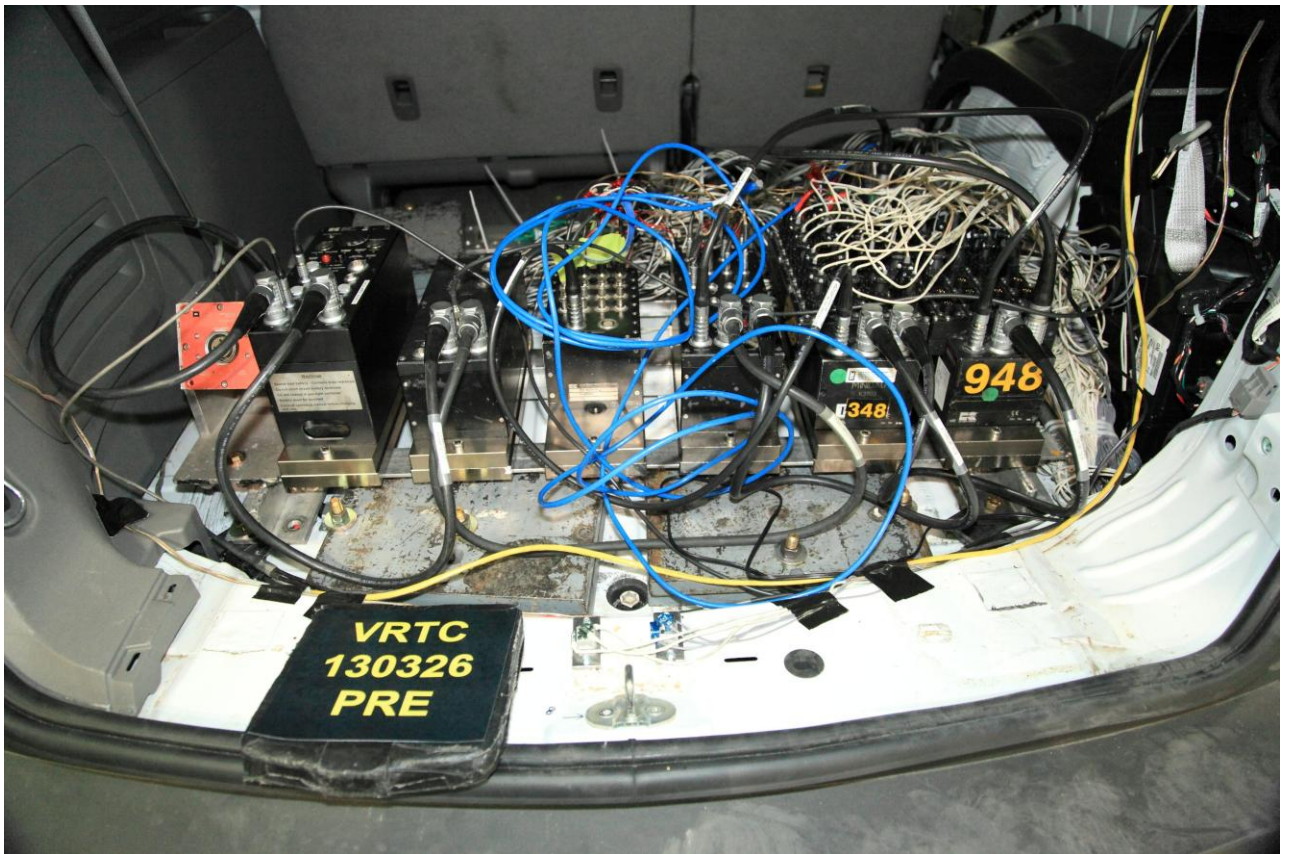


Figure A-55 Pre-Test Instrumentation Location View

Appendix B

Data Plots



FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Longitudinal Ax

Date: 03/27/2013

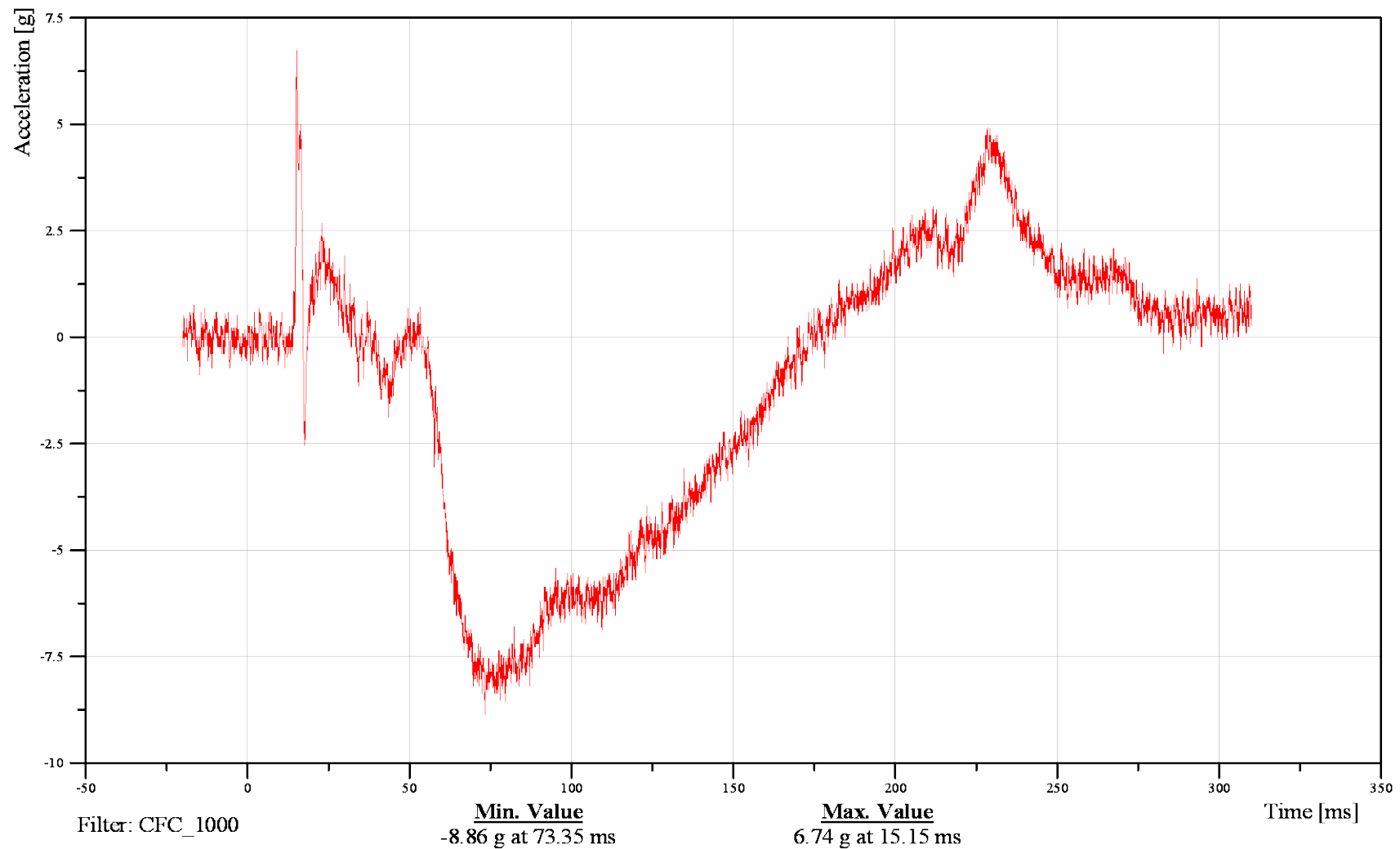
Time: 14:31

Customer: VRTC

11HEADCG00WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Lateral Ay

Date: 03/27/2013

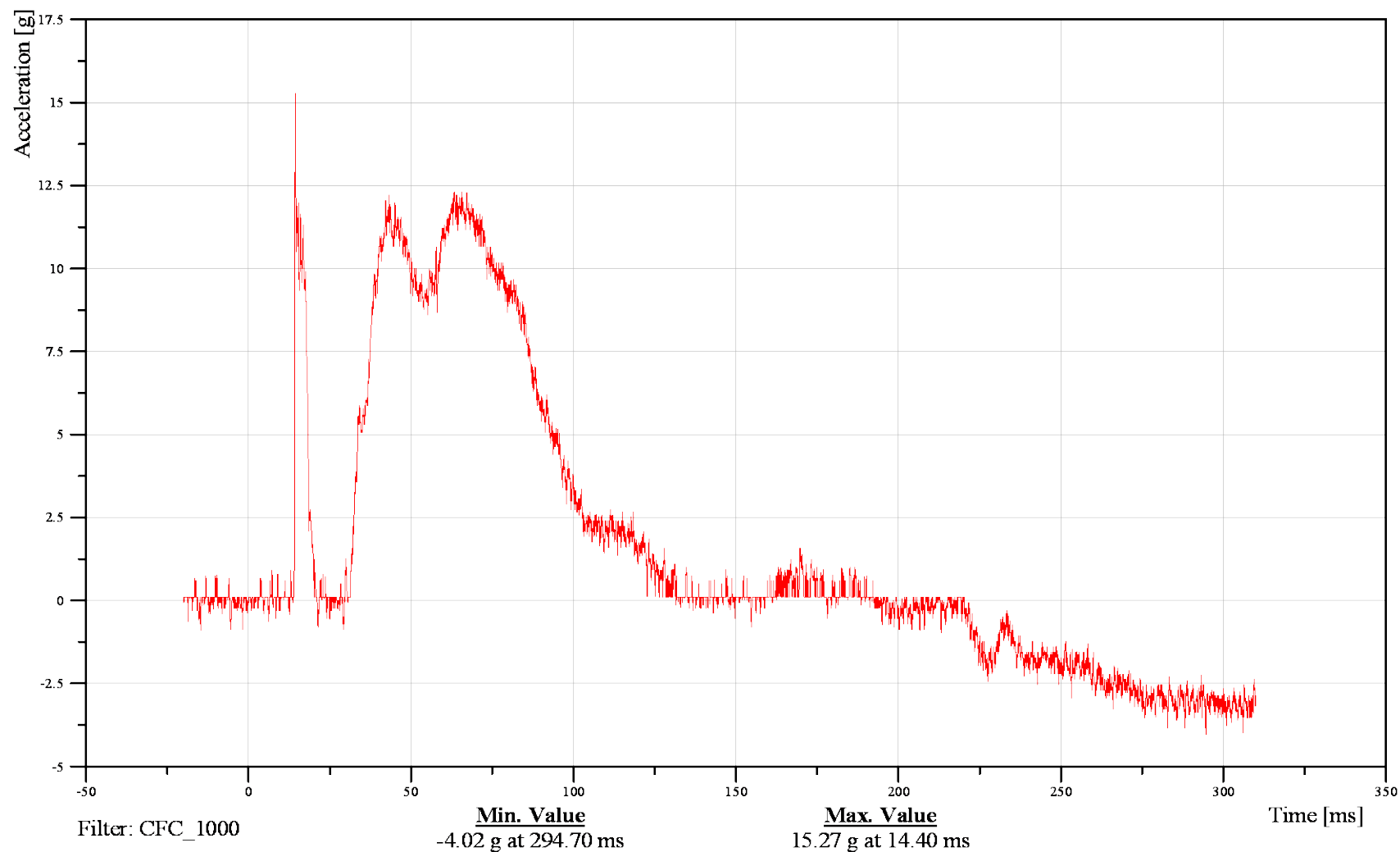
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Customer: VRTC

11HEADCG00WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Vertical Az

Date: 03/27/2013

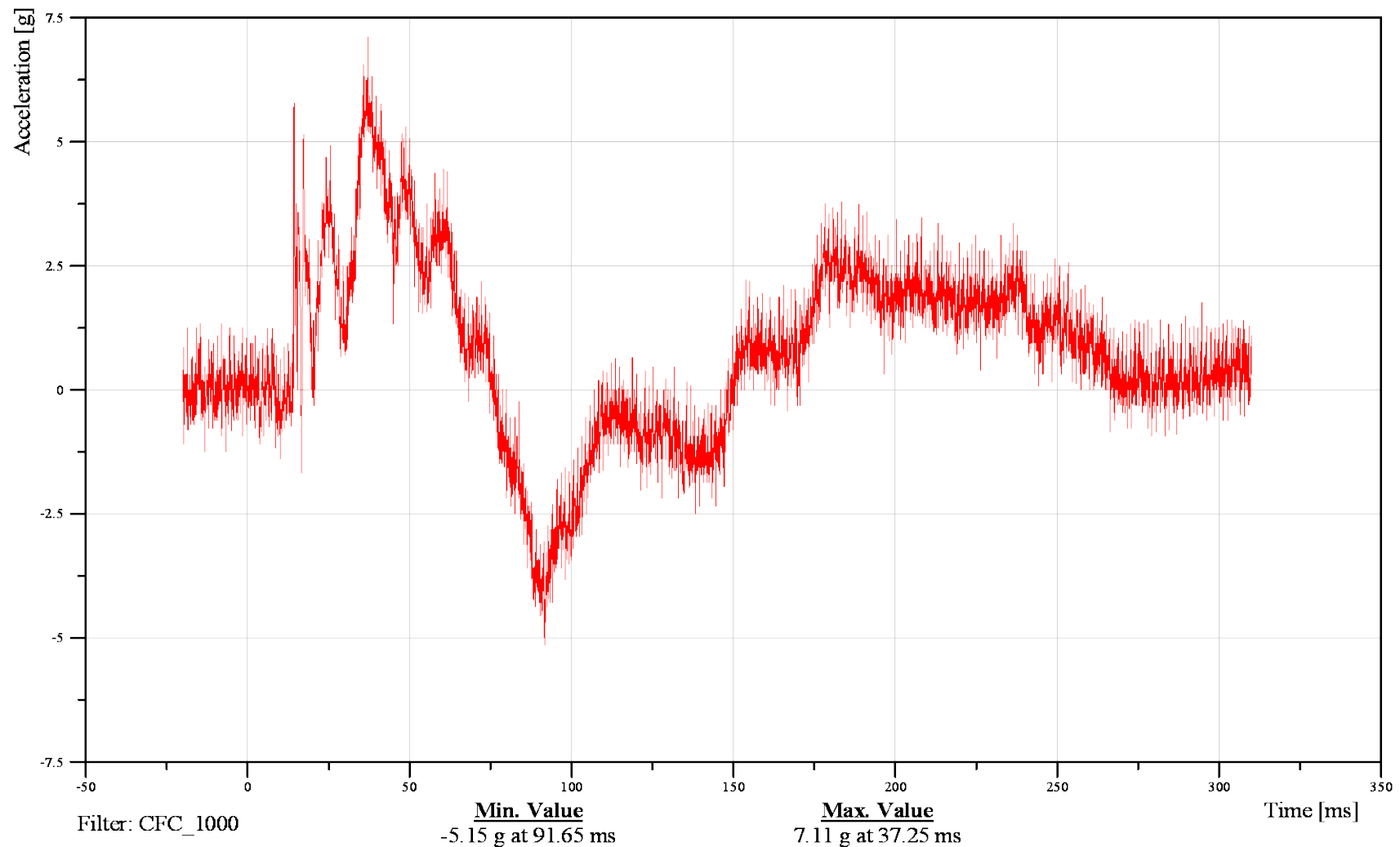
Time: 14:31

Customer: VRTC

11HEADCG00WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head A Resultant

Date: 03/27/2013

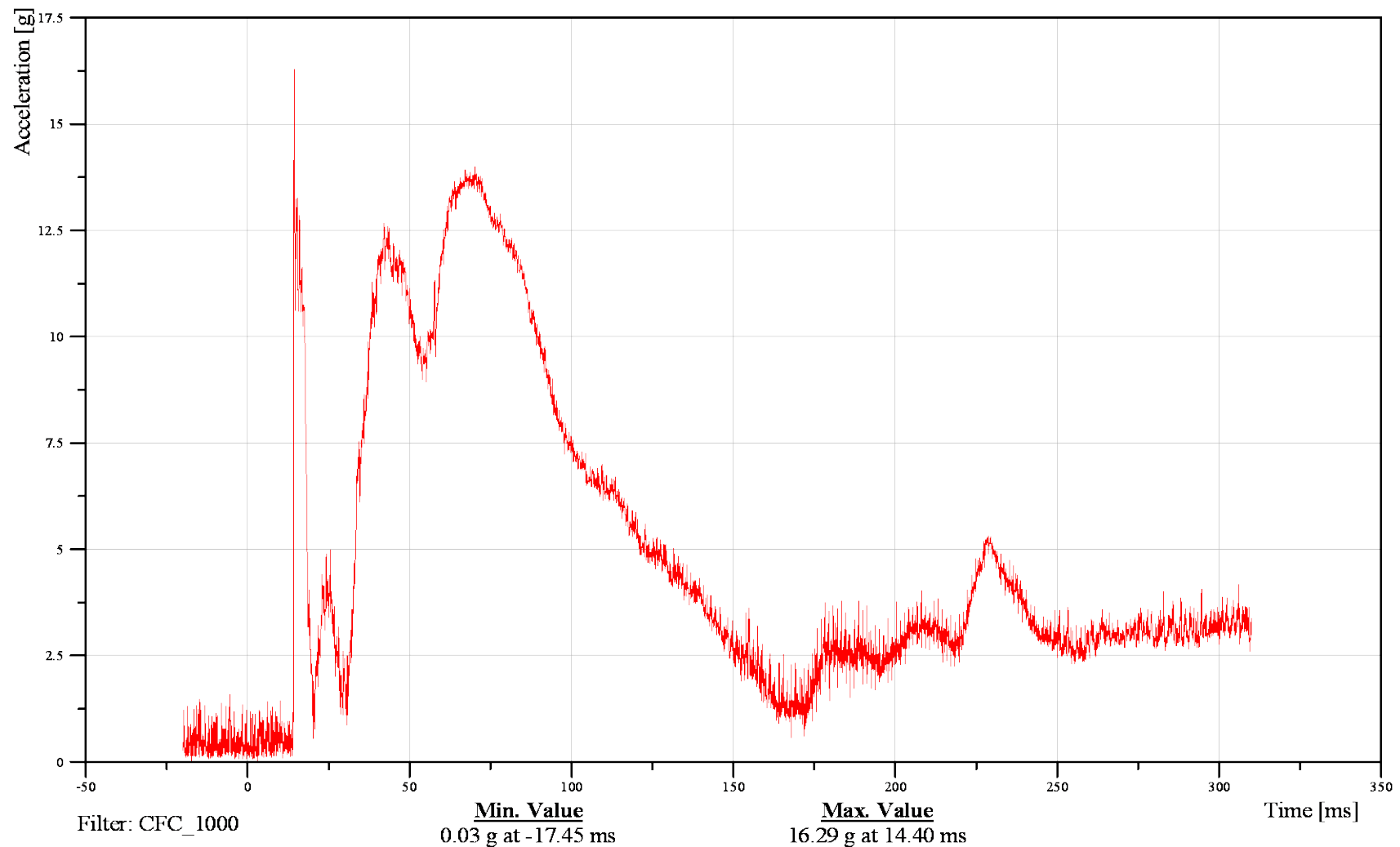
Time: 14:31

Customer: VRTC

11HEADCG00WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Rx

Date: 03/27/2013

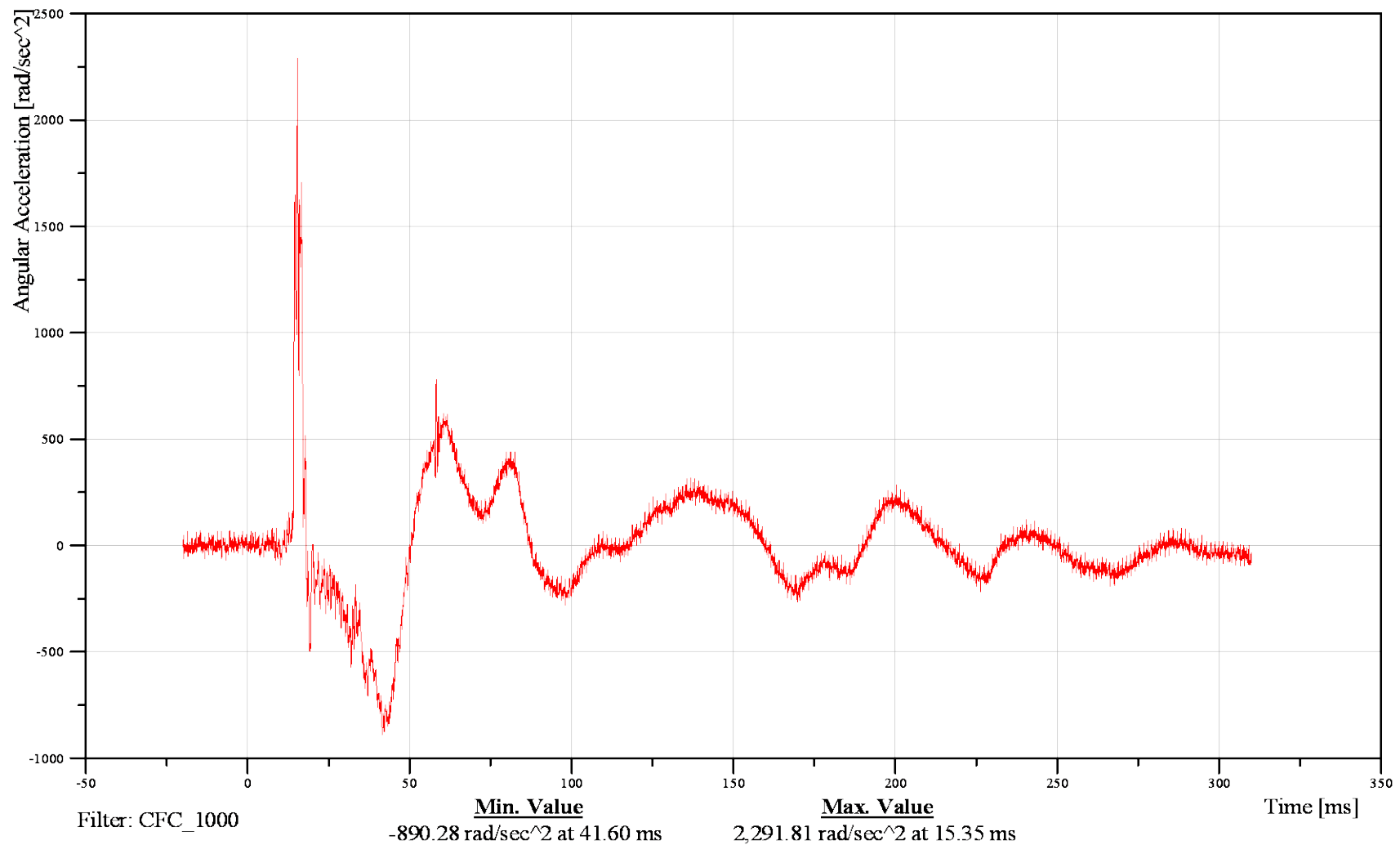
Time: 14:31

Customer: VRTC

11HEAD0000WSAAXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Ry

Date: 03/27/2013

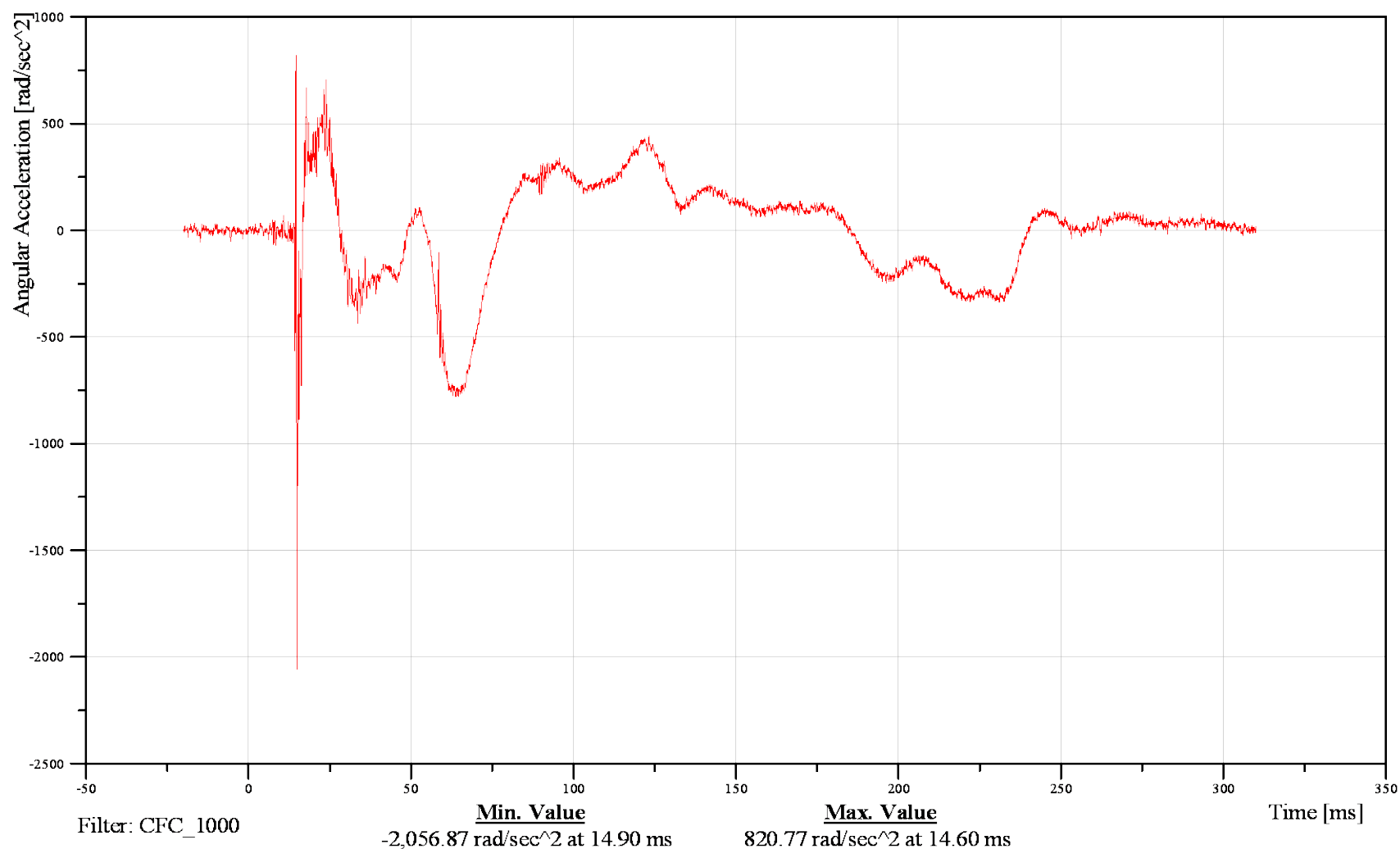
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Customer: VRTC

11HEAD0000WSAAYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Rz

Date: 03/27/2013

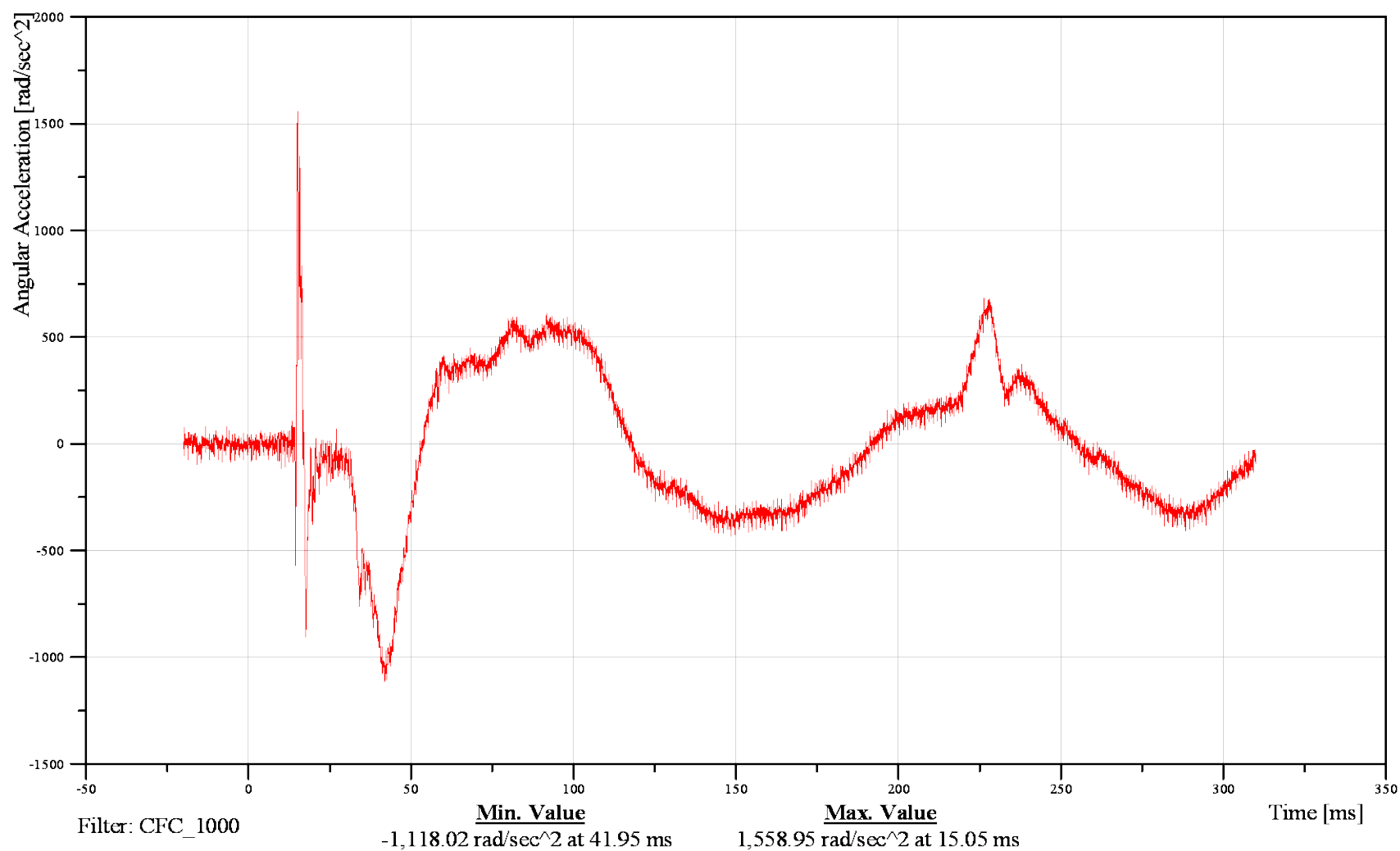
Time: 14:31

Customer: VRTC

11HEAD0000WSAAZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head X-Axis Angular Velocity

Date: 03/27/2013

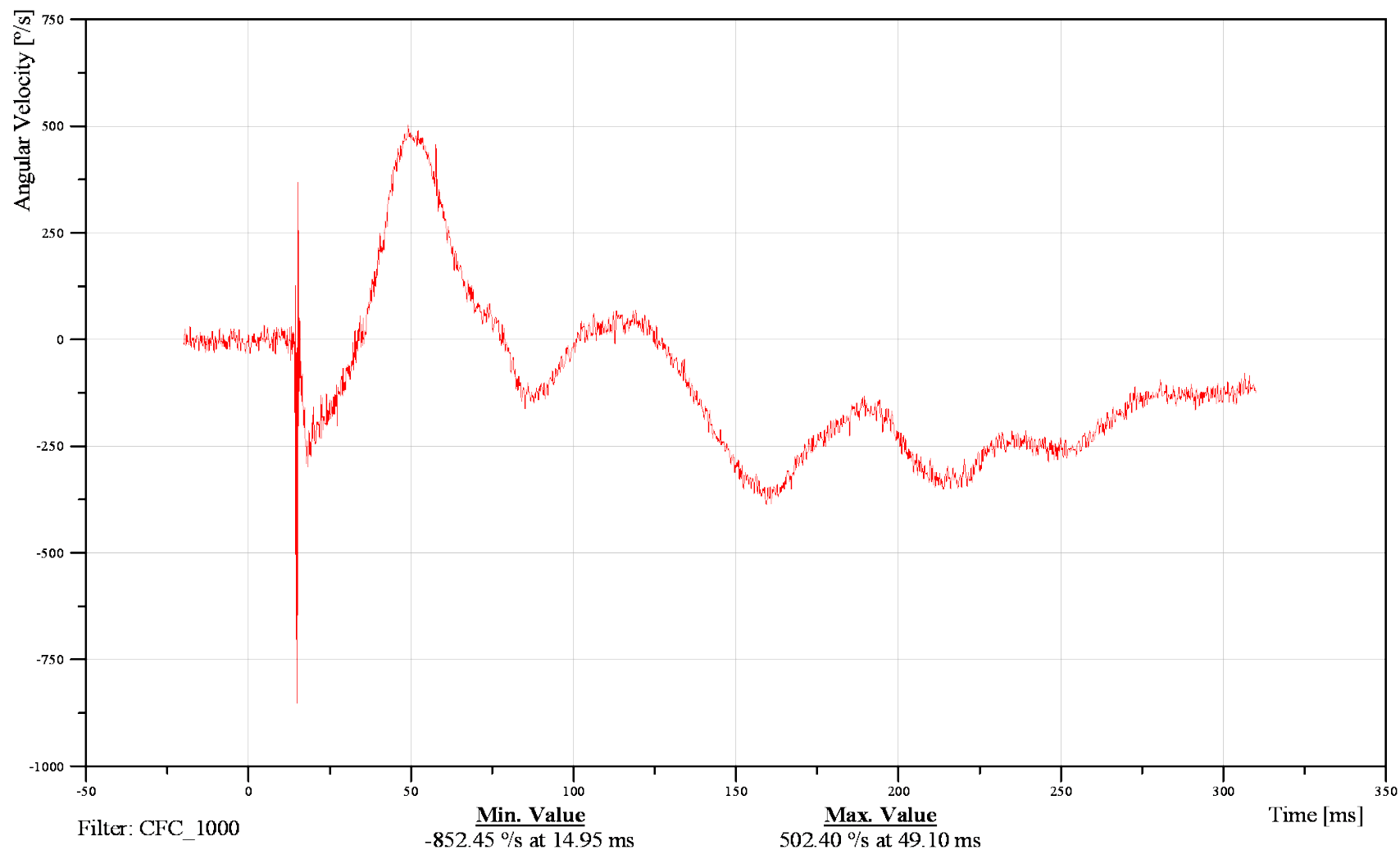
Time: 14:31

Customer: VRTC

11HEADCG00WSAVXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Y-Axis Angular Velocity

Date: 03/27/2013

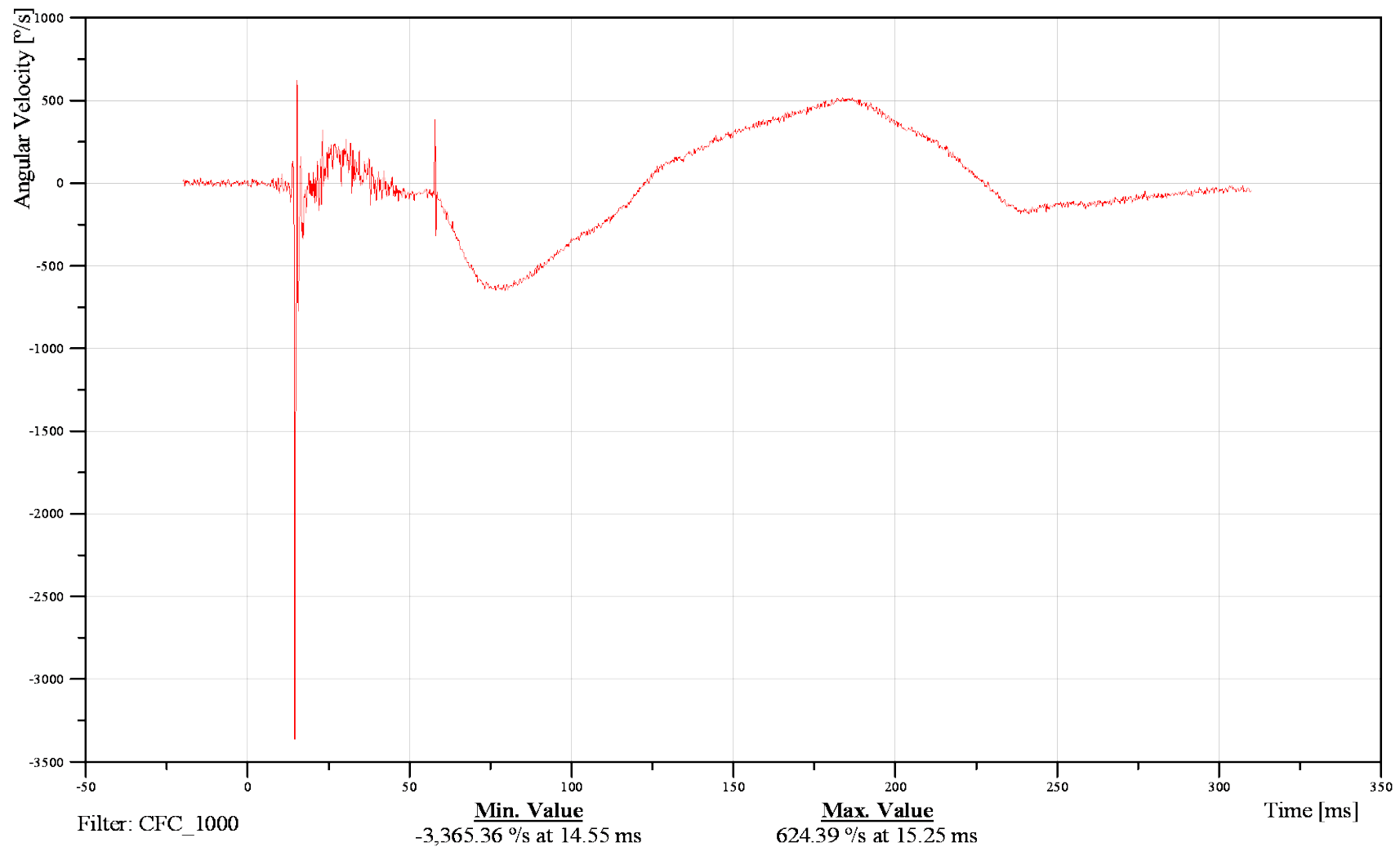
Time: 14:31

Customer: VRTC

11HEADCG00WSAVYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Z-Axis Angular Velocity

Date: 03/27/2013

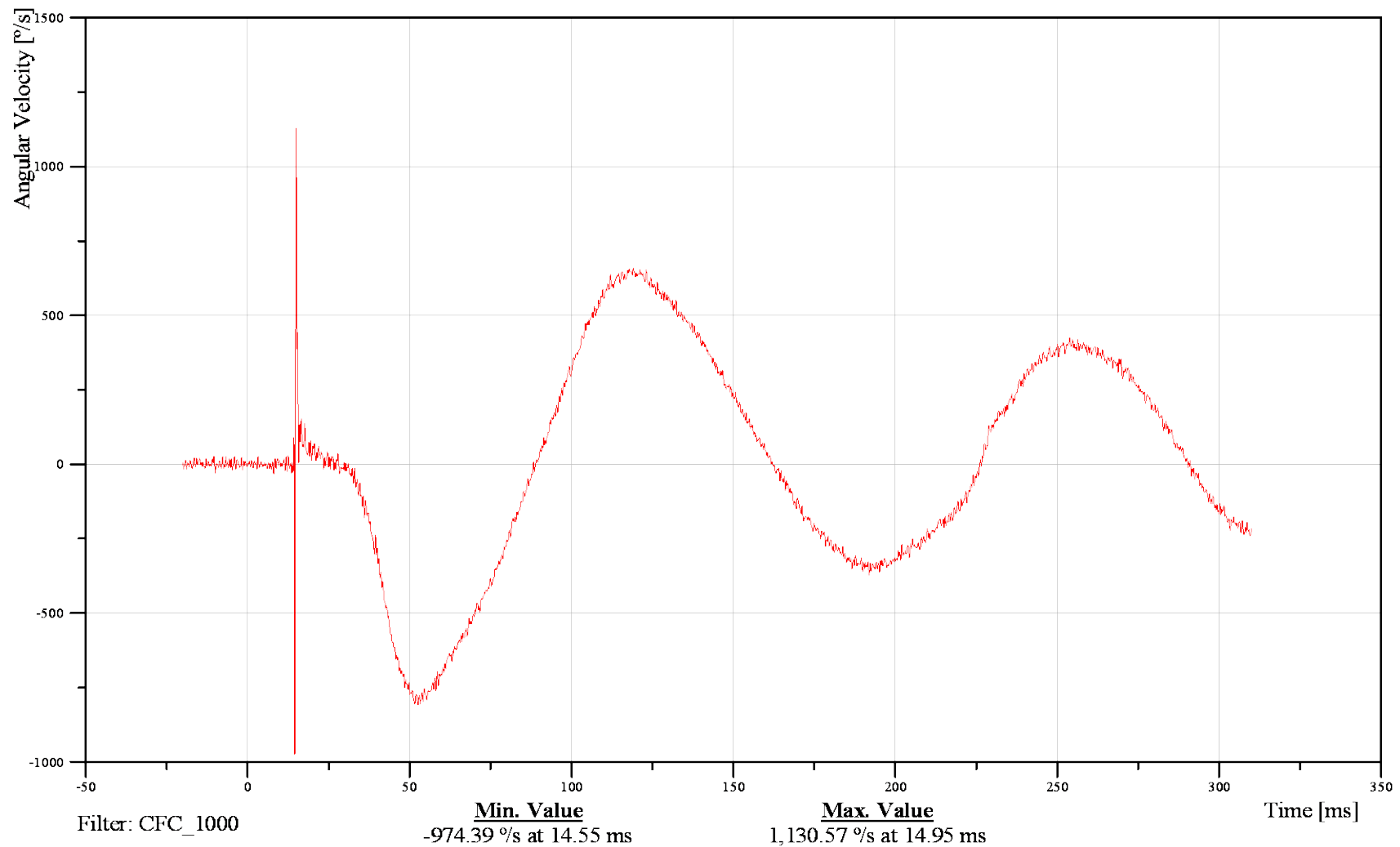
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Customer: VRTC

11HEADCG00WSAVZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fx

Date: 03/27/2013

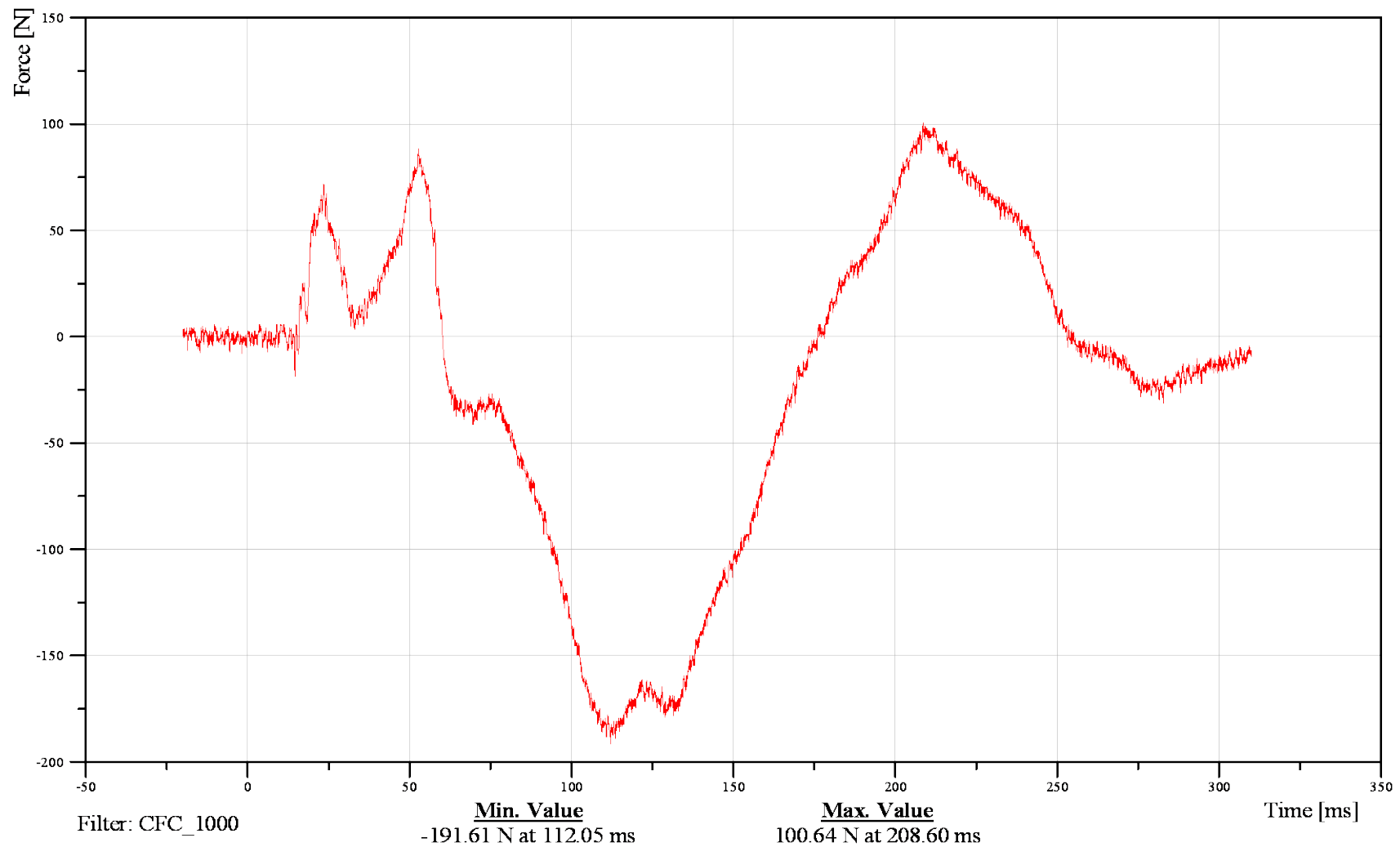
Time: 14:31

Customer: VRTC

11NECKUP00WSFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fy

Date: 03/27/2013

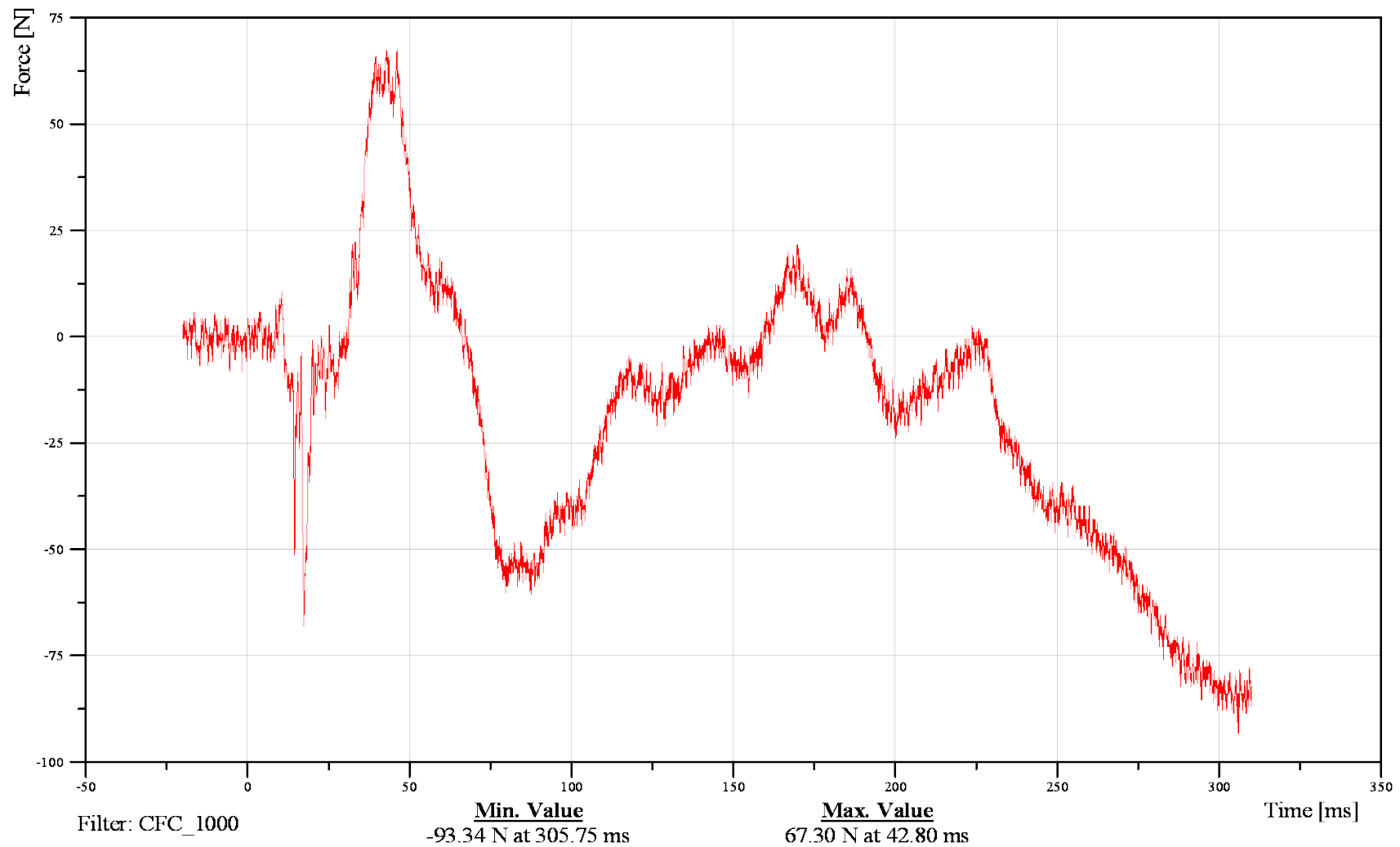
Time: 14:31

Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fz

Date: 03/27/2013

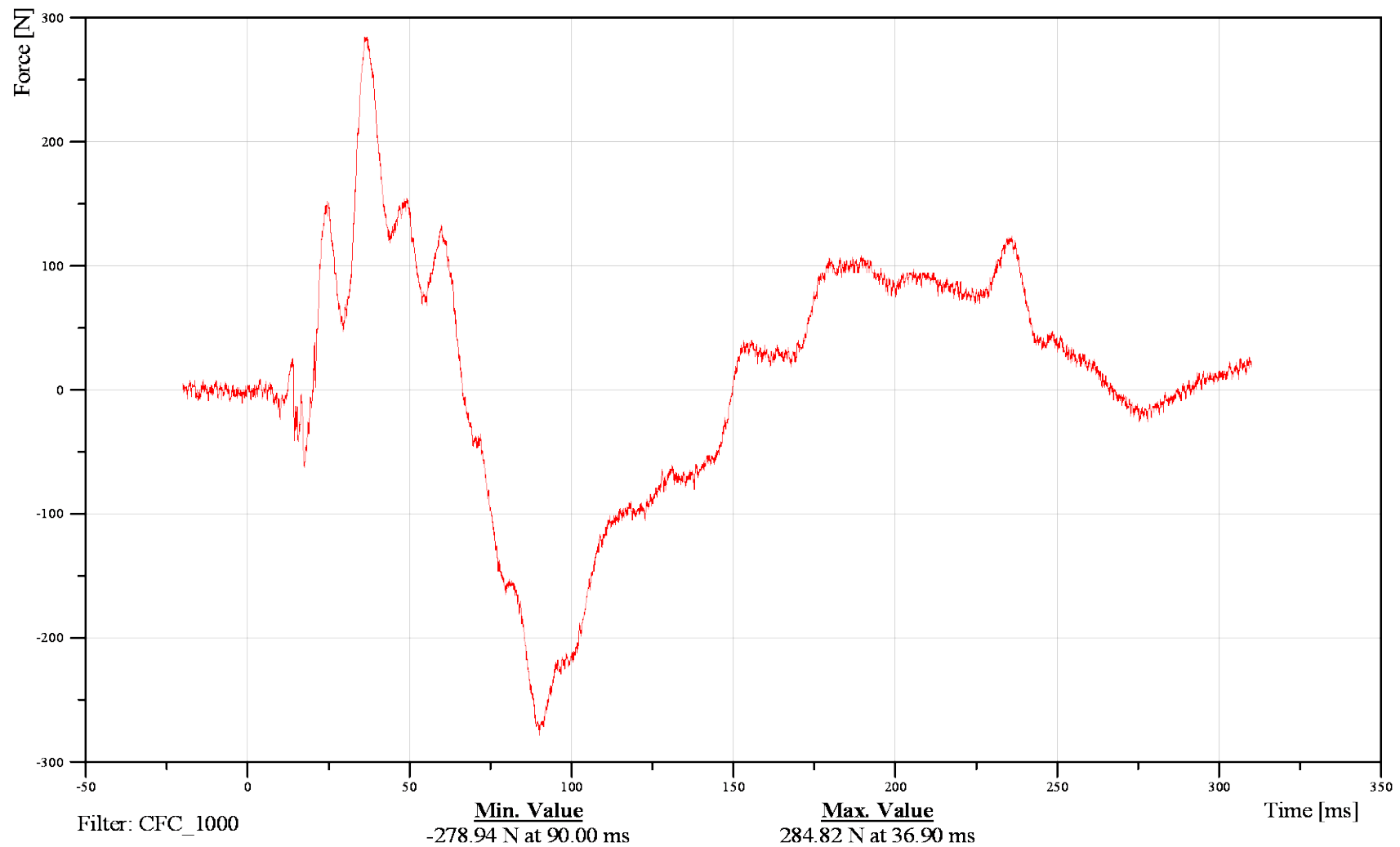
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Customer: VRTC

11NECKUP00WSFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment Mx

Date: 03/27/2013

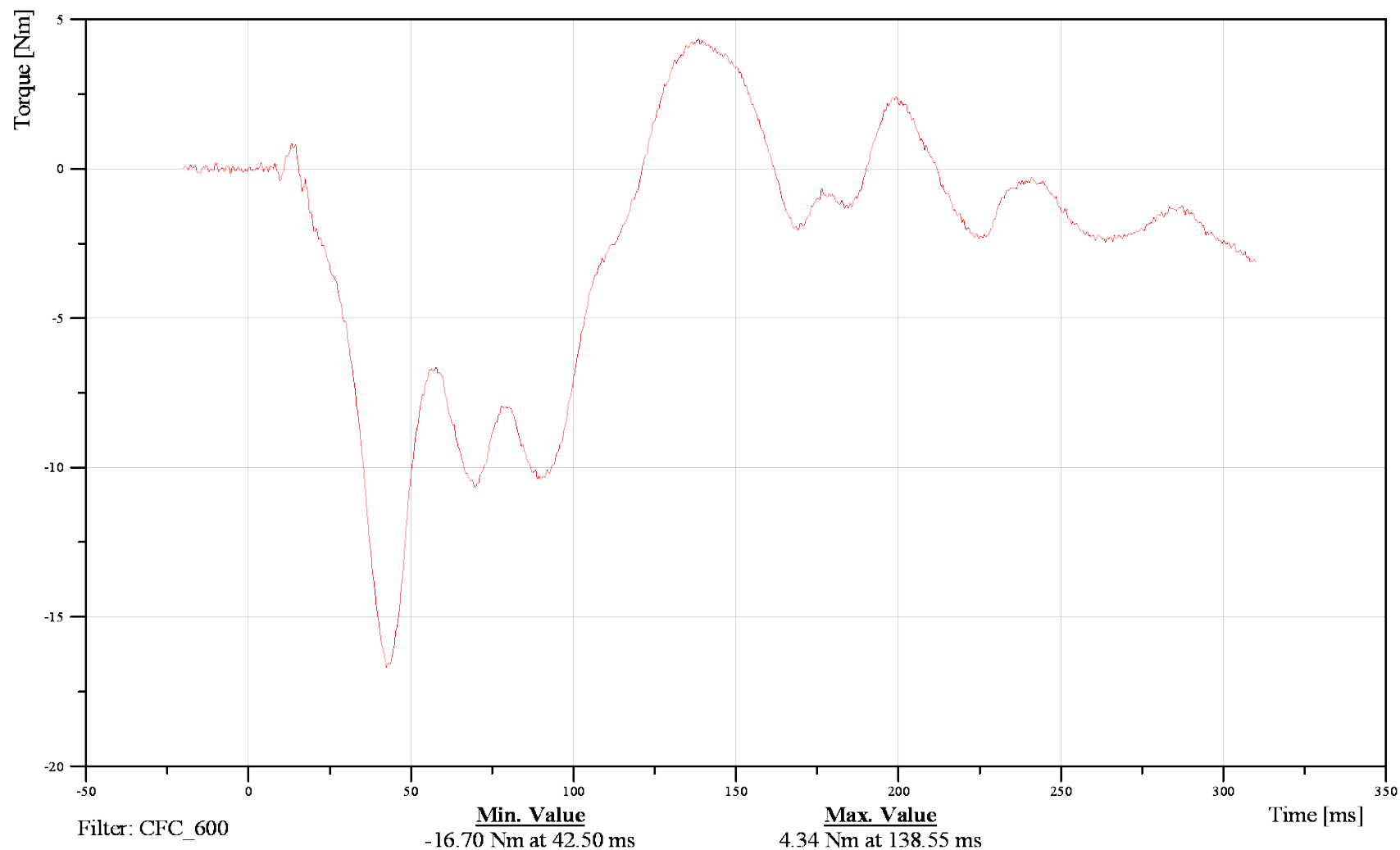
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Customer: VRTC

11NECKUP00WSMOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment My

Date: 03/27/2013

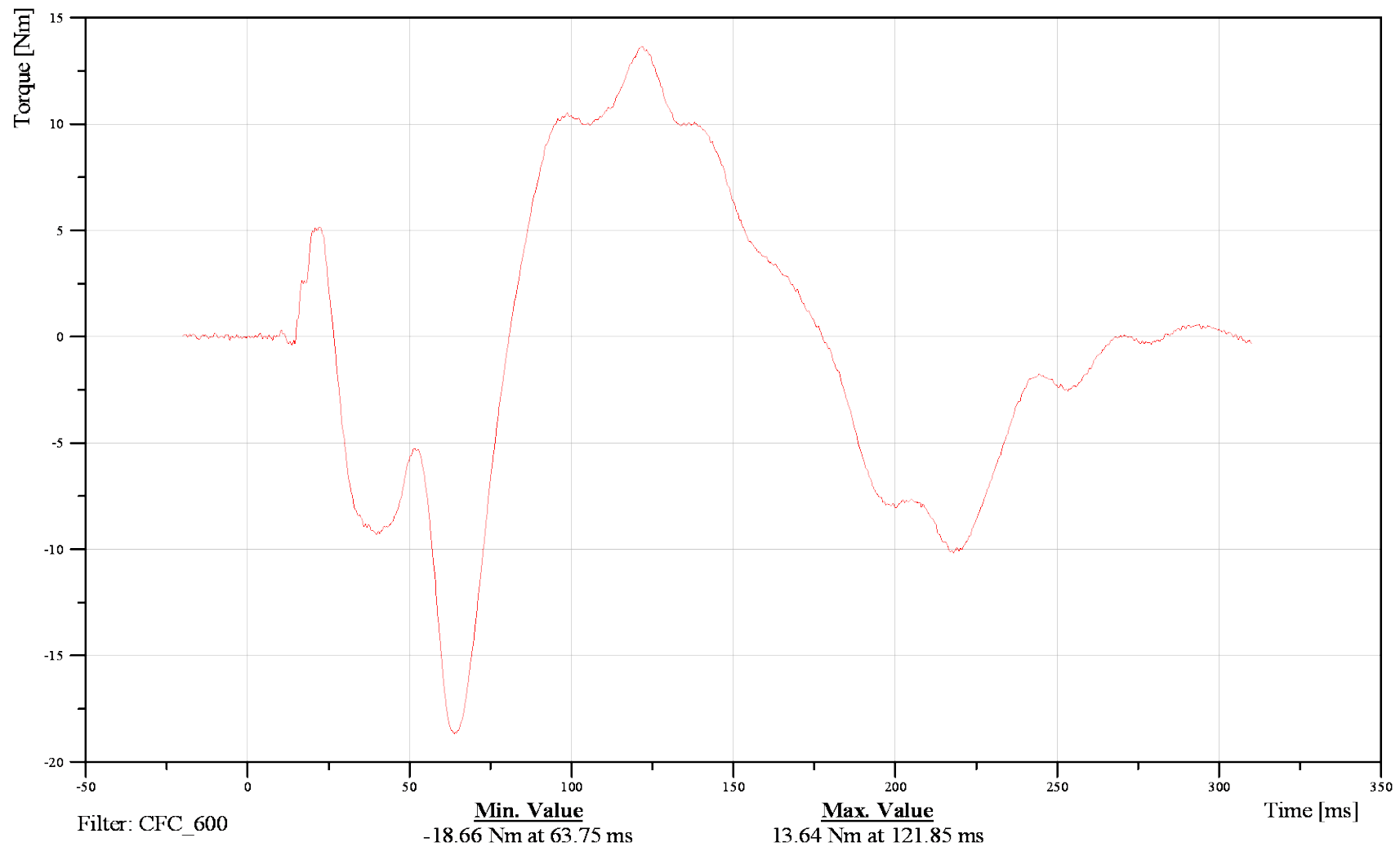
Time: 14:31

Customer: VRTC

11NECKUP00WSMOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment Mz

Date: 03/27/2013

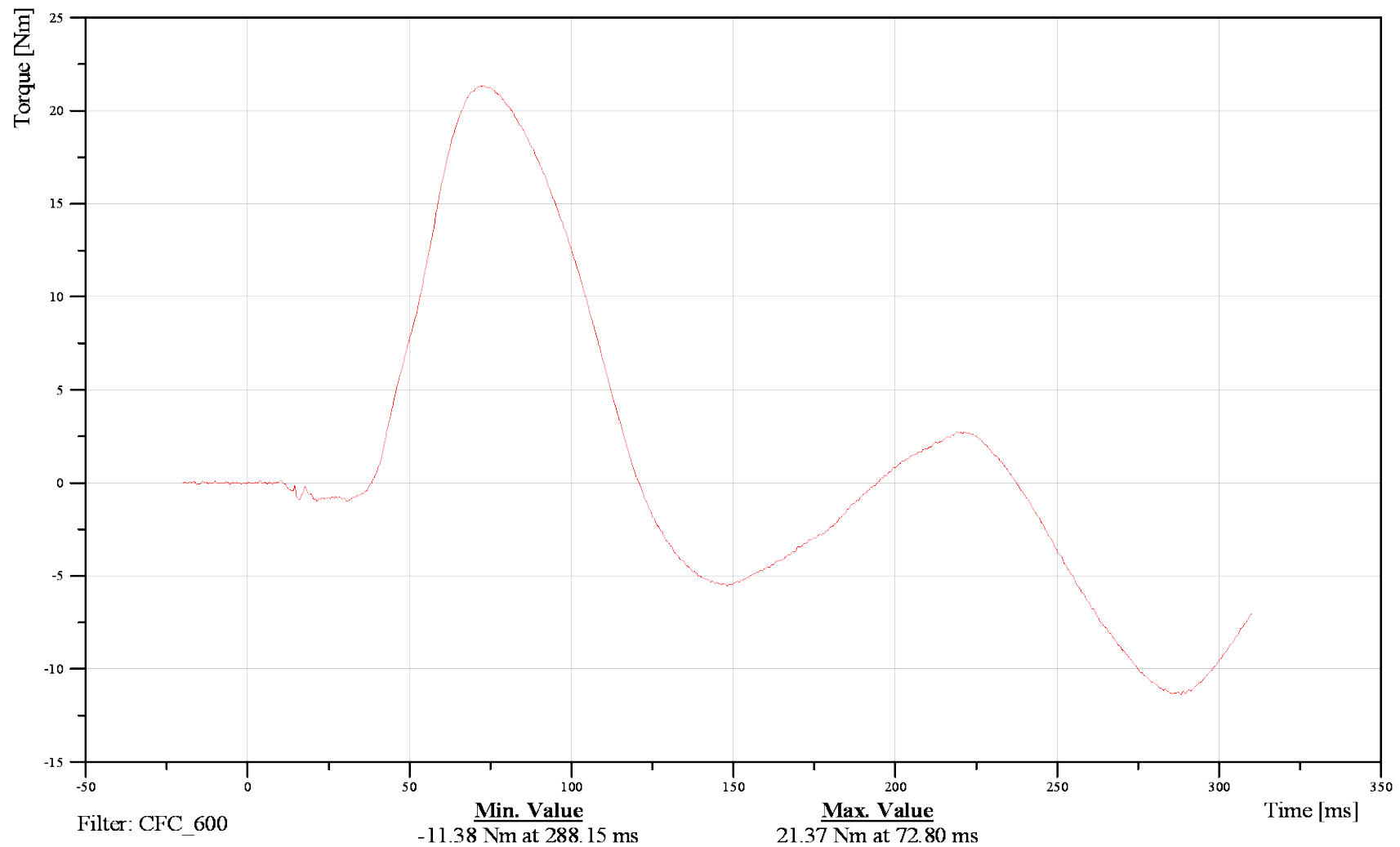
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Customer: VRTC

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TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fx

Date: 03/27/2013

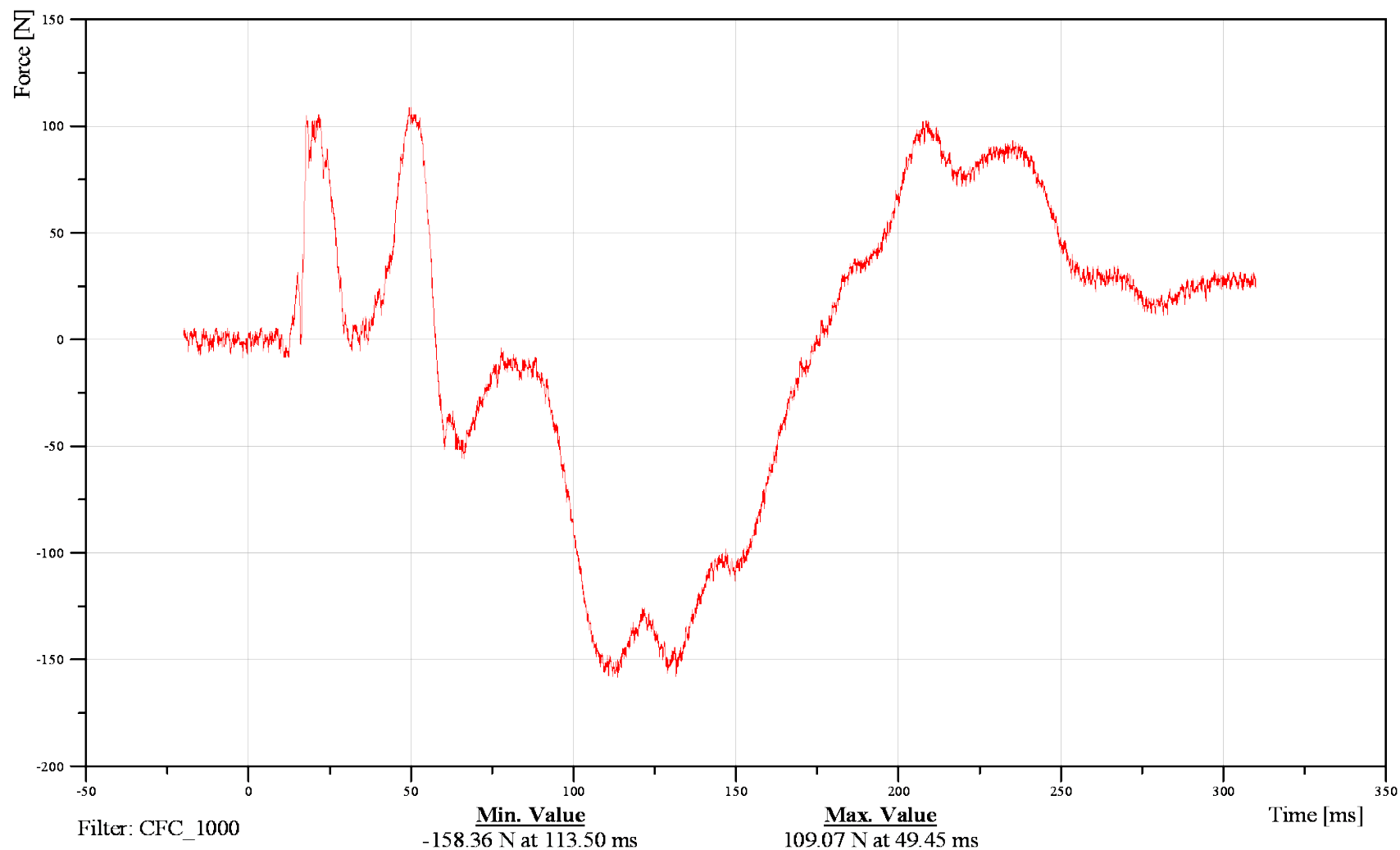
Time: 14:31

Customer: VRTC

11NECKLO00WSFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fy

Date: 03/27/2013

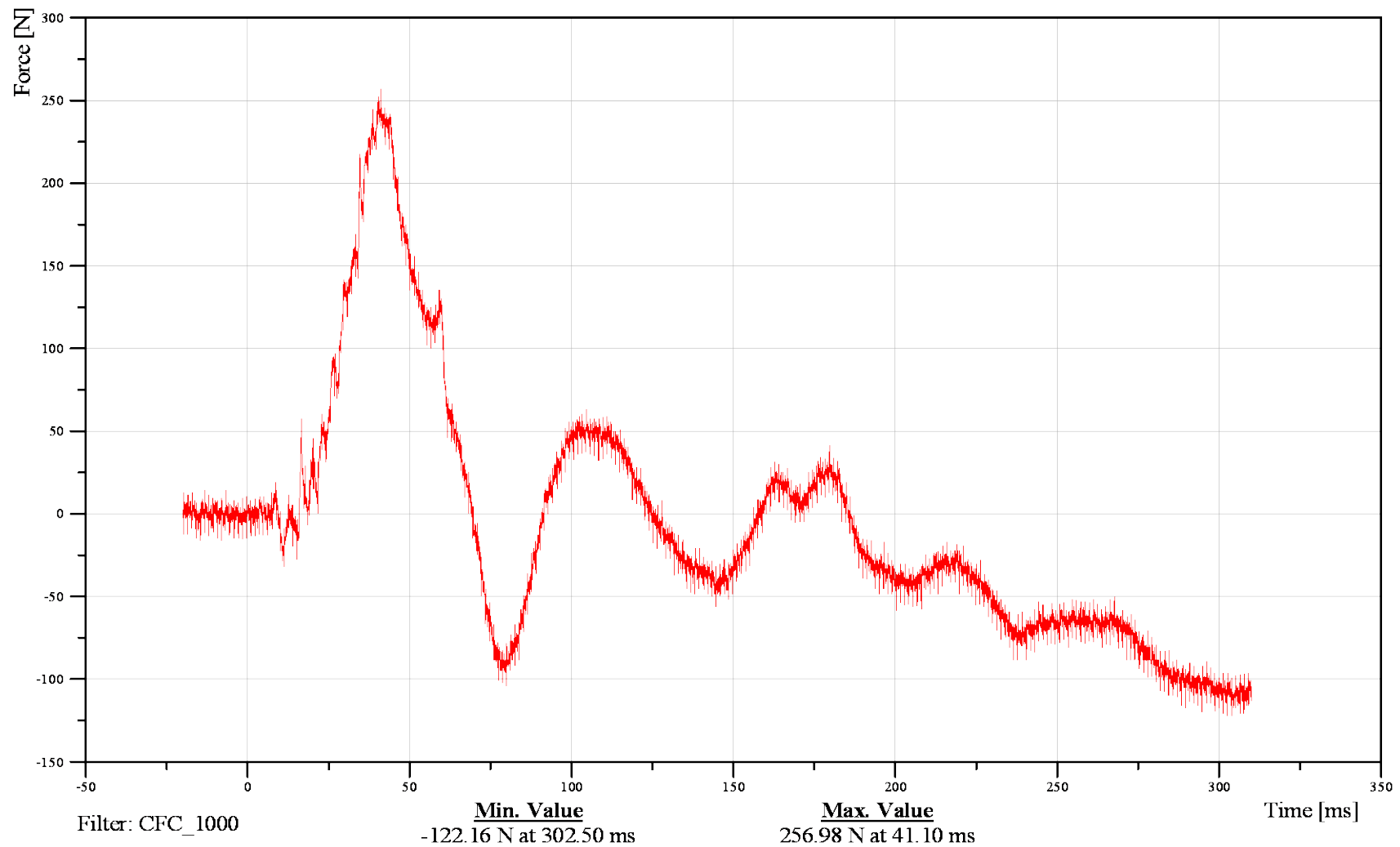
Time: 14:31

Customer: VRTC

11NECKLO00WSFOYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fz

Date: 03/27/2013

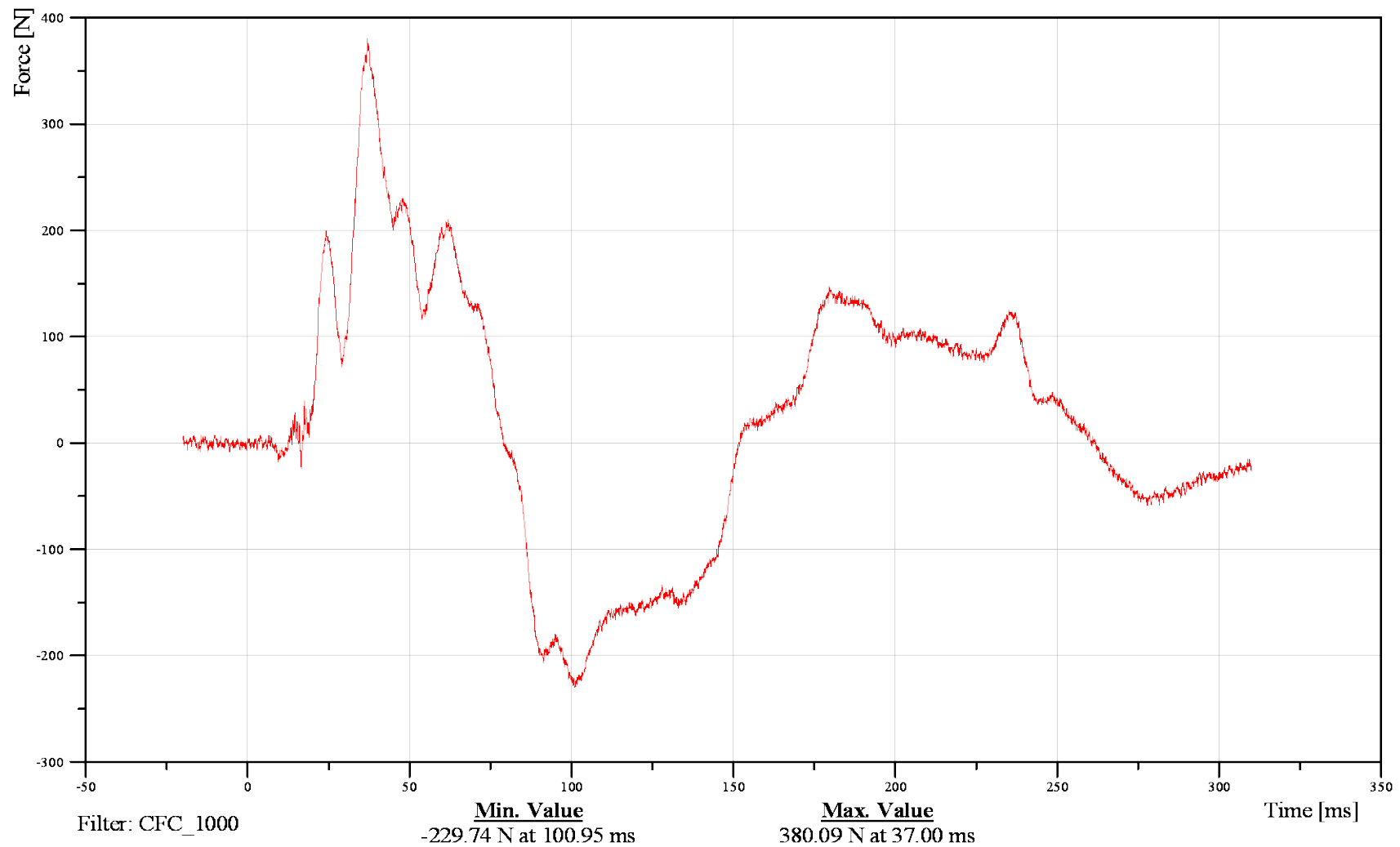
Time: 14:31

Customer: VRTC

11NECKLO00WSFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment Mx

Date: 03/27/2013

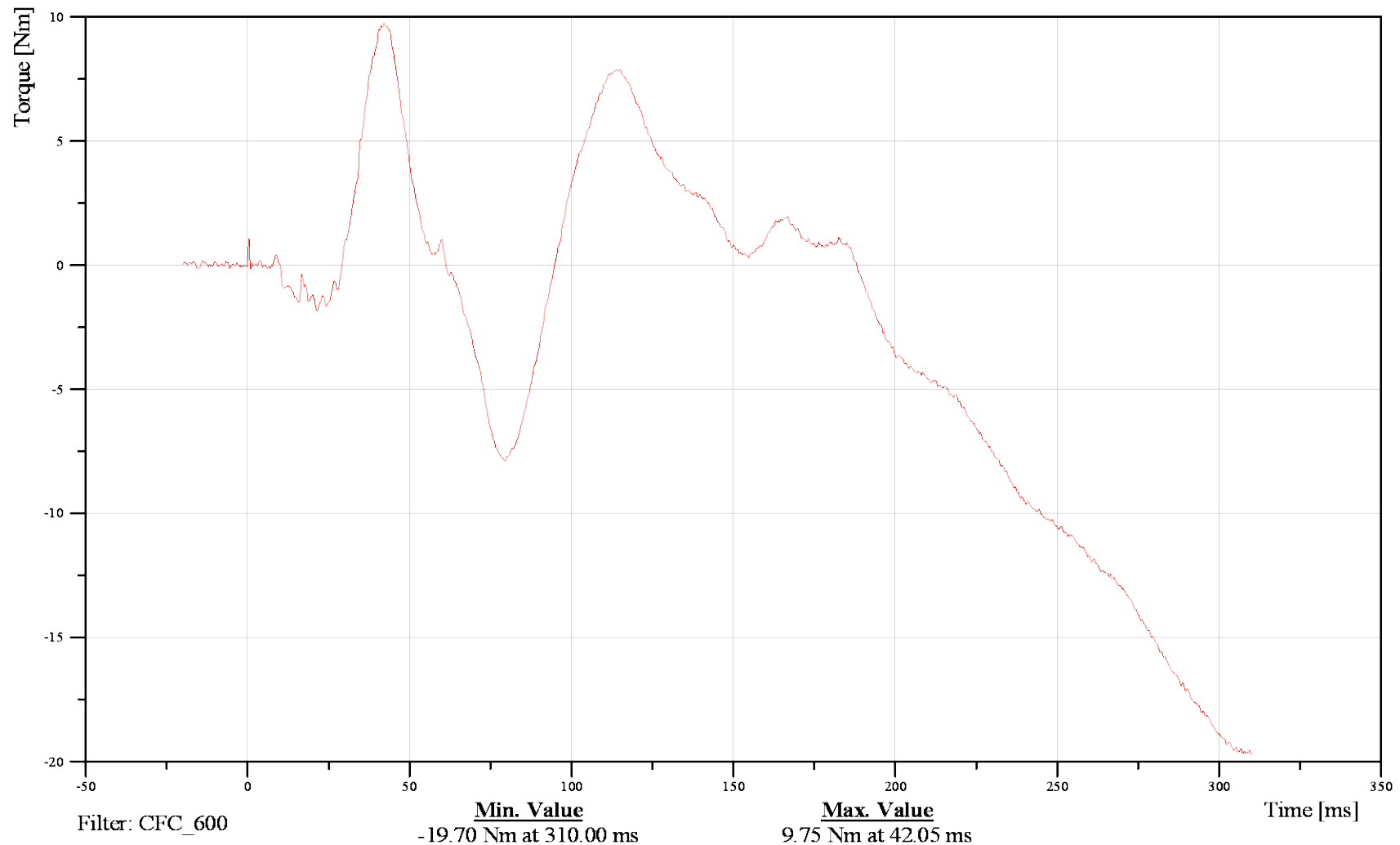
Time: 14:31

Customer: VRTC

11NECKLO00WSMOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment My

Date: 03/27/2013

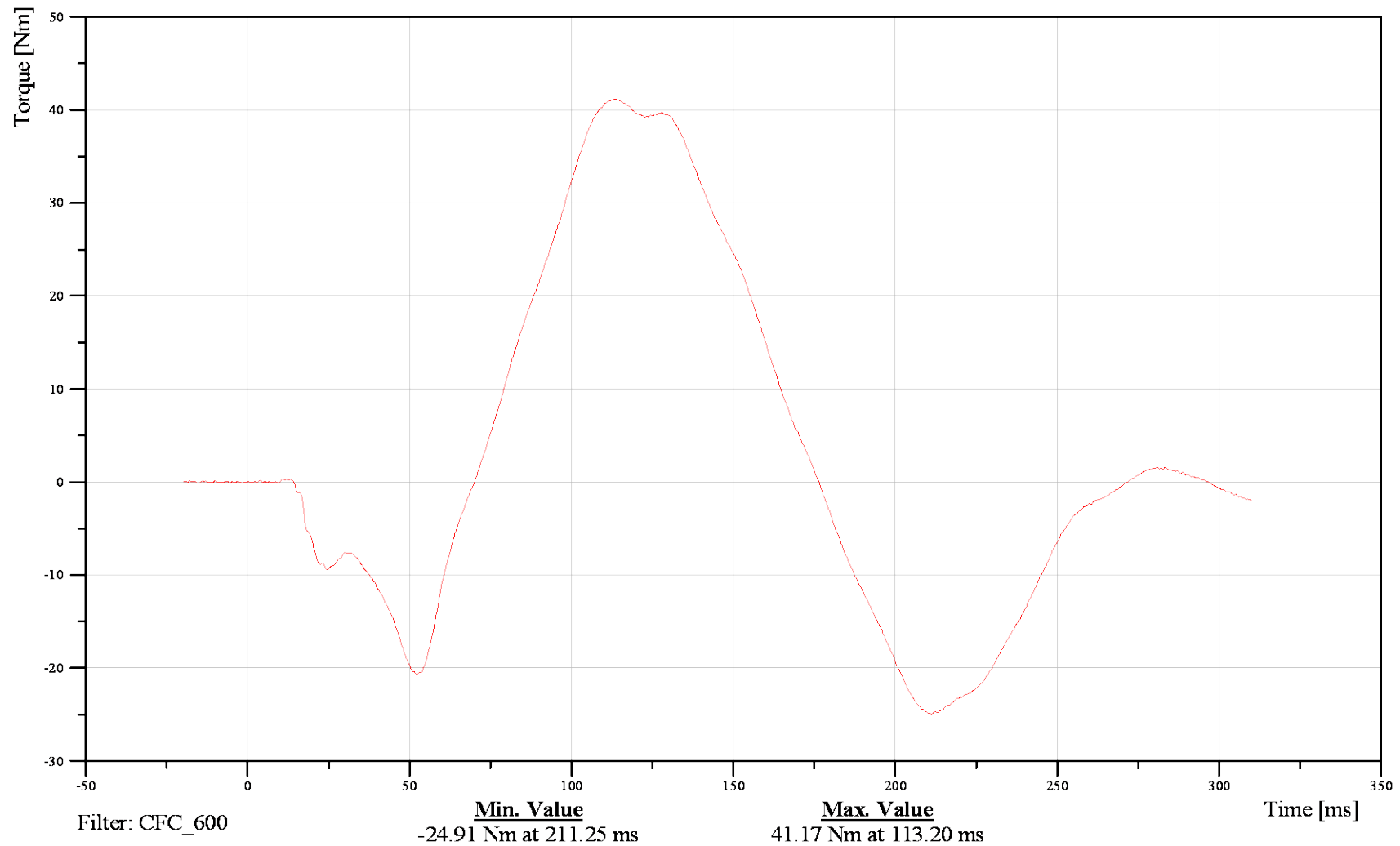
Time: 14:31

Customer: VRTC

11NECKLO00WSMOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment Mz

Date: 03/27/2013

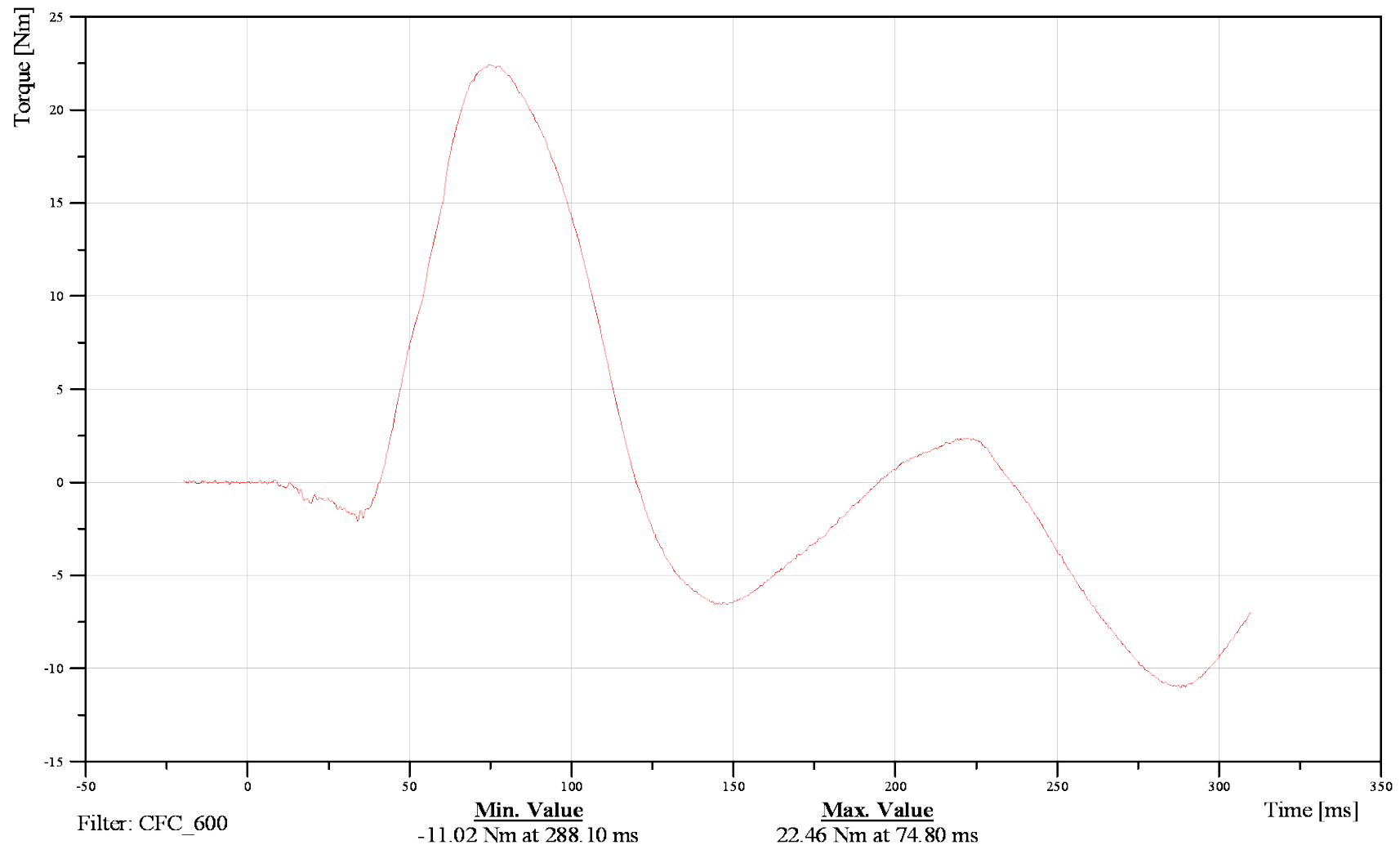
Time: 14:31

Customer: VRTC

11NECKLO00WSMOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Longitudinal Ax

Date: 03/27/2013

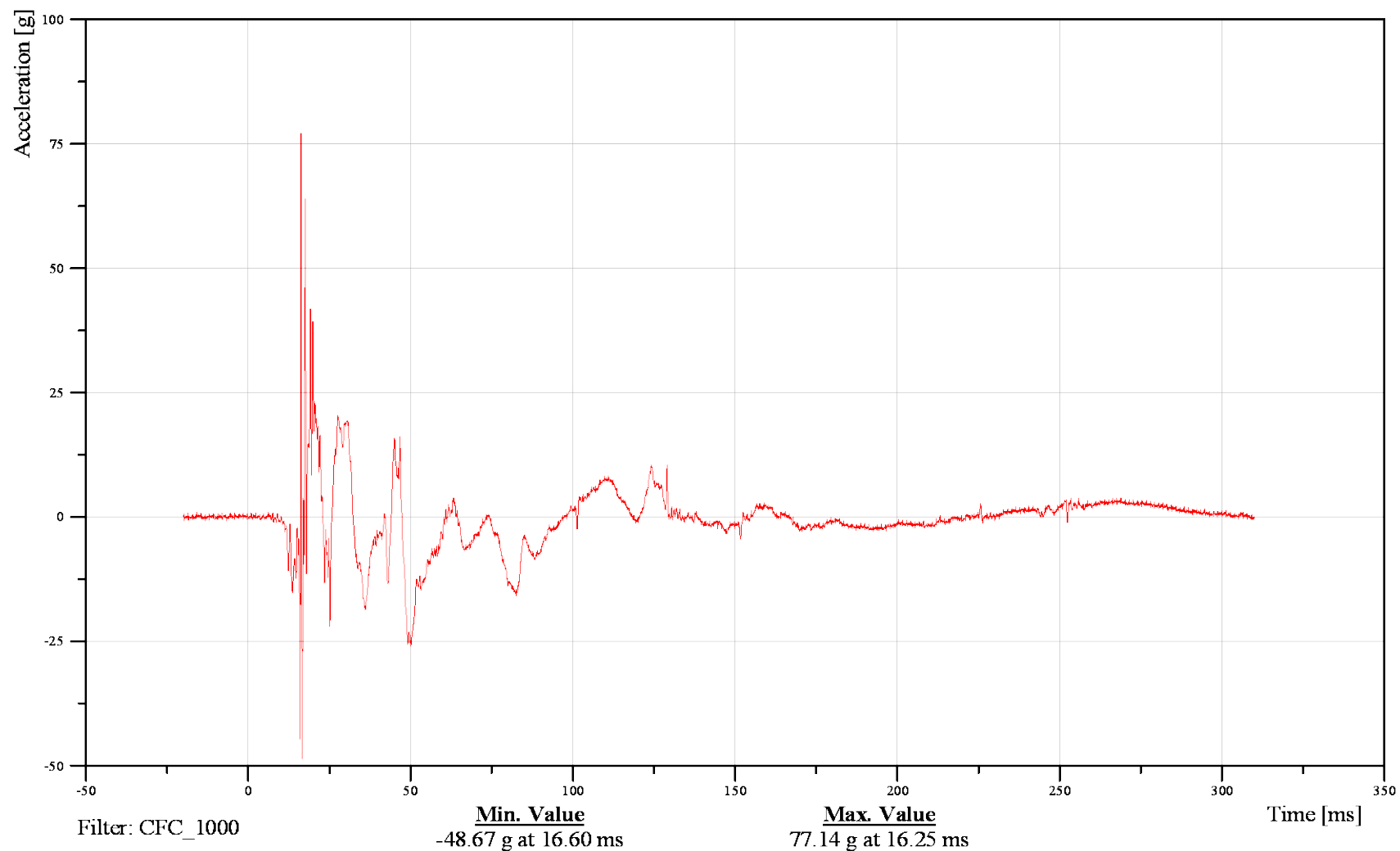
Time: 14:31

Customer: VRTC

11SHLDLE00WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Lateral Ay

Date: 03/27/2013

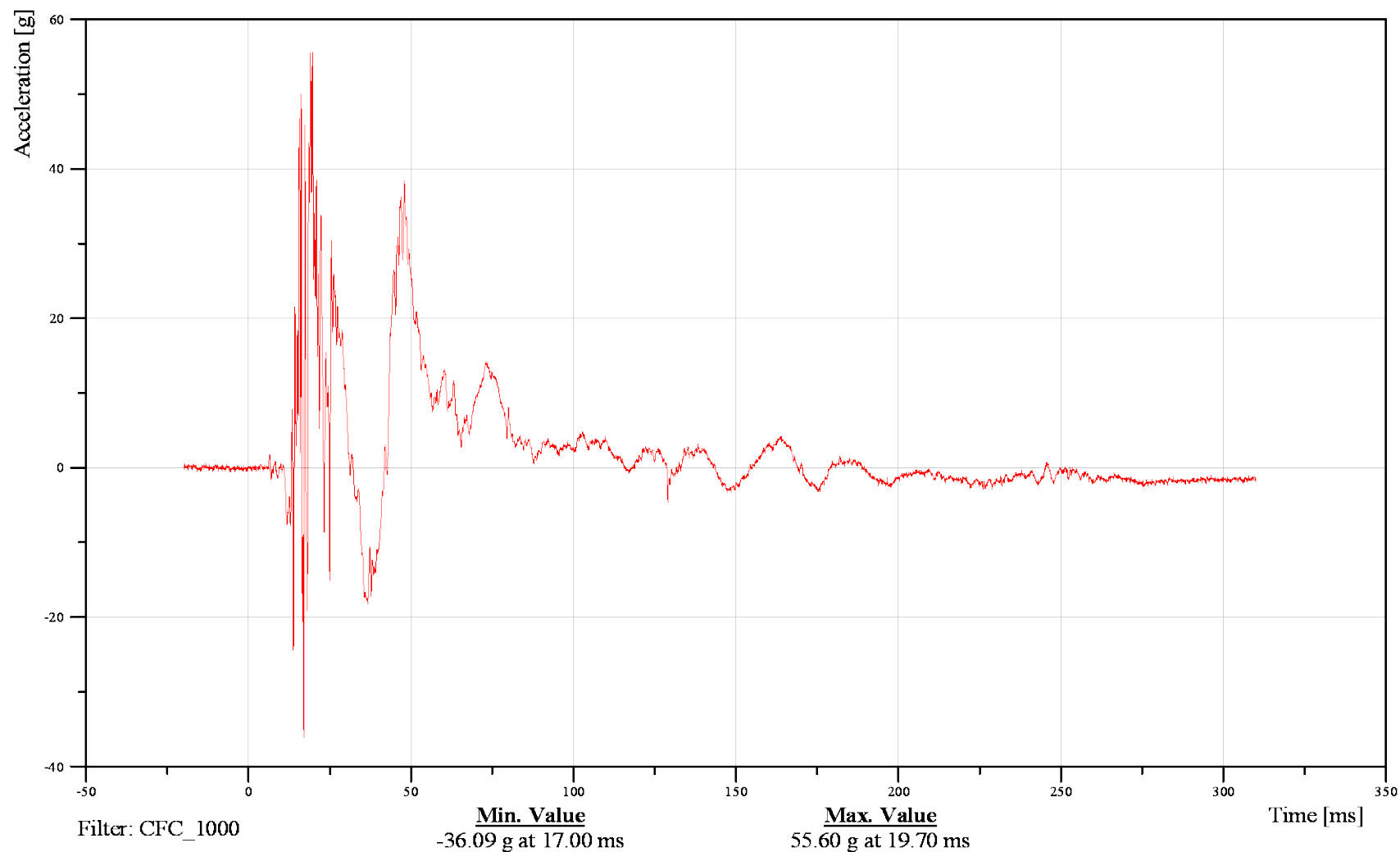
Time: 14:31

Customer: VRTC

11SHLDLE00WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Vertical Az

Date: 03/27/2013

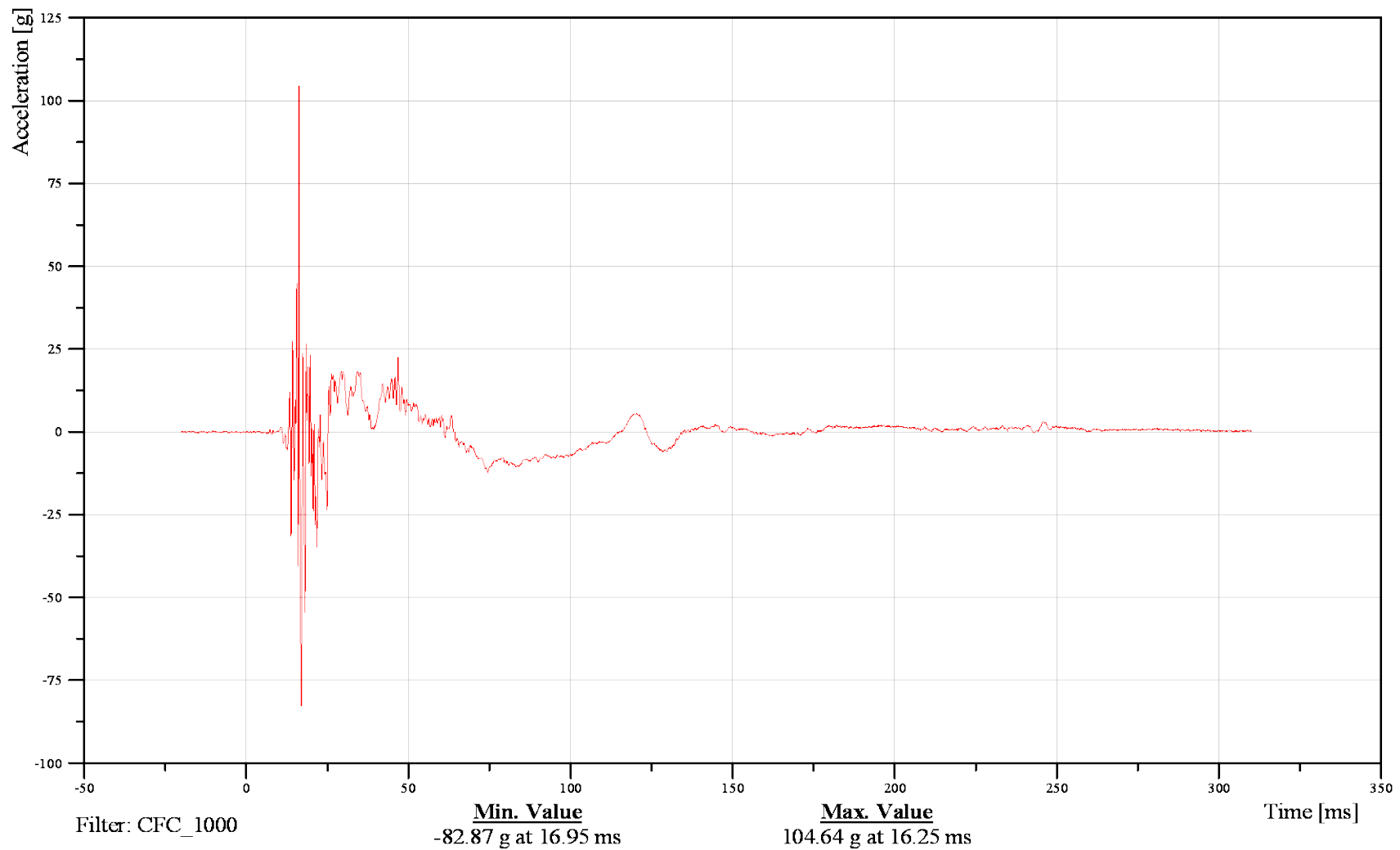
Time: 14:31

Customer: VRTC

11SHLDLE00WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder A Resultant

Date: 03/27/2013

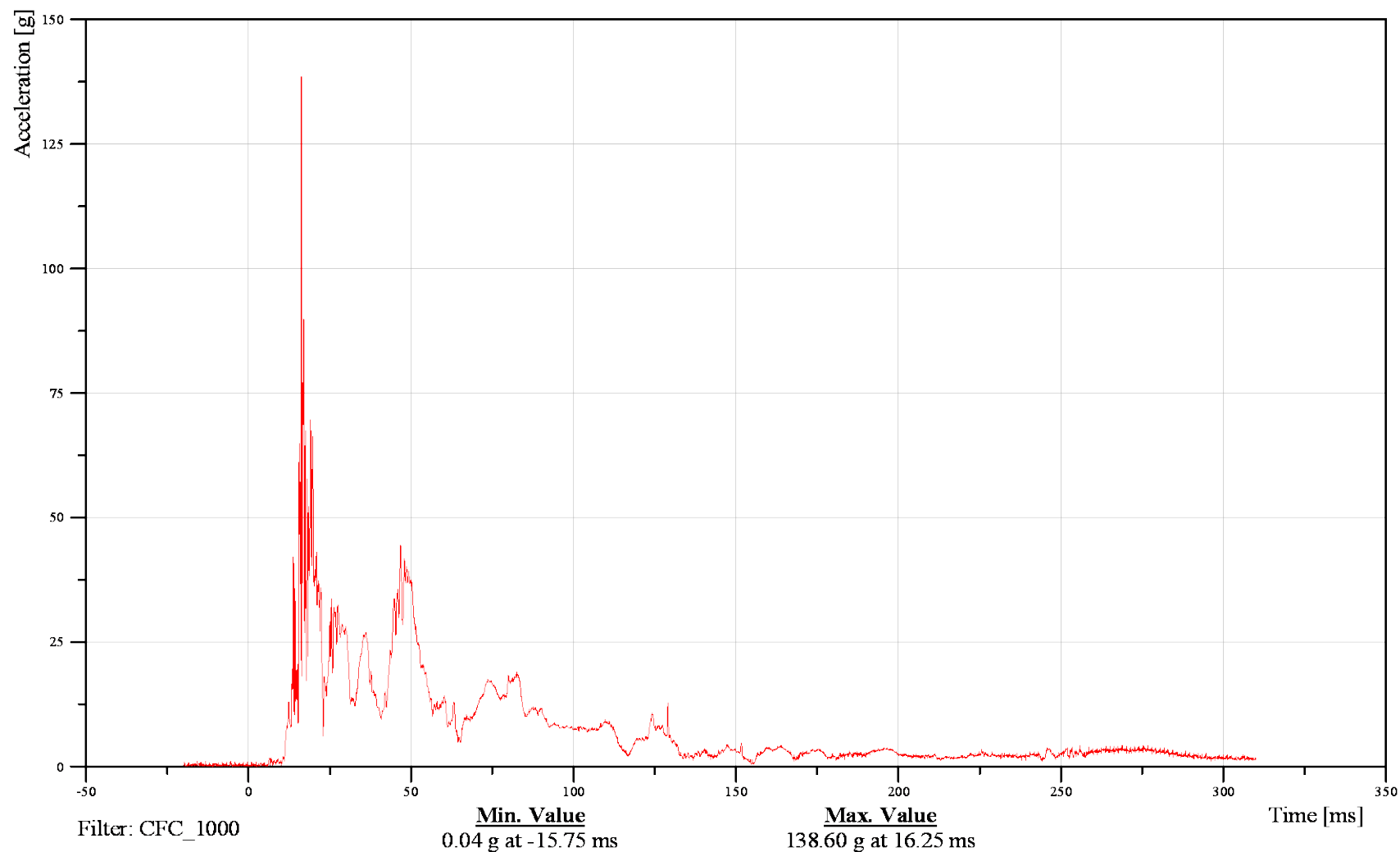
Time: 14:31

Customer: VRTC

11SHLDLE00WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fx

Date: 03/27/2013

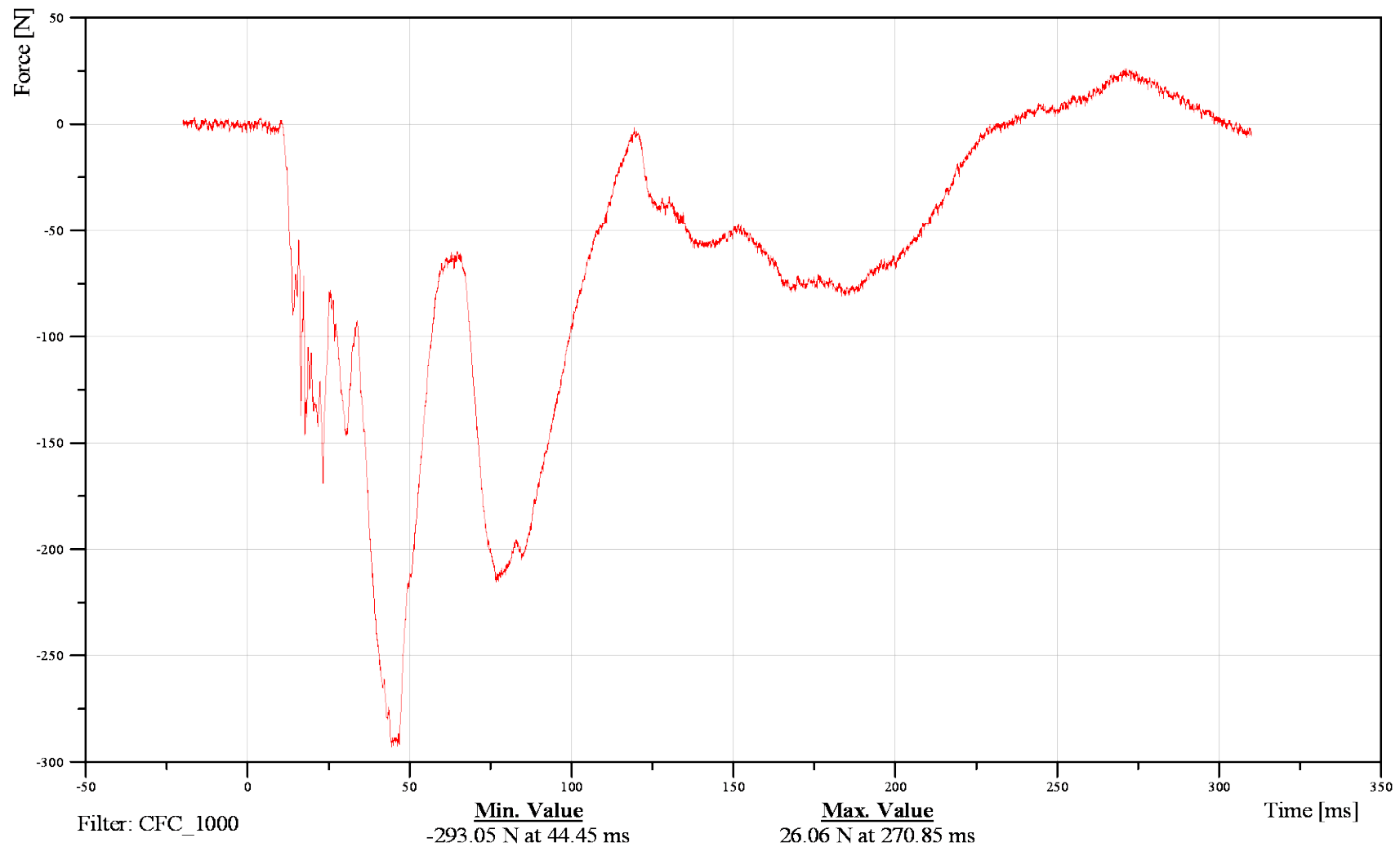
Time: 14:31

Customer: VRTC

11SHLDLE00WSFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fy

Date: 03/27/2013

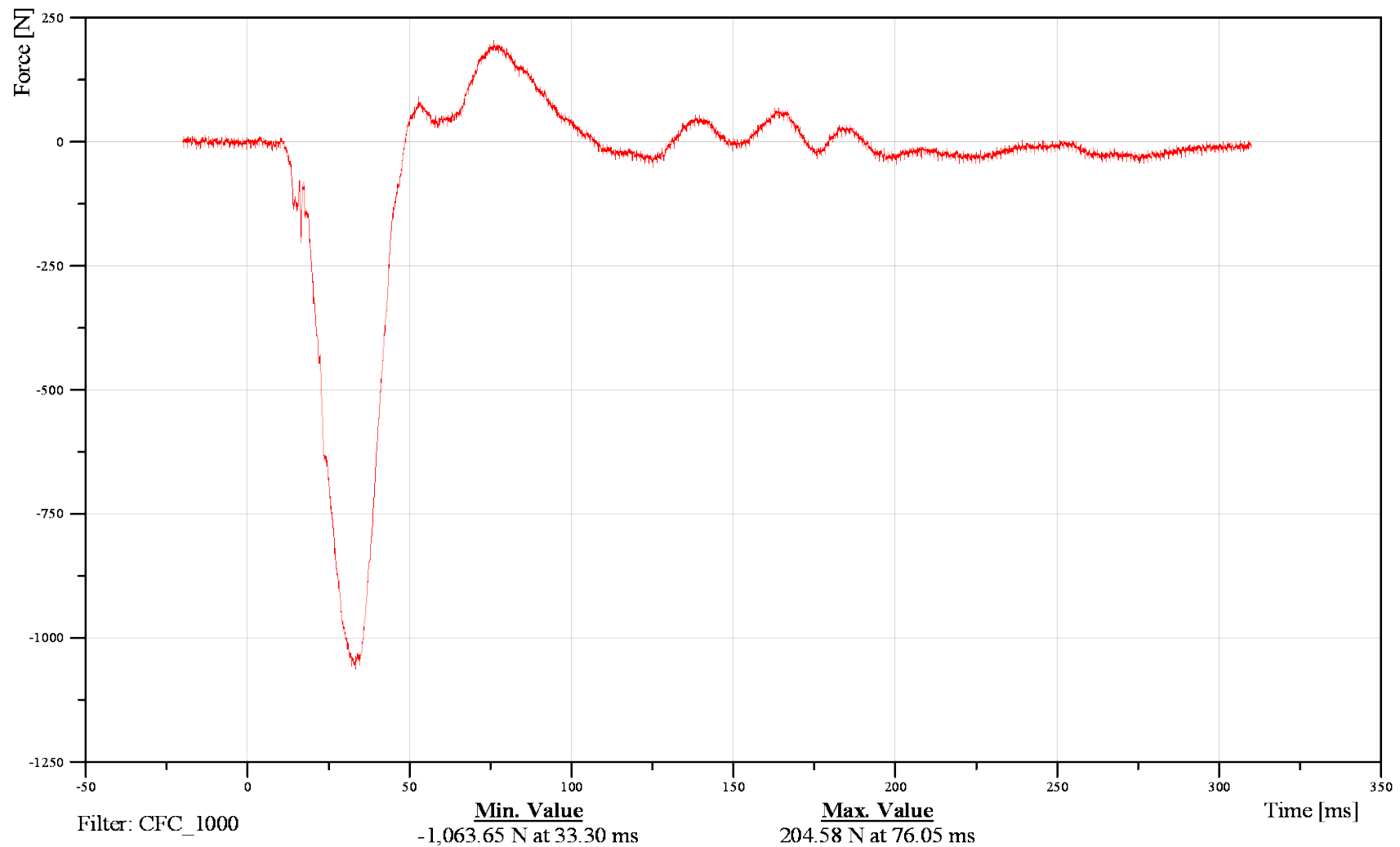
Time: 14:31

Customer: VRTC

11SHLDLE00WSFOYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fz

Date: 03/27/2013

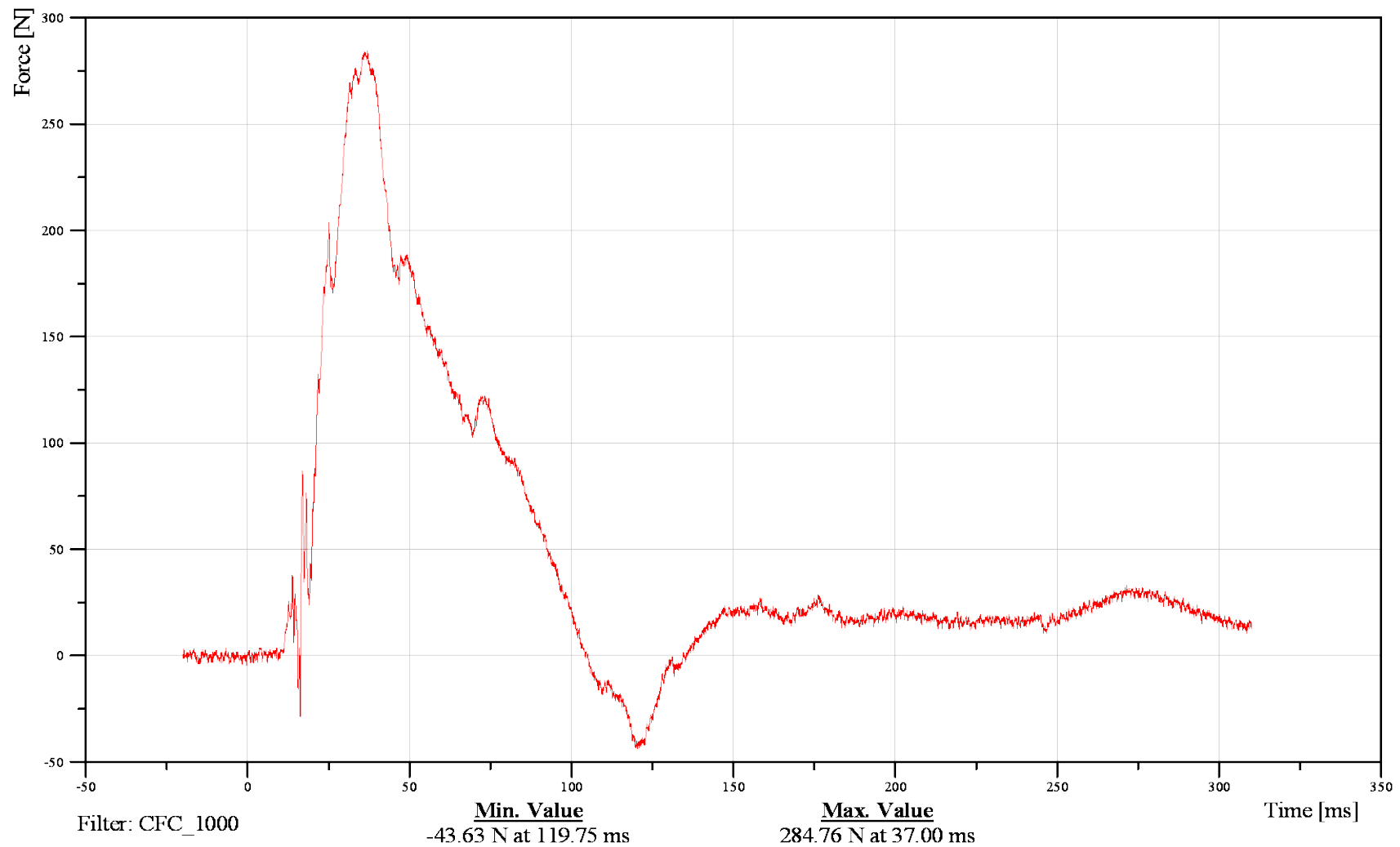
Time: 14:31

Customer: VRTC

11SHLDLE00WSFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Y Disp

Date: 03/27/2013

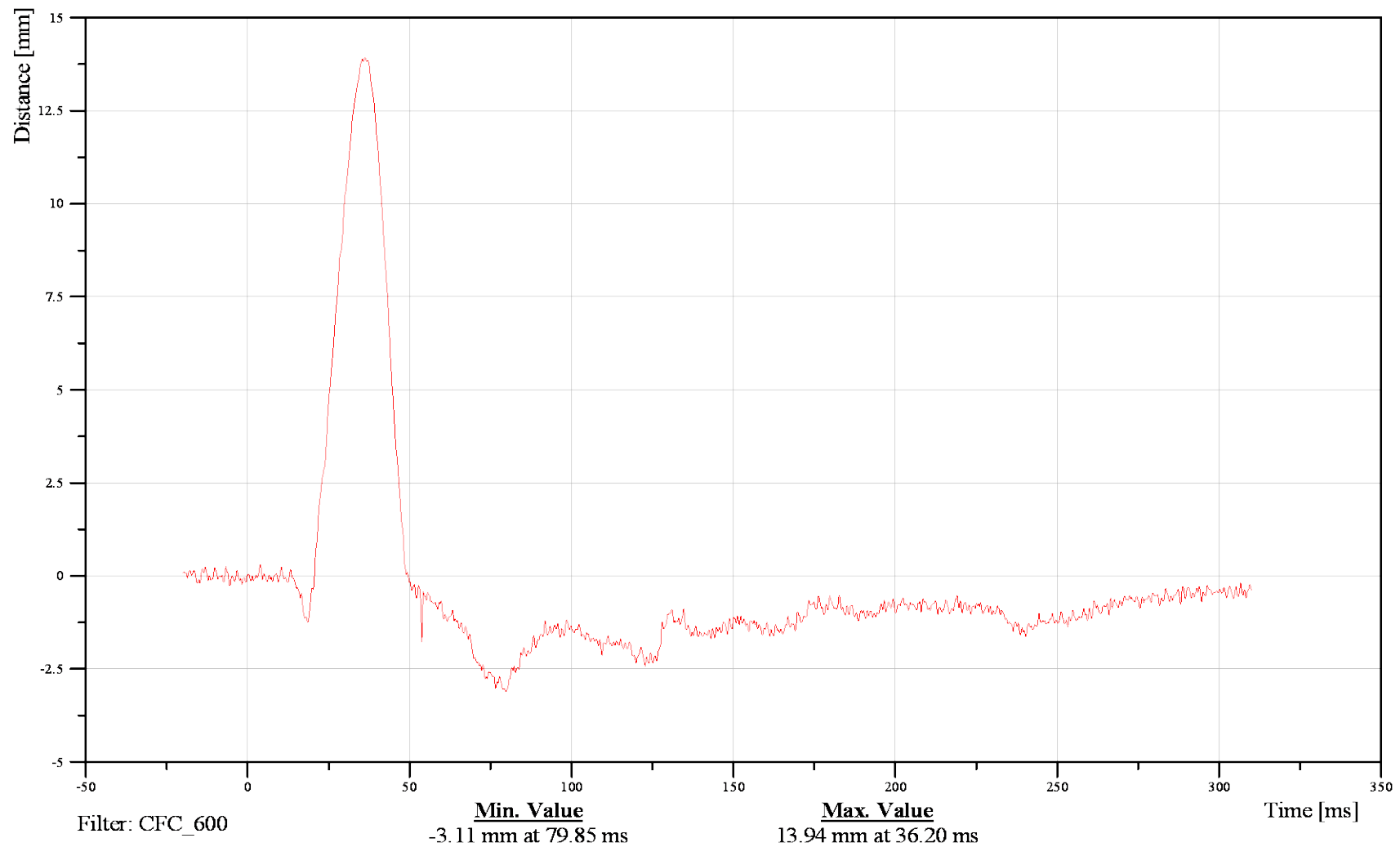
Time: 14:31

Customer: VRTC

11SHRILE00WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Longitudinal Ax

Date: 03/27/2013

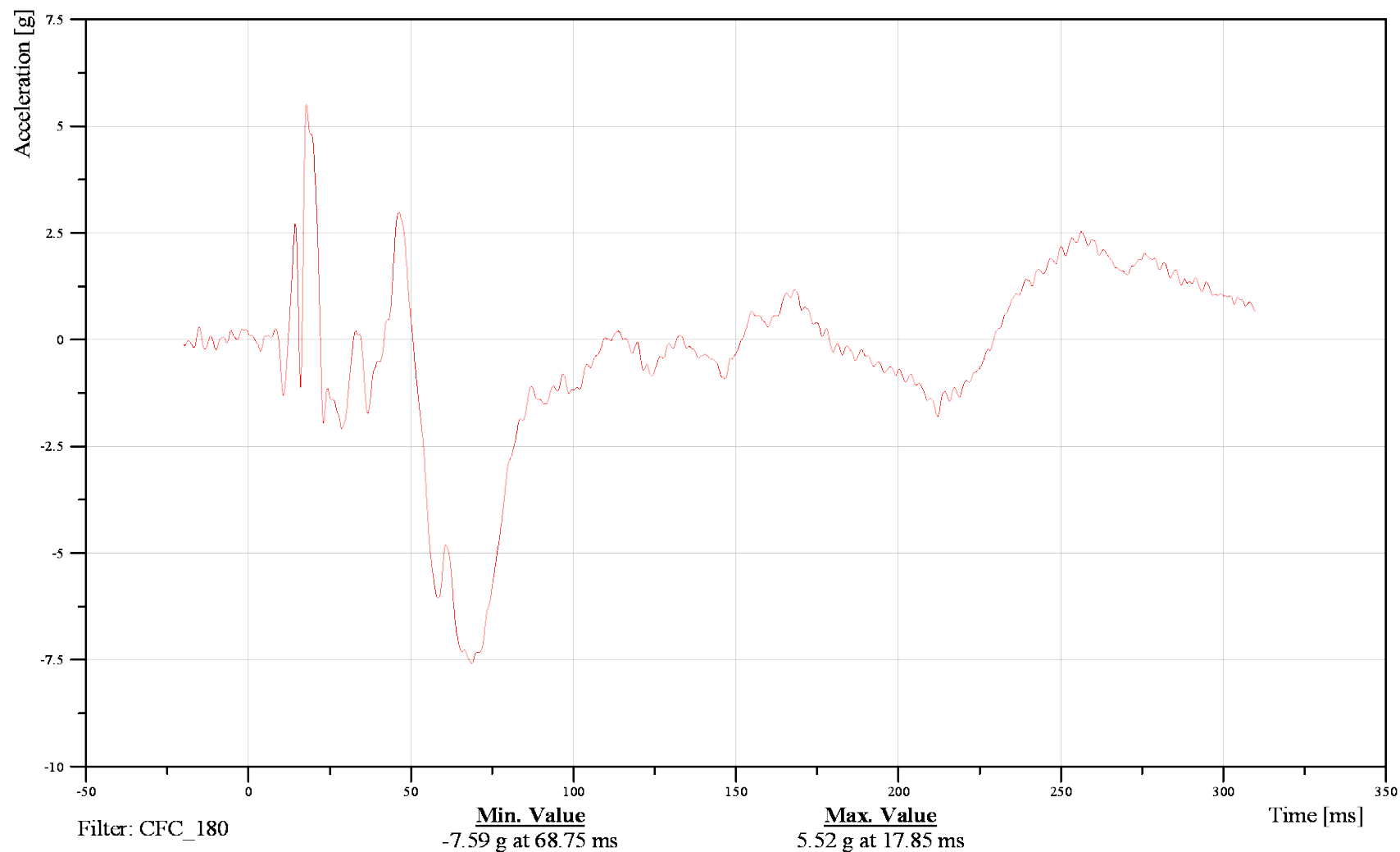
Time: 14:31

Customer: VRTC

11THSP0100WSACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Lateral Ay

Date: 03/27/2013

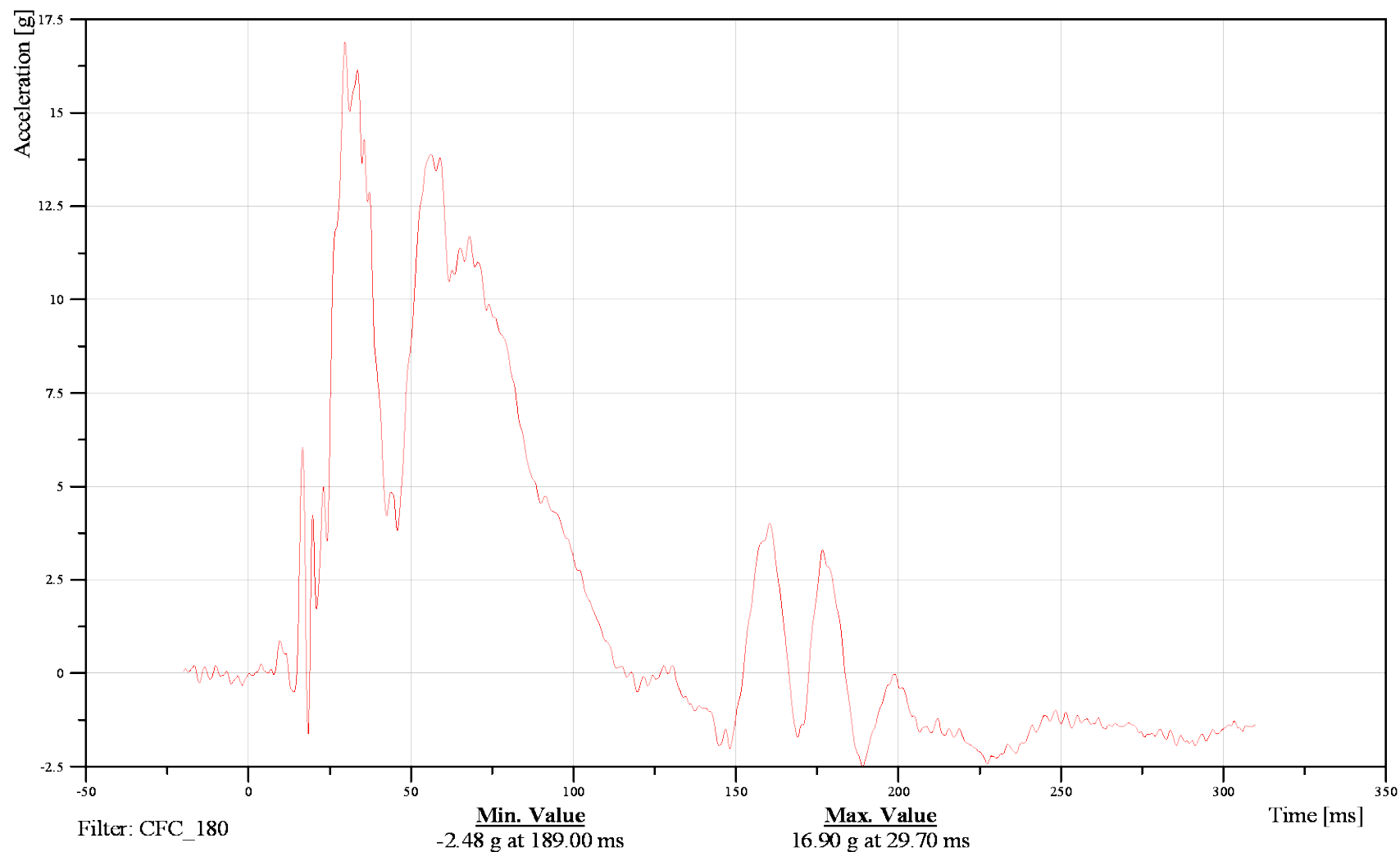
Time: 14:31

Customer: VRTC

11THSP0100WSACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Vertical Az

Date: 03/27/2013

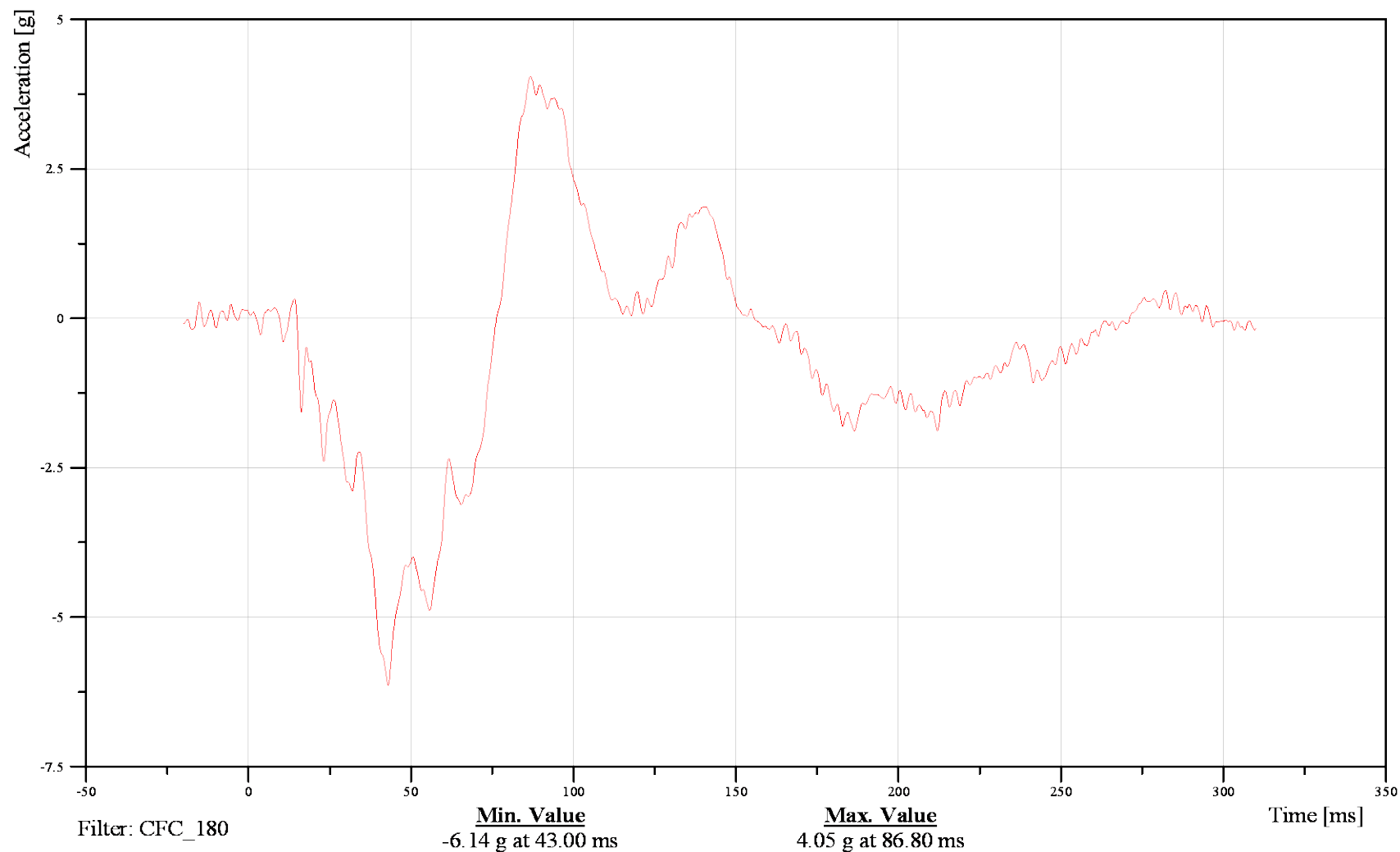
Time: 14:31

Customer: VRTC

11THSP0100WSACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 A Resultant

Date: 03/27/2013

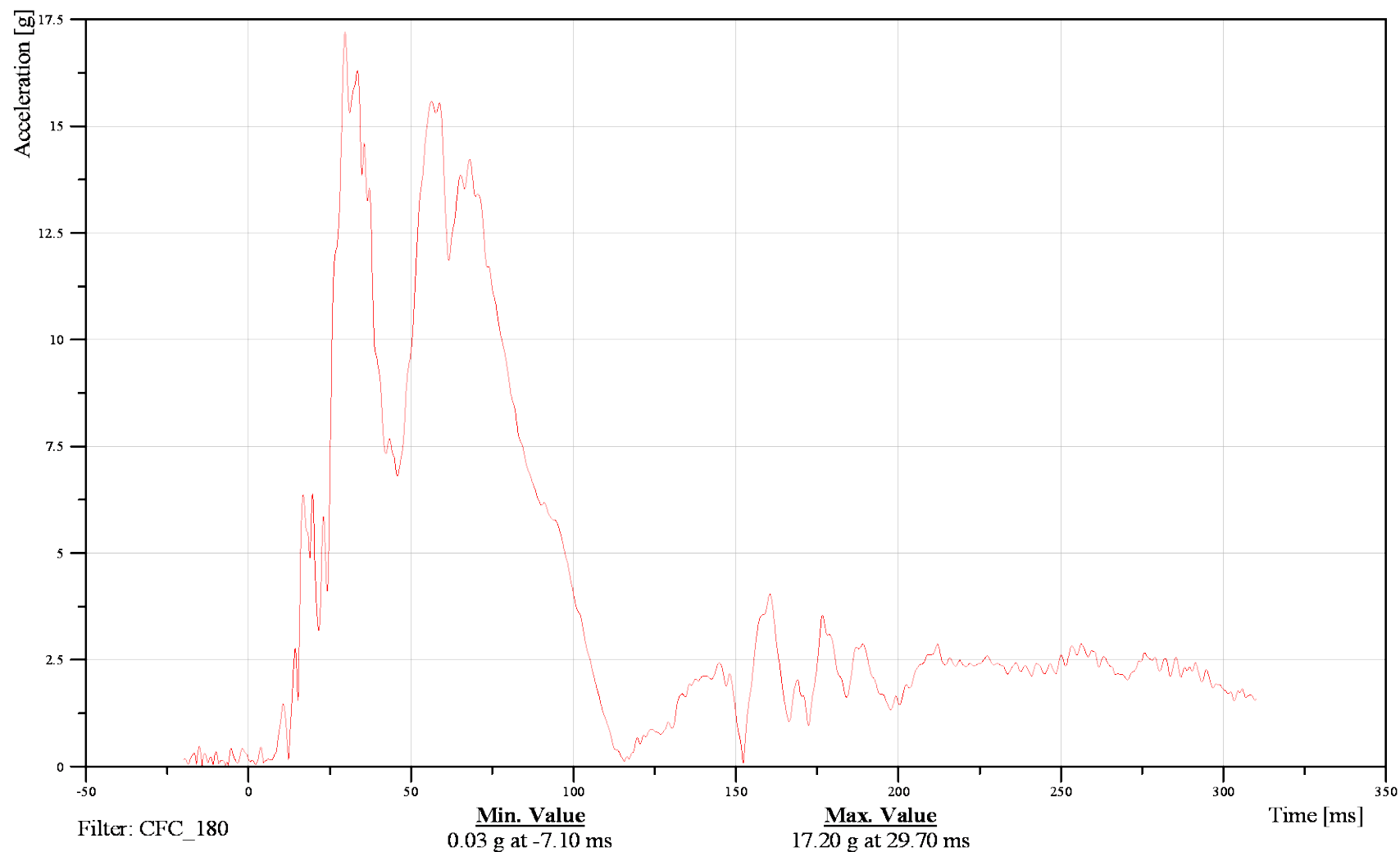
Time: 14:31

Customer: VRTC

11THSP0100WSACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Longitudinal Ax

Date: 03/27/2013

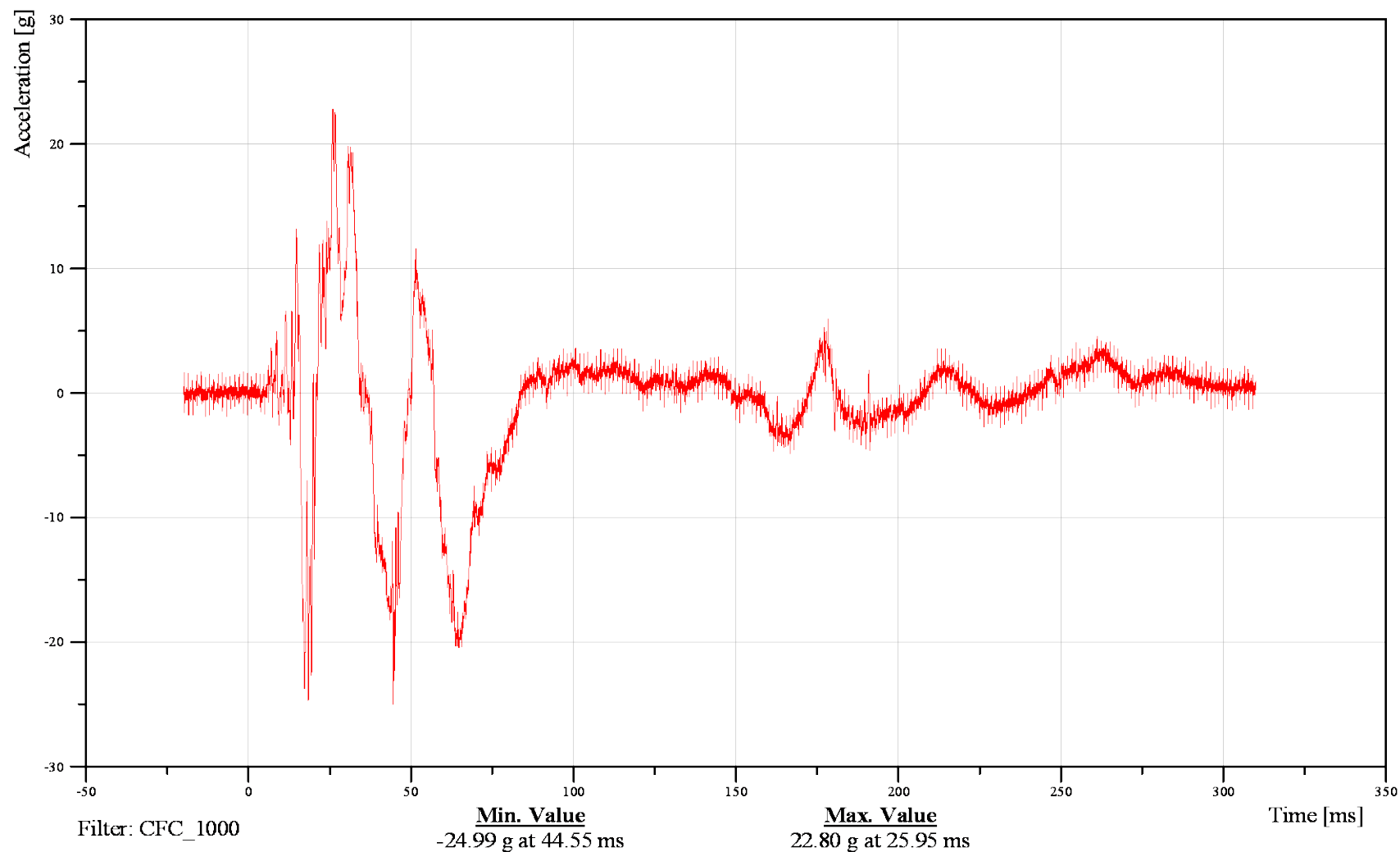
Time: 14:31

Customer: VRTC

11TRRILE01WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Lateral Ay

Date: 03/27/2013

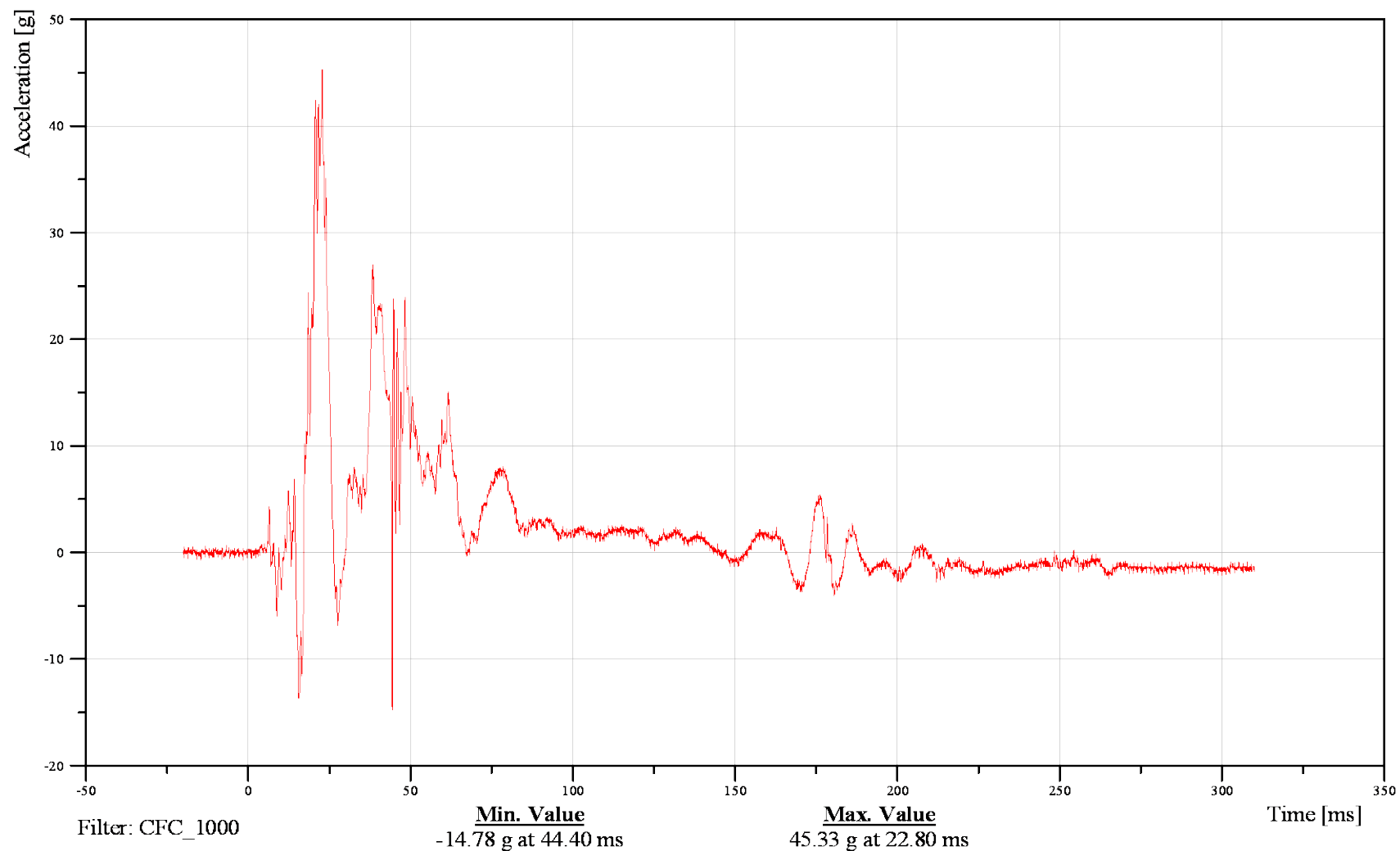
Time: 14:31

Customer: VRTC

11TRRILE01WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Vertical Az

Date: 03/27/2013

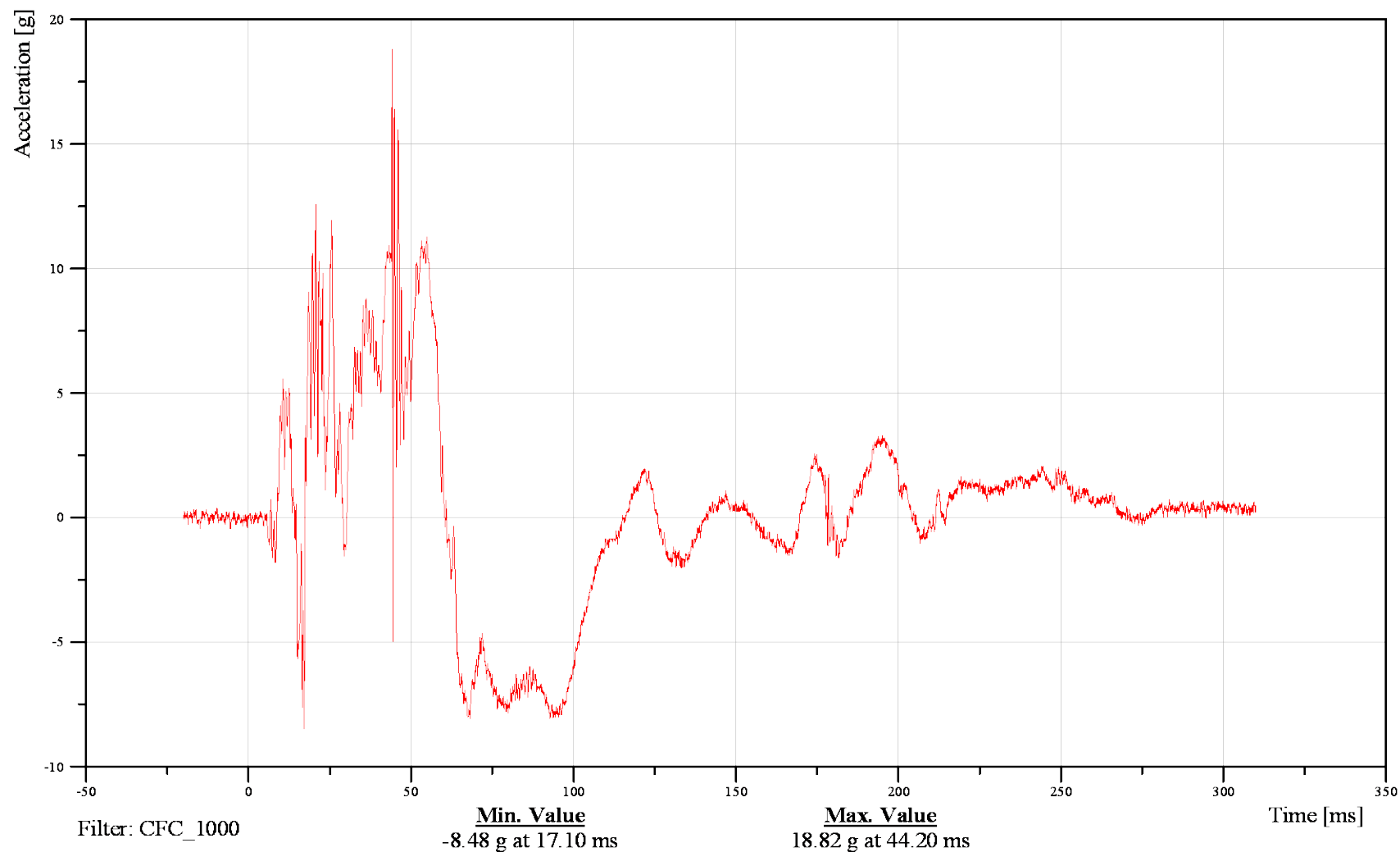
Time: 14:31

Customer: VRTC

11TRRILE01WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 A Resultant

Date: 03/27/2013

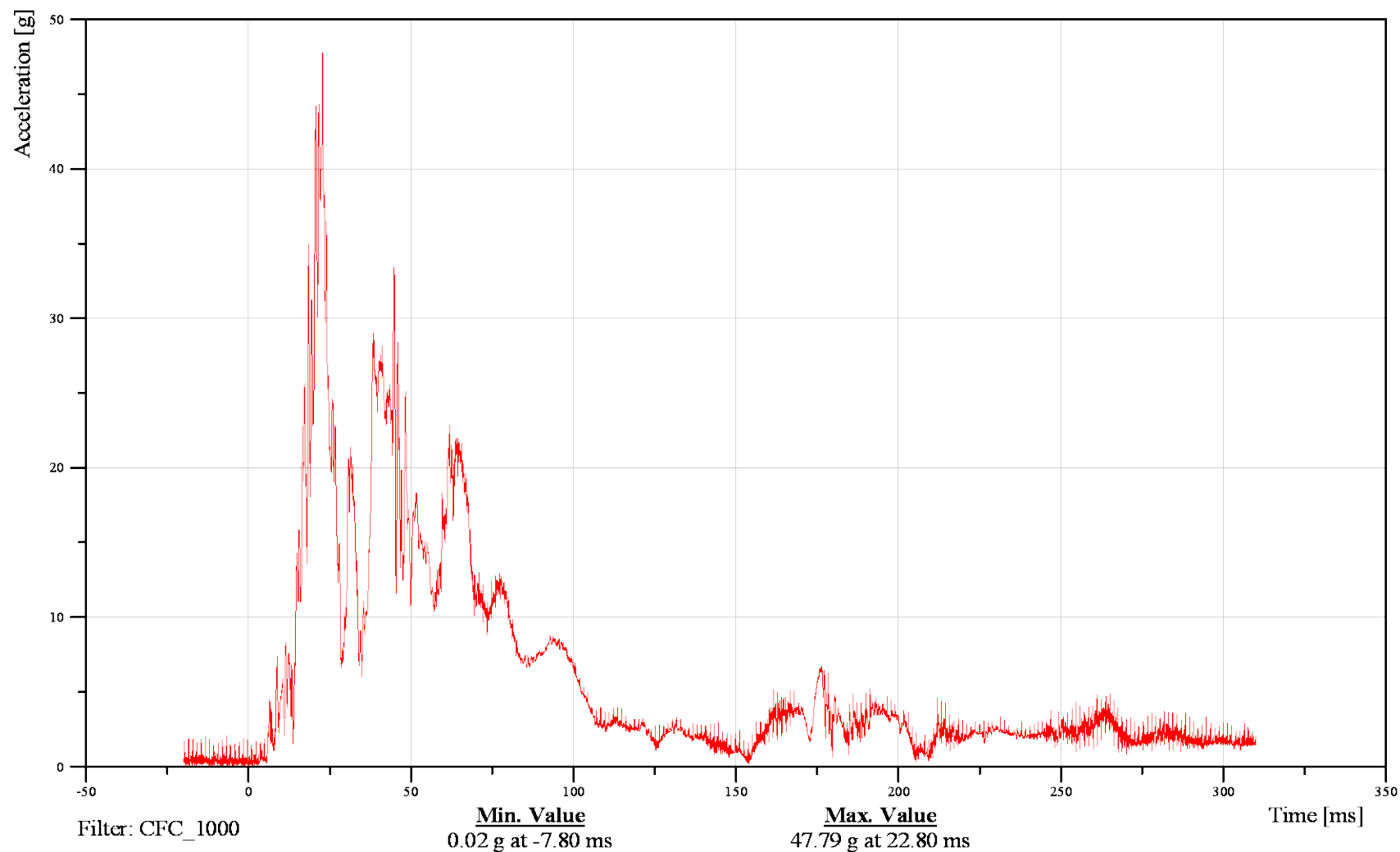
Time: 14:31

Customer: VRTC

11TRRILE01WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Lateral Disp

Date: 03/27/2013

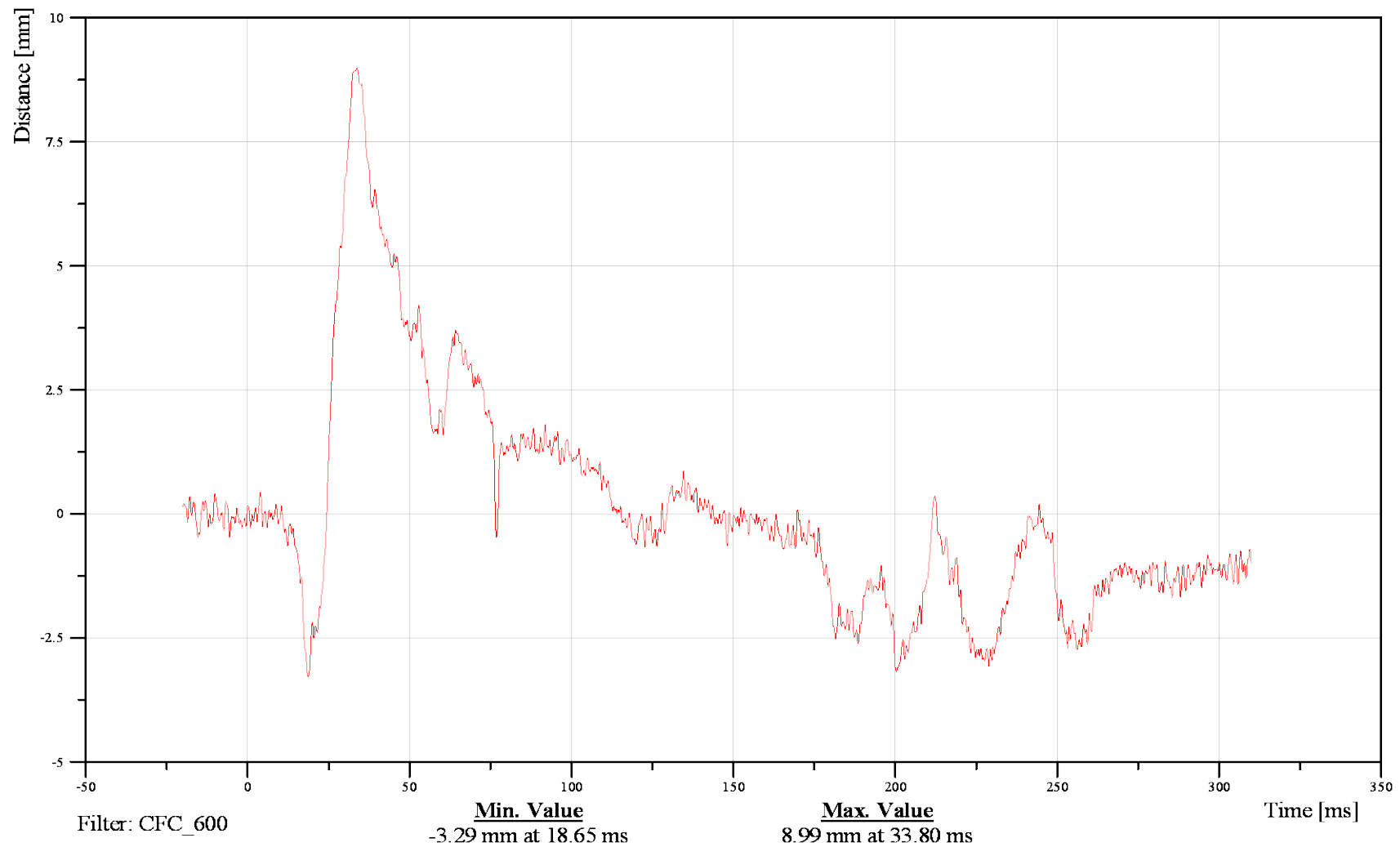
Time: 14:31

Customer: VRTC

11TRRILE01WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Longitudinal Ax

Date: 03/27/2013

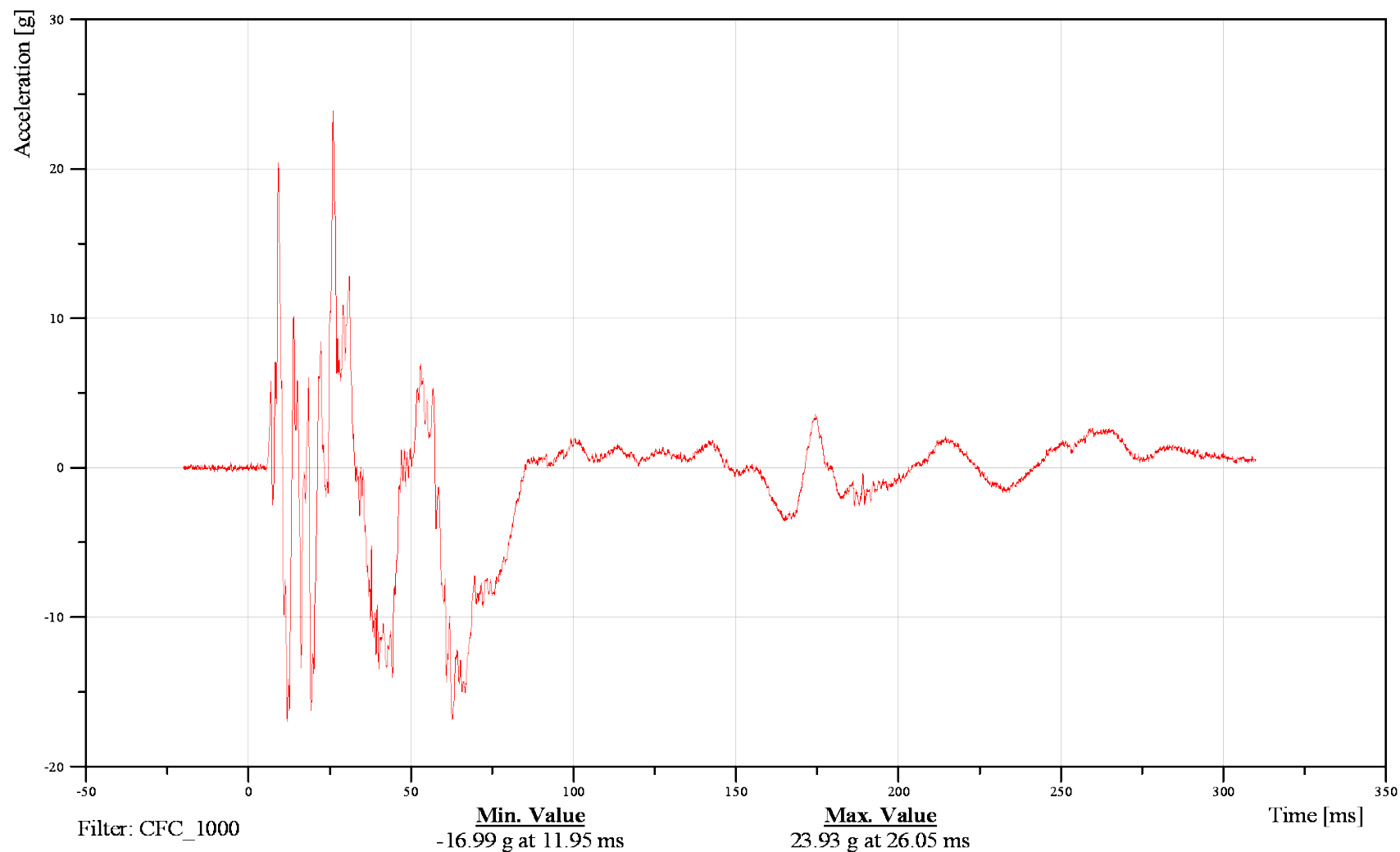
Time: 14:31

Customer: VRTC

11TRRILE02WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Lateral Ay

Date: 03/27/2013

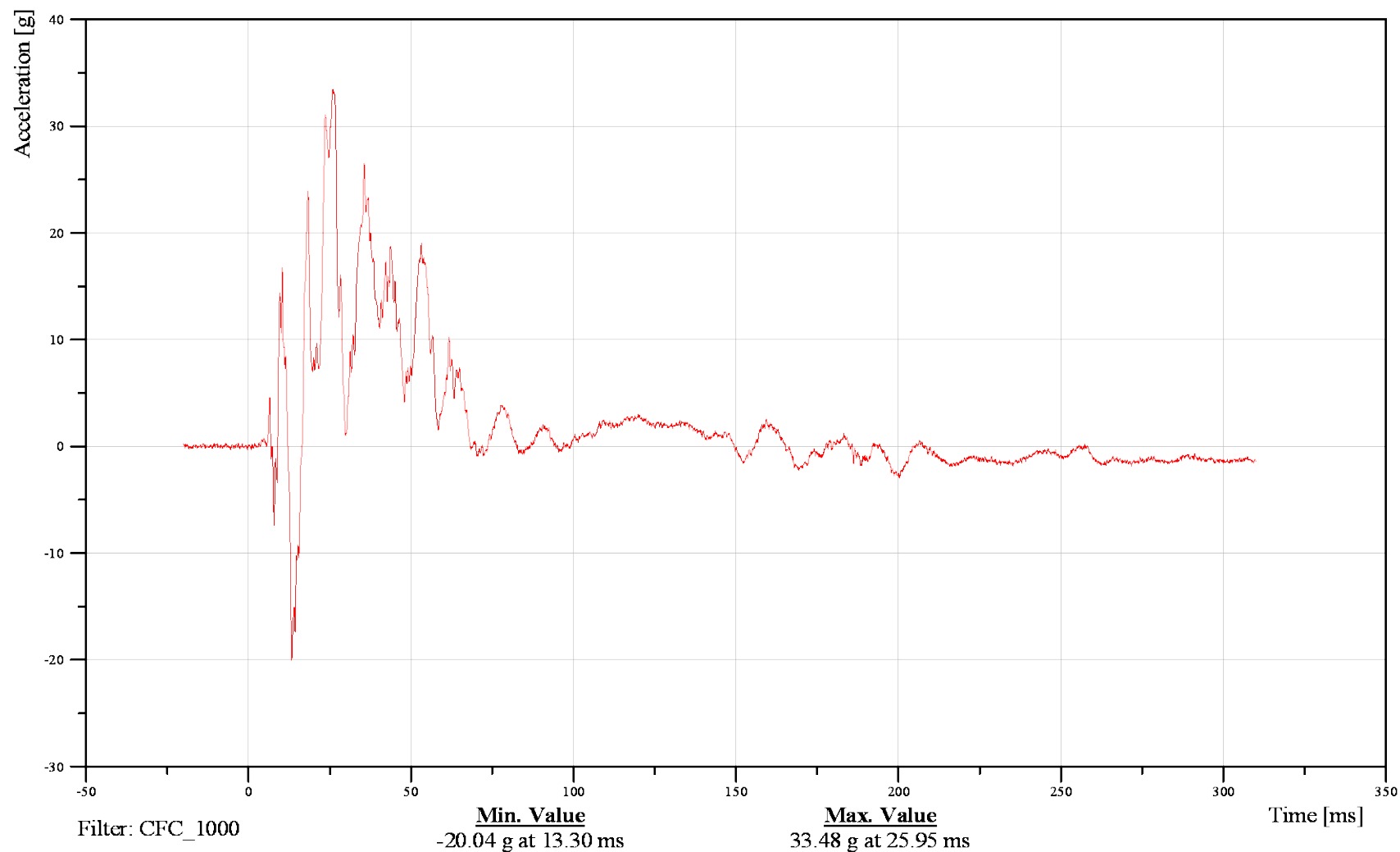
Time: 14:31

Customer: VRTC

11TRRILE02WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Vertical Az

Date: 03/27/2013

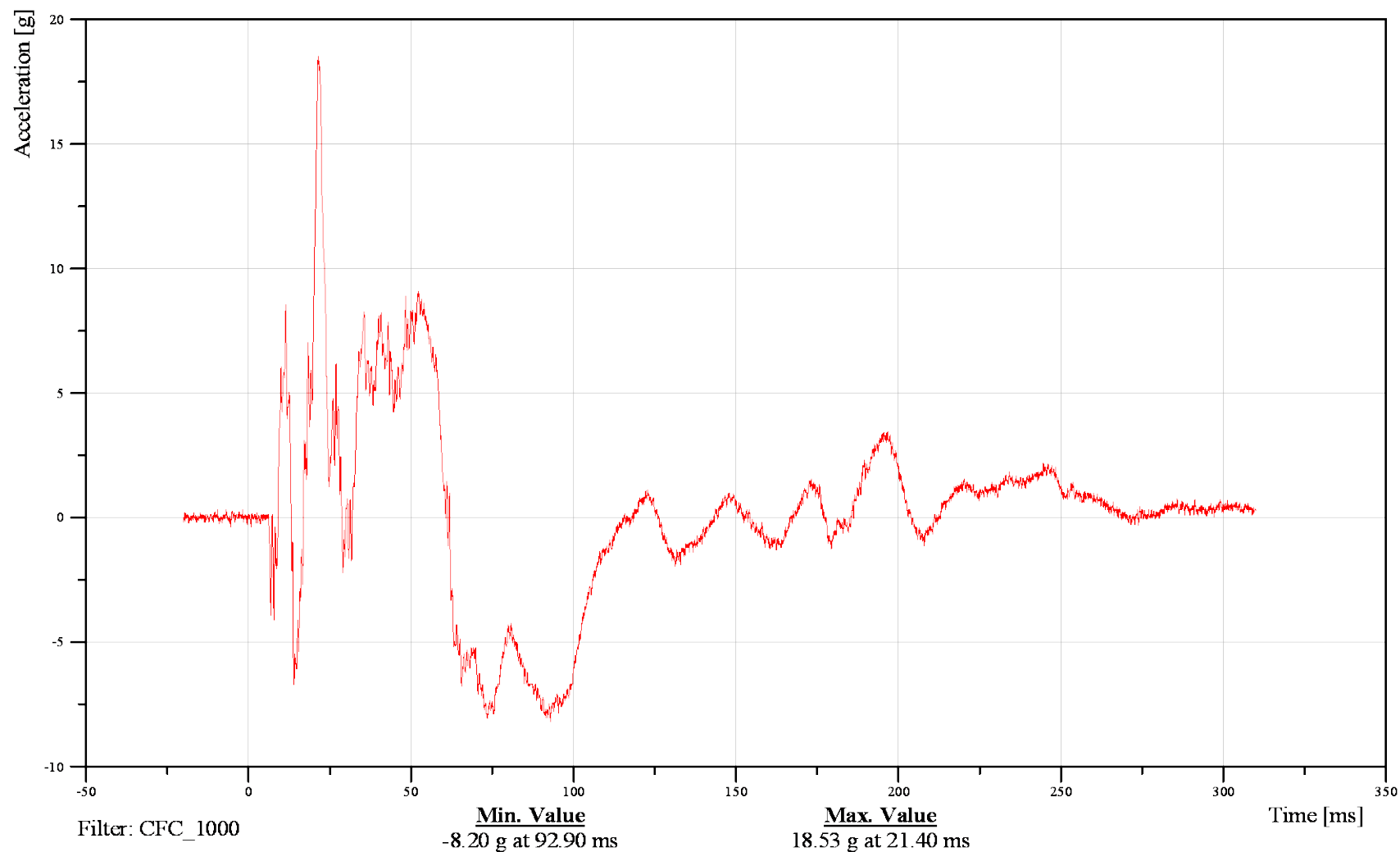
Time: 14:31

Customer: VRTC

11TRRILE02WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 A Resultant

Date: 03/27/2013

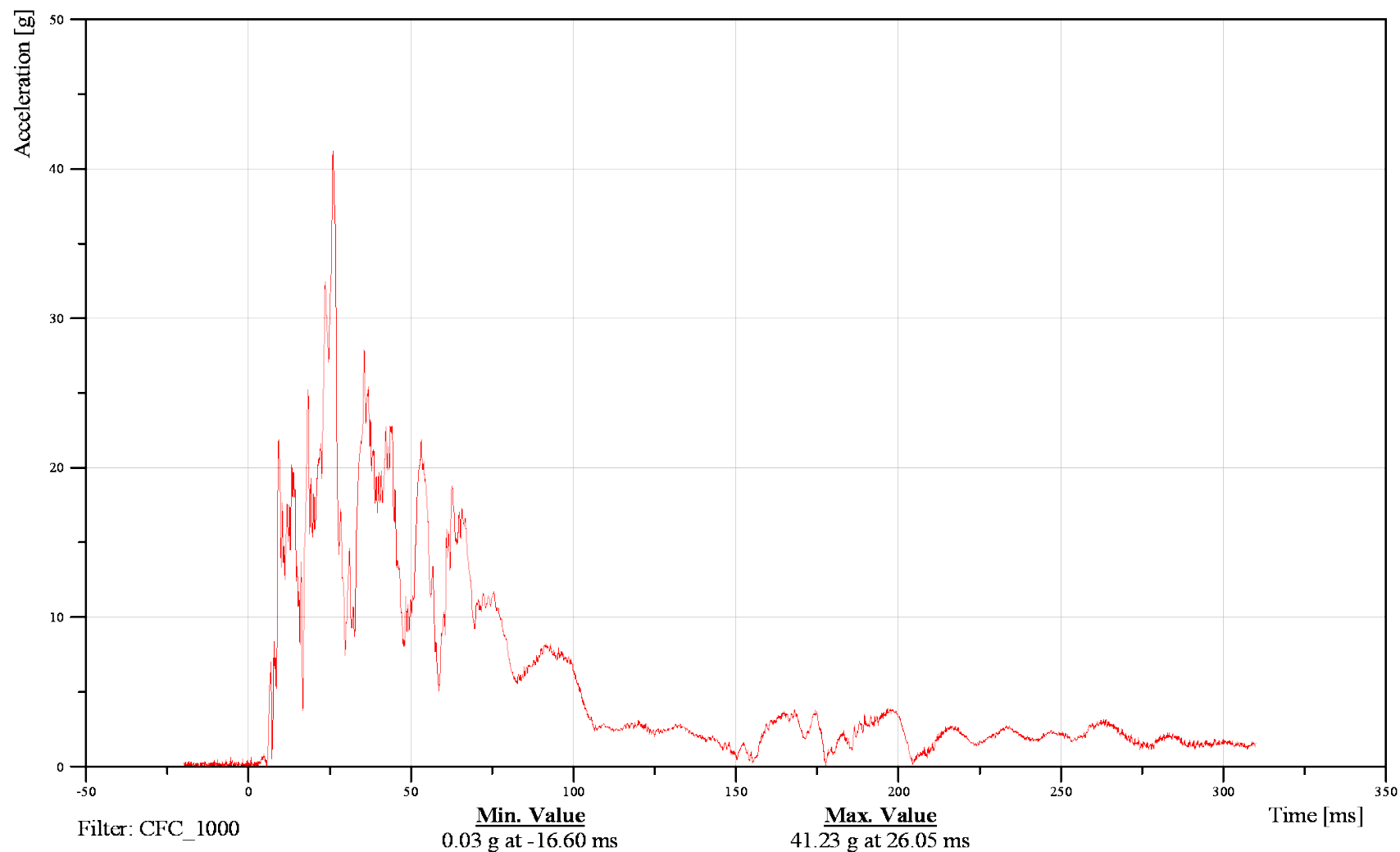
Time: 14:31

Customer: VRTC

11TRRILE02WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 IRTRAC compression

Date: 03/27/2013

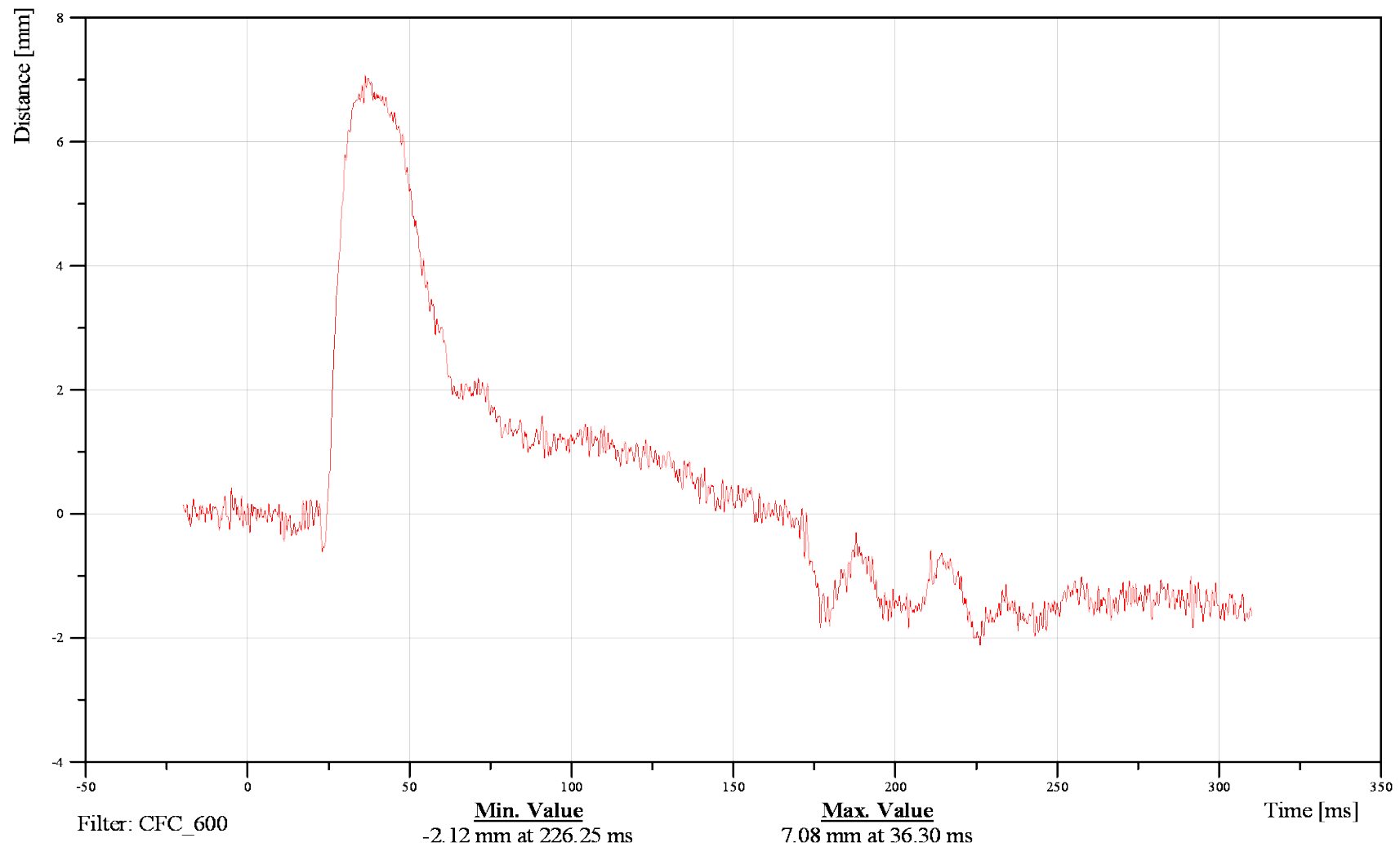
Time: 14:31

Customer: VRTC

11TRRILE02WSDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Rotational angle

Date: 03/27/2013

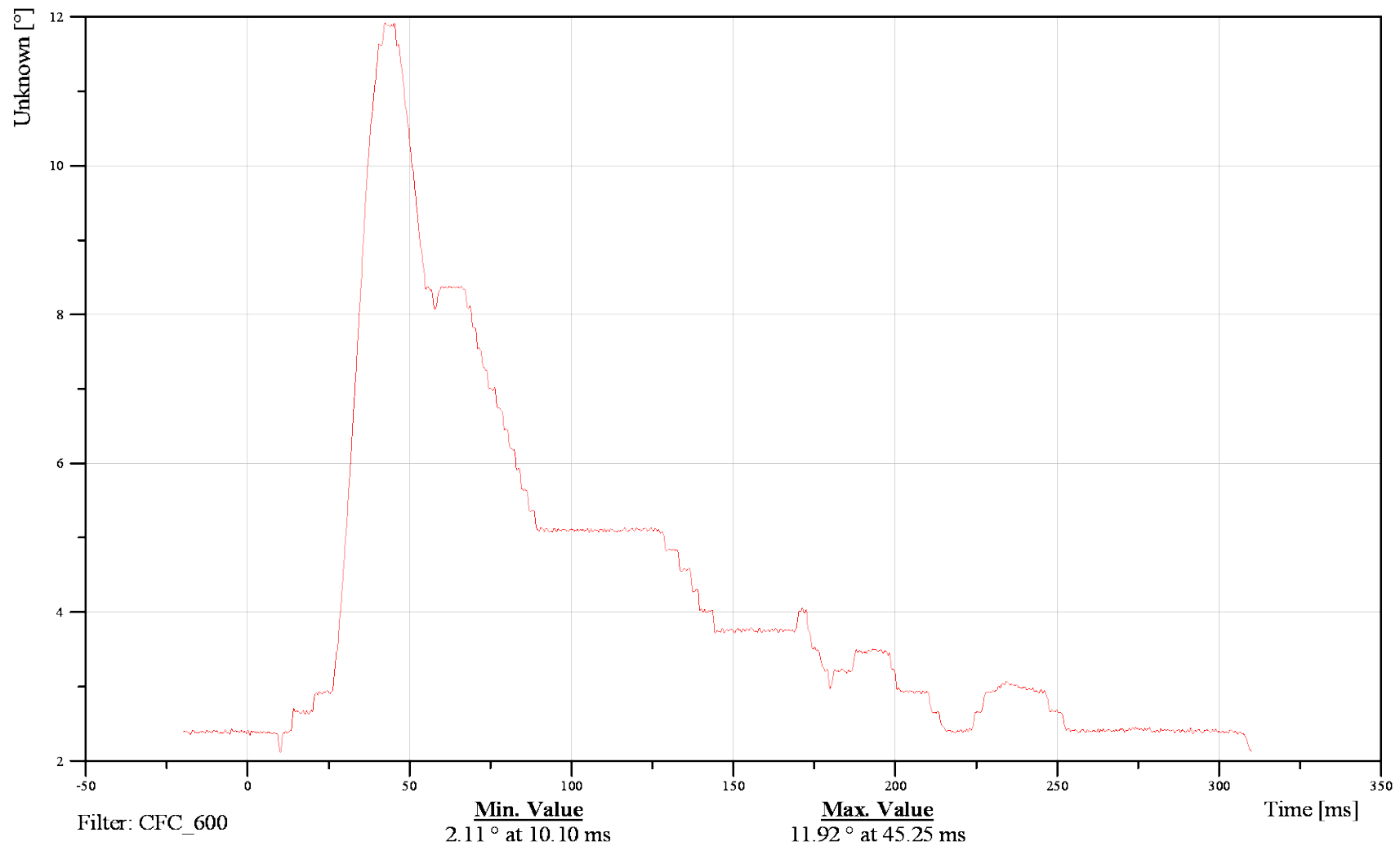
Time: 14:31

Customer: VRTC

11TRRILE02WSANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 IRTRAC X Deflection

Date: 03/27/2013

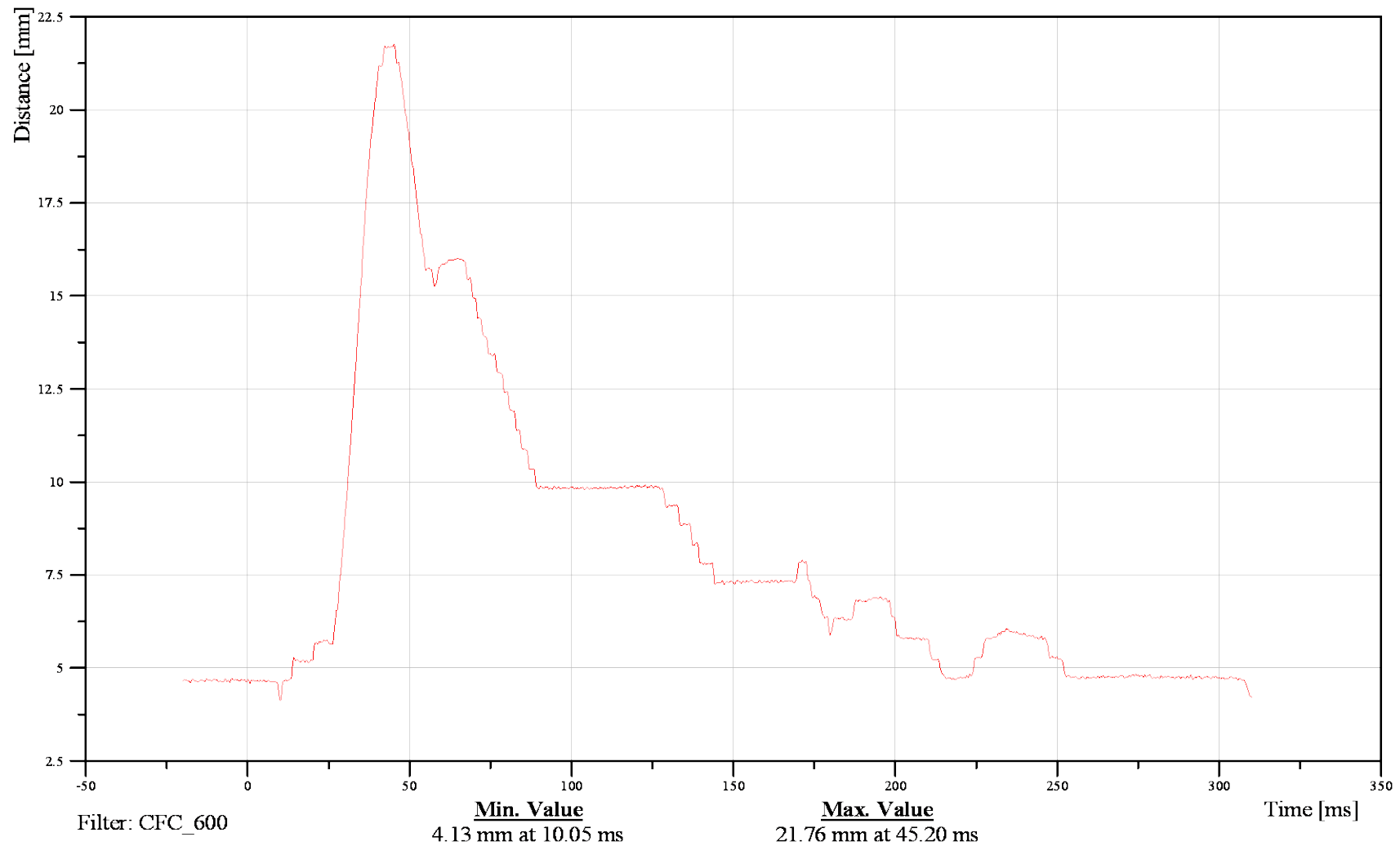
Time: 14:31

Customer: VRTC

11TRRILE02WSDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 IRTRAC Y Deflection

Date: 03/27/2013

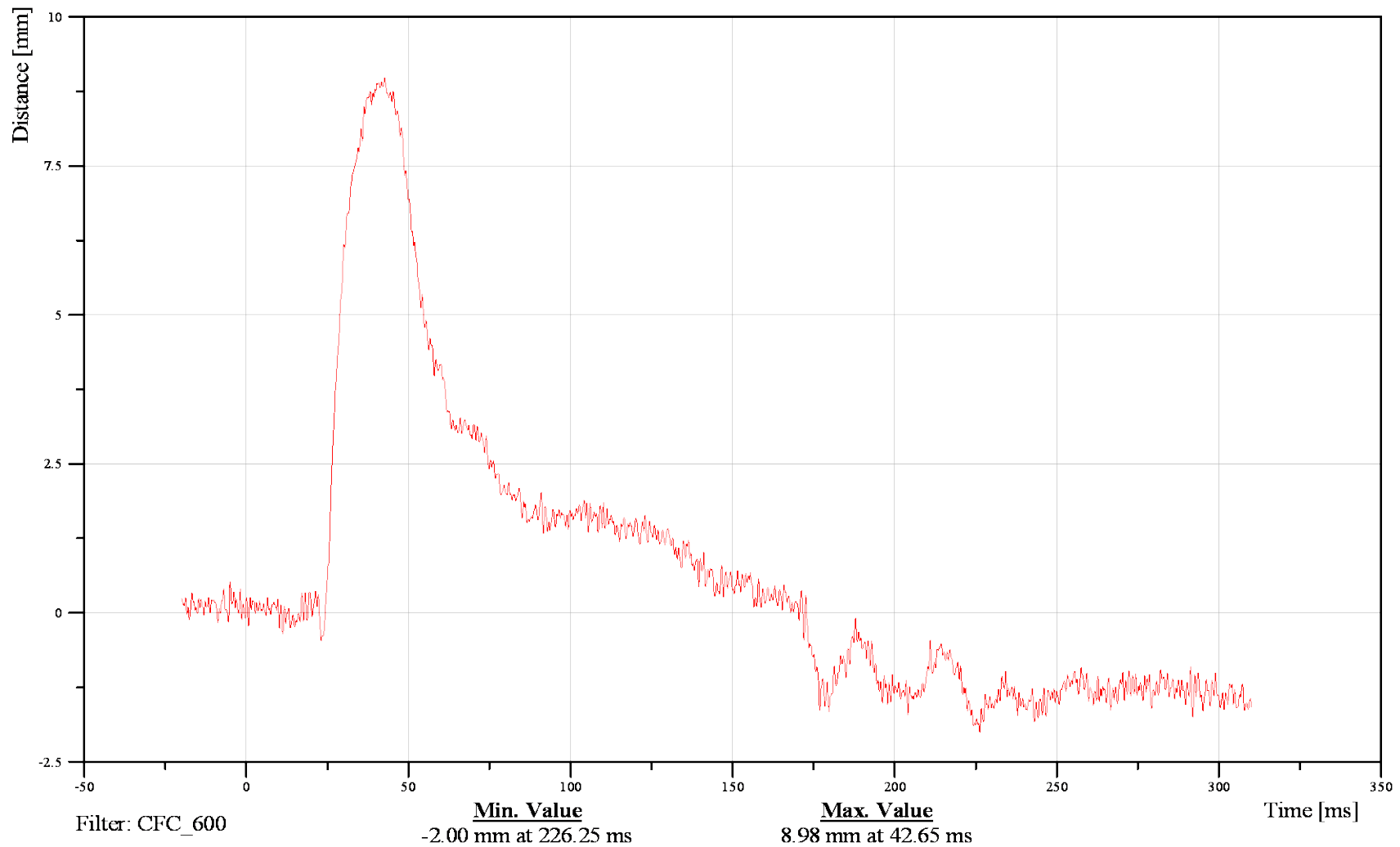
Time: 14:31

Customer: VRTC

11TRRILE02WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Longitudinal Ax

Date: 03/27/2013

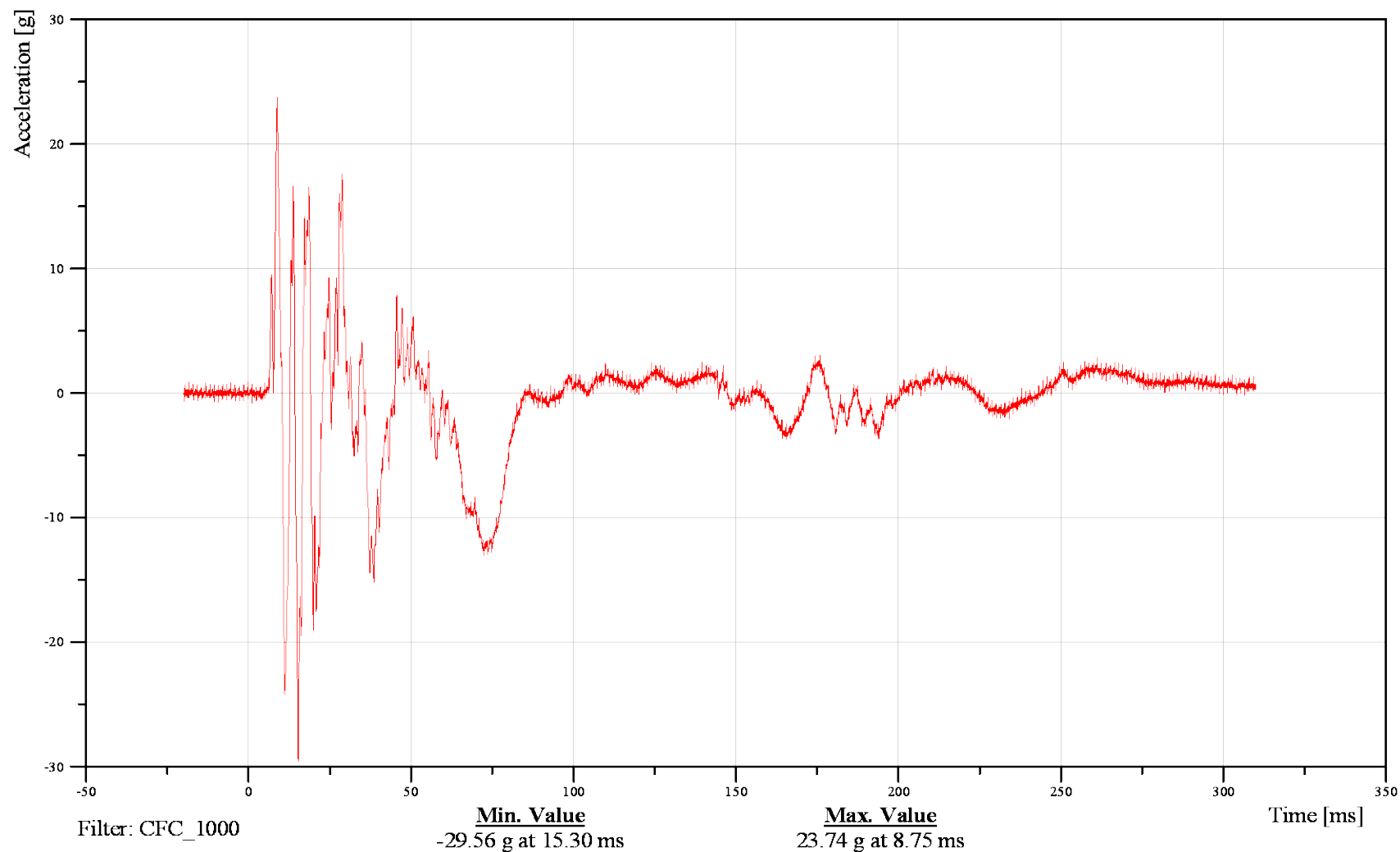
Time: 14:31

Customer: VRTC

11TRRILE03WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Lateral Ay

Date: 03/27/2013

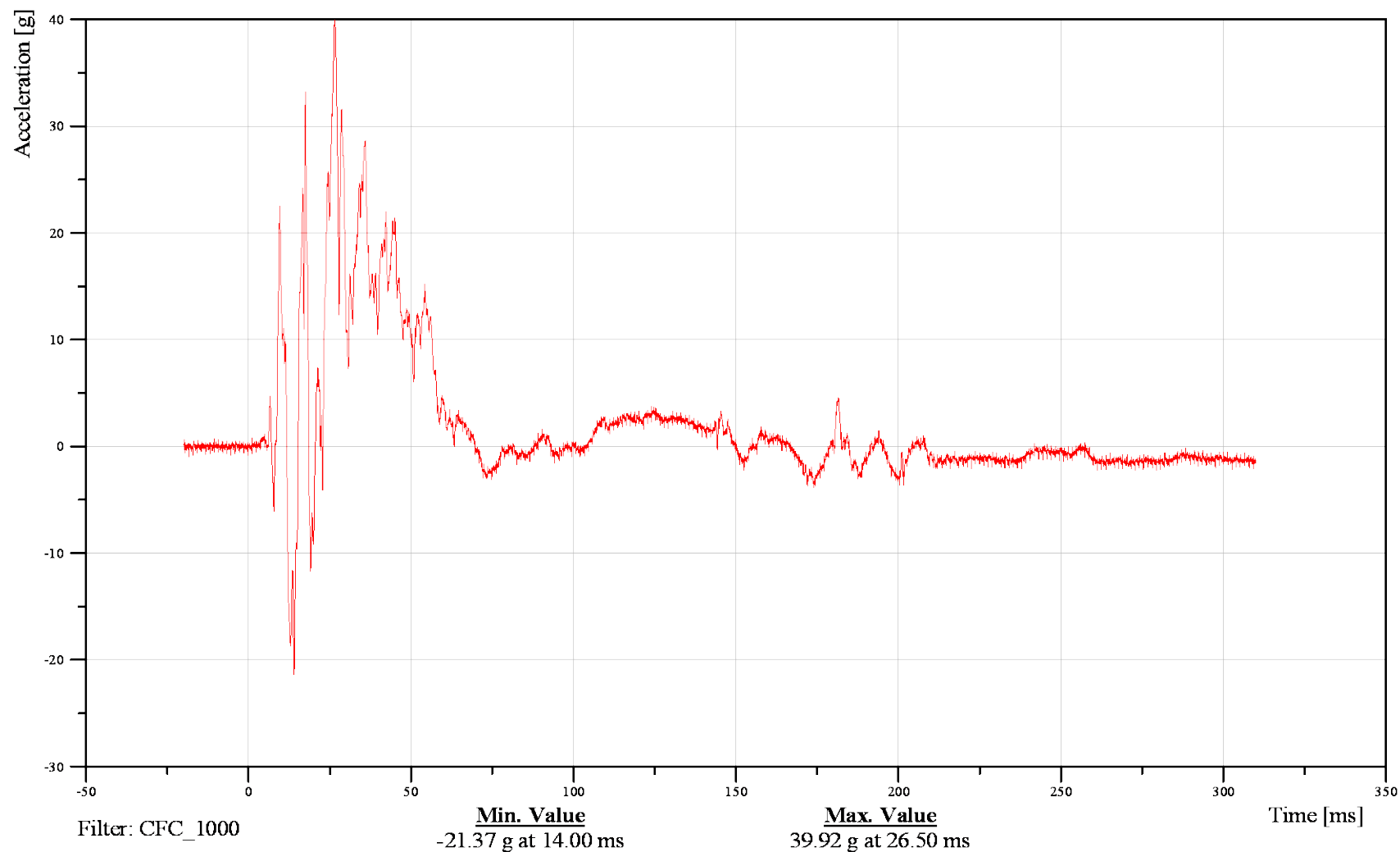
Time: 14:31

Customer: VRTC

11TRRILE03WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Vertical Az

Date: 03/27/2013

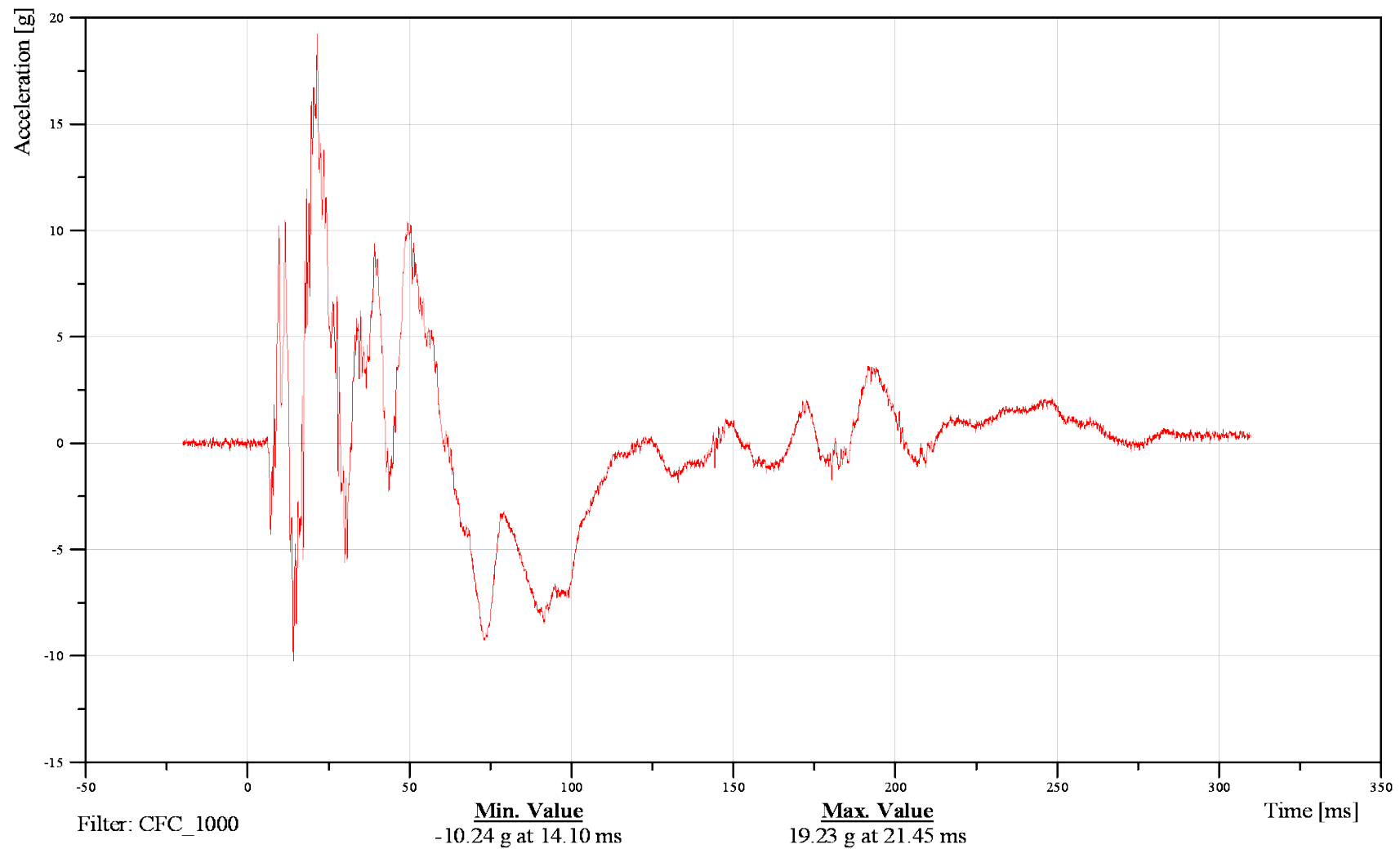
Time: 14:31

Customer: VRTC

11TRRILE03WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 A Resultant

Date: 03/27/2013

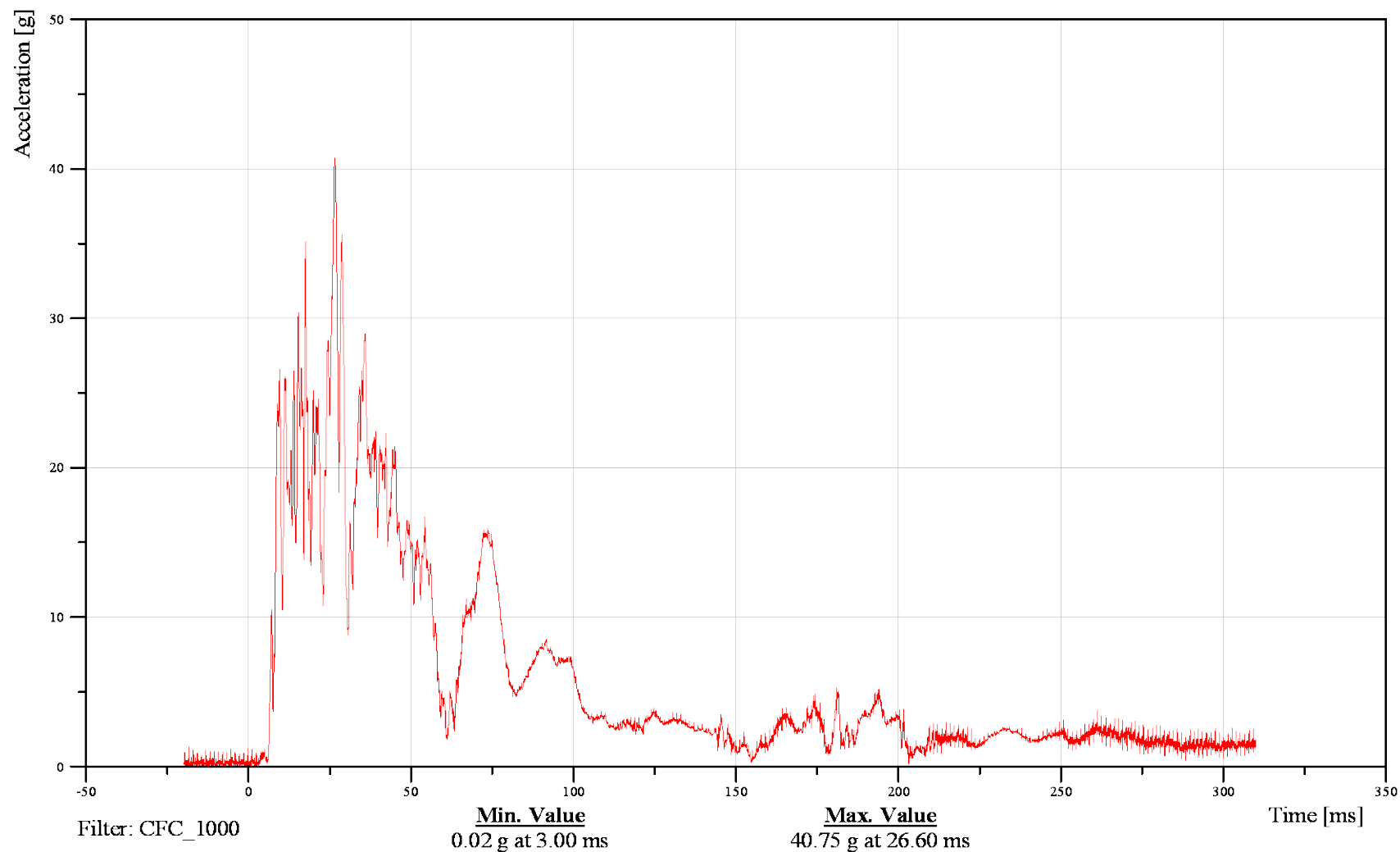
Time: 14:31

Customer: VRTC

11TRRILE03WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 IRTRAC compression

Date: 03/27/2013

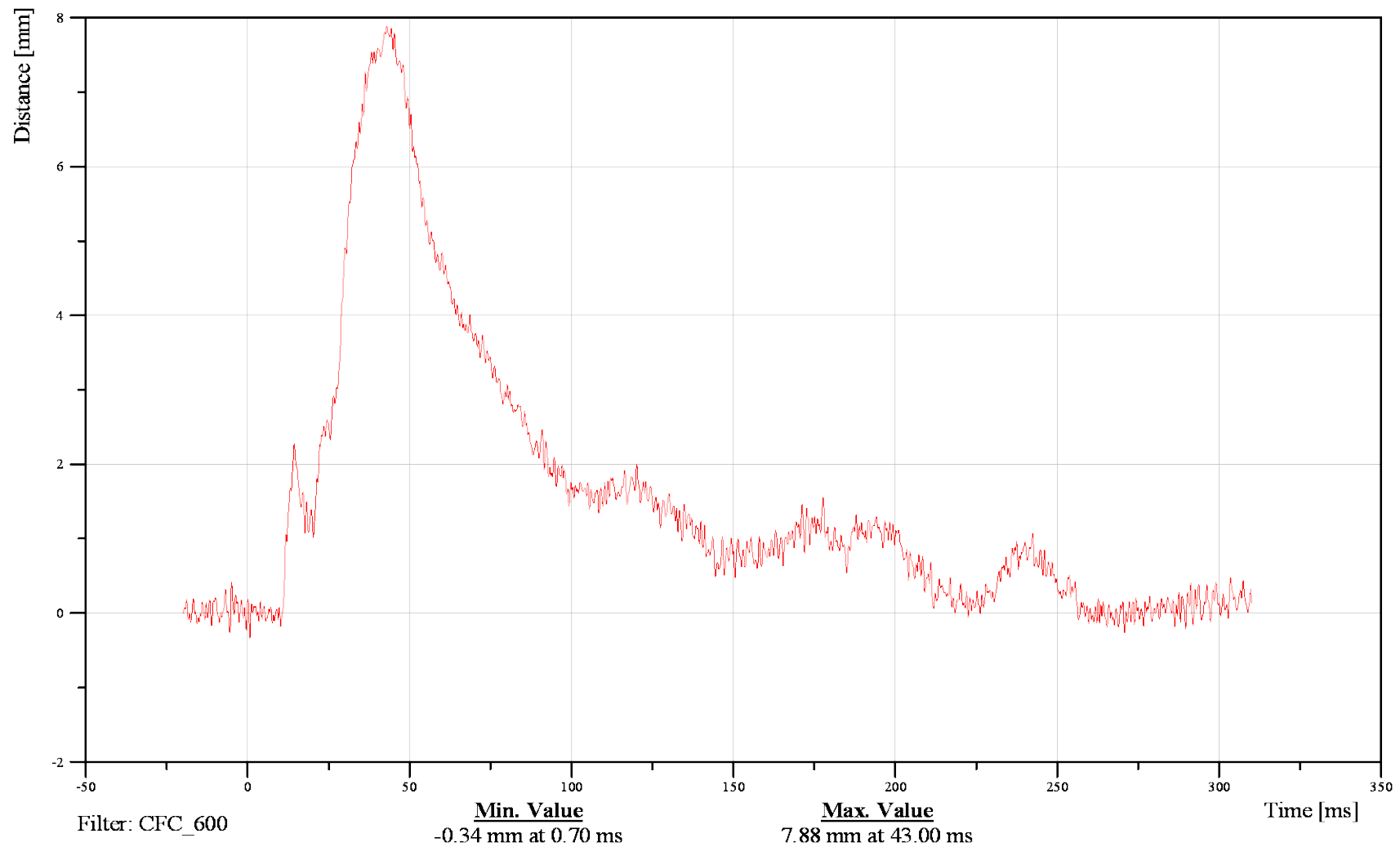
Time: 14:31

Customer: VRTC

11TRRILE03WSDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Rotational angle

Date: 03/27/2013

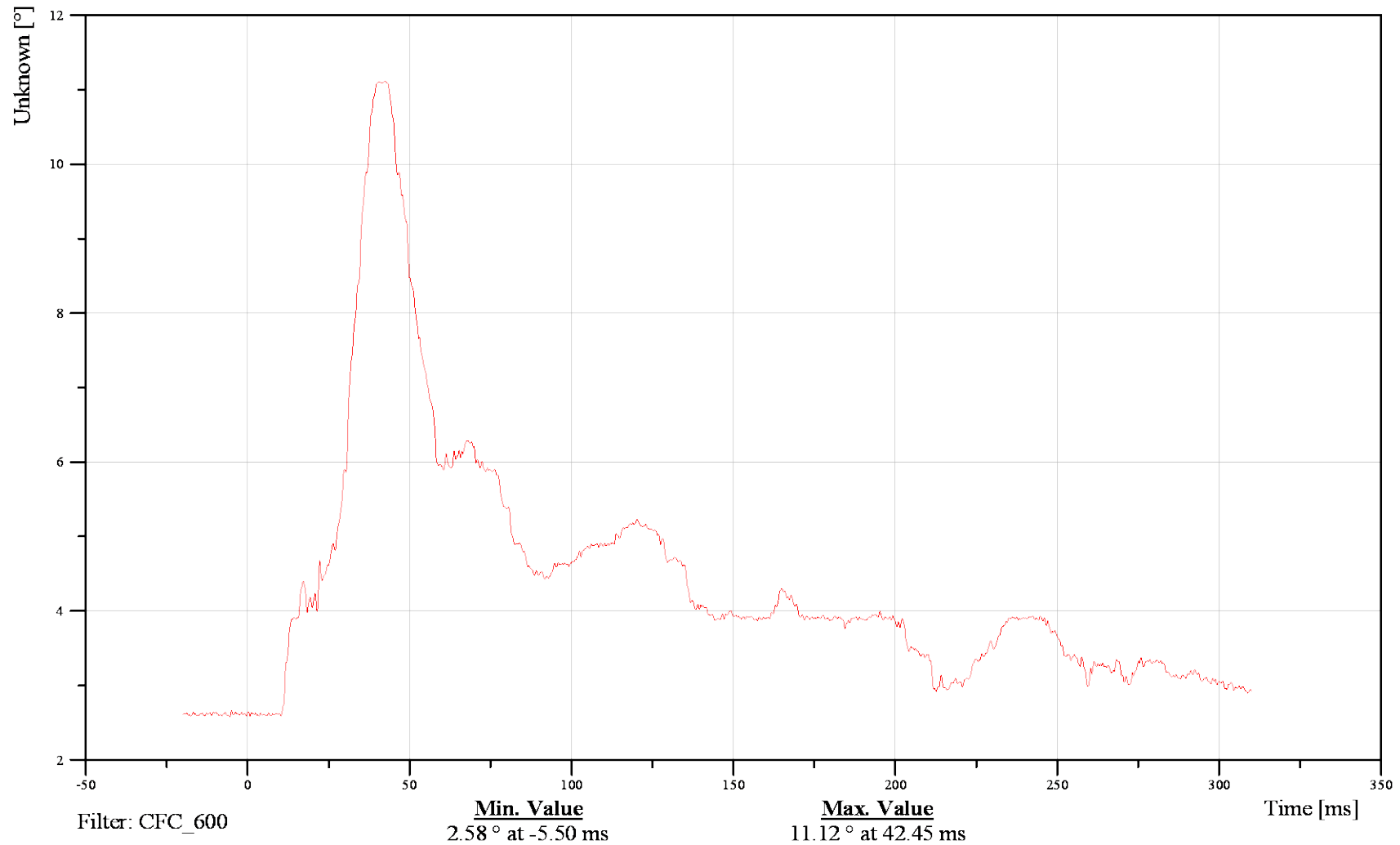
Time: 14:31

Customer: VRTC

11TRRILE03WSANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 IRTRAC X Deflection

Date: 03/27/2013

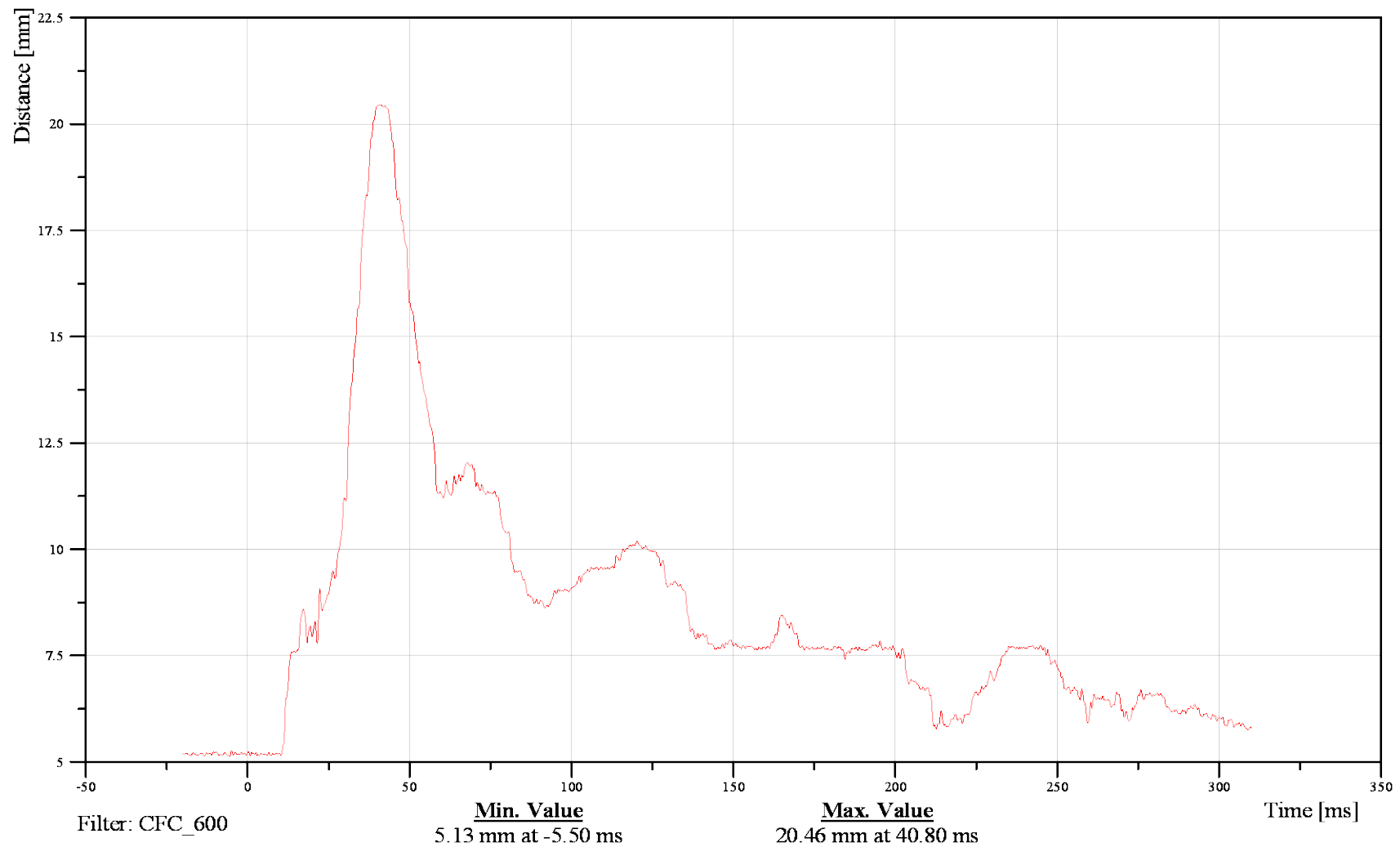
Time: 14:31

Customer: VRTC

11TRRILE03WSDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 IRTRAC Y Deflection

Date: 03/27/2013

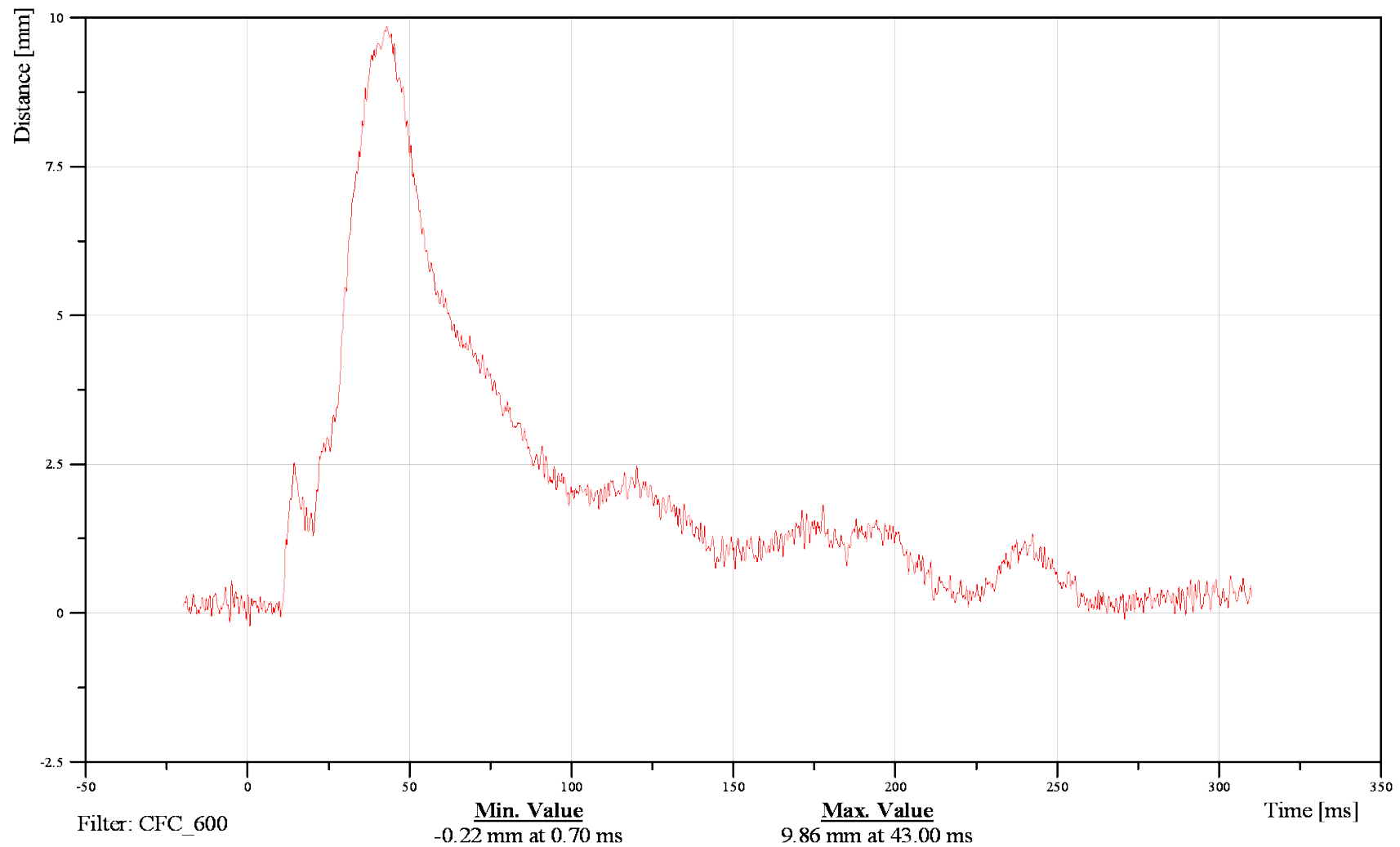
Time: 14:31

Customer: VRTC

11TRRILE03WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Longitudinal Ax

Date: 03/27/2013

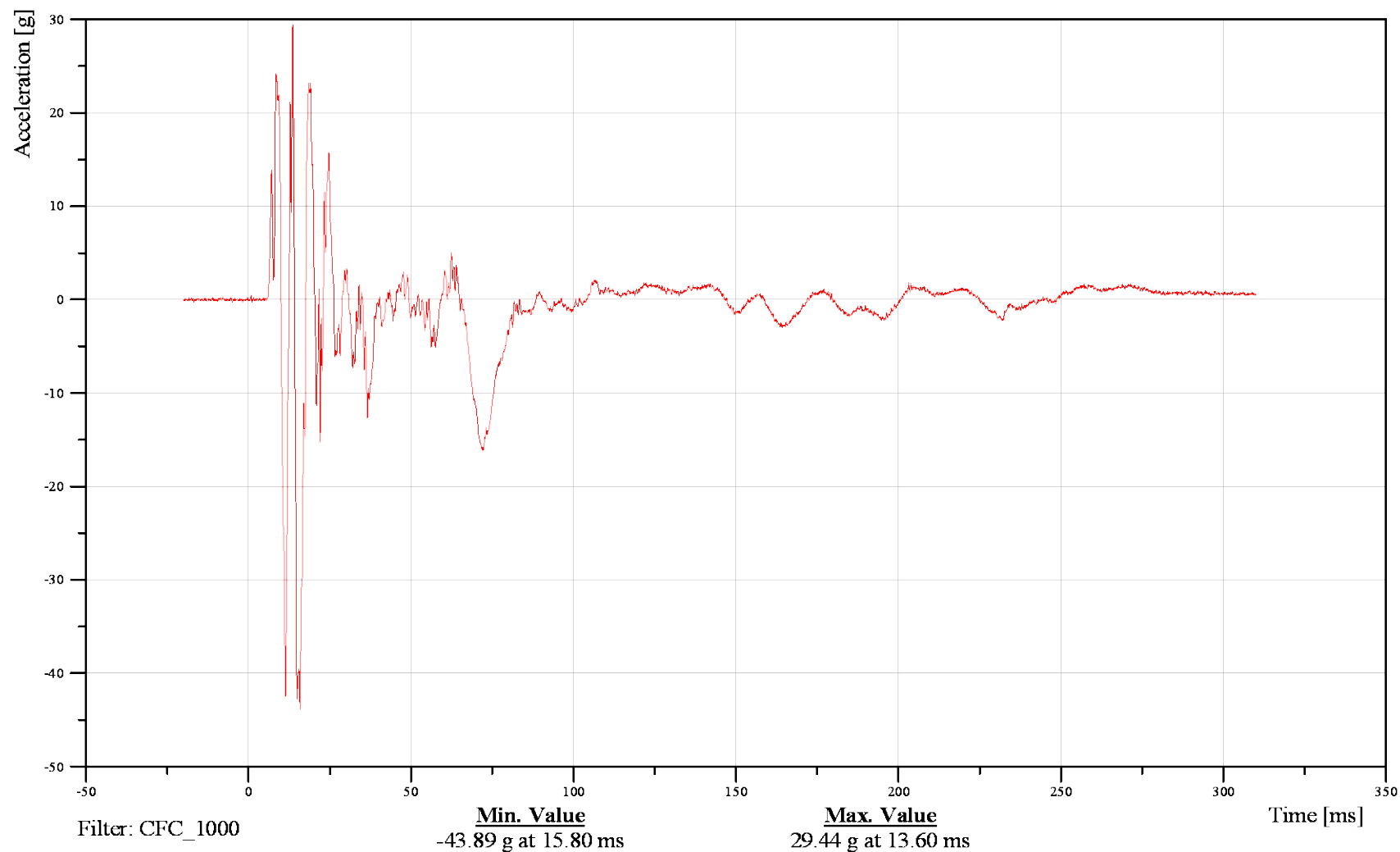
Time: 14:31

Customer: VRTC

11ABRILE01WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Lateral Ay

Date: 03/27/2013

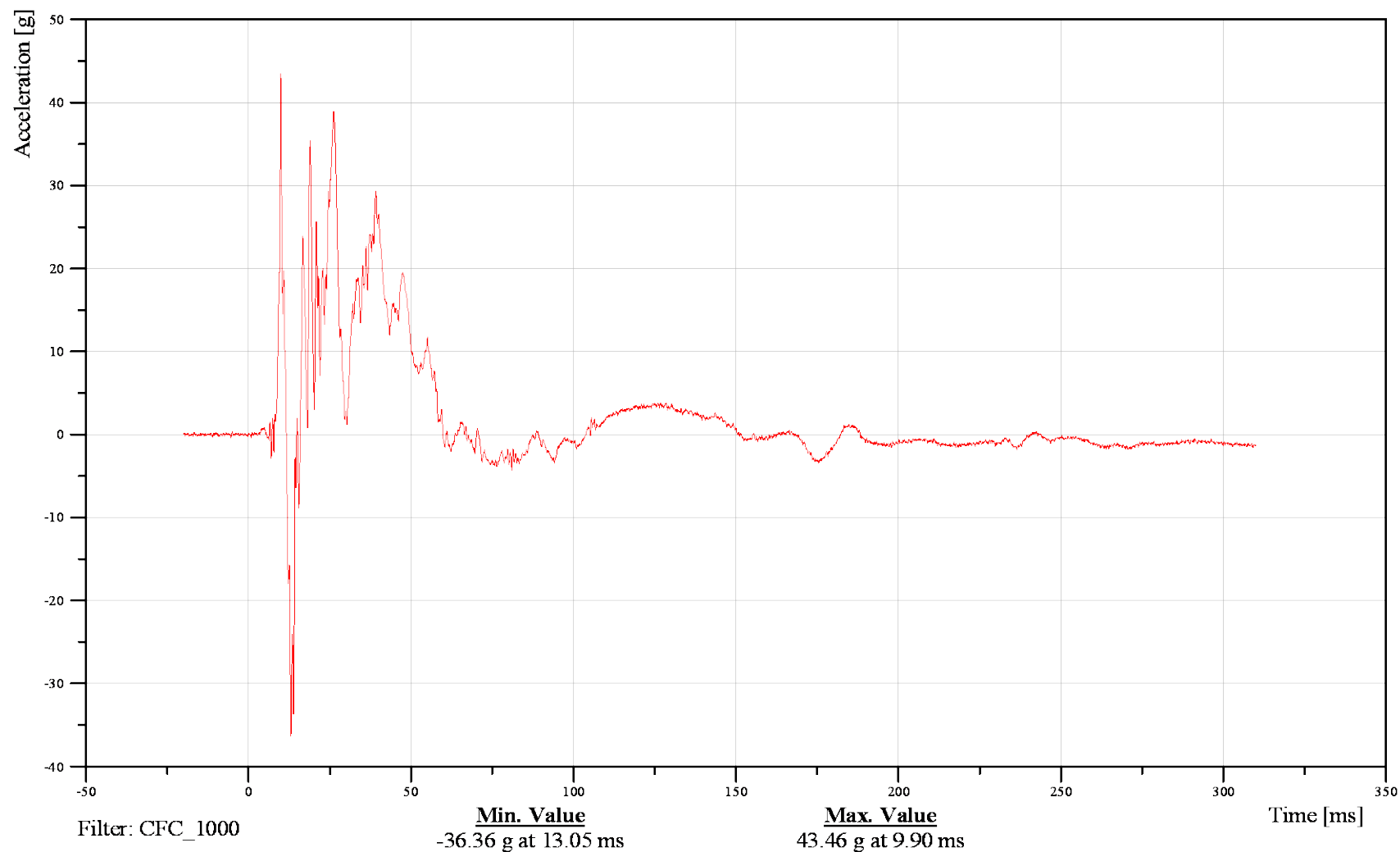
Time: 14:31

Customer: VRTC

11ABRILE01WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Vertical Az

Date: 03/27/2013

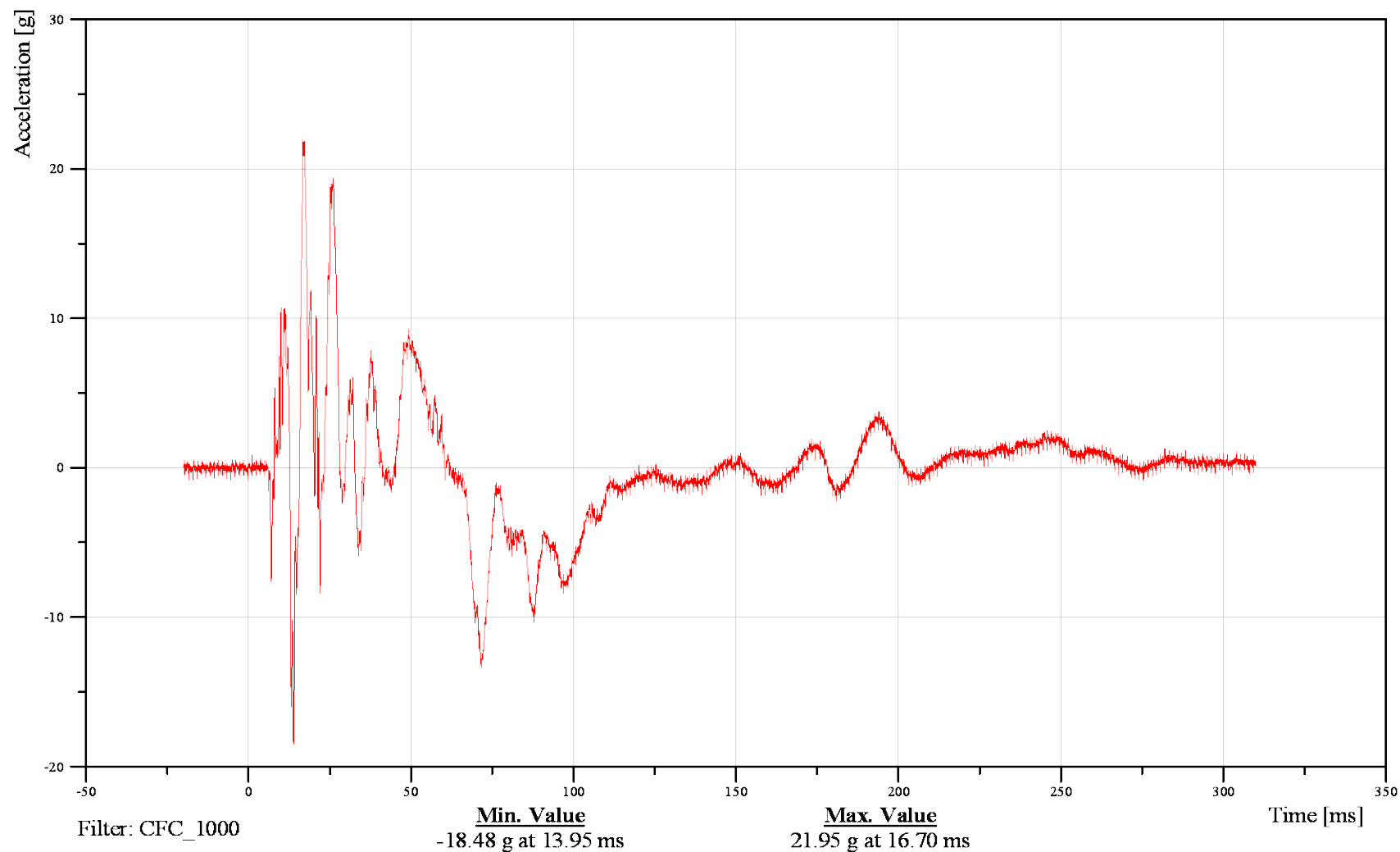
Time: 14:31

Customer: VRTC

11ABRILE01WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 A Resultant

Date: 03/27/2013

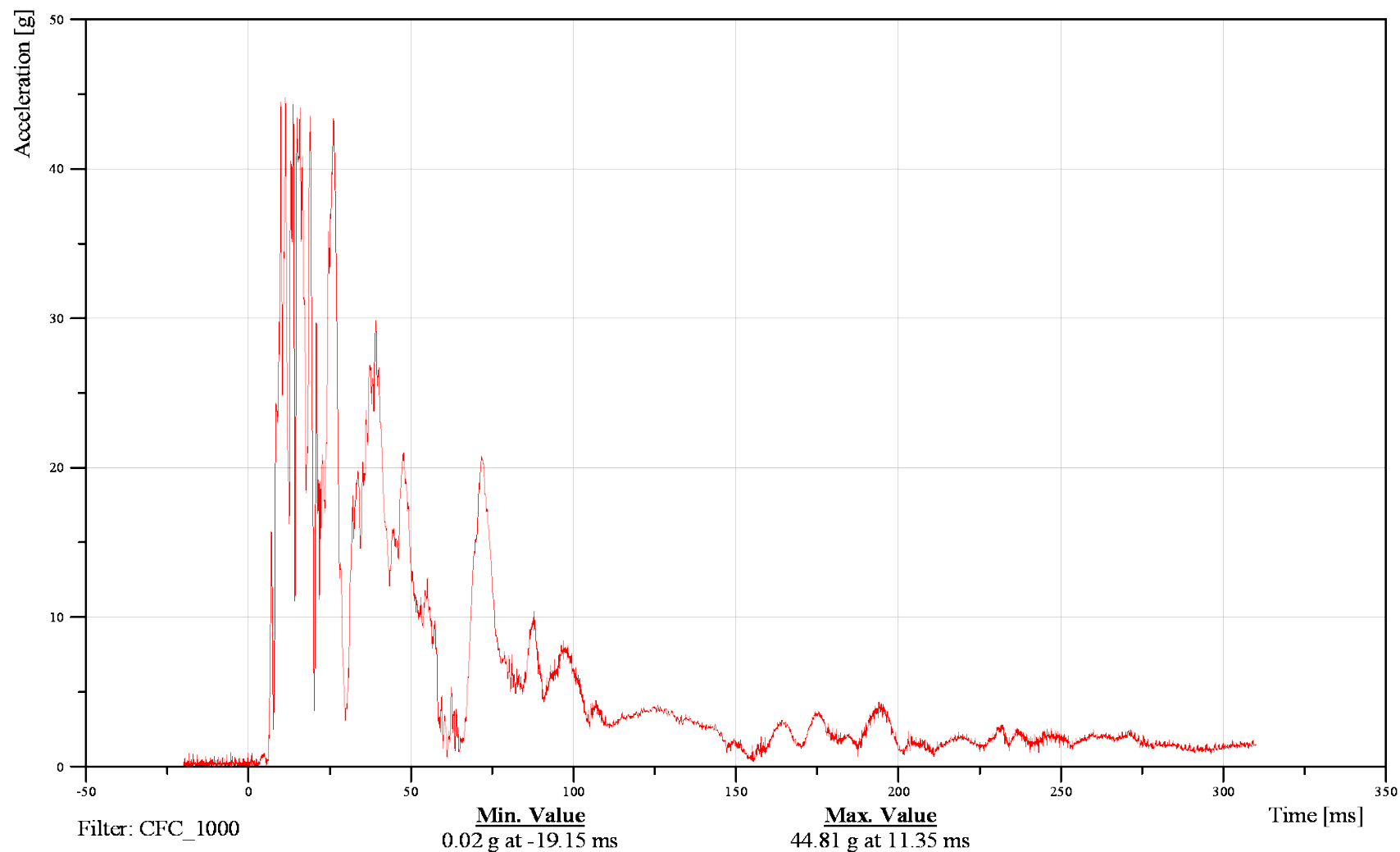
Time: 14:31

Customer: VRTC

11ABRILE01WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 IRTRAC compression

Date: 03/27/2013

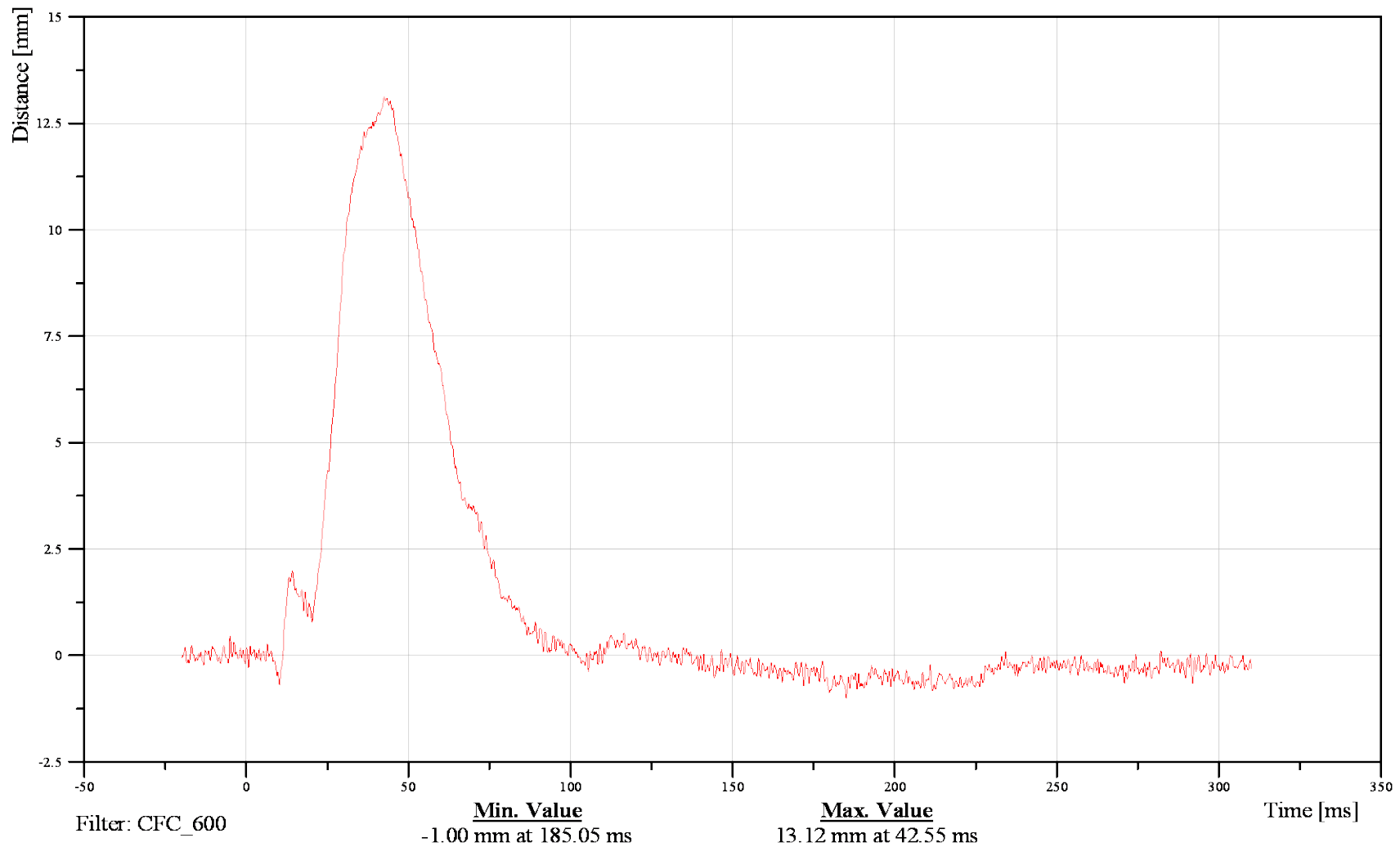
Time: 14:31

Customer: VRTC

11ABRILE01WSDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Date: 03/27/2013

Time: 14:31

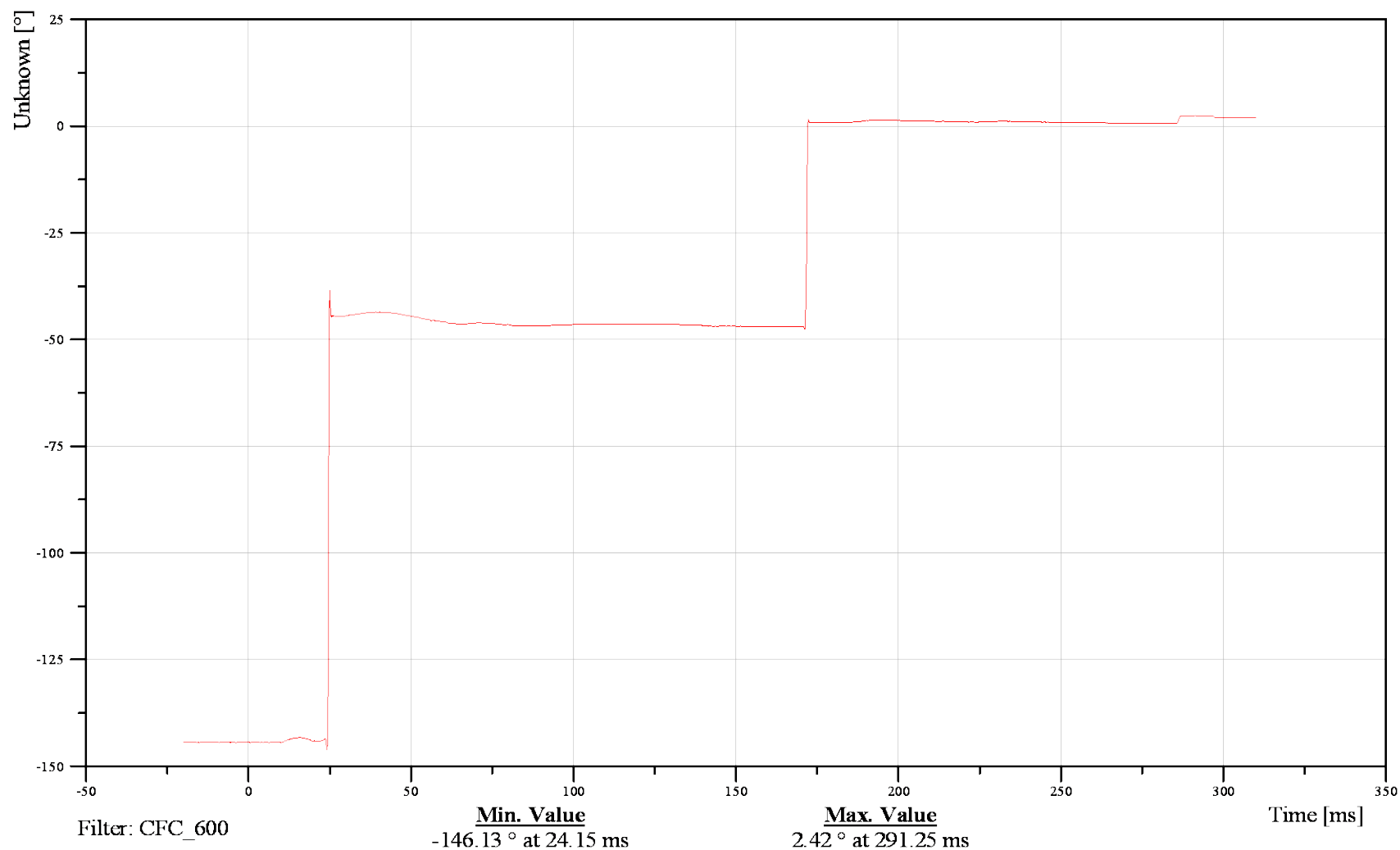
Abdominal Rib 1 Rotational angle

Customer: VRTC

11ABRILE01WSANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 IRTRAC X Deflection

Date: 03/27/2013

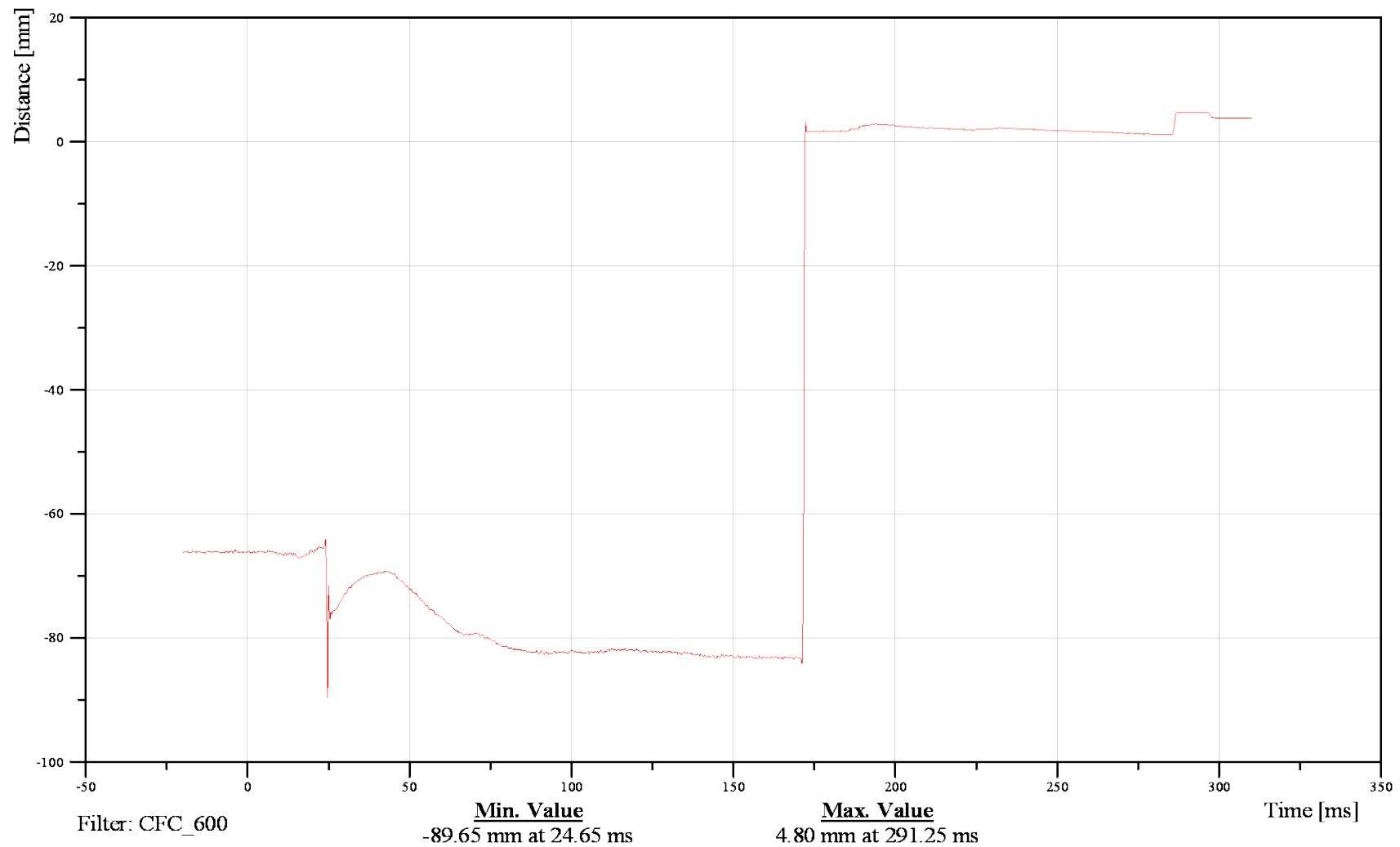
Time: 14:31

Customer: VRTC

11ABRILE01WSDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 IRTRAC Y Deflection

Date: 03/27/2013

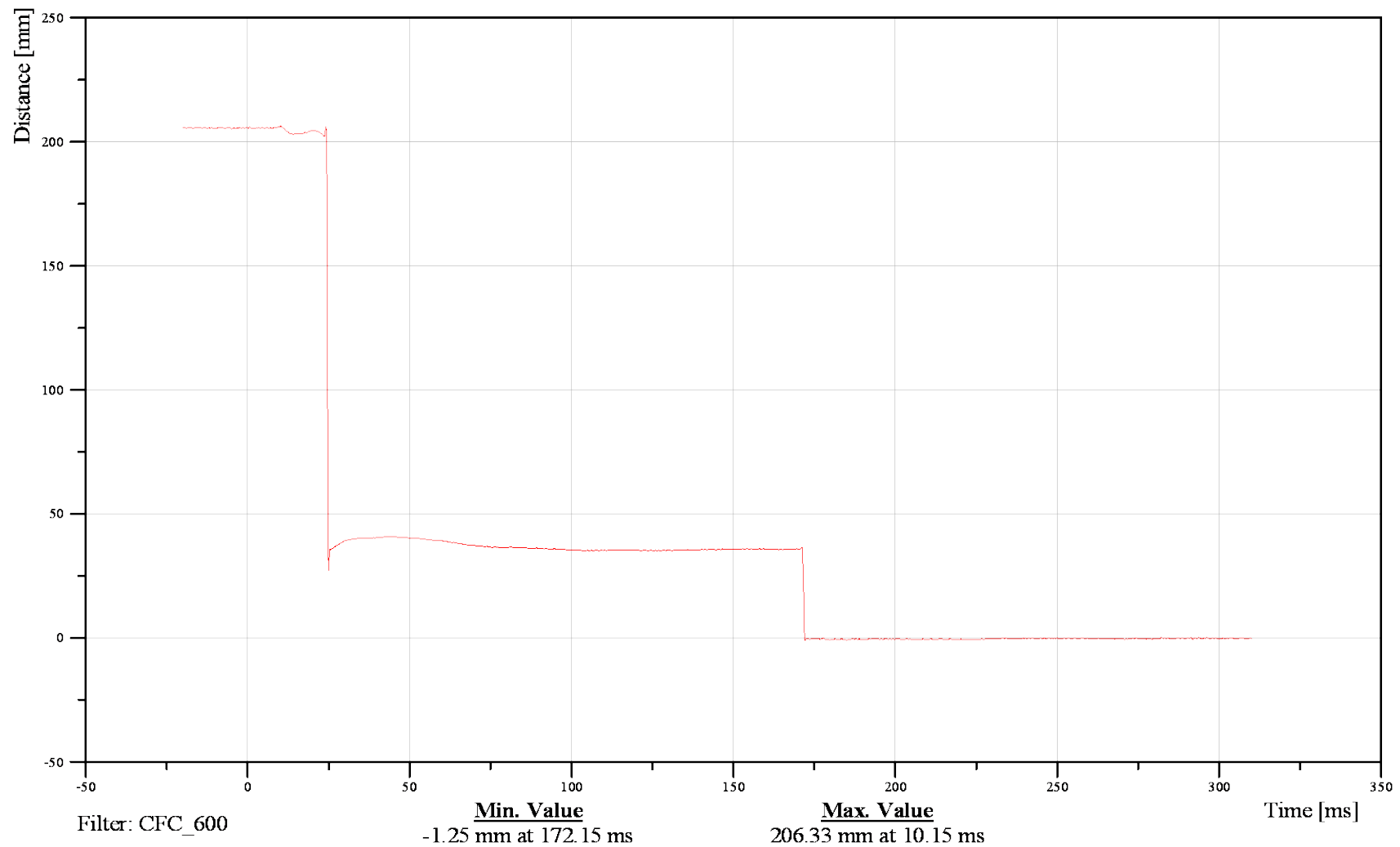
Time: 14:31

Customer: VRTC

11ABRILE01WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Longitudinal Ax

Date: 03/27/2013

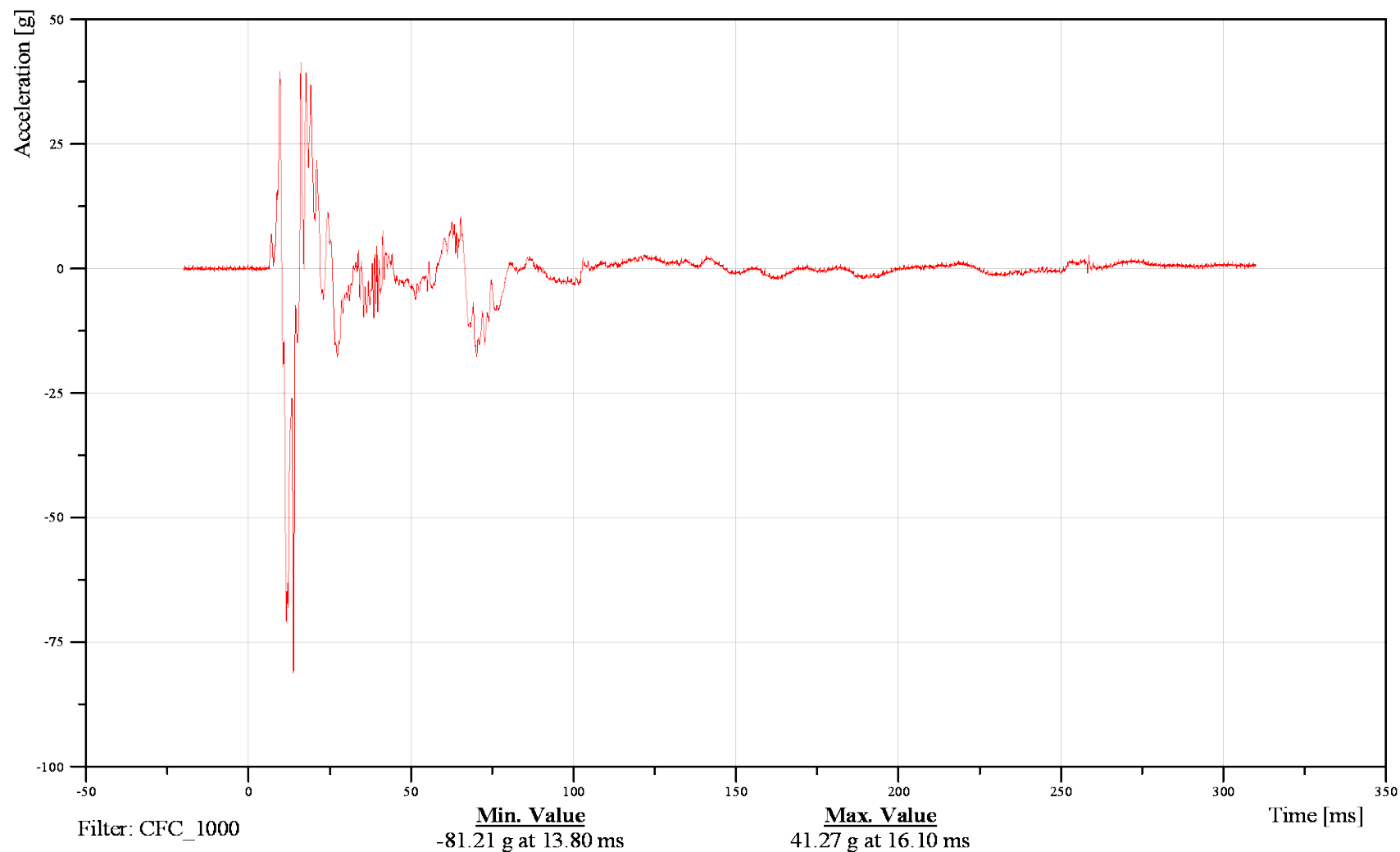
Time: 14:31

Customer: VRTC

11ABRILE02WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Lateral Ay

Date: 03/27/2013

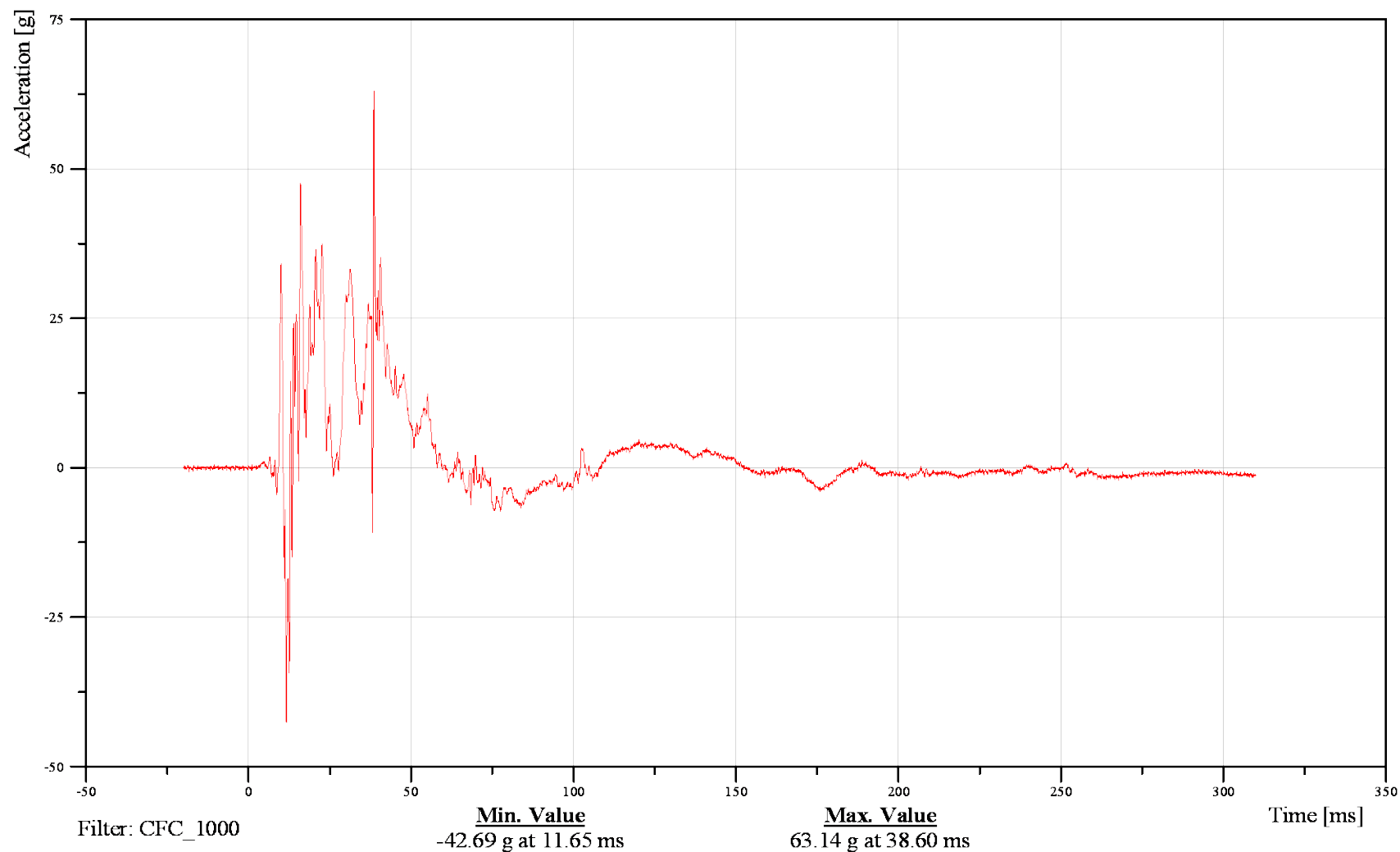
Time: 14:31

Customer: VRTC

11ABRILE02WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Vertical Az

Date: 03/27/2013

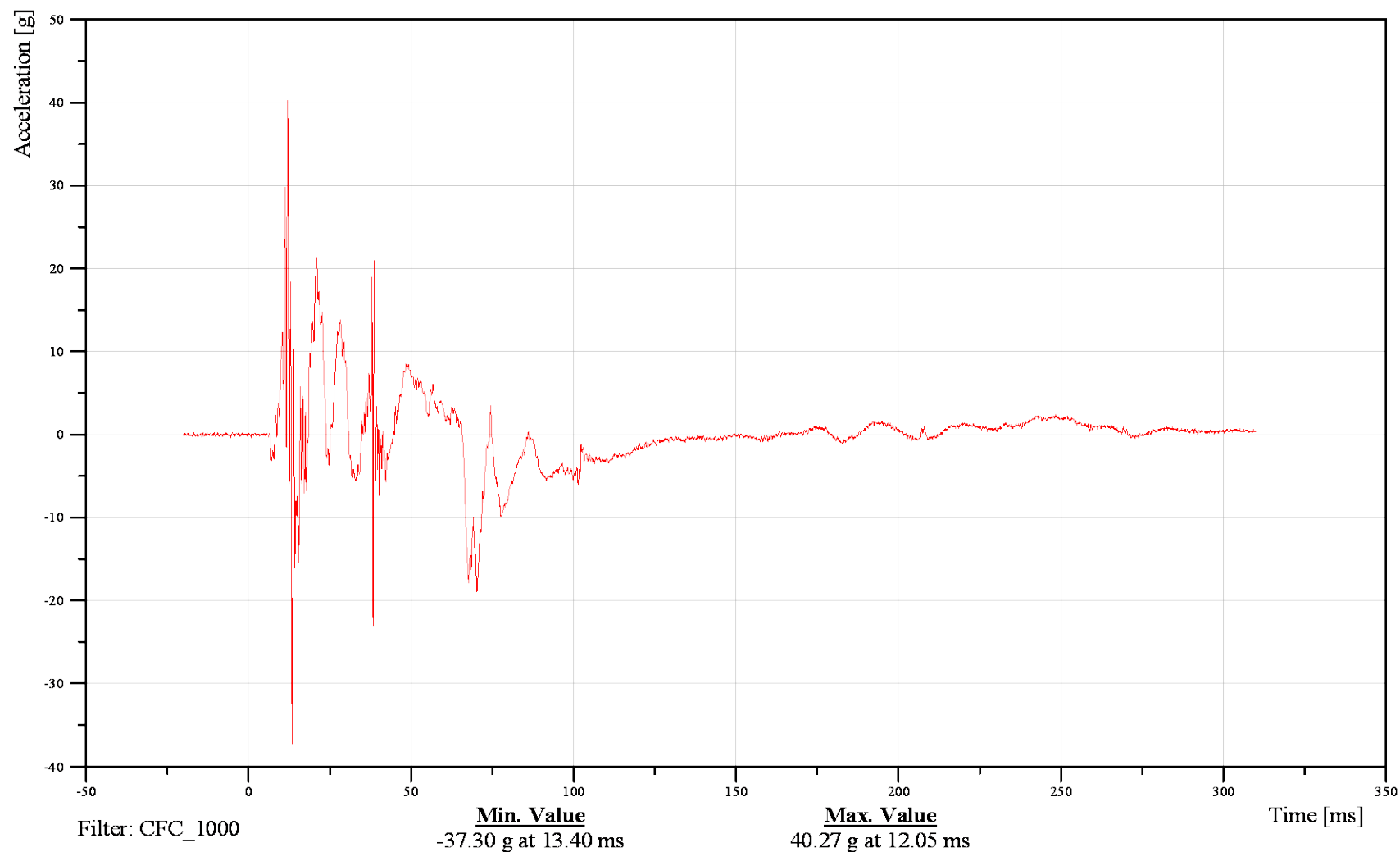
Time: 14:31

Customer: VRTC

11ABRILE02WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 A Resultant

Date: 03/27/2013

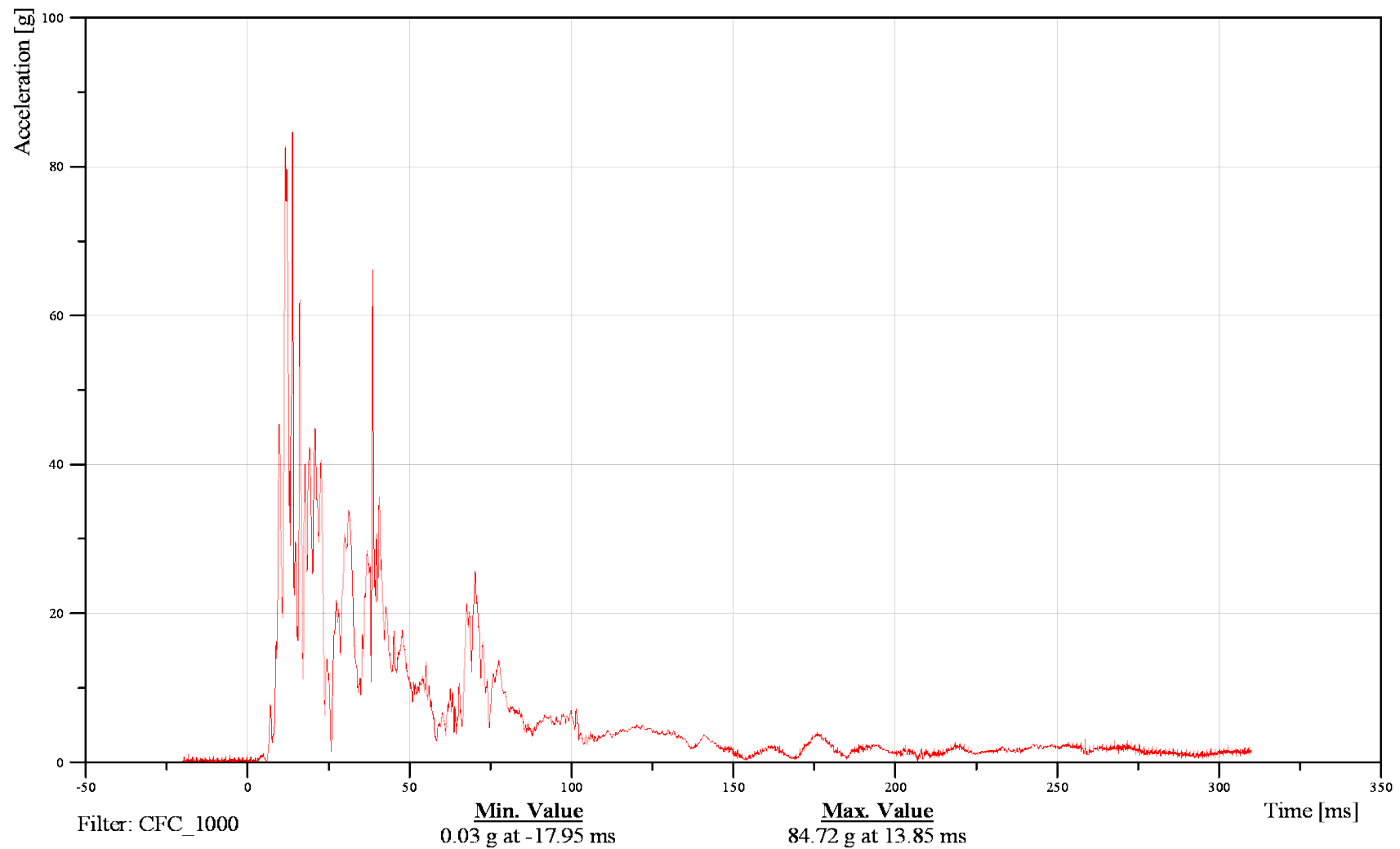
Time: 14:31

Customer: VRTC

11ABRILE02WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Lateral Disp

Date: 03/27/2013

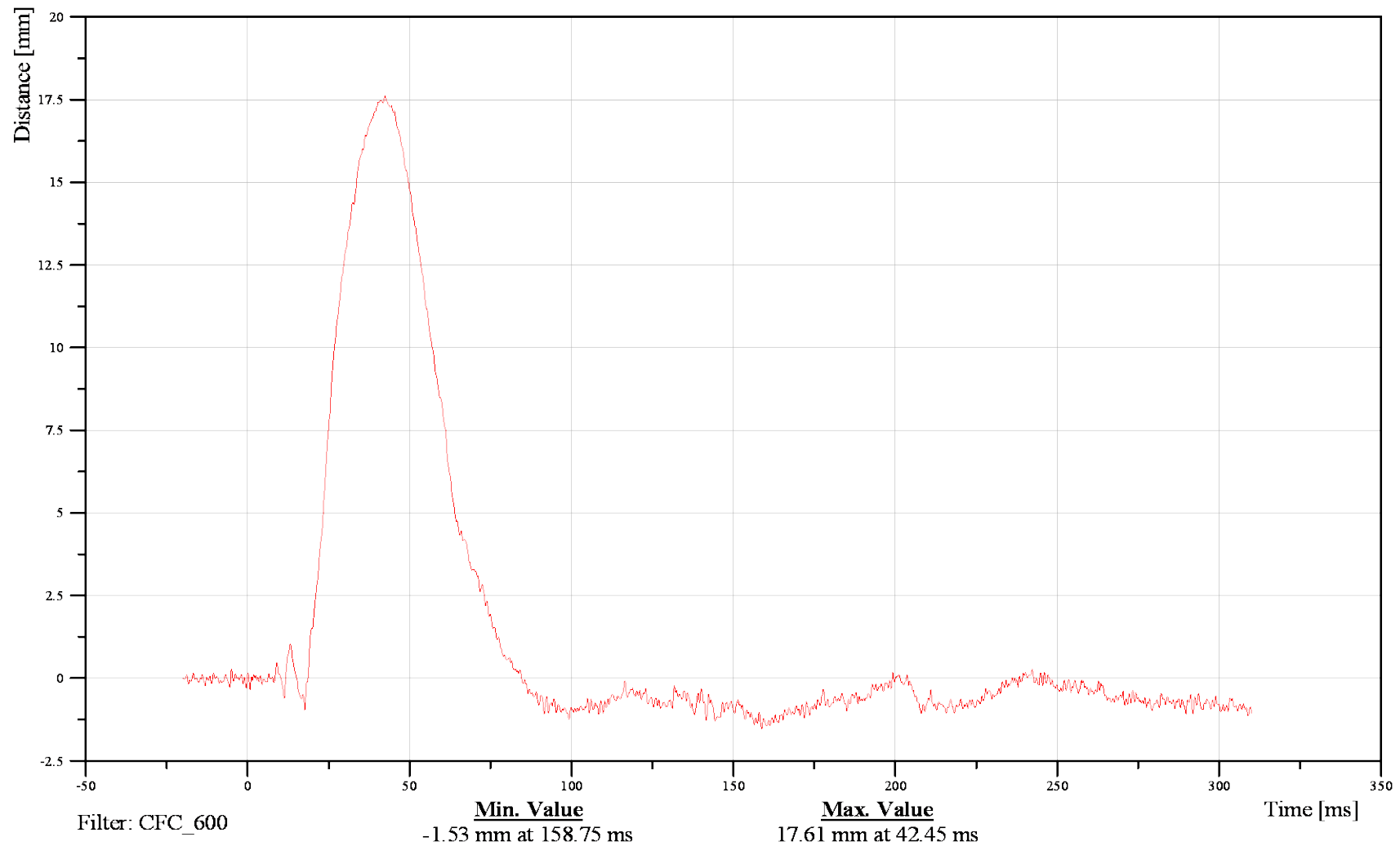
Time: 14:31

Customer: VRTC

11ABRILE02WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Longitudinal Ax

Date: 03/27/2013

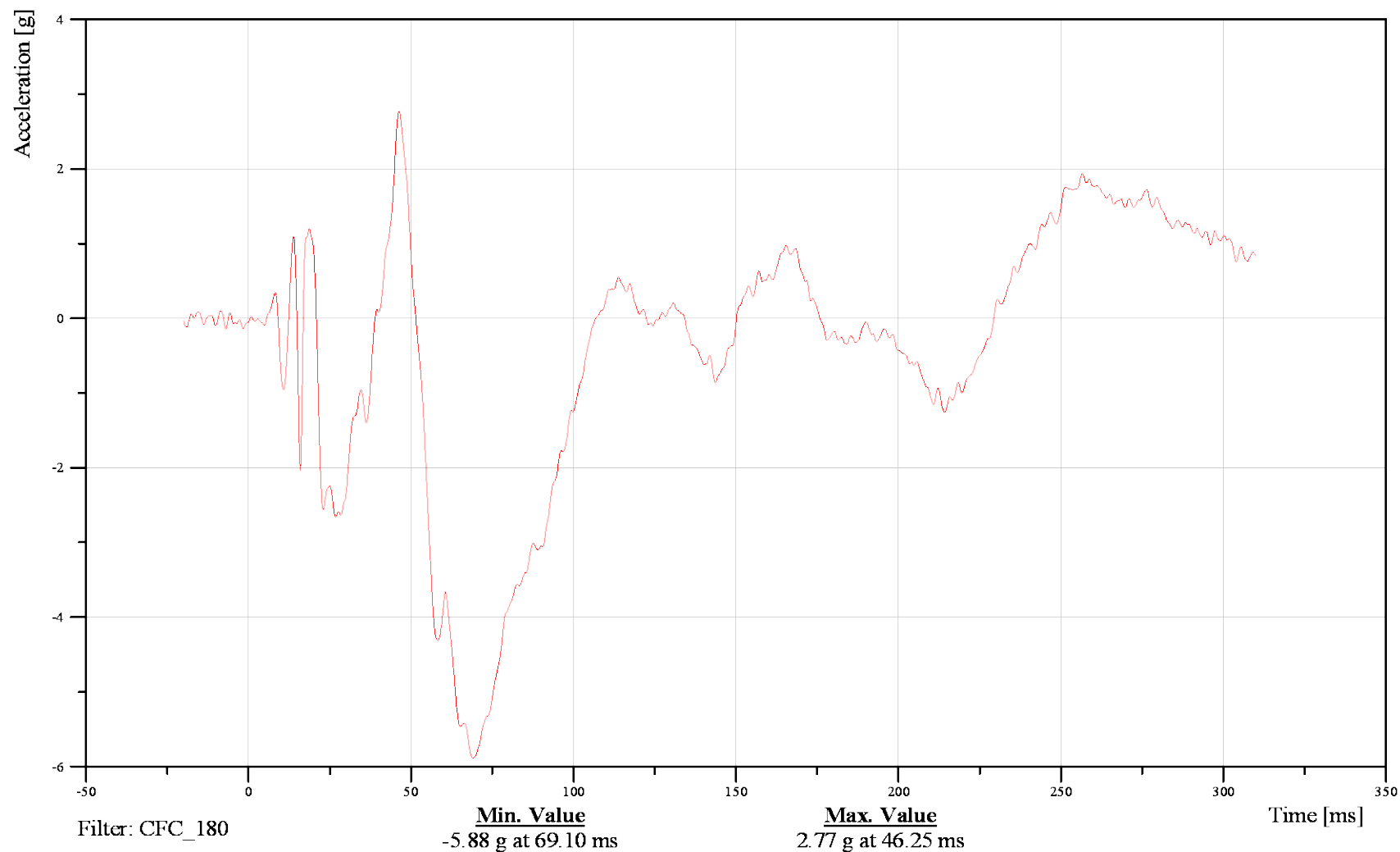
Time: 14:31

Customer: VRTC

11THSP0400WSACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Lateral Ay

Date: 03/27/2013

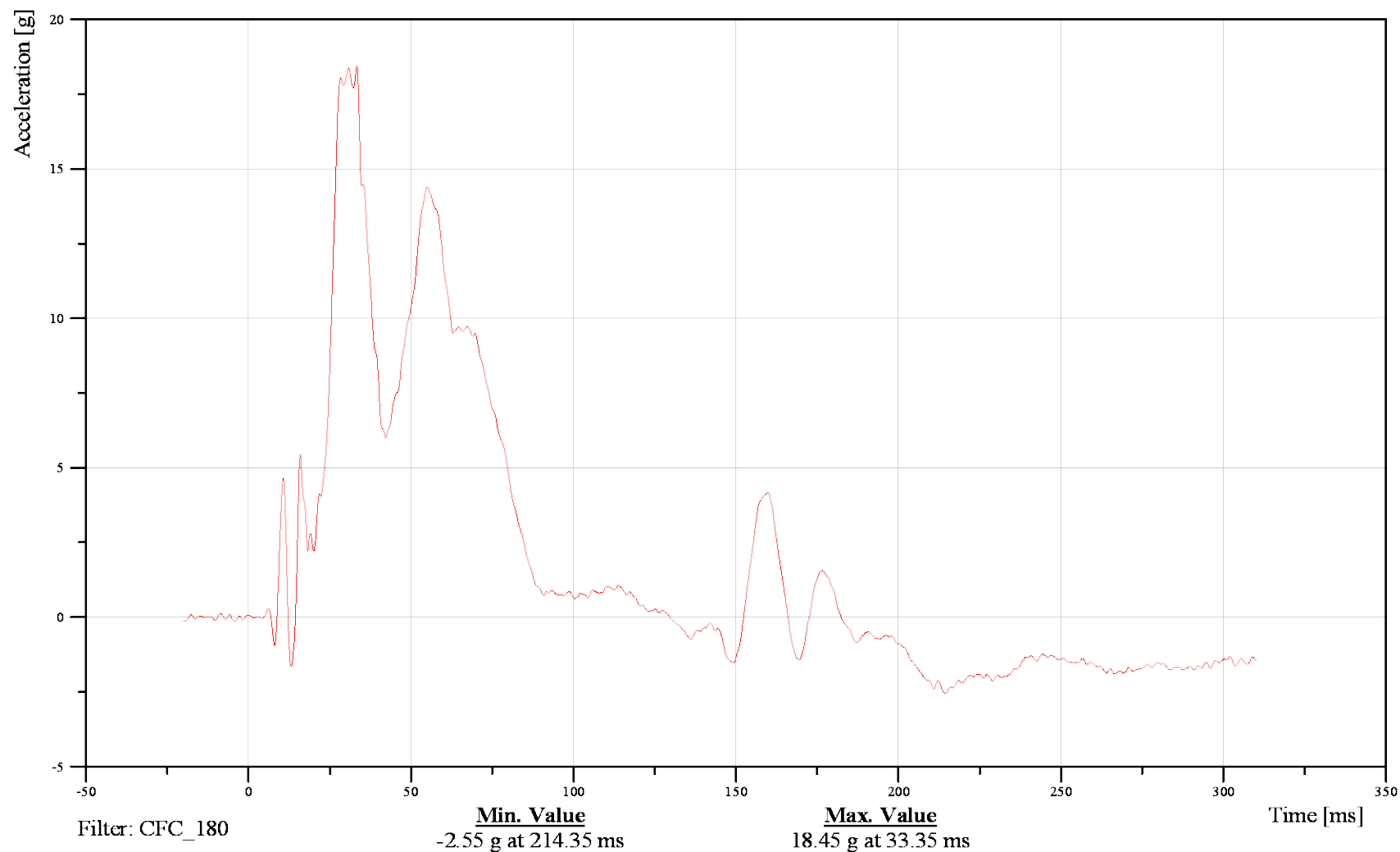
Time: 14:31

Customer: VRTC

11THSP0400WSACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Vertical Az

Date: 03/27/2013

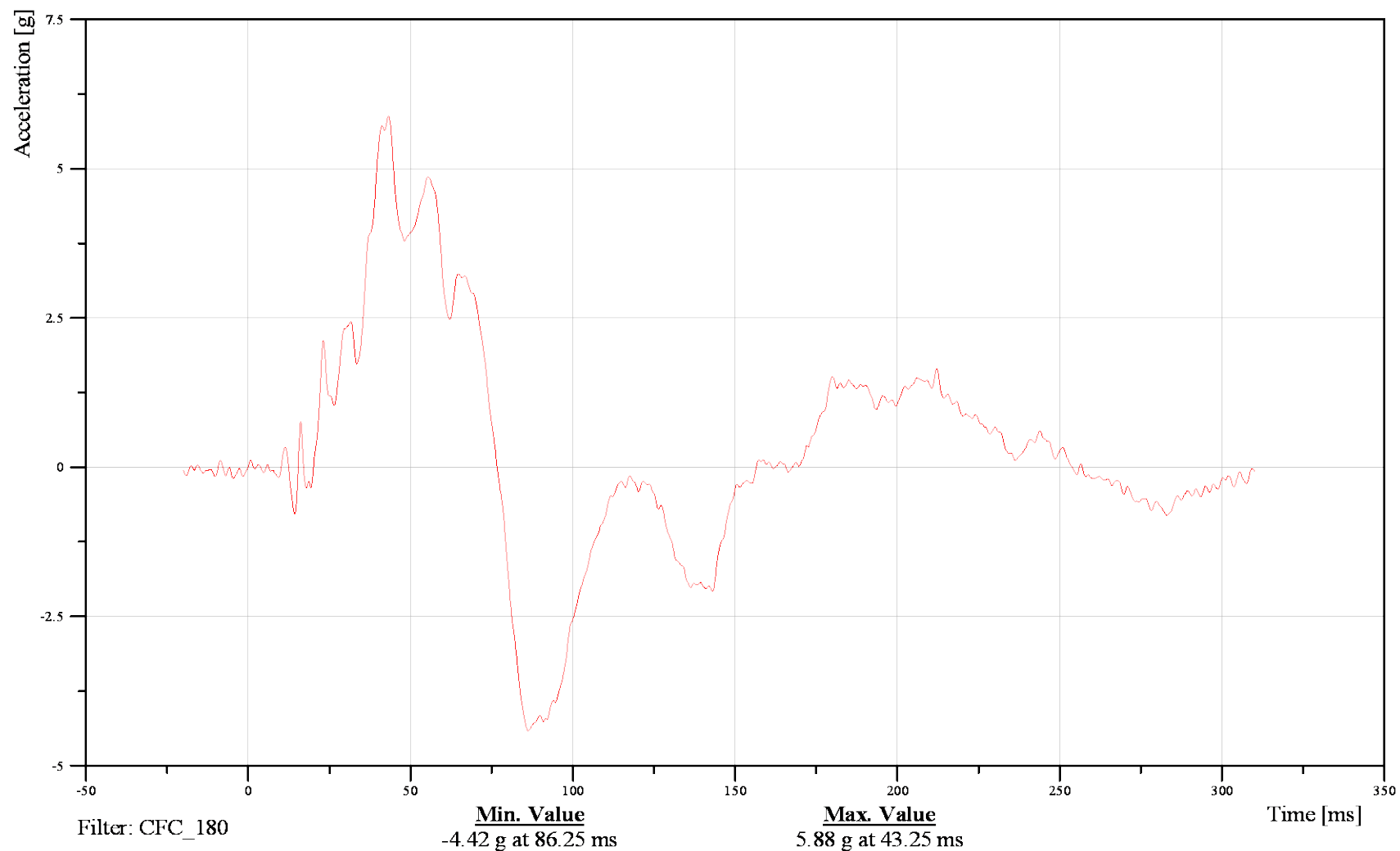
Time: 14:31

Customer: VRTC

11THSP0400WSACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 A Resultant

Date: 03/27/2013

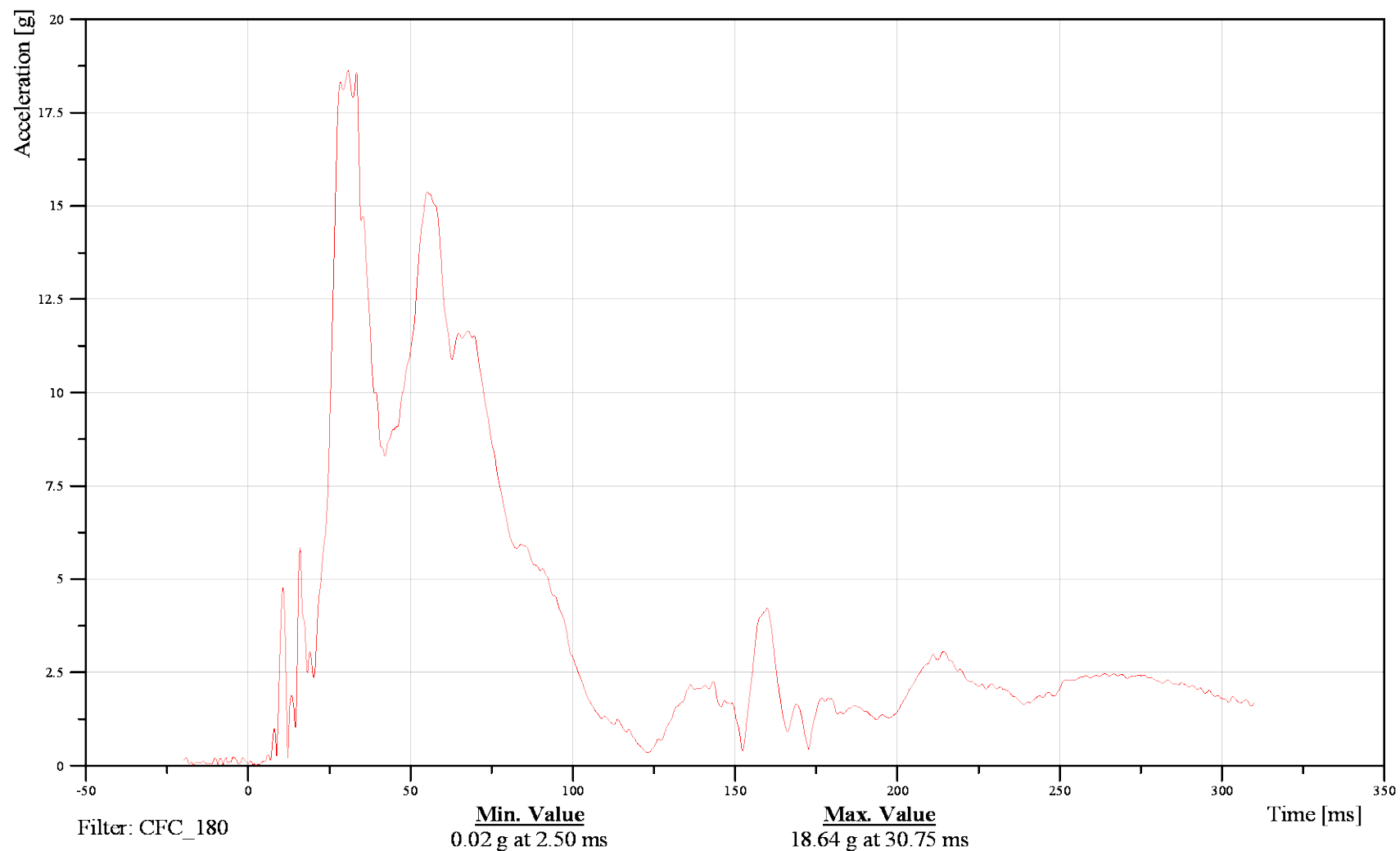
Time: 14:31

Customer: VRTC

11THSP0400WSACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Longitudinal Ax

Date: 03/27/2013

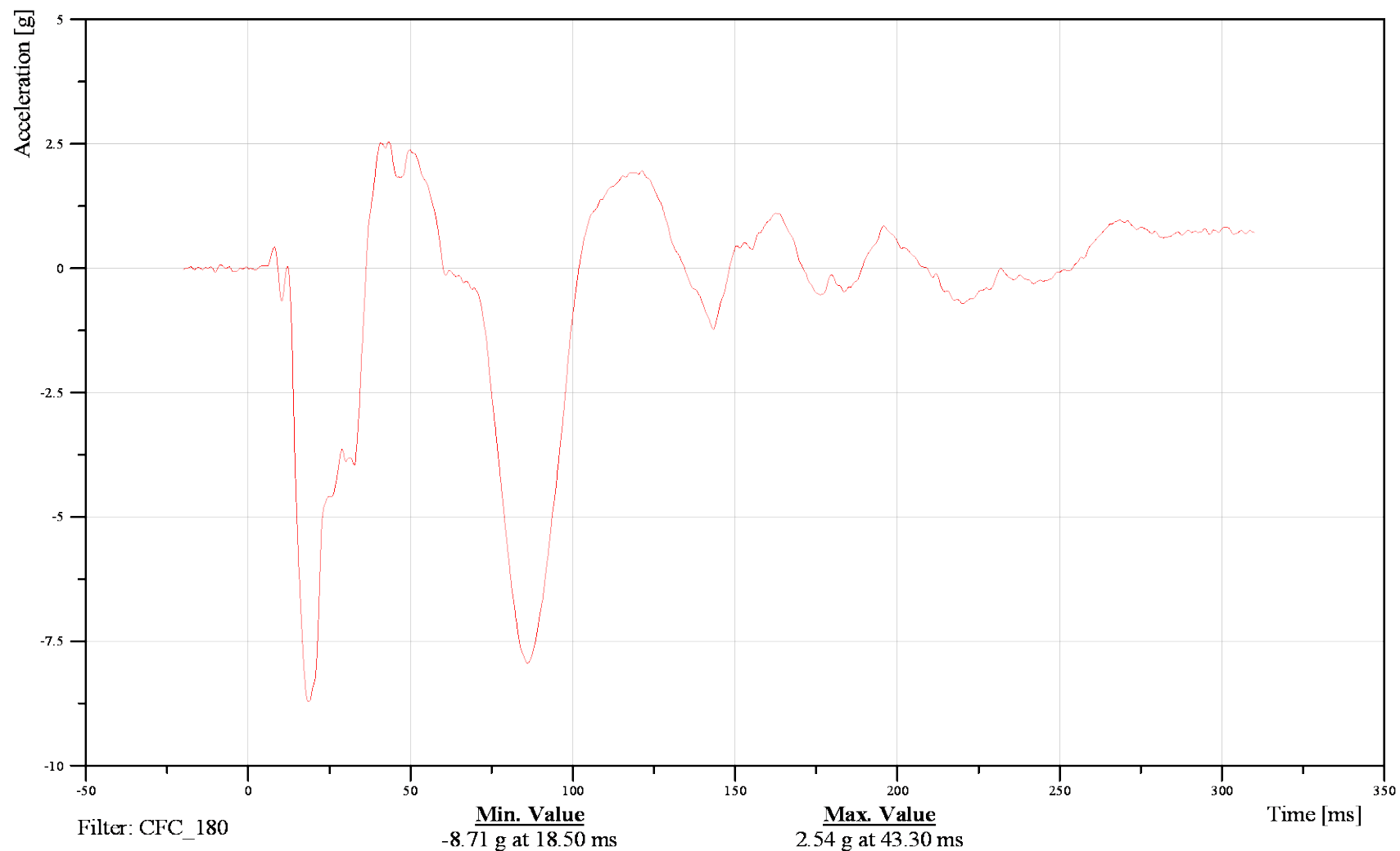
Time: 14:31

Customer: VRTC

11THSP1200WSACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Lateral Ay

Date: 03/27/2013

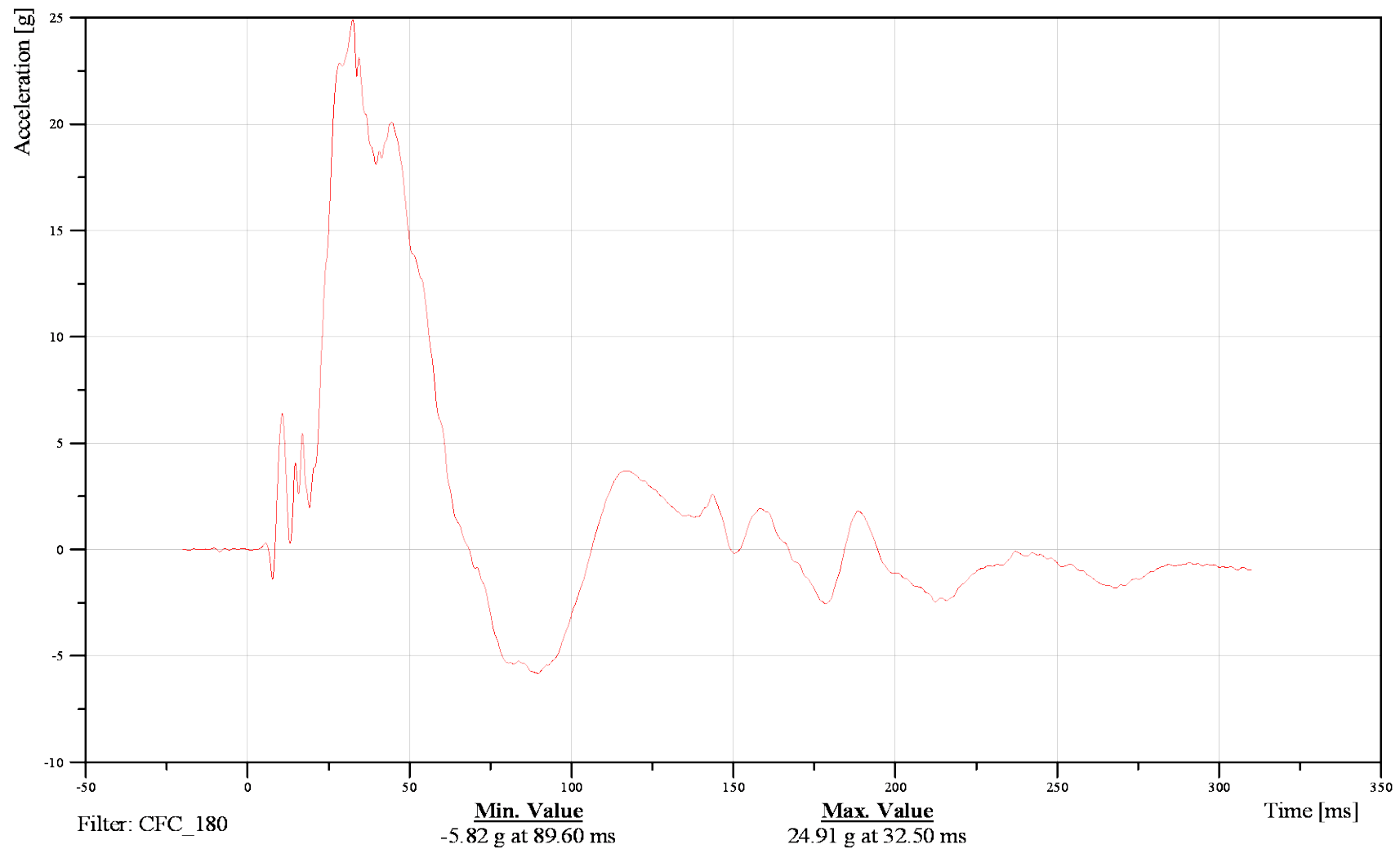
Time: 14:31

Customer: VRTC

11THSP1200WSACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Vertical Az

Date: 03/27/2013

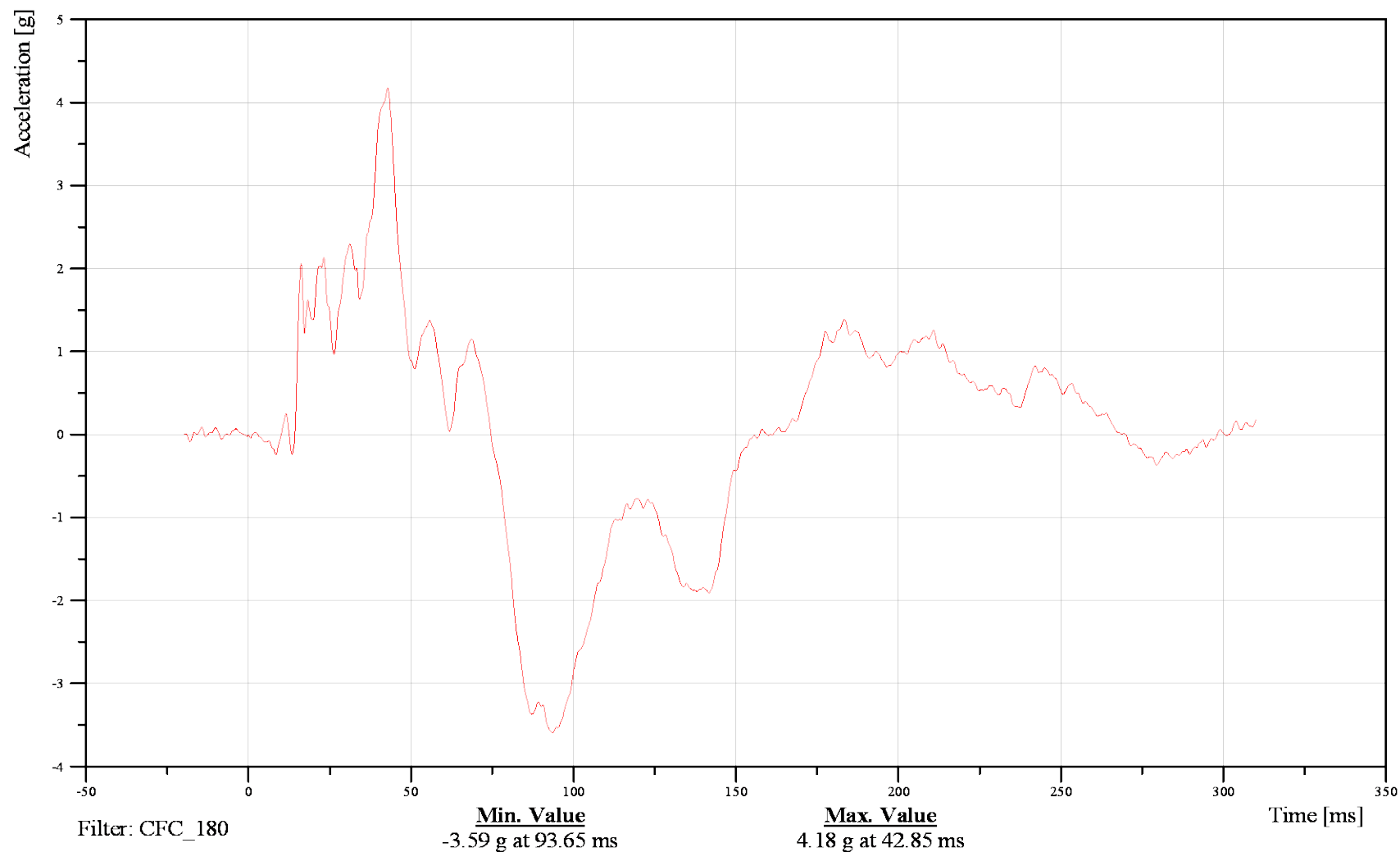
Time: 14:31

Customer: VRTC

11THSP1200WSACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 A Resultant

Date: 03/27/2013

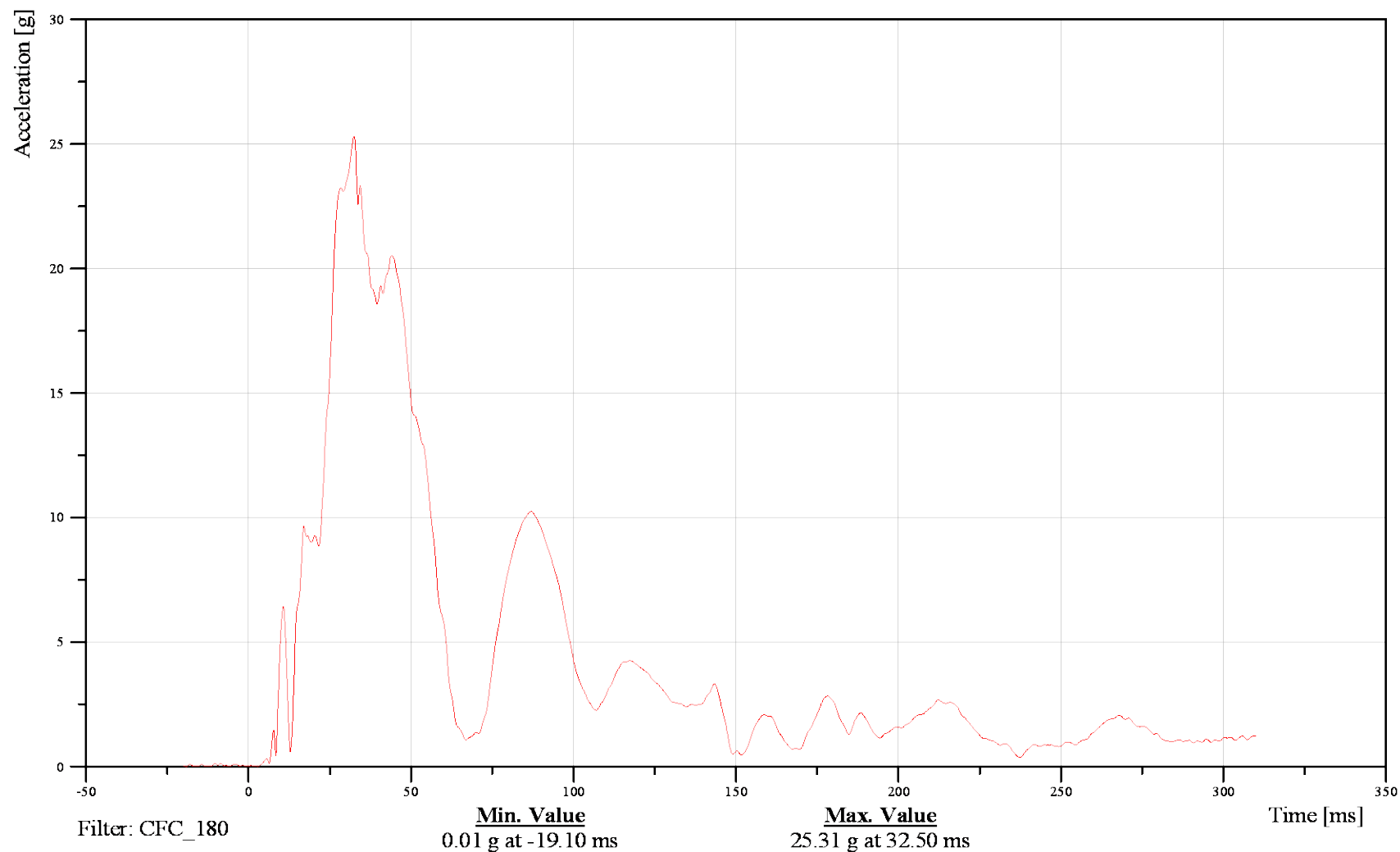
Time: 14:31

Customer: VRTC

11THSP1200WSACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Longitudinal Ax

Date: 03/27/2013

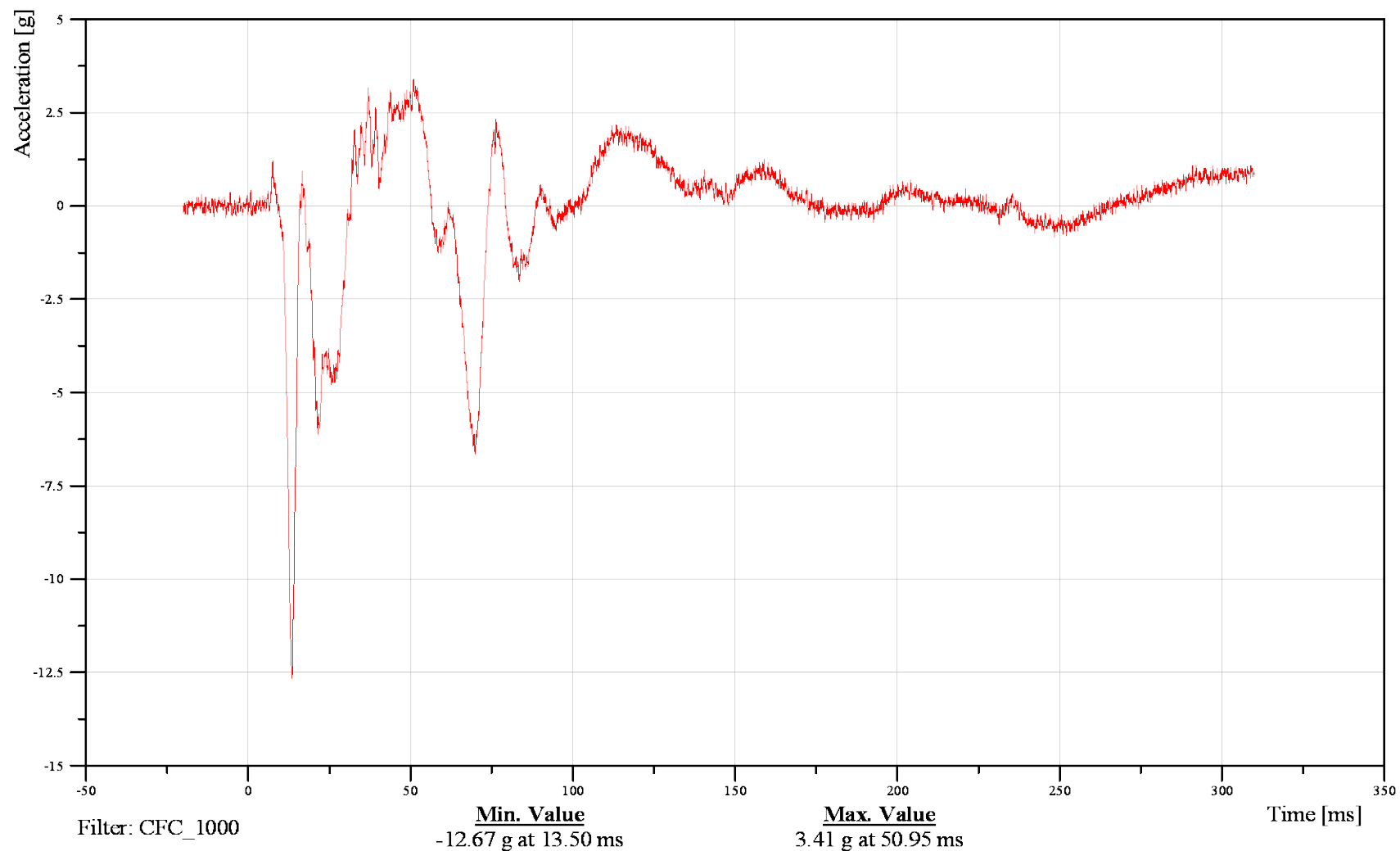
Time: 14:31

Customer: VRTC

11PELV0000WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Lateral Ay

Date: 03/27/2013

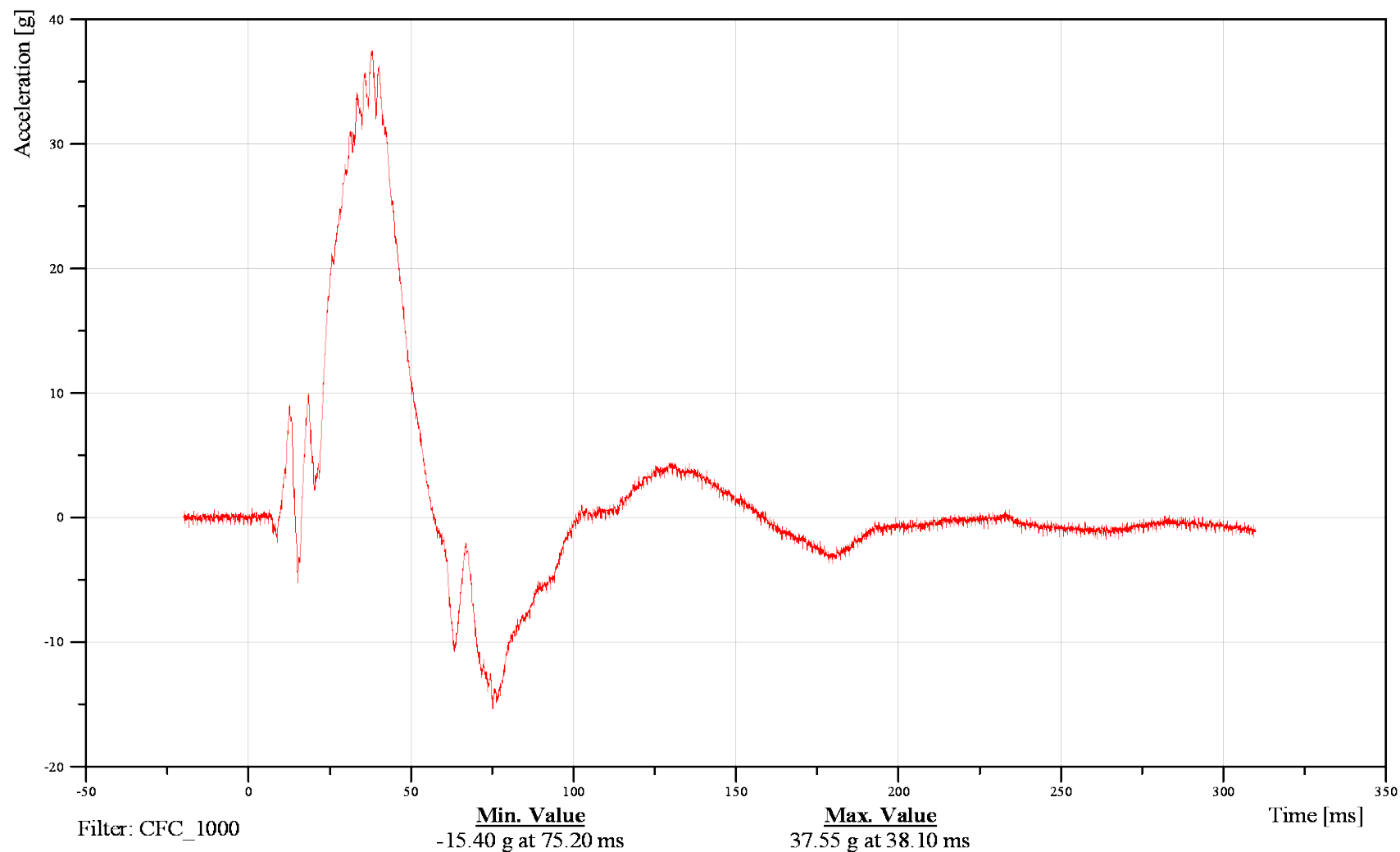
Time: 14:31

Customer: VRTC

11PELV0000WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Vertical Az

Date: 03/27/2013

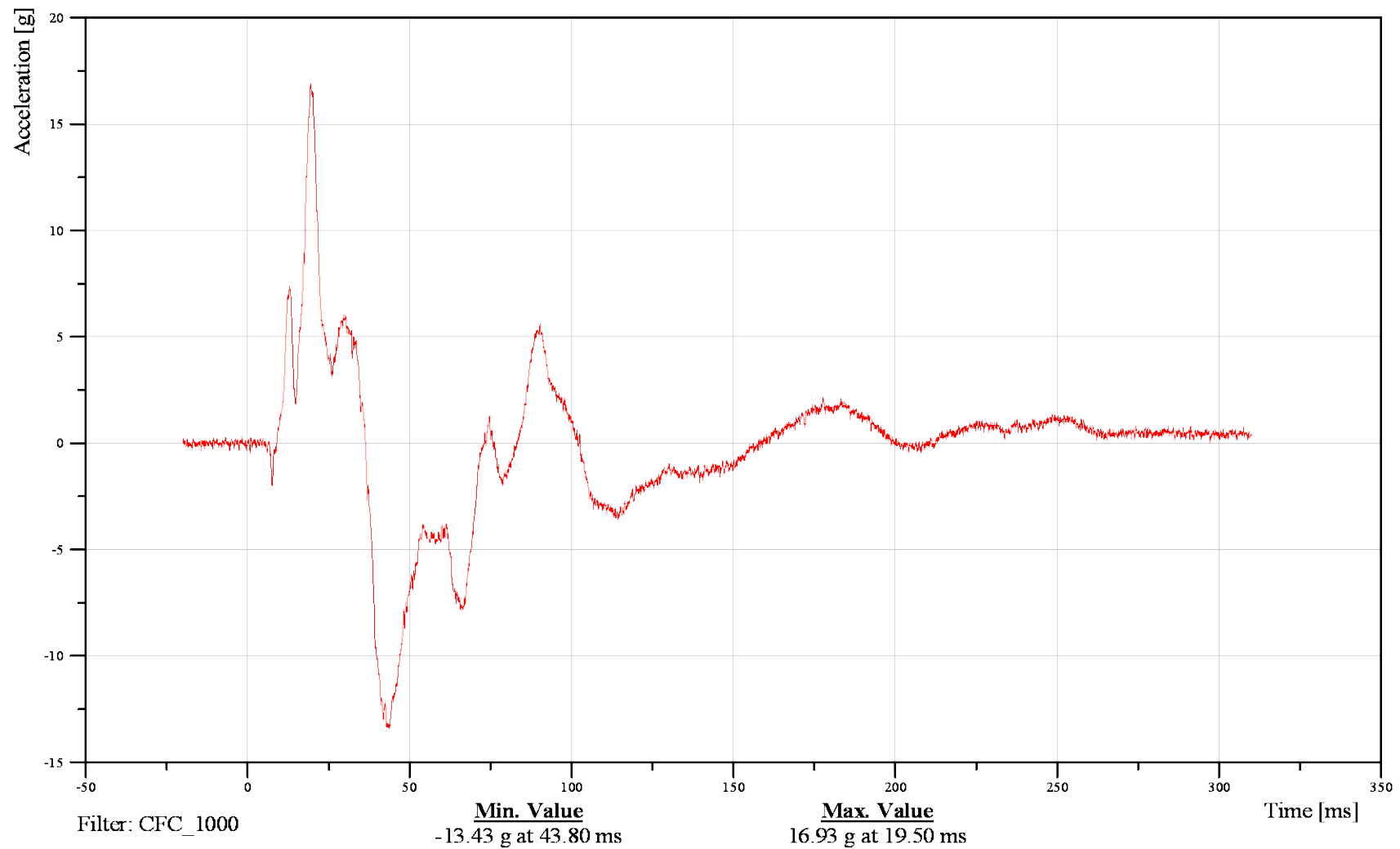
Time: 14:31

Customer: VRTC

11PELV0000WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis A Resultant

Date: 03/27/2013

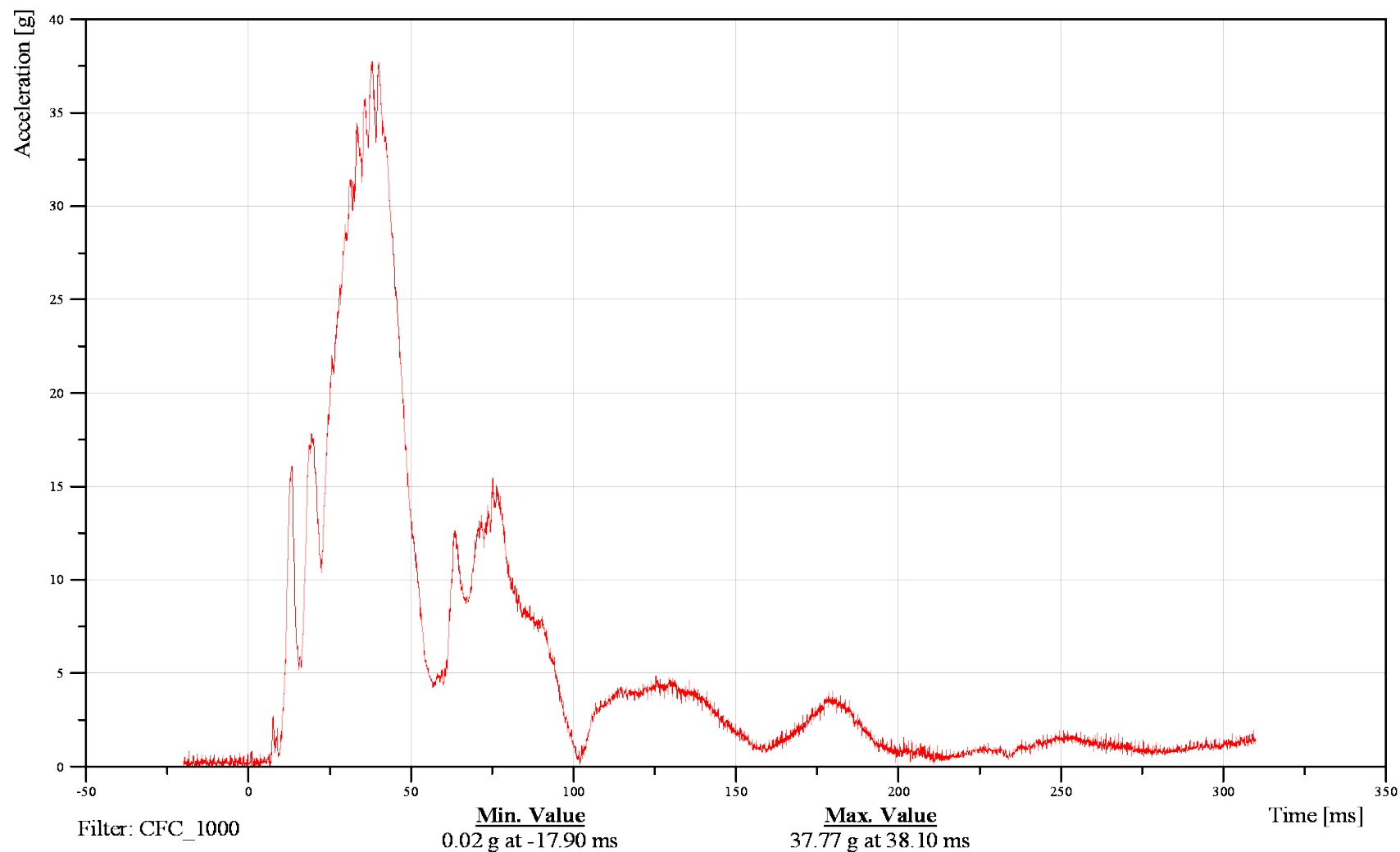
Time: 14:31

Customer: VRTC

11PELV0000WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pubic Force Fy

Date: 03/27/2013

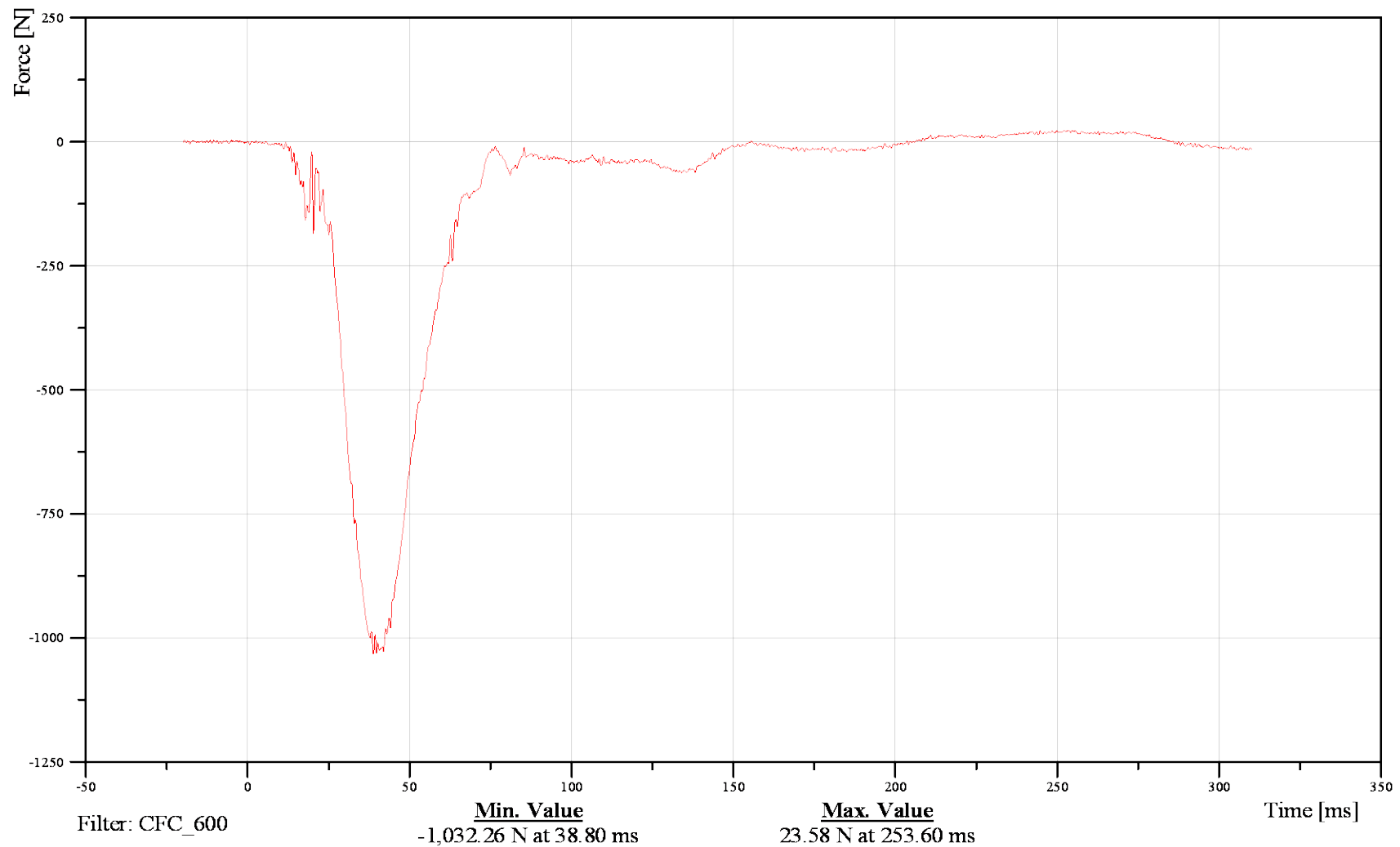
Time: 14:31

Customer: VRTC

11PUBC0000WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Lumbar Force Fx

Date: 03/27/2013

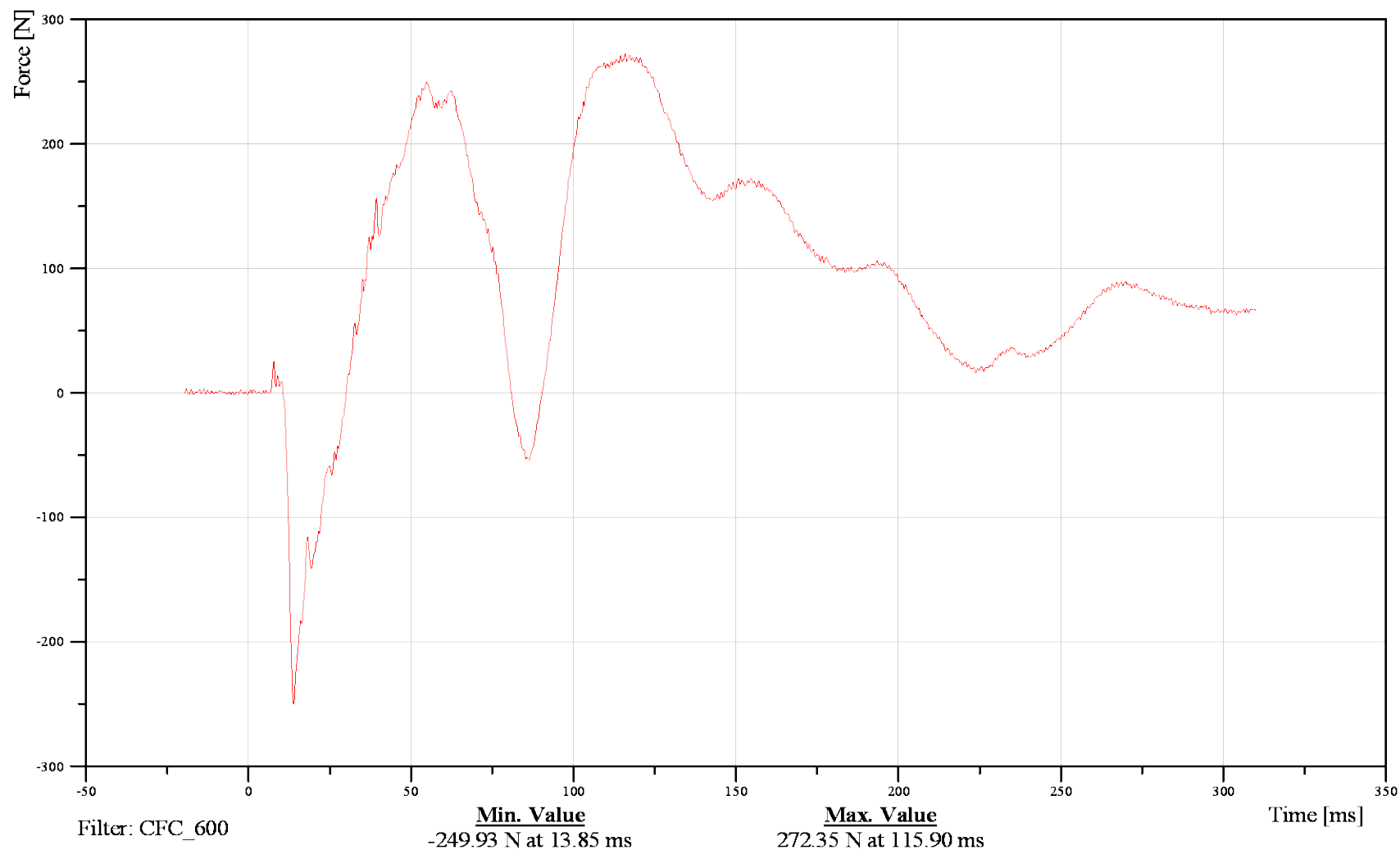
Time: 14:31

Customer: VRTC

11LUSP0000WSFOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Lumbar Force Fy

Date: 03/27/2013

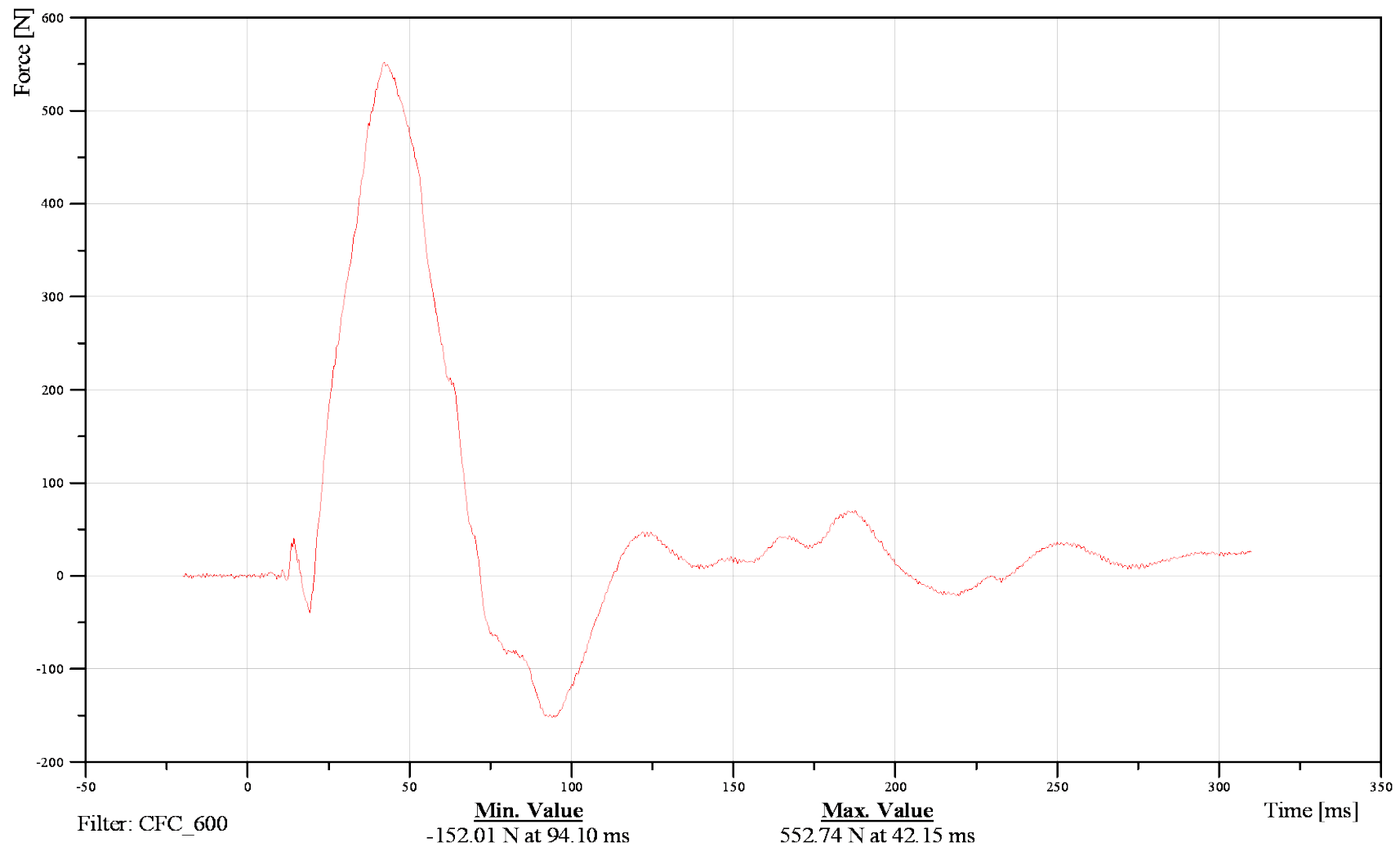
Time: 14:31

Customer: VRTC

11LUSP0000WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Lumbar Force Fz

Date: 03/27/2013

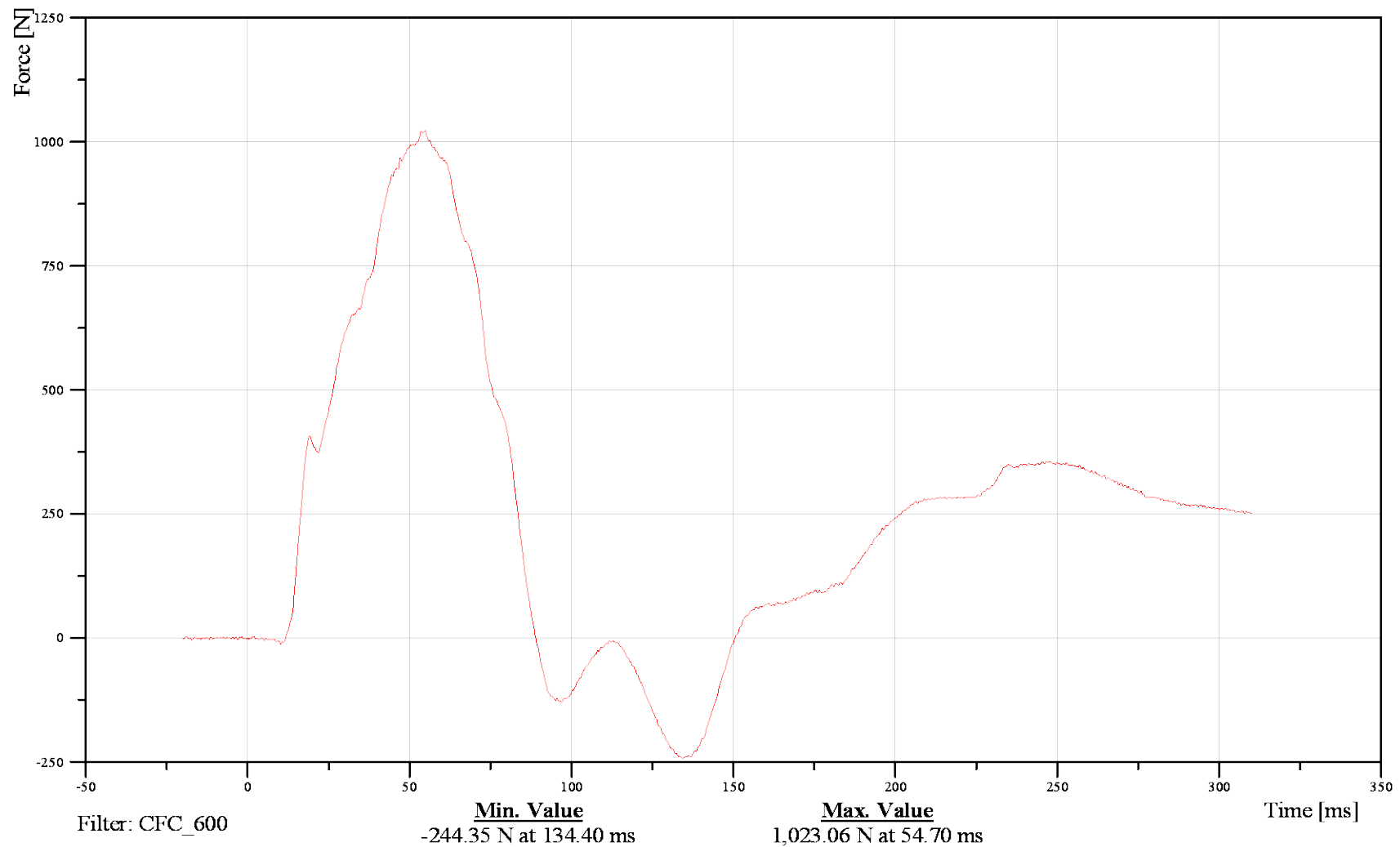
Time: 14:31

Customer: VRTC

11LUSP0000WSFOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Lumbar Moment Mx

Date: 03/27/2013

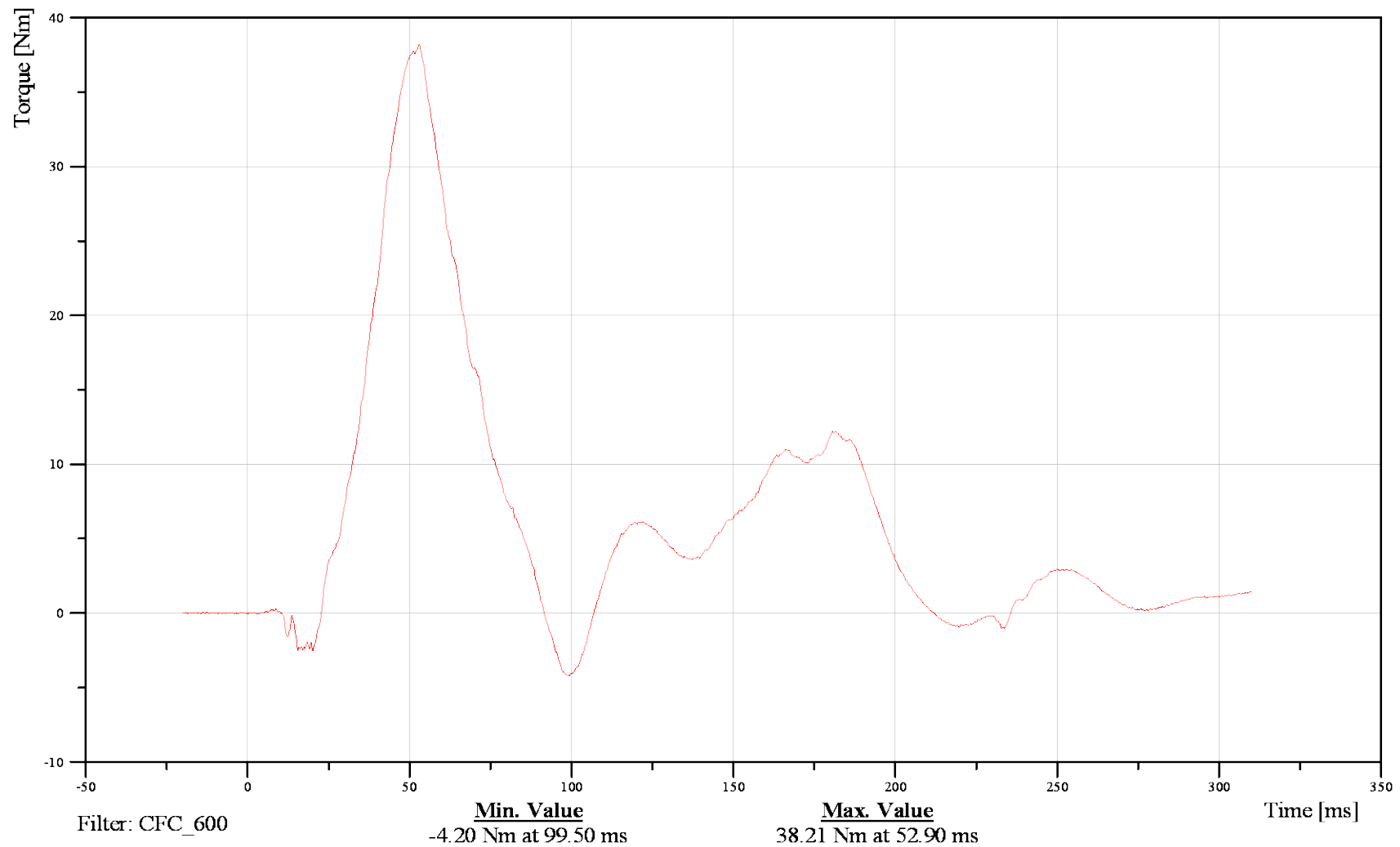
Time: 14:31

Customer: VRTC

11LUSP0000WSMOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Lumbar Moment My

Date: 03/27/2013

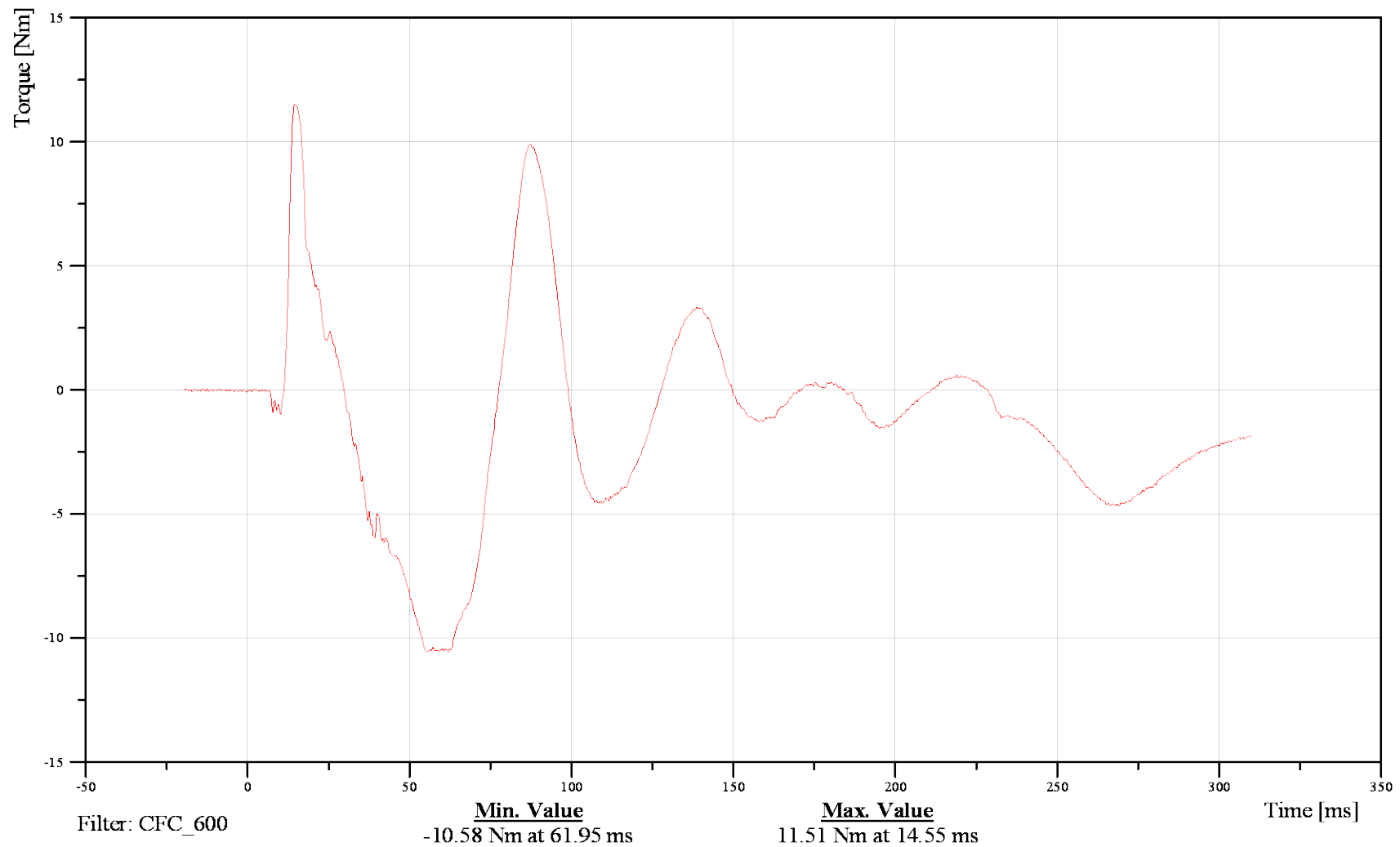
Time: 14:31

Customer: VRTC

11LUSP0000WSMOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Lumbar Moment Mz

Date: 03/27/2013

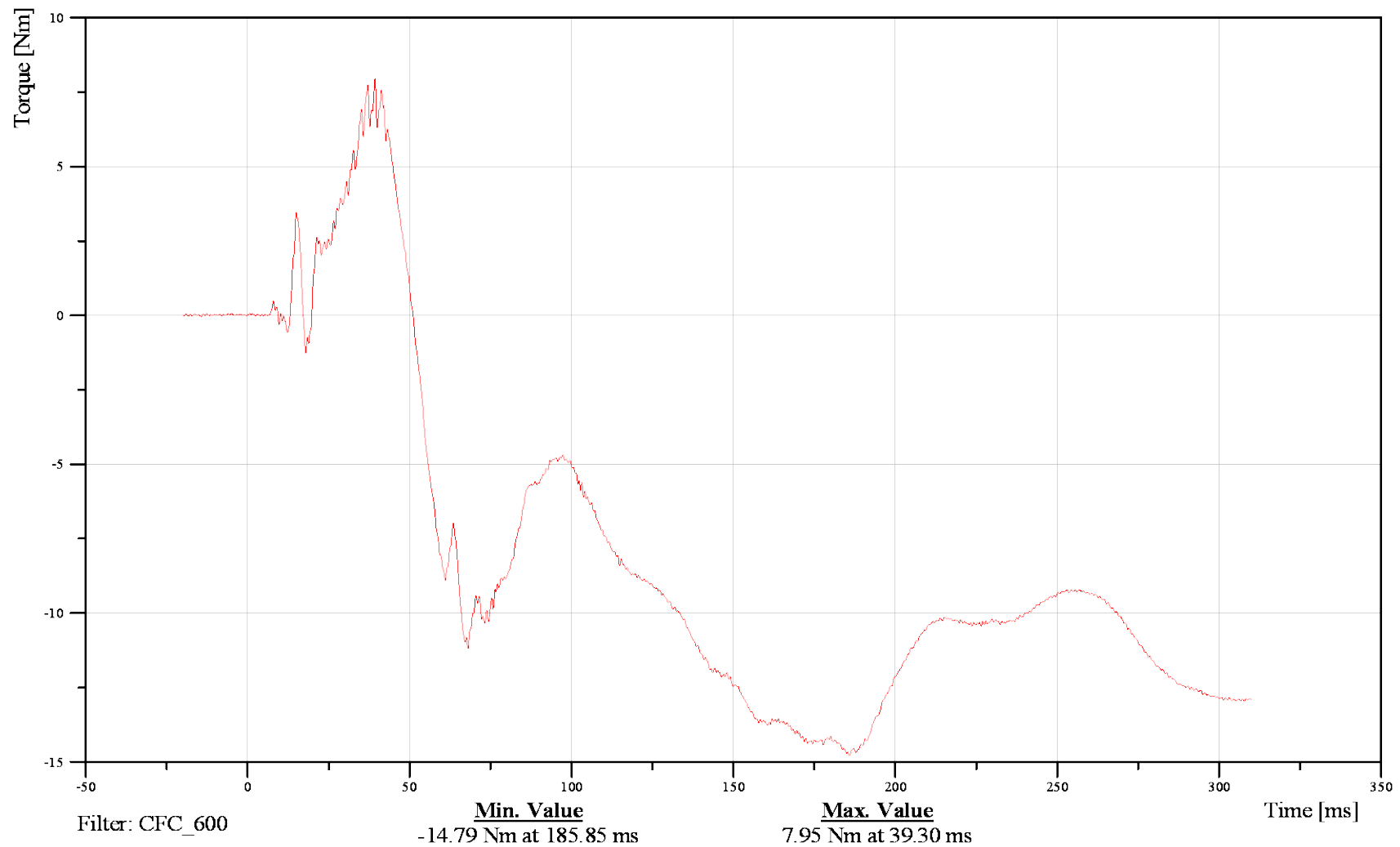
Time: 14:31

Customer: VRTC

11LUSP0000WSMOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Right Moment Mx

Date: 03/27/2013

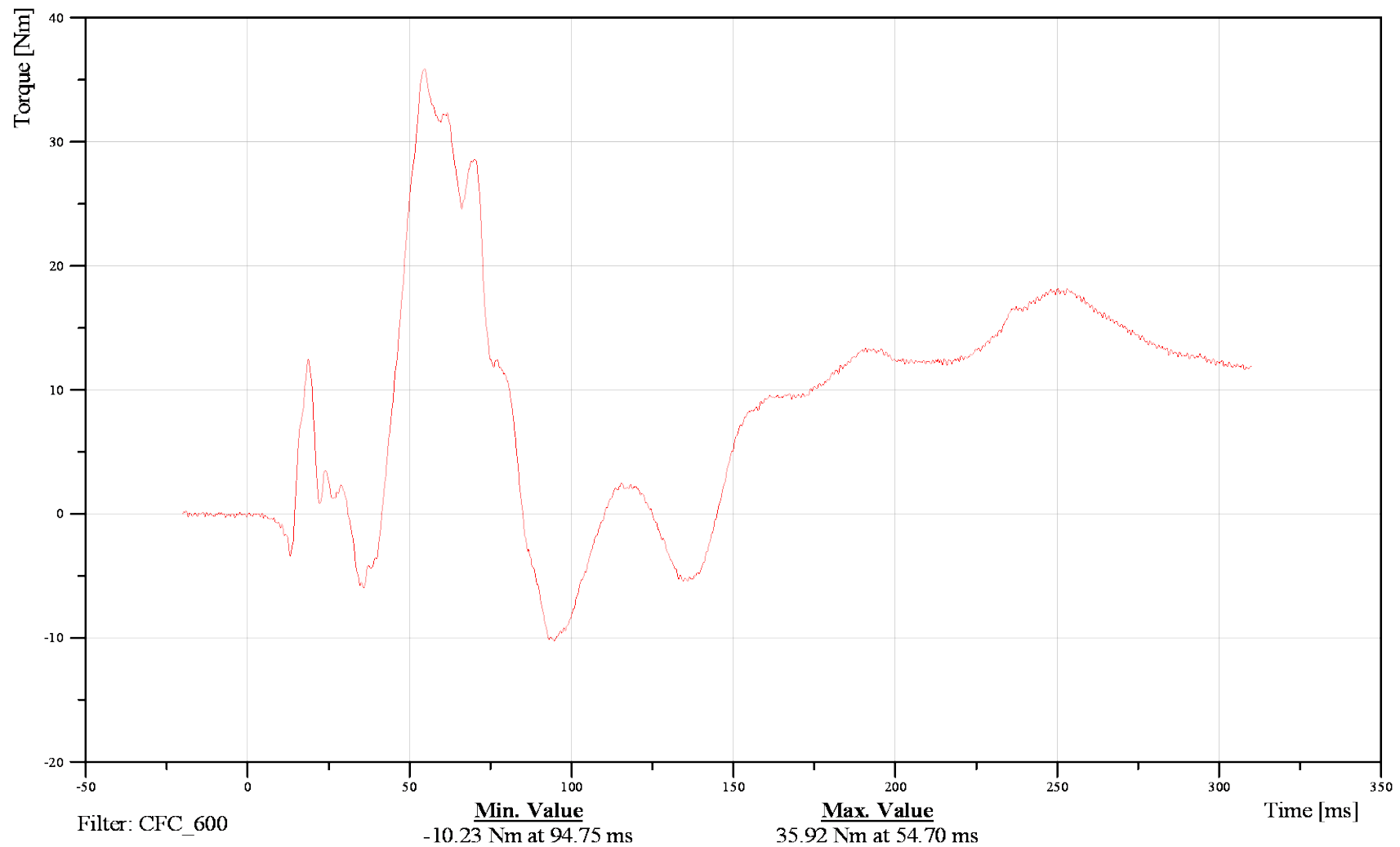
Time: 14:31

Customer: VRTC

11SACRRI00WSMOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Right Moment My

Date: 03/27/2013

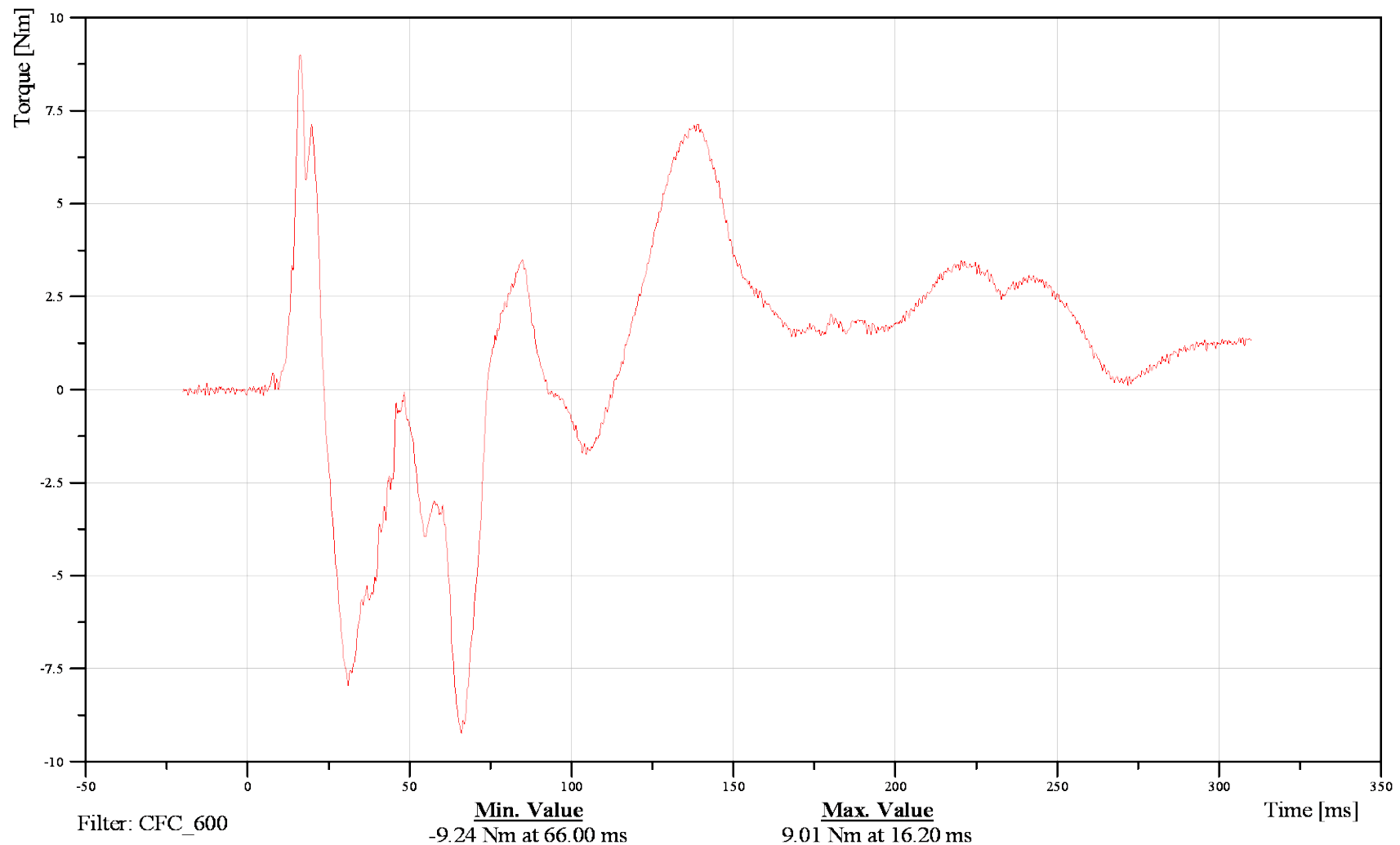
Time: 14:31

Customer: VRTC

11SACRRI00WSMOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Right Moment Mz

Date: 03/27/2013

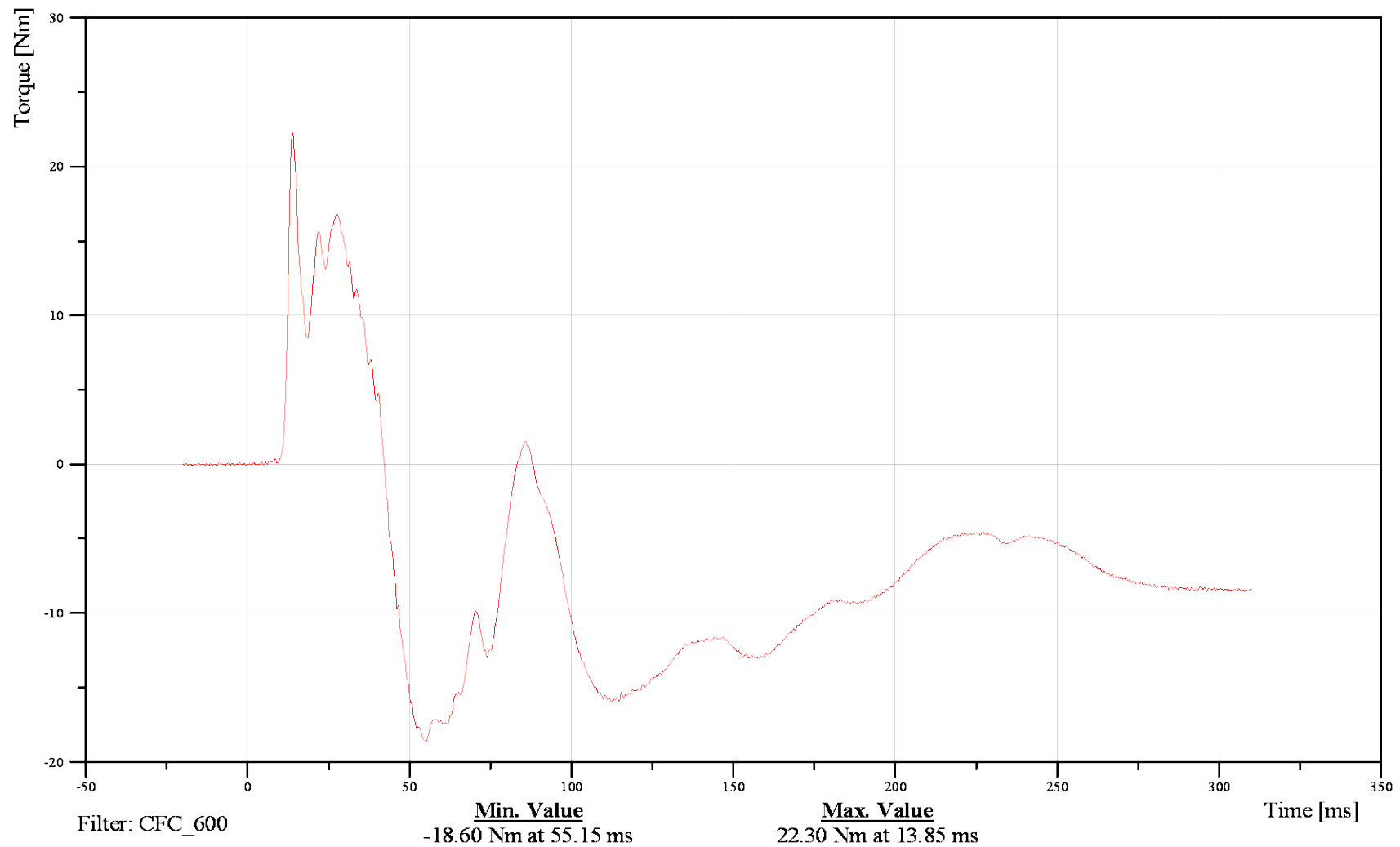
Time: 14:31

Customer: VRTC

11SACRRI00WSMOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Right Force Fx

Date: 03/27/2013

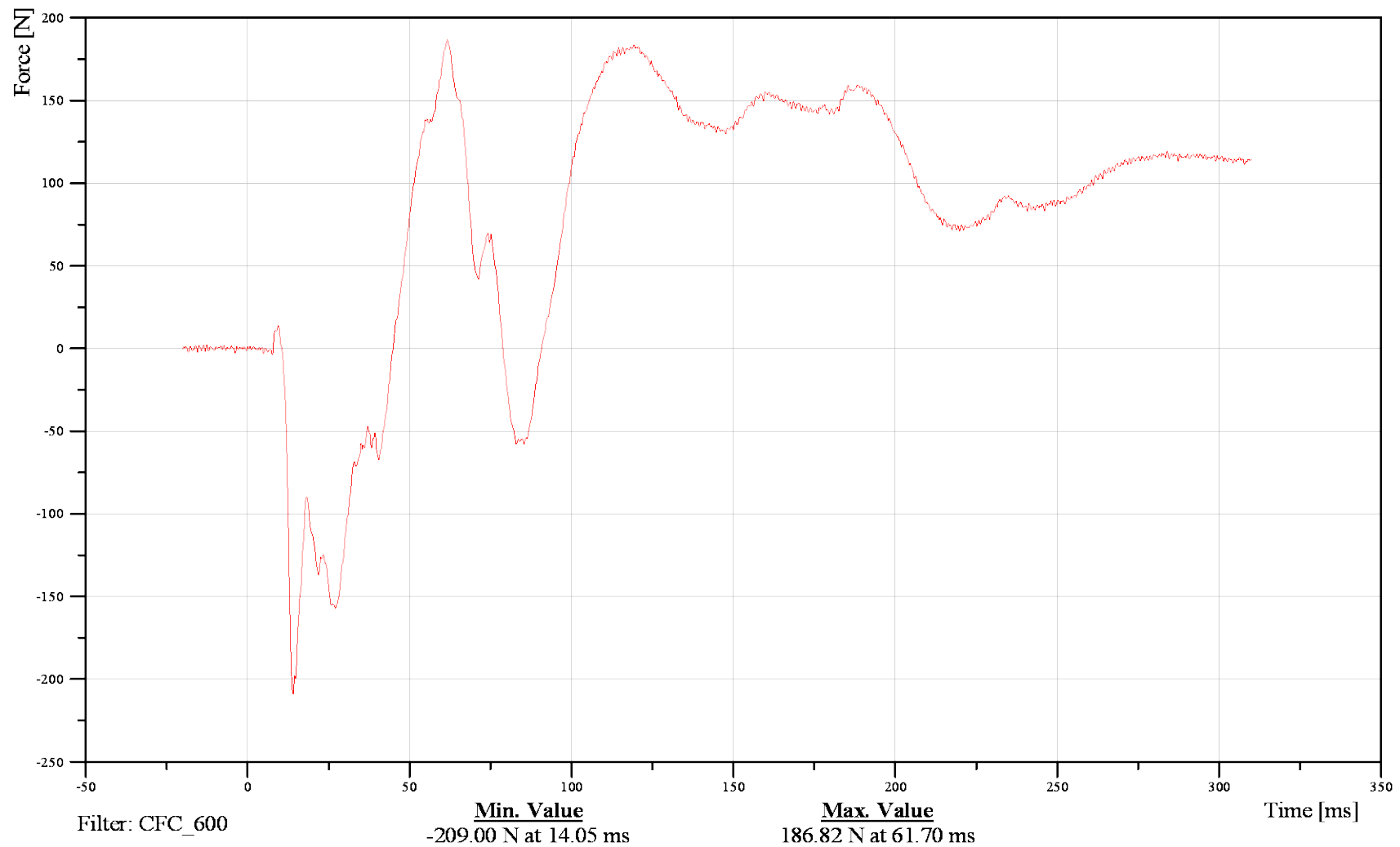
Time: 14:31

Customer: VRTC

11SACRRI00WSFOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Right Force Fy

Date: 03/27/2013

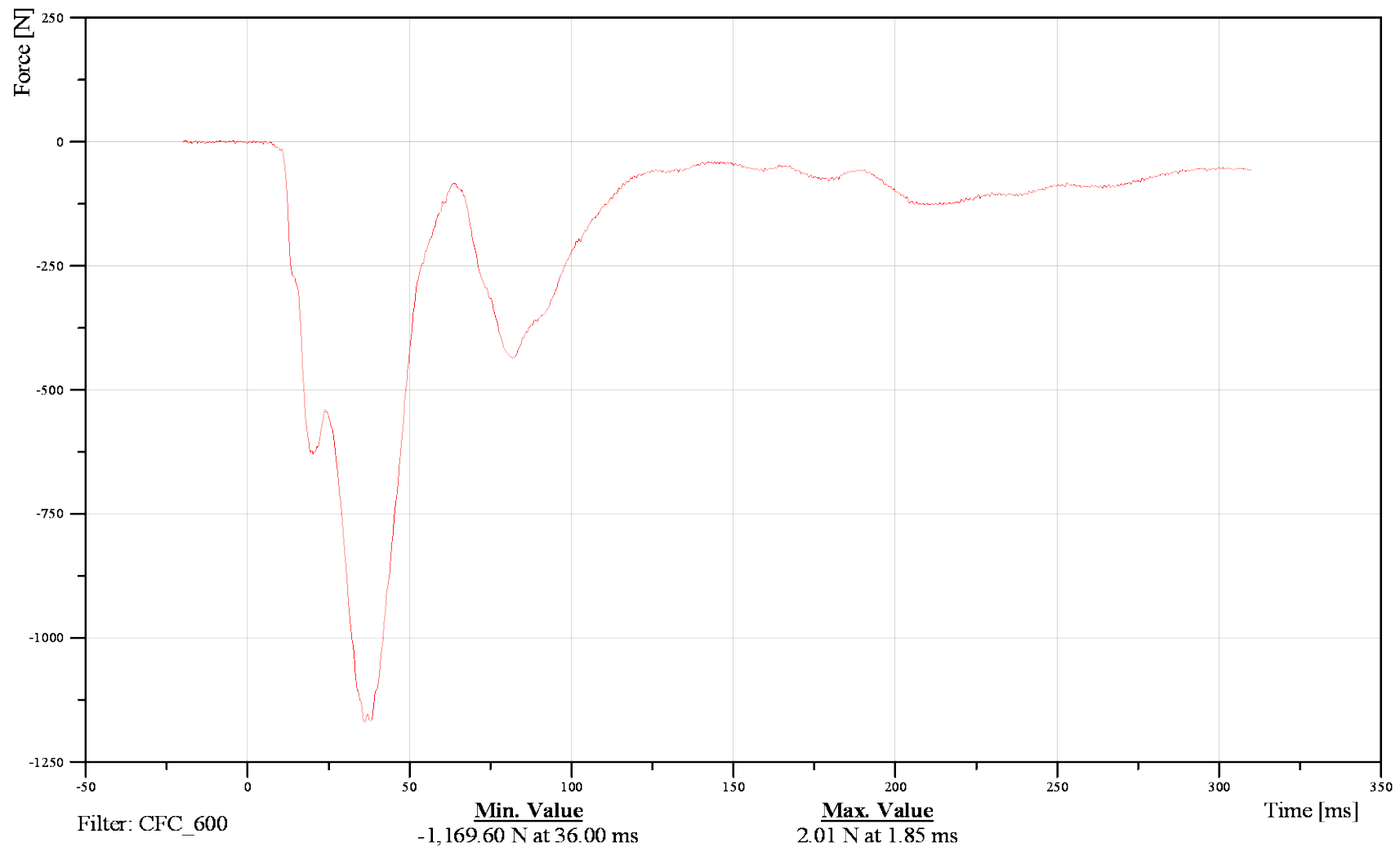
Time: 14:31

Customer: VRTC

11SACRRI00WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Right Force Fz

Date: 03/27/2013

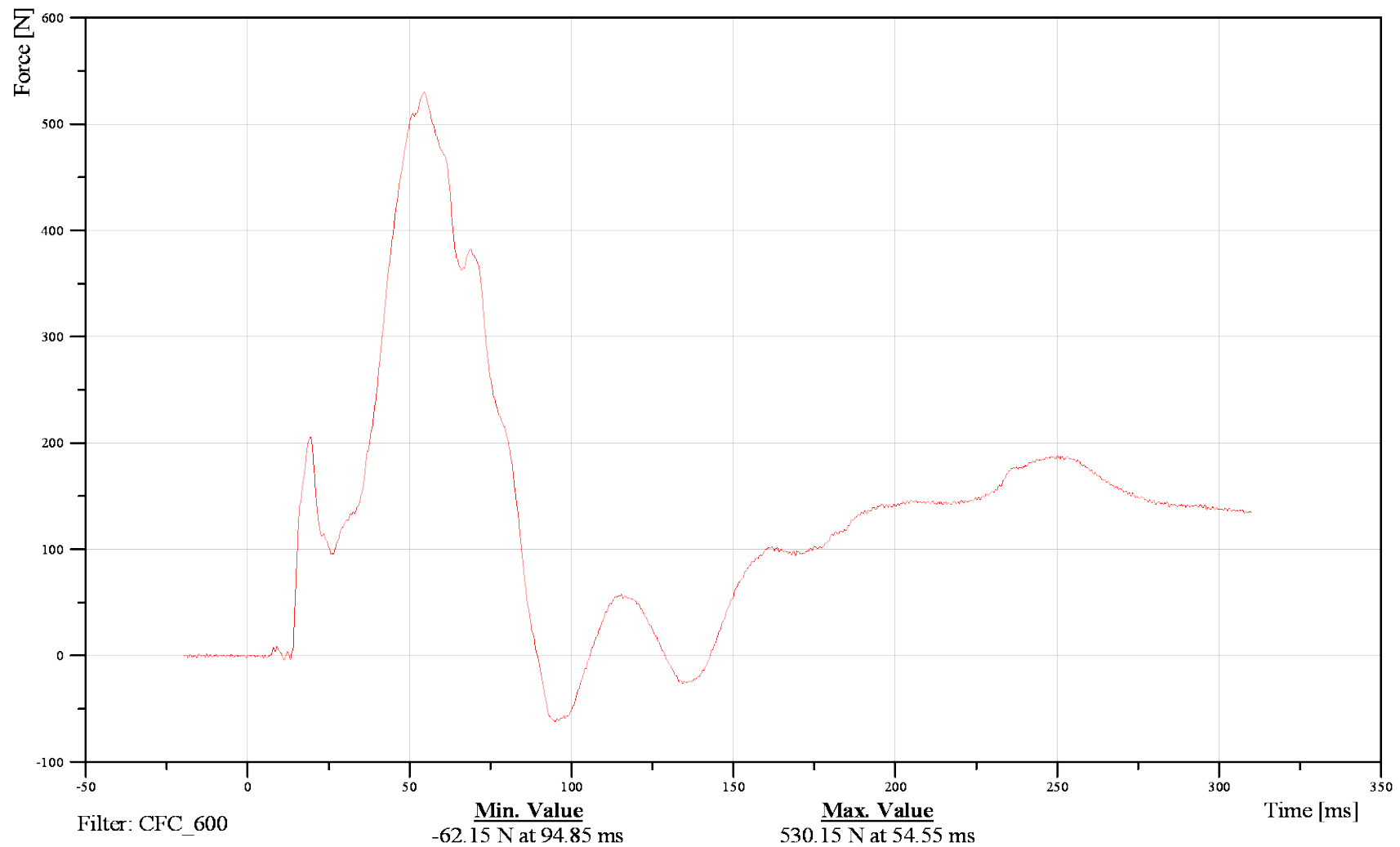
Time: 14:31

Customer: VRTC

11SACRRI00WSFOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Left Moment Mx

Date: 03/27/2013

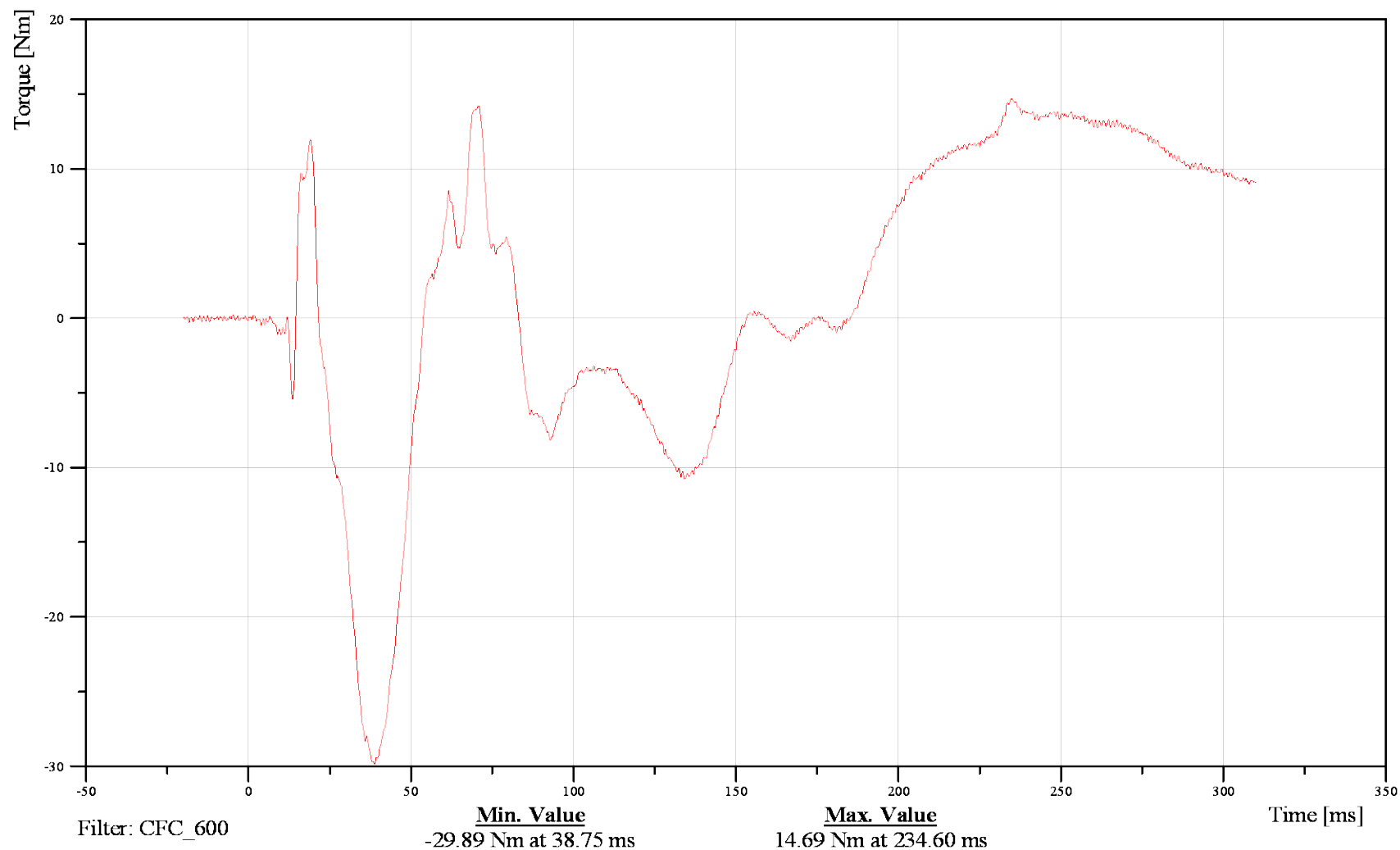
Time: 14:31

Customer: VRTC

11SACRLE00WSMOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Left Moment My

Date: 03/27/2013

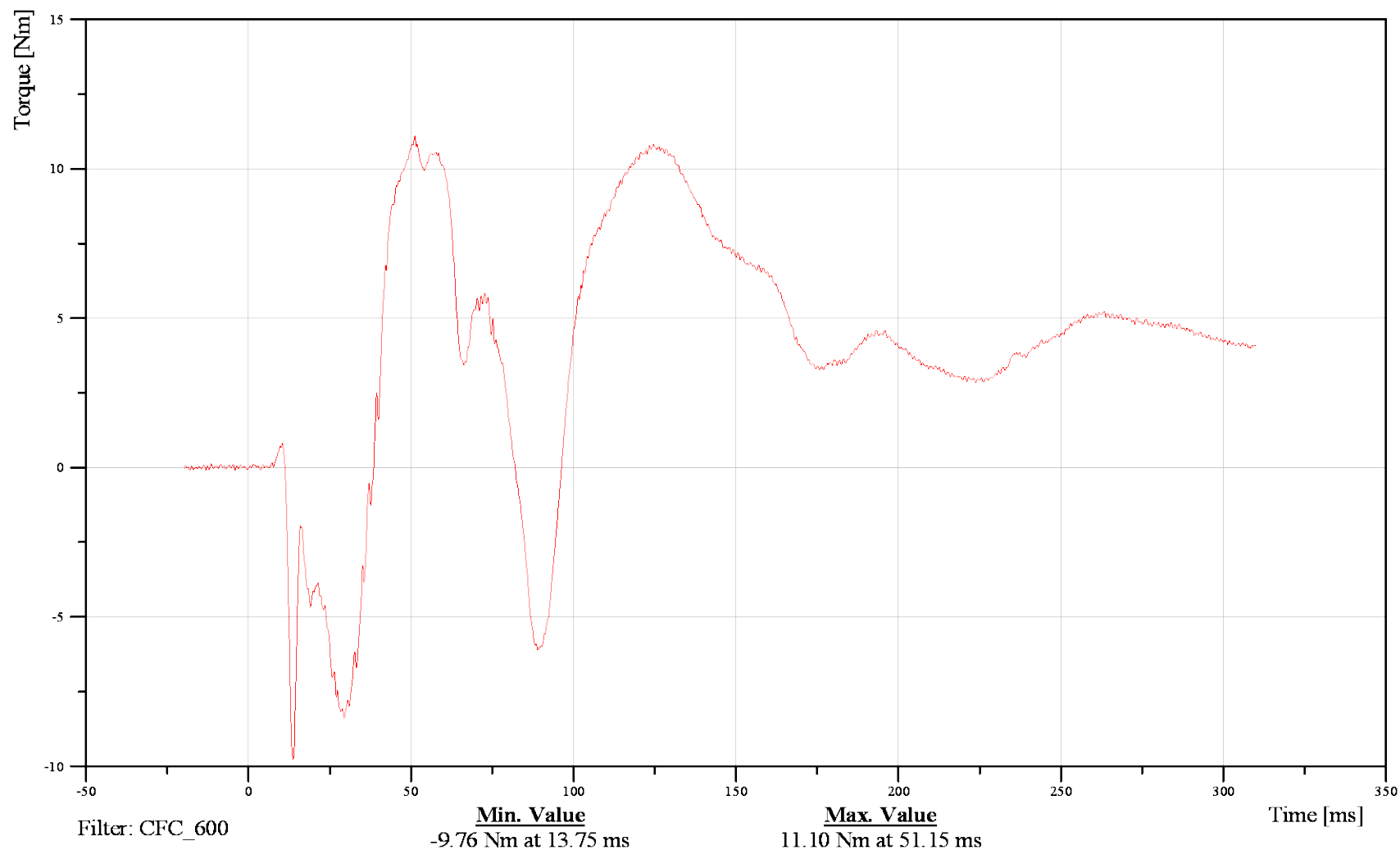
Time: 14:31

Customer: VRTC

11SACRLE00WSMOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Left Moment Mz

Date: 03/27/2013

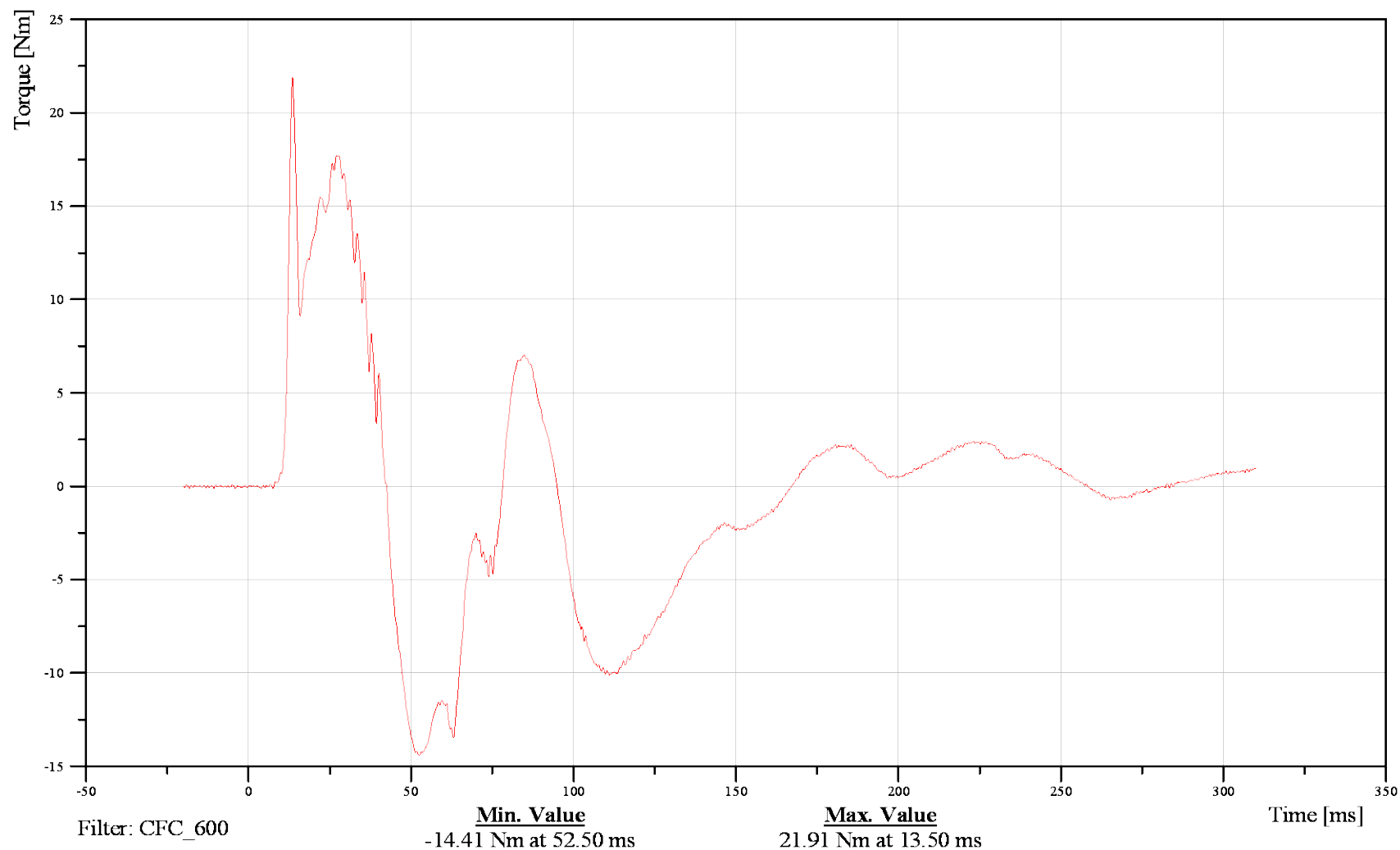
Time: 14:31

Customer: VRTC

11SACRLE00WSMOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Left Force Fx

Date: 03/27/2013

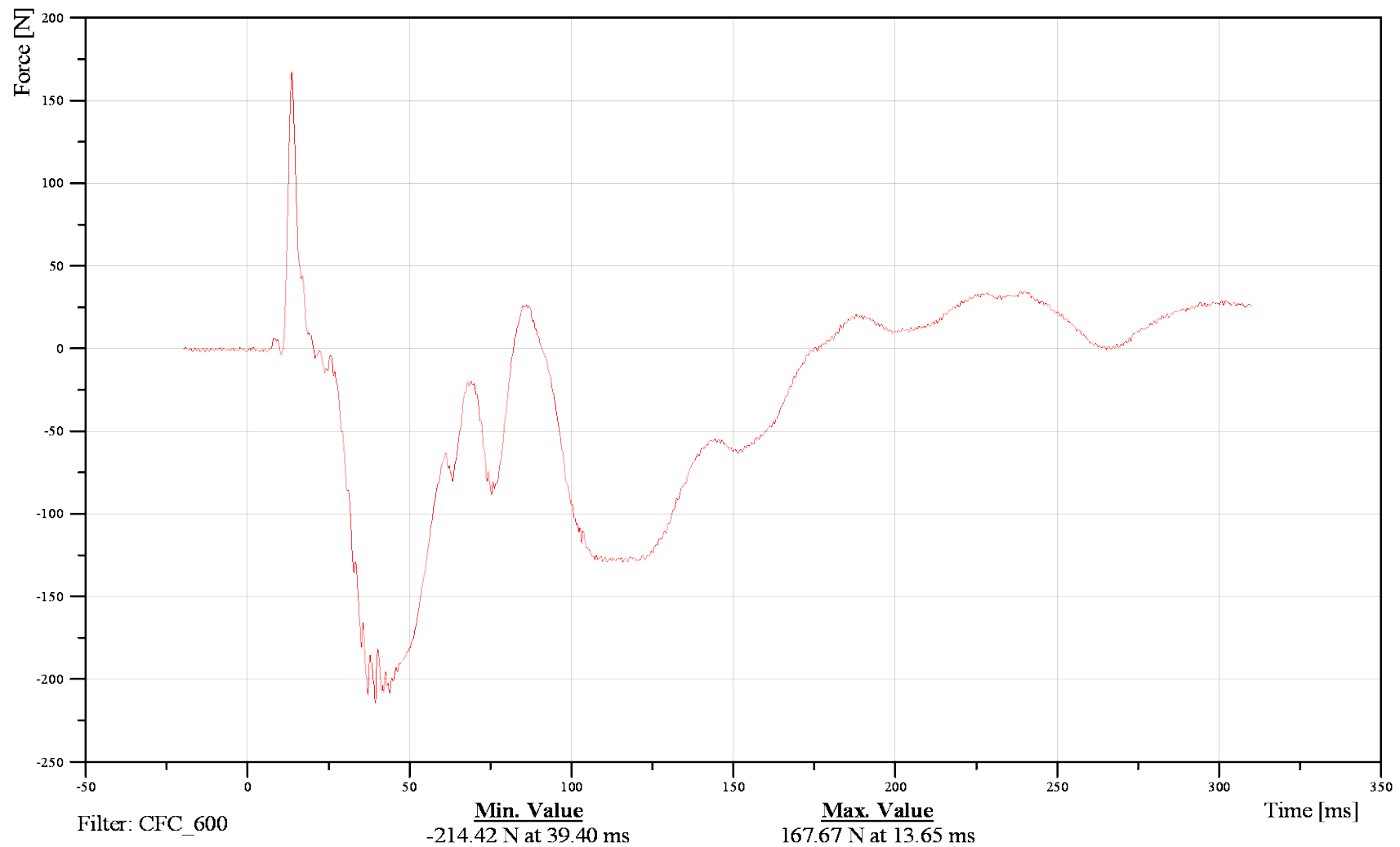
Time: 14:31

Customer: VRTC

11SACRLE00WSFOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Left Force Fy

Date: 03/27/2013

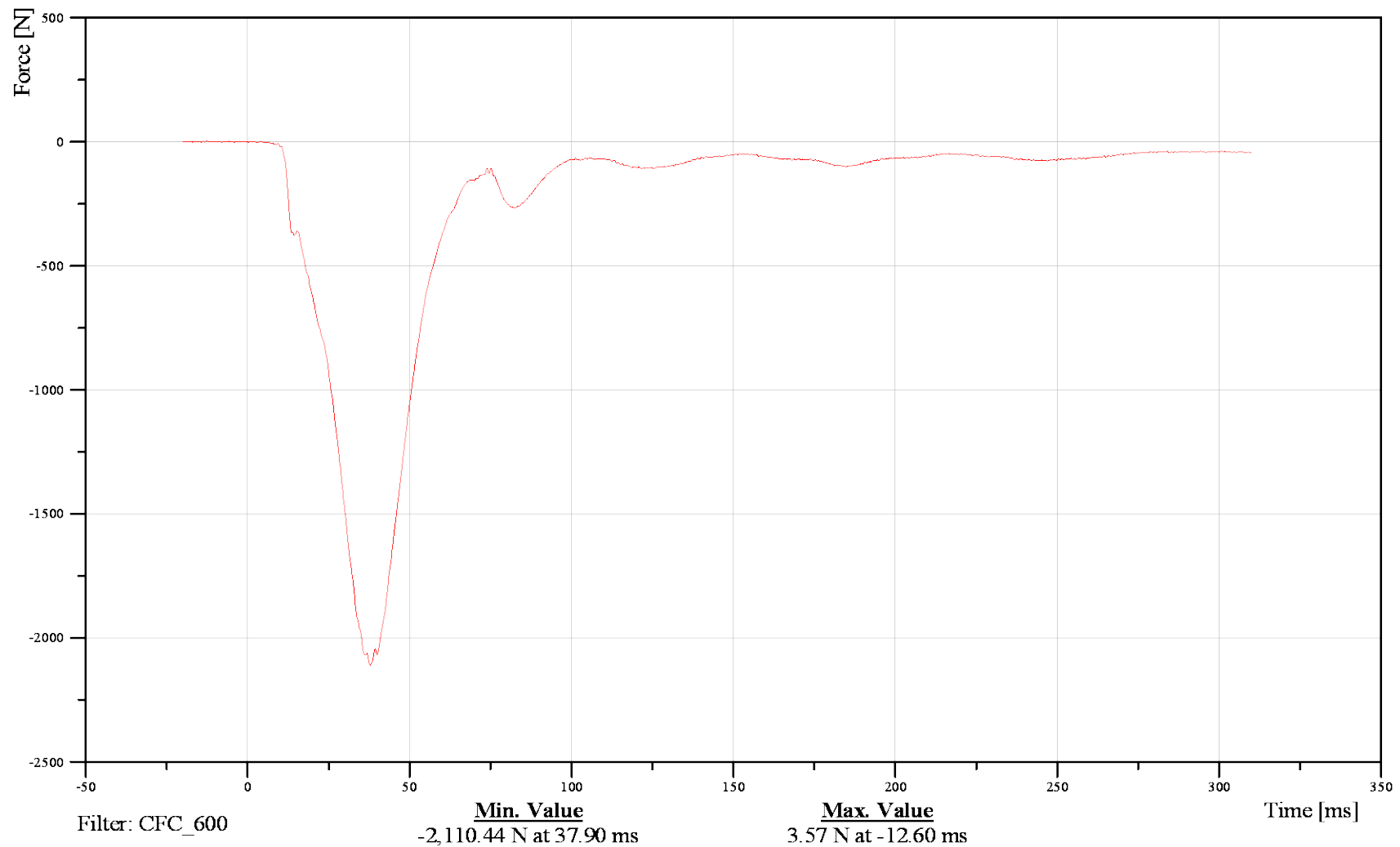
Time: 14:31

Customer: VRTC

11SACRLE00WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Sacro-Iliac Left Force Fz

Date: 03/27/2013

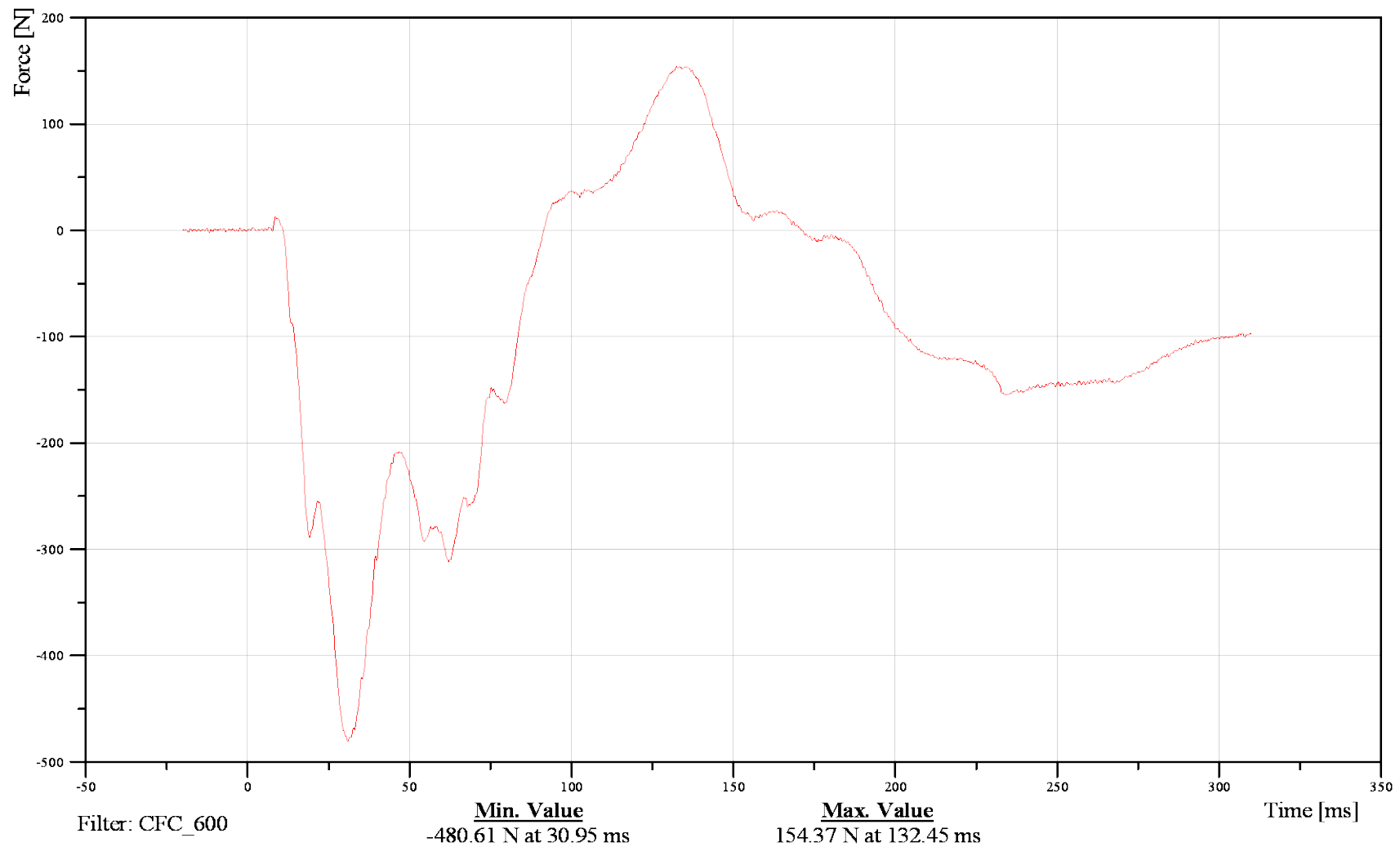
Time: 14:31

Customer: VRTC

11SACRLE00WSFOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Femoral Neck Force Fx

Date: 03/27/2013

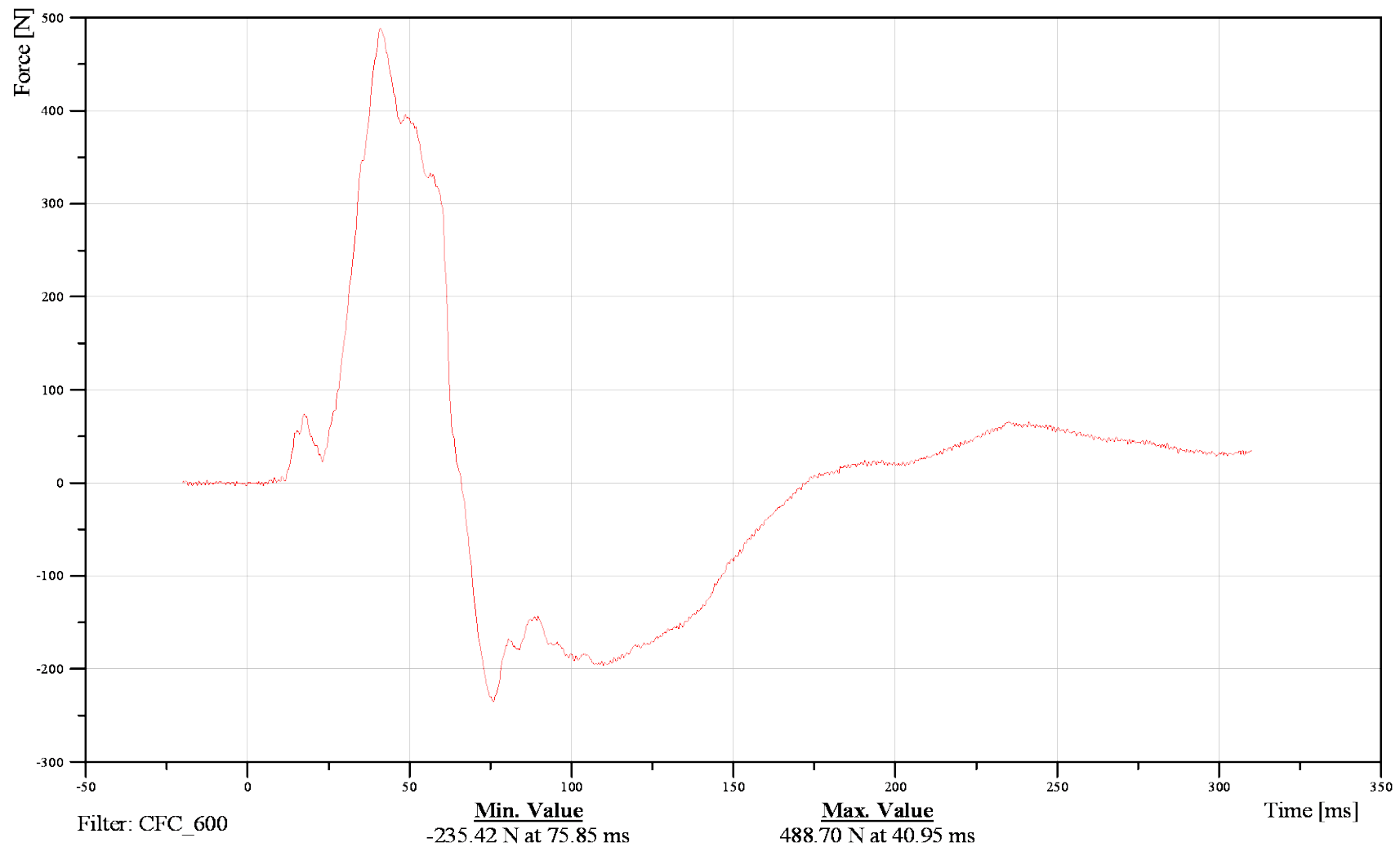
Time: 14:31

Customer: VRTC

11FEACLE00WSFOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Femoral Neck Force Fy

Date: 03/27/2013

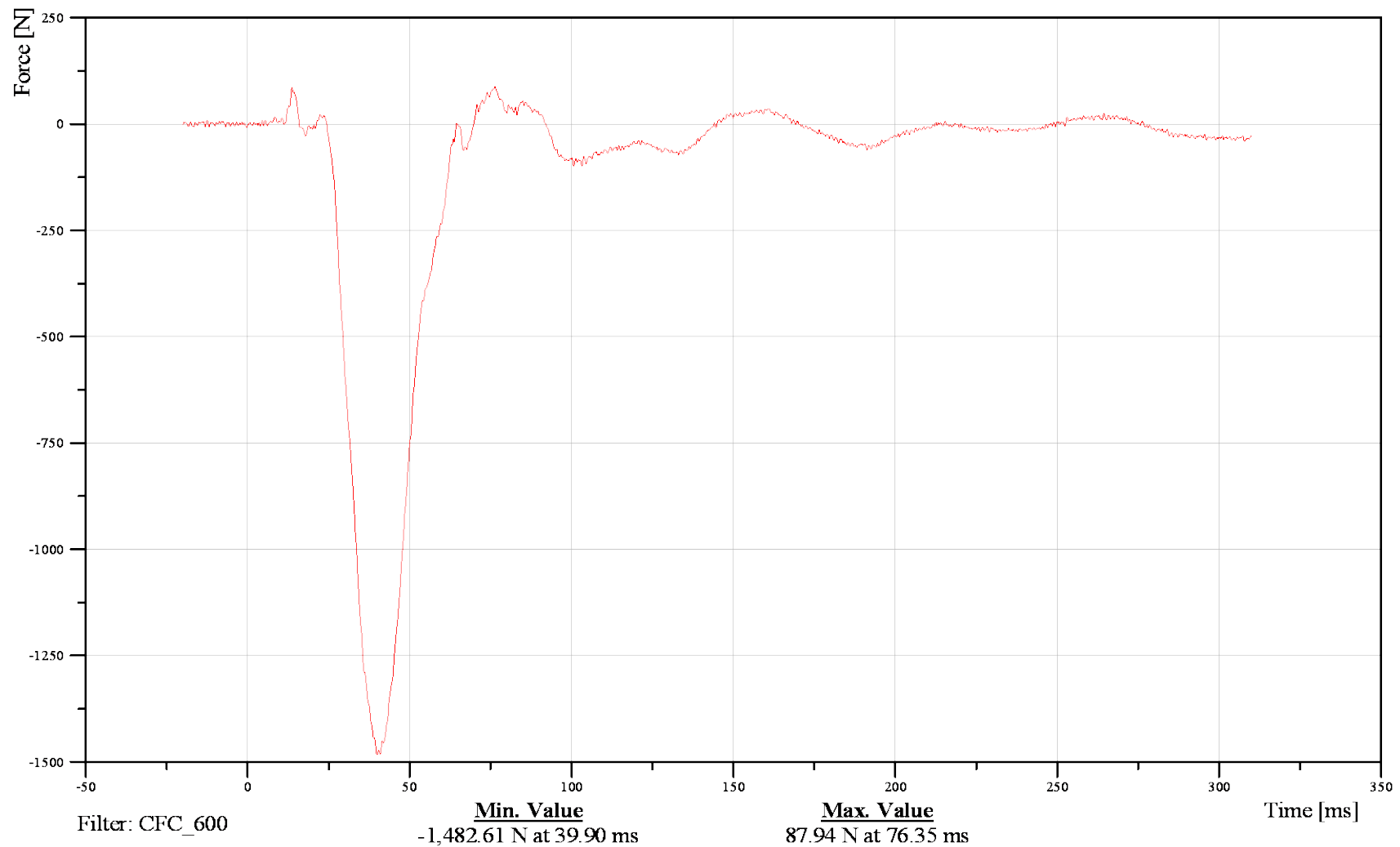
Time: 14:31

Customer: VRTC

11FEACLE00WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Femoral Neck Force Fz

Date: 03/27/2013

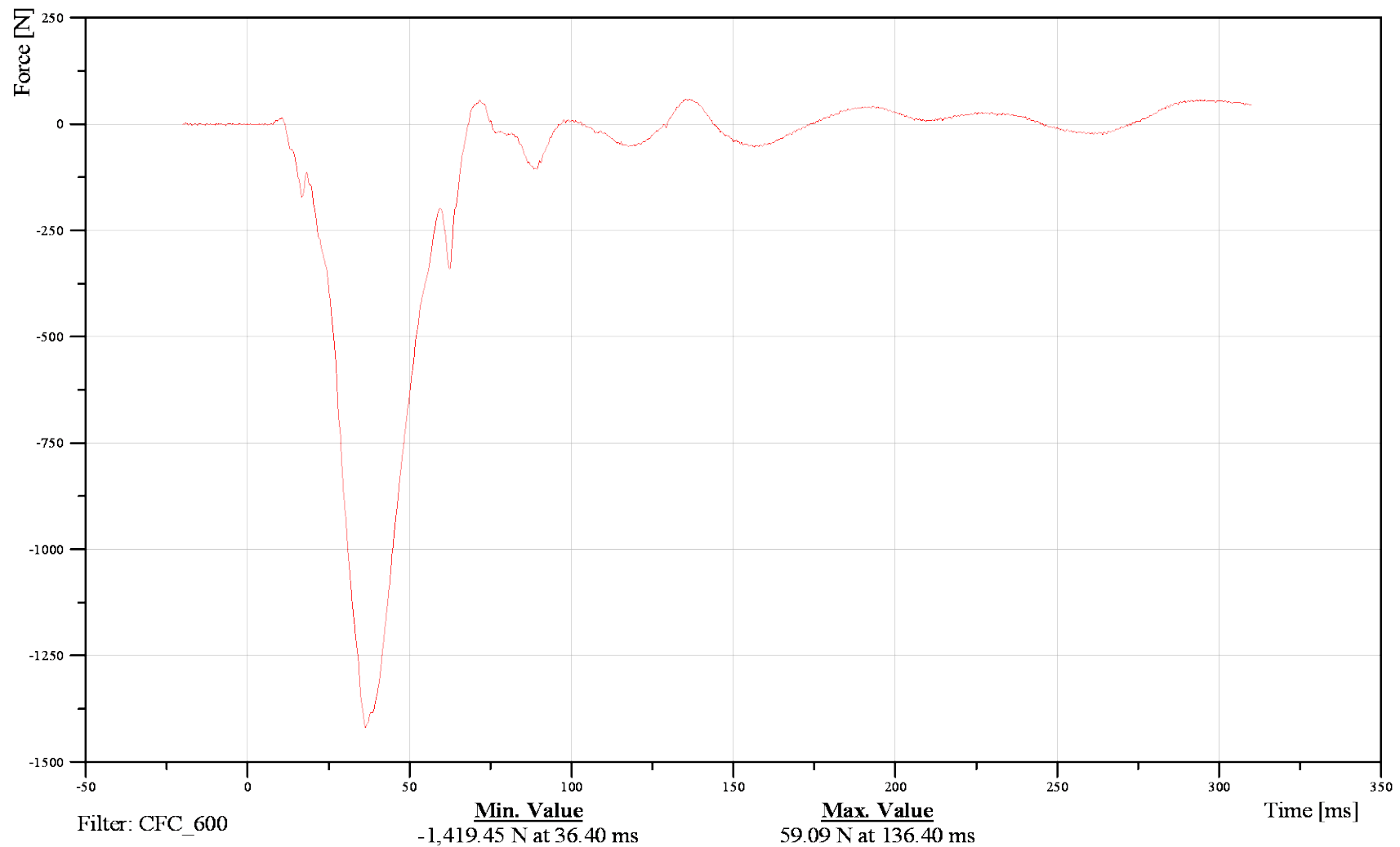
Time: 14:31

Customer: VRTC

11FEACLE00WSFOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Femoral Neck Force Fx

Date: 03/27/2013

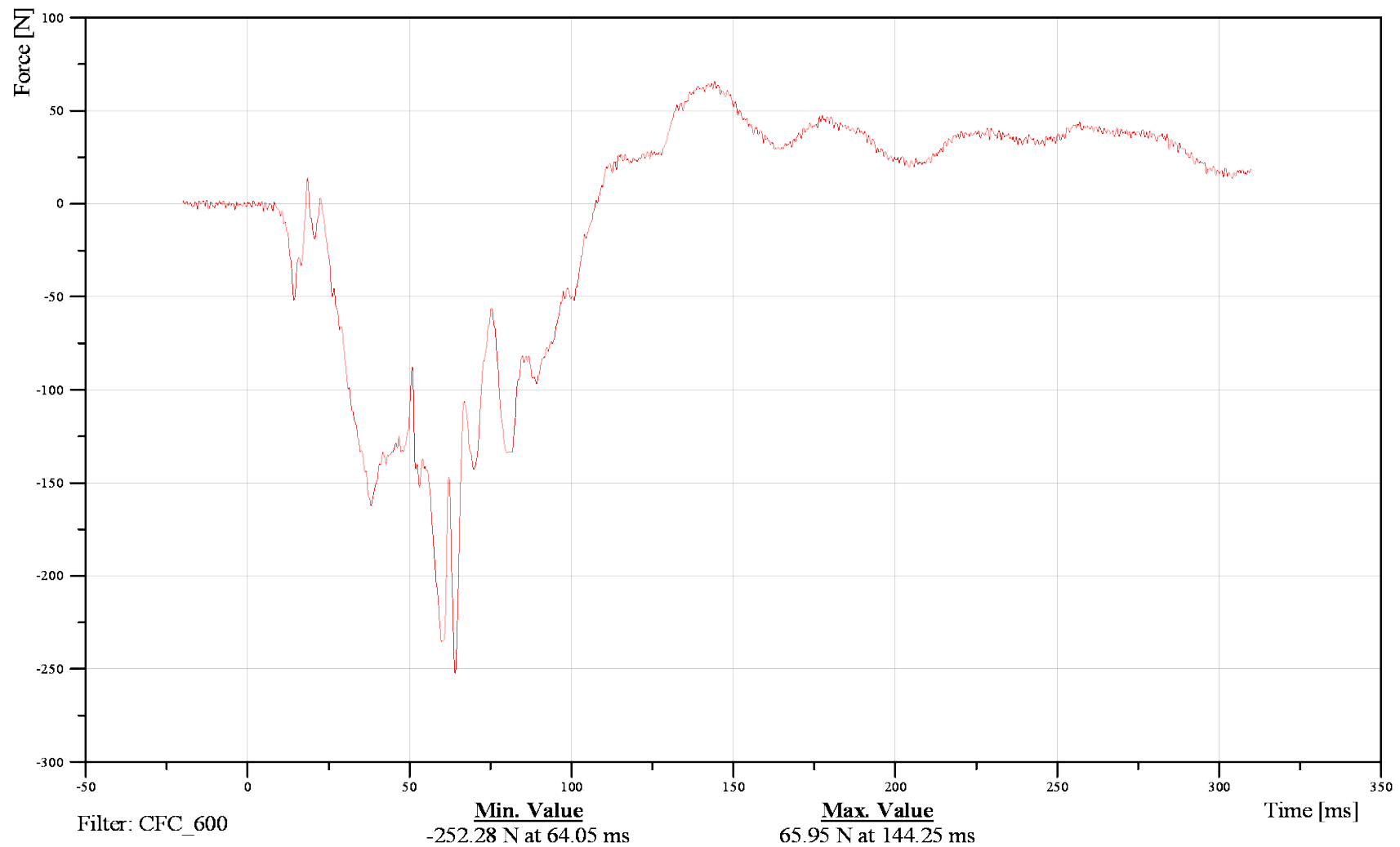
Time: 14:31

Customer: VRTC

11FEACRI00WSFOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Femoral Neck Force Fy

Date: 03/27/2013

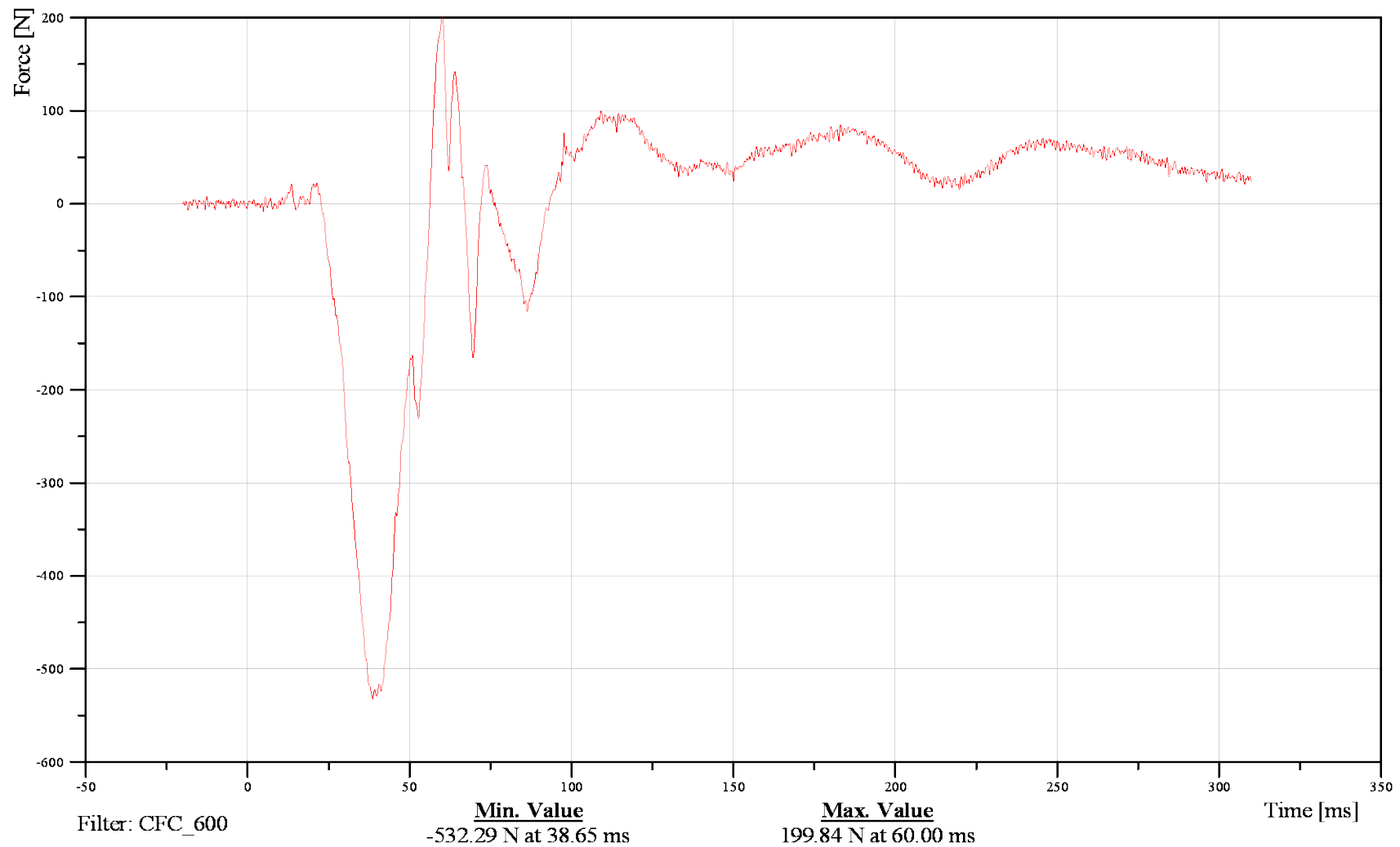
Time: 14:31

Customer: VRTC

11FEACRI00WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Femoral Neck Force Fz

Date: 03/27/2013

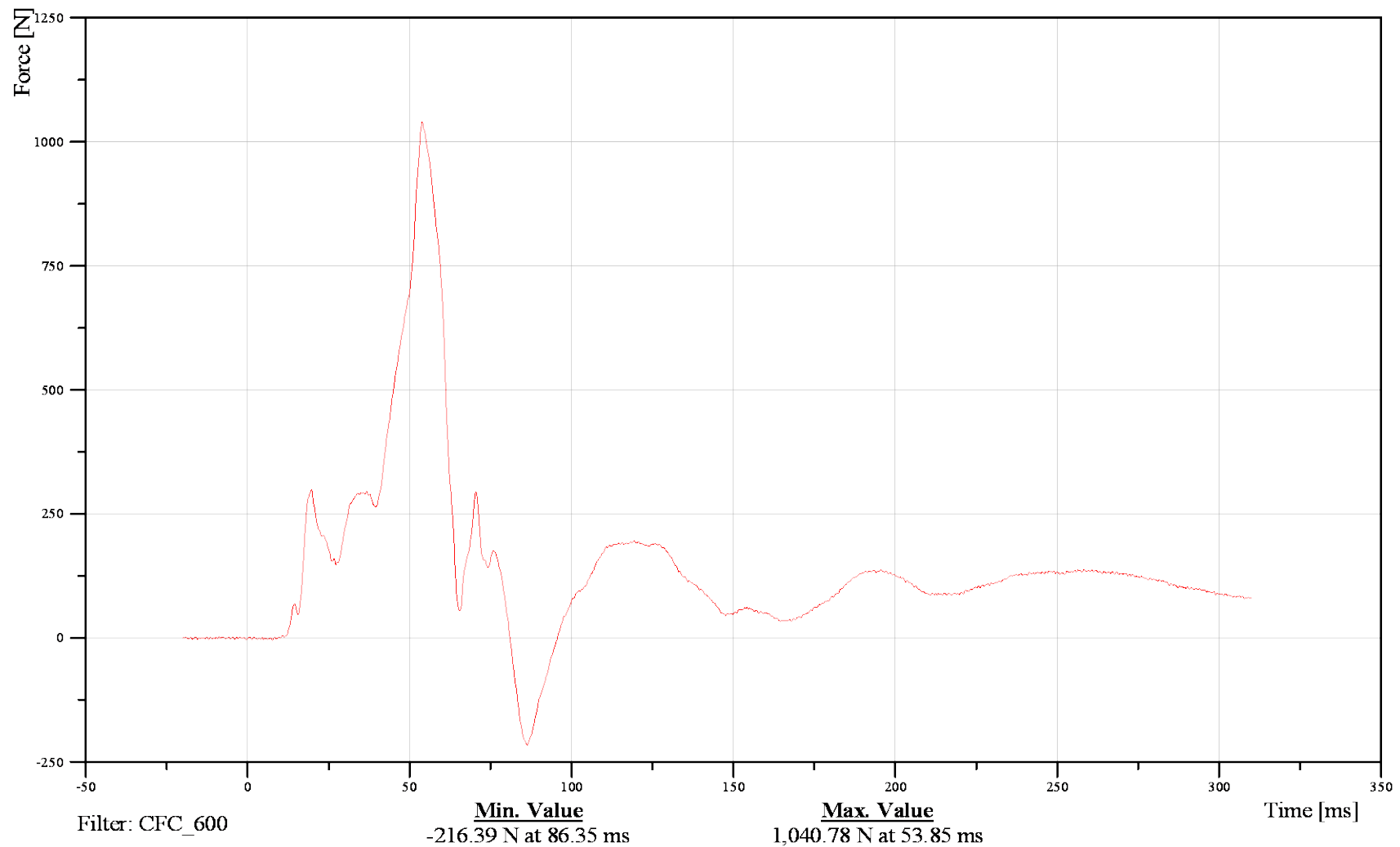
Time: 14:31

Customer: VRTC

11FEACRI00WSFOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Longitudinal Ax

Date: 03/27/2013

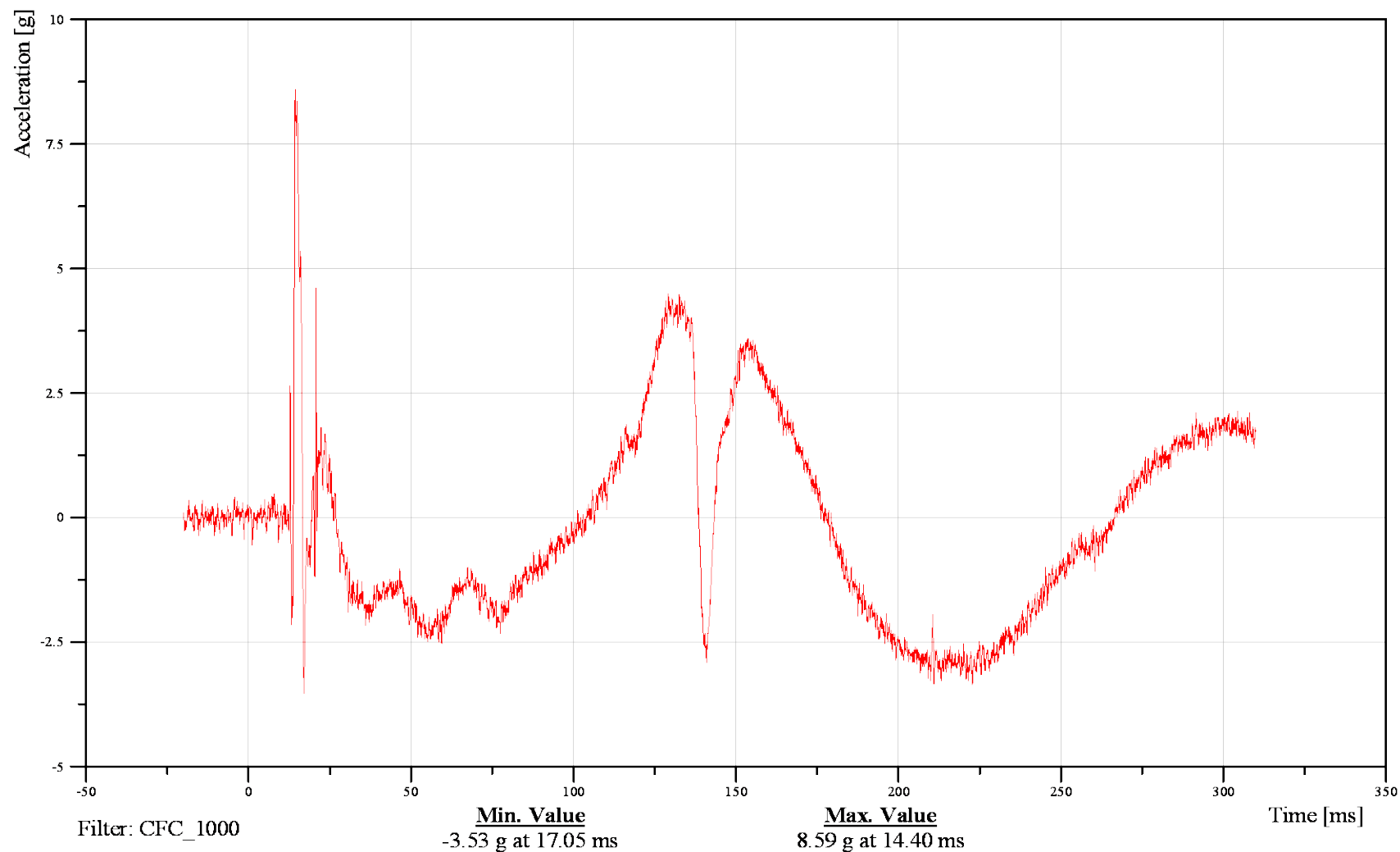
Time: 14:31

Customer: VRTC

13HEADCG00WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Lateral Ay

Date: 03/27/2013

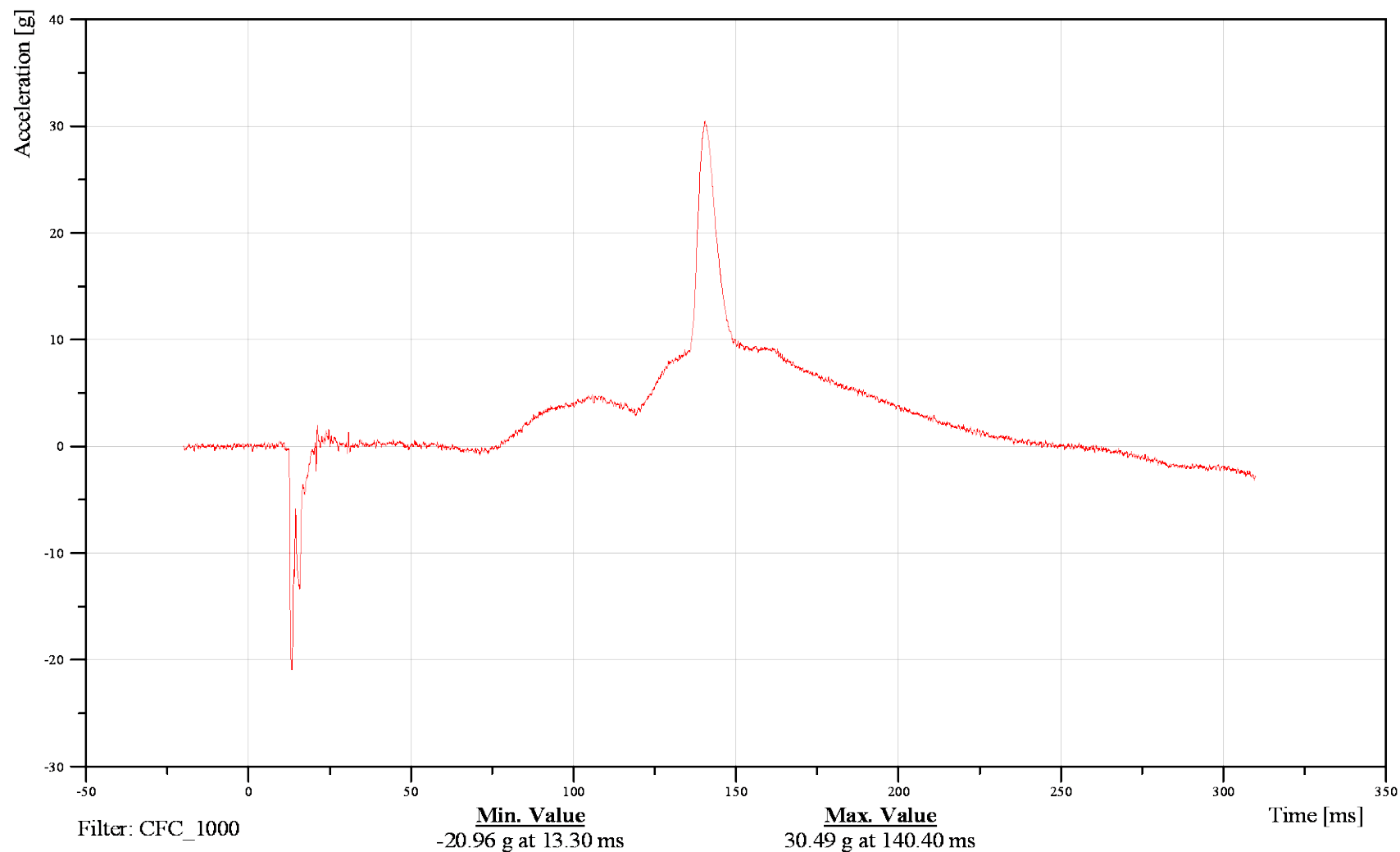
Time: 14:31

Customer: VRTC

13HEADCG00WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Vertical Az

Date: 03/27/2013

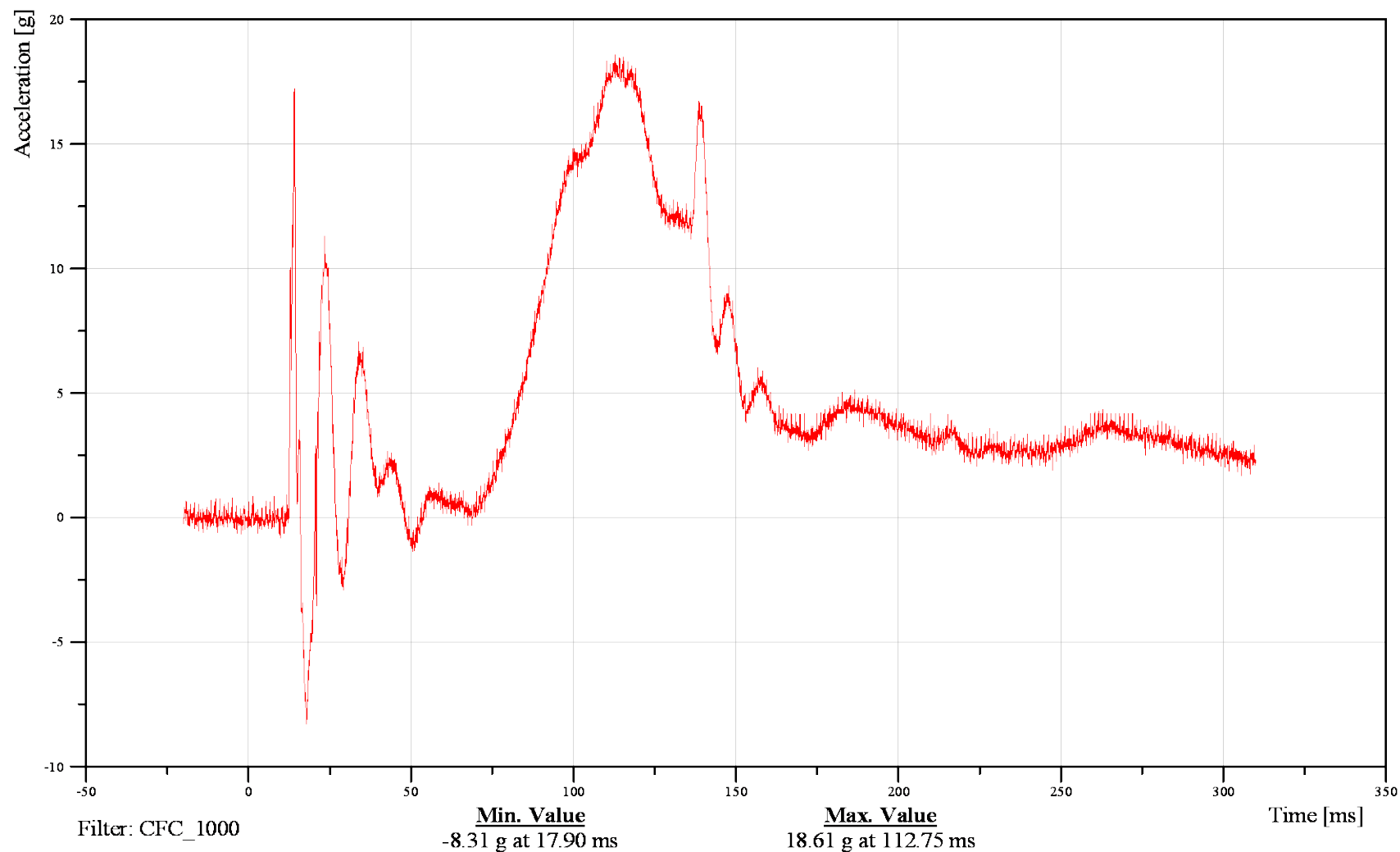
Time: 14:31

Customer: VRTC

13HEADCG00WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head A Resultant

Date: 03/27/2013

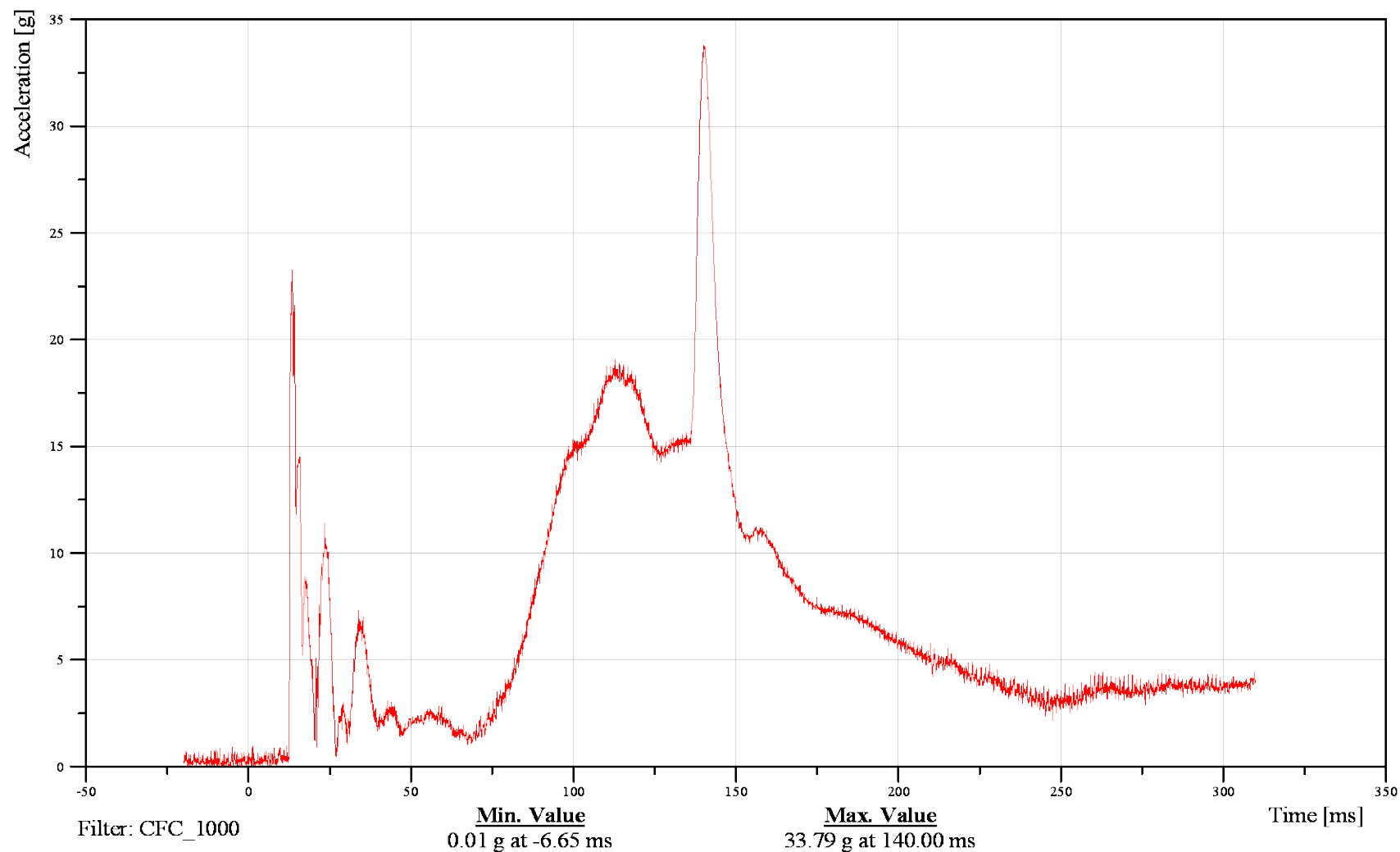
Time: 14:31

Customer: VRTC

13HEADCG00WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Rx

Date: 03/27/2013

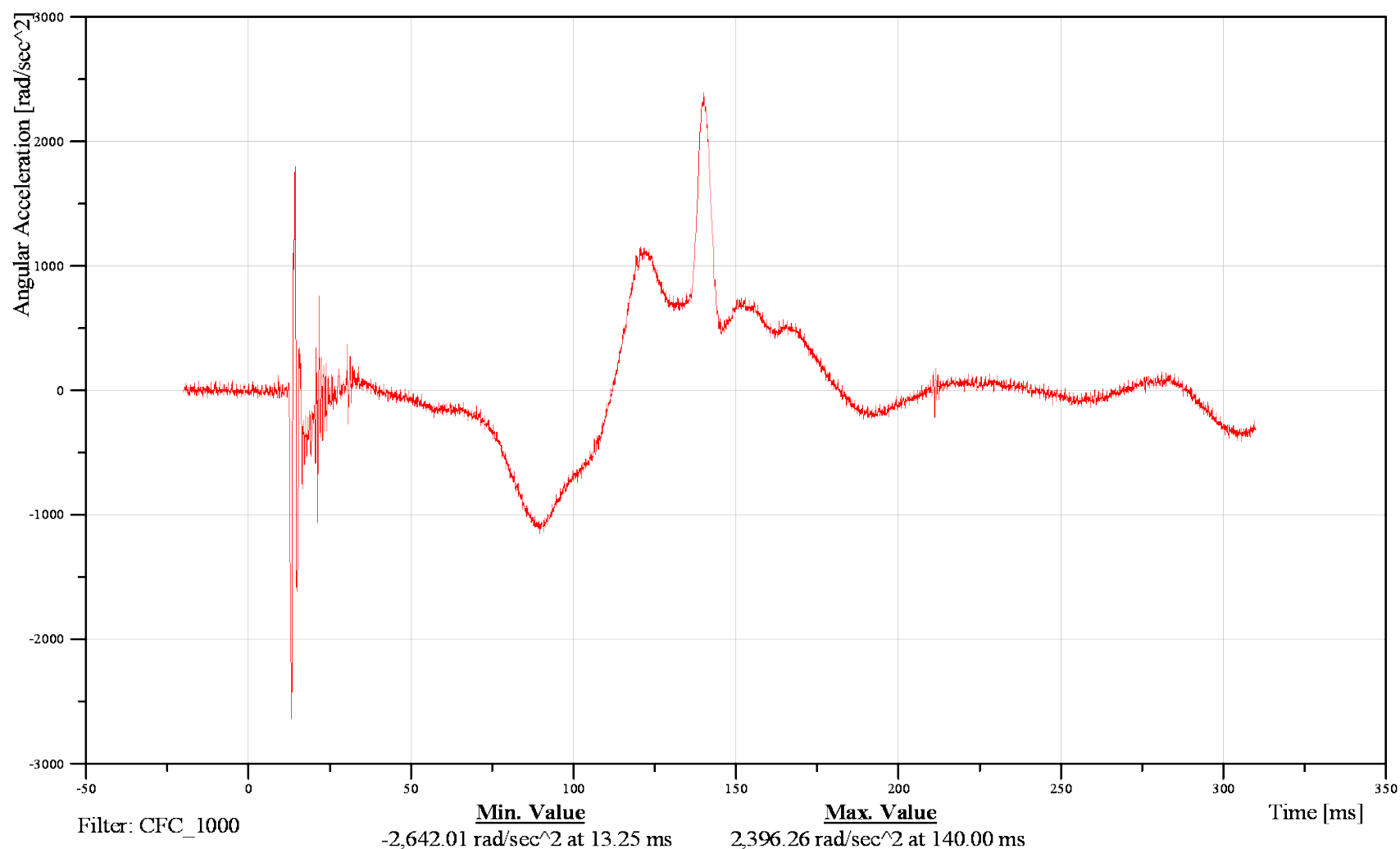
Time: 14:31

Customer: VRTC

13HEAD0000WSAAXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Ry

Date: 03/27/2013

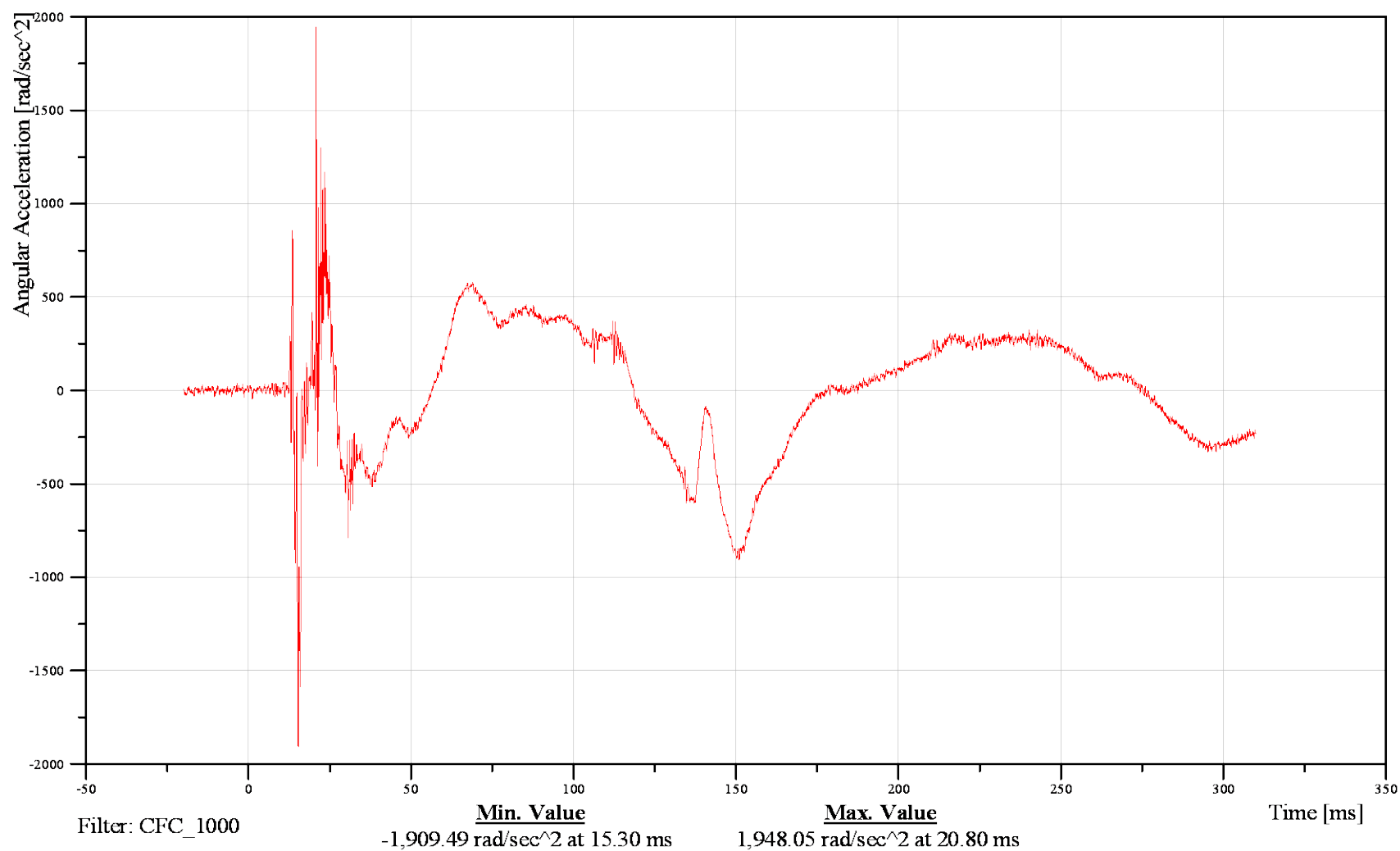
Time: 14:31

Customer: VRTC

13HEAD0000WSAAYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Rz

Date: 03/27/2013

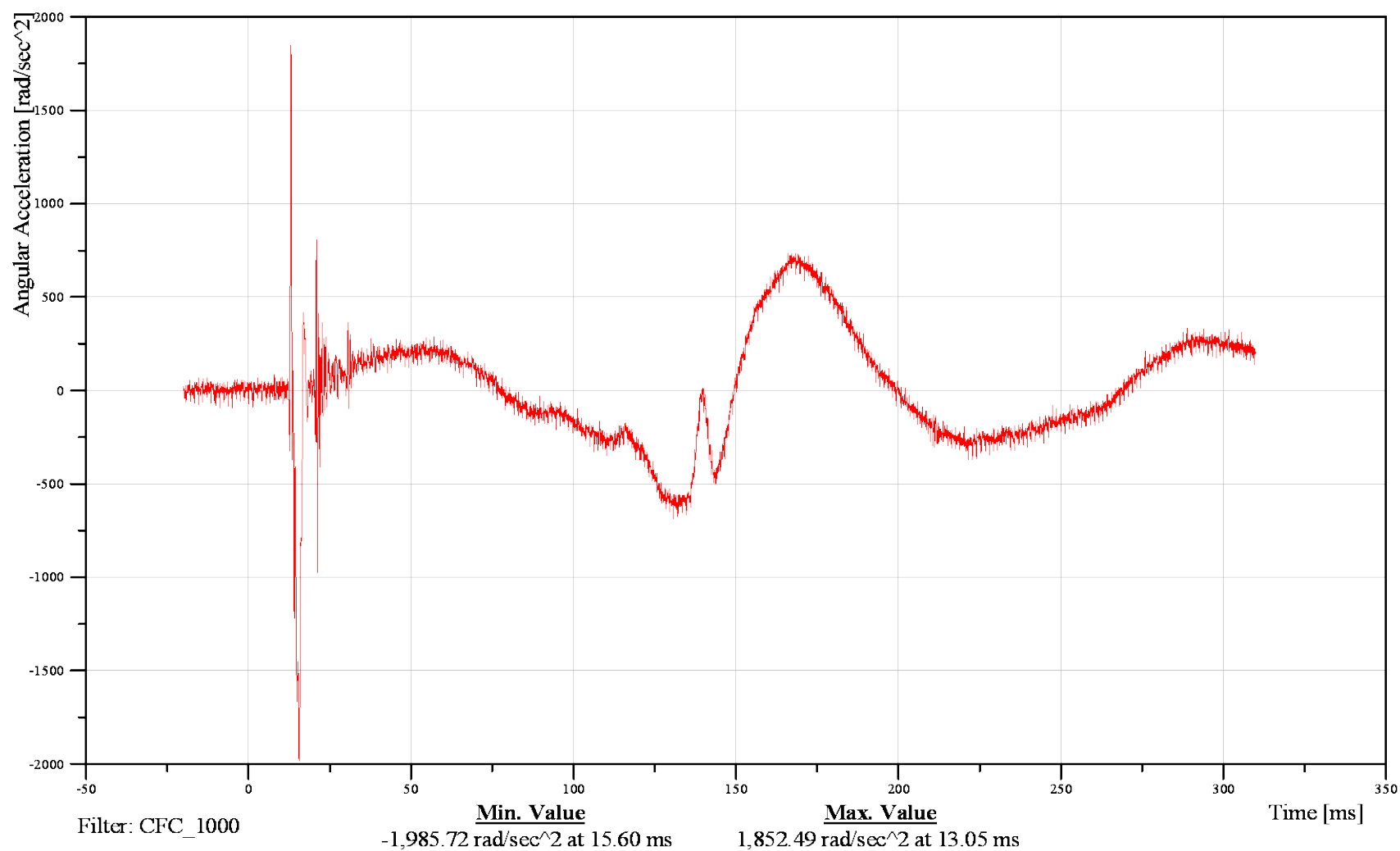
Time: 14:31

Customer: VRTC

13HEAD0000WSAAZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fx

Date: 03/27/2013

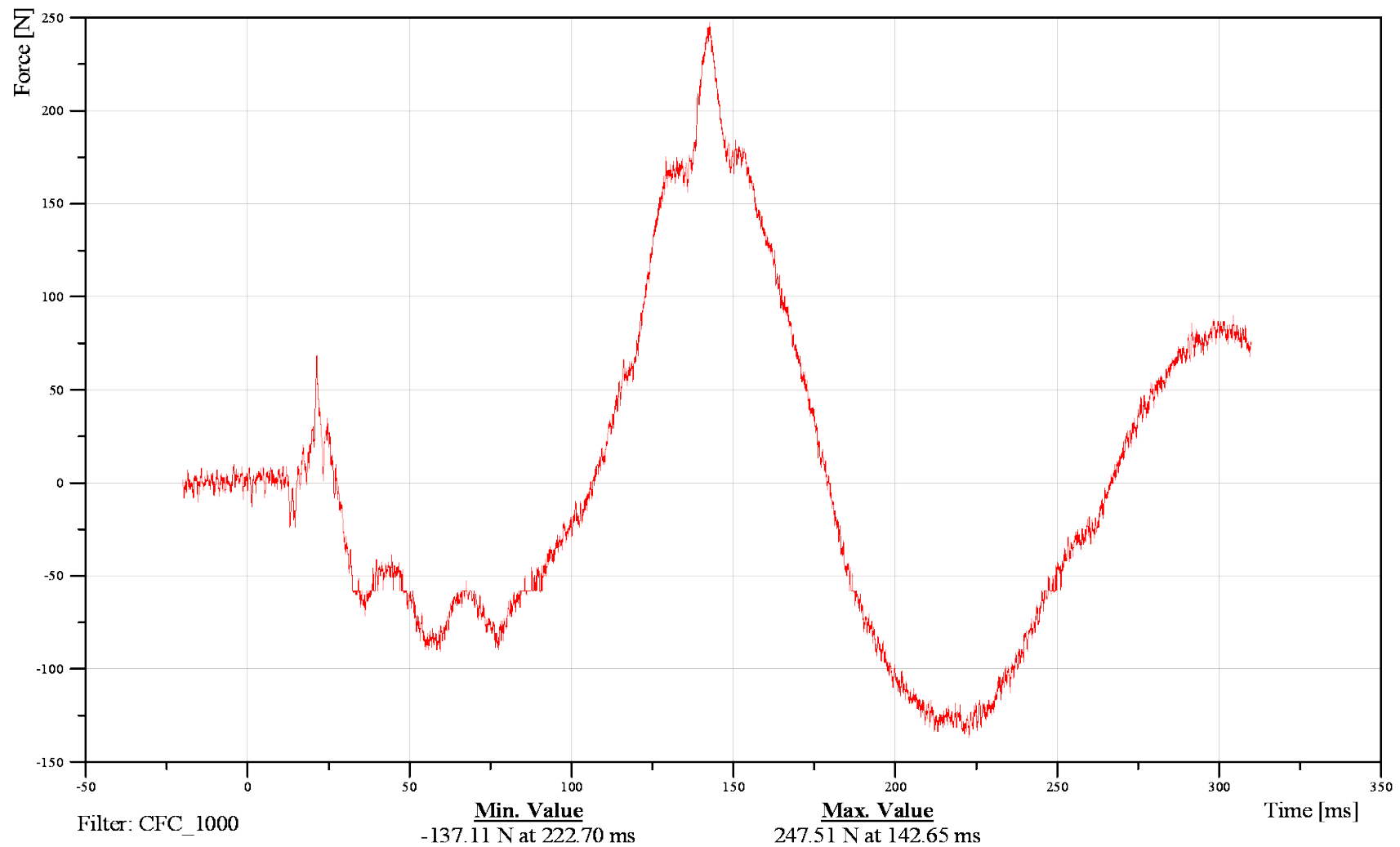
Time: 14:31

Customer: VRTC

13NECKUP00WSFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fy

Date: 03/27/2013

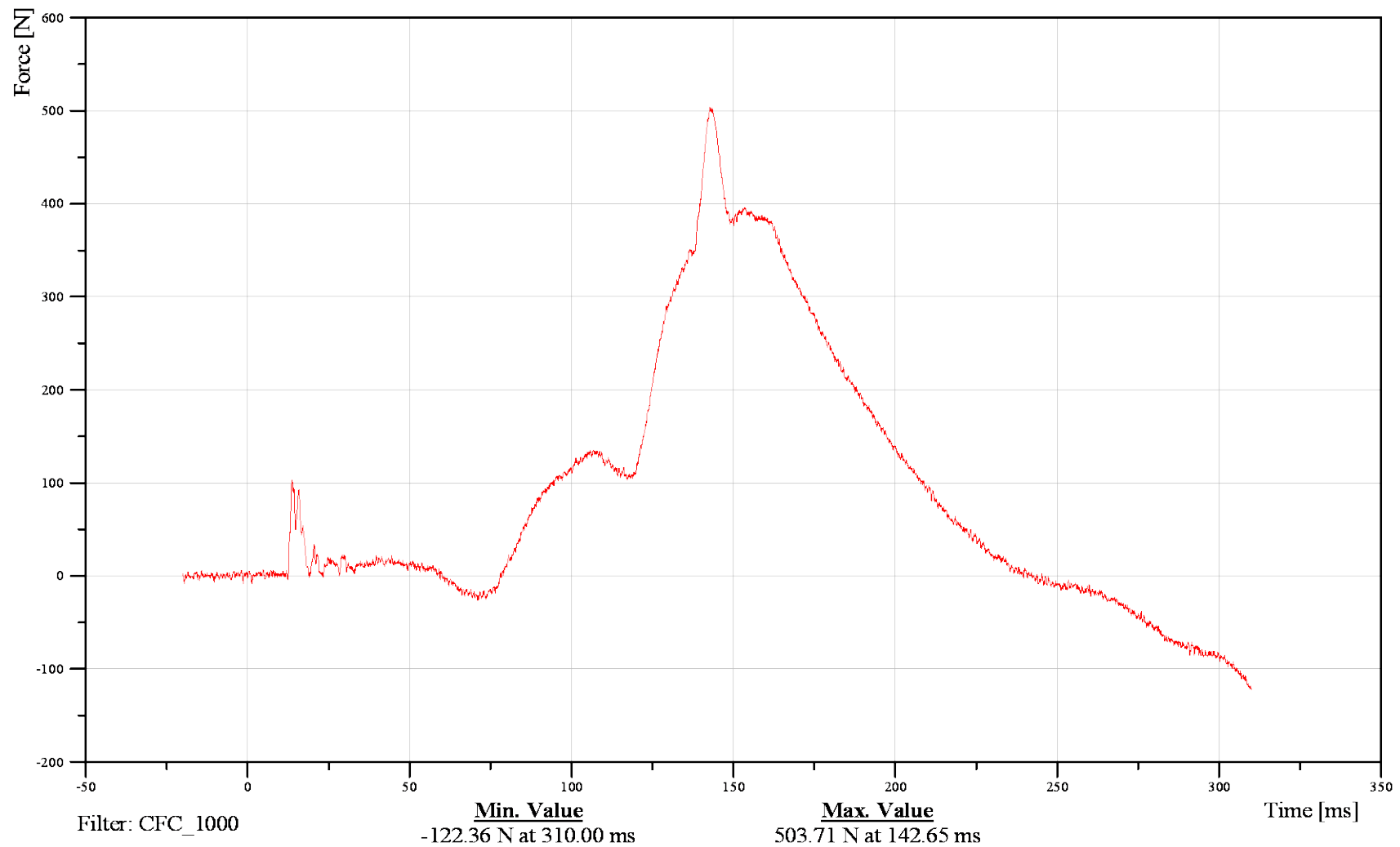
Time: 14:31

Customer: VRTC

13NECKUP00WSFOYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fz

Date: 03/27/2013

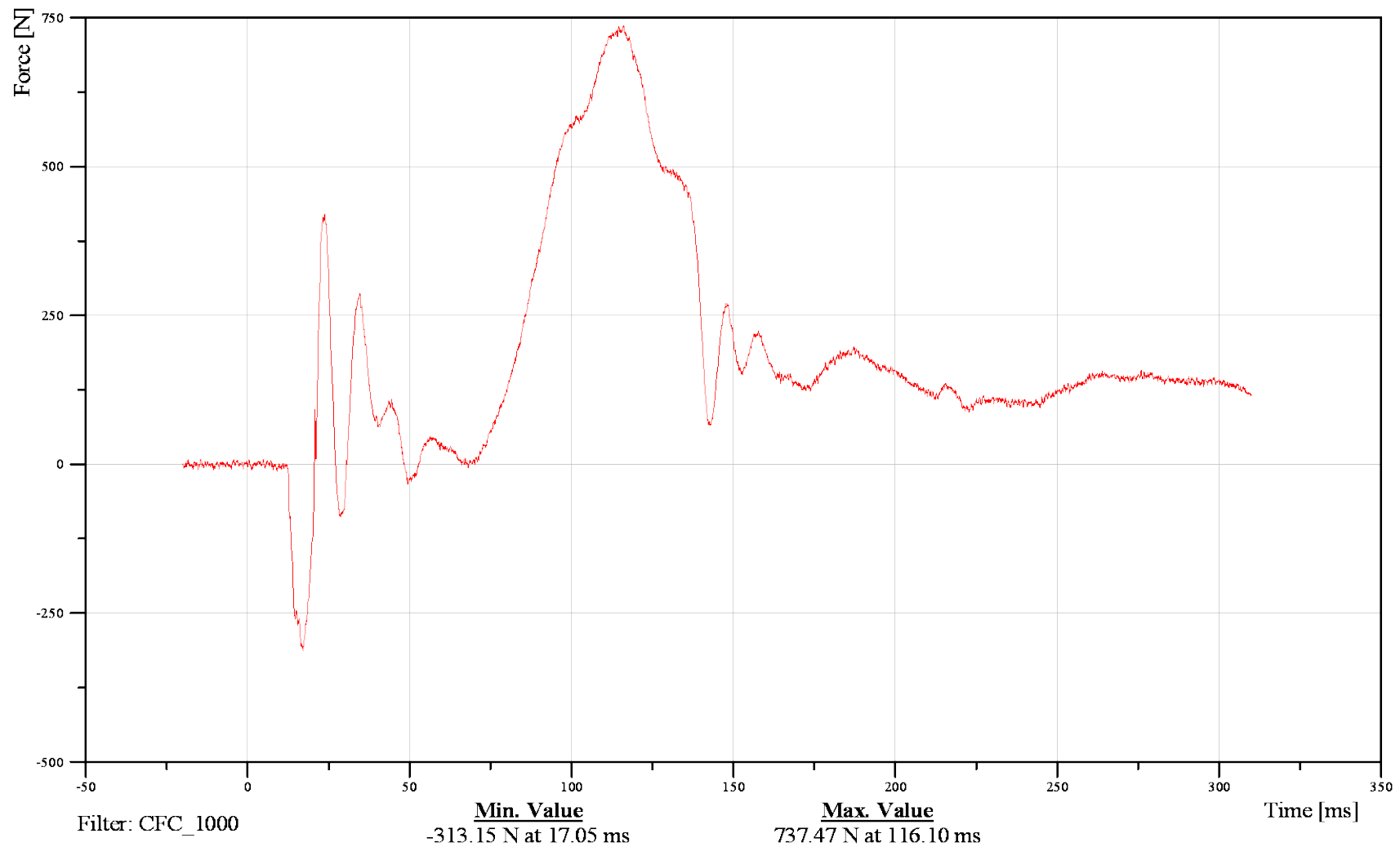
Time: 14:31

Customer: VRTC

13NECKUP00WSFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment Mx

Date: 03/27/2013

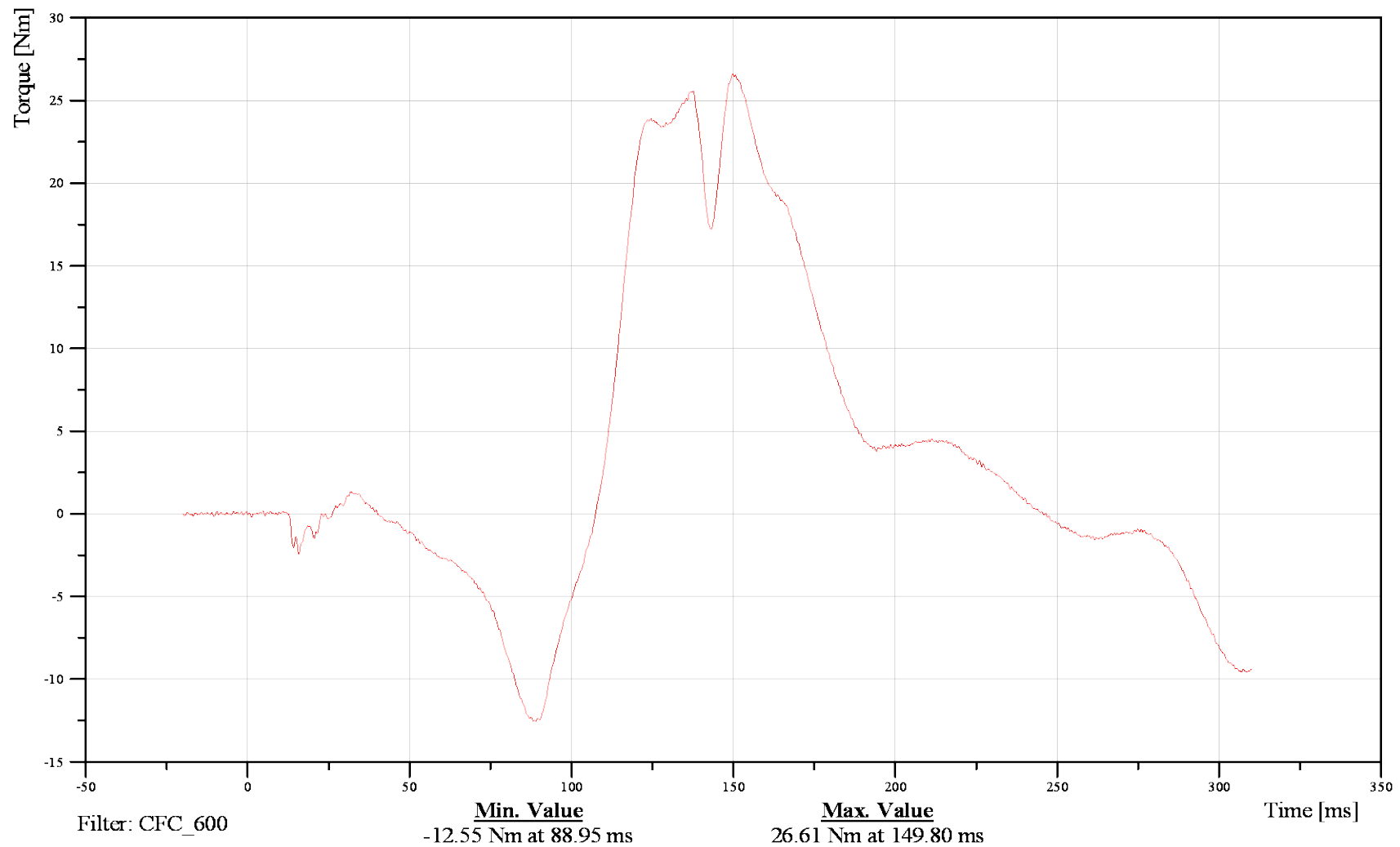
Time: 14:31

Customer: VRTC

13NECKUP00WSMOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment My

Date: 03/27/2013

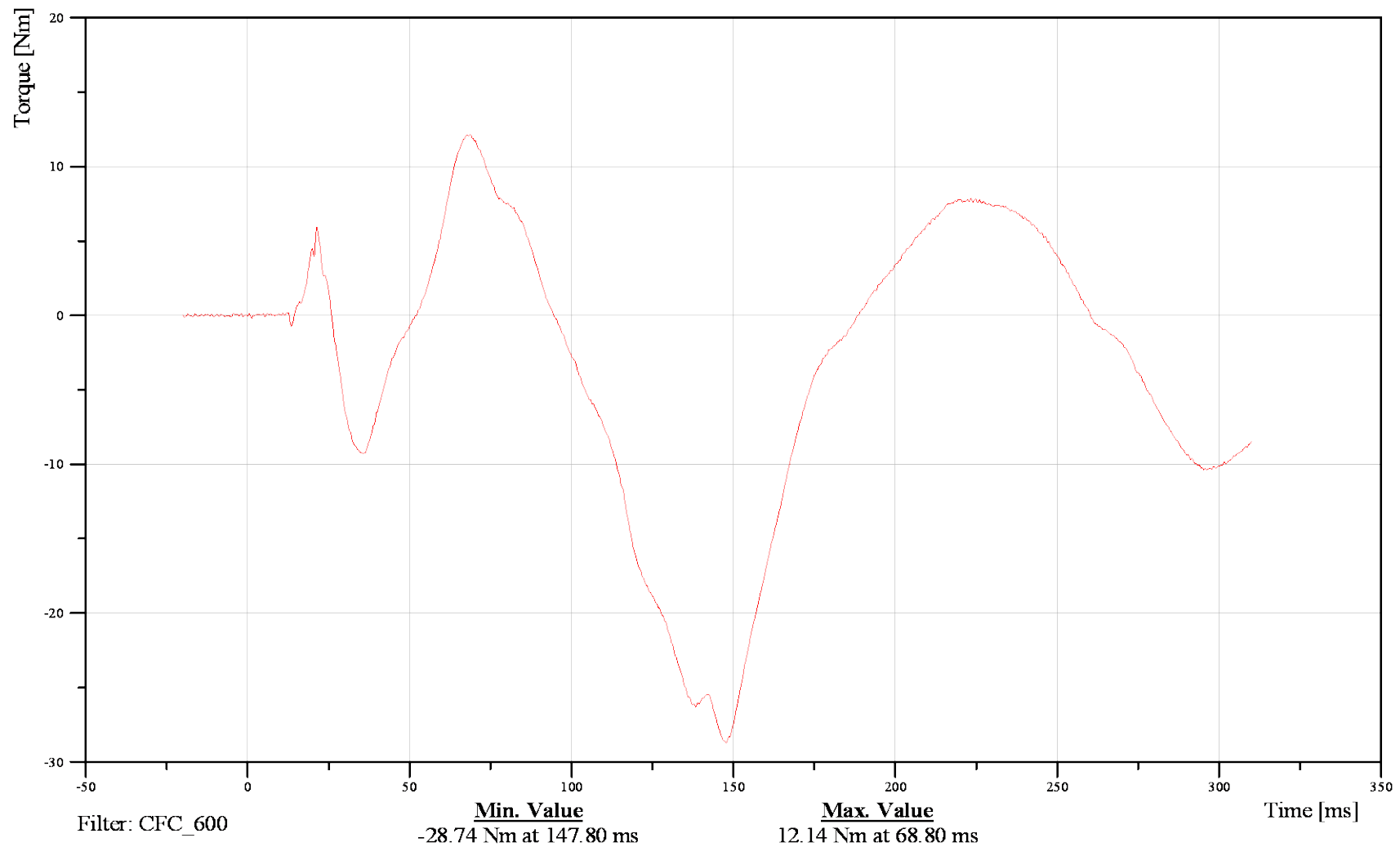
Time: 14:31

Customer: VRTC

13NECKUP00WSMOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment Mz

Date: 03/27/2013

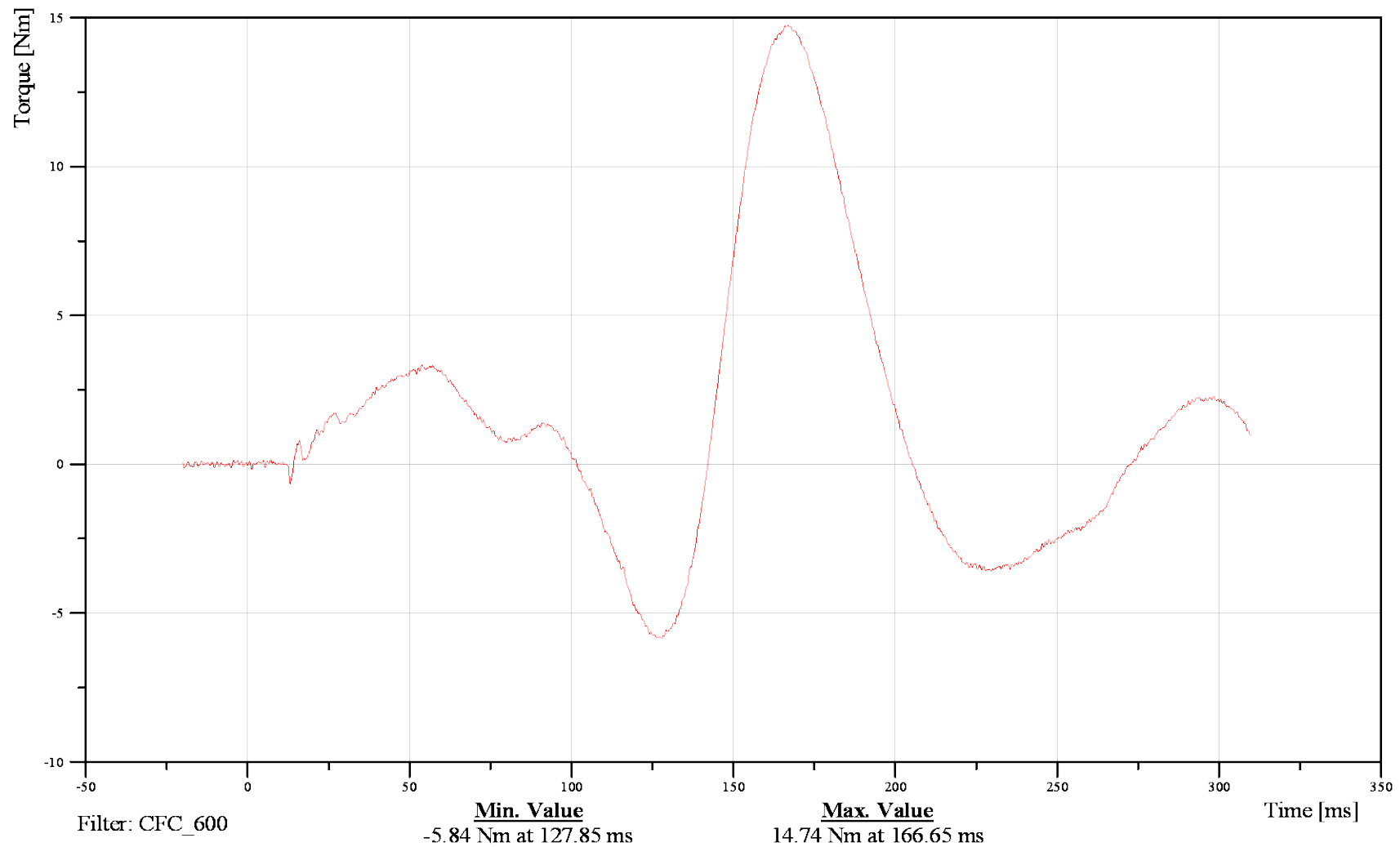
Time: 14:31

Customer: VRTC

13NECKUP00WSMOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fx

Date: 03/27/2013

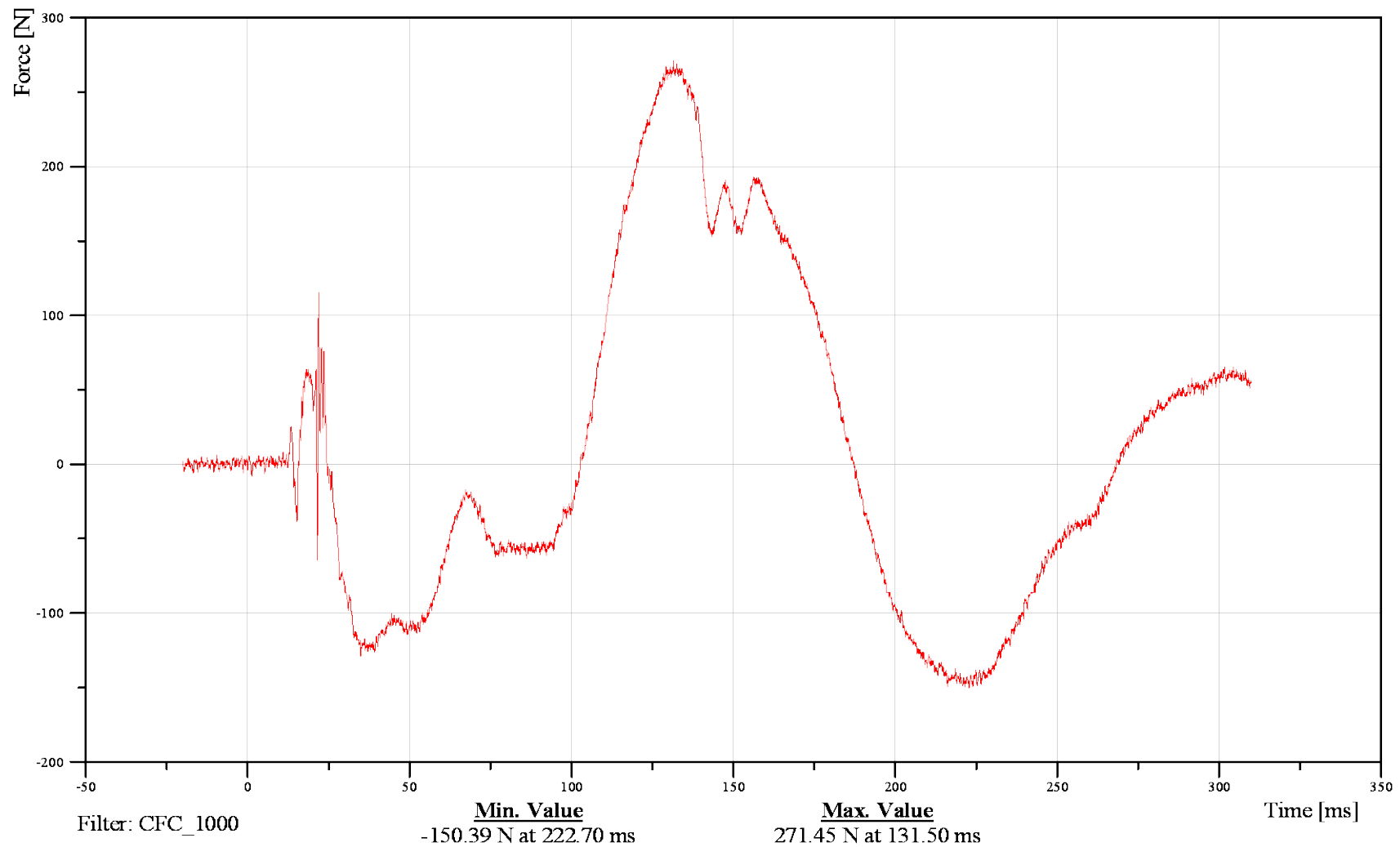
Time: 14:31

Customer: VRTC

13NECKLO00WSFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fy

Date: 03/27/2013

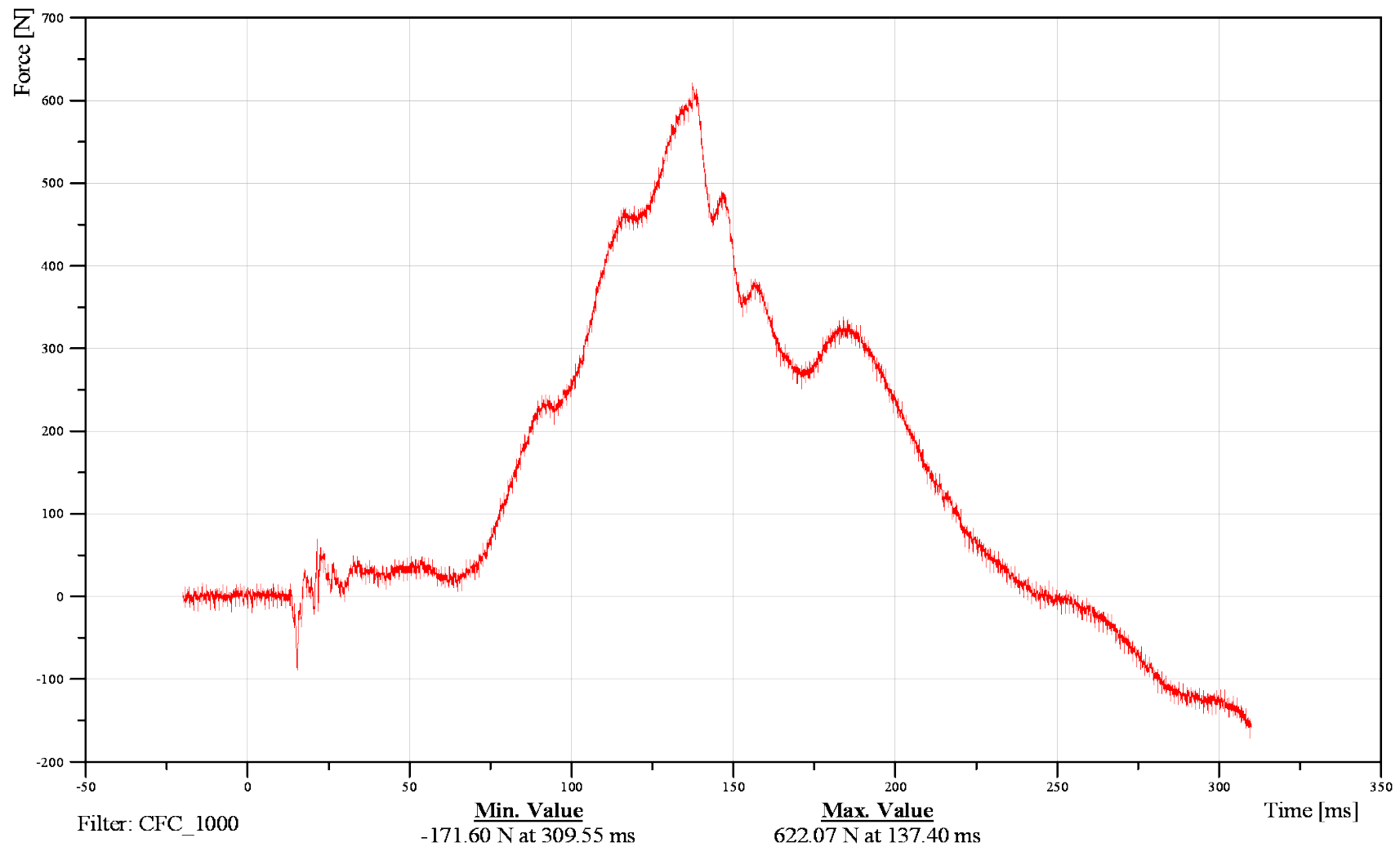
Time: 14:31

Customer: VRTC

13NECKLO00WSFOYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fz

Date: 03/27/2013

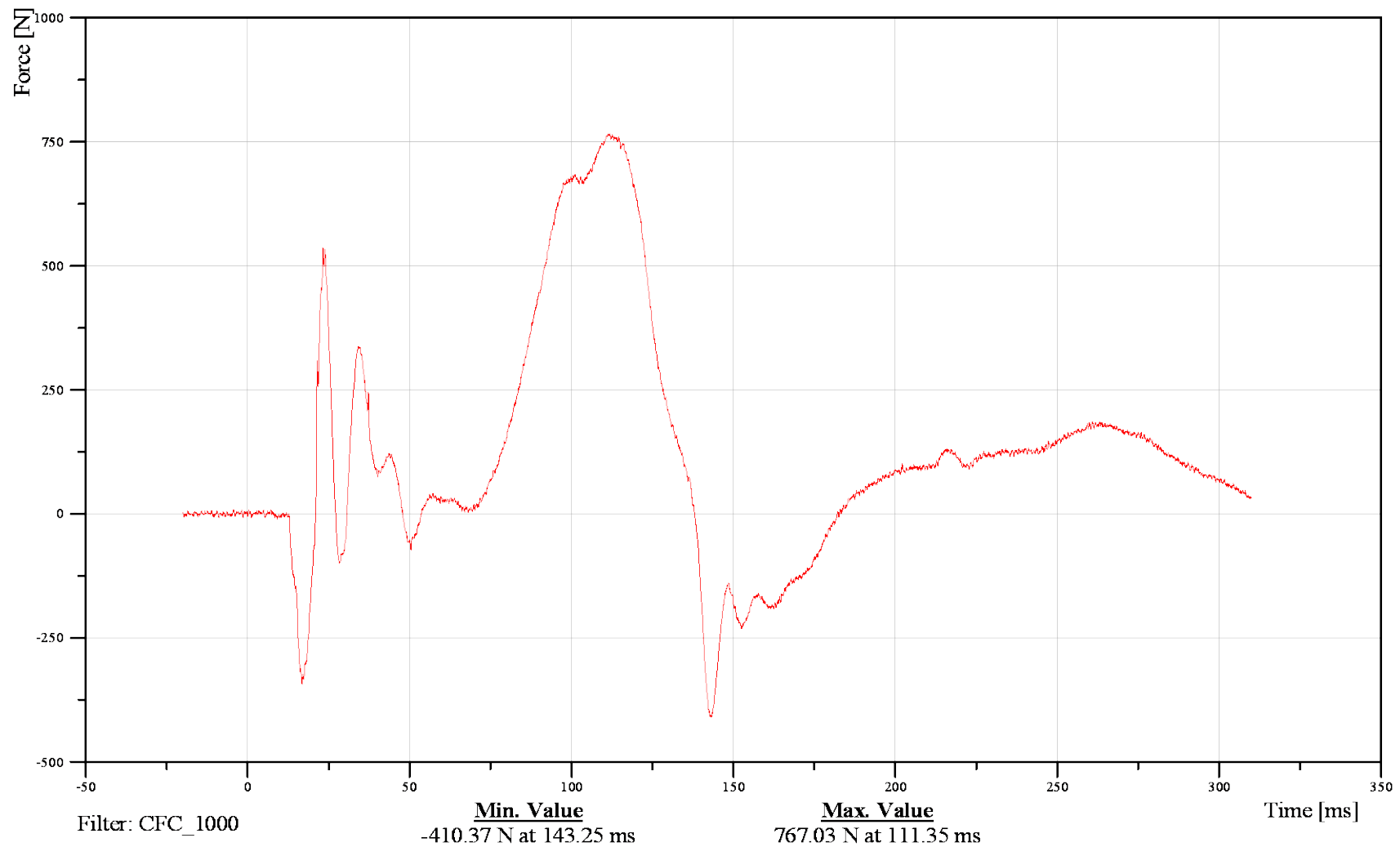
Time: 14:31

Customer: VRTC

13NECKLO00WSFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment Mx

Date: 03/27/2013

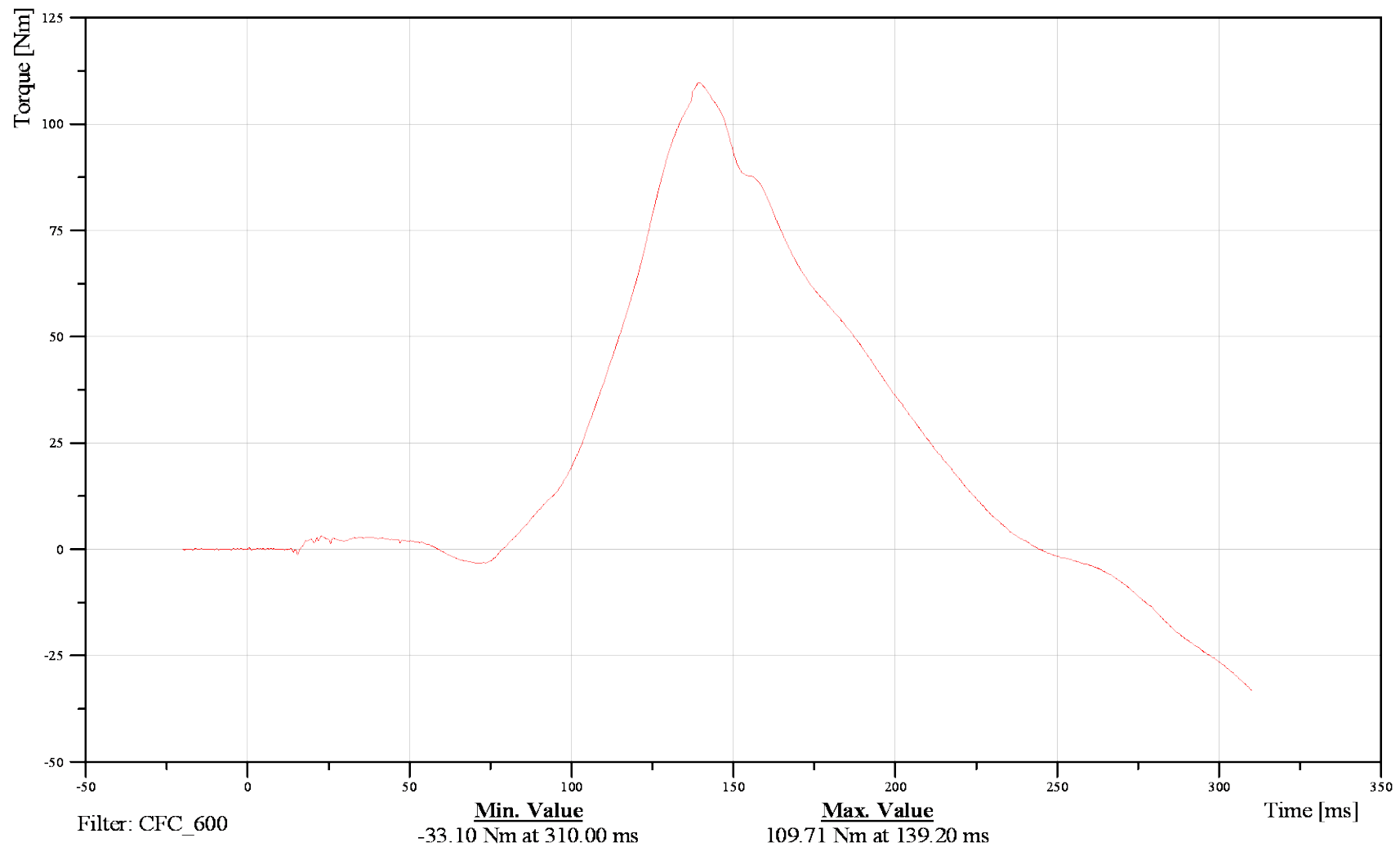
Time: 14:31

Customer: VRTC

13NECKLO00WSMOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment My

Date: 03/27/2013

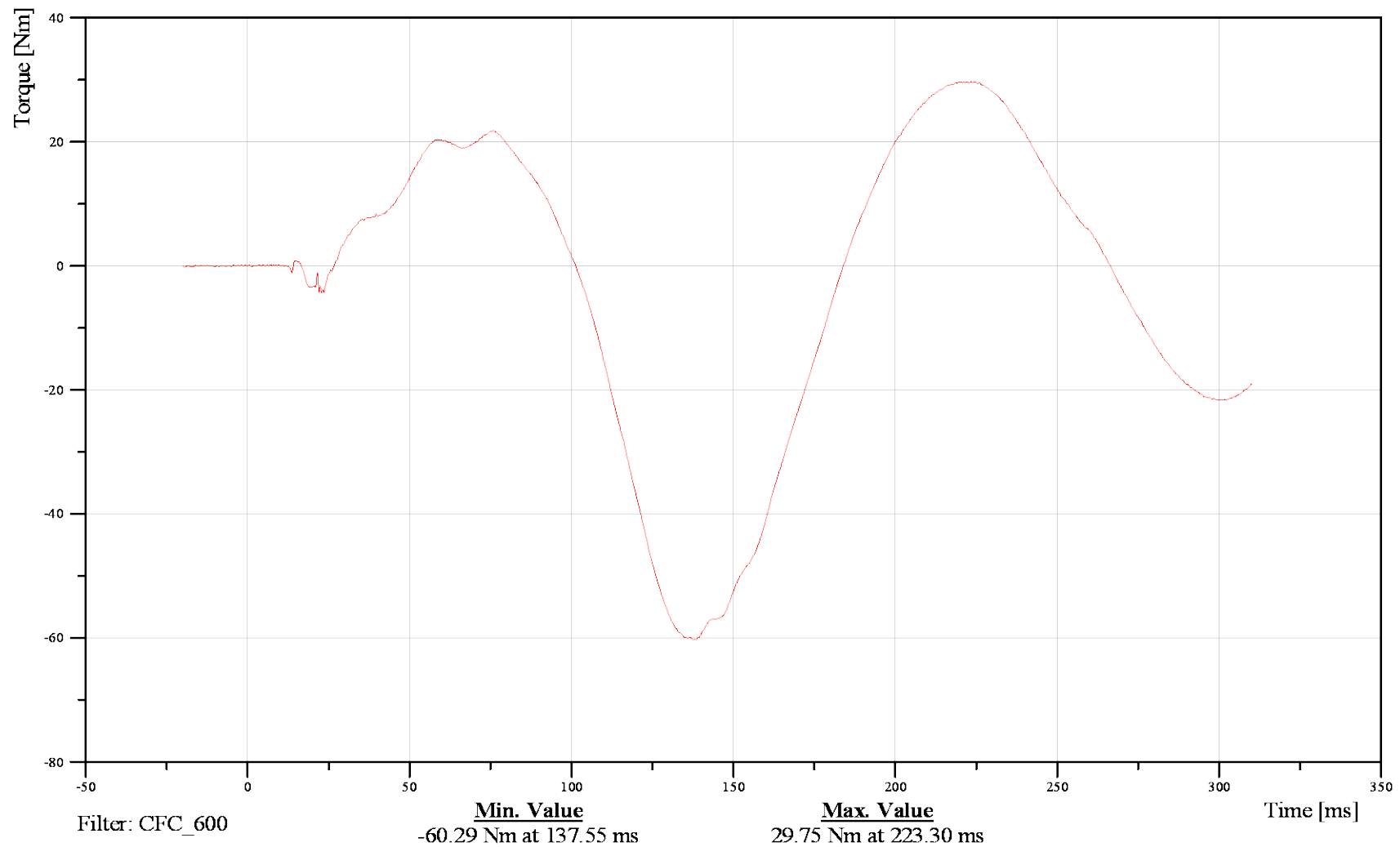
Time: 14:31

Customer: VRTC

13NECKLO00WSMOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment Mz

Date: 03/27/2013

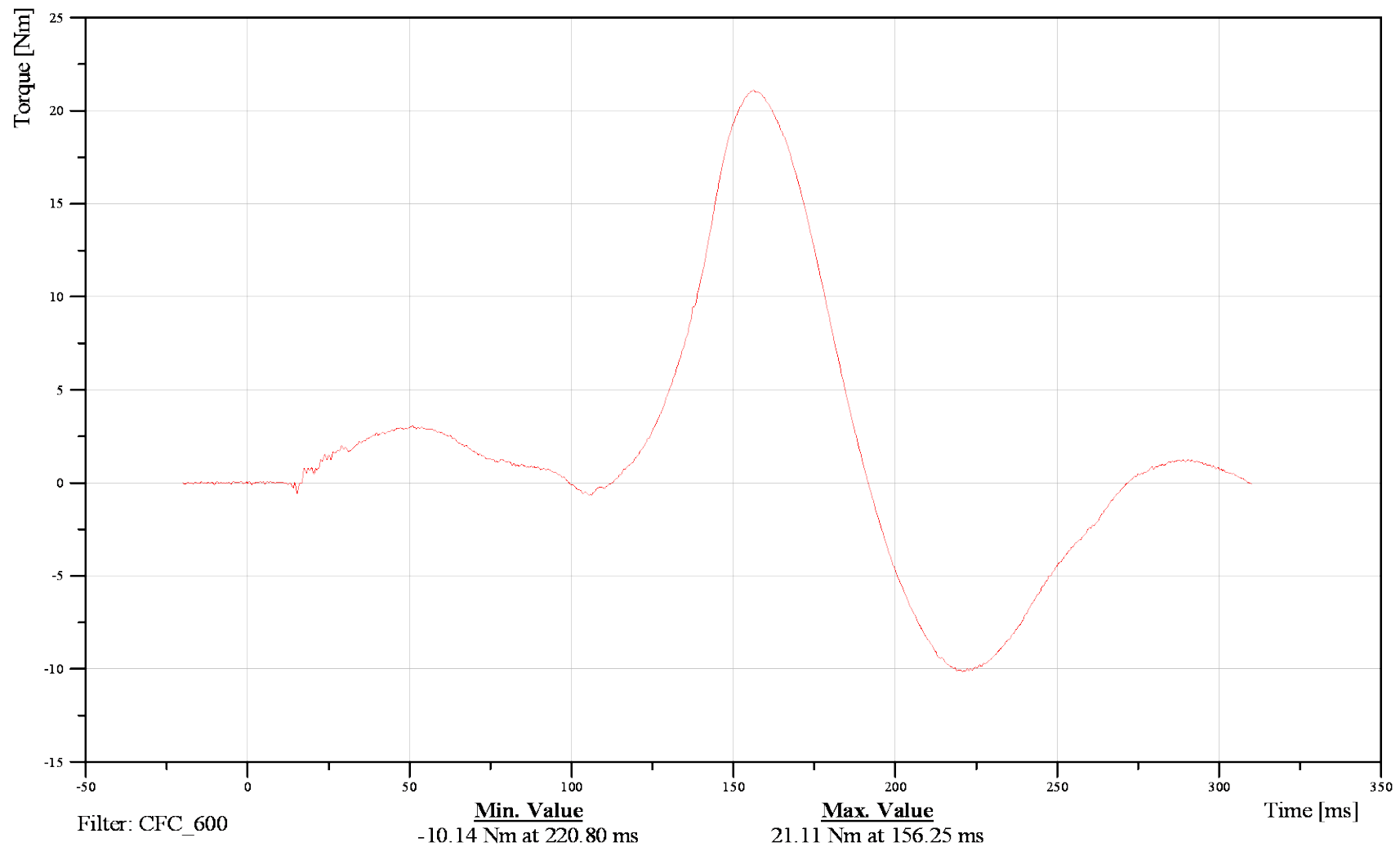
Time: 14:31

Customer: VRTC

13NECKLO00WSMOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Longitudinal Ax

Date: 03/27/2013

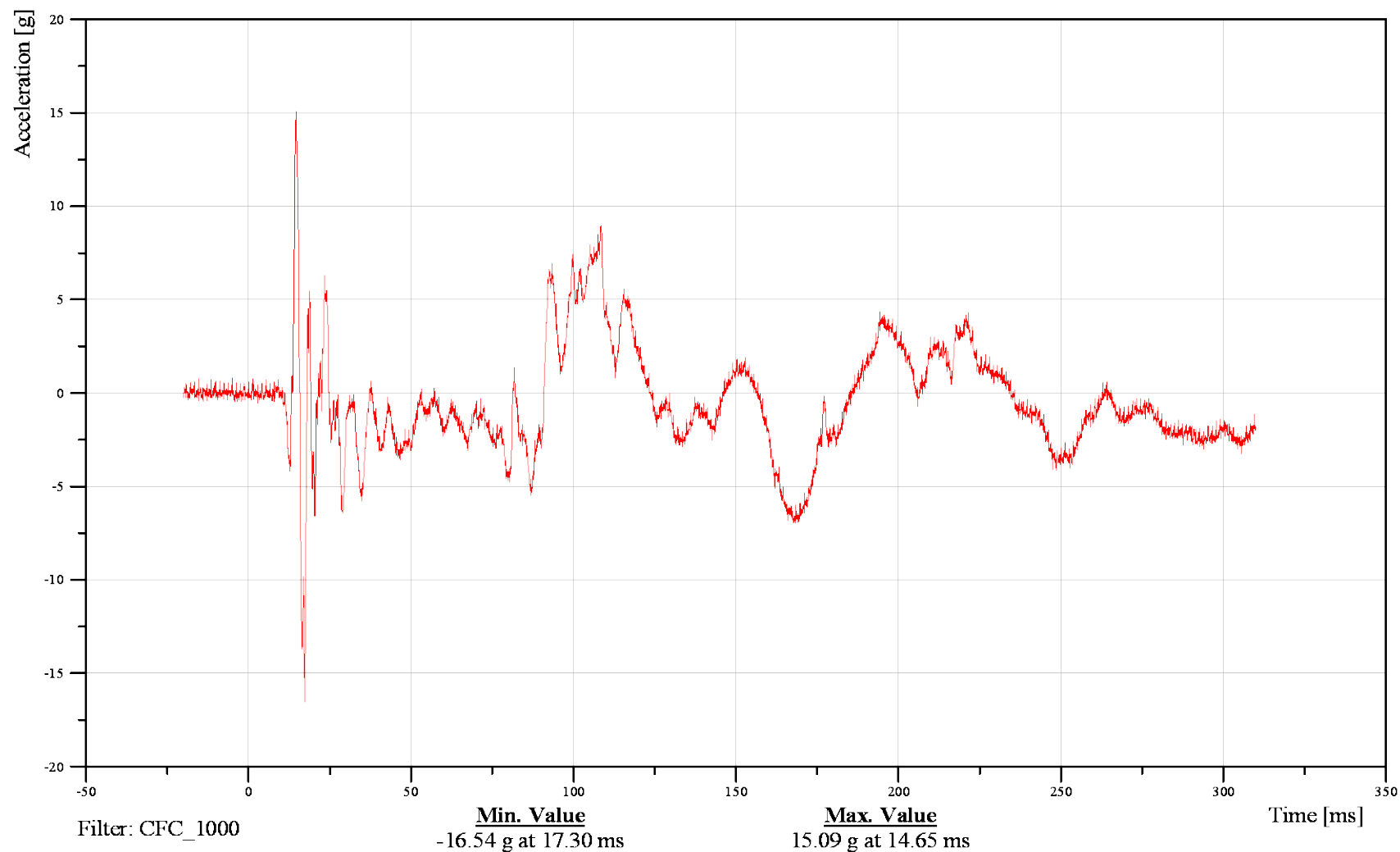
Time: 14:31

Customer: VRTC

13SHLDLE00WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Lateral Ay

Date: 03/27/2013

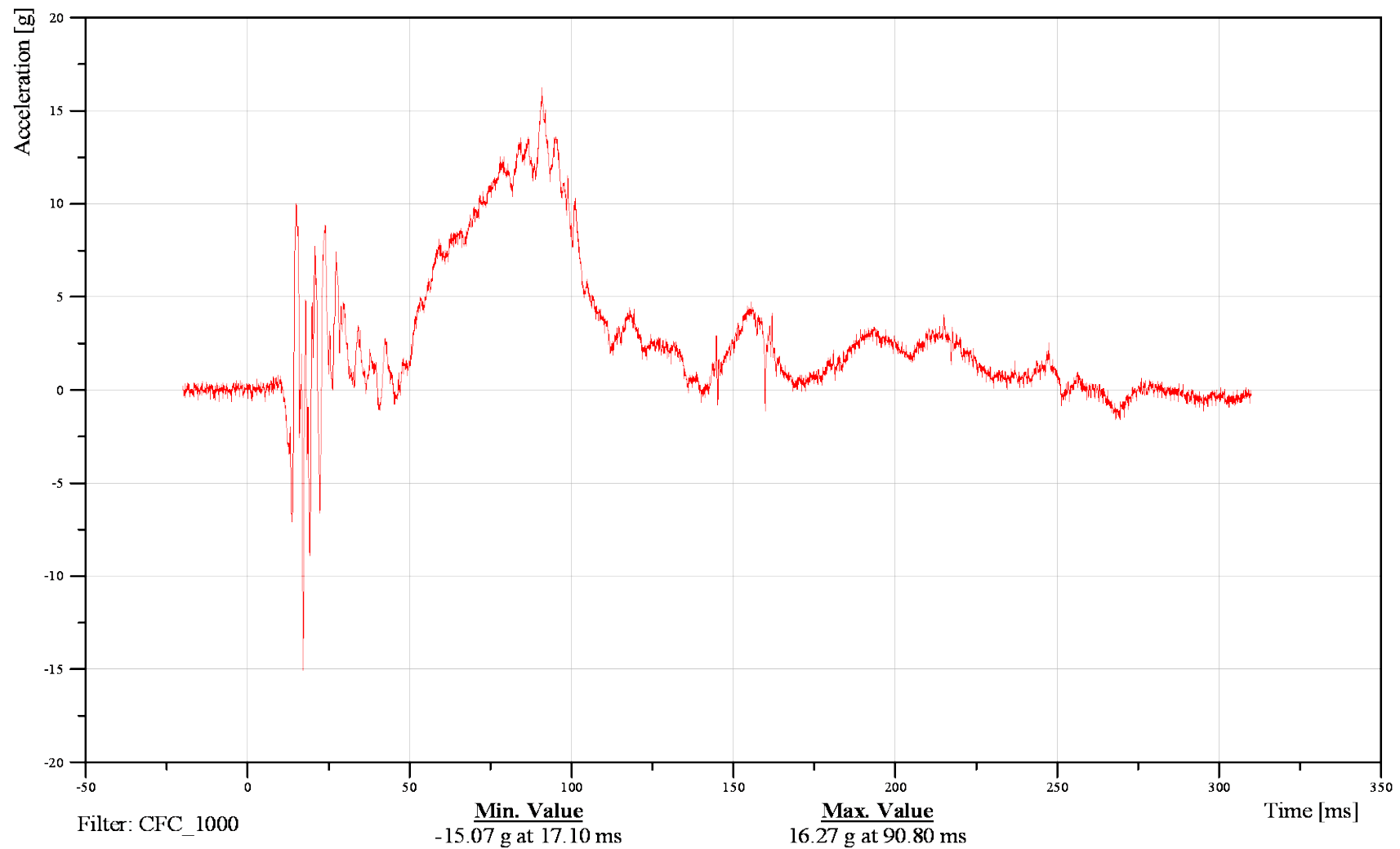
Time: 14:31

Customer: VRTC

13SHLDLE00WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Vertical Az

Date: 03/27/2013

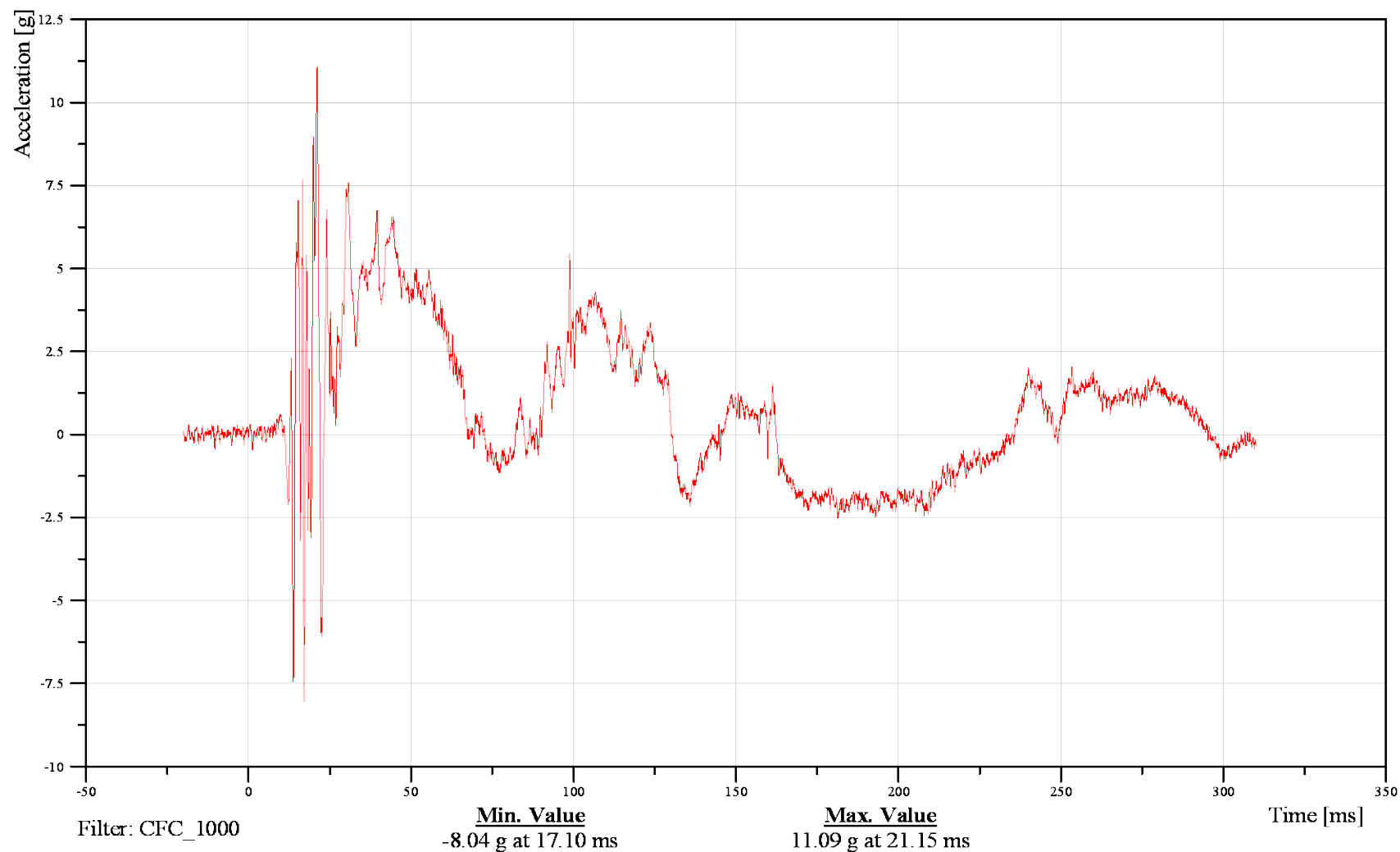
Time: 14:31

Customer: VRTC

13SHLDLE00WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder A Resultant

Date: 03/27/2013

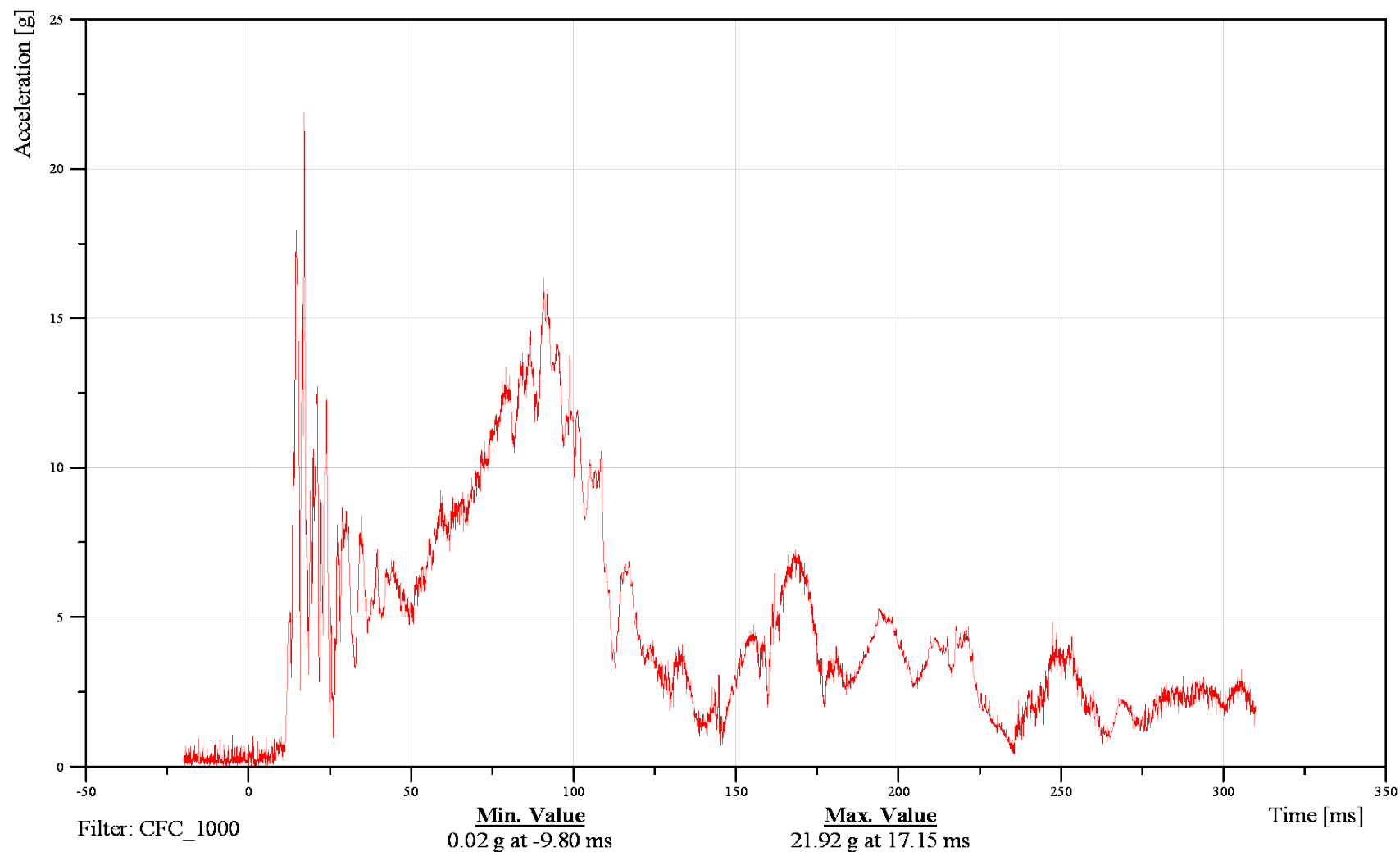
Time: 14:31

Customer: VRTC

13SHLDLE00WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fx

Date: 03/27/2013

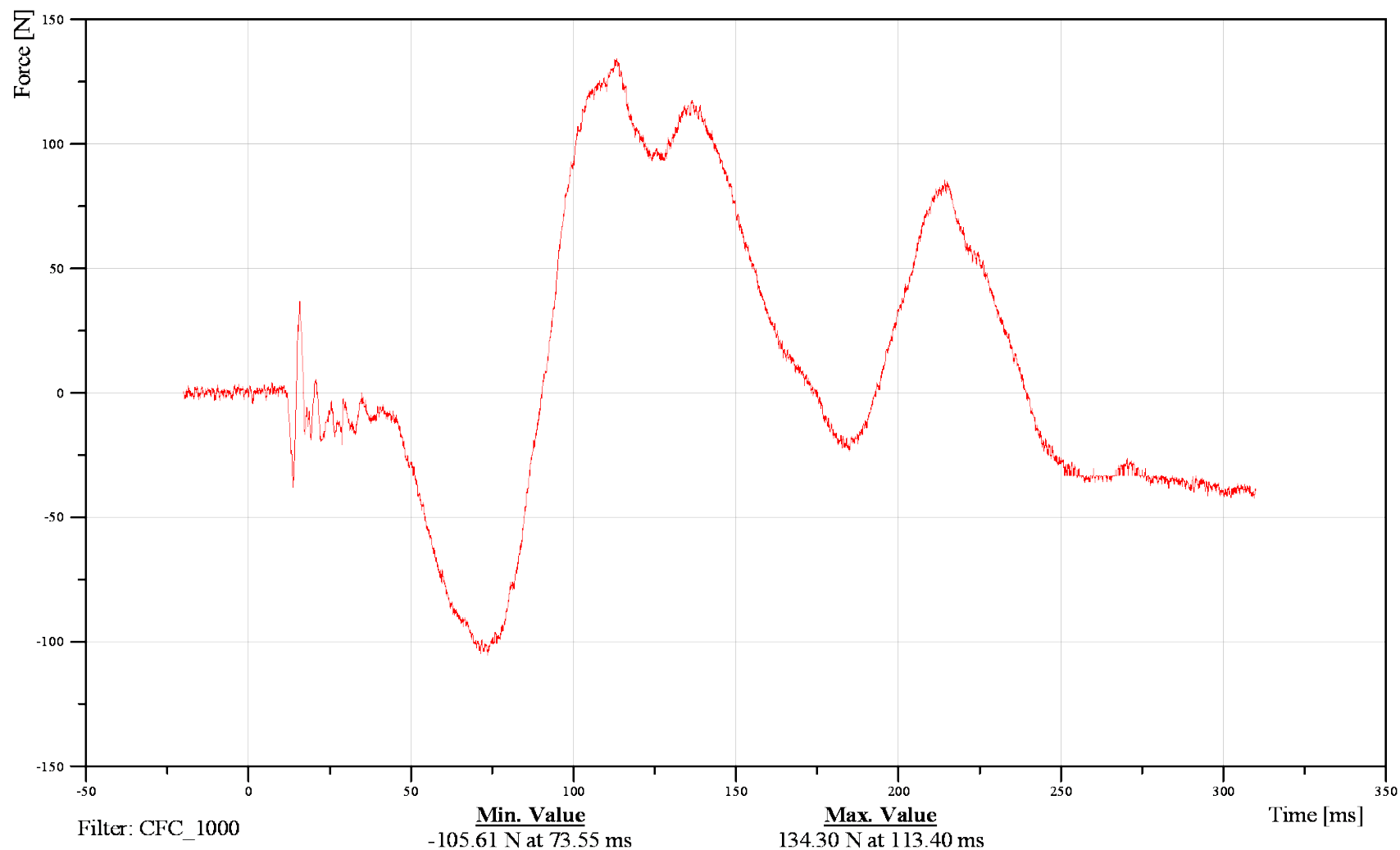
Time: 14:31

Customer: VRTC

13SHLDLE00WSFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fy

Date: 03/27/2013

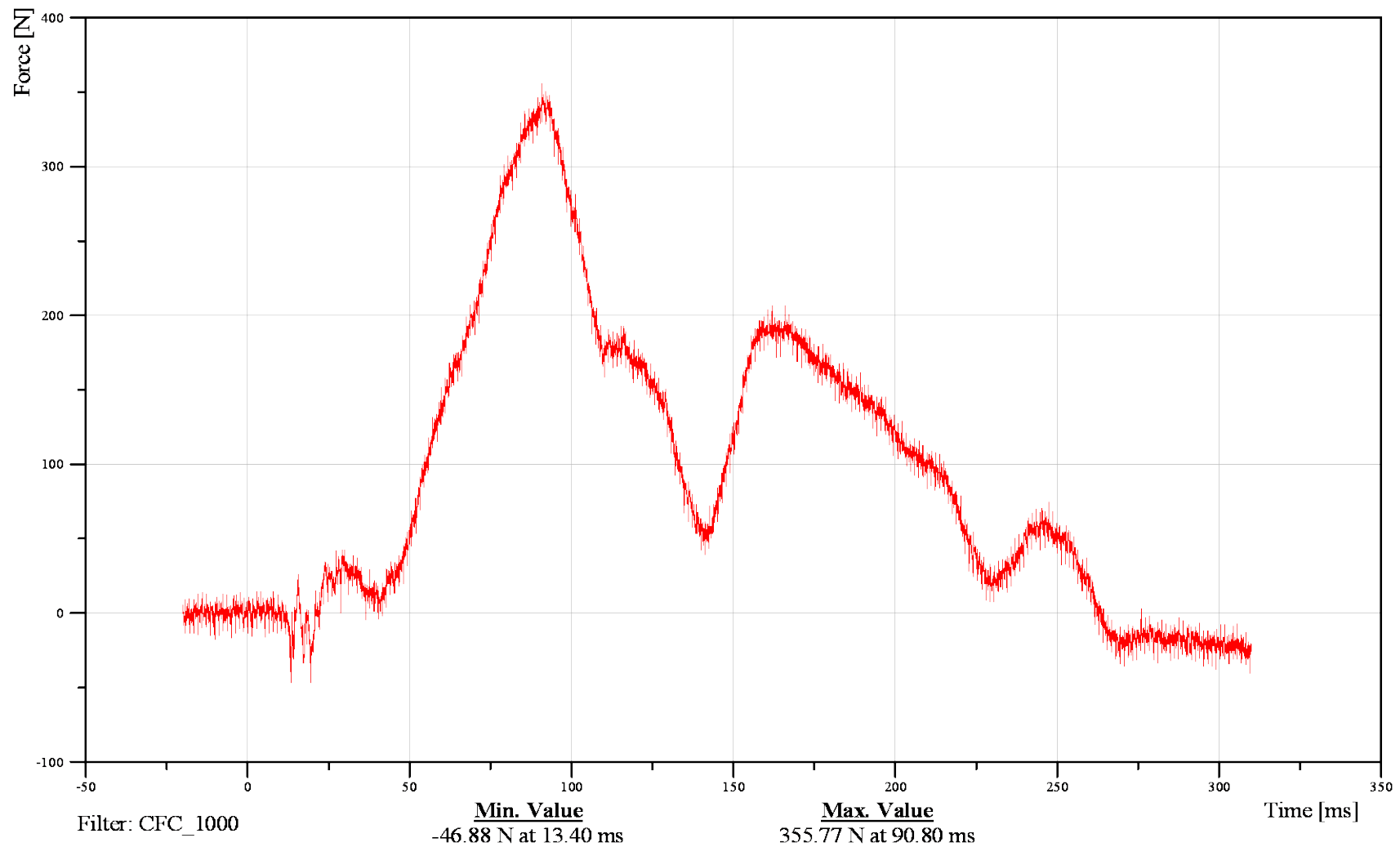
Time: 14:31

Customer: VRTC

13SHLDLE00WSFOYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fz

Date: 03/27/2013

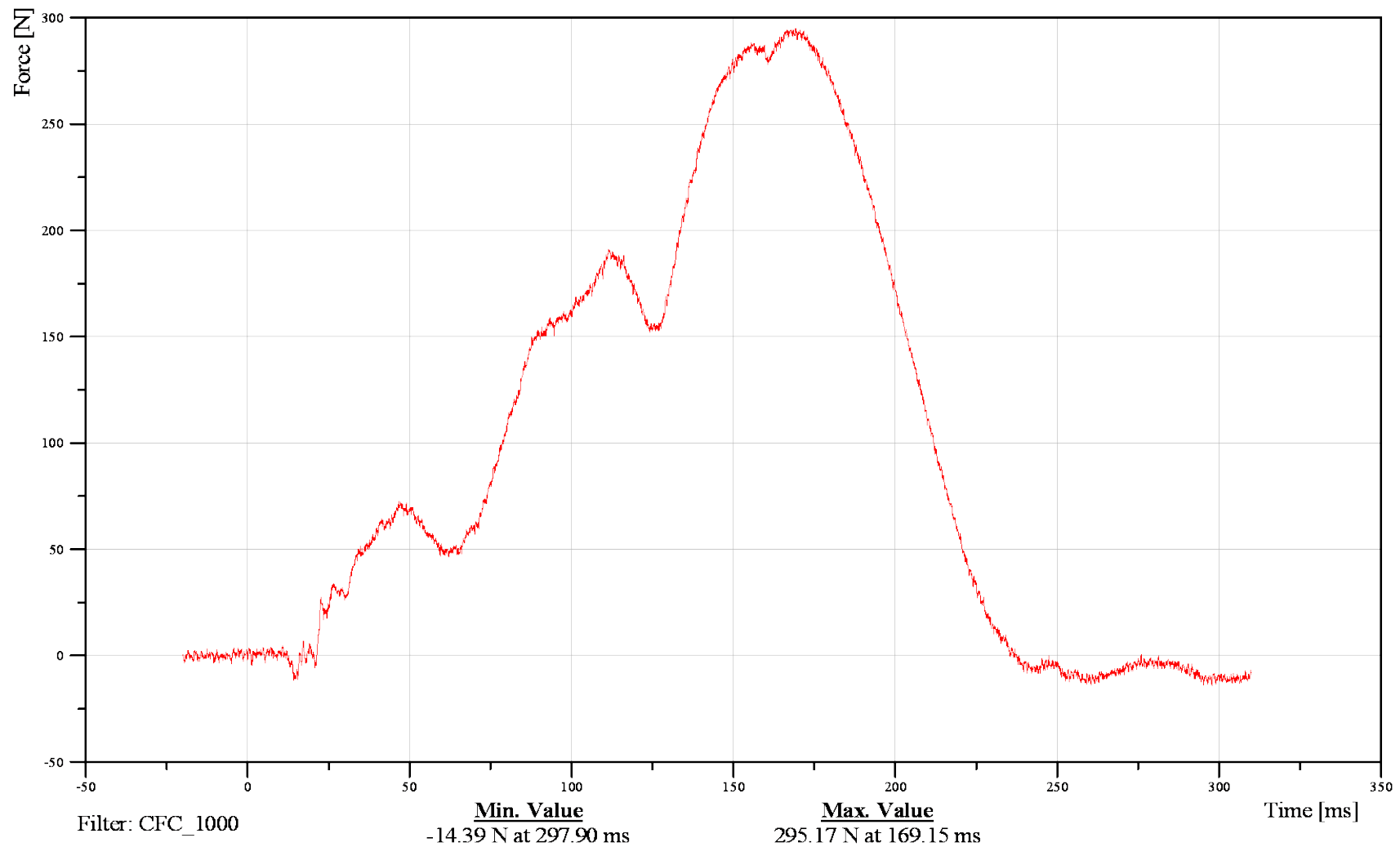
Time: 14:31

Customer: VRTC

13SHLDLE00WSFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Y Disp

Date: 03/27/2013

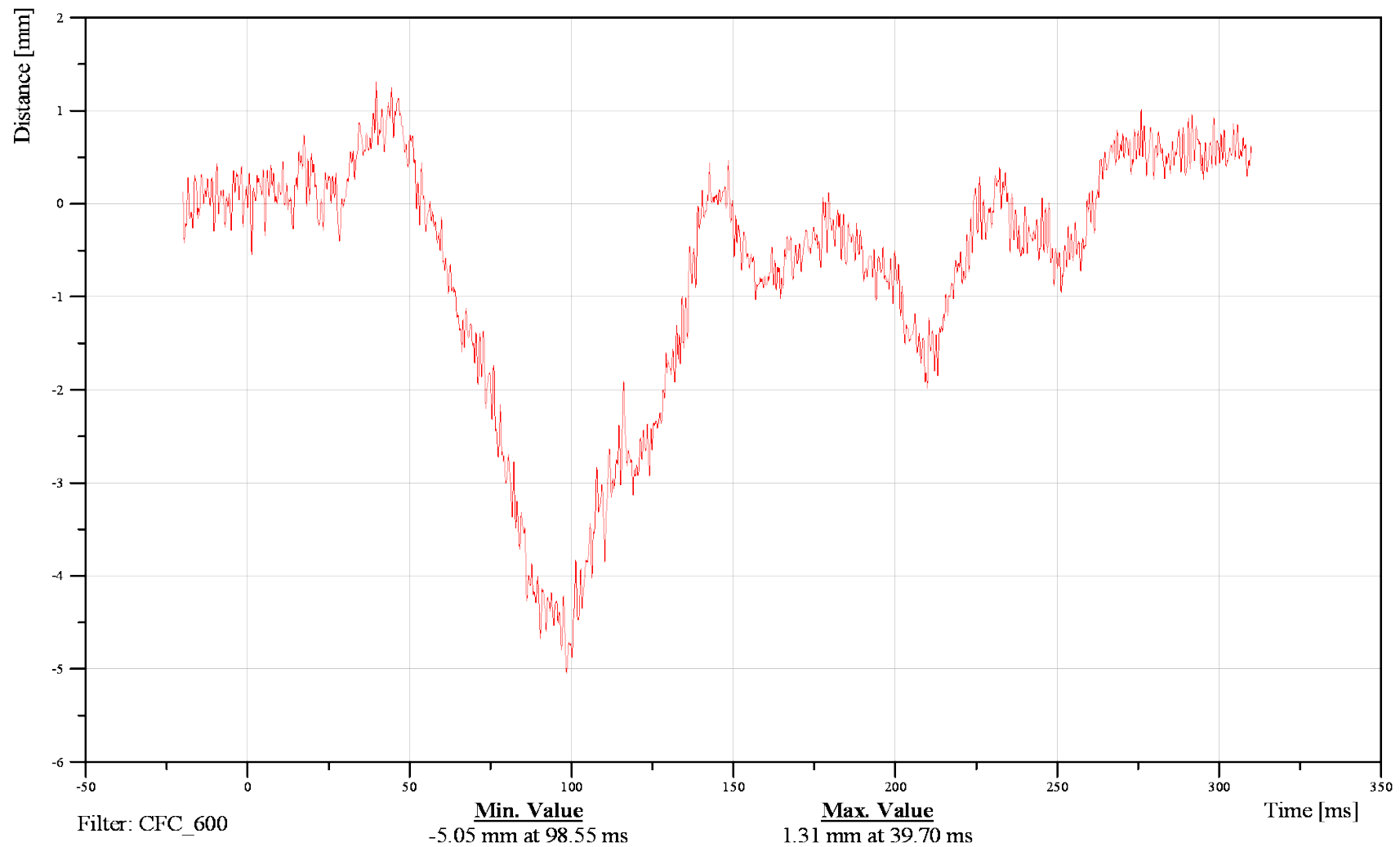
Time: 14:31

Customer: VRTC

13SHRILE00WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Longitudinal Ax

Date: 03/27/2013

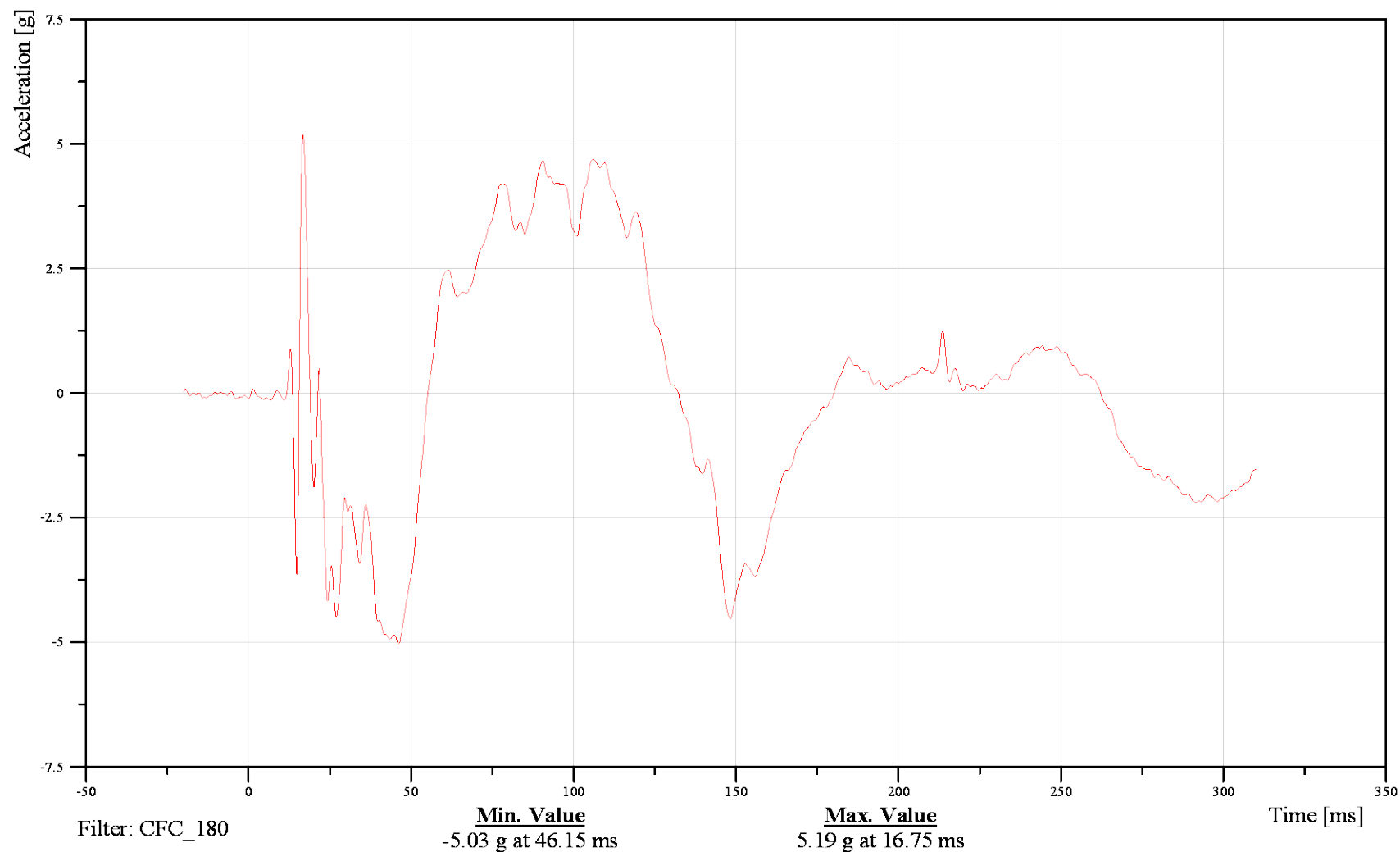
Time: 14:31

Customer: VRTC

13THSP0100WSACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Lateral Ay

Date: 03/27/2013

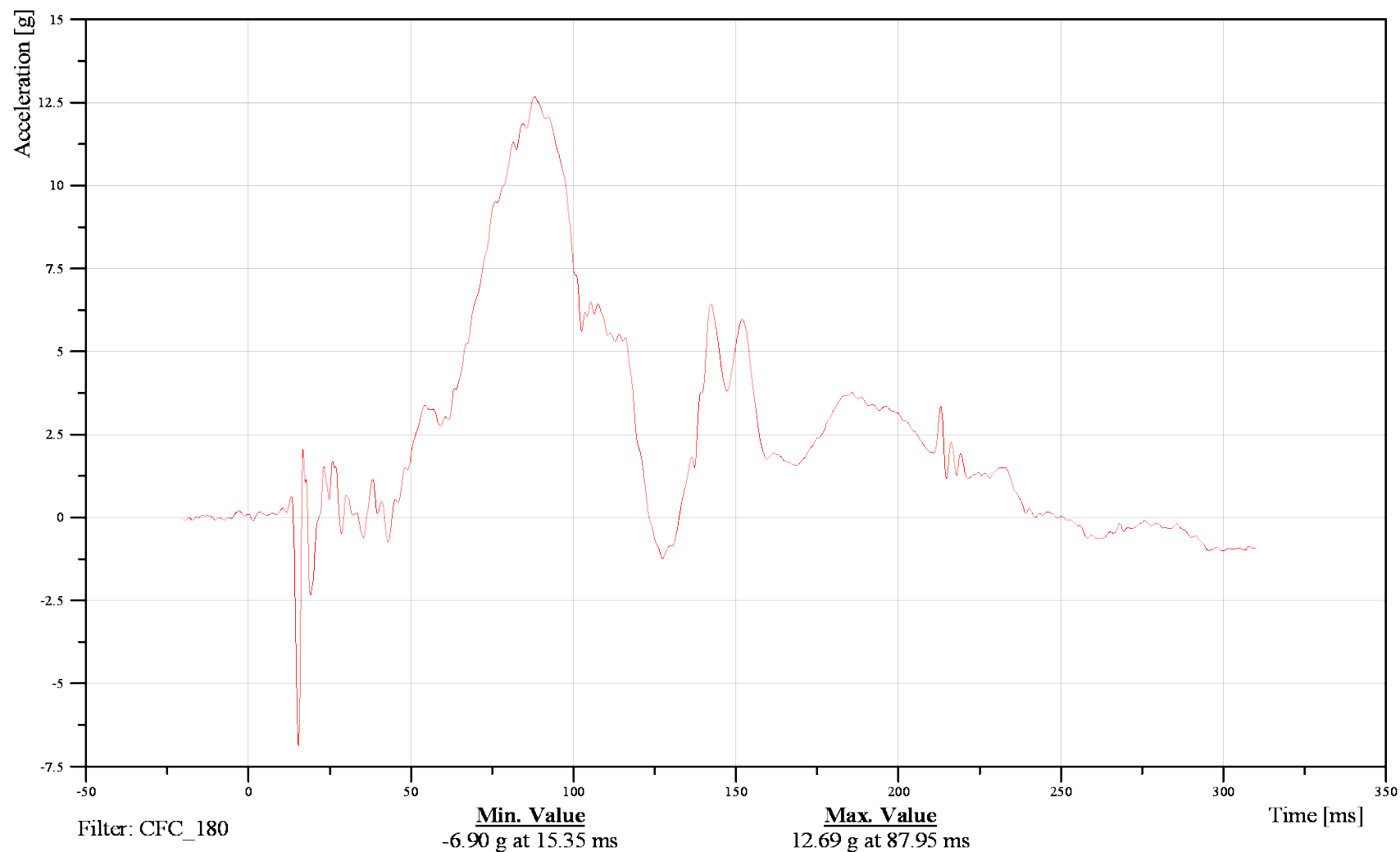
Time: 14:31

Customer: VRTC

13THSP0100WSACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Vertical Az

Date: 03/27/2013

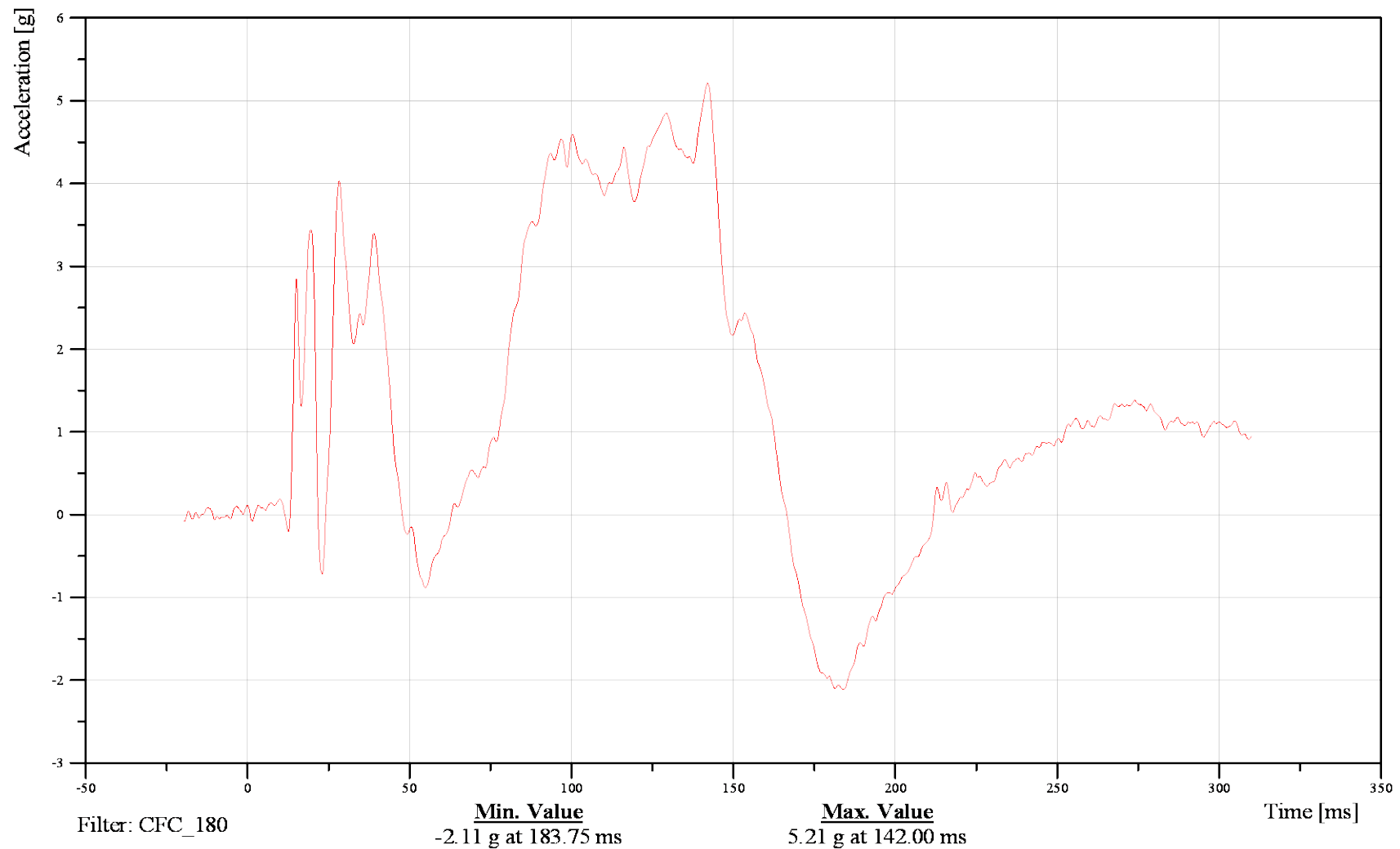
Time: 14:31

Customer: VRTC

13THSP0100WSACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 A Resultant

Date: 03/27/2013

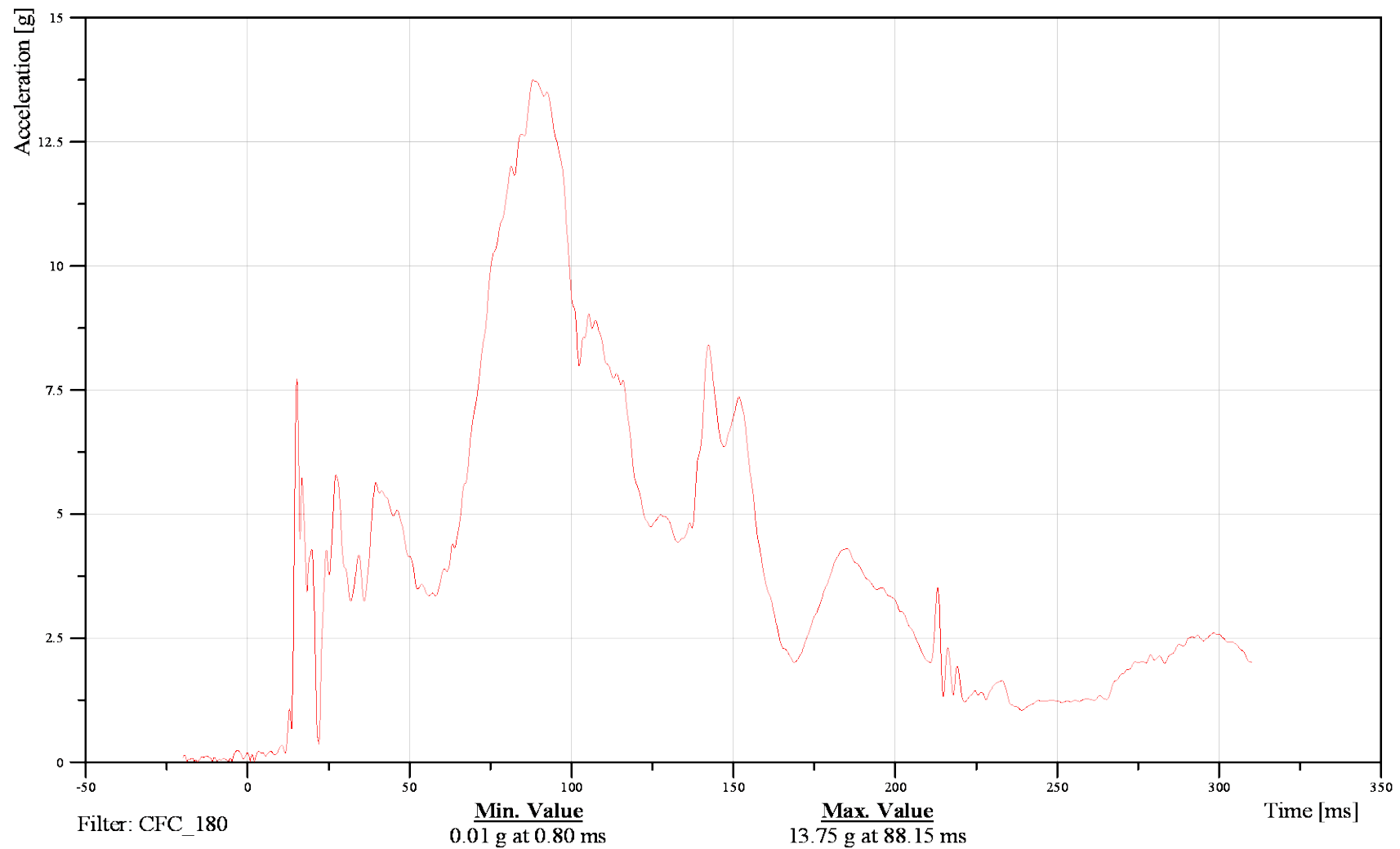
Time: 14:31

Customer: VRTC

13THSP0100WSACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Longitudinal Ax

Date: 03/27/2013

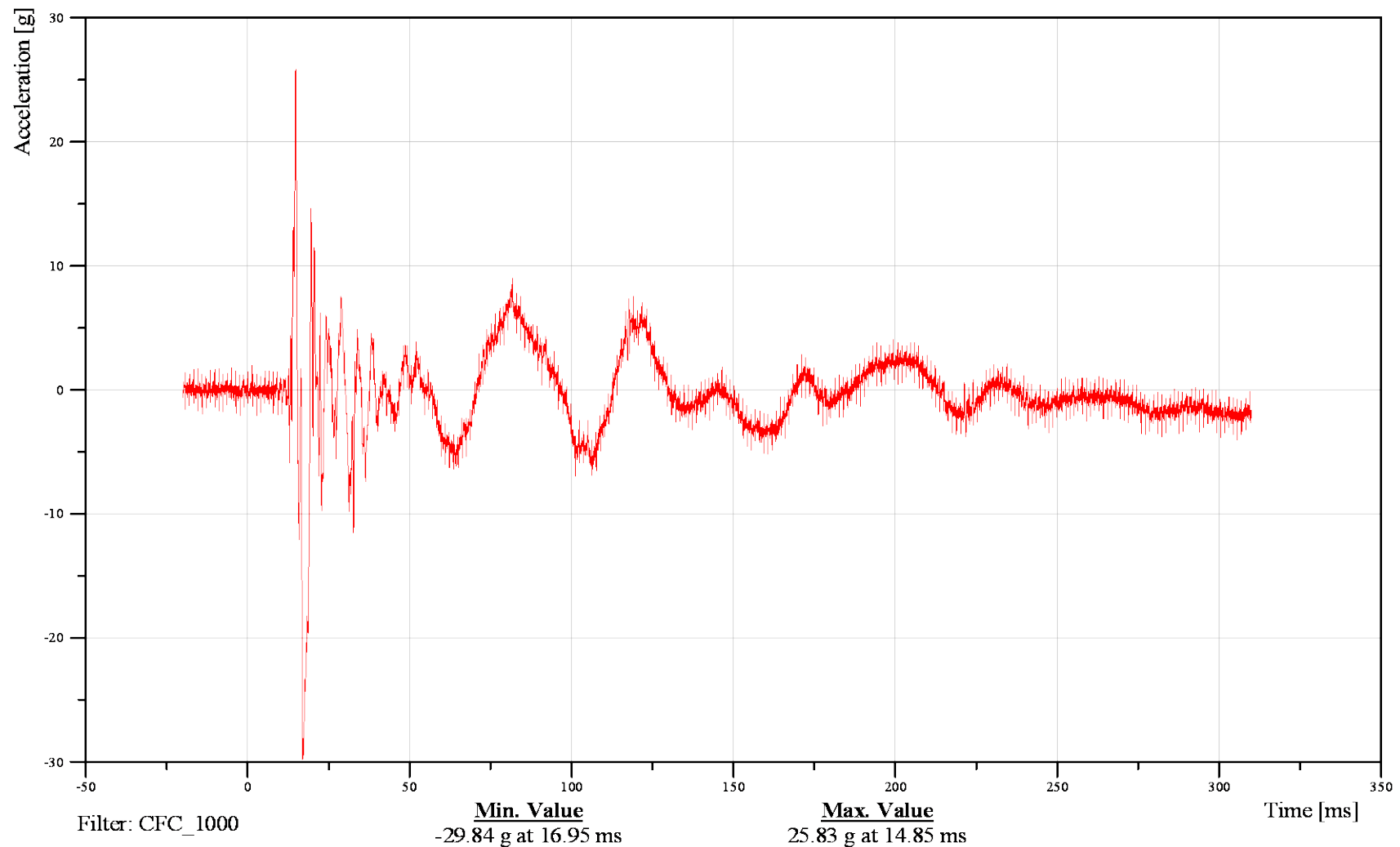
Time: 14:31

Customer: VRTC

13TRRILE01WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Lateral Ay

Date: 03/27/2013

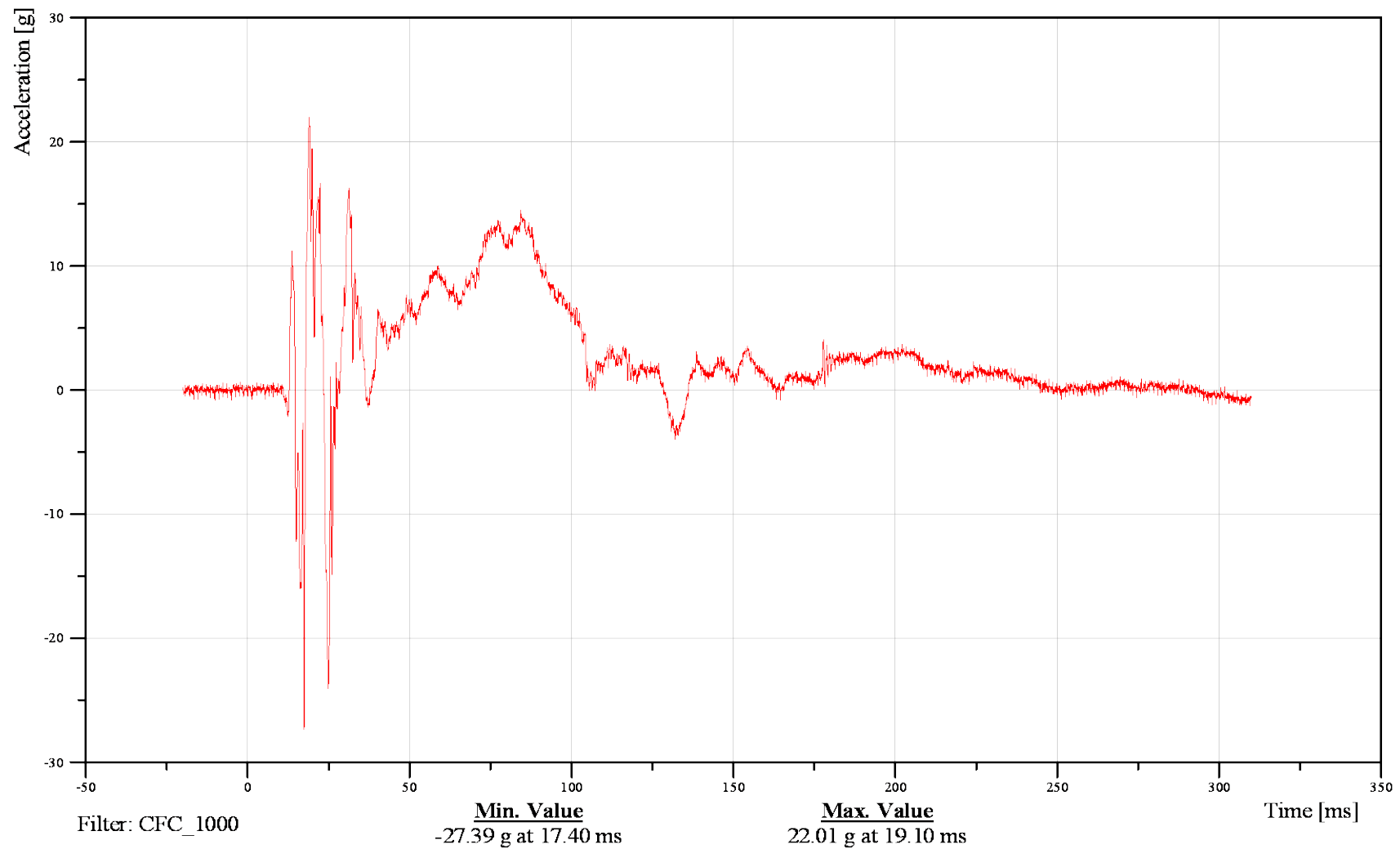
Time: 14:31

Customer: VRTC

13TRRILE01WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Vertical Az

Date: 03/27/2013

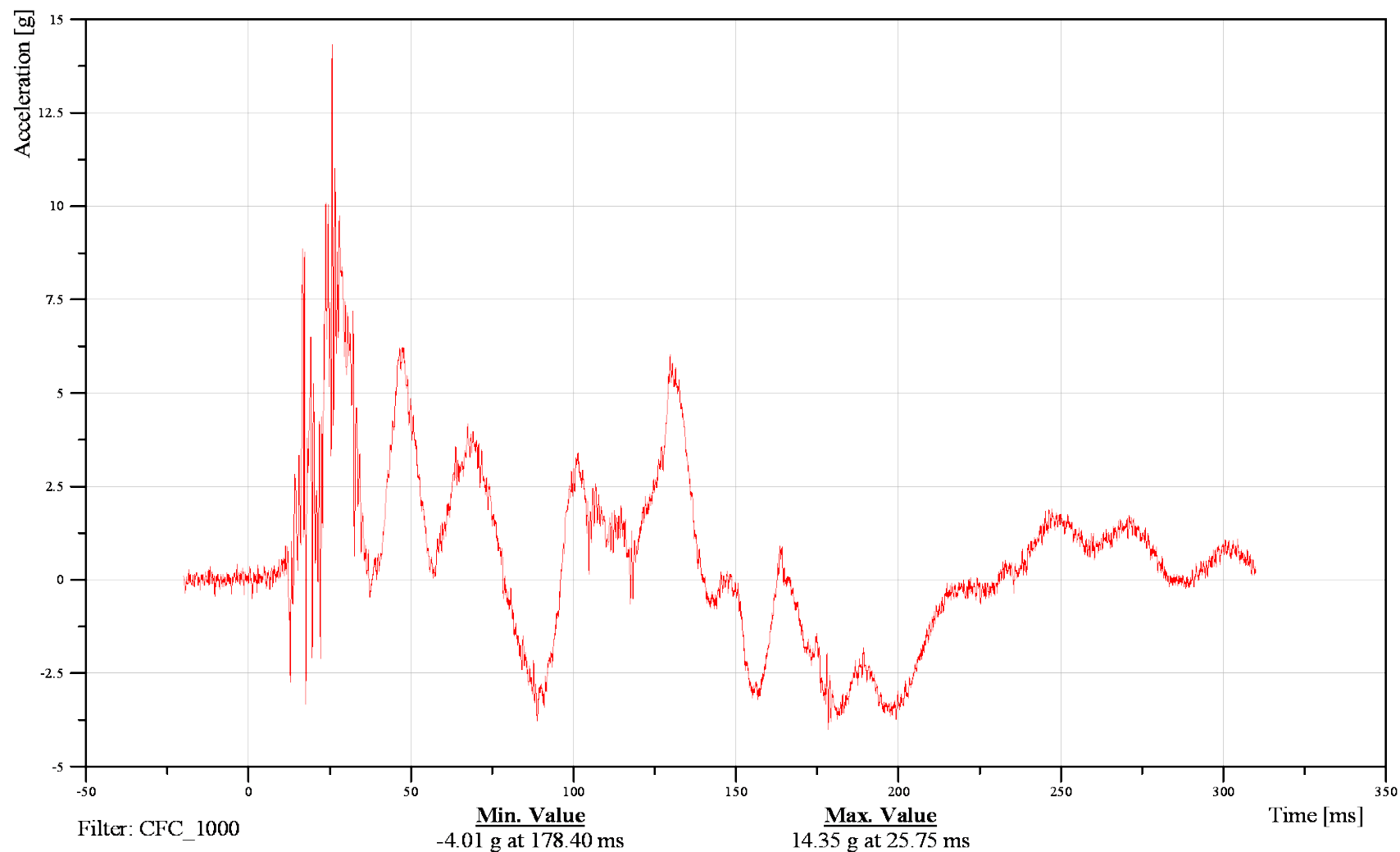
Time: 14:31

Customer: VRTC

13TRRILE01WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 A Resultant

Date: 03/27/2013

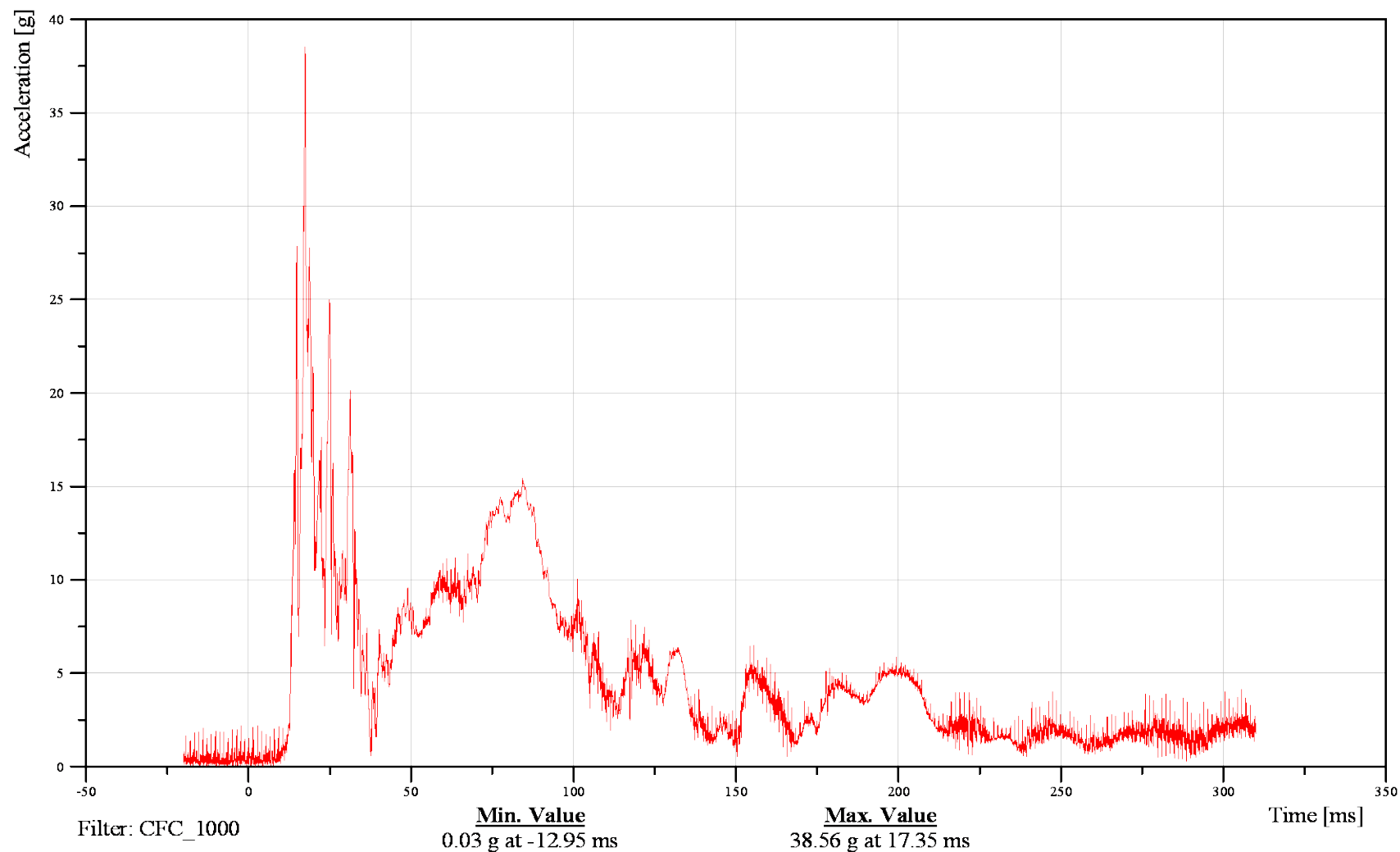
Time: 14:31

Customer: VRTC

13TRRILE01WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Lateral Disp

Date: 03/27/2013

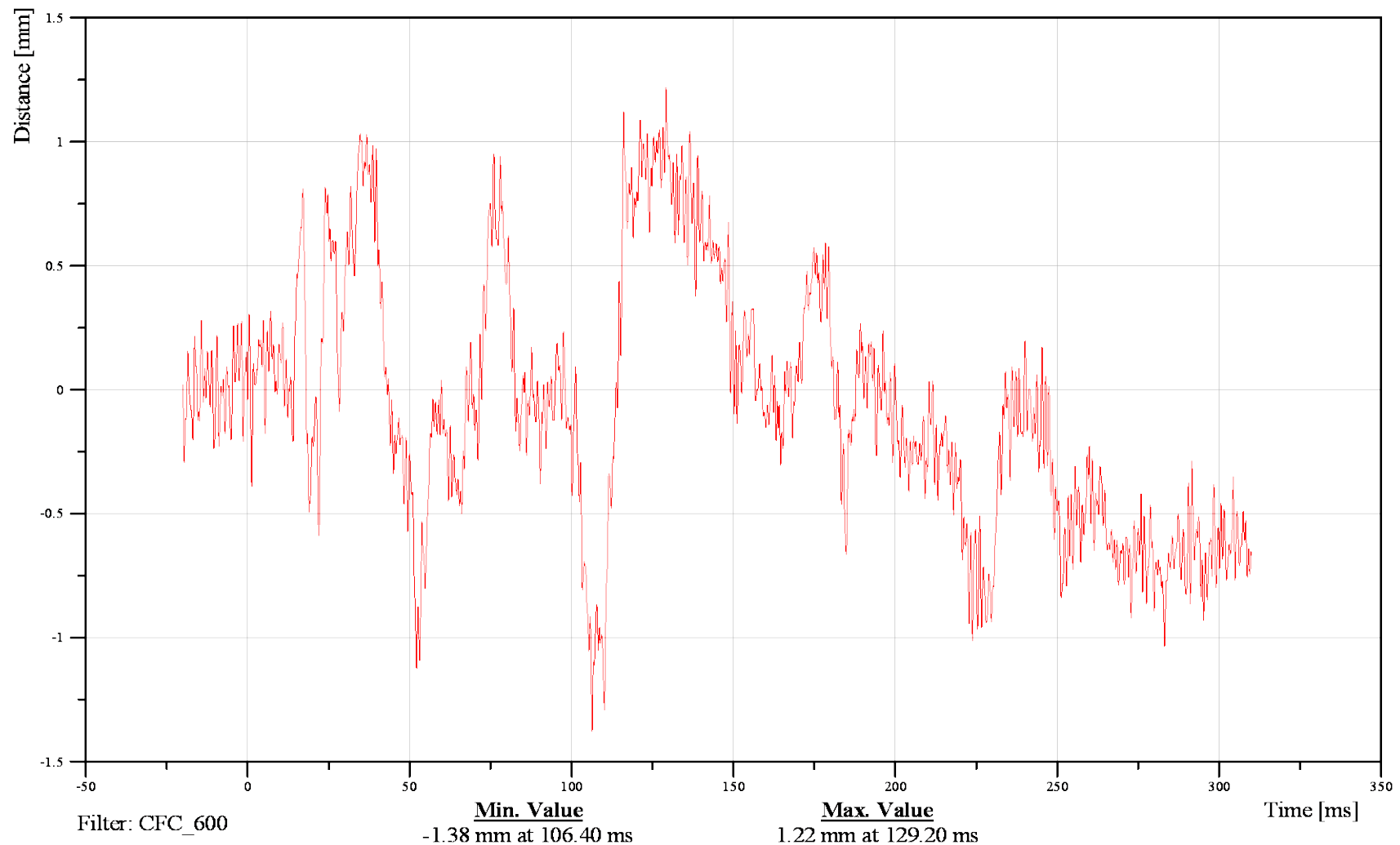
Time: 14:31

Customer: VRTC

13TRRILE01WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Longitudinal Ax

Date: 03/27/2013

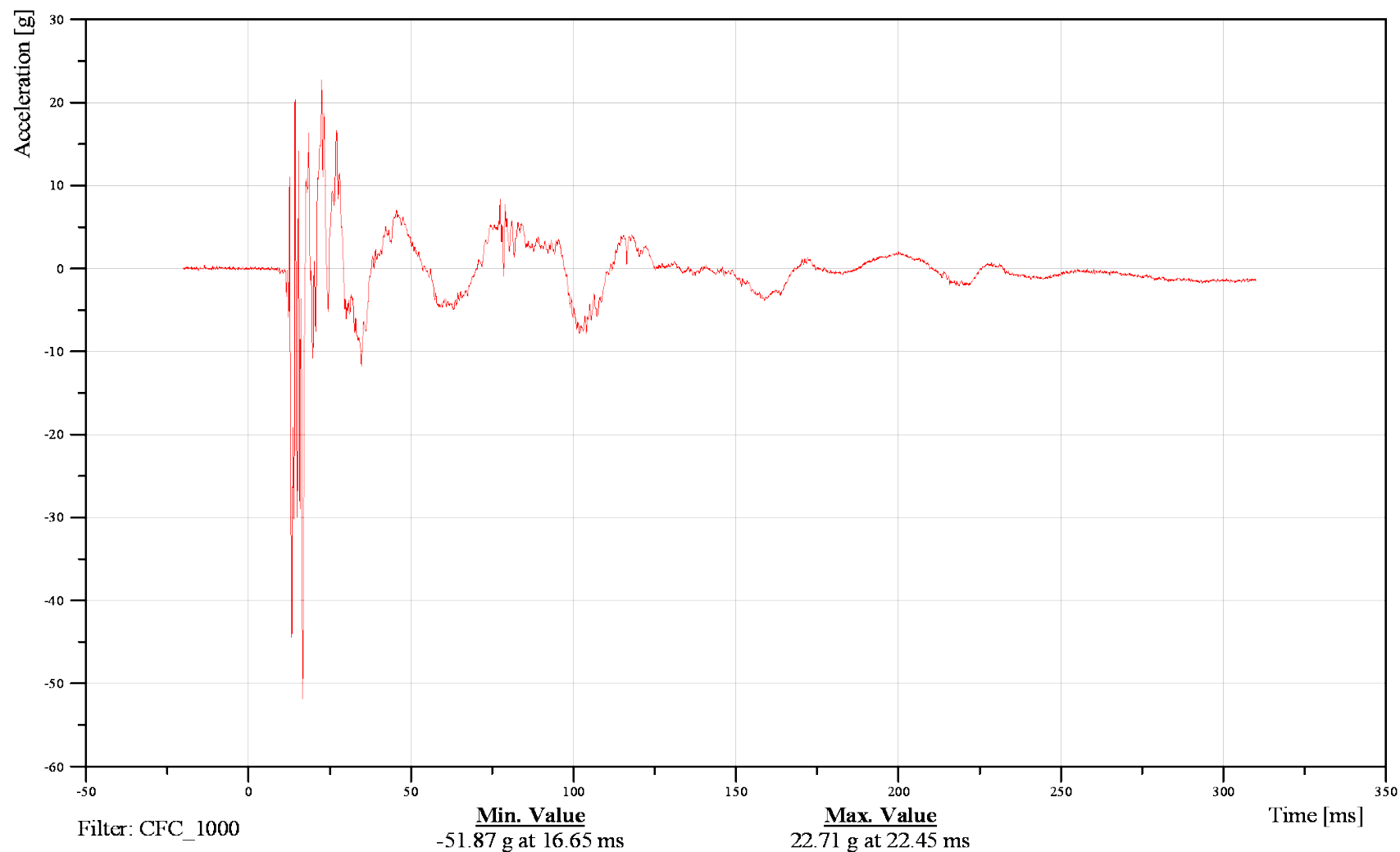
Time: 14:31

Customer: VRTC

13TRRILE02WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Lateral Ay

Date: 03/27/2013

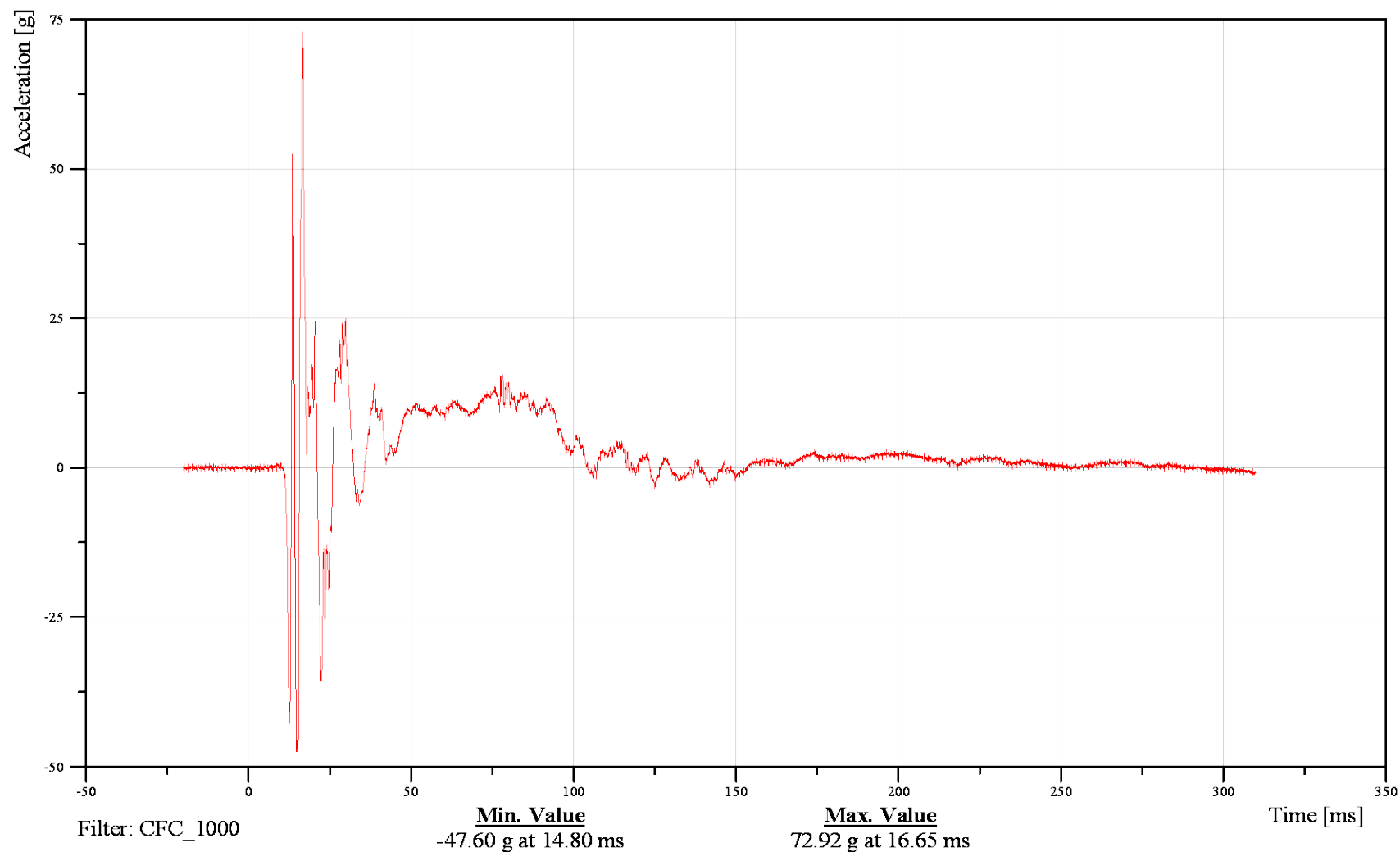
Time: 14:31

Customer: VRTC

13TRRILE02WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Vertical Az

Date: 03/27/2013

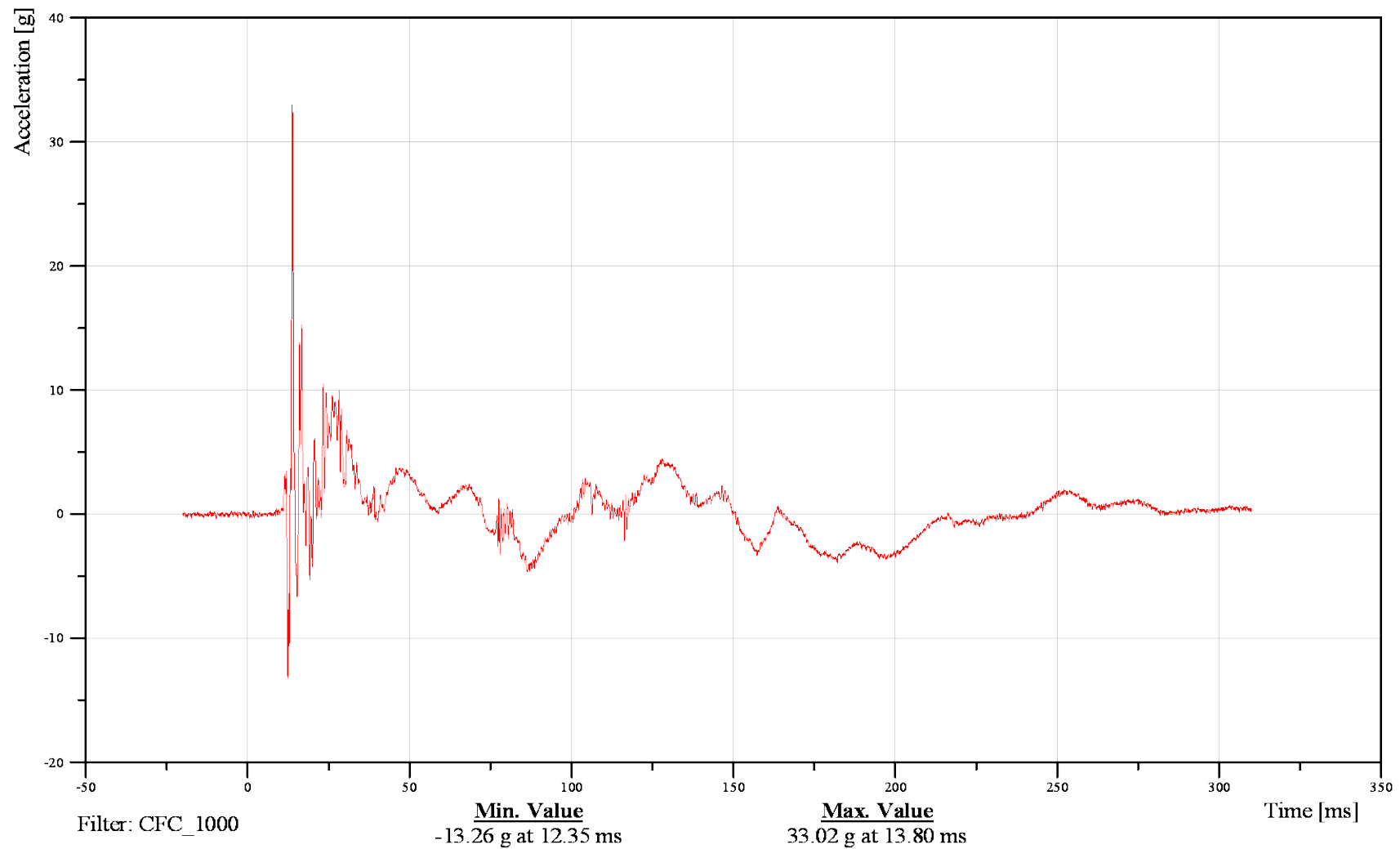
Time: 14:31

Customer: VRTC

13TRRILE02WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 A Resultant

Date: 03/27/2013

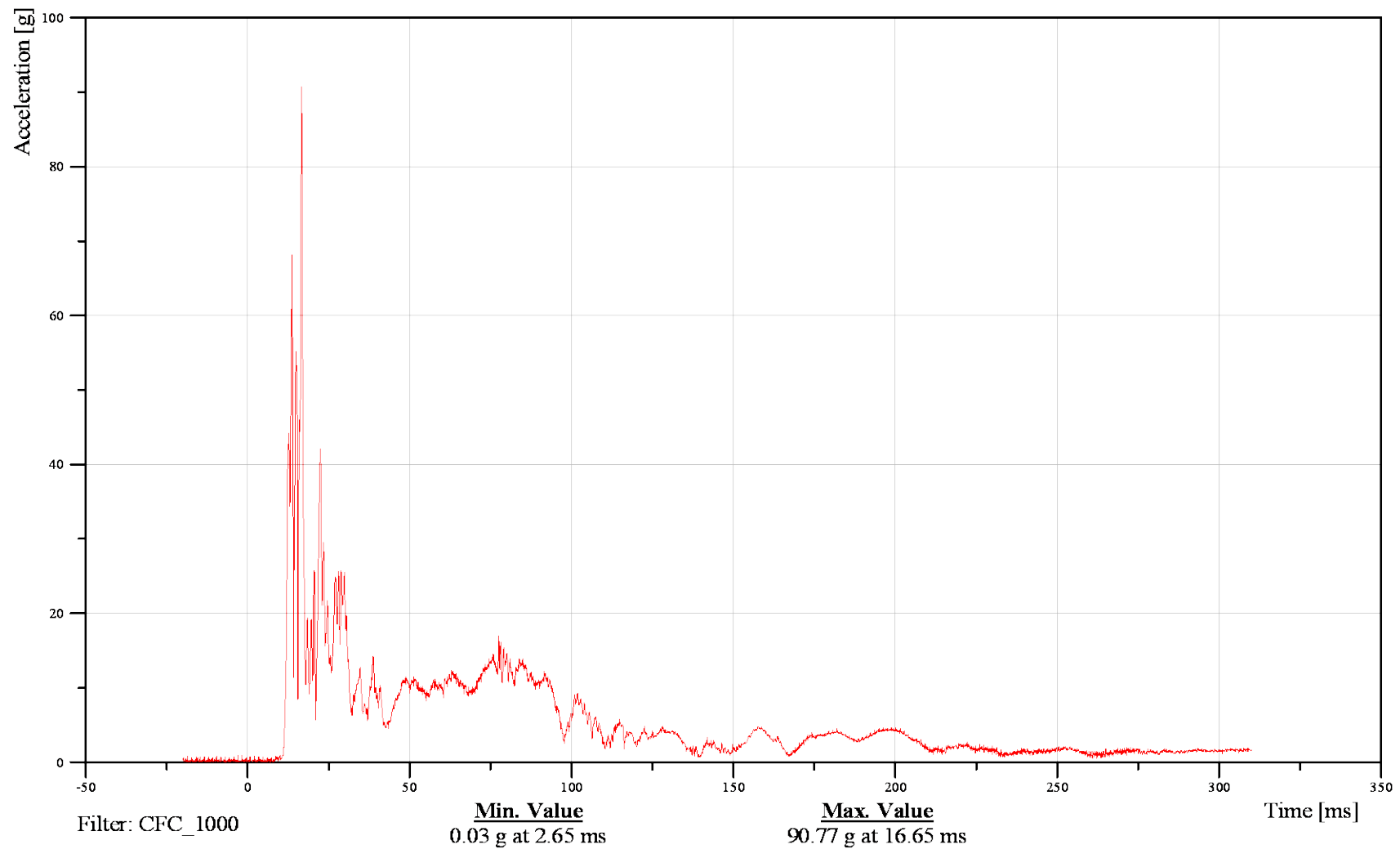
Time: 14:31

Customer: VRTC

13TRRILE02WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Lateral Disp

Date: 03/27/2013

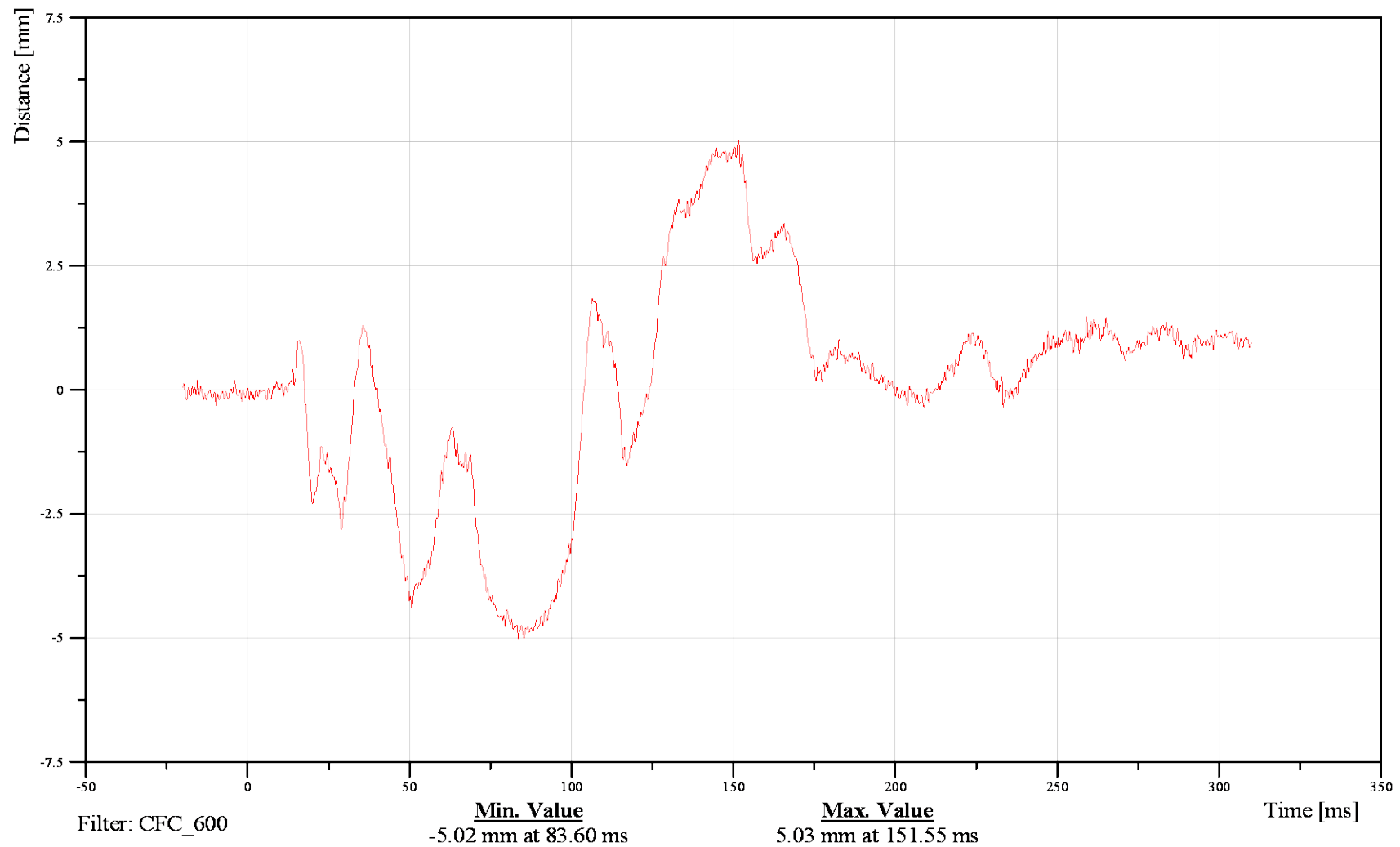
Time: 14:31

Customer: VRTC

13TRRILE02WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Longitudinal Ax

Date: 03/27/2013

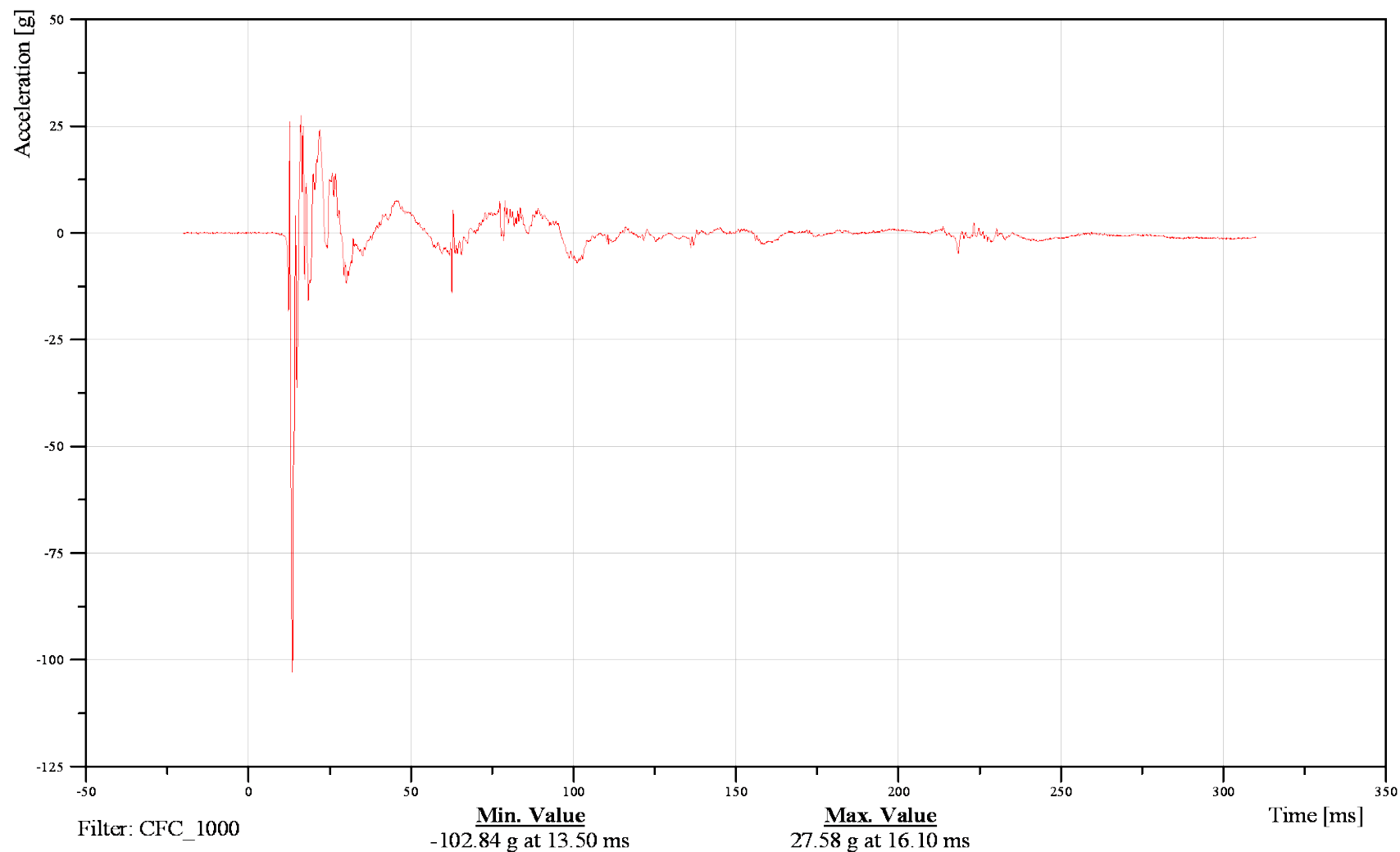
Time: 14:31

Customer: VRTC

13TRRILE03WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Lateral Ay

Date: 03/27/2013

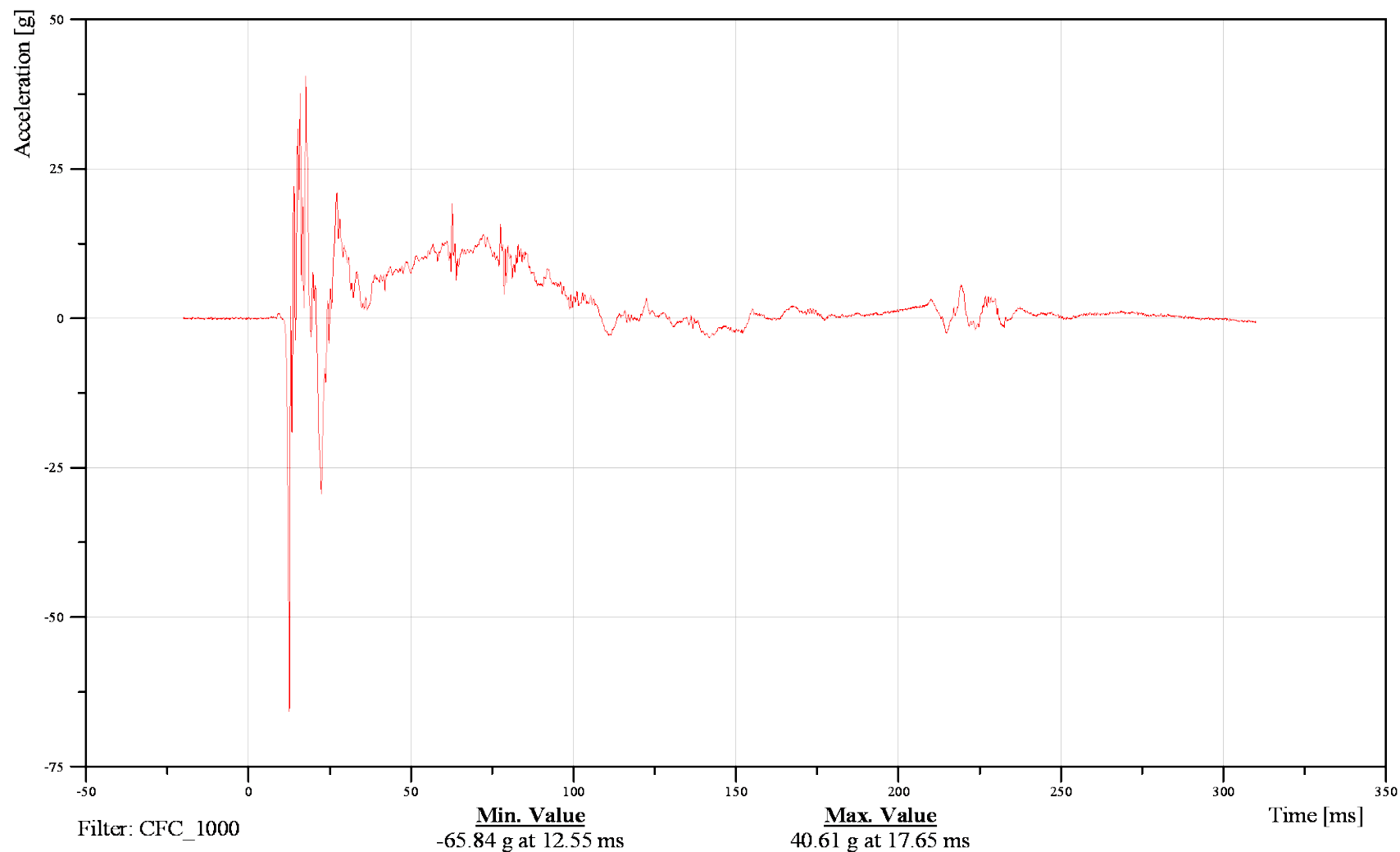
Time: 14:31

Customer: VRTC

13TRRILE03WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Vertical Az

Date: 03/27/2013

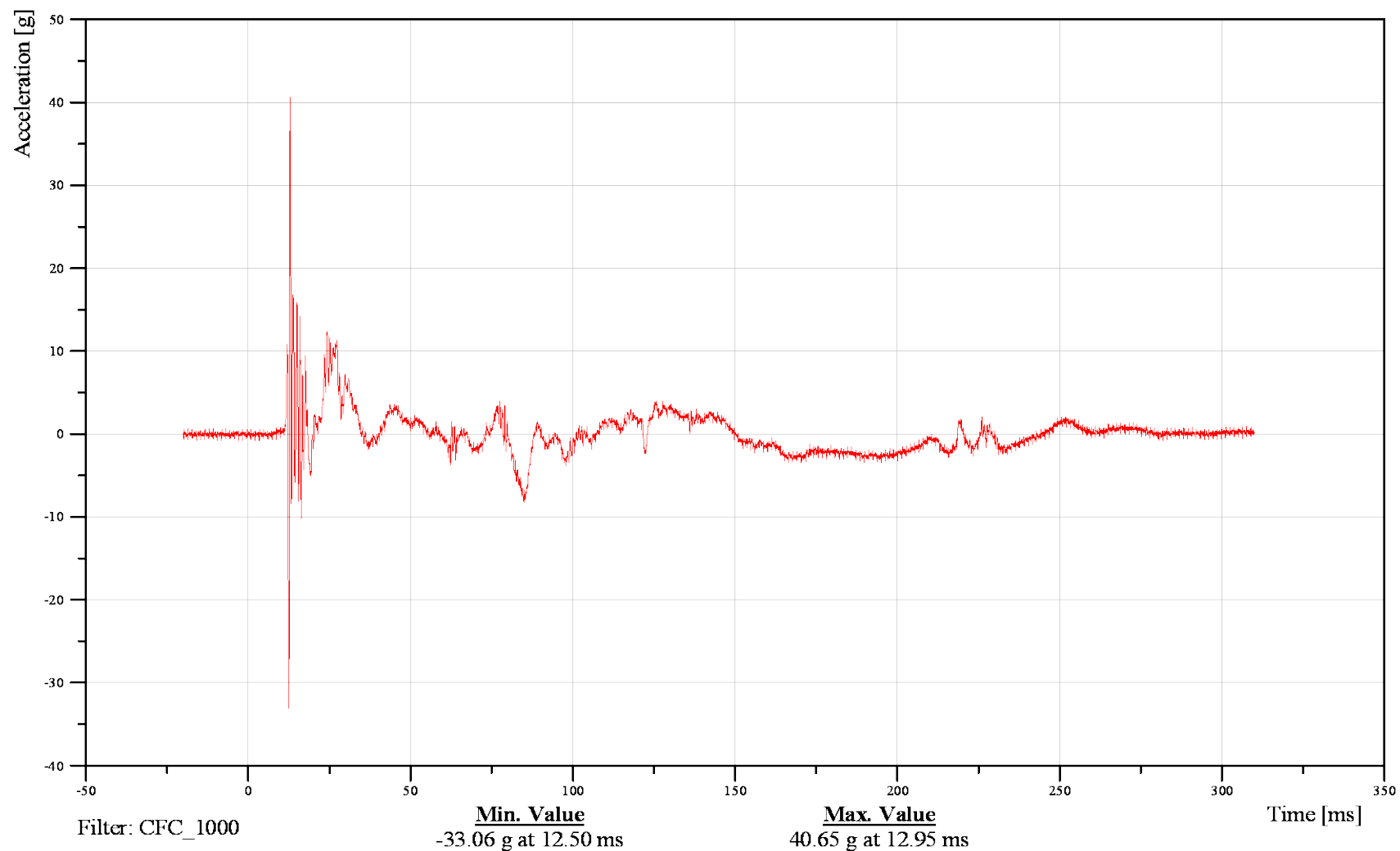
Time: 14:31

Customer: VRTC

13TRRILE03WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 A Resultant

Date: 03/27/2013

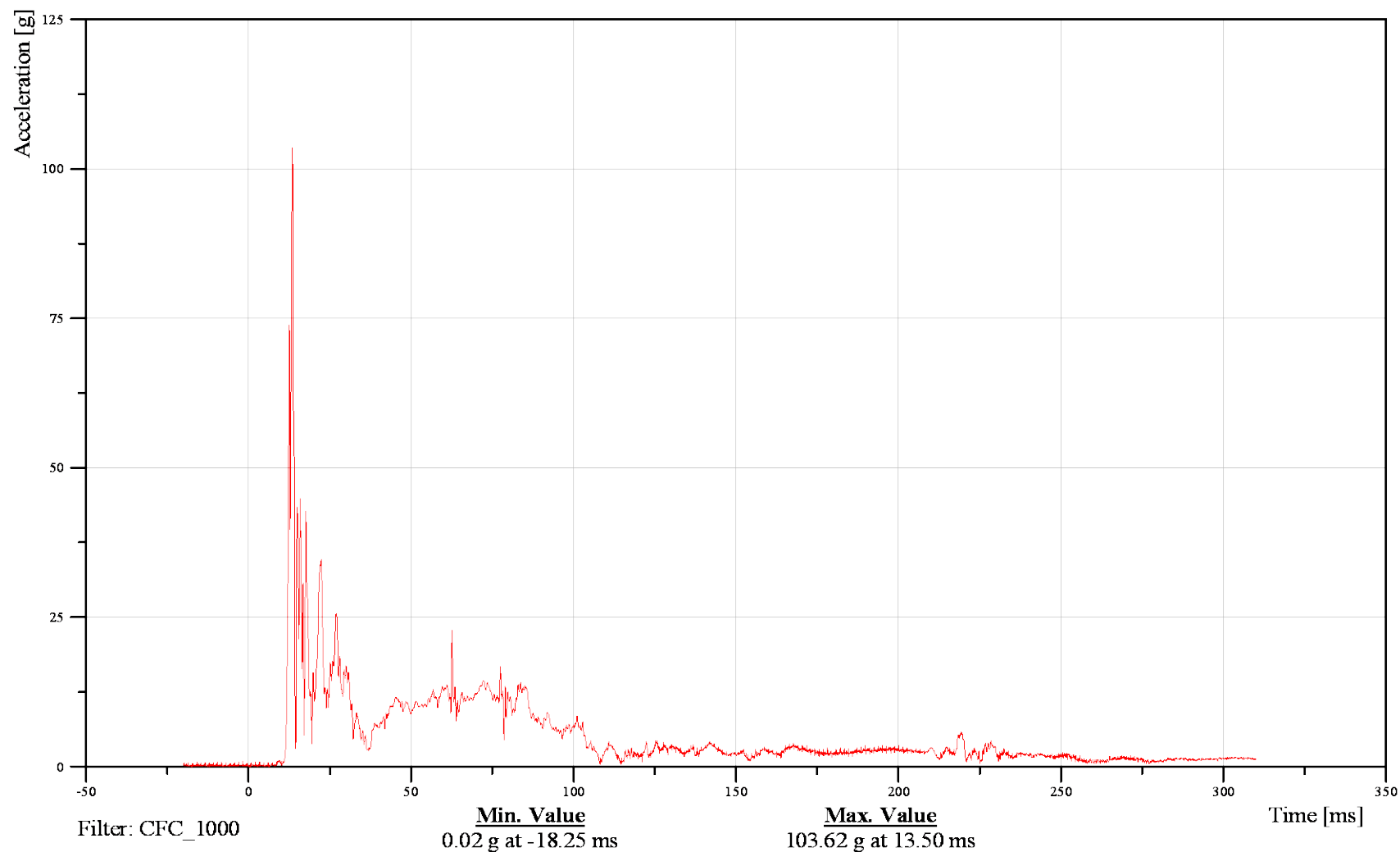
Time: 14:31

Customer: VRTC

13TRRILE03WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Lateral Disp

Date: 03/27/2013

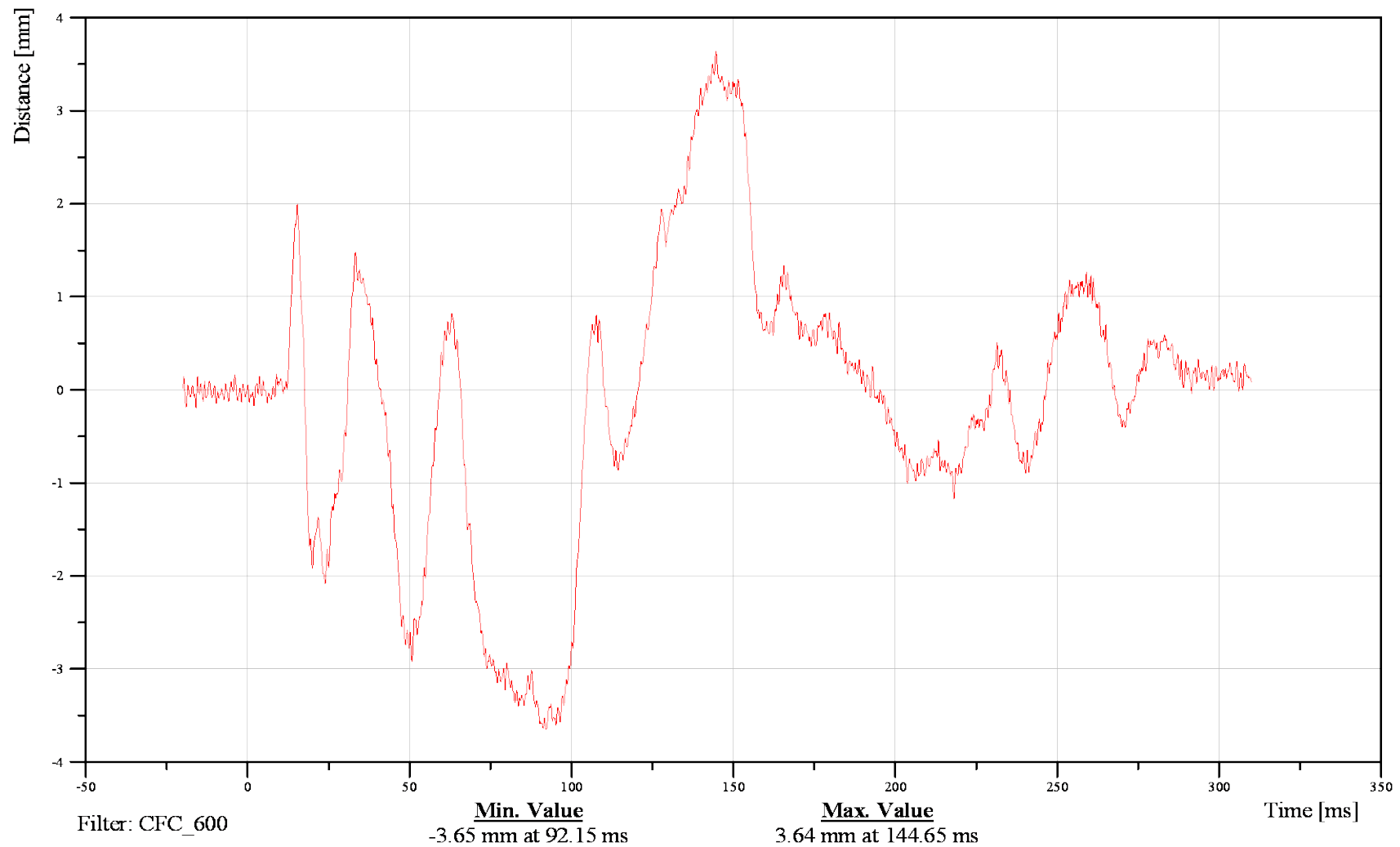
Time: 14:31

Customer: VRTC

13TRRILE03WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Longitudinal Ax

Date: 03/27/2013

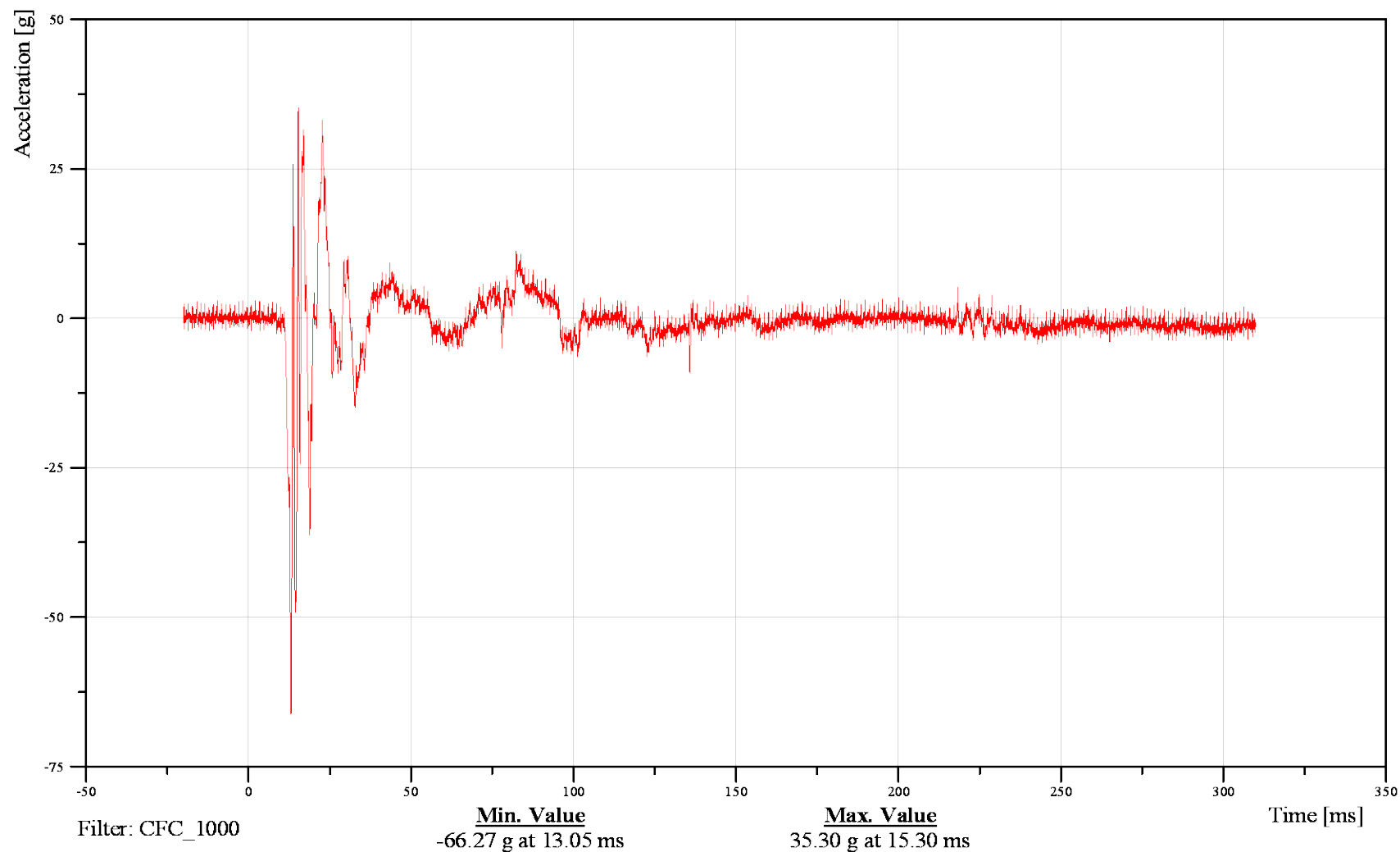
Time: 14:31

Customer: VRTC

13ABRILE01WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Lateral Ay

Date: 03/27/2013

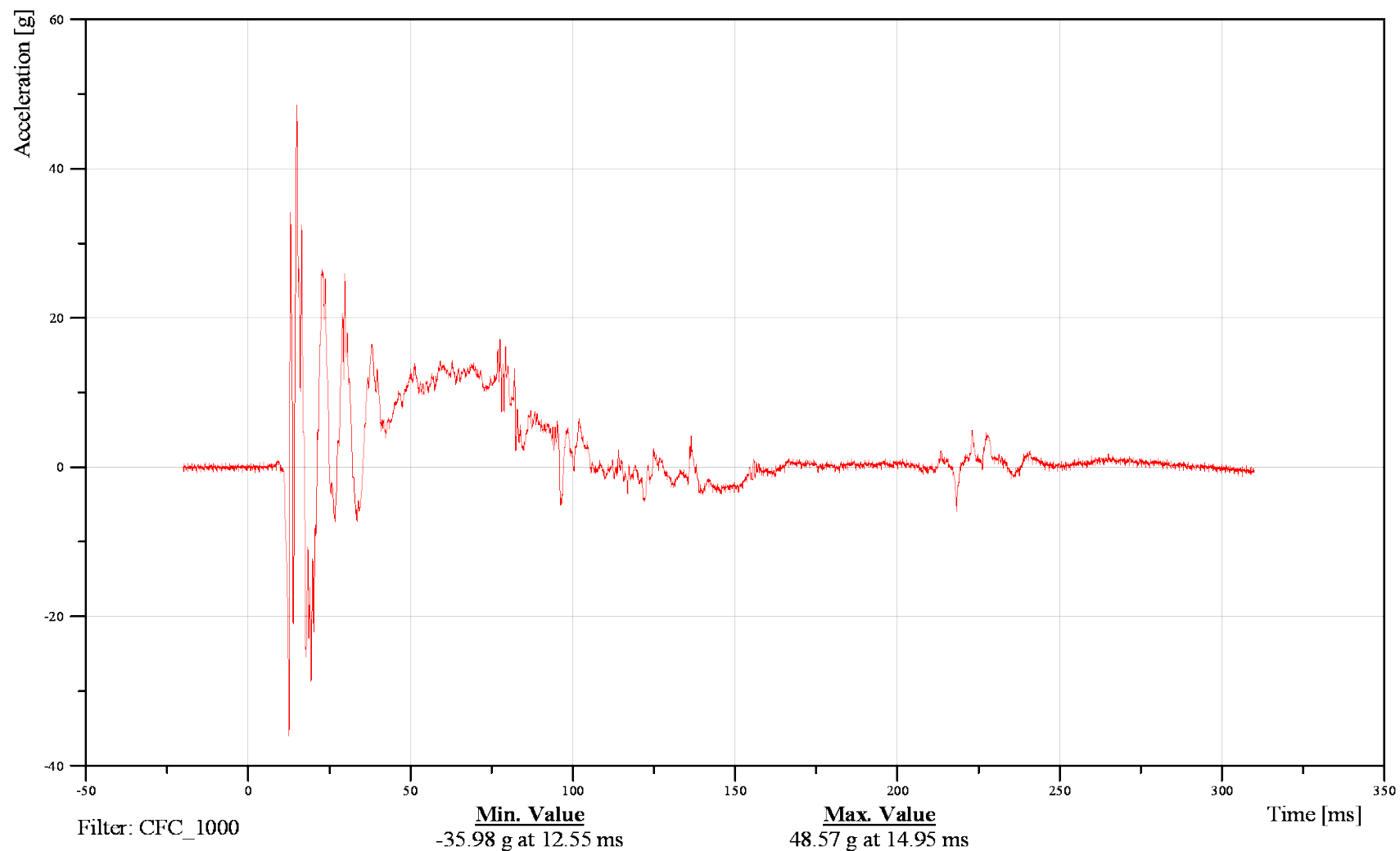
Time: 14:31

Customer: VRTC

13ABRILE01WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Vertical Az

Date: 03/27/2013

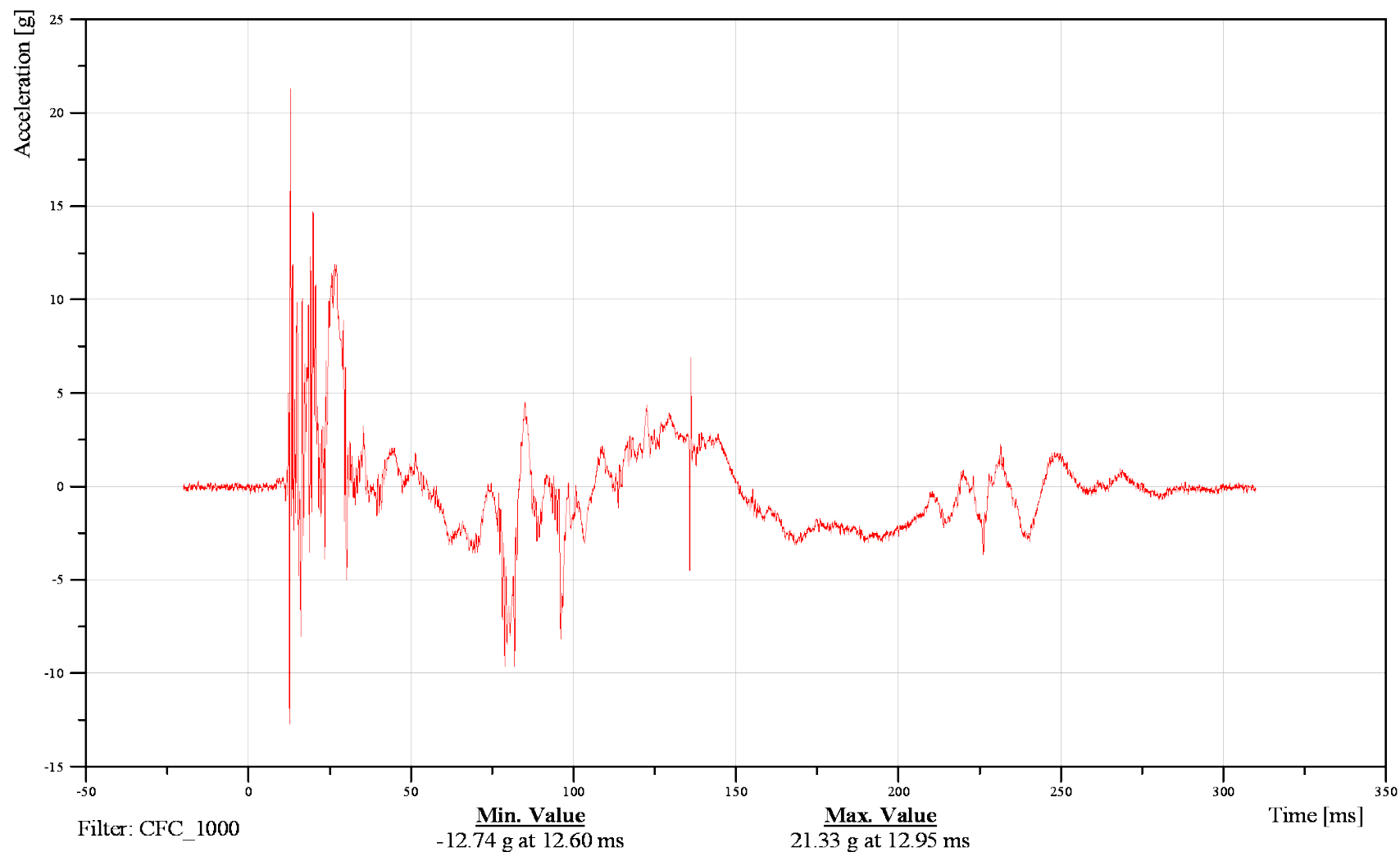
Time: 14:31

Customer: VRTC

13ABRILE01WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 A Resultant

Date: 03/27/2013

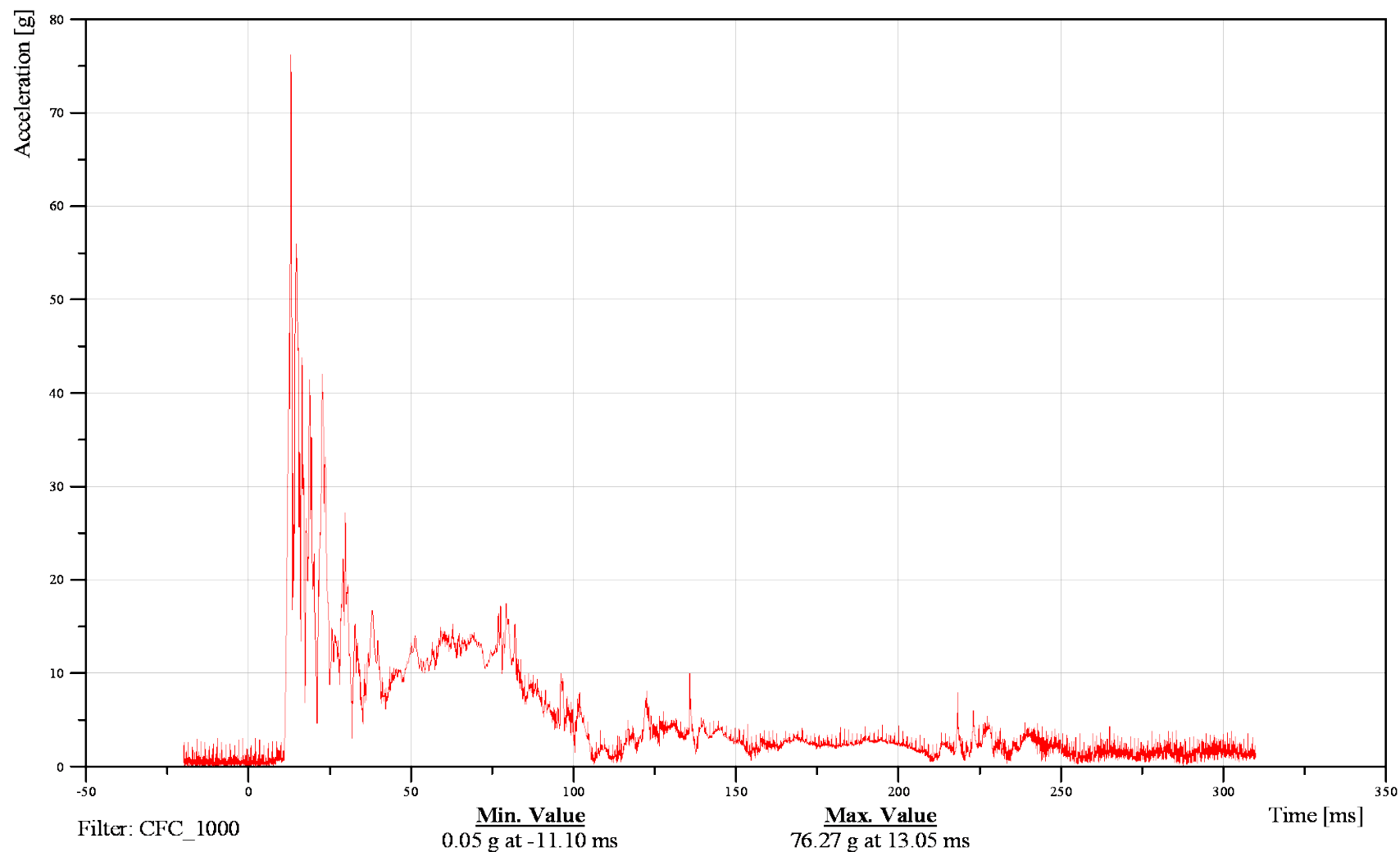
Time: 14:31

Customer: VRTC

13ABRILE01WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Lateral Disp

Date: 03/27/2013

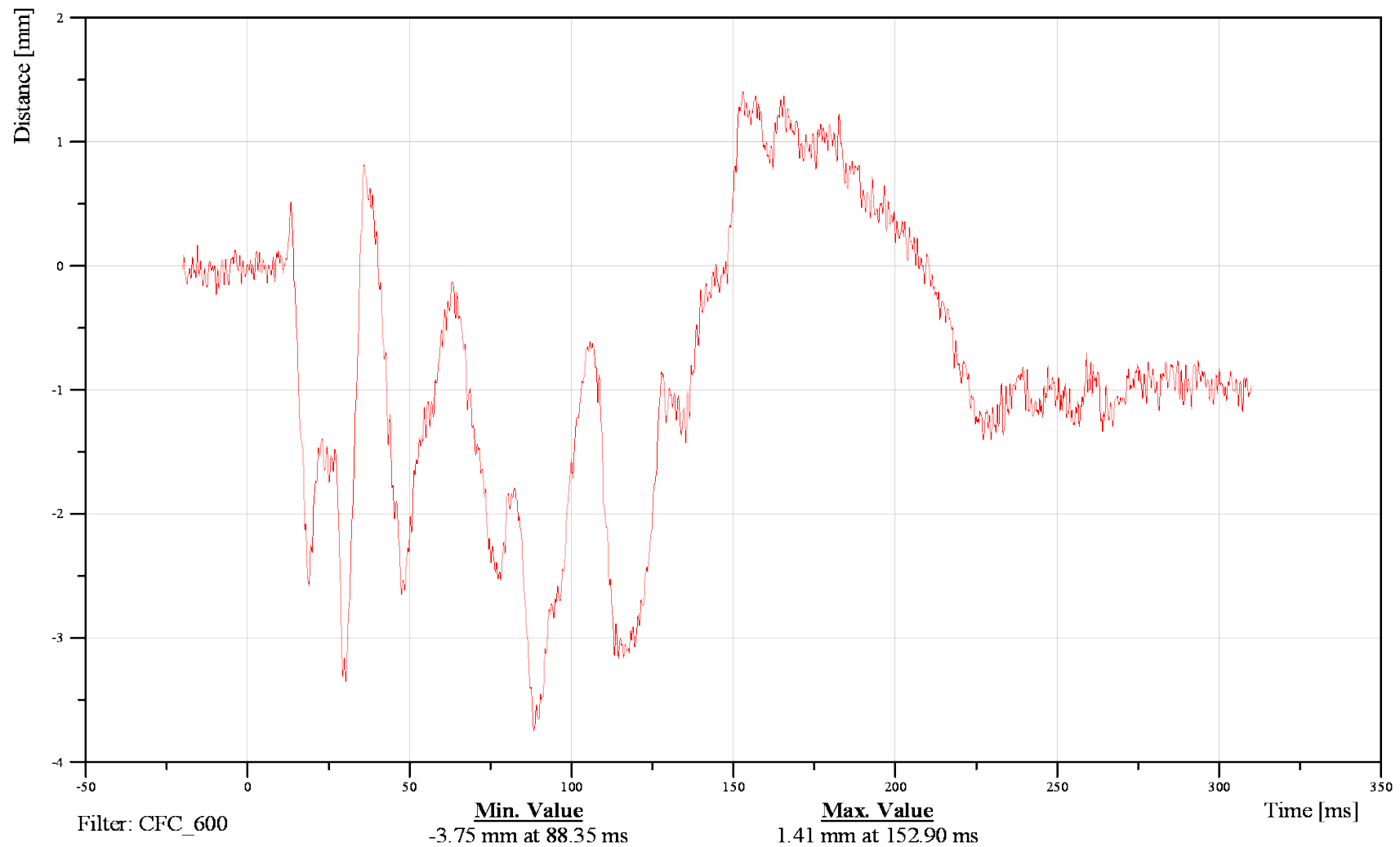
Time: 14:31

Customer: VRTC

13ABRILE01WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Longitudinal Ax

Date: 03/27/2013

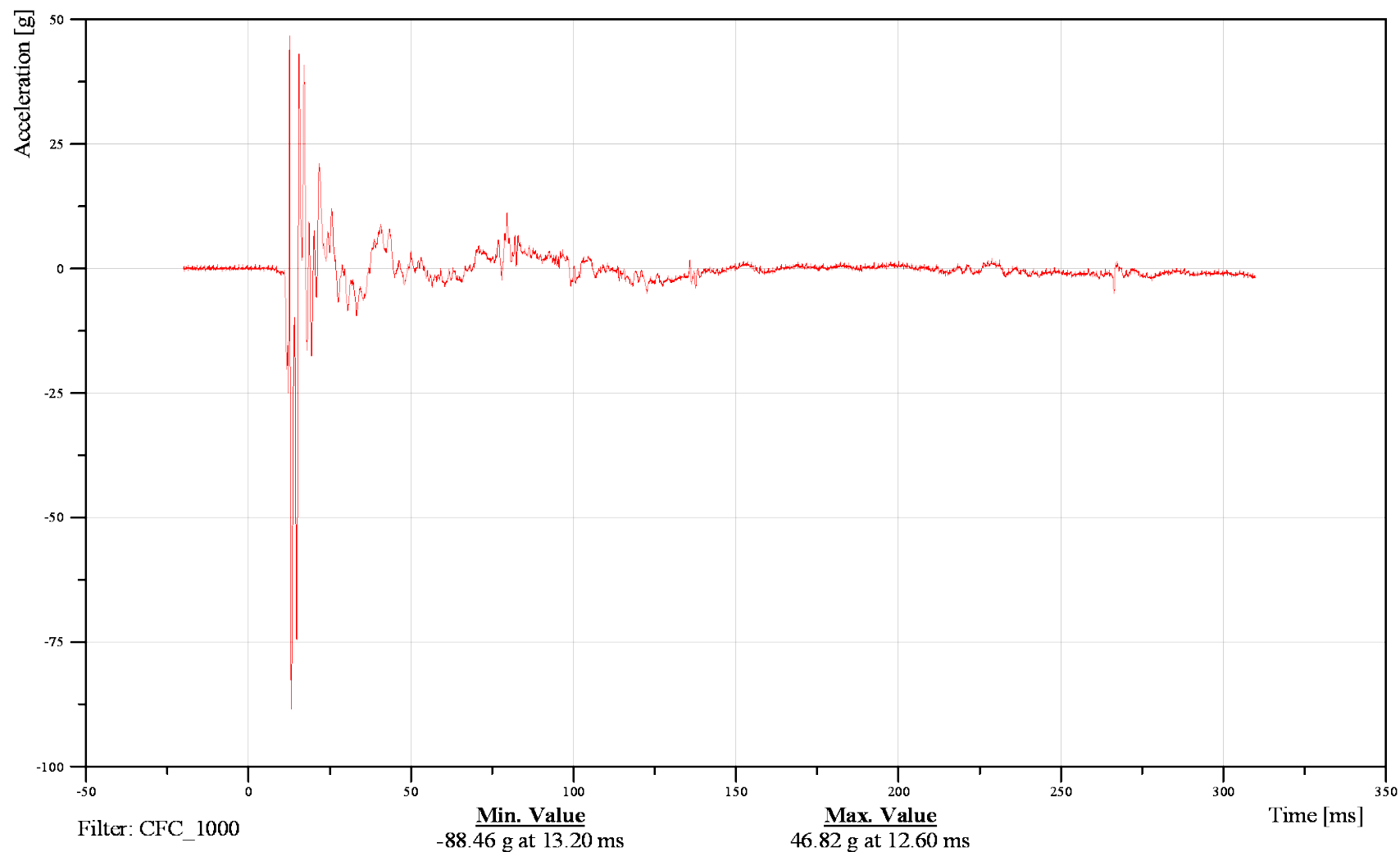
Time: 14:31

Customer: VRTC

13ABRILE02WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Lateral Ay

Date: 03/27/2013

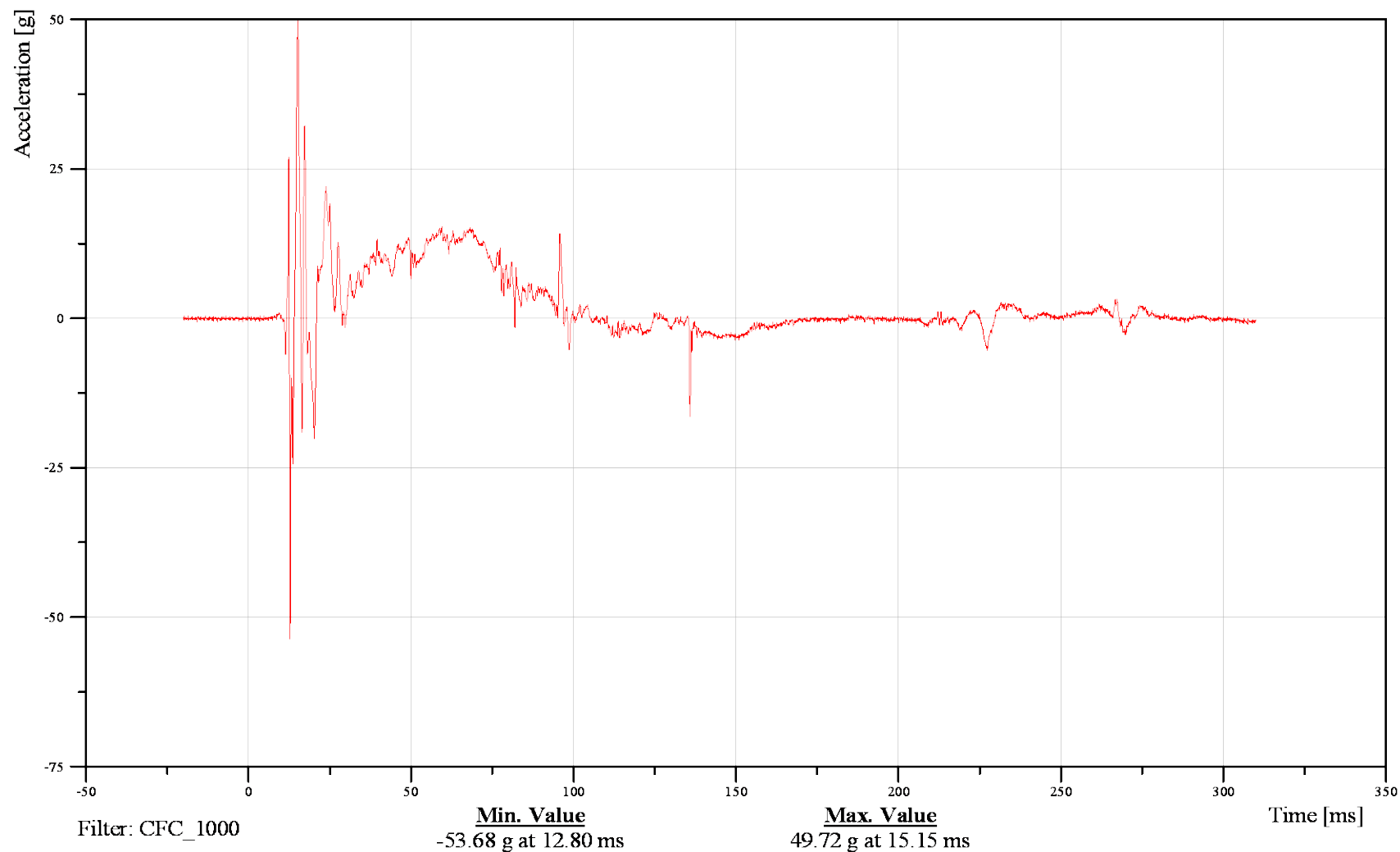
Time: 14:31

Customer: VRTC

13ABRILE02WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Vertical Az

Date: 03/27/2013

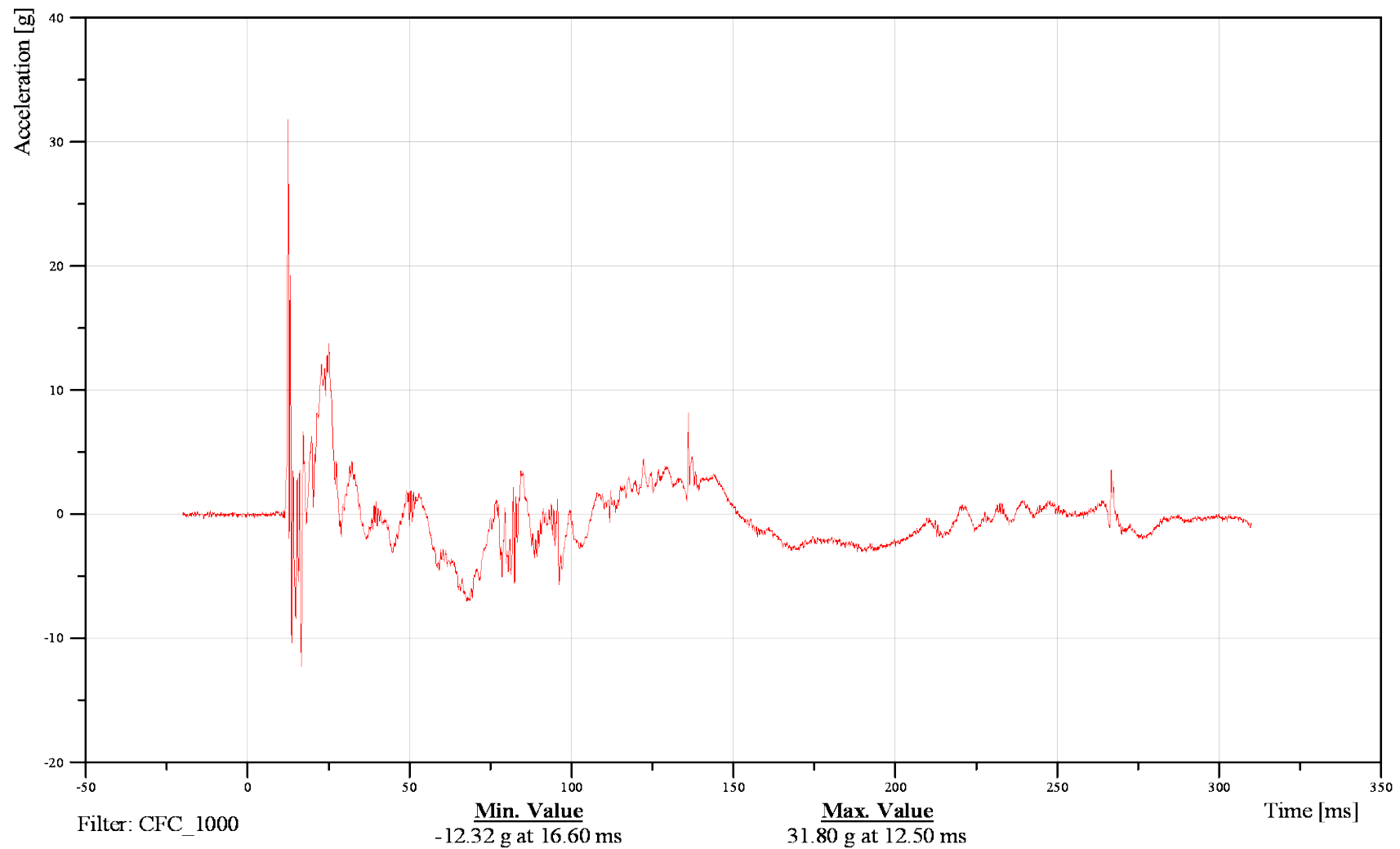
Time: 14:31

Customer: VRTC

13ABRILE02WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 A Resultant

Date: 03/27/2013

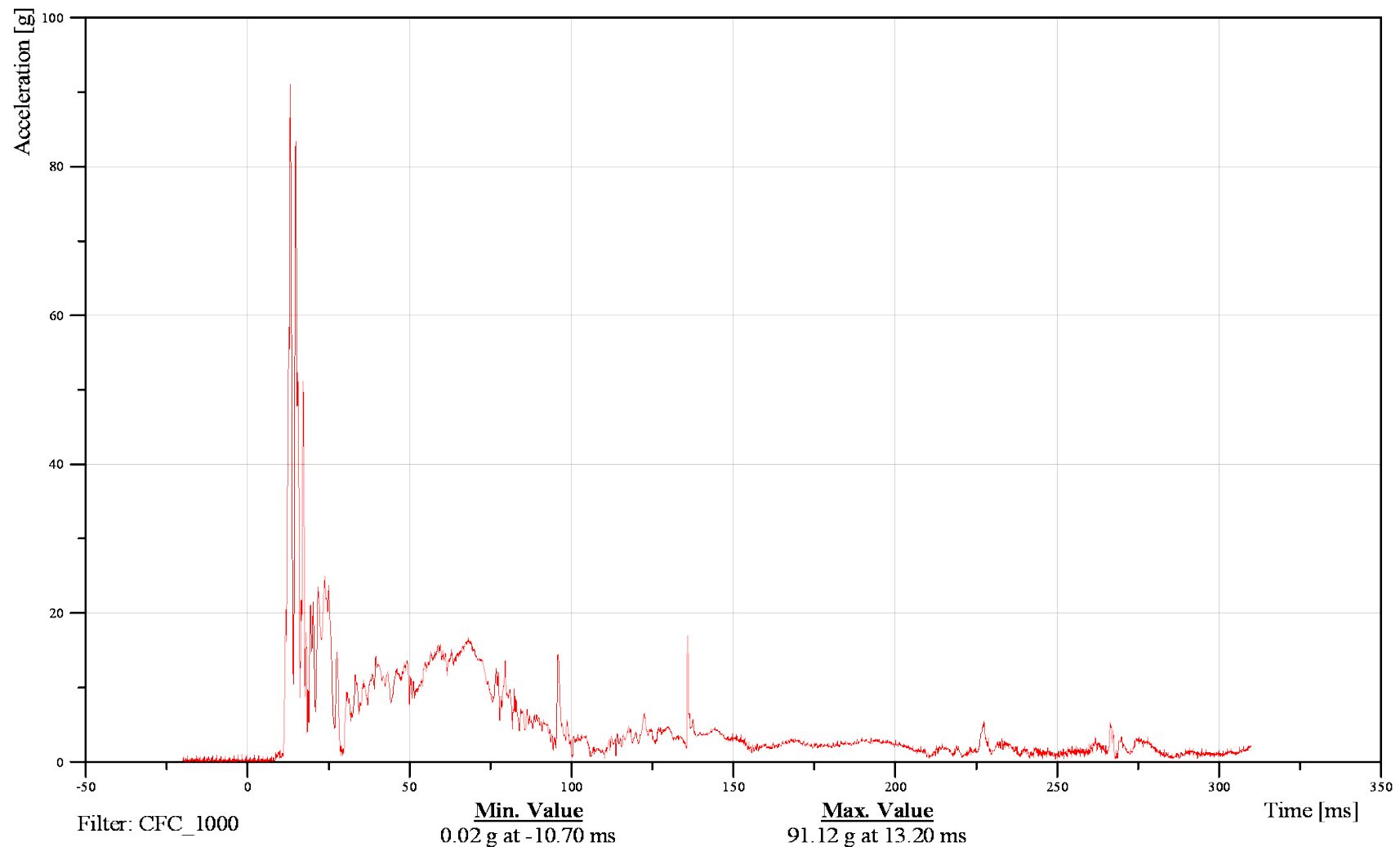
Time: 14:31

Customer: VRTC

13ABRILE02WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Lateral Disp

Date: 03/27/2013

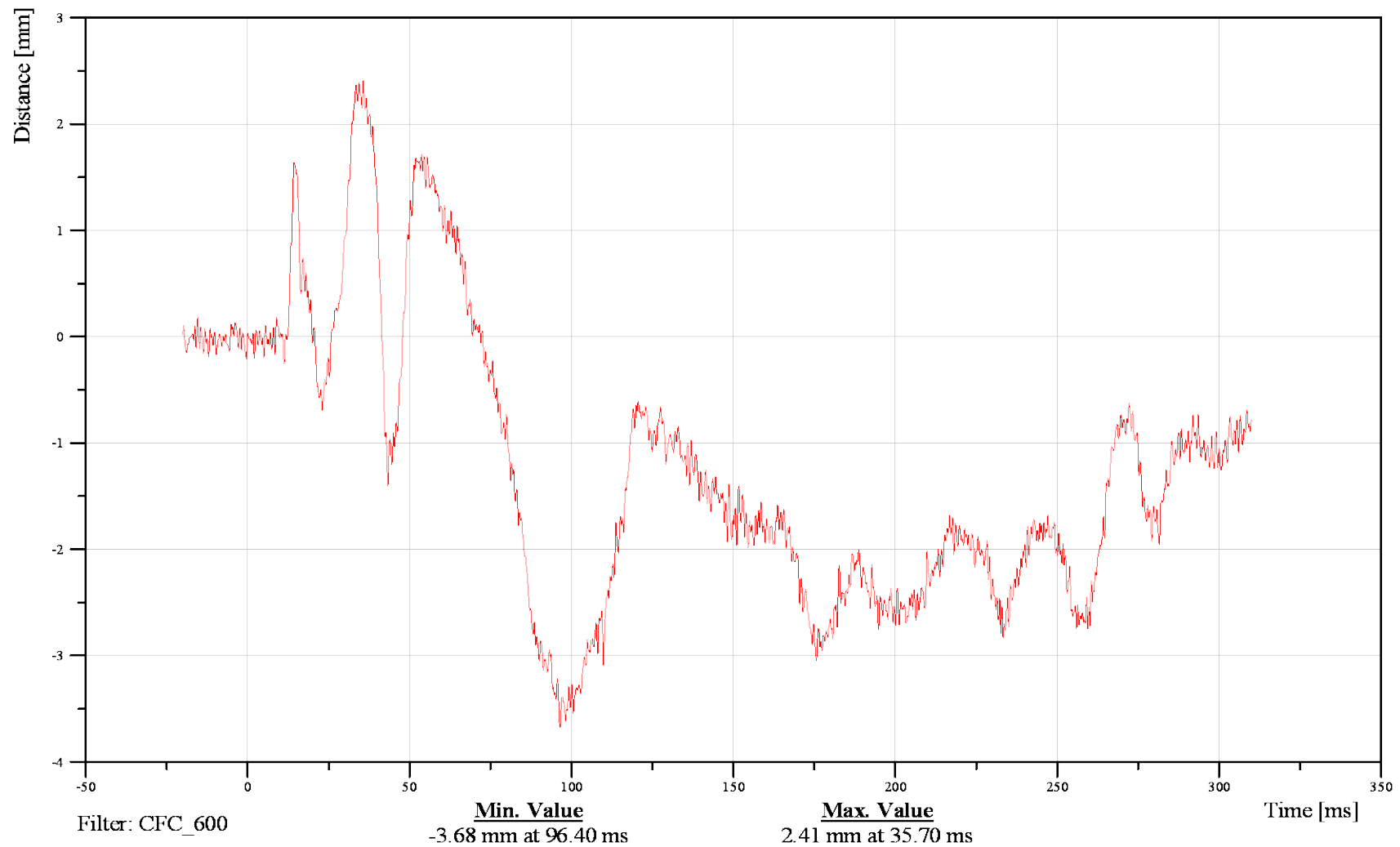
Time: 14:31

Customer: VRTC

13ABRILE02WSDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Longitudinal Ax

Date: 03/27/2013

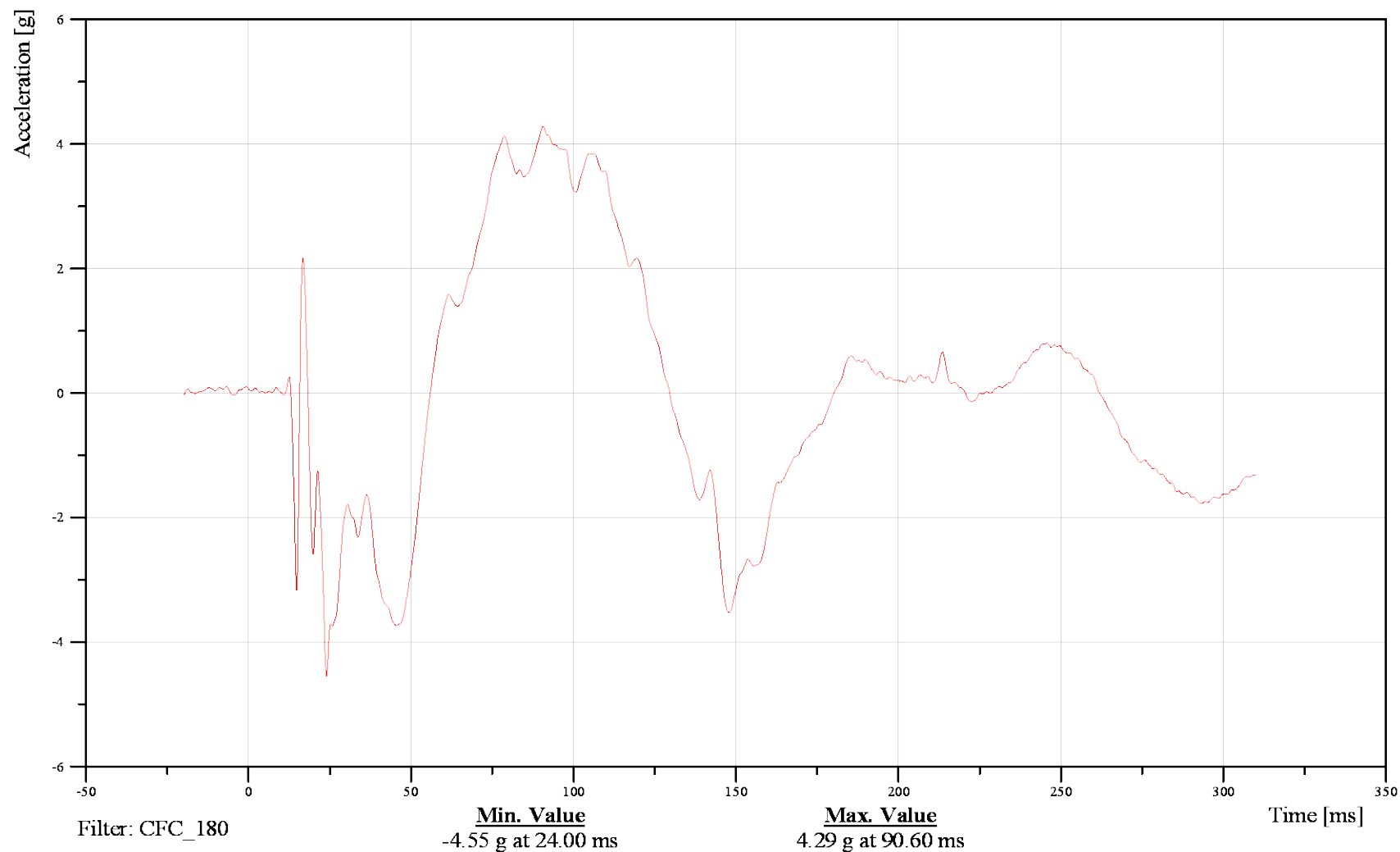
Time: 14:31

Customer: VRTC

13THSP0400WSACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Lateral Ay

Date: 03/27/2013

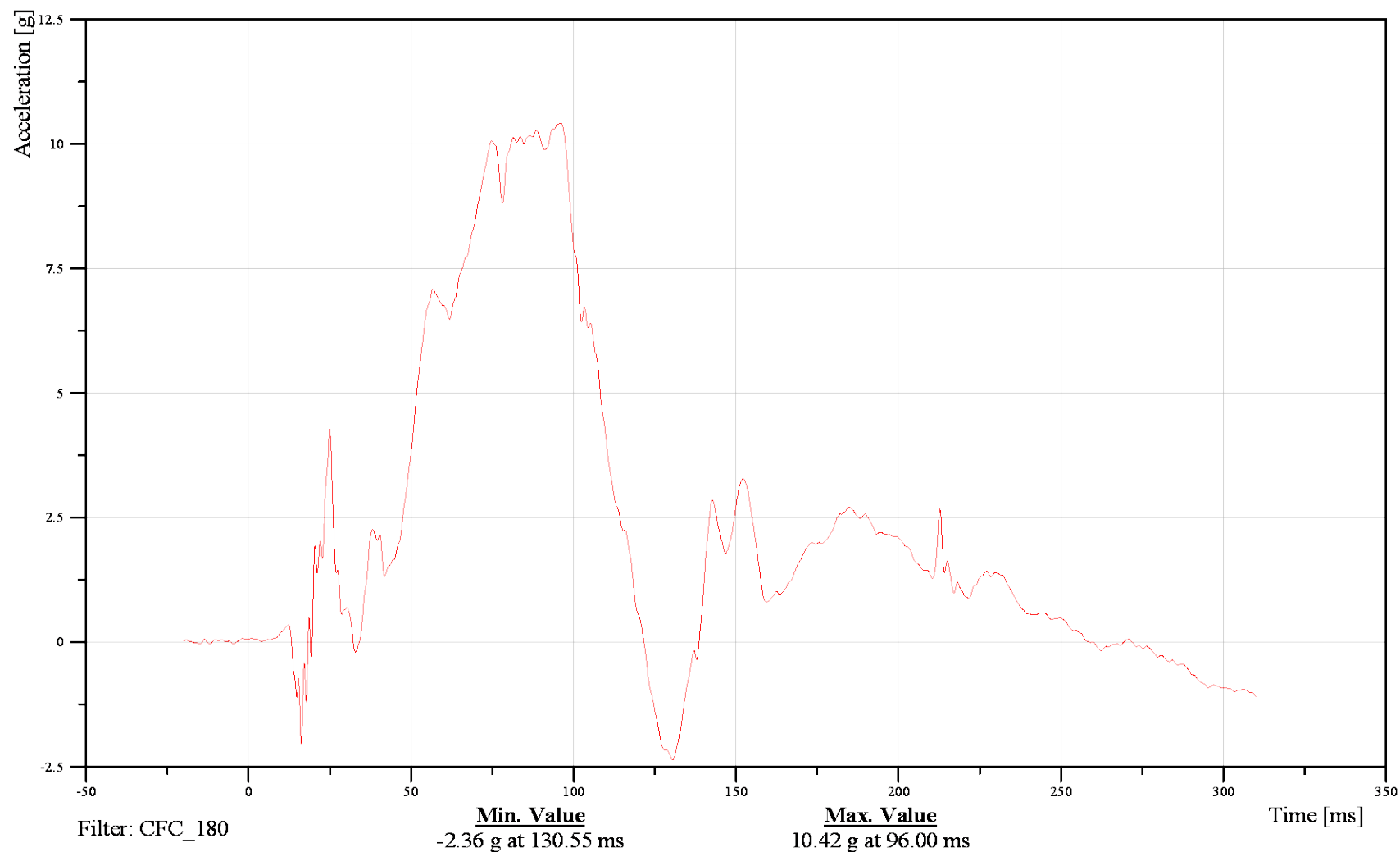
Time: 14:31

Customer: VRTC

13THSP0400WSACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Vertical Az

Date: 03/27/2013

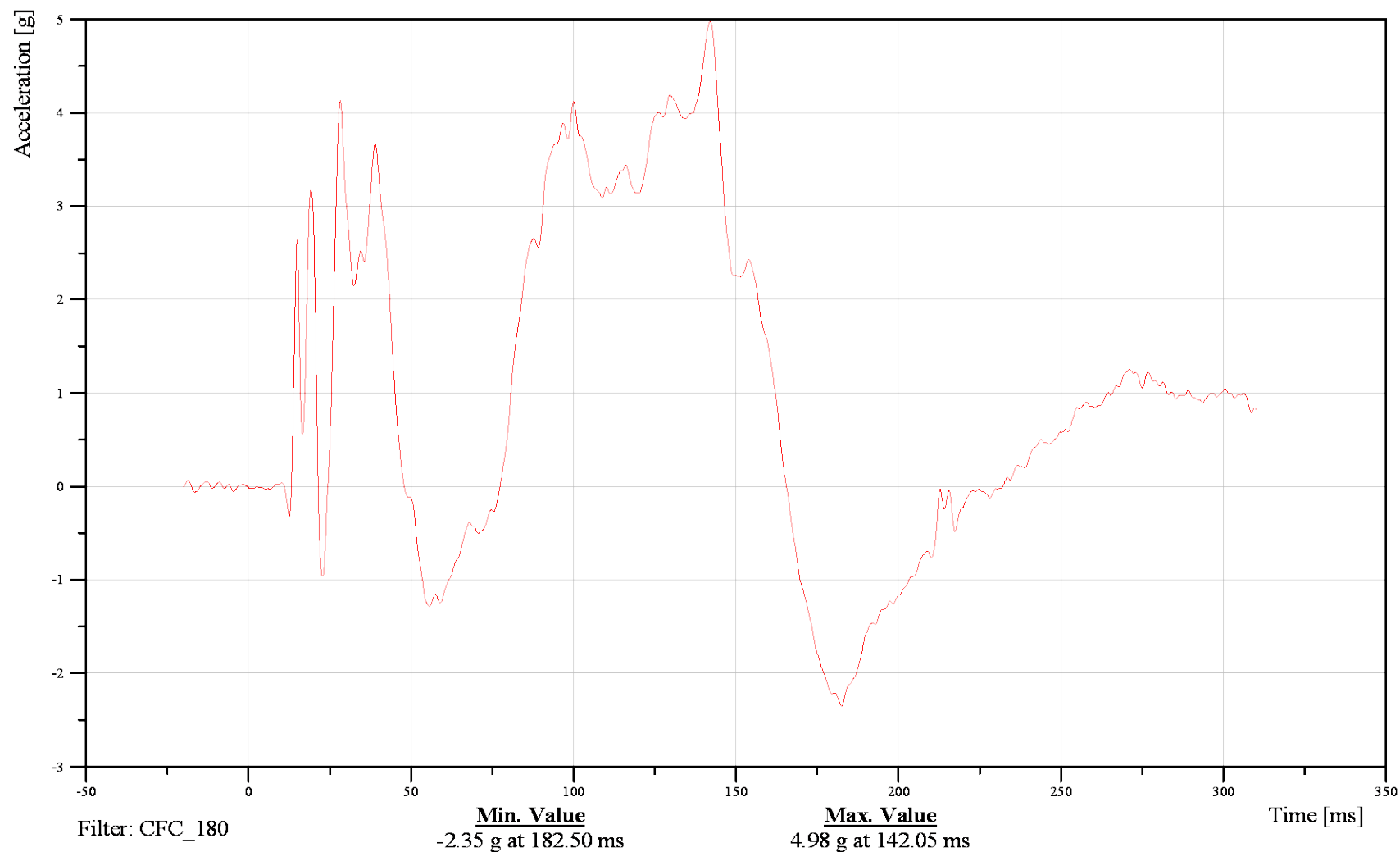
Time: 14:31

Customer: VRTC

13THSP0400WSACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 A Resultant

Date: 03/27/2013

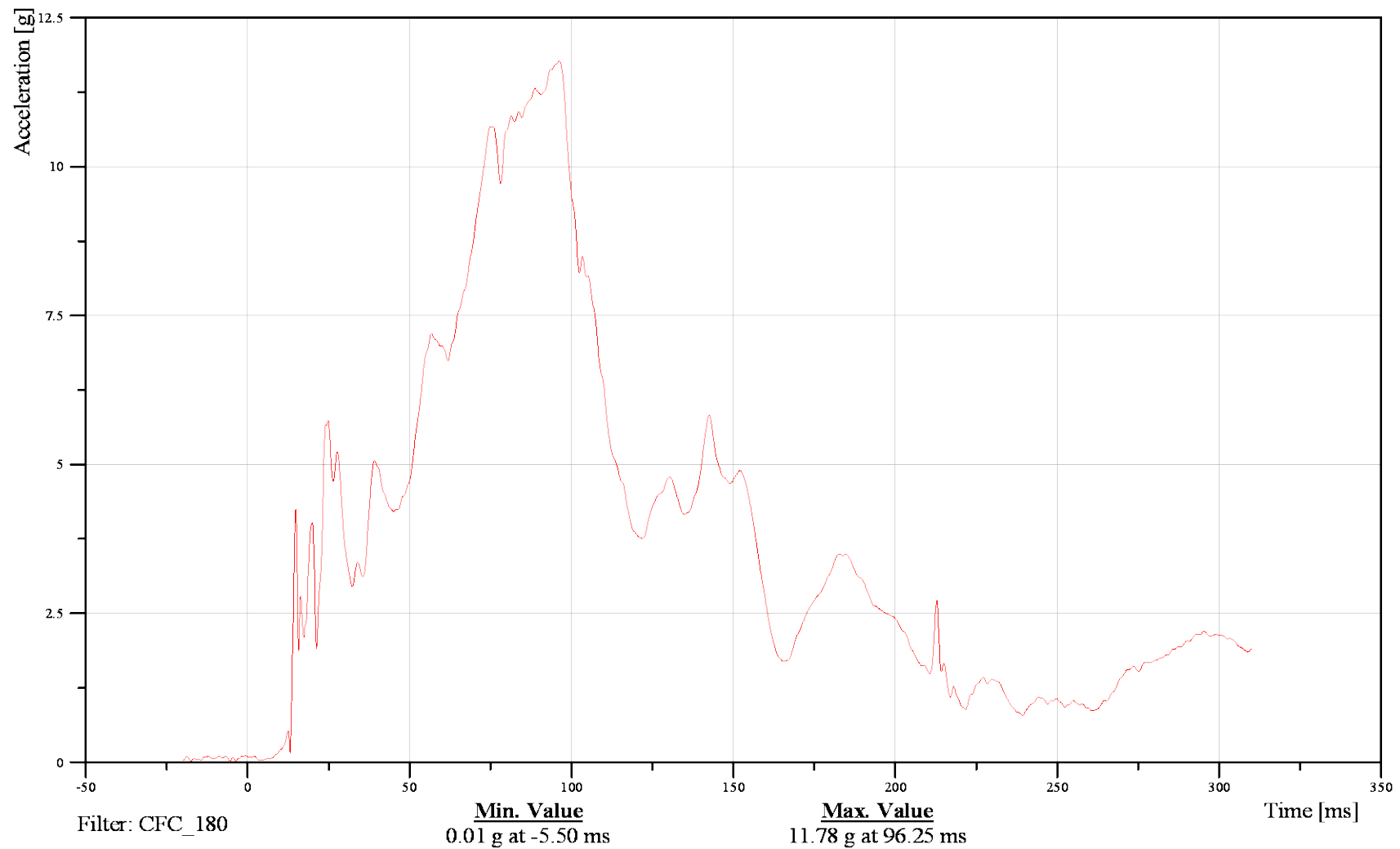
Time: 14:31

Customer: VRTC

13THSP0400WSACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Longitudinal Ax

Date: 03/27/2013

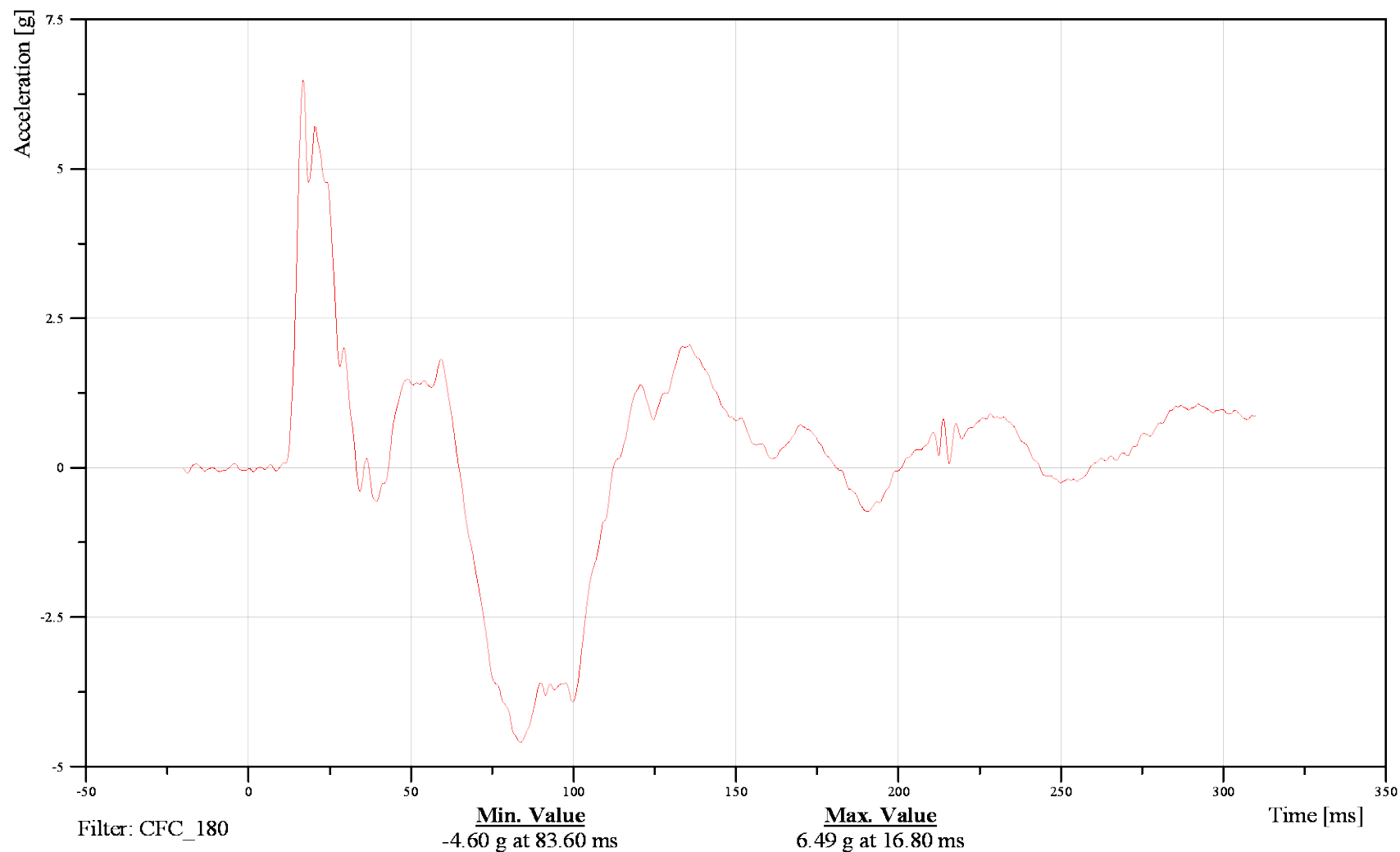
Time: 14:31

Customer: VRTC

13THSP1200WSACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Lateral Ay

Date: 03/27/2013

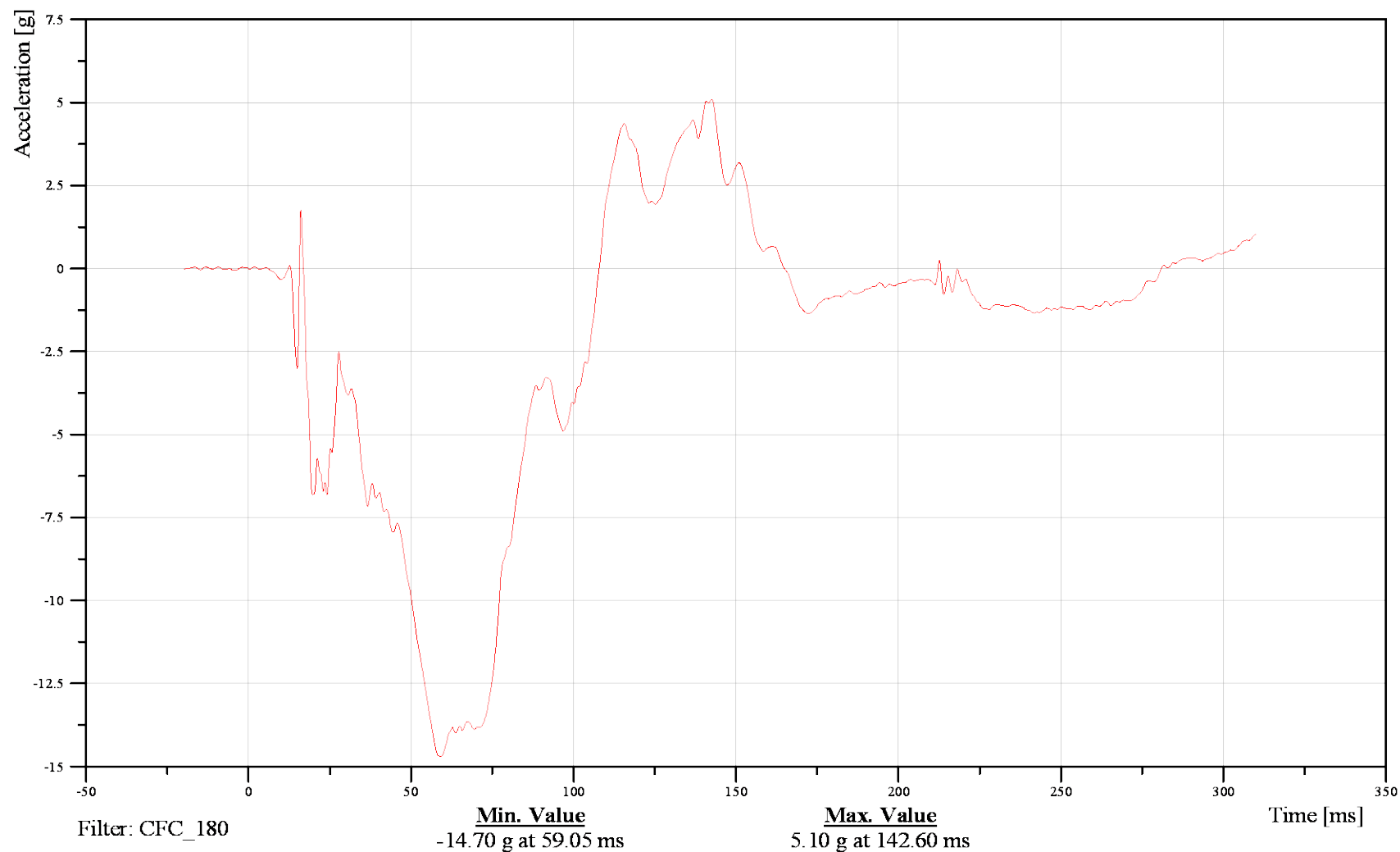
Time: 14:31

Customer: VRTC

13THSP1200WSACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Vertical Az

Date: 03/27/2013

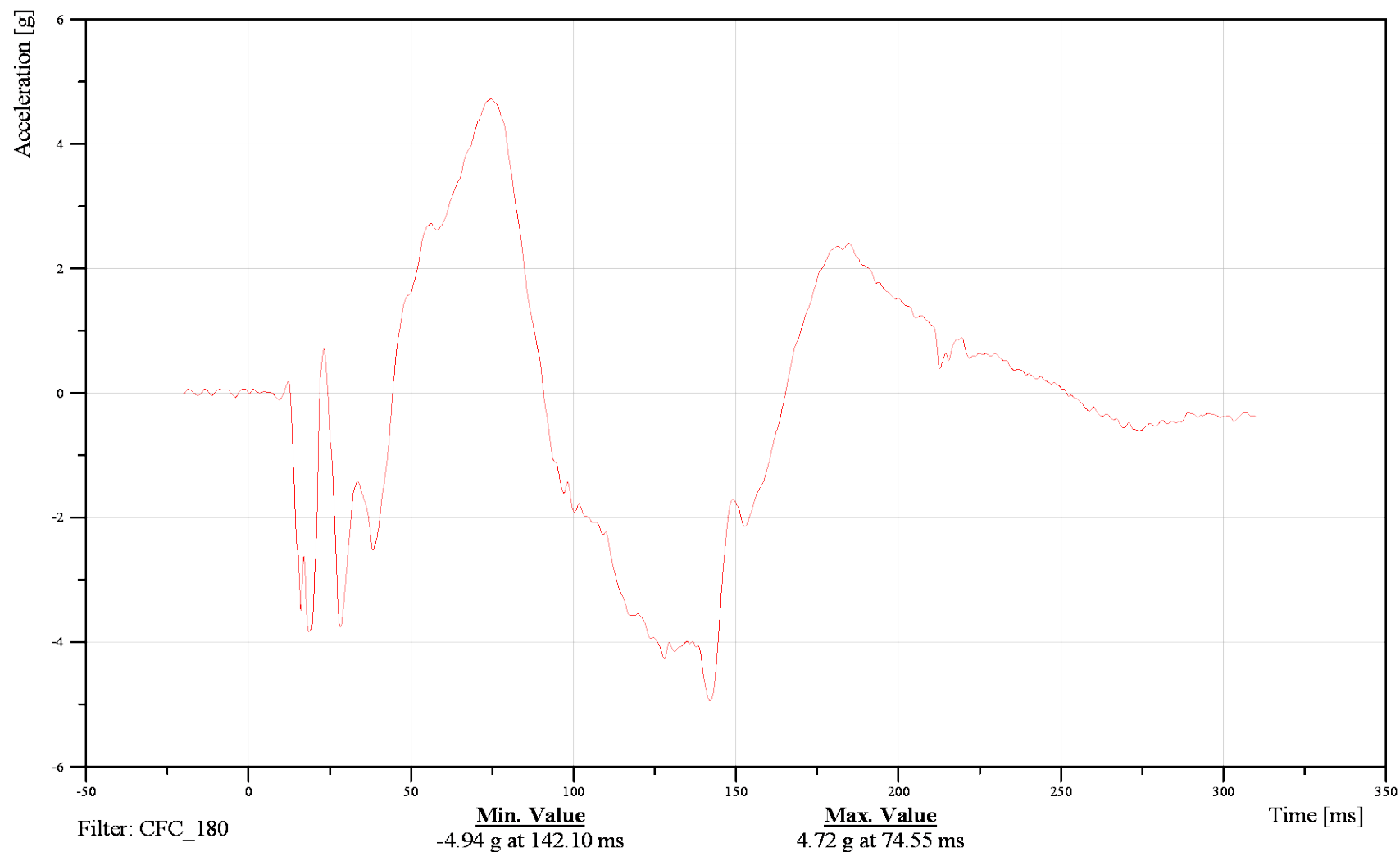
Time: 14:31

Customer: VRTC

13THSP1200WSACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 A Resultant

Date: 03/27/2013

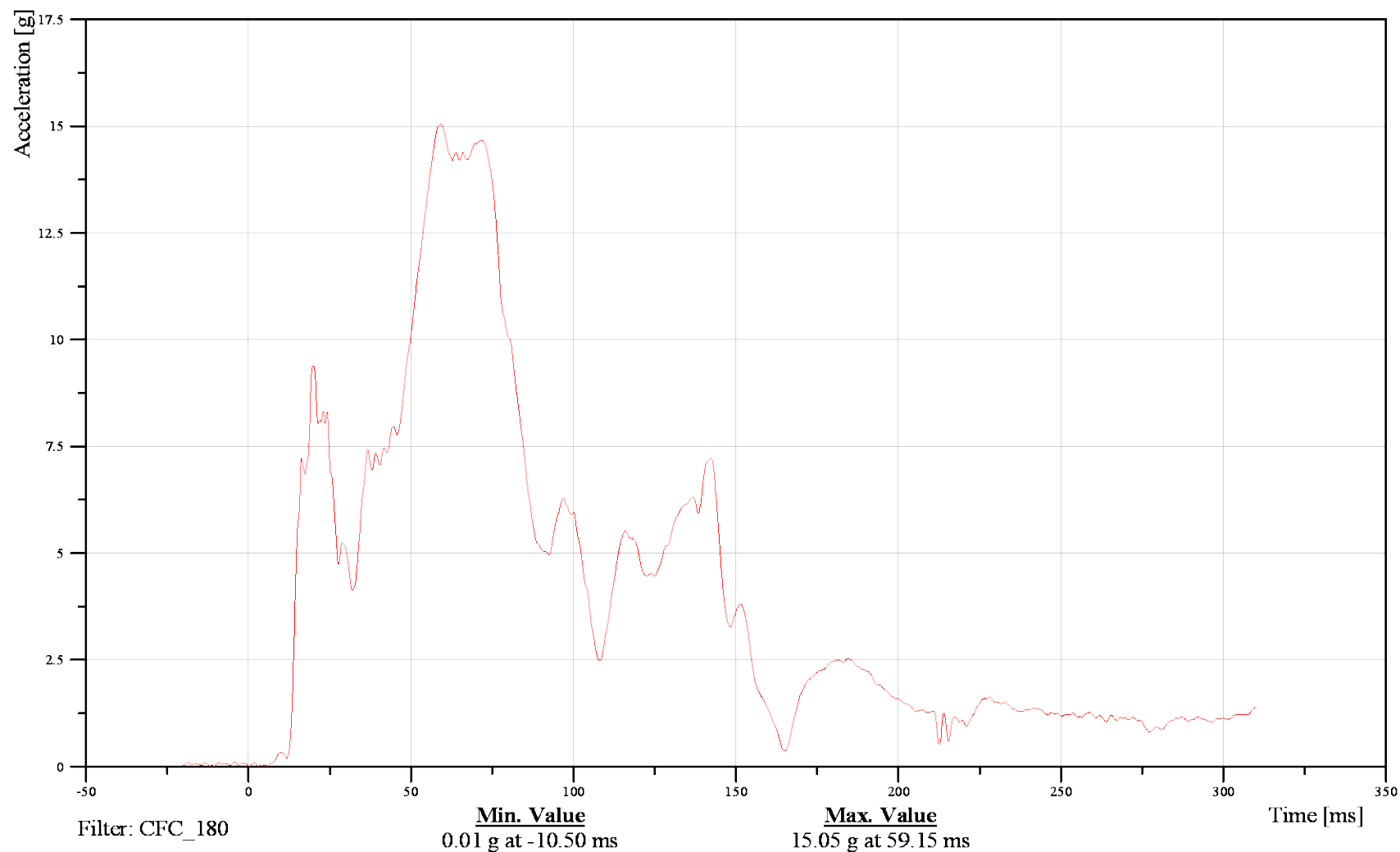
Time: 14:31

Customer: VRTC

13THSP1200WSACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Longitudinal Ax

Date: 03/27/2013

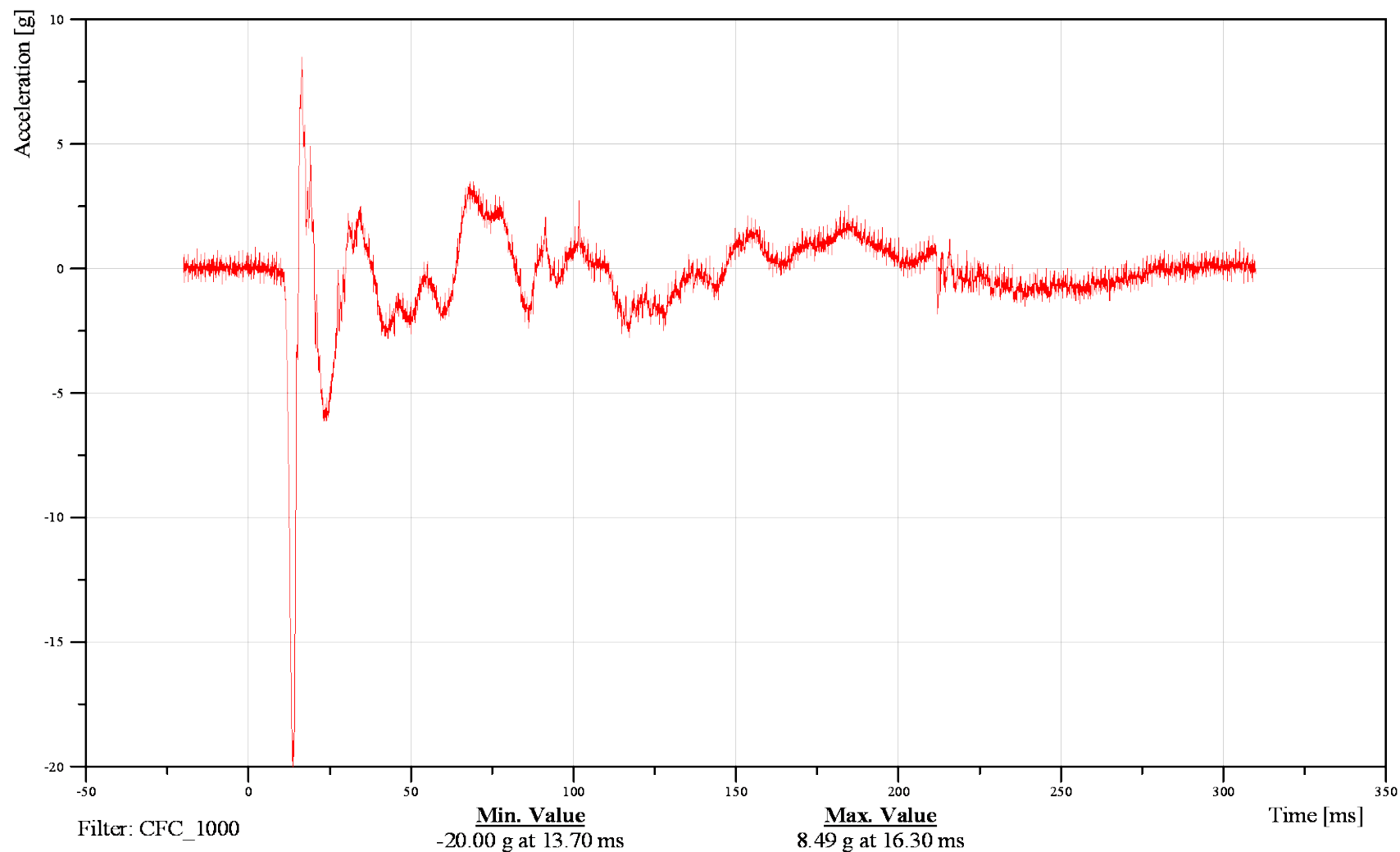
Time: 14:31

Customer: VRTC

13PELVCG00WSACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Lateral Ay

Date: 03/27/2013

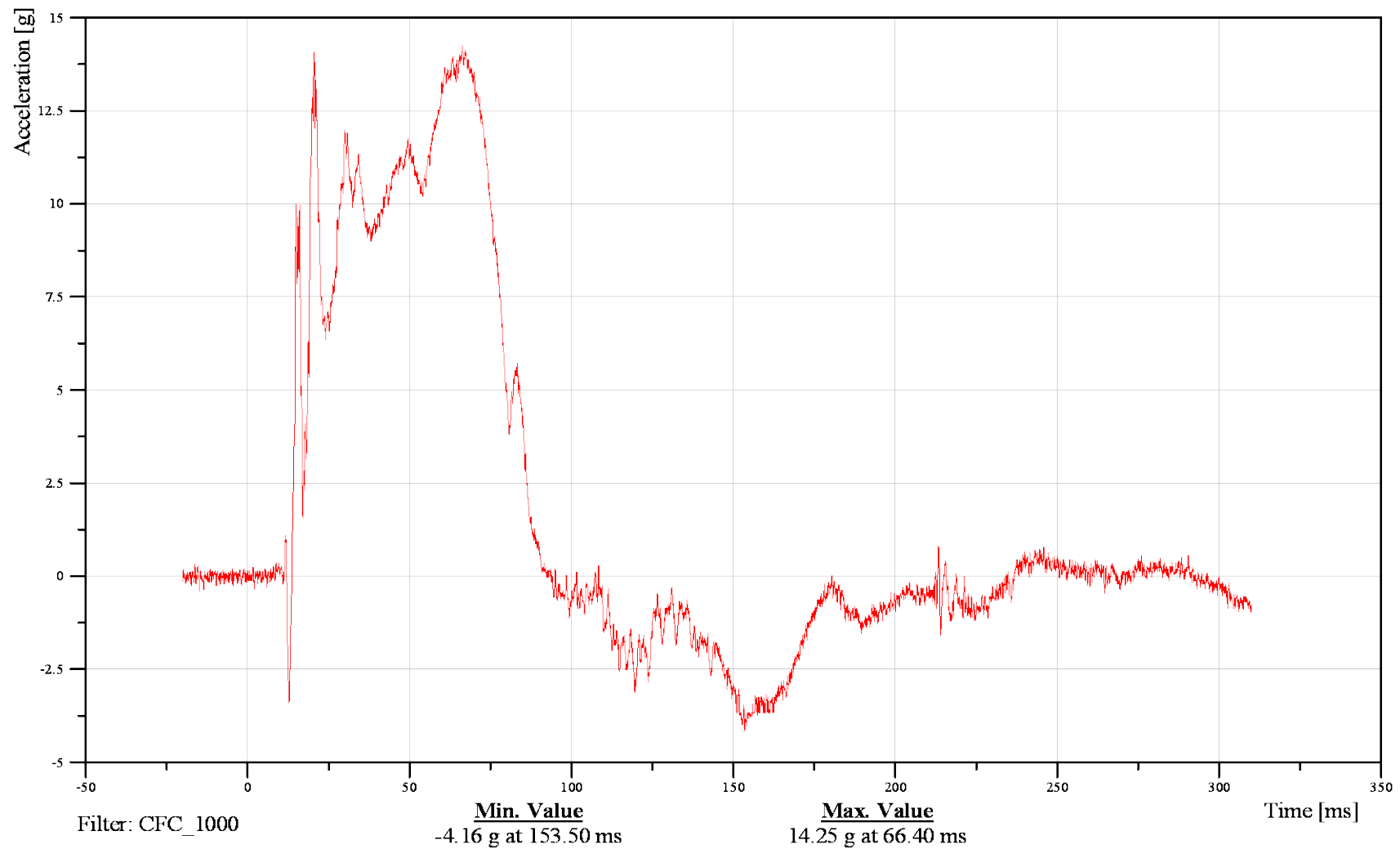
Time: 14:31

Customer: VRTC

13PELVCG00WSACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Vertical Az

Date: 03/27/2013

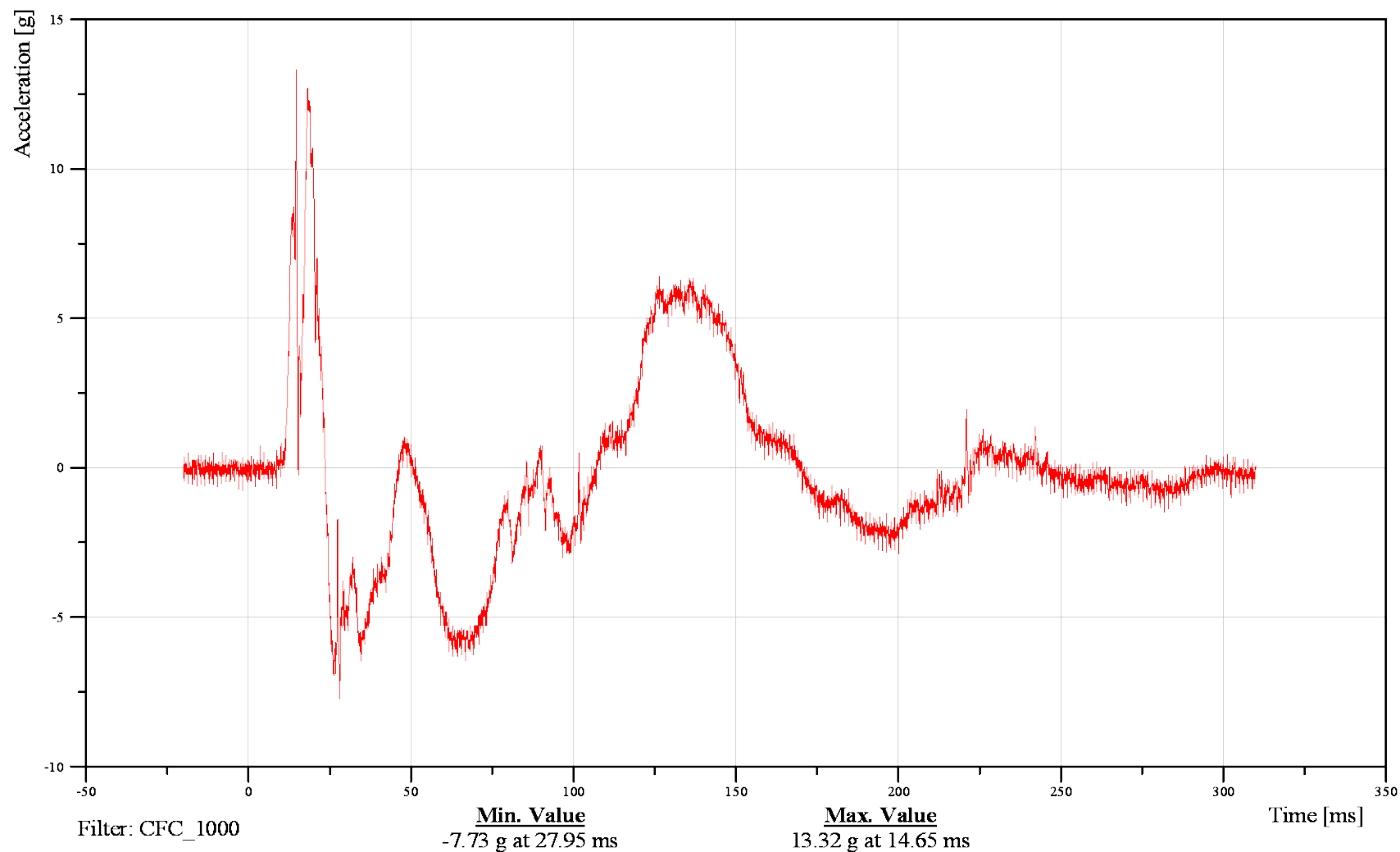
Time: 14:31

Customer: VRTC

13PELVCG00WSACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis A Resultant

Date: 03/27/2013

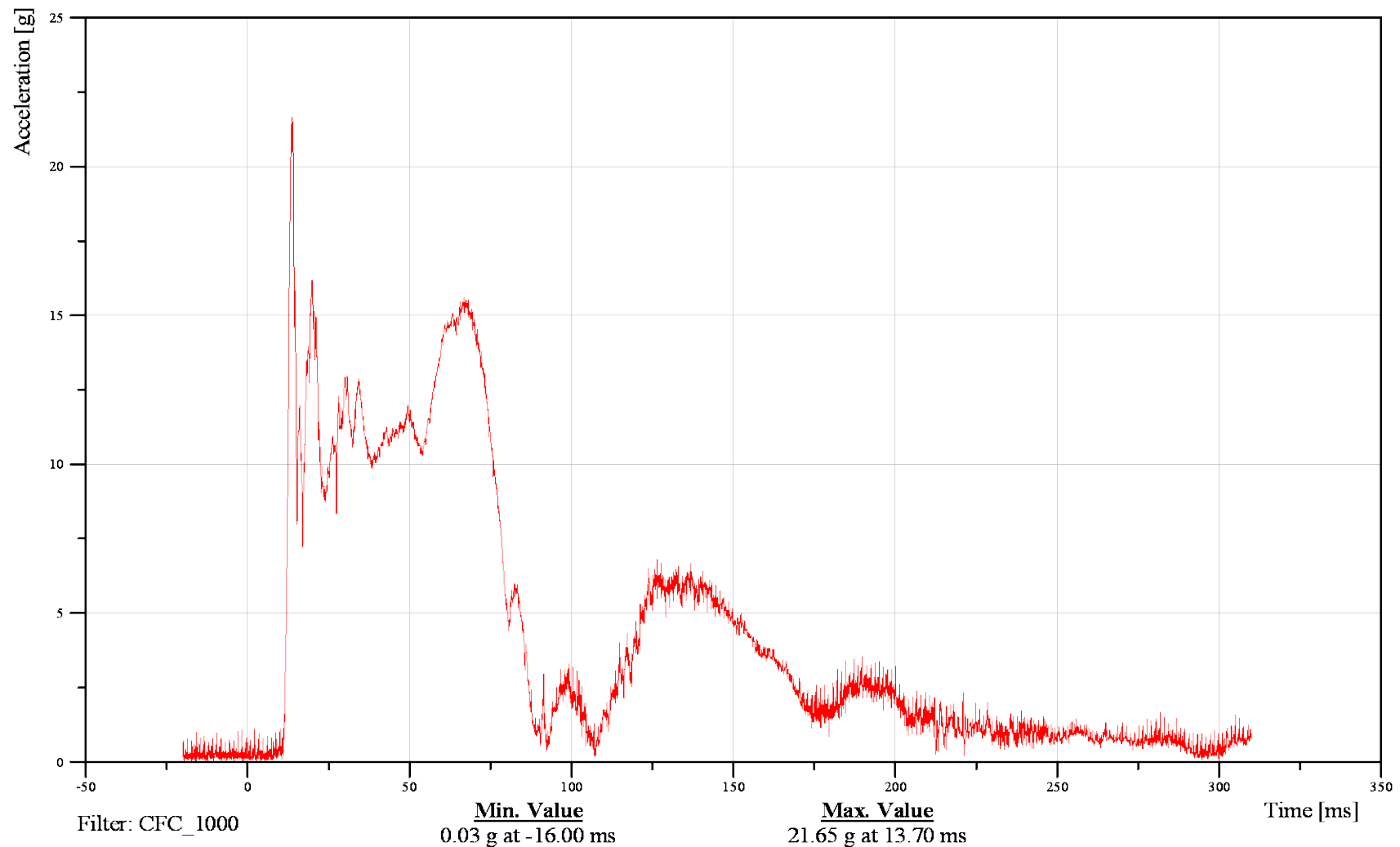
Time: 14:31

Customer: VRTC

13PELVCG00WSACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pubic Force Fy

Date: 03/27/2013

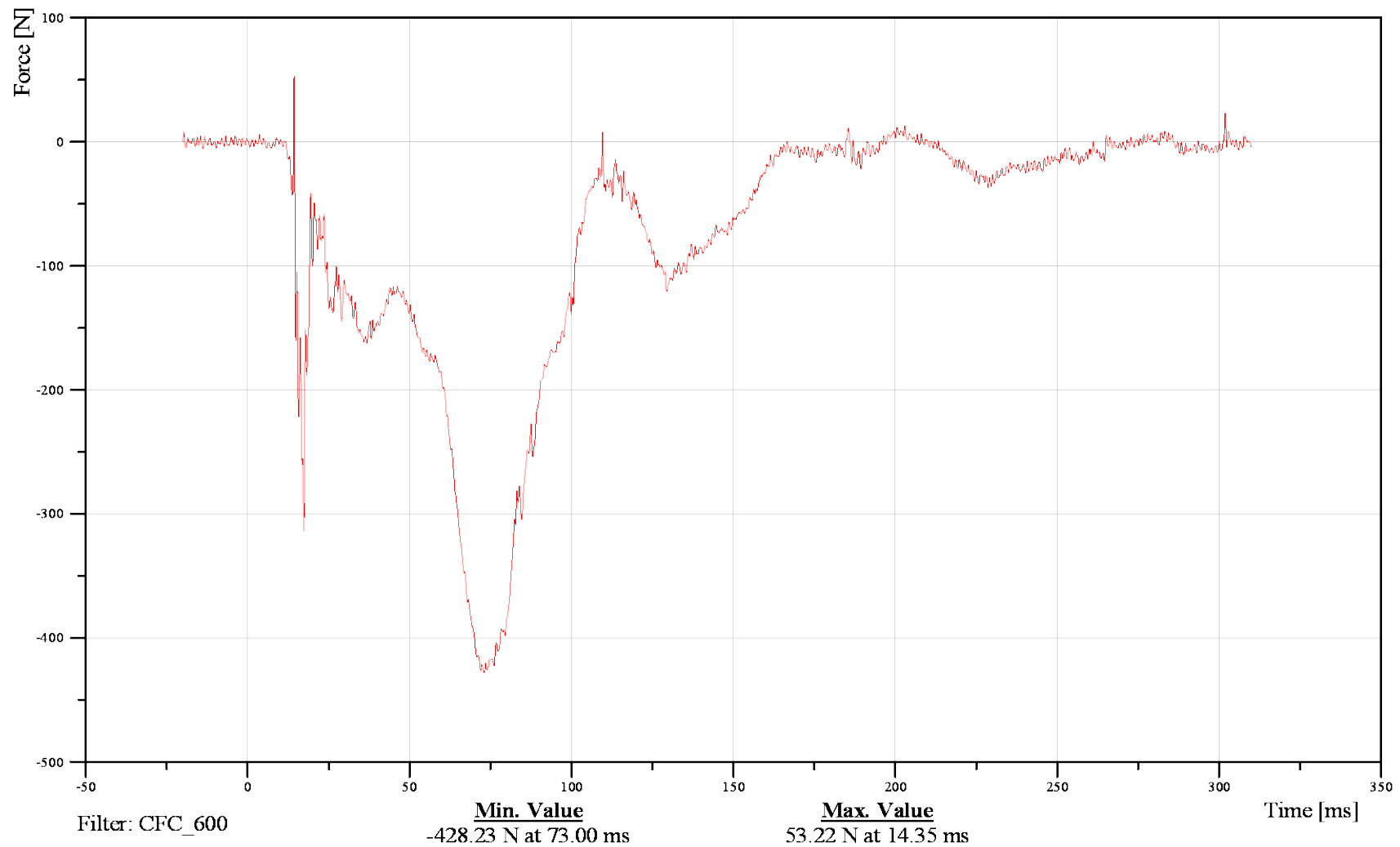
Time: 14:31

Customer: VRTC

13PUBC0000WSFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Longitudinal Ax

Date: 03/27/2013

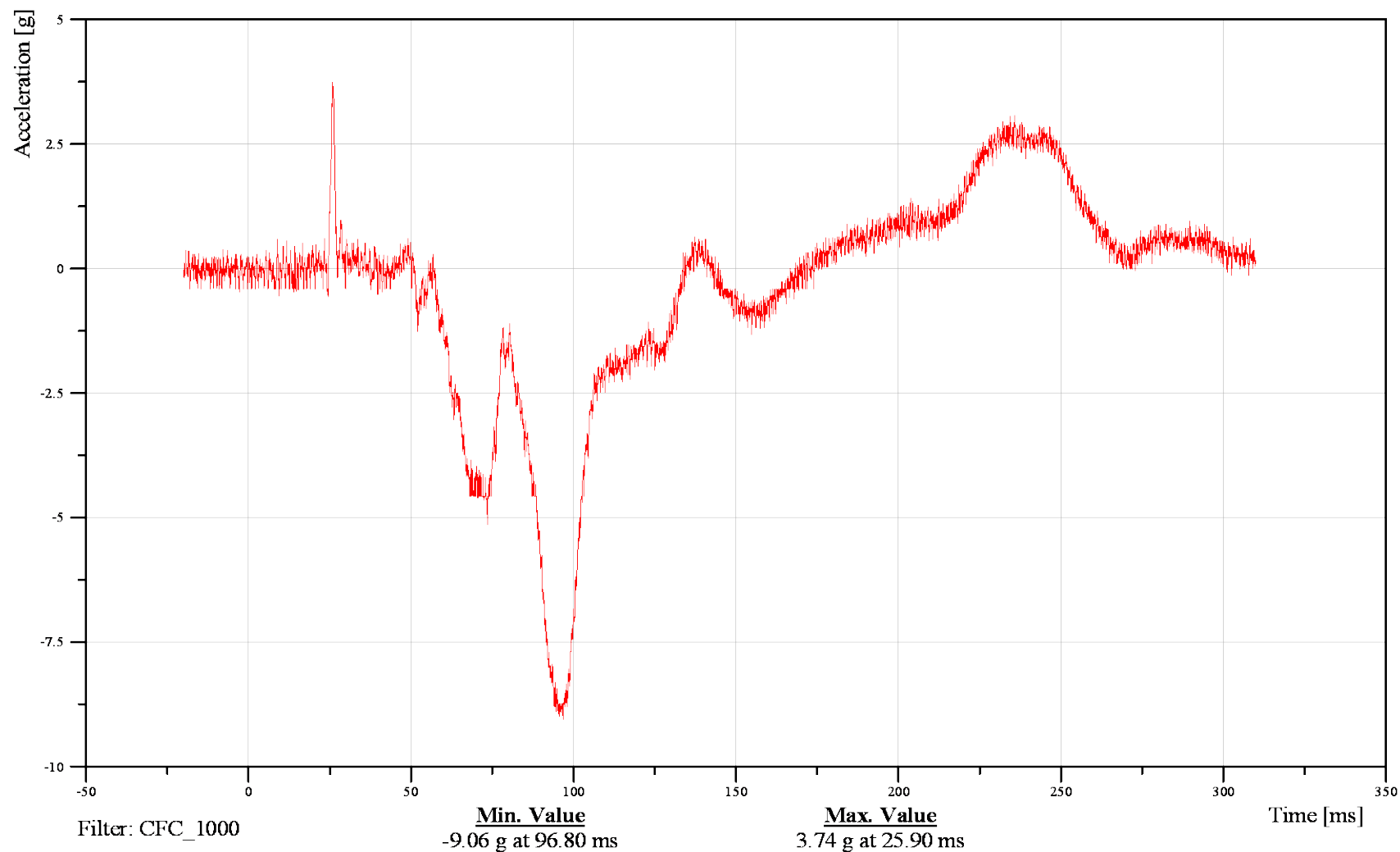
Time: 14:31

Customer: VRTC

14HEADCG00WFACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Lateral Ay

Date: 03/27/2013

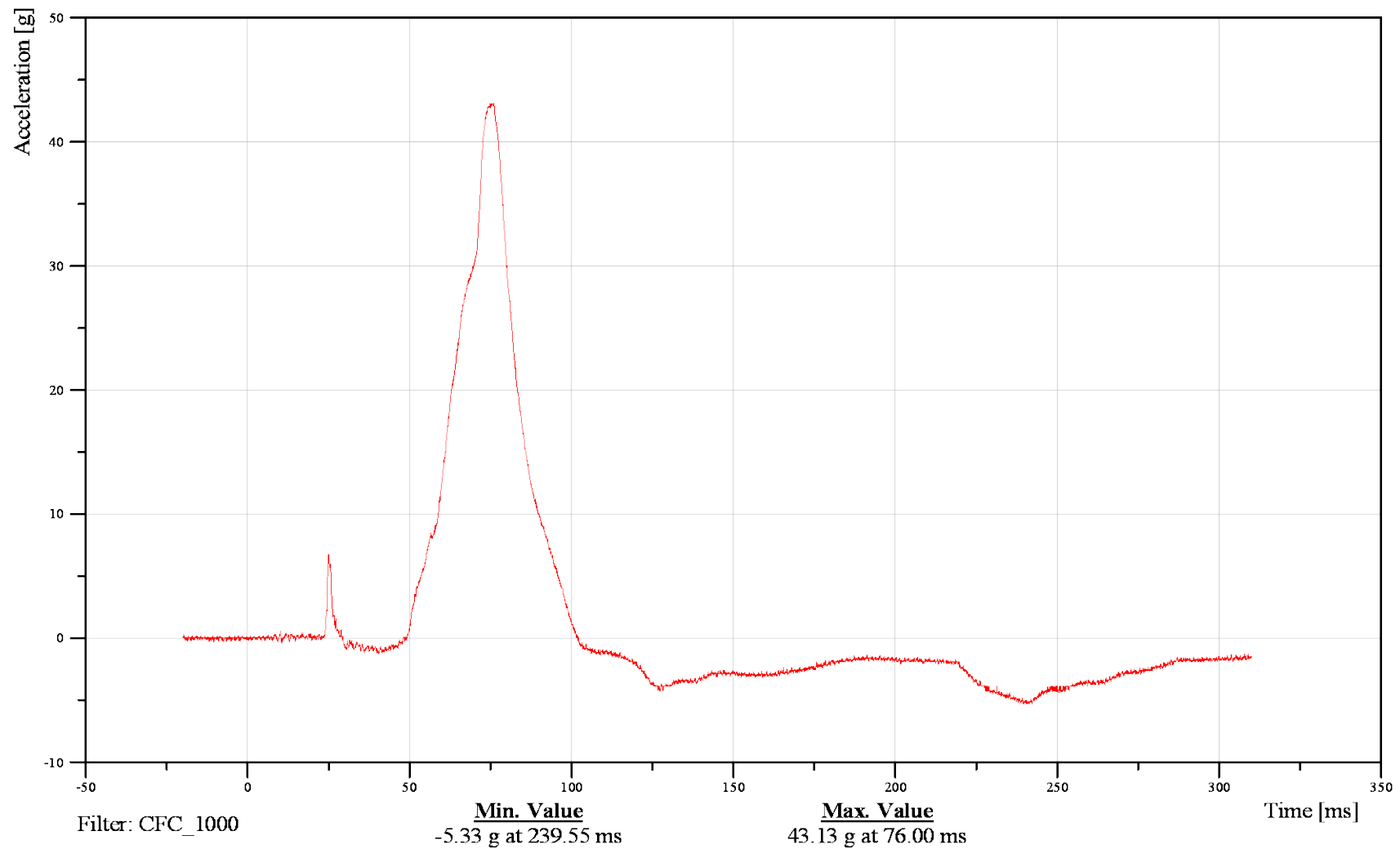
Time: 14:31

Customer: VRTC

14HEADCG00WFACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Vertical Az

Date: 03/27/2013

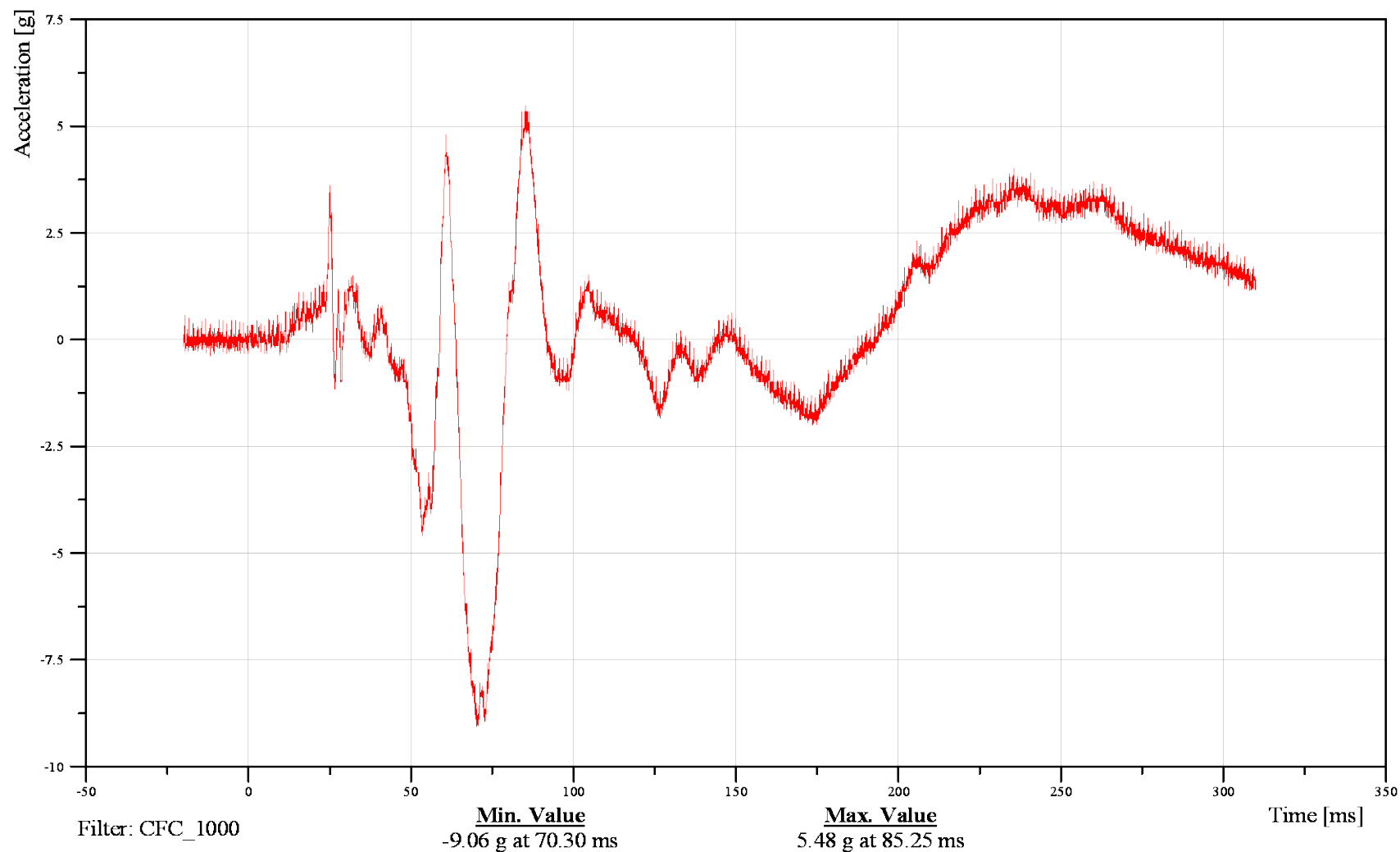
Time: 14:31

Customer: VRTC

14HEADCG00WFACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head A Resultant

Date: 03/27/2013

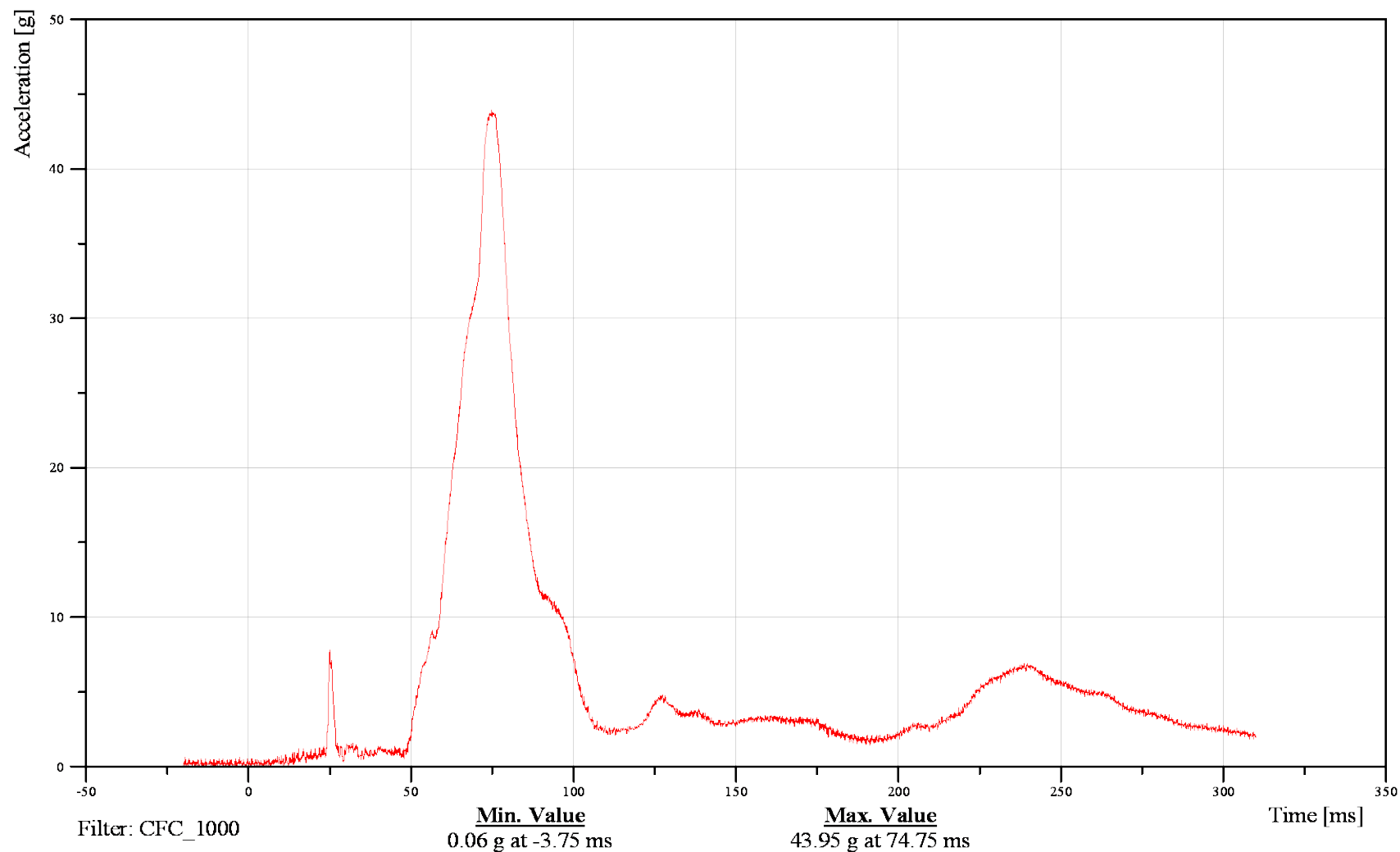
Time: 14:31

Customer: VRTC

14HEADCG00WFACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Rx

Date: 03/27/2013

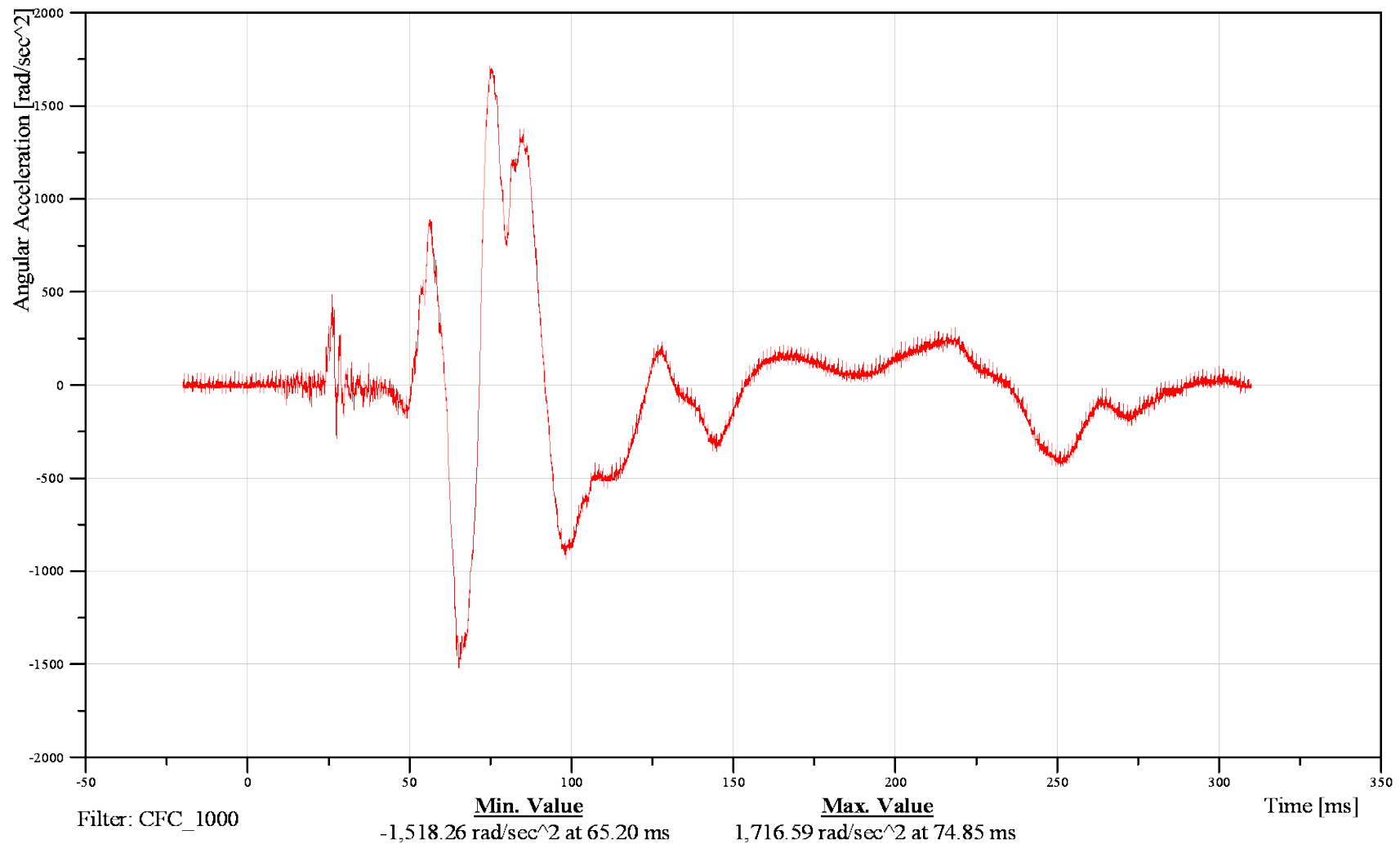
Time: 14:31

Customer: VRTC

14HEAD0000WFAAXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Ry

Date: 03/27/2013

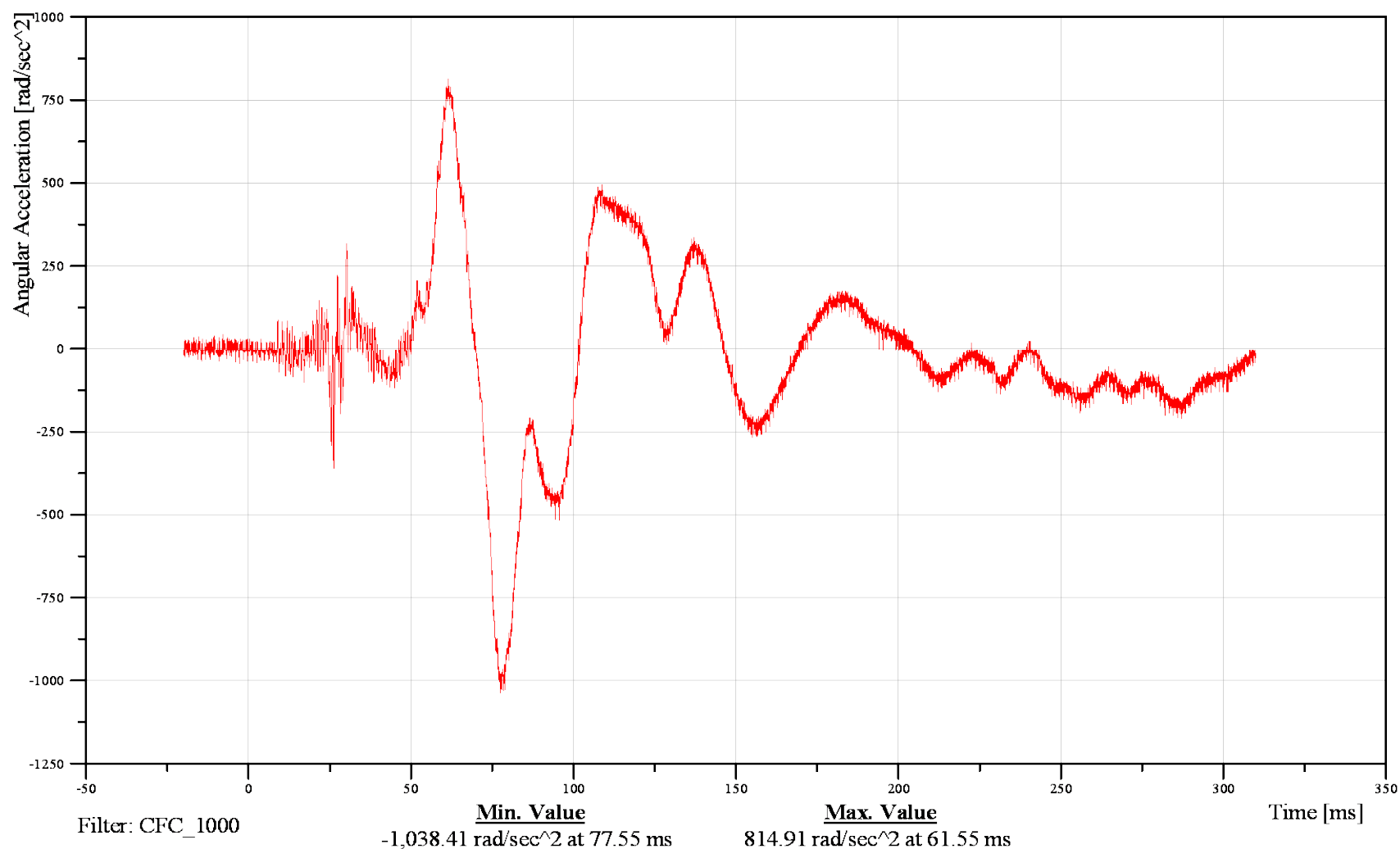
Time: 14:31

Customer: VRTC

14HEAD0000WFAAYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Rotational Acceleration Rz

Date: 03/27/2013

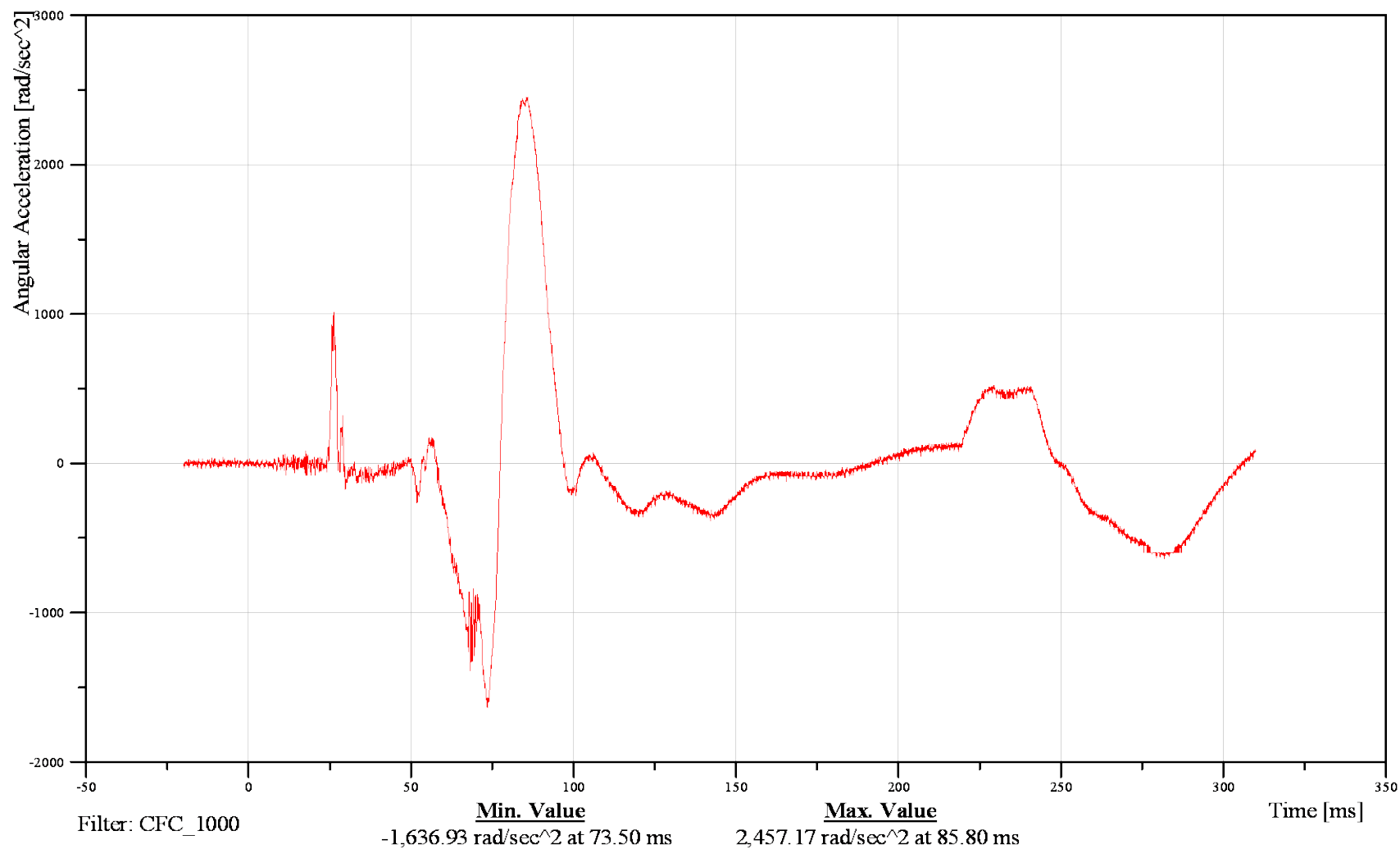
Time: 14:31

Customer: VRTC

14HEAD0000WFAAZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head X-Axis Angular Velocity

Date: 03/27/2013

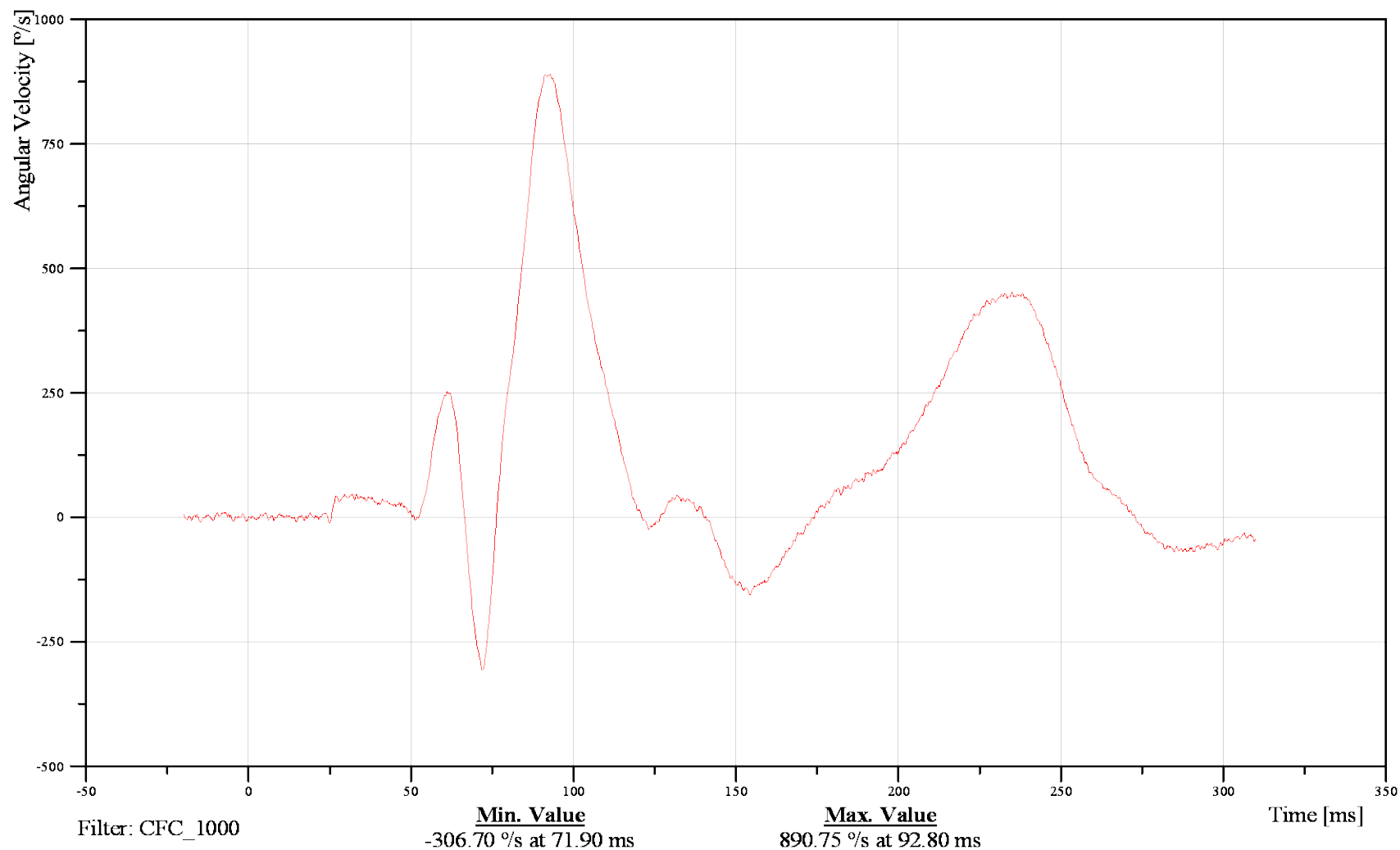
Time: 14:31

Customer: VRTC

14HEADCG00WFAVXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Y-Axis Angular Velocity

Date: 03/27/2013

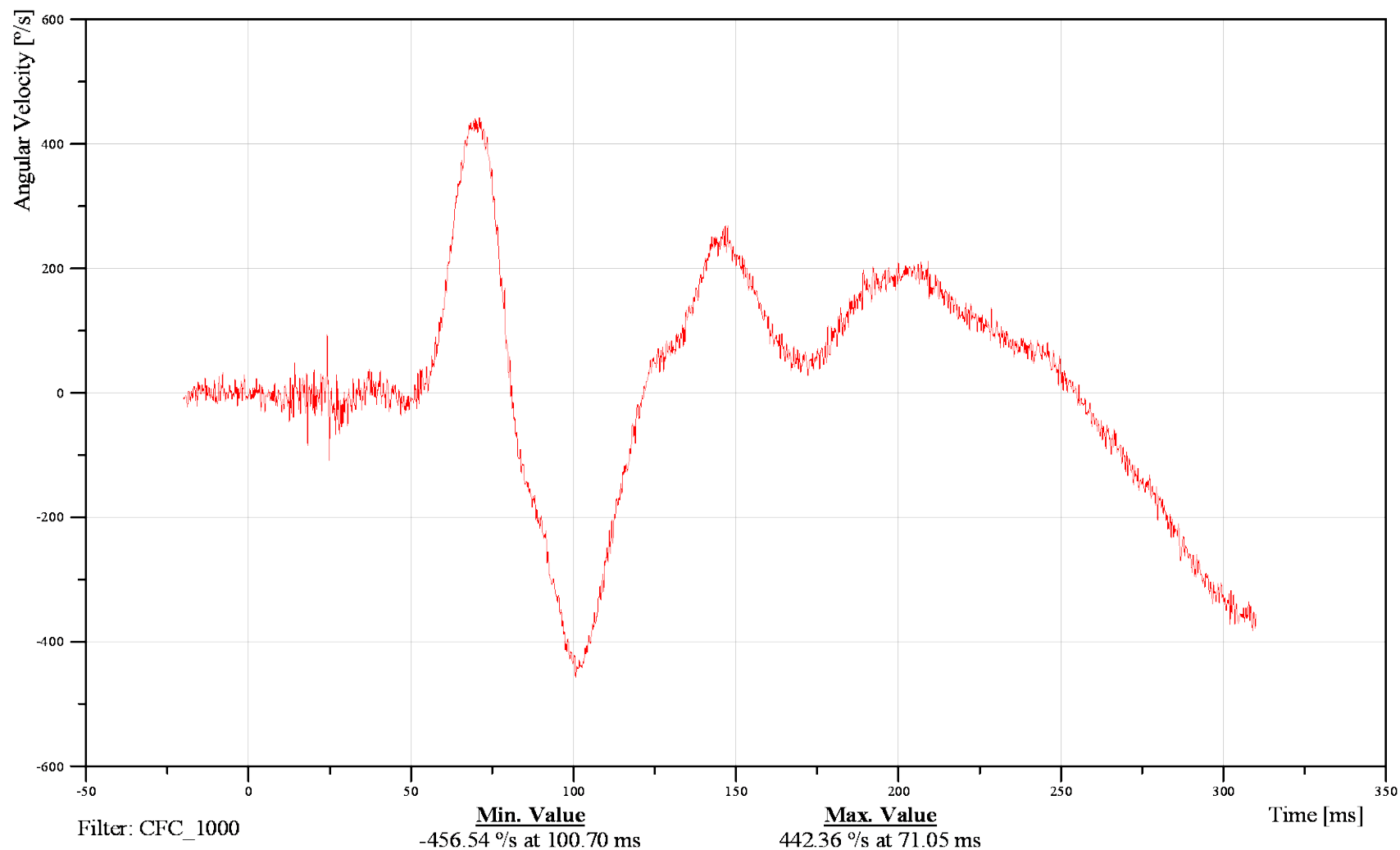
Time: 14:31

Customer: VRTC

14HEADCG00WFAVYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Z-Axis Angular Velocity

Date: 03/27/2013

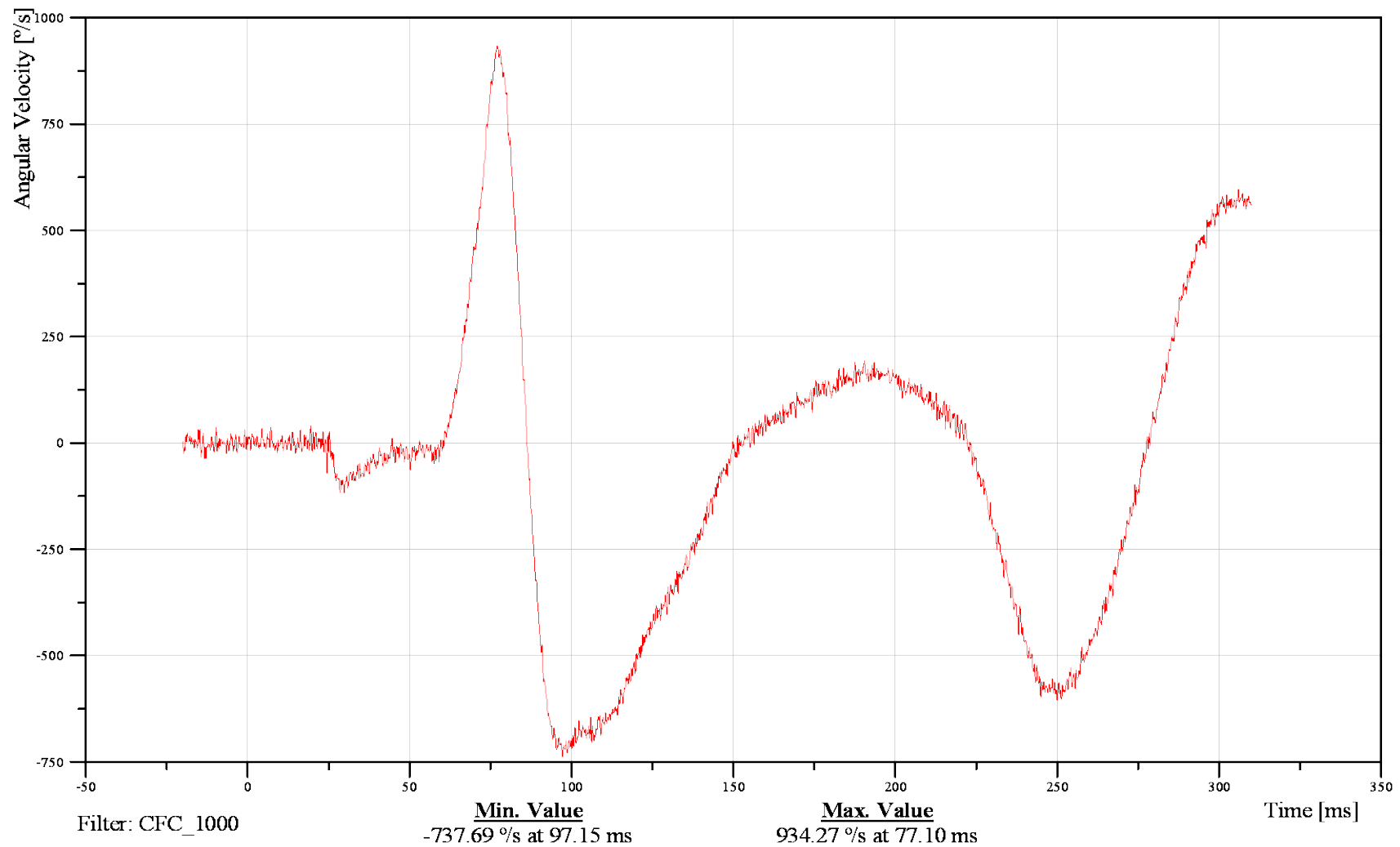
Time: 14:31

Customer: VRTC

14HEADCG00WFAVZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fx

Date: 03/27/2013

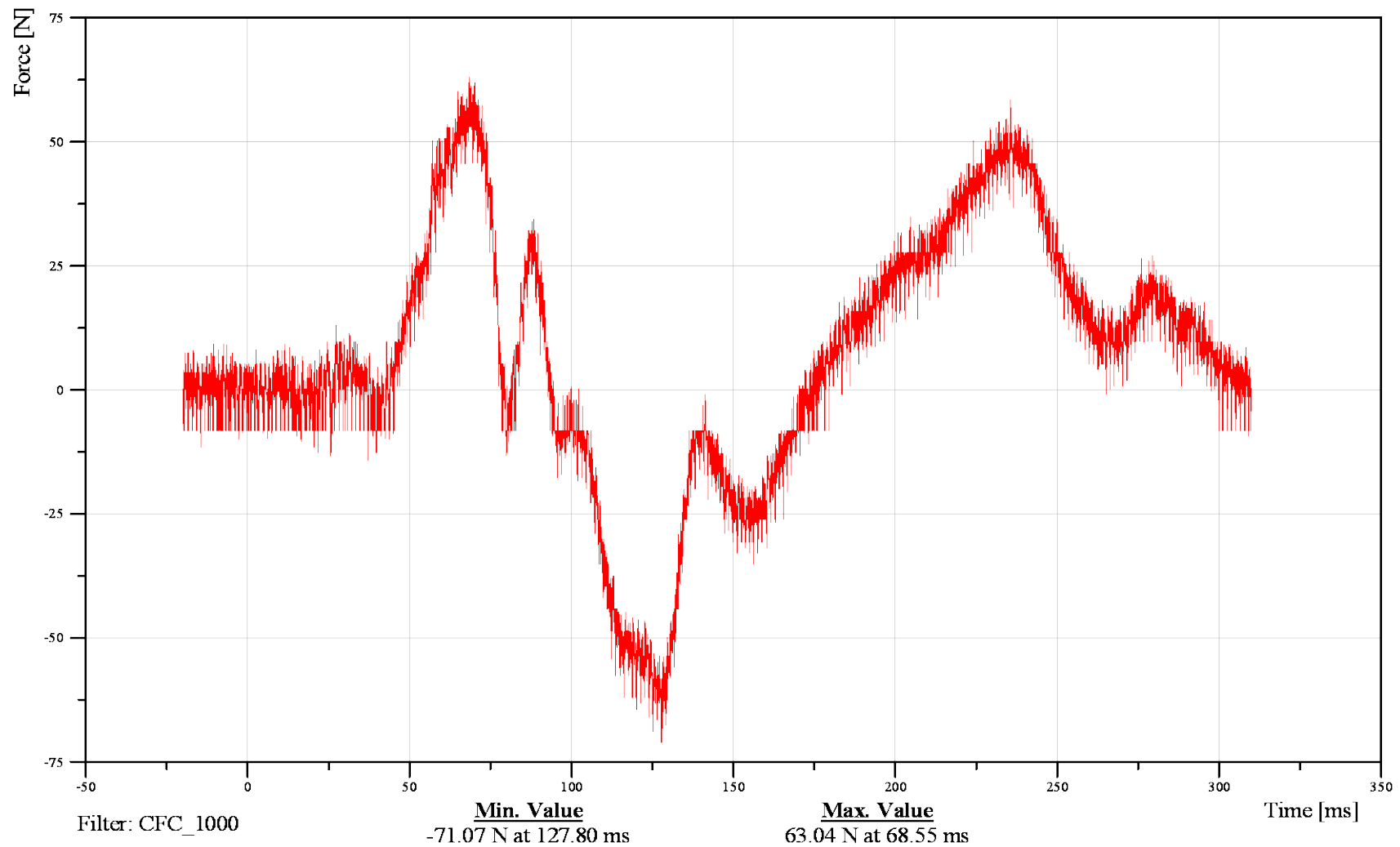
Time: 14:31

Customer: VRTC

14NECKUP00WFFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fy

Date: 03/27/2013

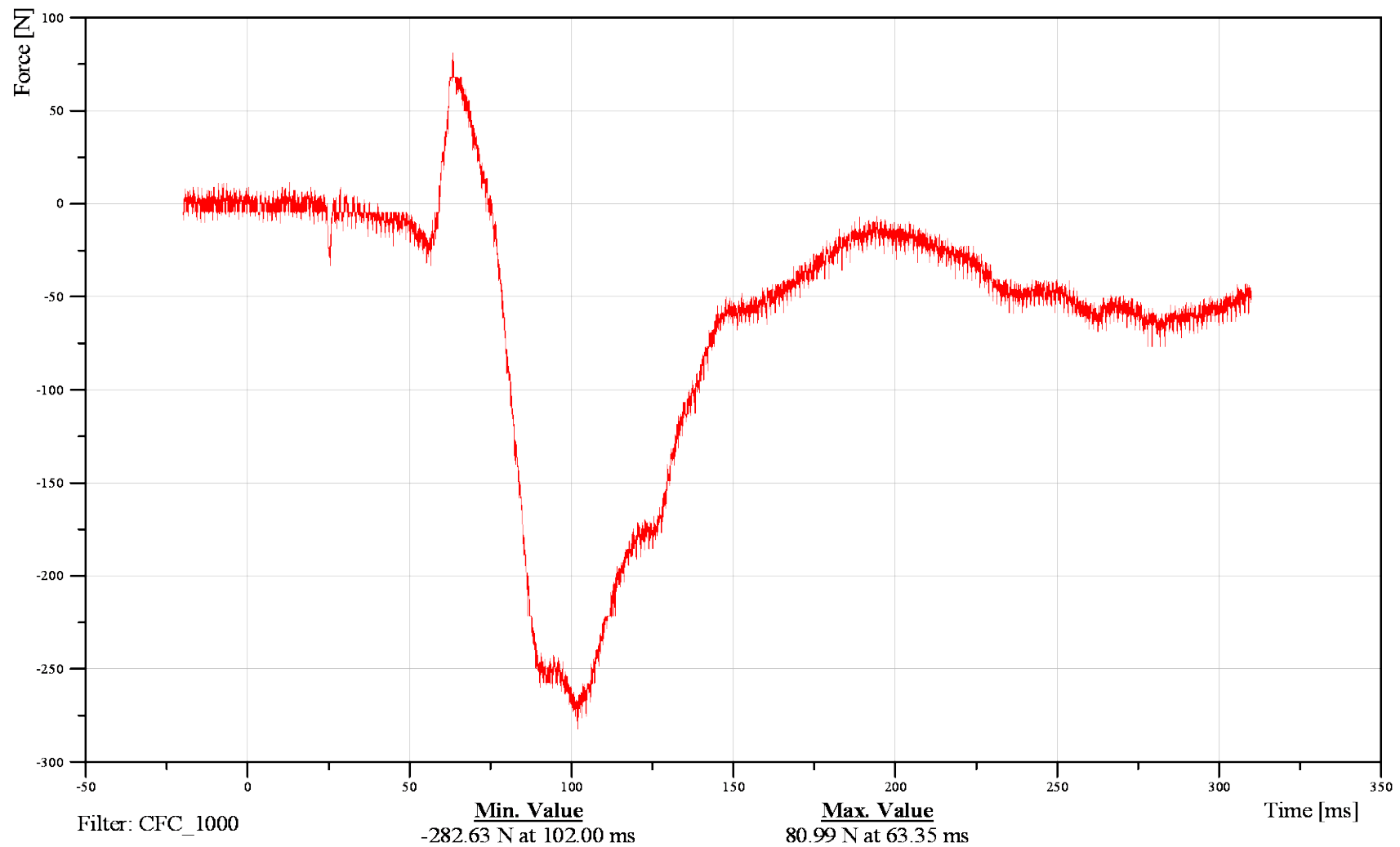
Time: 14:31

Customer: VRTC

14NECKUP00WFFOYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Force Fz

Date: 03/27/2013

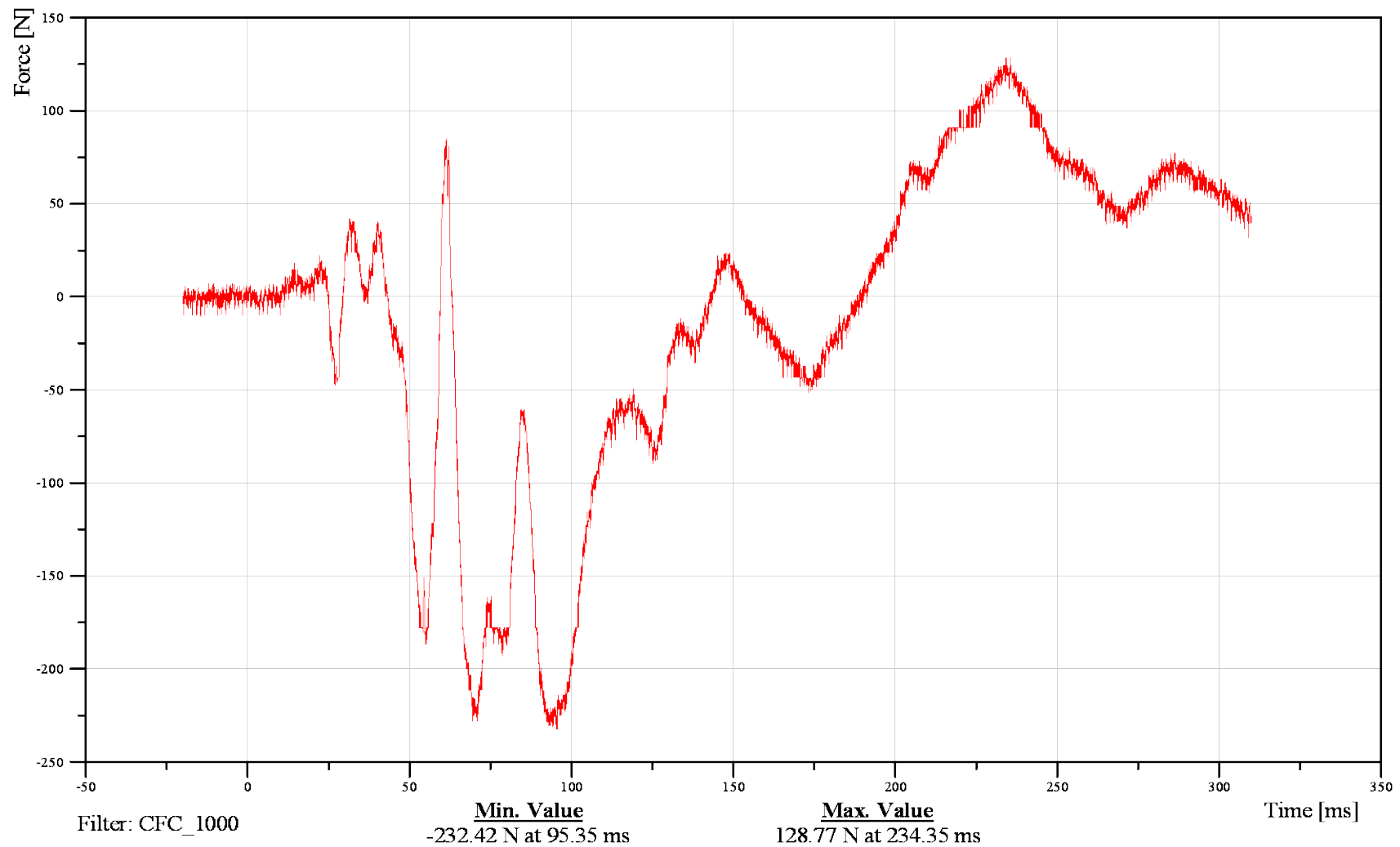
Time: 14:31

Customer: VRTC

14NECKUP00WFFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment Mx

Date: 03/27/2013

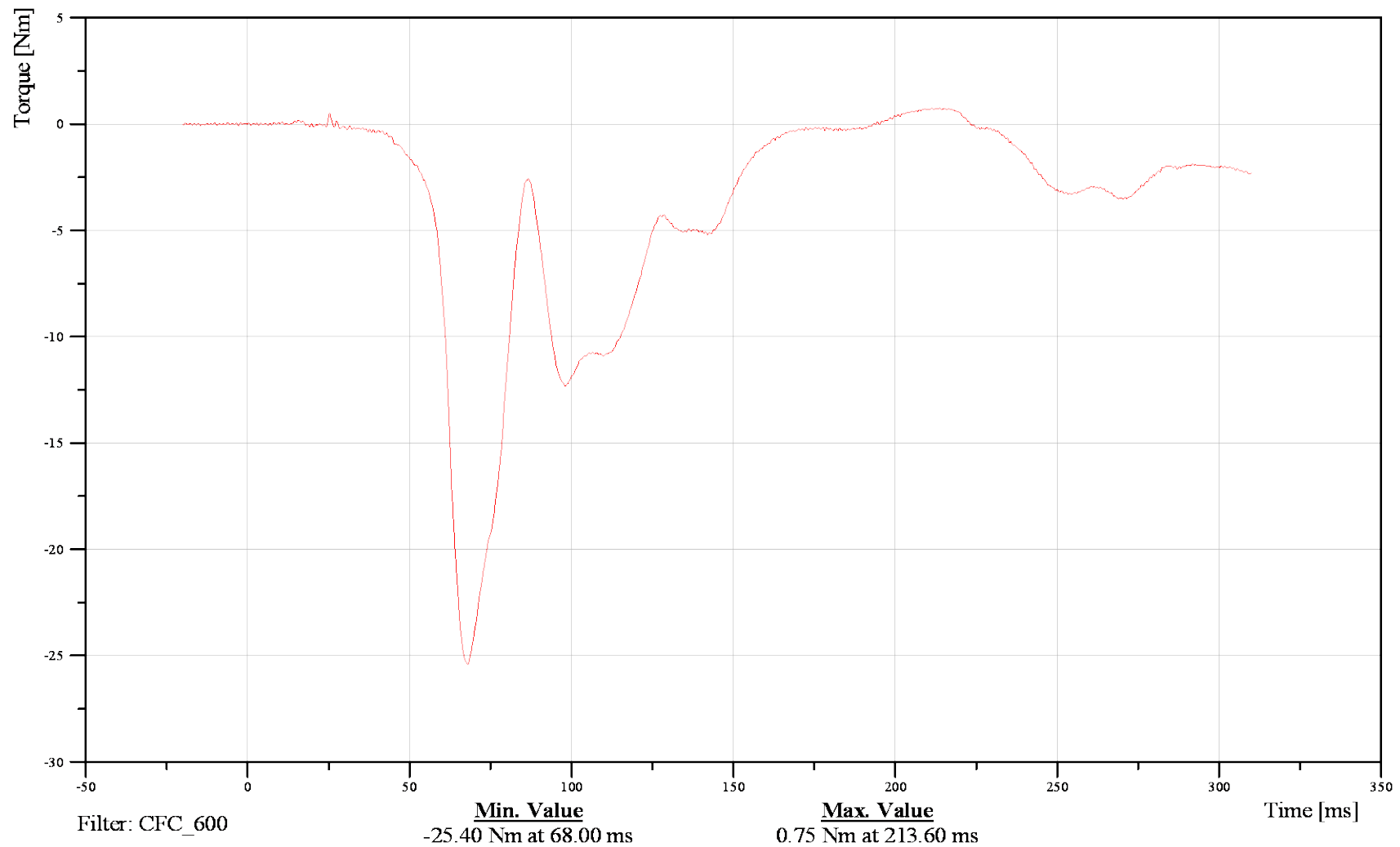
Time: 14:31

Customer: VRTC

14NECKUP00WFM0XB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment My

Date: 03/27/2013

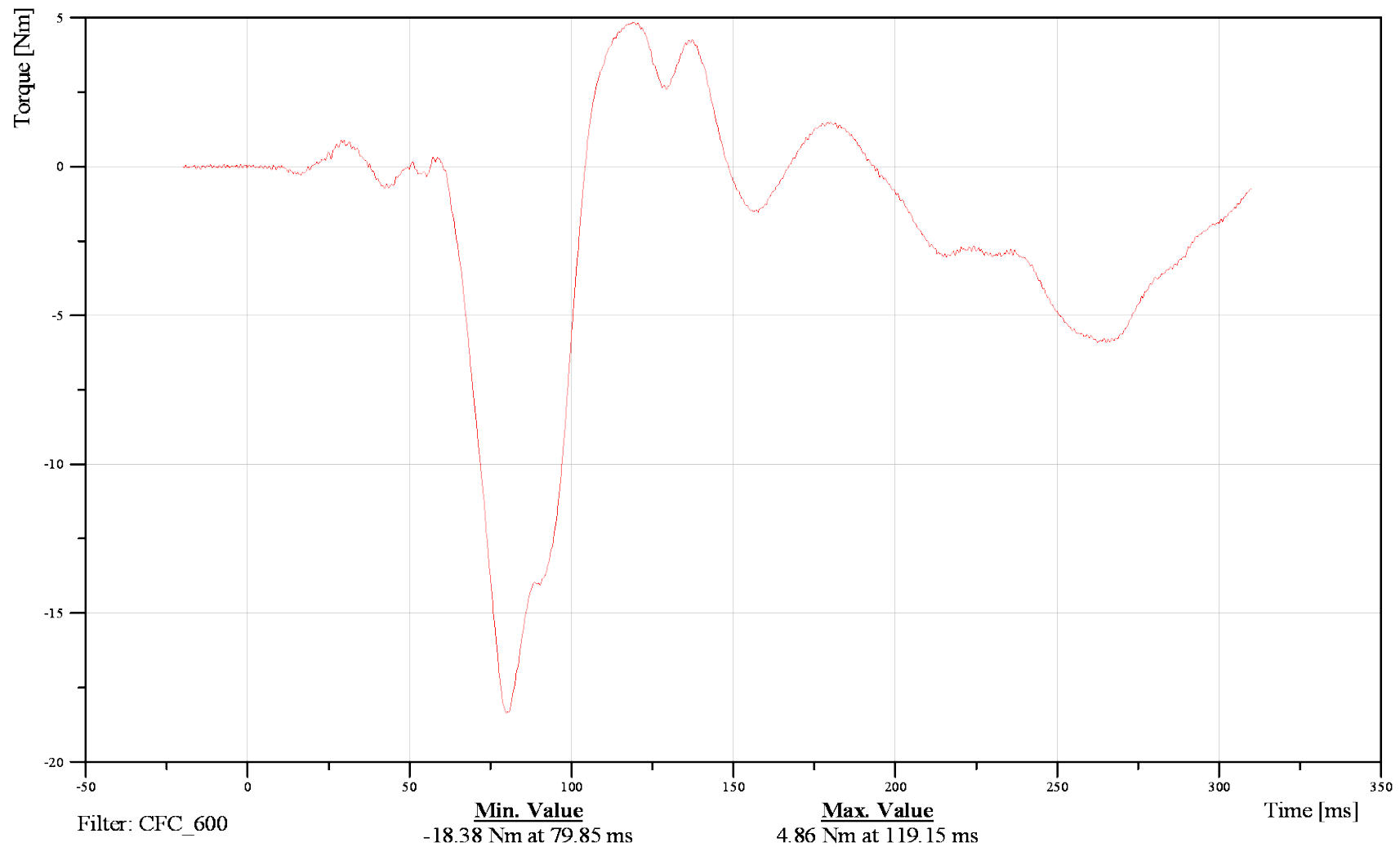
Time: 14:31

Customer: VRTC

14NECKUP00WFM0YB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Upper Moment Mz

Date: 03/27/2013

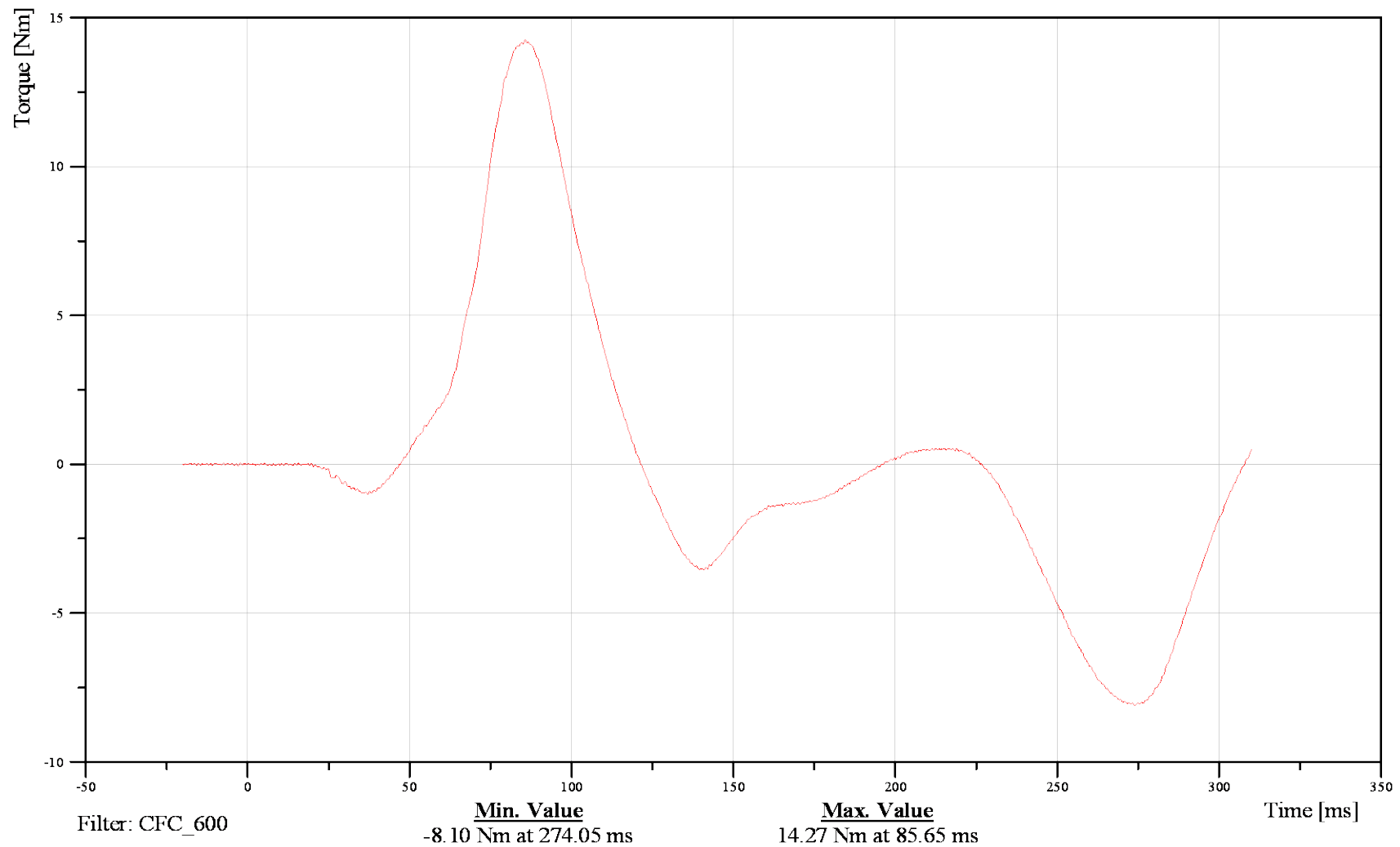
Time: 14:31

Customer: VRTC

14NECKUP00WFM0ZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fx

Date: 03/27/2013

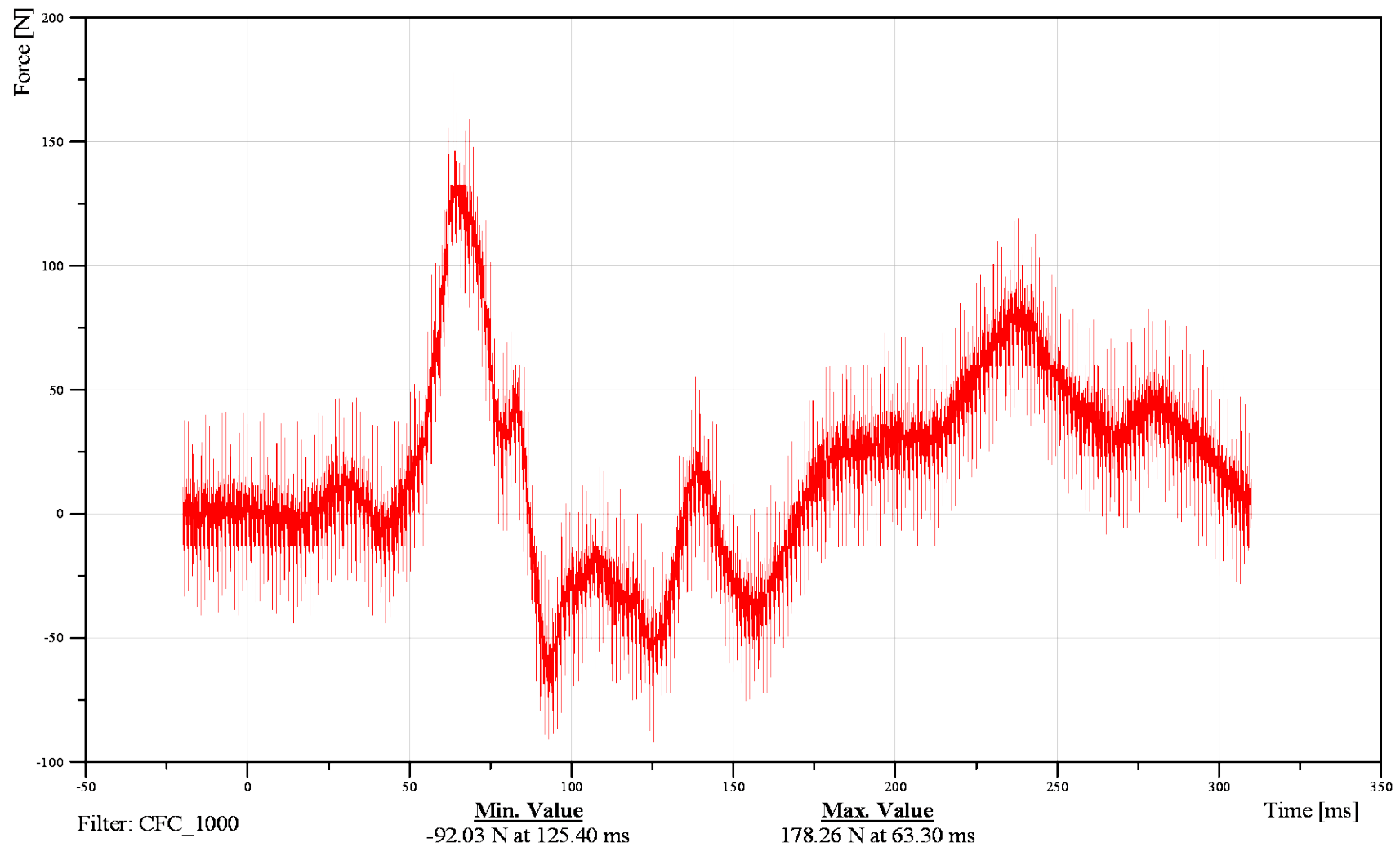
Time: 14:31

Customer: VRTC

14NECKLO00WFFOXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fy

Date: 03/27/2013

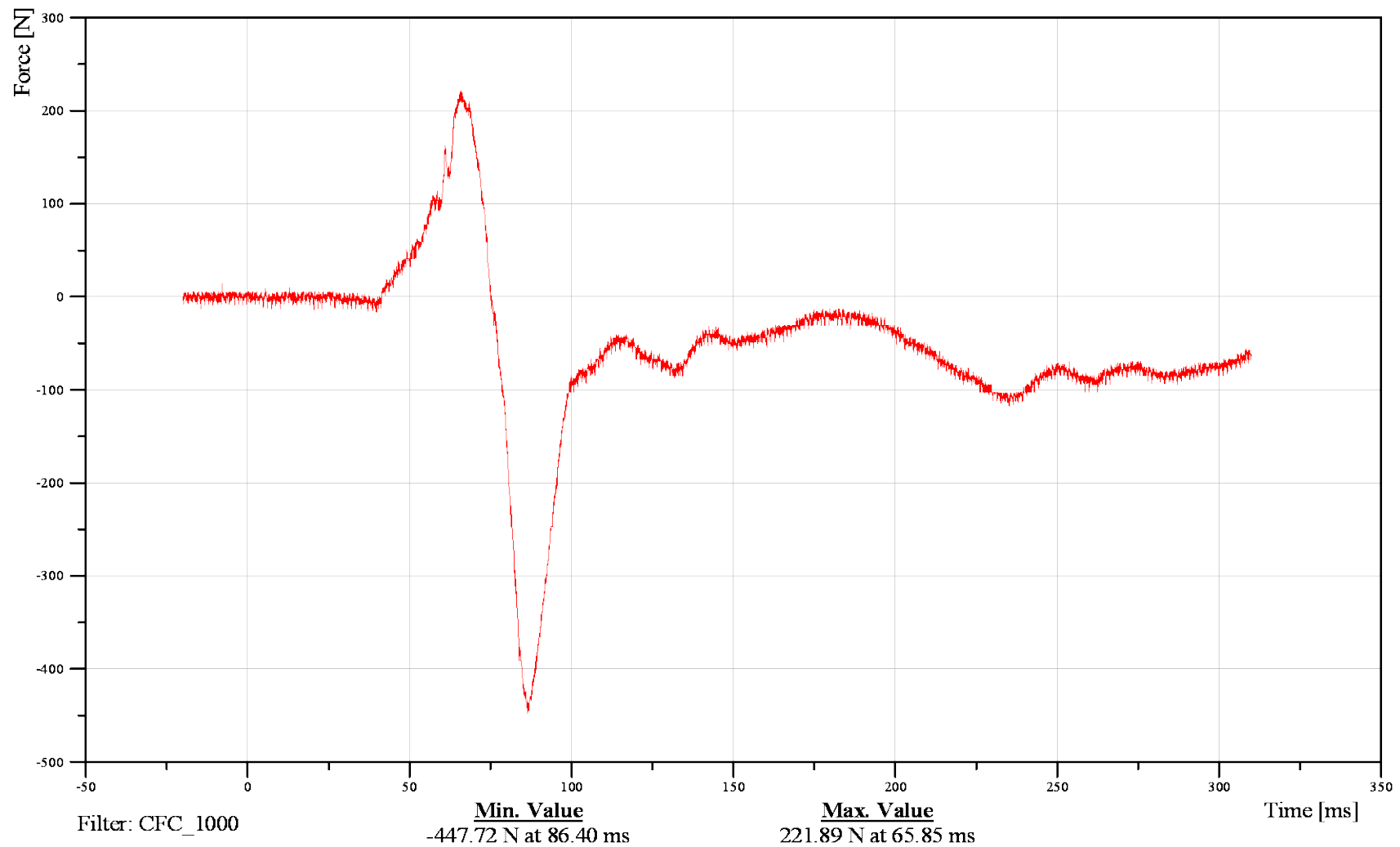
Time: 14:31

Customer: VRTC

14NECKLO00WFFOYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Force Fz

Date: 03/27/2013

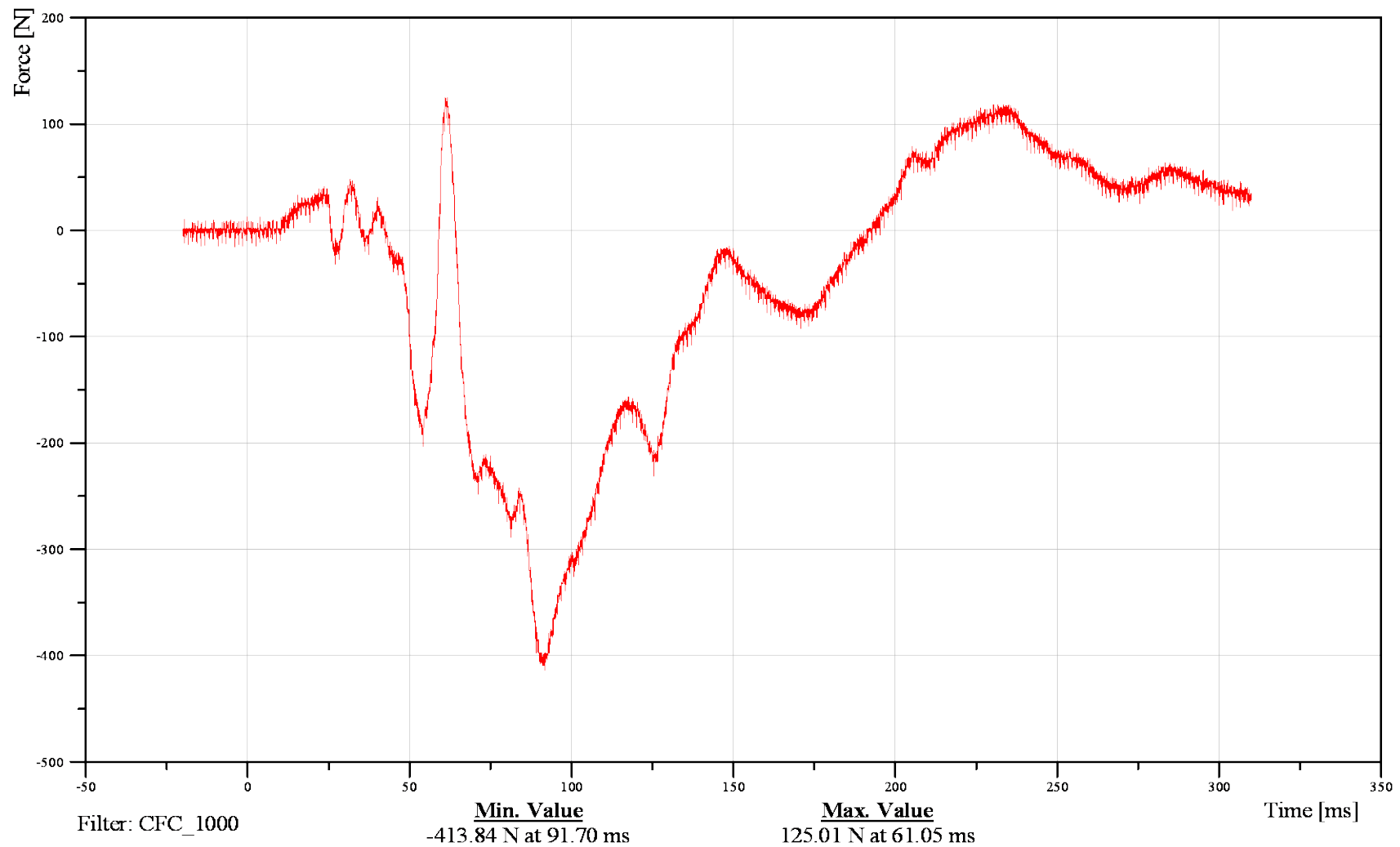
Time: 14:31

Customer: VRTC

14NECKLO00WFFOZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment Mx

Date: 03/27/2013

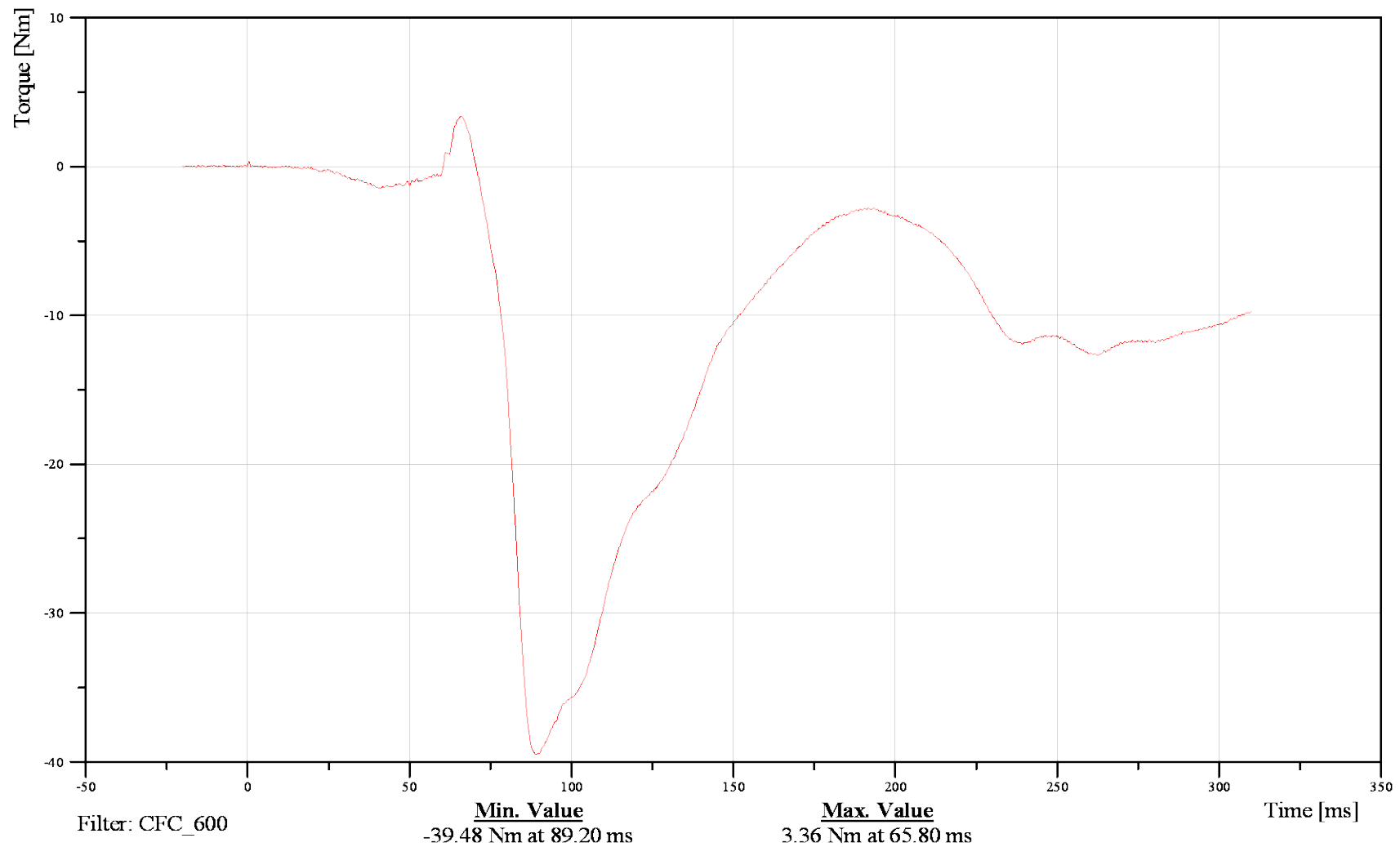
Time: 14:31

Customer: VRTC

14NECKLO00WFM0XB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment My

Date: 03/27/2013

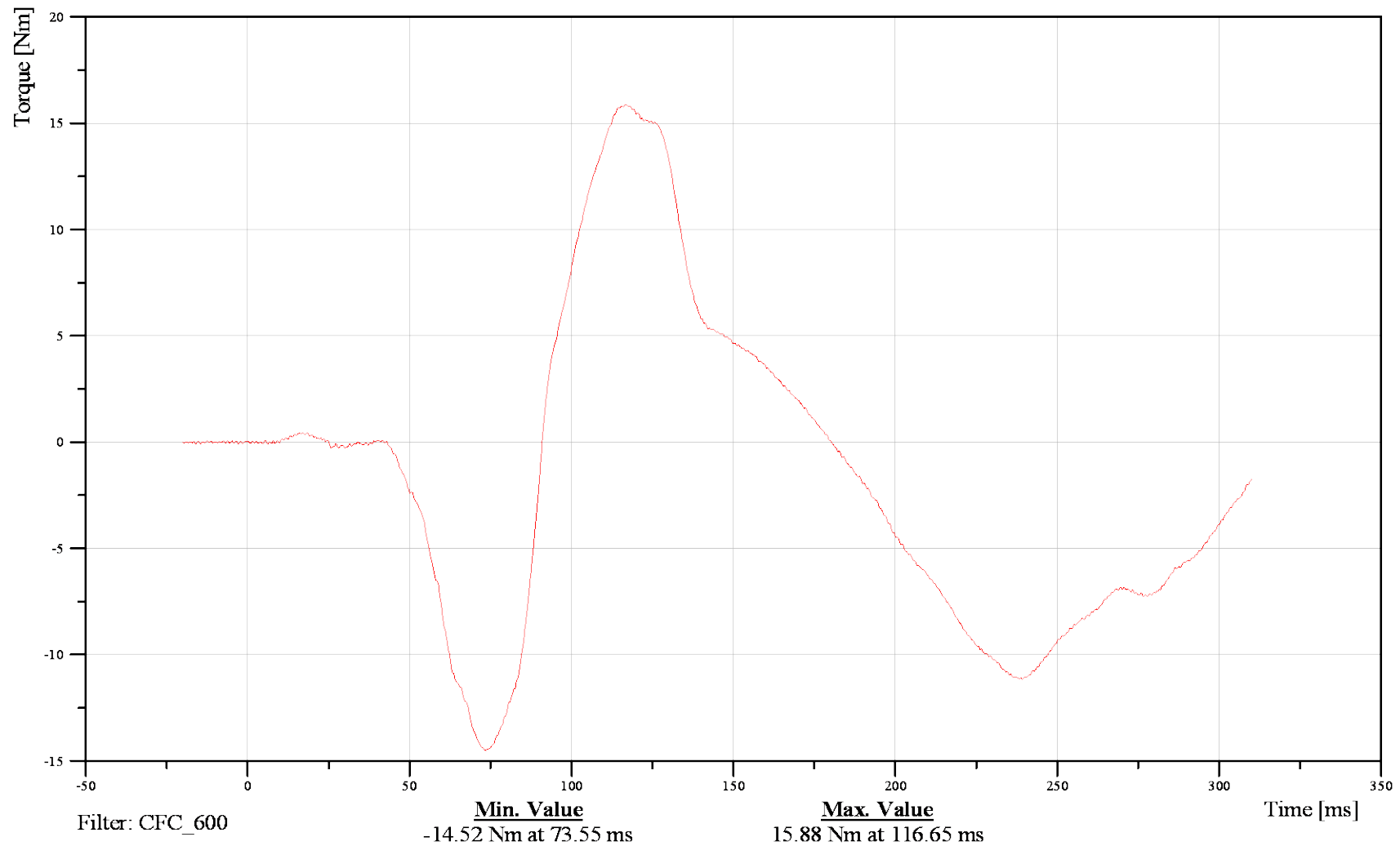
Time: 14:31

Customer: VRTC

14NECKLO00WFM0YB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Neck Lower Moment Mz

Date: 03/27/2013

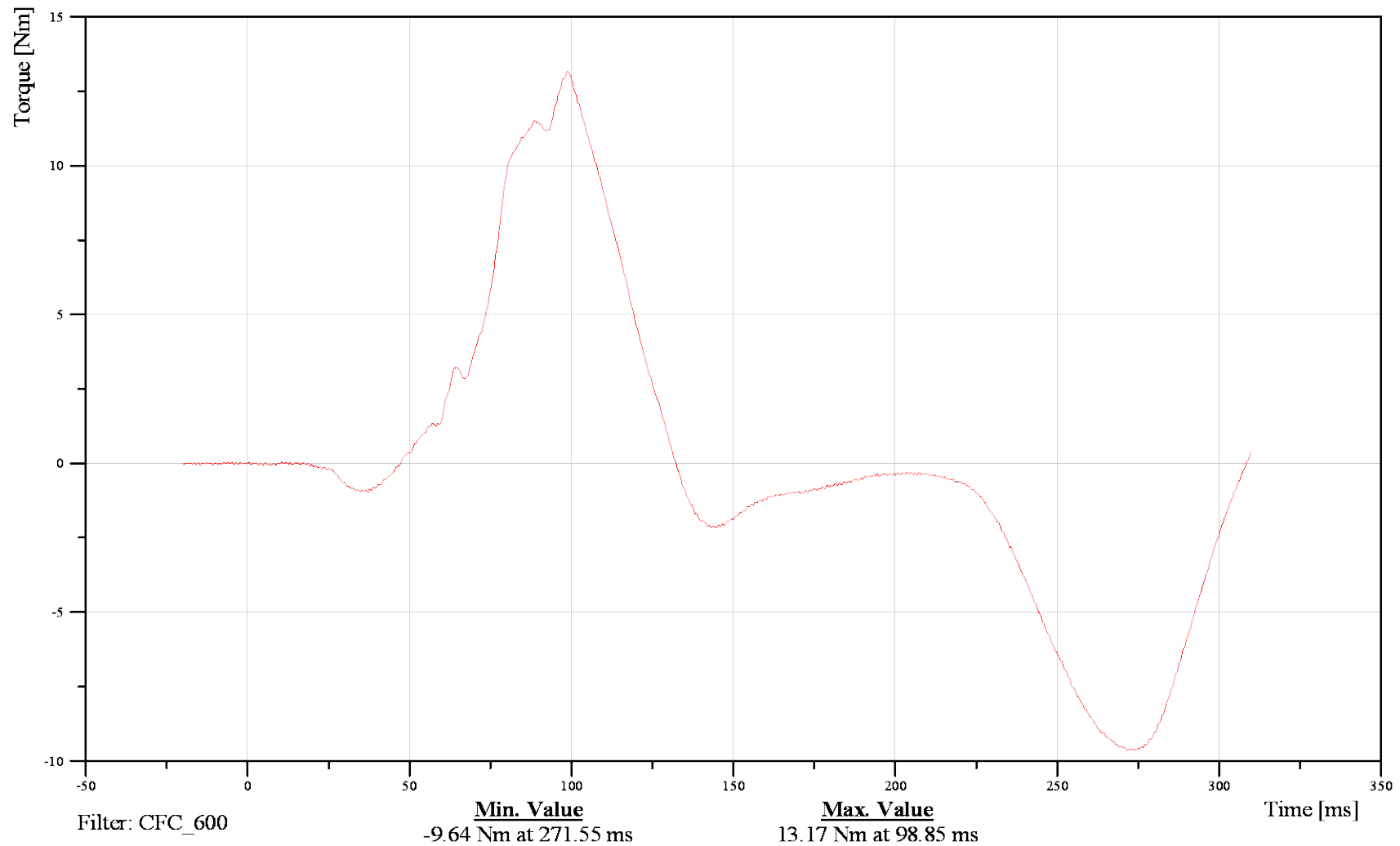
Time: 14:31

Customer: VRTC

14NECKLO00WFMOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Longitudinal Ax

Date: 03/27/2013

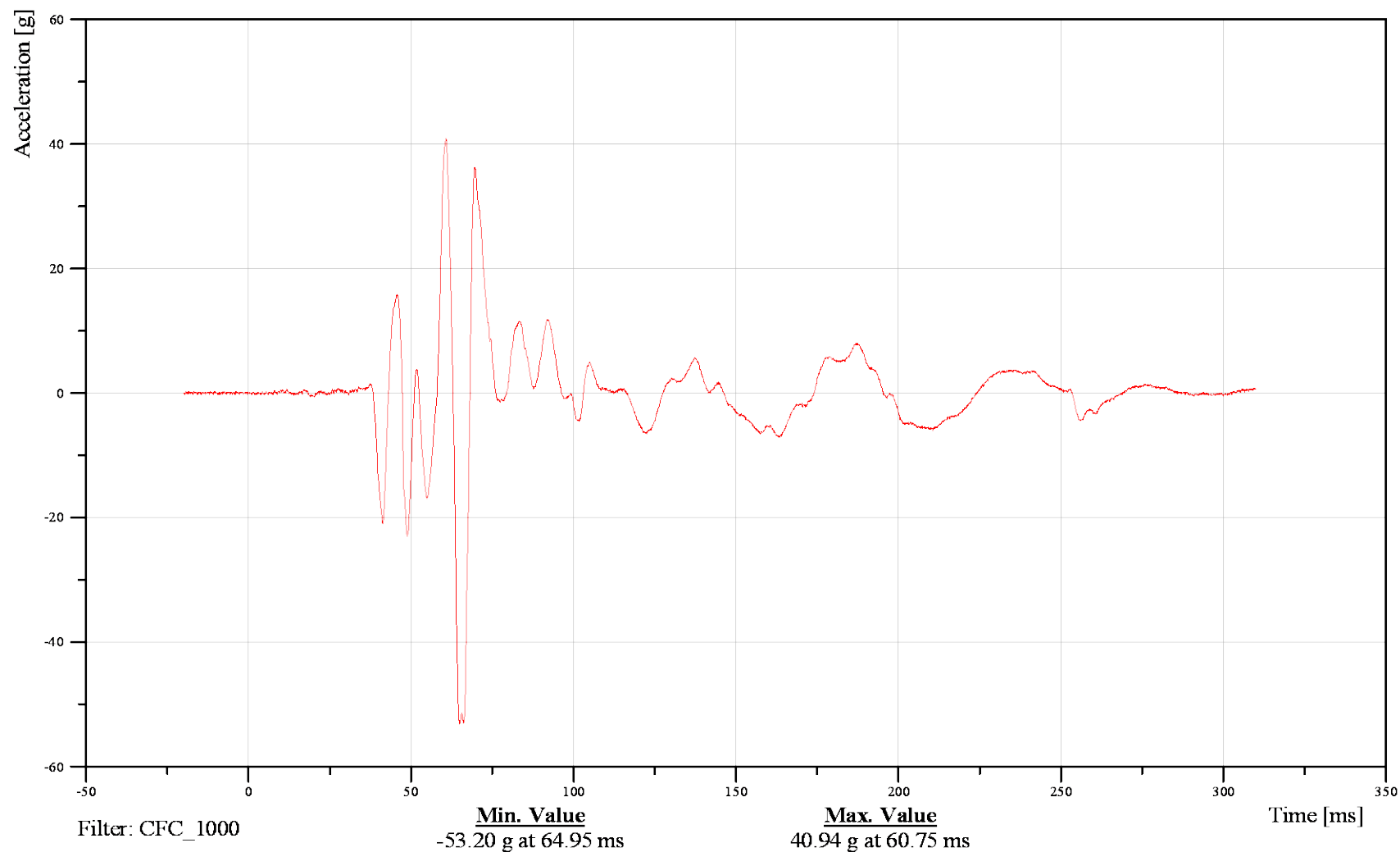
Time: 14:31

Customer: VRTC

14SHLDLE00WFACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Lateral Ay

Date: 03/27/2013

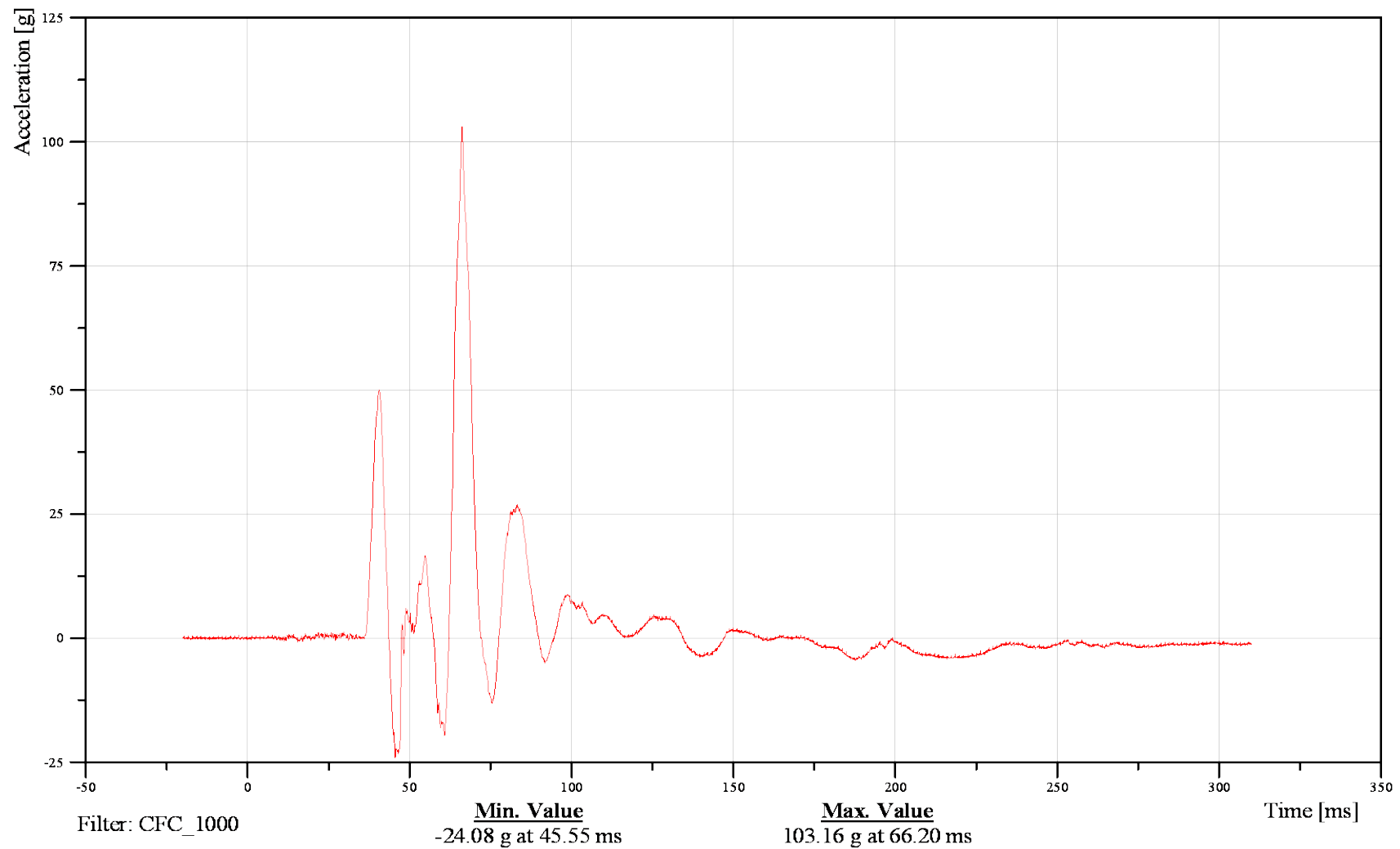
Time: 14:31

Customer: VRTC

14SHLDLE00WFACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Vertical Az

Date: 03/27/2013

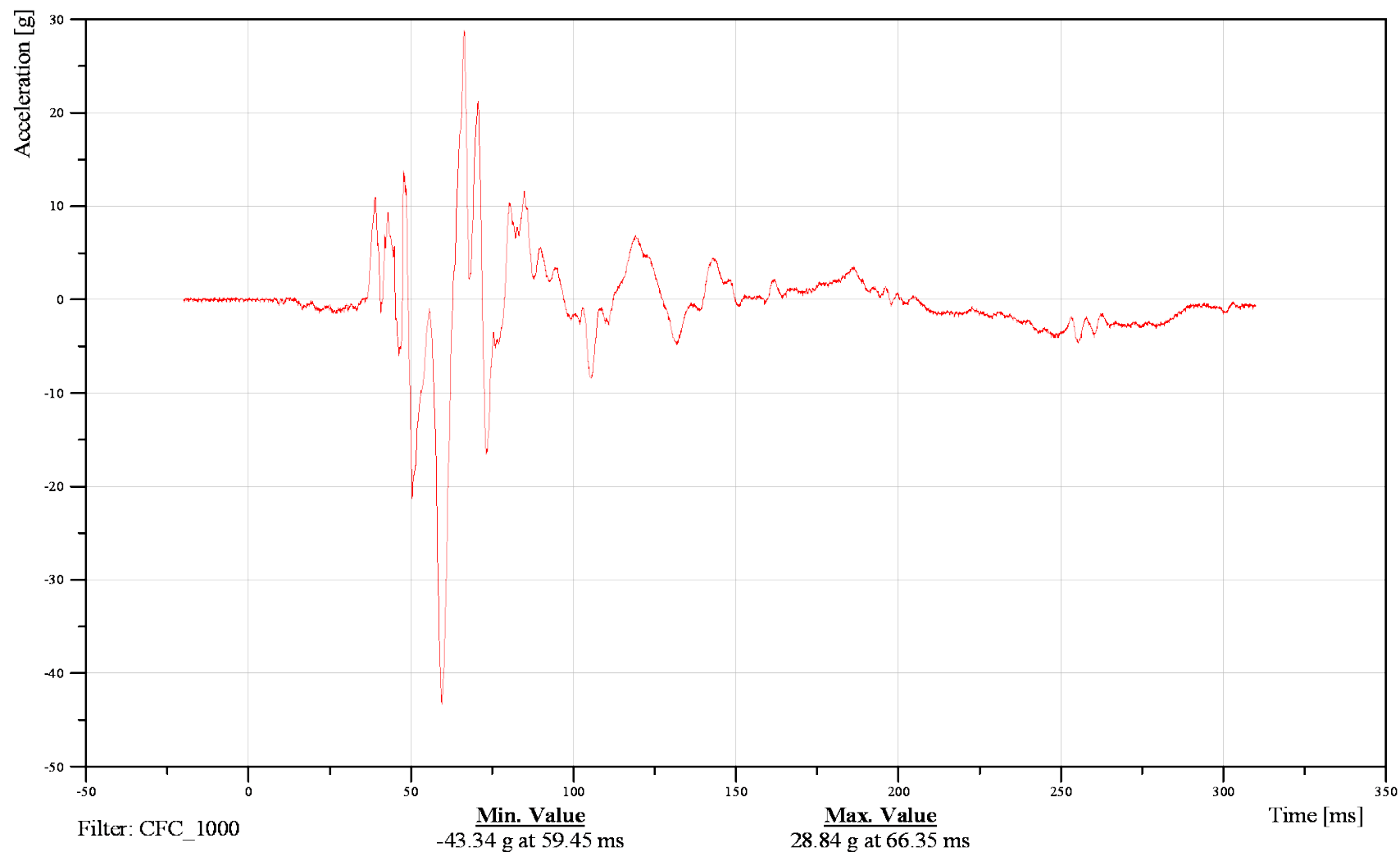
Time: 14:31

Customer: VRTC

14SHLDLE00WFACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder A Resultant

Date: 03/27/2013

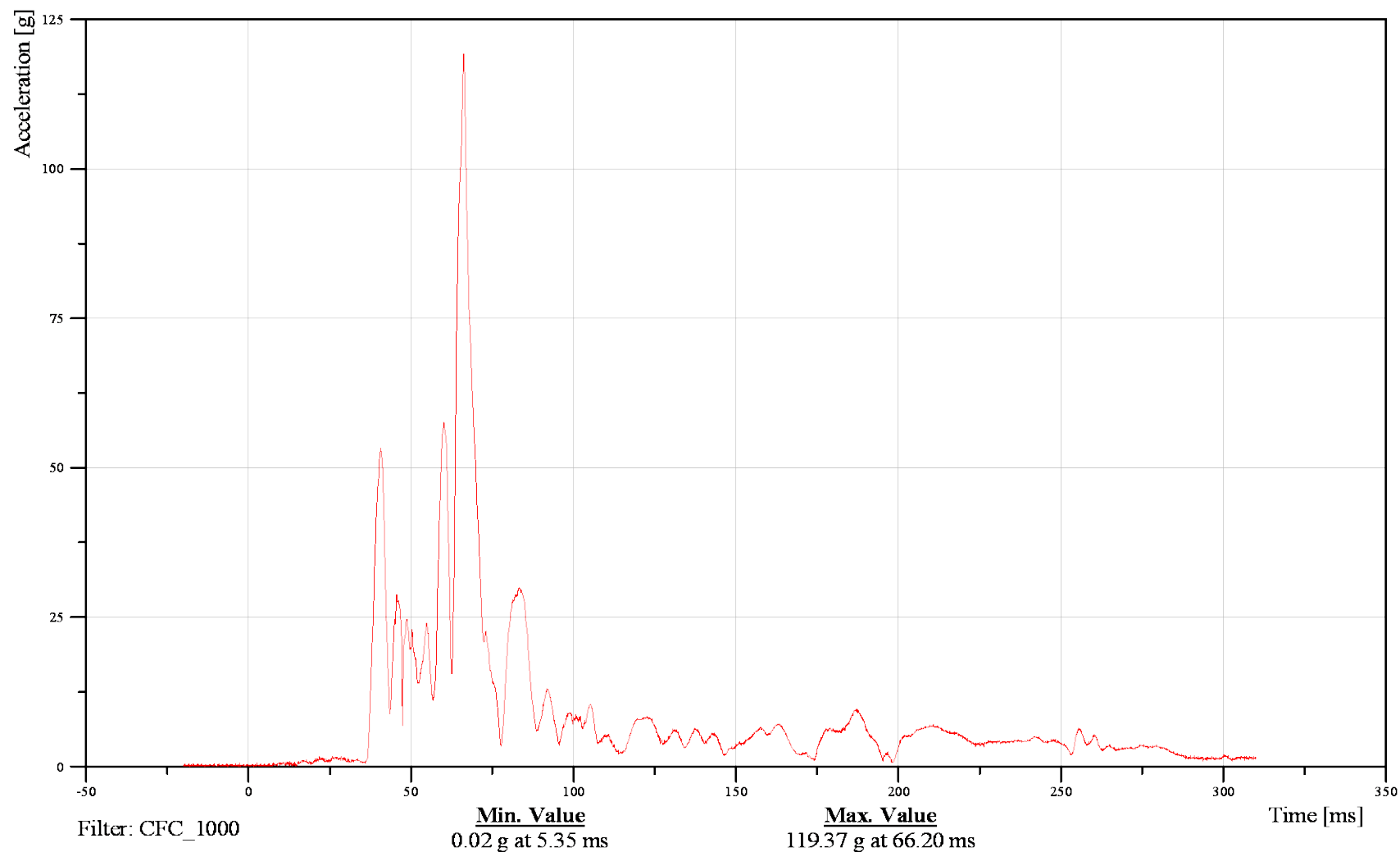
Time: 14:31

Customer: VRTC

14SHLDLE00WFACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fx

Date: 03/27/2013

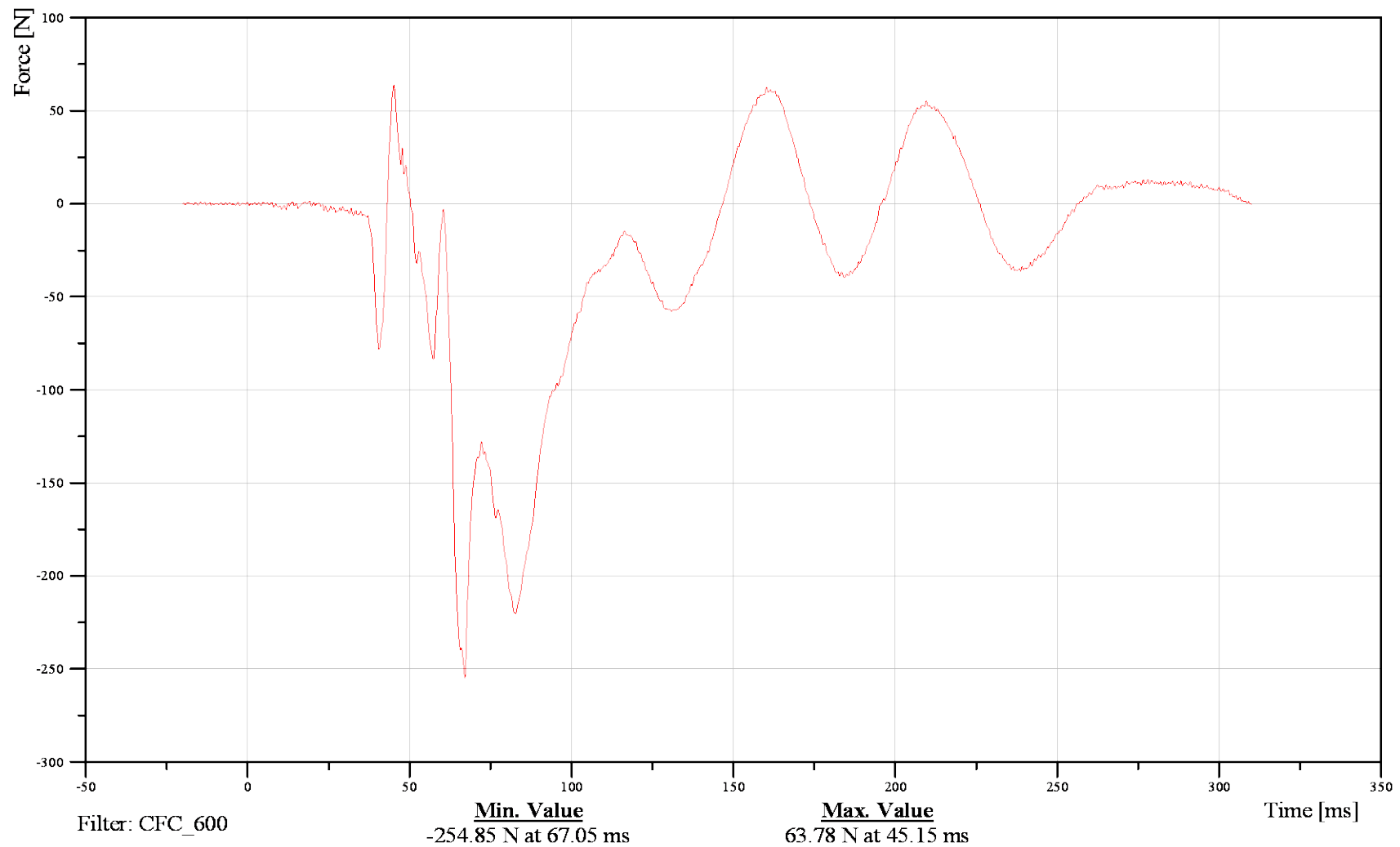
Time: 14:31

Customer: VRTC

14SHLDLE00WFFOXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fy

Date: 03/27/2013

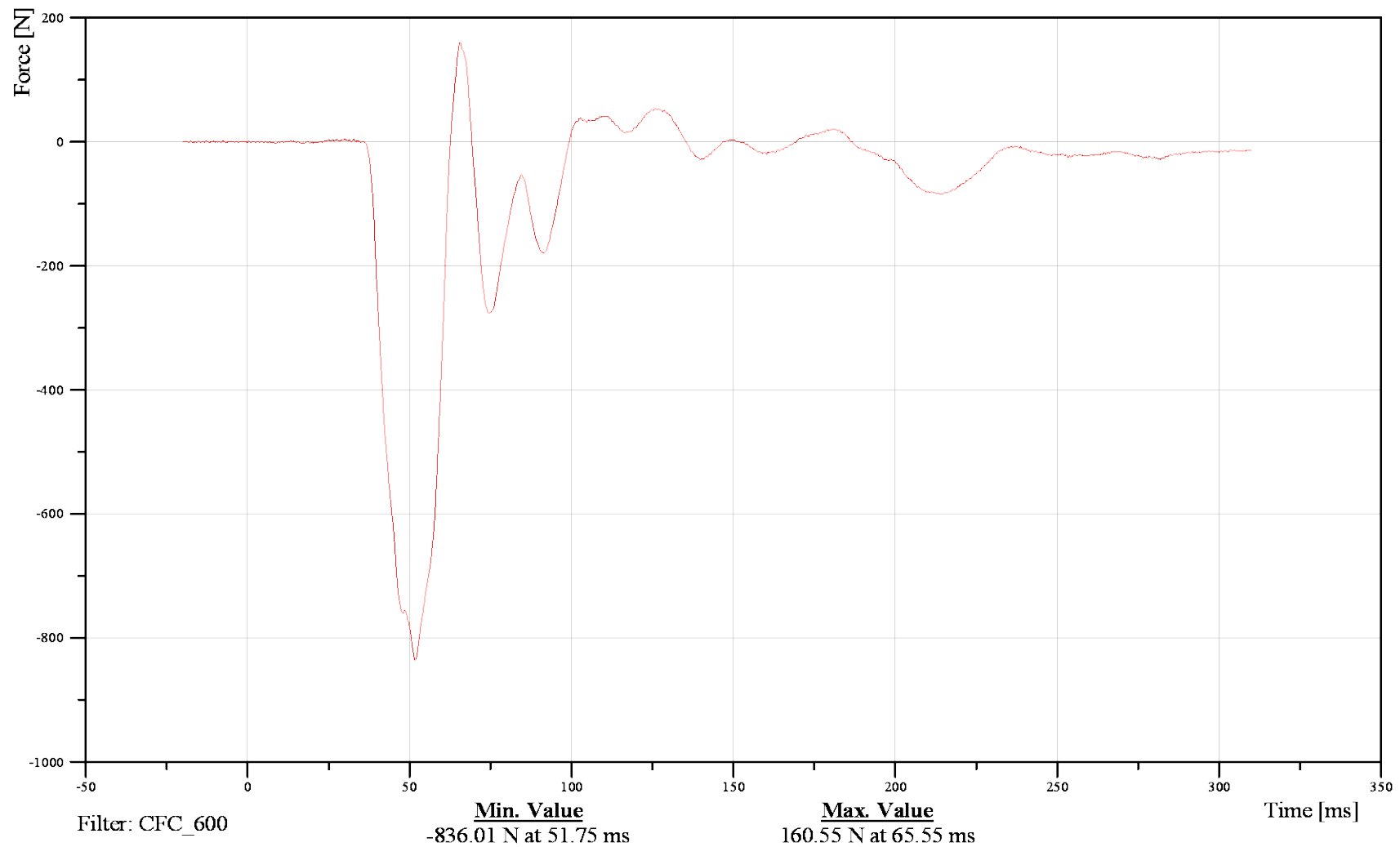
Time: 14:31

Customer: VRTC

14SHLDLE00WFFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Force Fz

Date: 03/27/2013

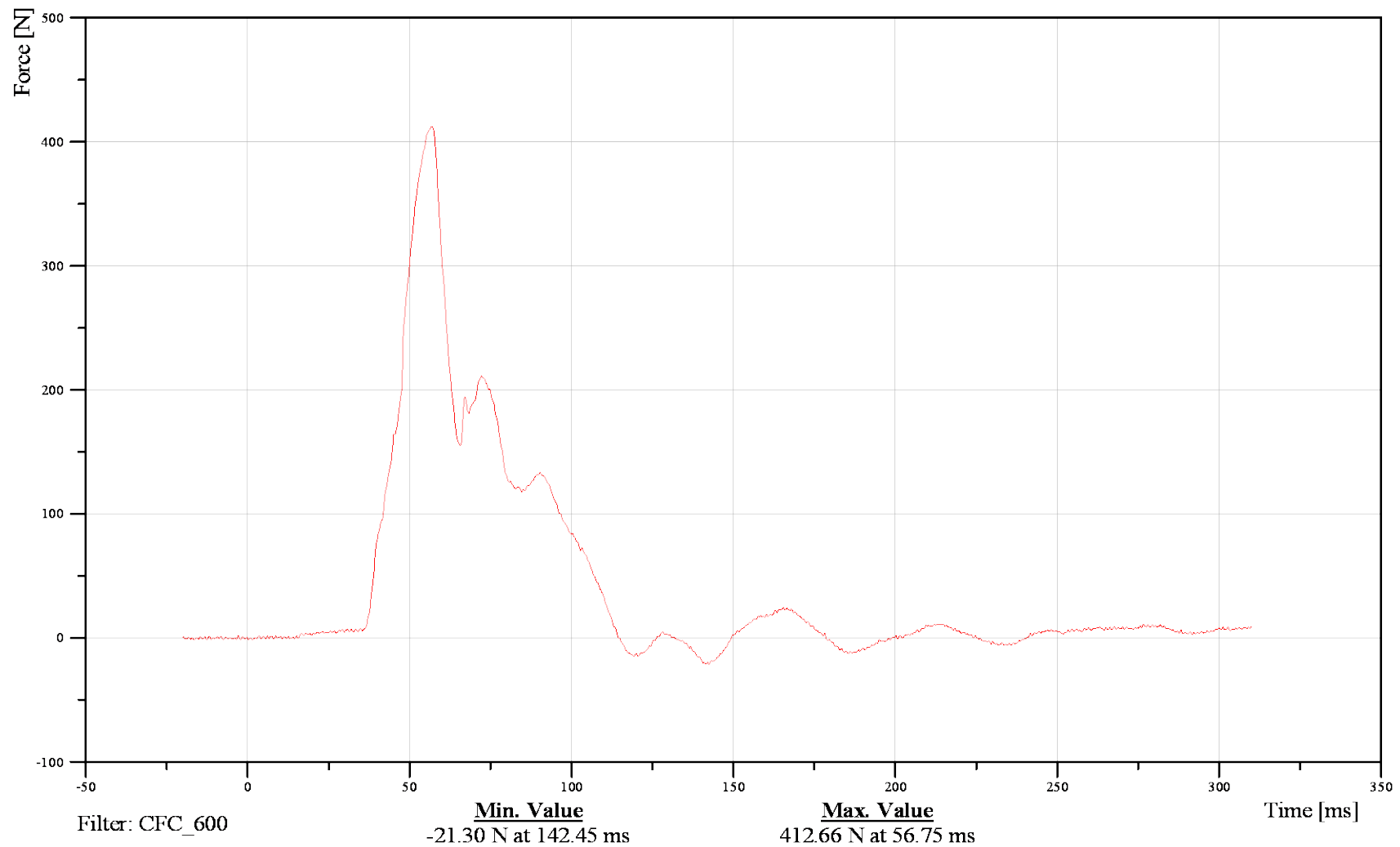
Time: 14:31

Customer: VRTC

14SHLDLE00WFFOZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Displacement Dy

Date: 03/27/2013

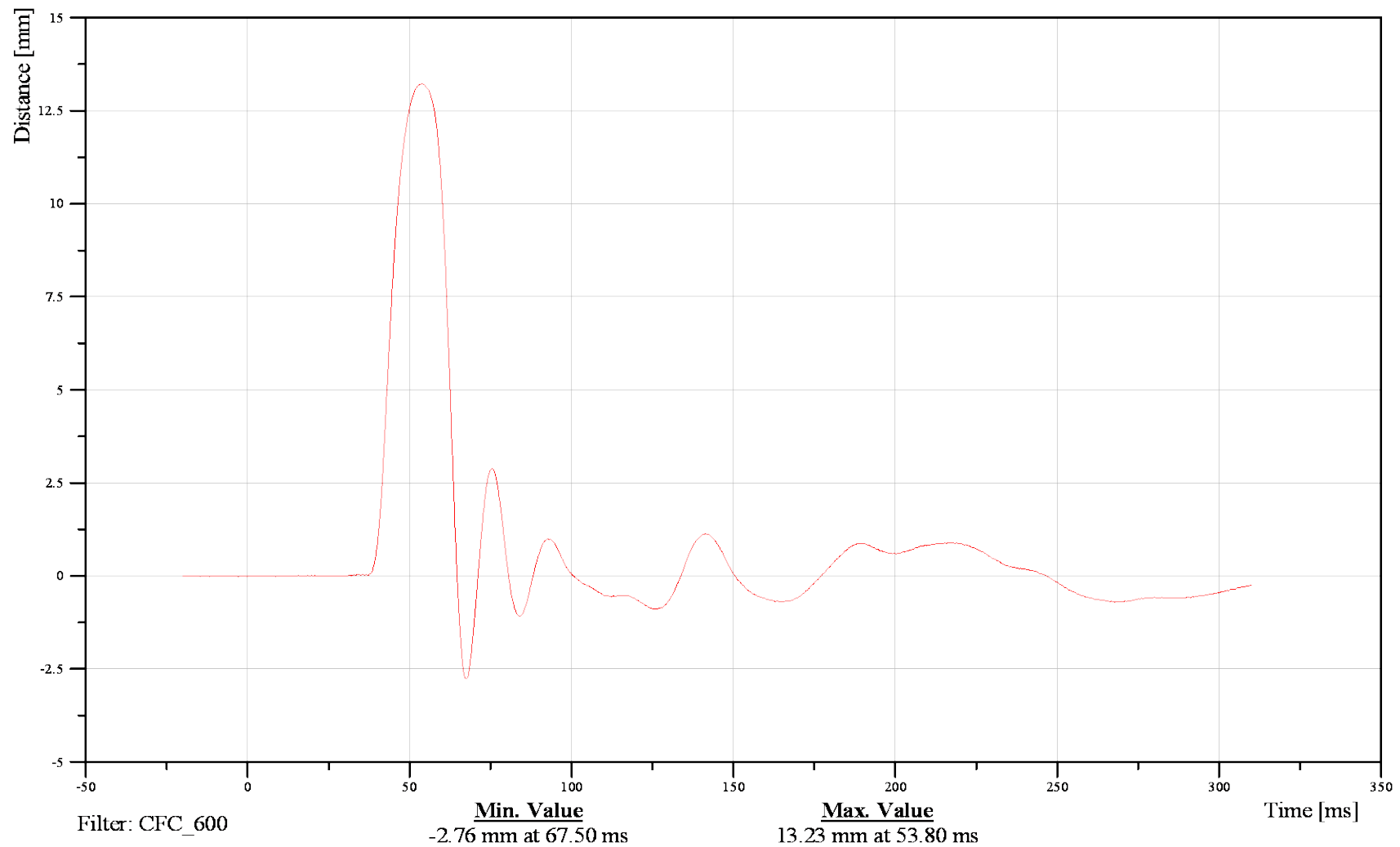
Time: 14:31

Customer: VRTC

14SHLDLE00WFDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Longitudinal Ax

Date: 03/27/2013

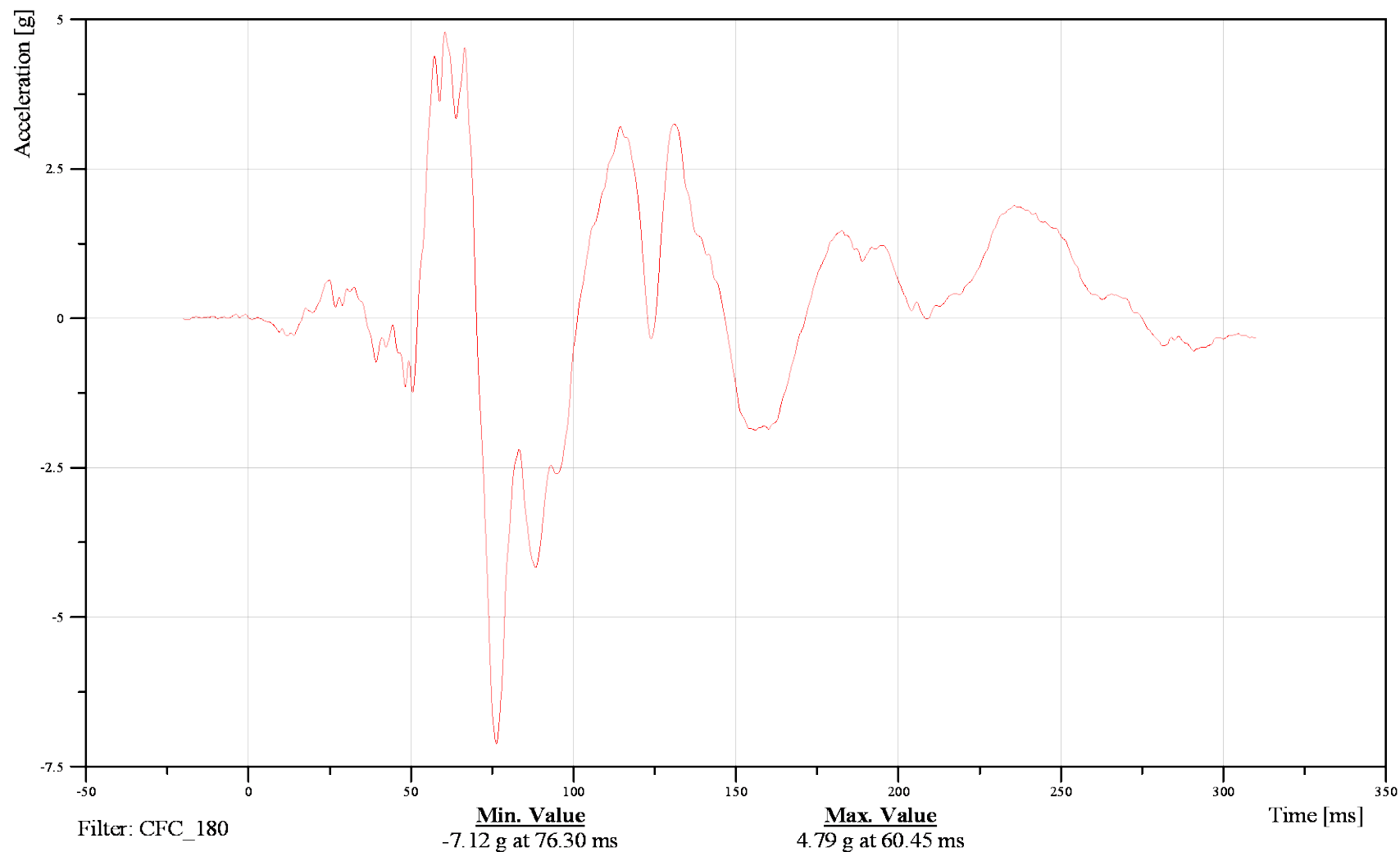
Time: 14:31

Customer: VRTC

14THSP0100WFACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Lateral Ay

Date: 03/27/2013

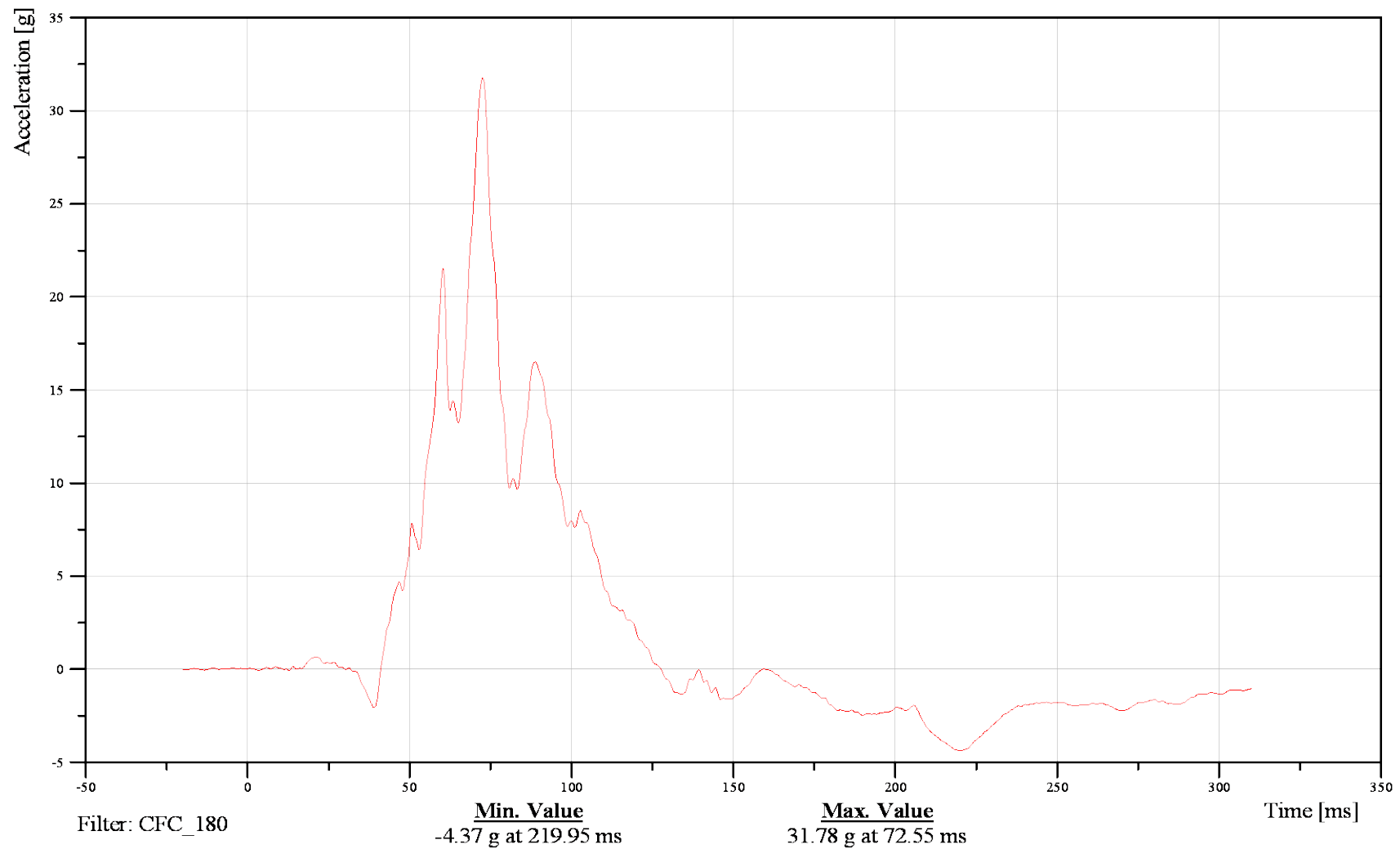
Time: 14:31

Customer: VRTC

14THSP0100WFACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 Vertical Az

Date: 03/27/2013

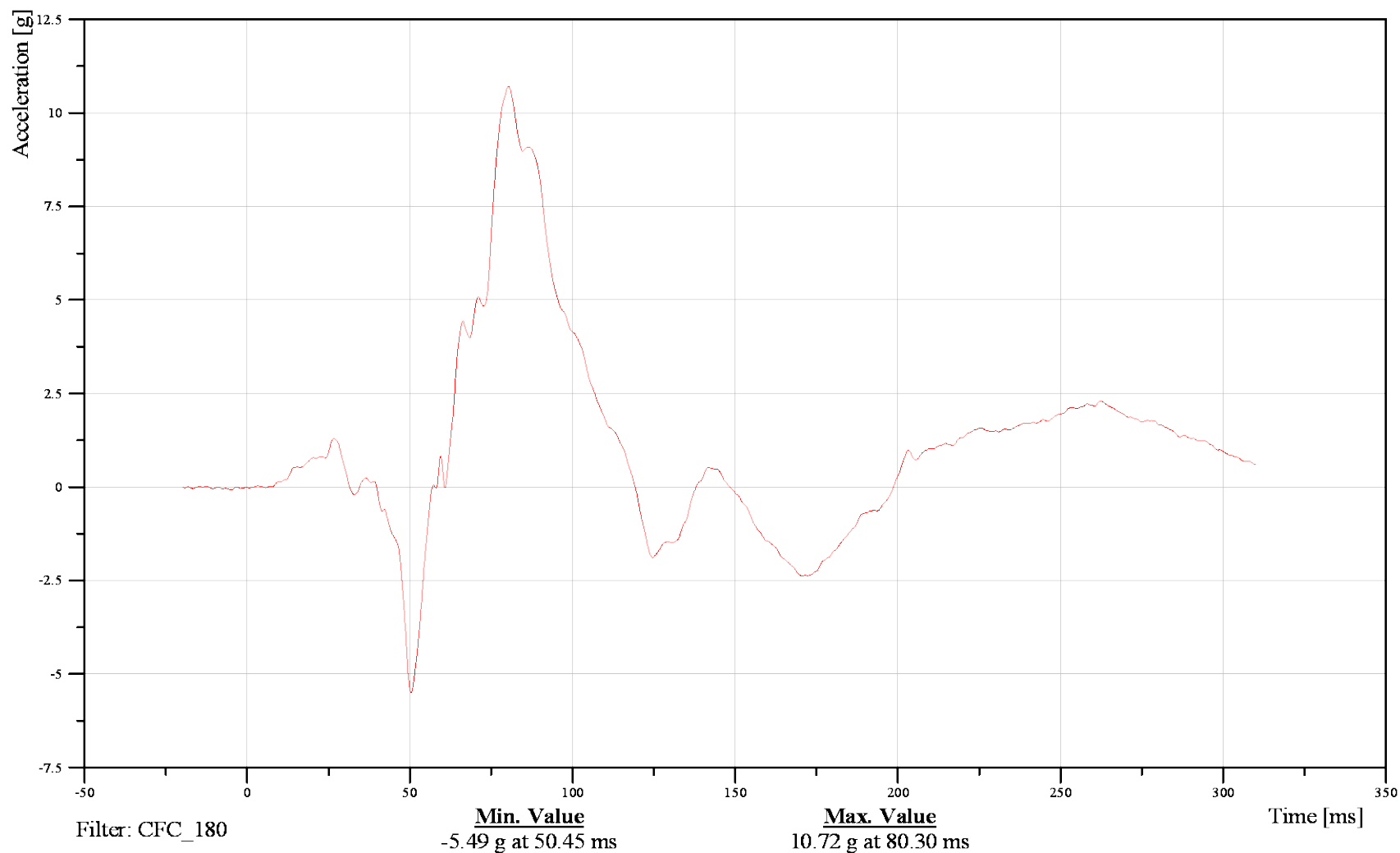
Time: 14:31

Customer: VRTC

14THSP0100WFACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T1 A Resultant

Date: 03/27/2013

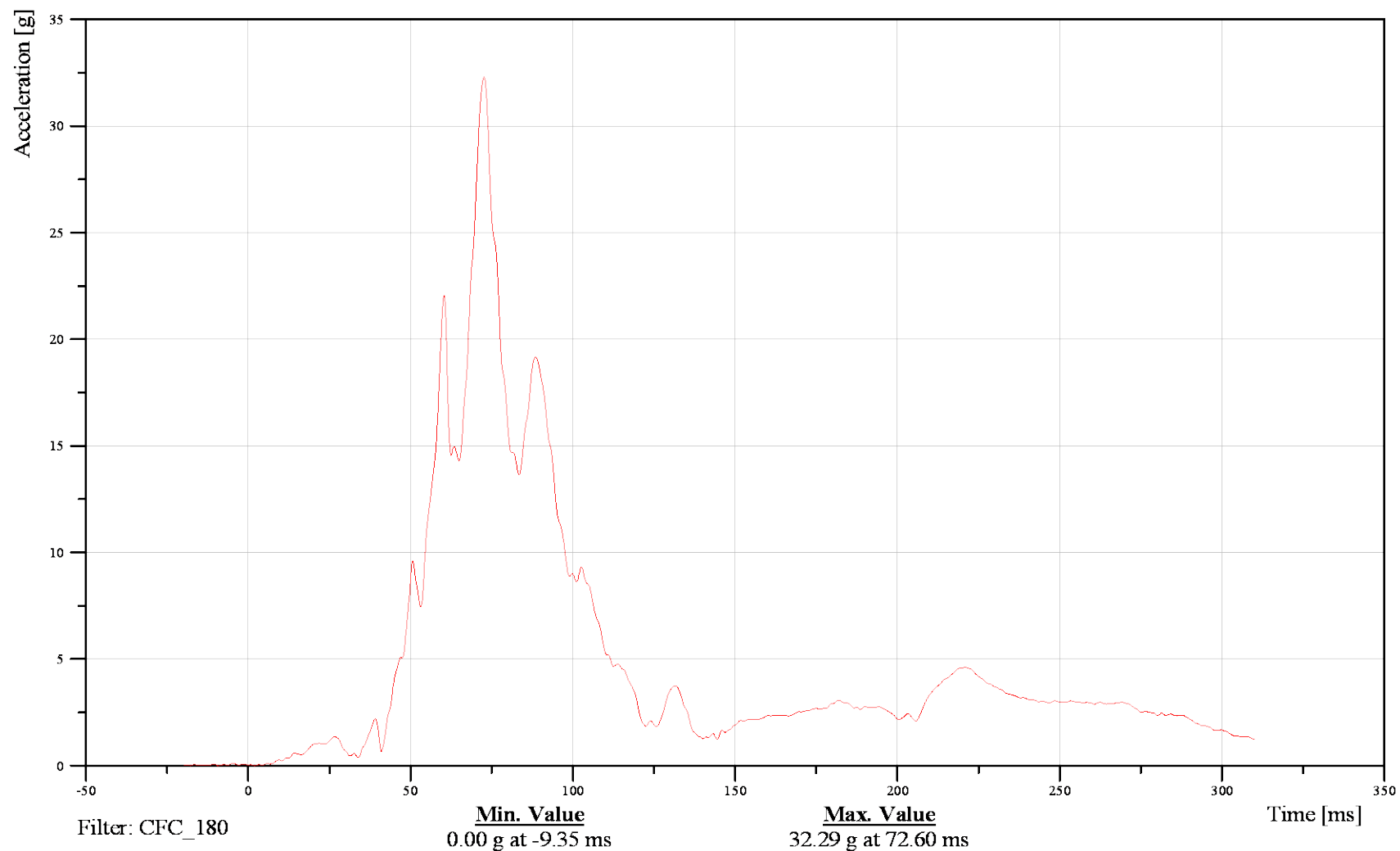
Time: 14:31

Customer: VRTC

14THSP0100WFACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Longitudinal Ax

Date: 03/27/2013

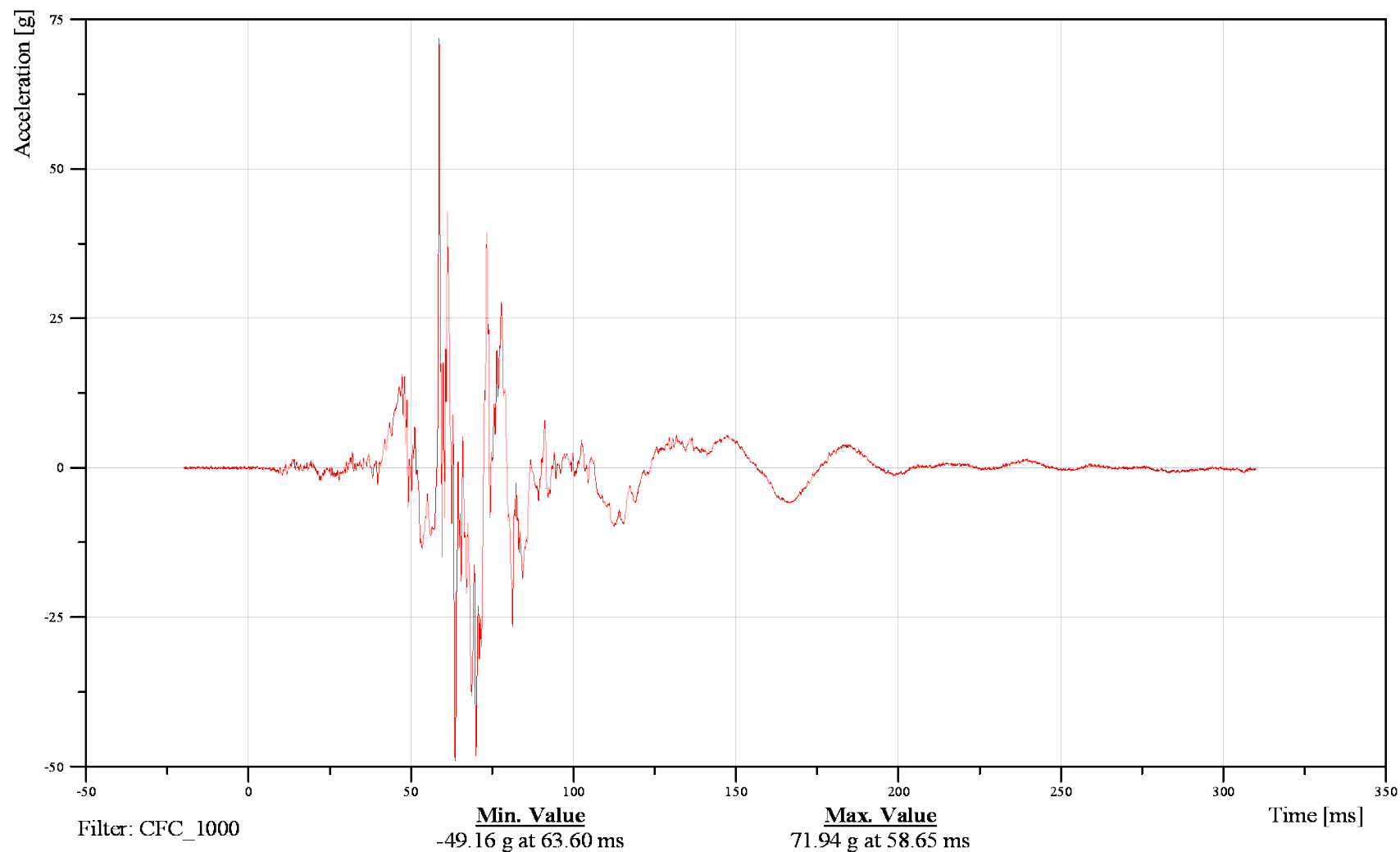
Time: 14:31

Customer: VRTC

14TRRILE01WFACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Lateral Ay

Date: 03/27/2013

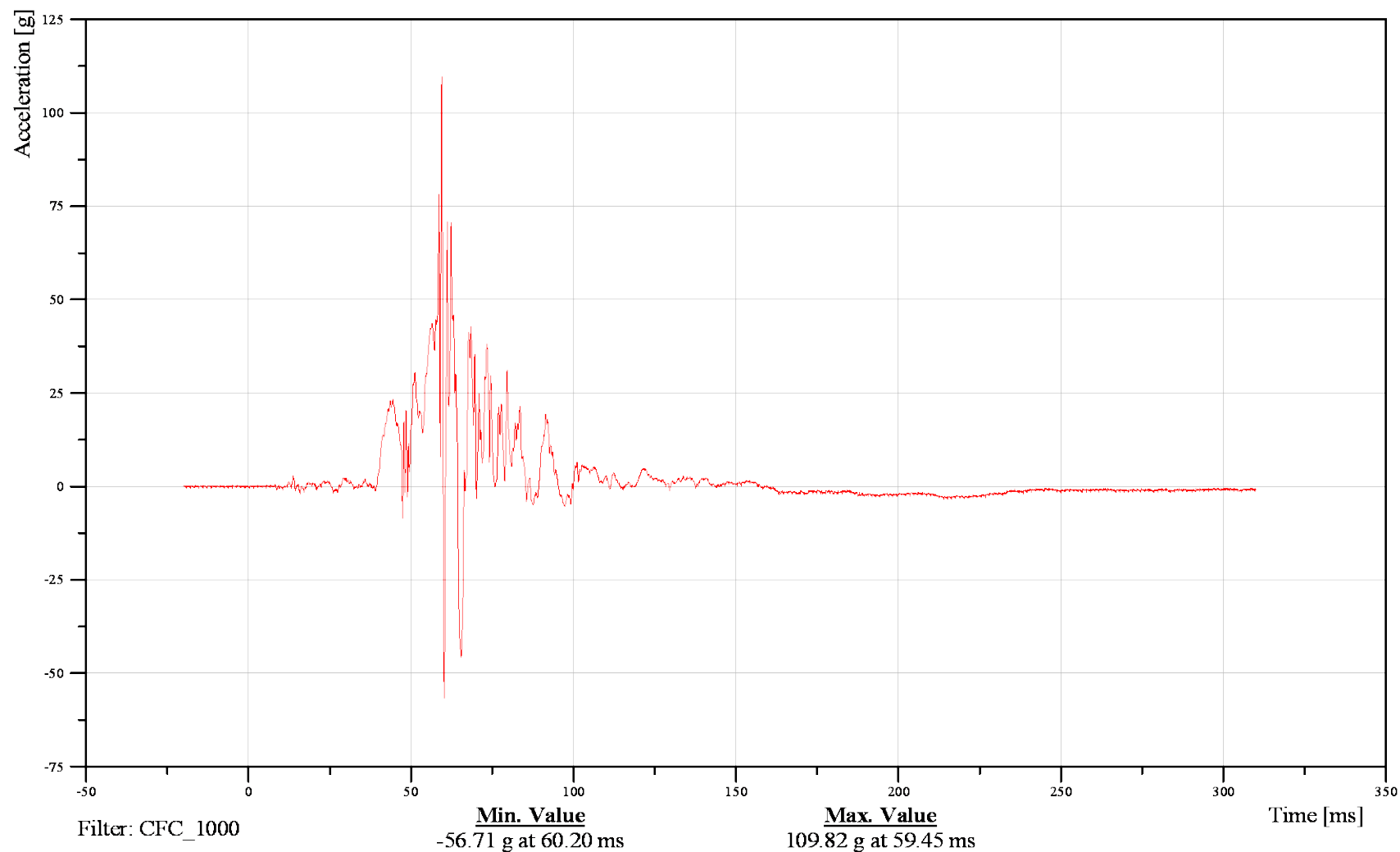
Time: 14:31

Customer: VRTC

14TRRILE01WFACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Vertical Az

Date: 03/27/2013

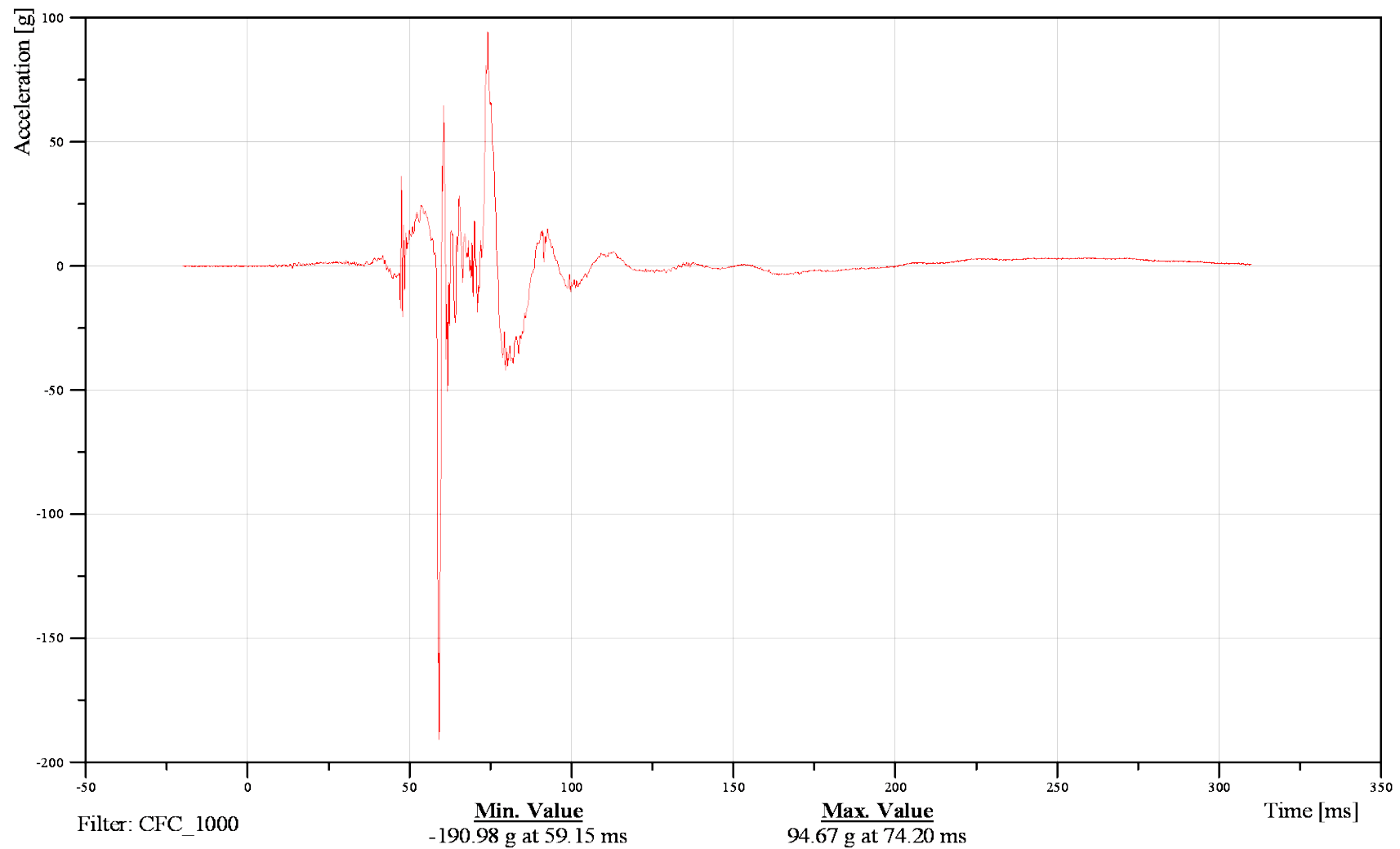
Time: 14:31

Customer: VRTC

14TRRILE01WFACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 A Resultant

Date: 03/27/2013

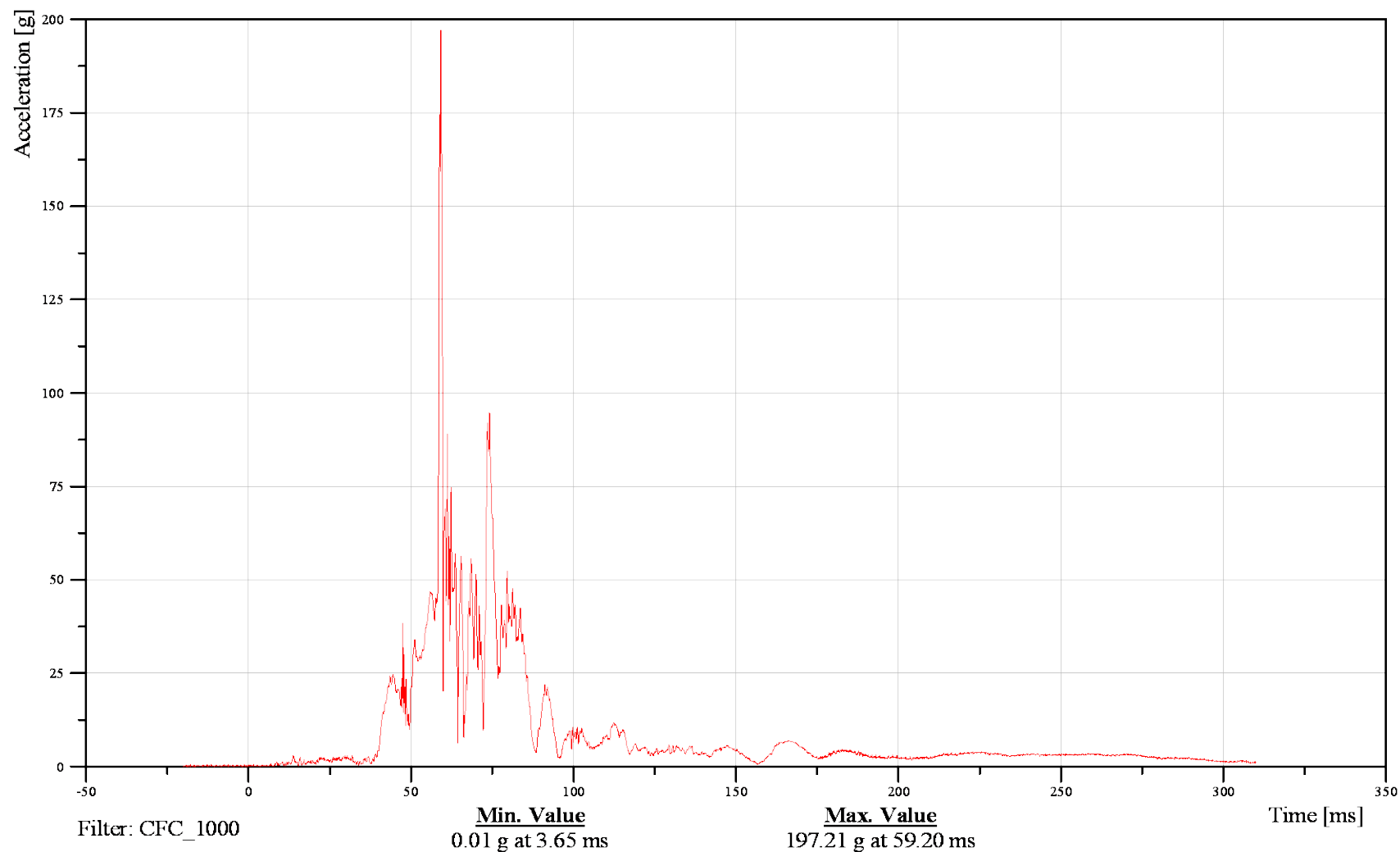
Time: 14:31

Customer: VRTC

14TRRILE01WFACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 IRTRAC compression

Date: 03/27/2013

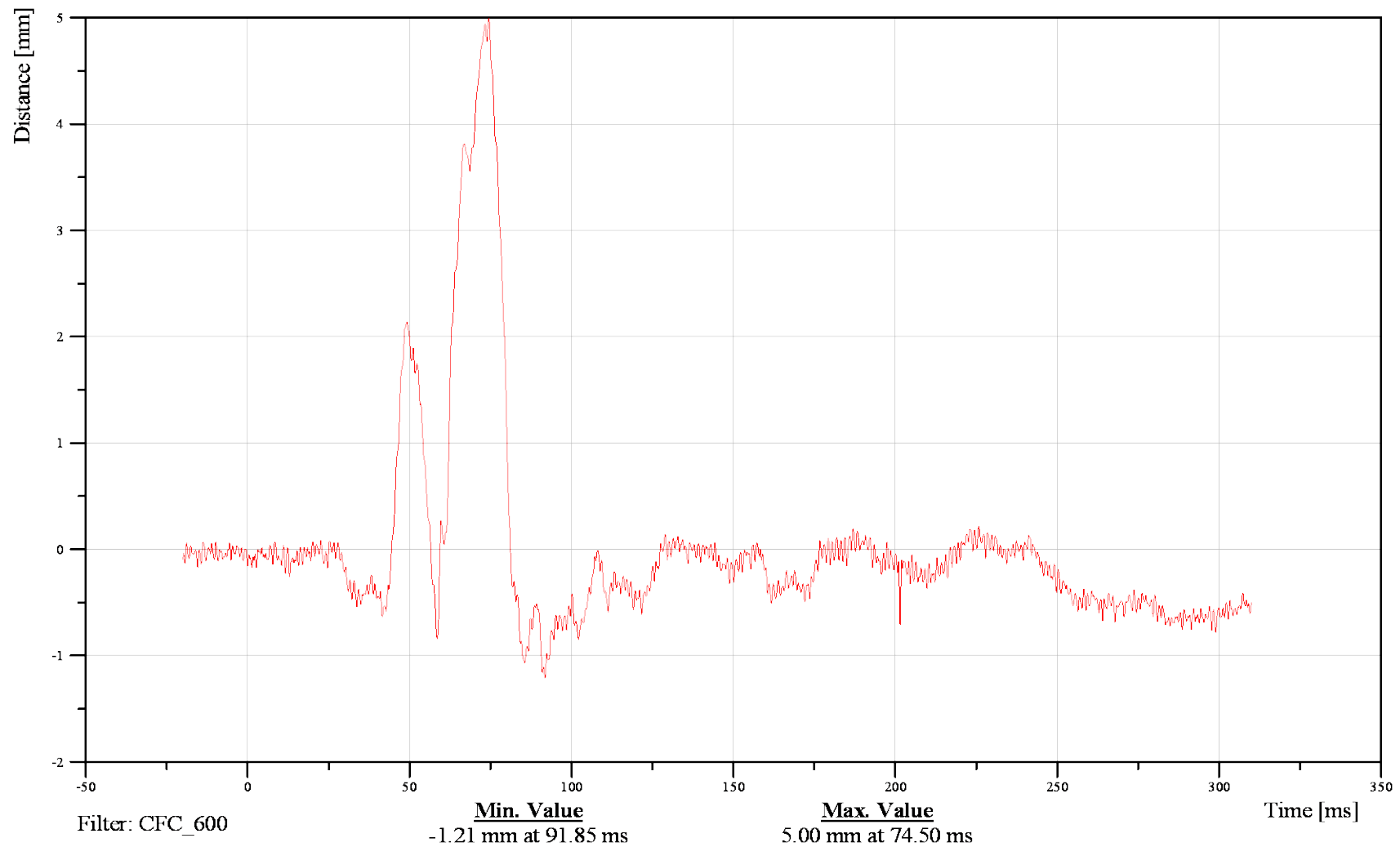
Time: 14:31

Customer: VRTC

14TRRILE01WFDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 Rotational angle

Date: 03/27/2013

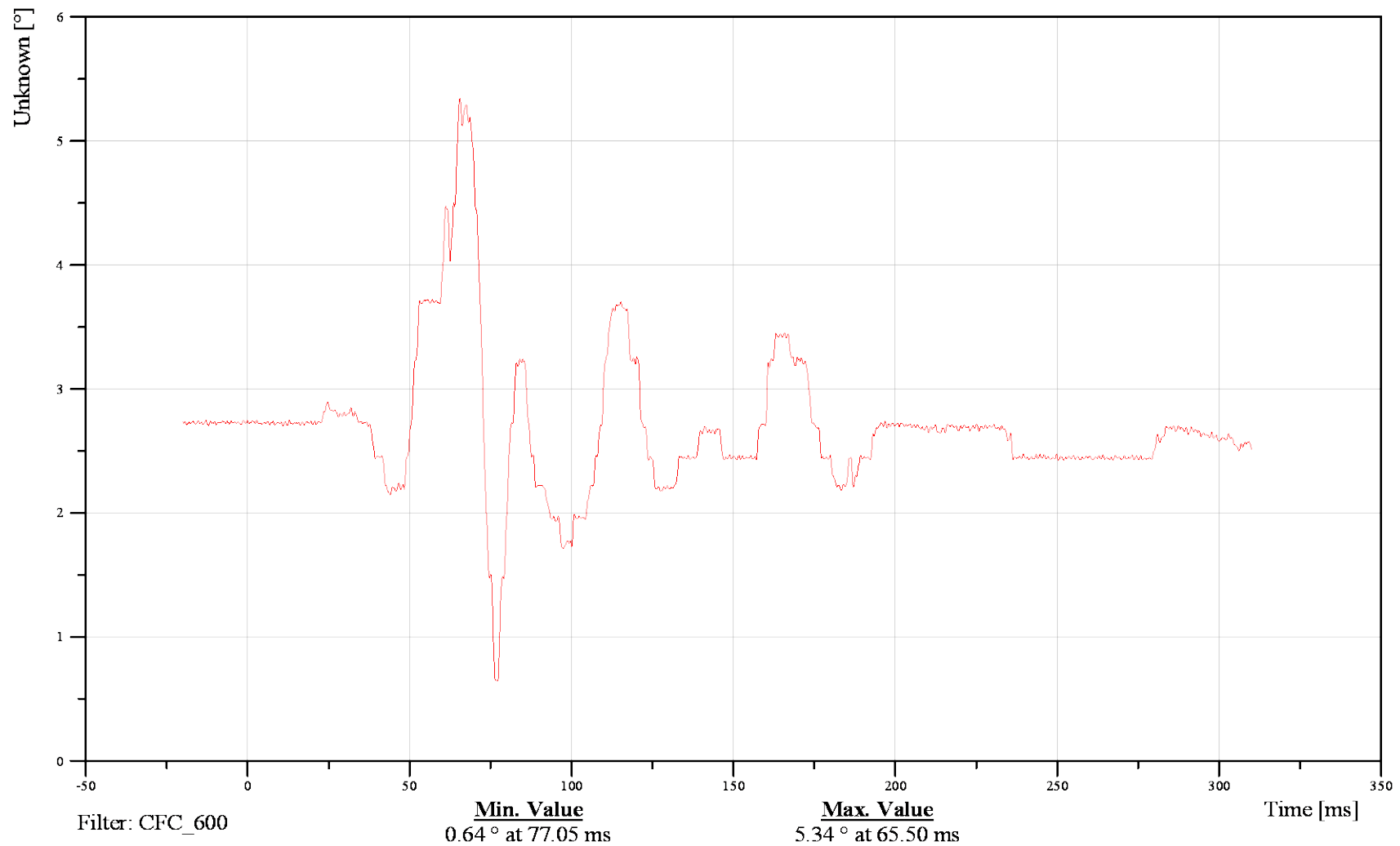
Time: 14:31

Customer: VRTC

14TRRILE01WFANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 IRTRAC X Deflection

Date: 03/27/2013

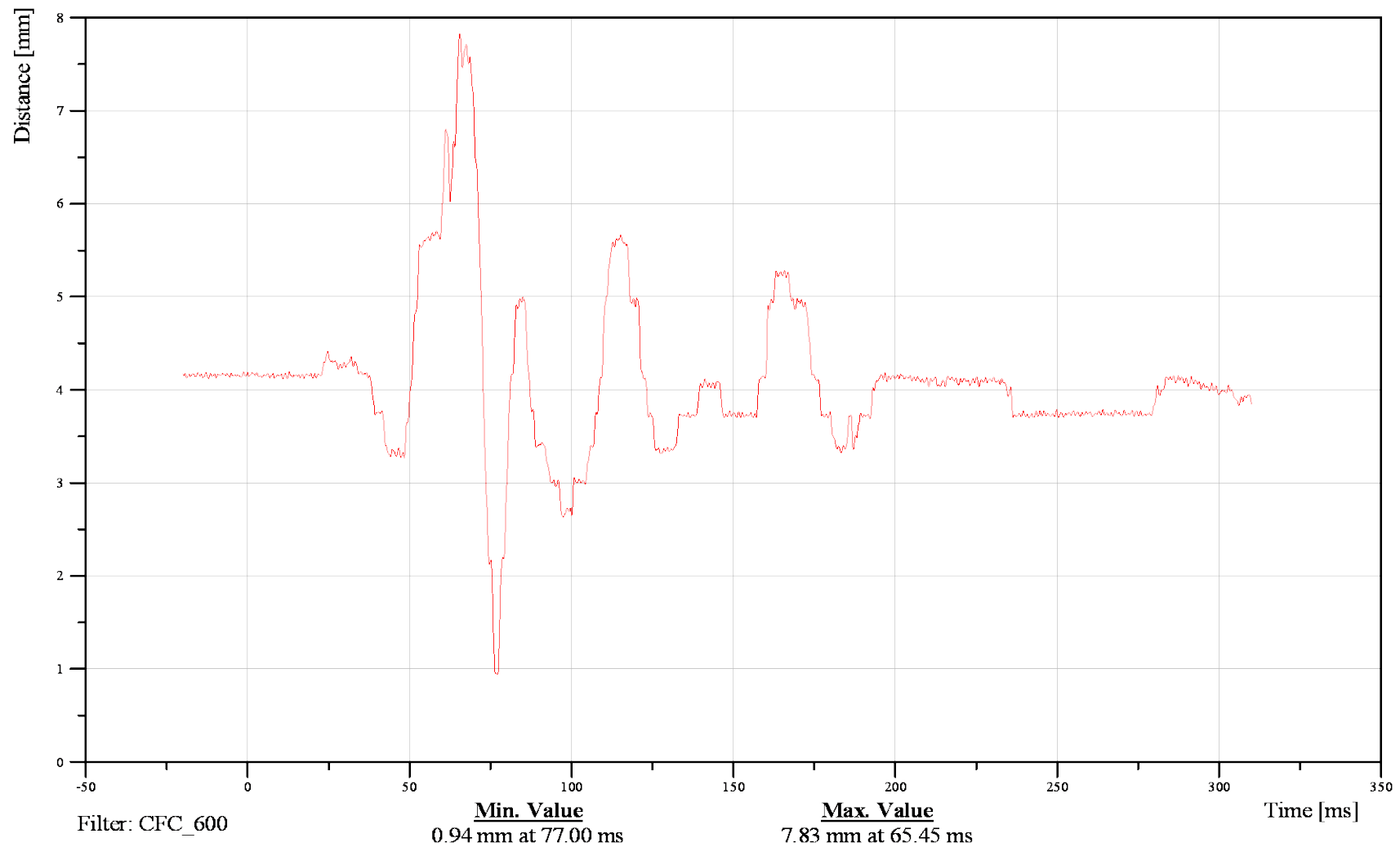
Time: 14:31

Customer: VRTC

14TRRILE01WFDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 1 IRTRAC Y Deflection

Date: 03/27/2013

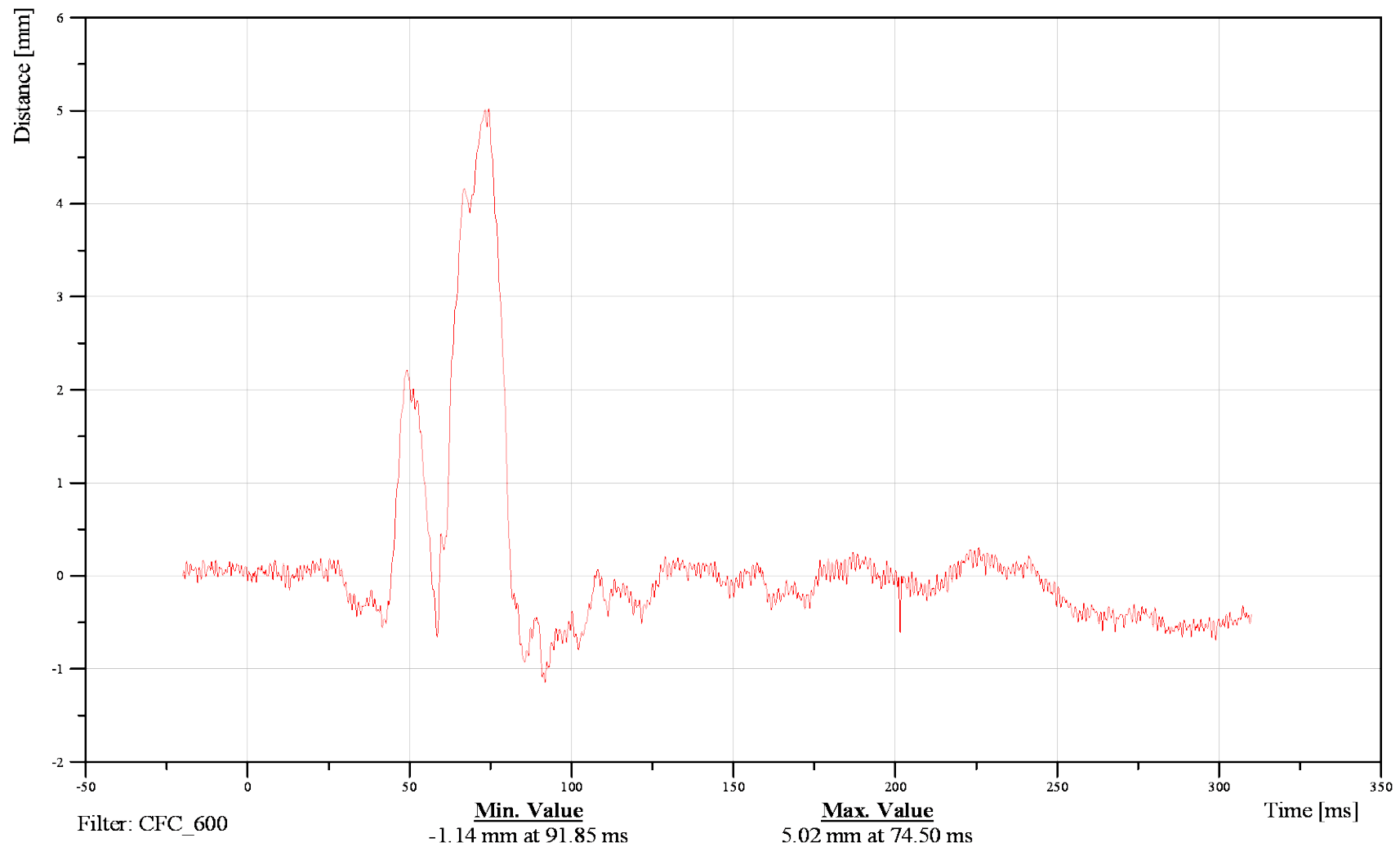
Time: 14:31

Customer: VRTC

14TRRILE01WFDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Longitudinal Ax

Date: 03/27/2013

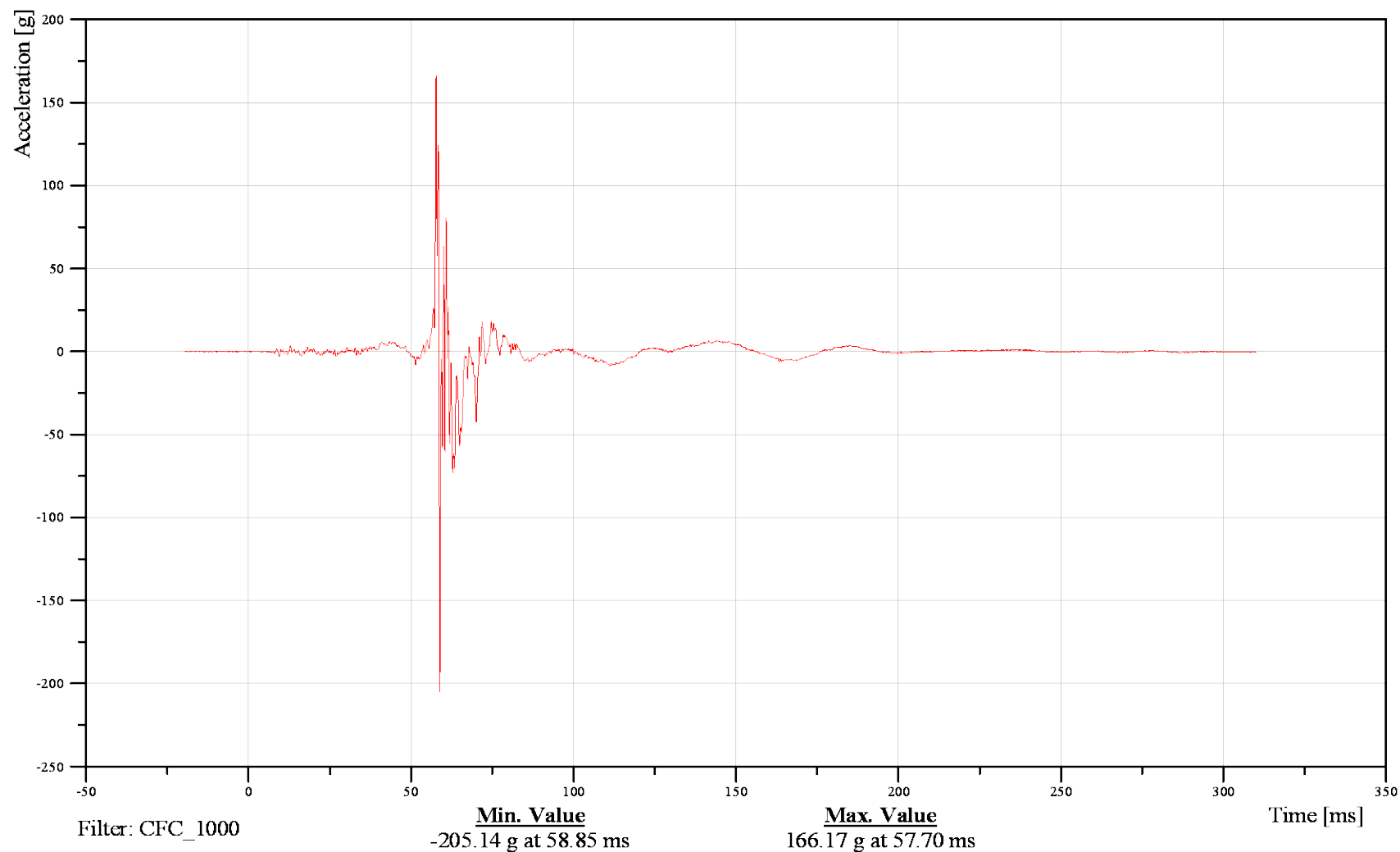
Time: 14:31

Customer: VRTC

14TRRILE02WFACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Lateral Ay

Date: 03/27/2013

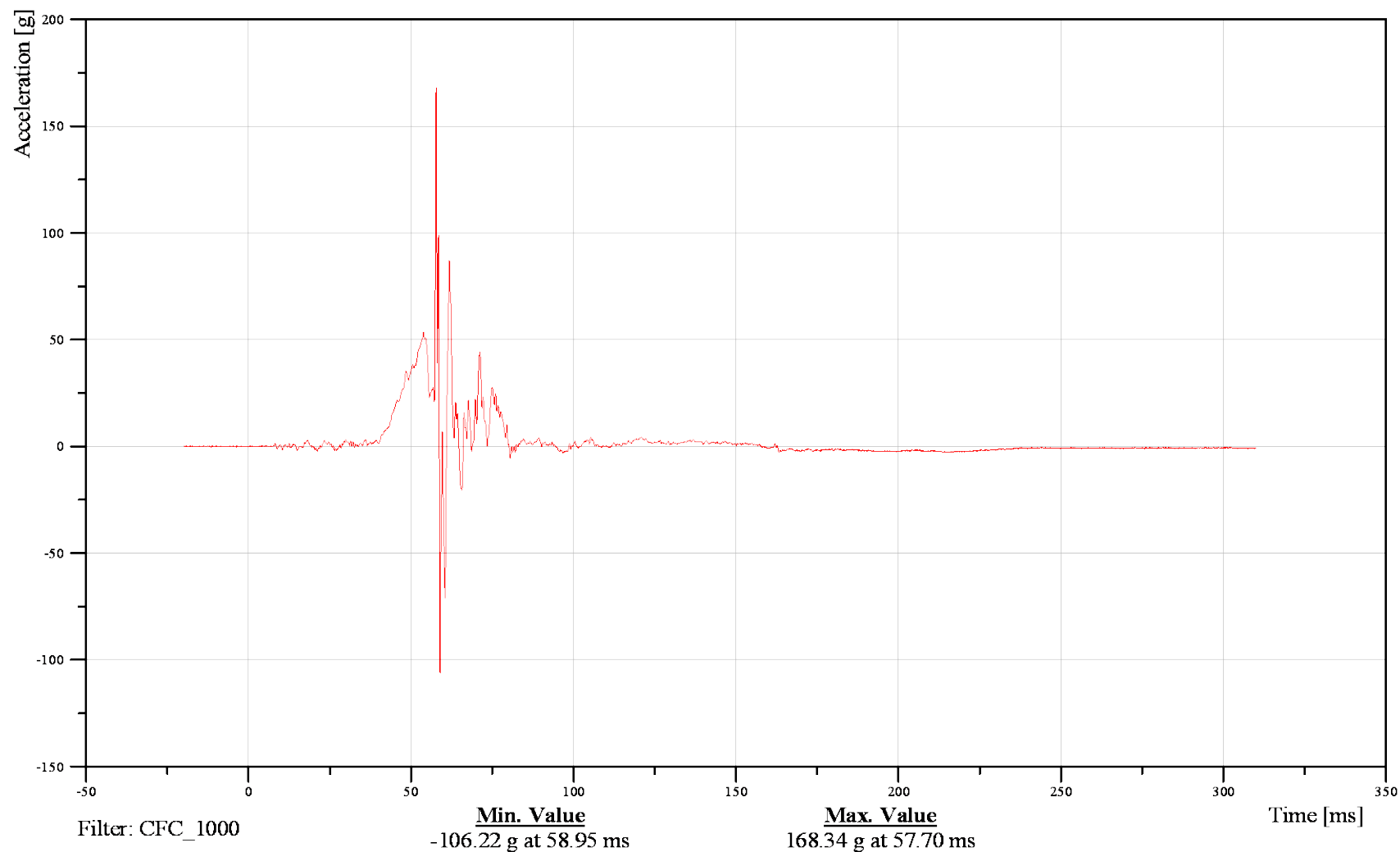
Time: 14:31

Customer: VRTC

14TRRILE02WFACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Vertical Az

Date: 03/27/2013

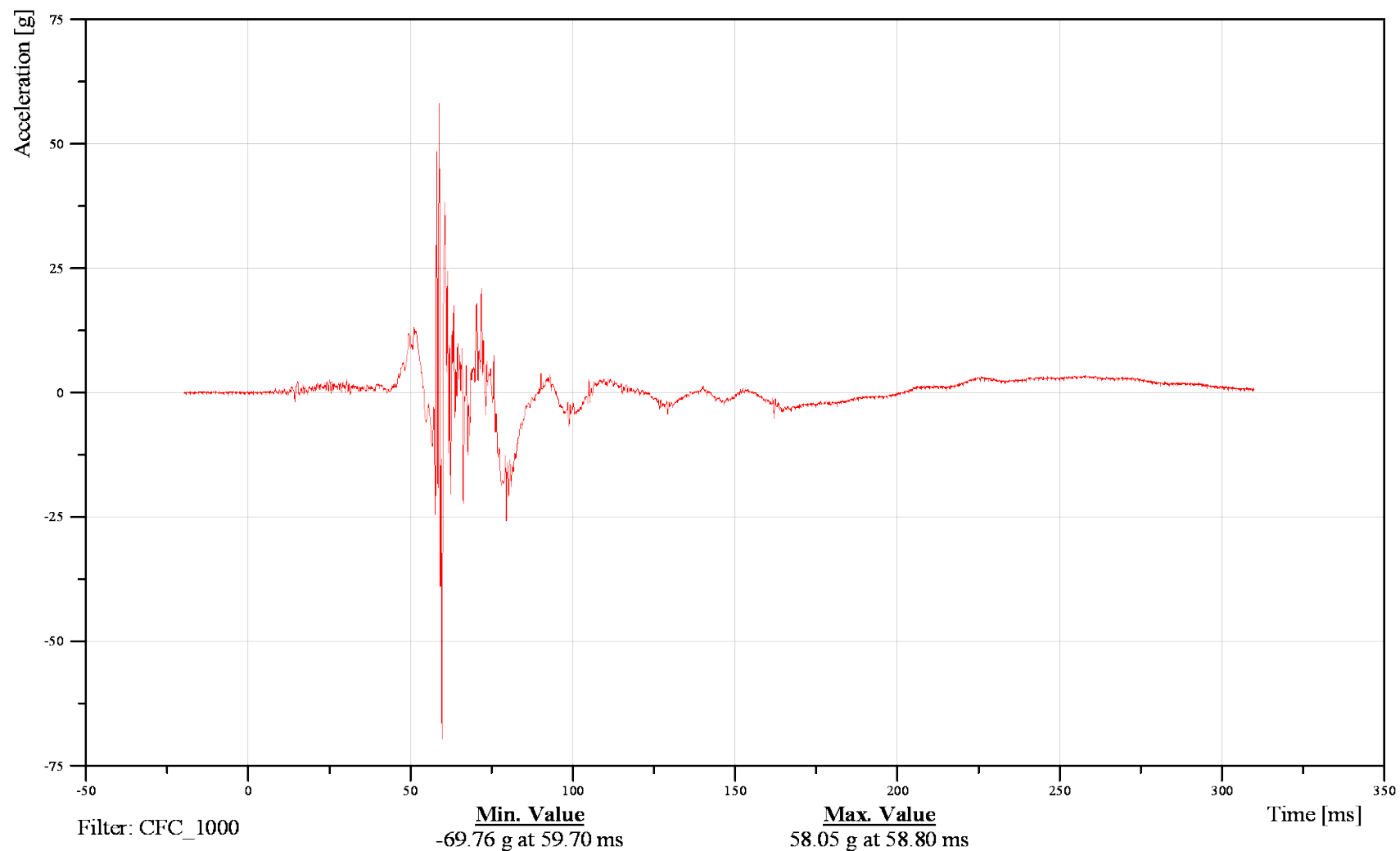
Time: 14:31

Customer: VRTC

14TRRILE02WFACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 A Resultant

Date: 03/27/2013

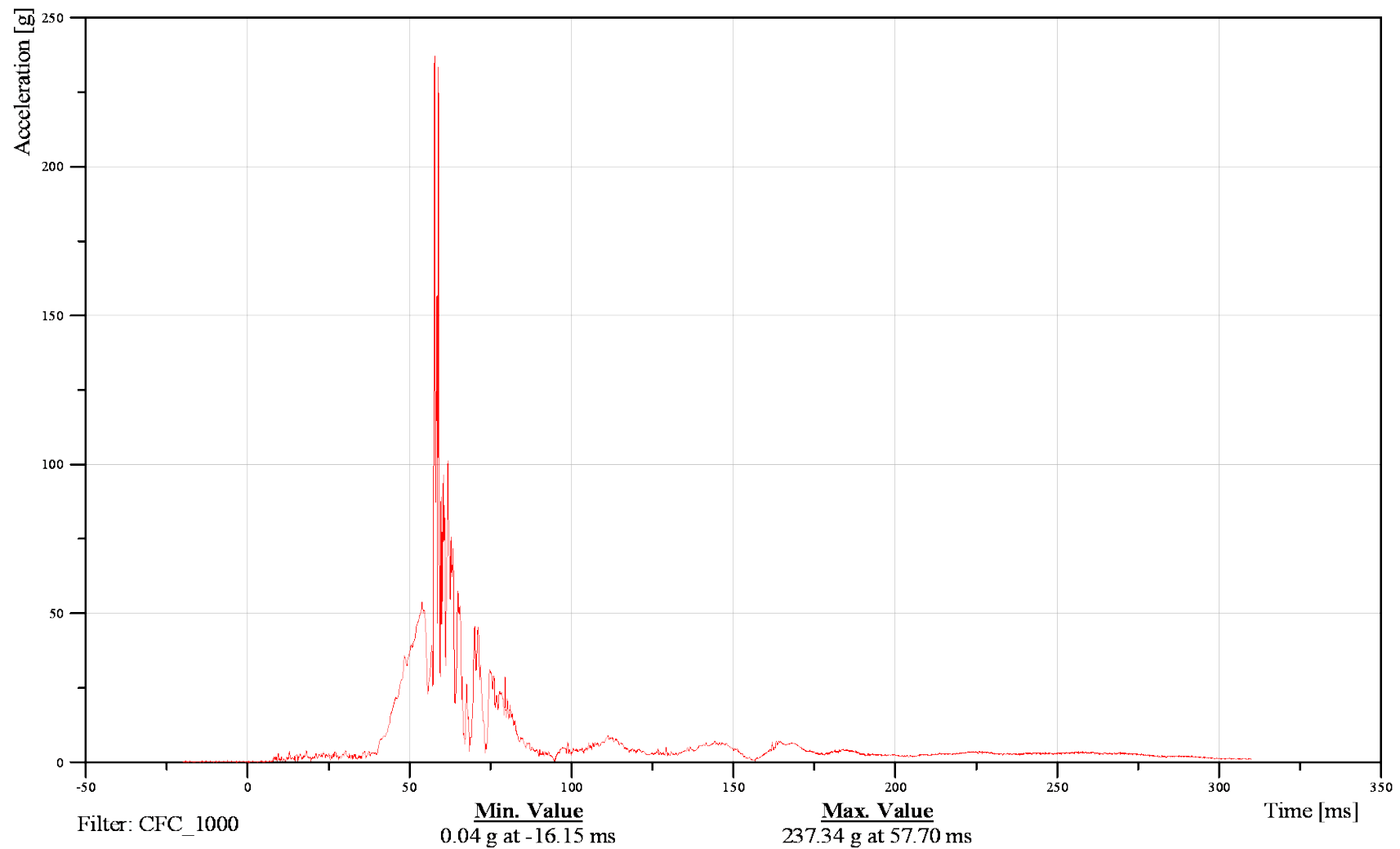
Time: 14:31

Customer: VRTC

14TRRILE02WFACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 IRTRAC compression

Date: 03/27/2013

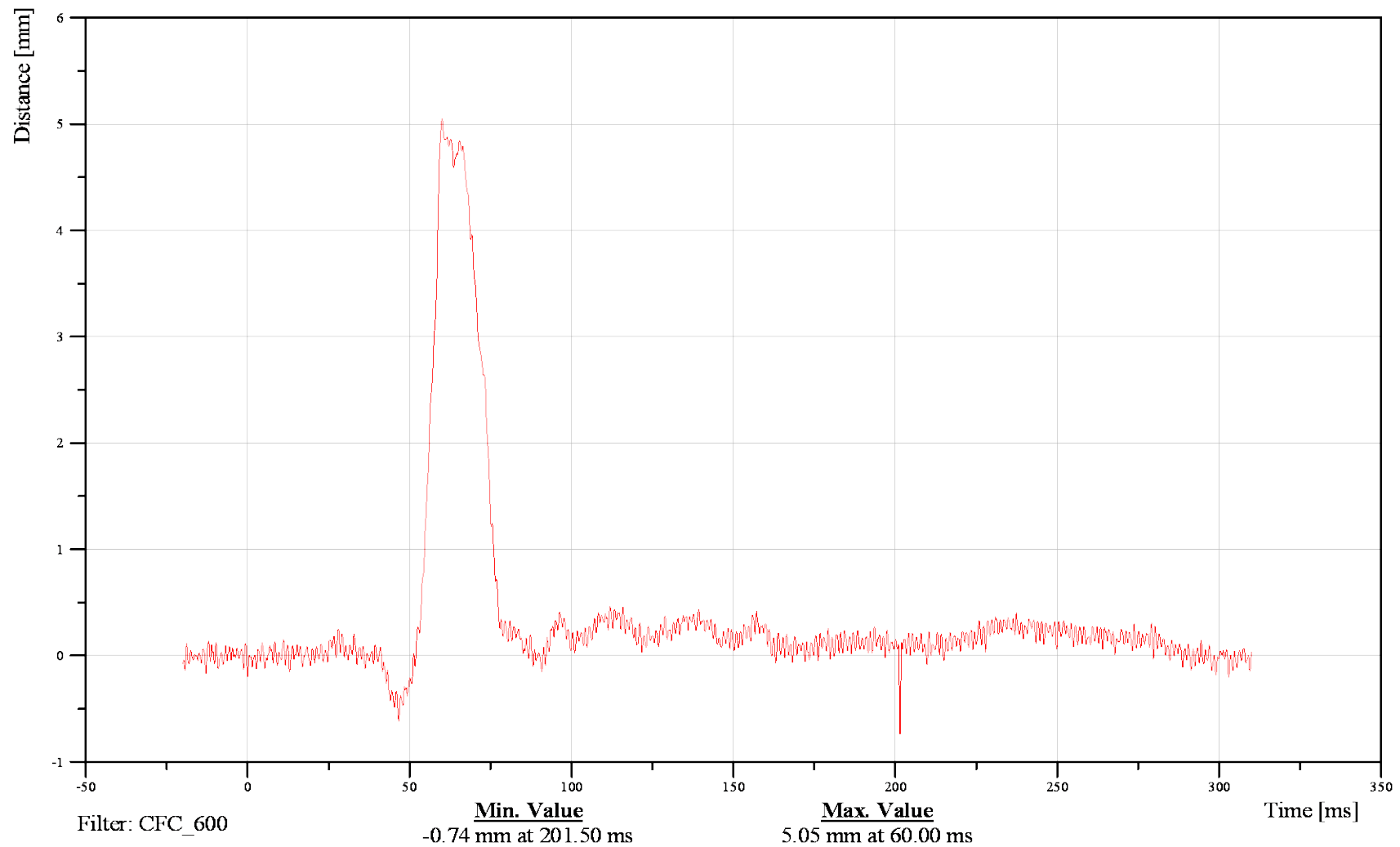
Time: 14:31

Customer: VRTC

14TRRILE02WFDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 Rotational angle

Date: 03/27/2013

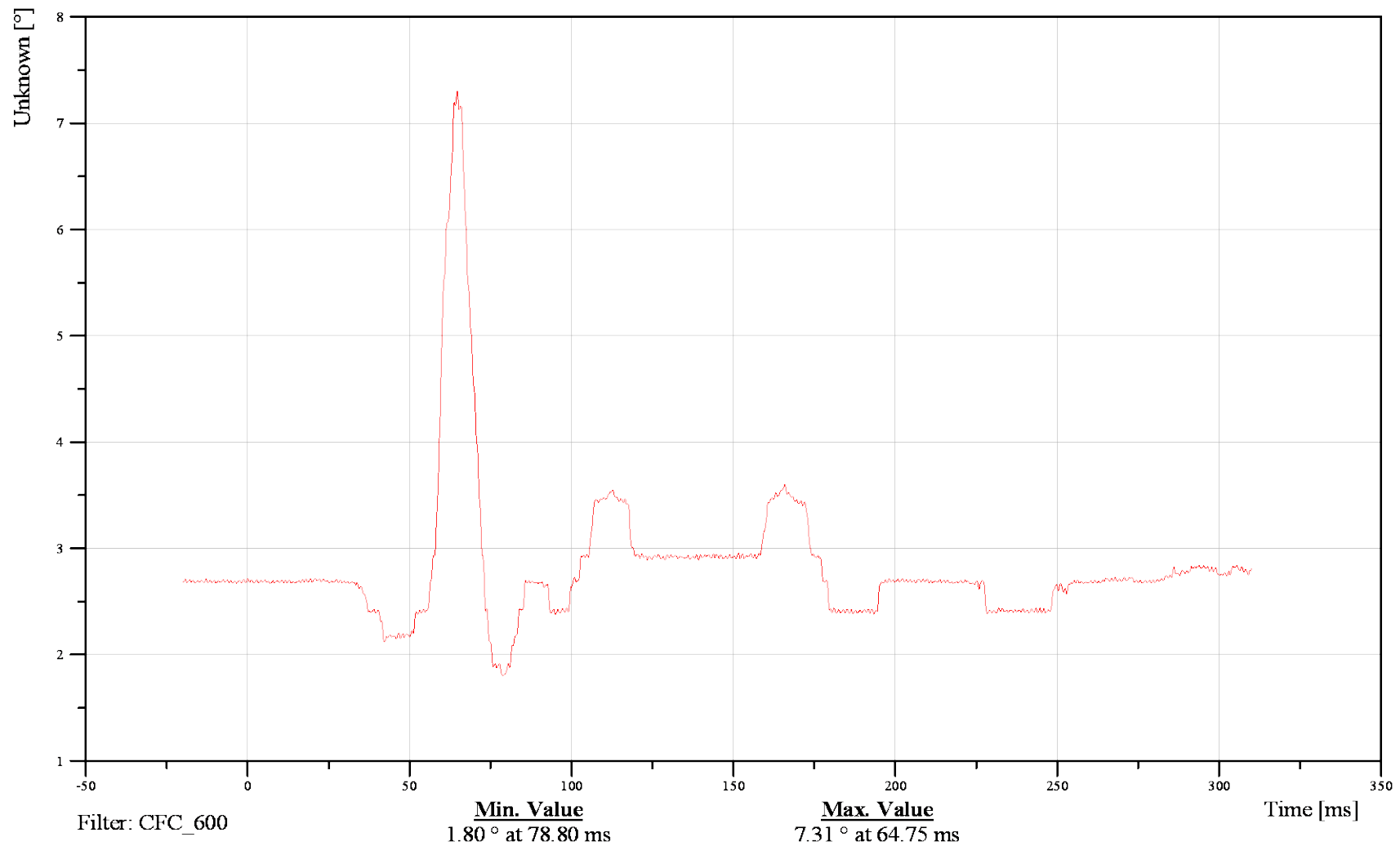
Time: 14:31

Customer: VRTC

14TRRILE02WFANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 IRTRAC X Deflection

Date: 03/27/2013

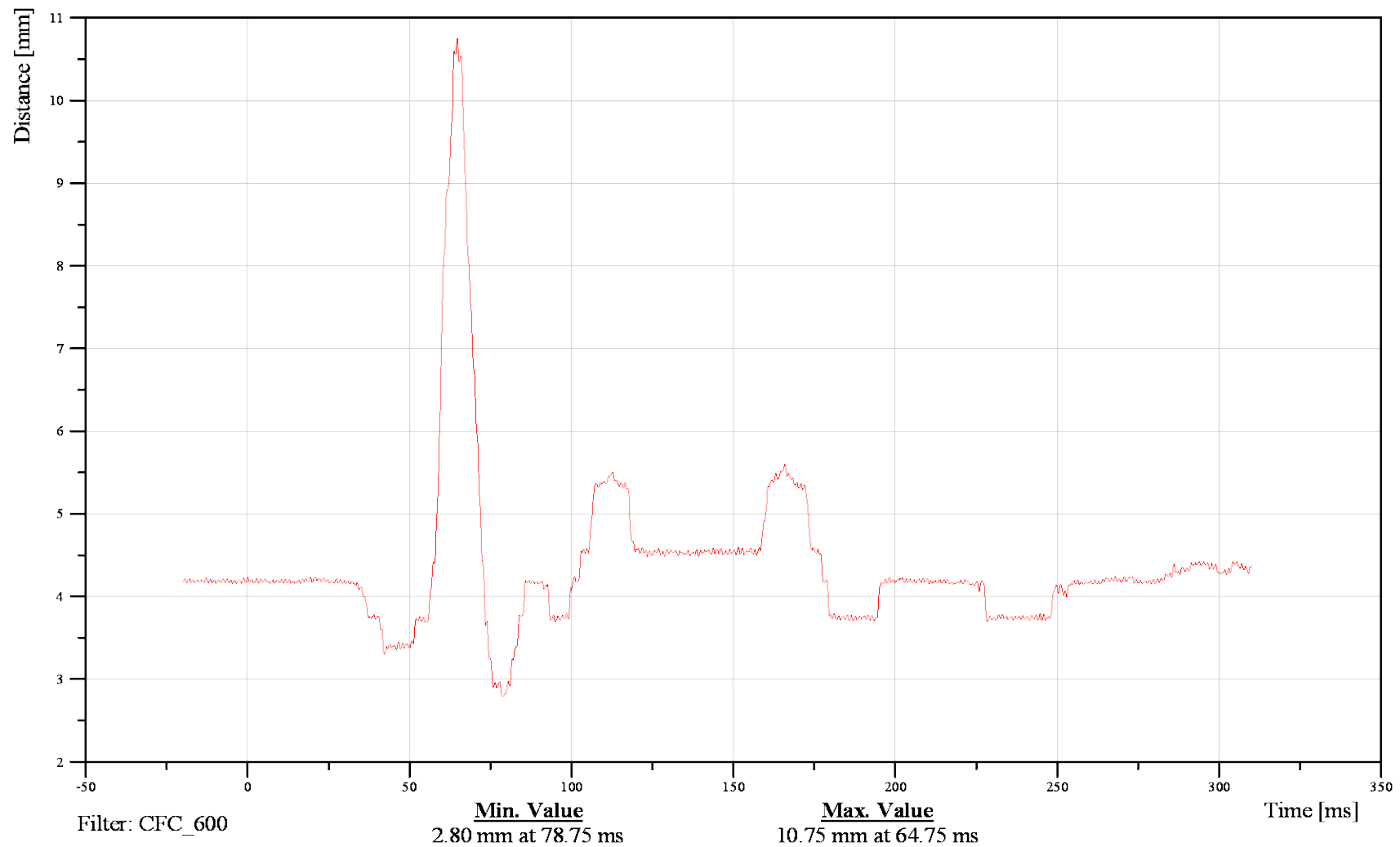
Time: 14:31

Customer: VRTC

14TRRILE02WFDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 2 IRTRAC Y Deflection

Date: 03/27/2013

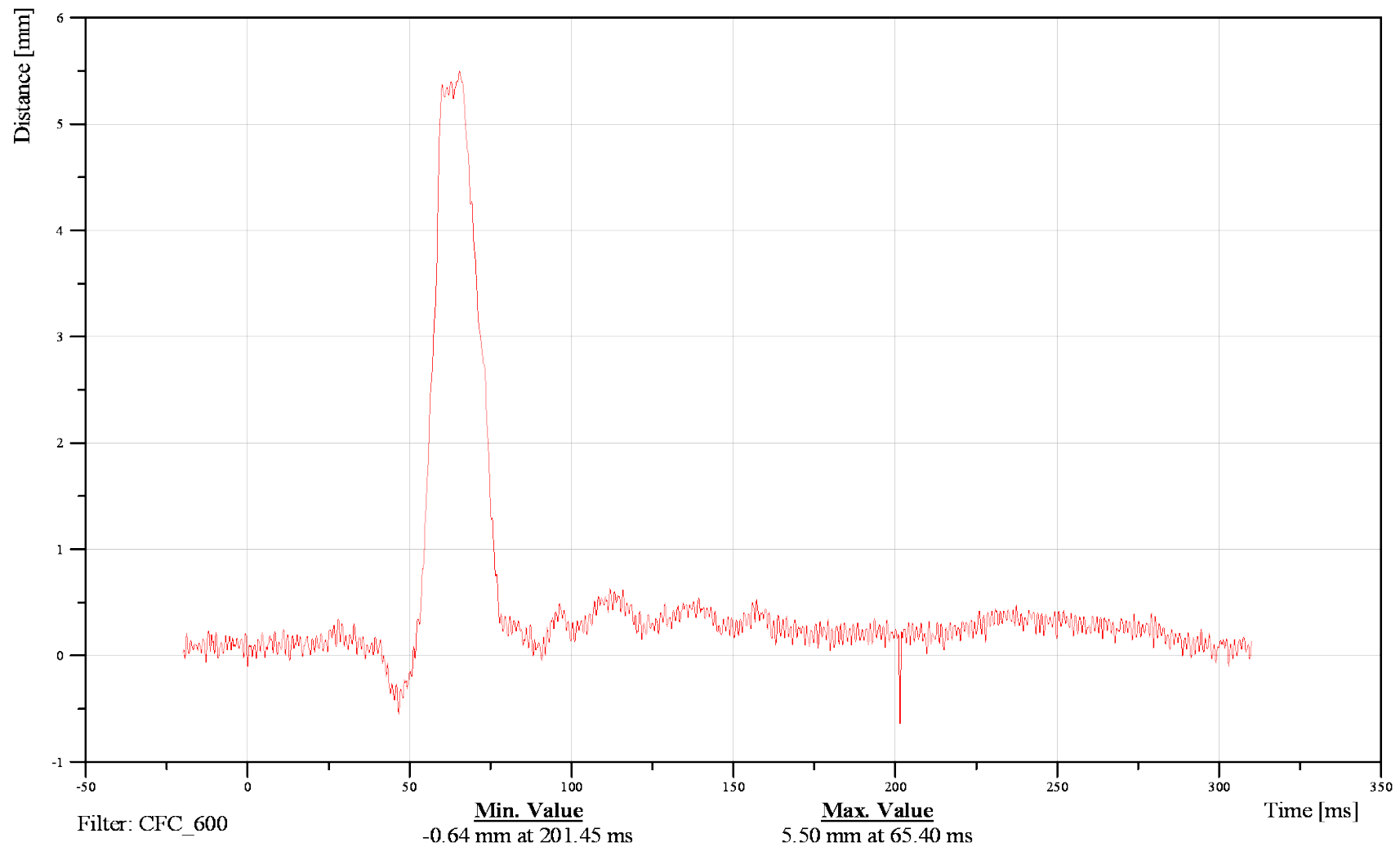
Time: 14:31

Customer: VRTC

14TRRILE02WFDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Longitudinal Ax

Date: 03/27/2013

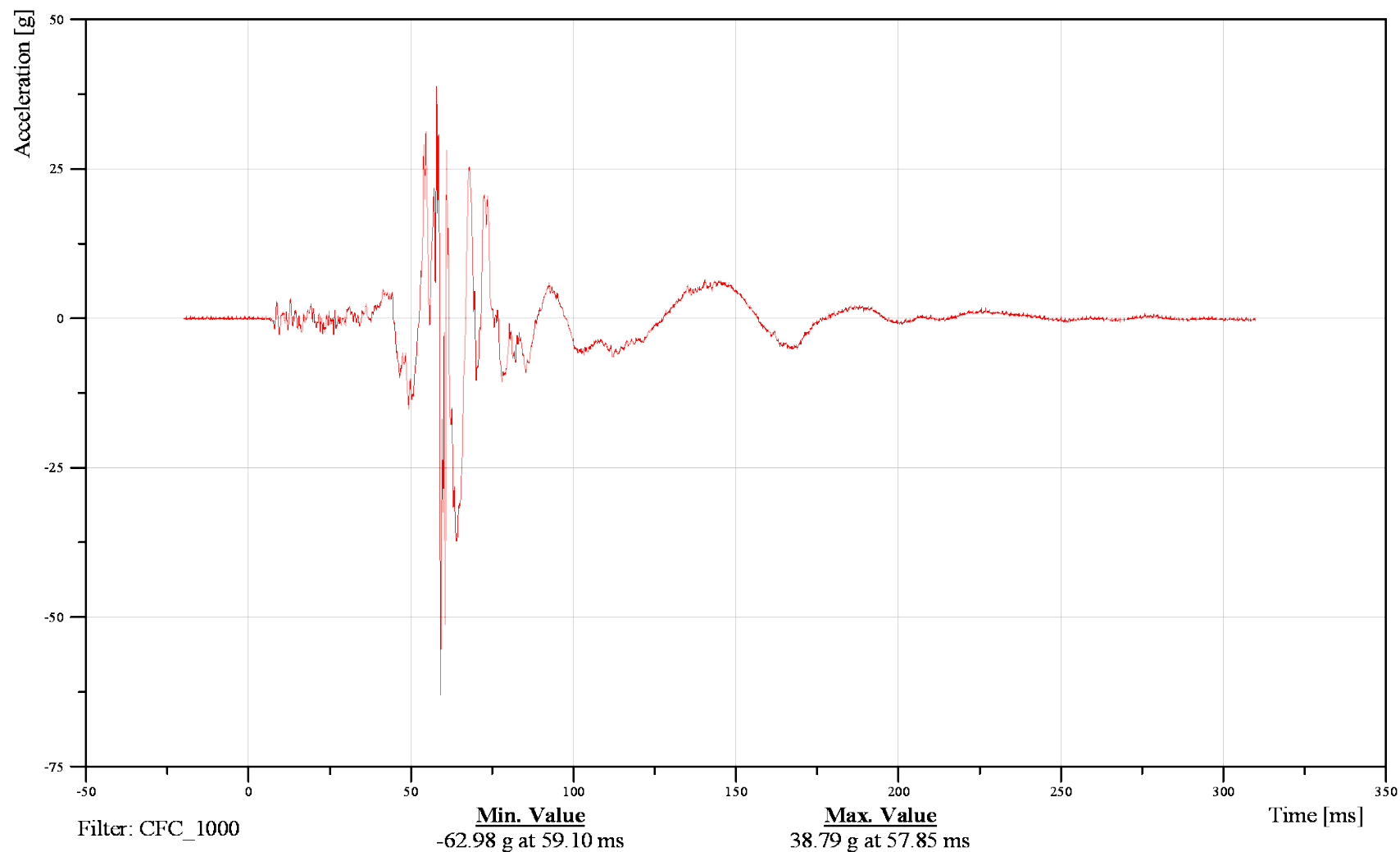
Time: 14:31

Customer: VRTC

14TRRILE03WFACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Lateral Ay

Date: 03/27/2013

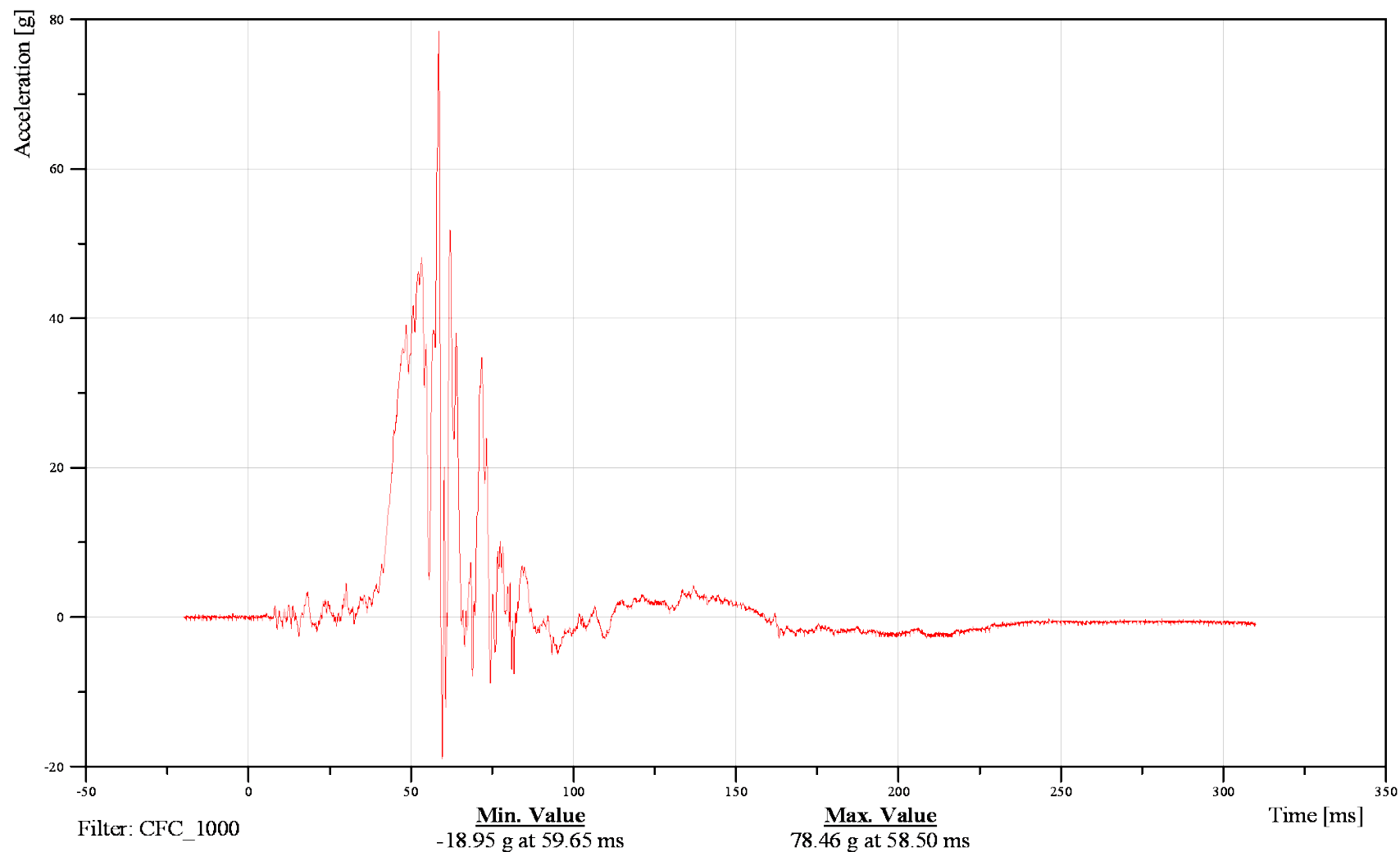
Time: 14:31

Customer: VRTC

14TRRILE03WFACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Vertical Az

Date: 03/27/2013

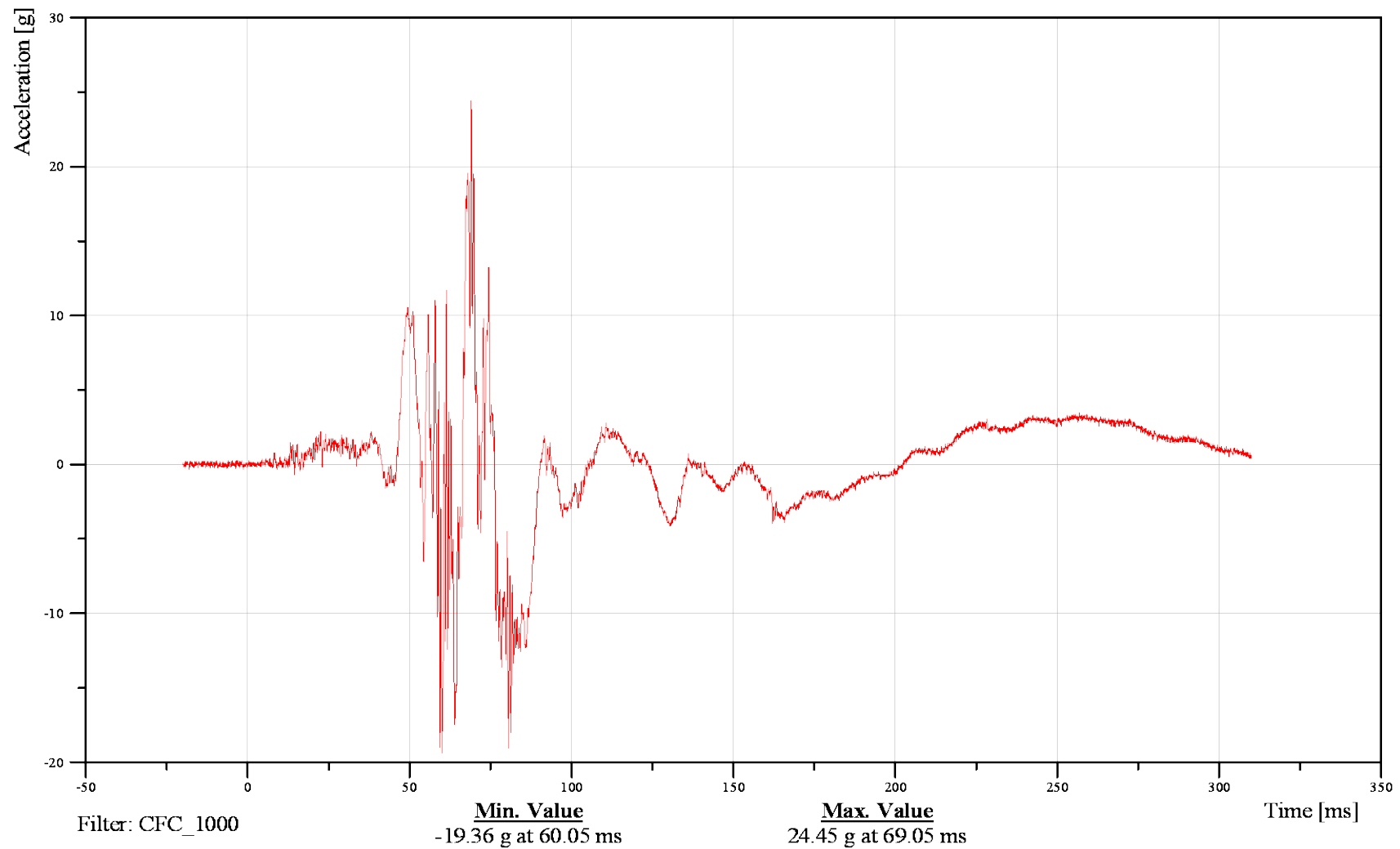
Time: 14:31

Customer: VRTC

14TRRILE03WFACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 A Resultant

Date: 03/27/2013

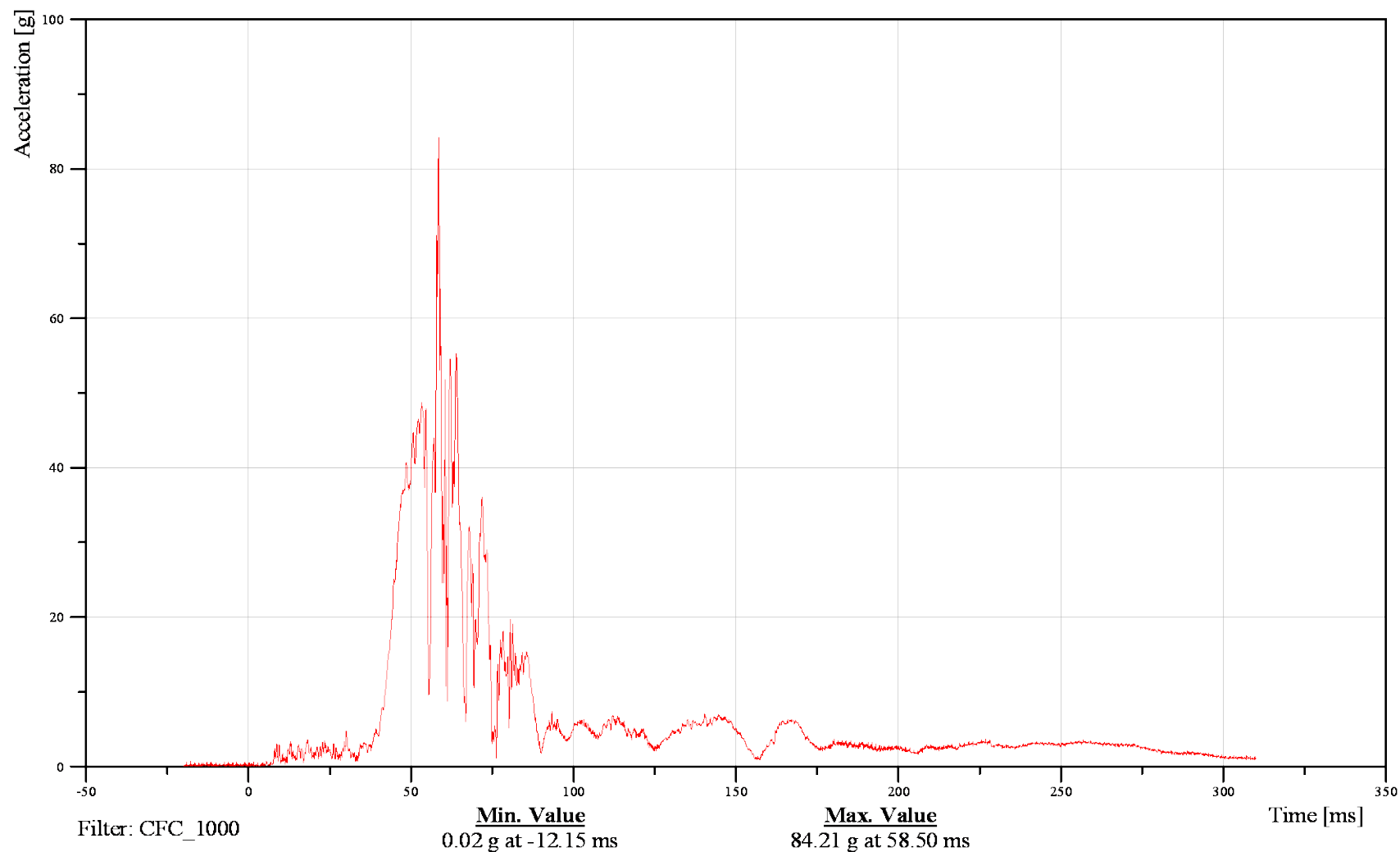
Time: 14:31

Customer: VRTC

14TRRILE03WFACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 IRTRAC compression

Date: 03/27/2013

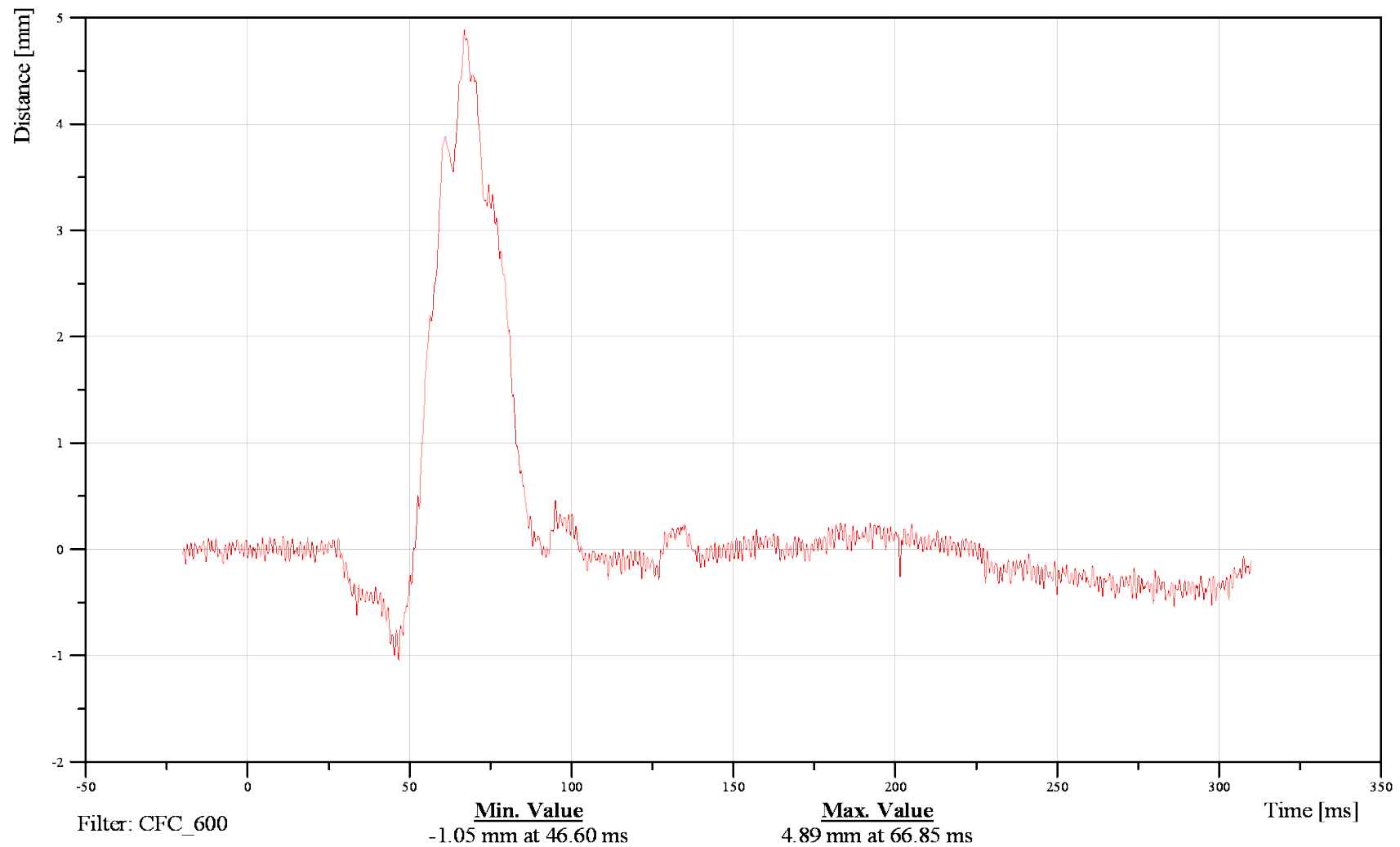
Time: 14:31

Customer: VRTC

14TRRILE03WFDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 Rotational angle

Date: 03/27/2013

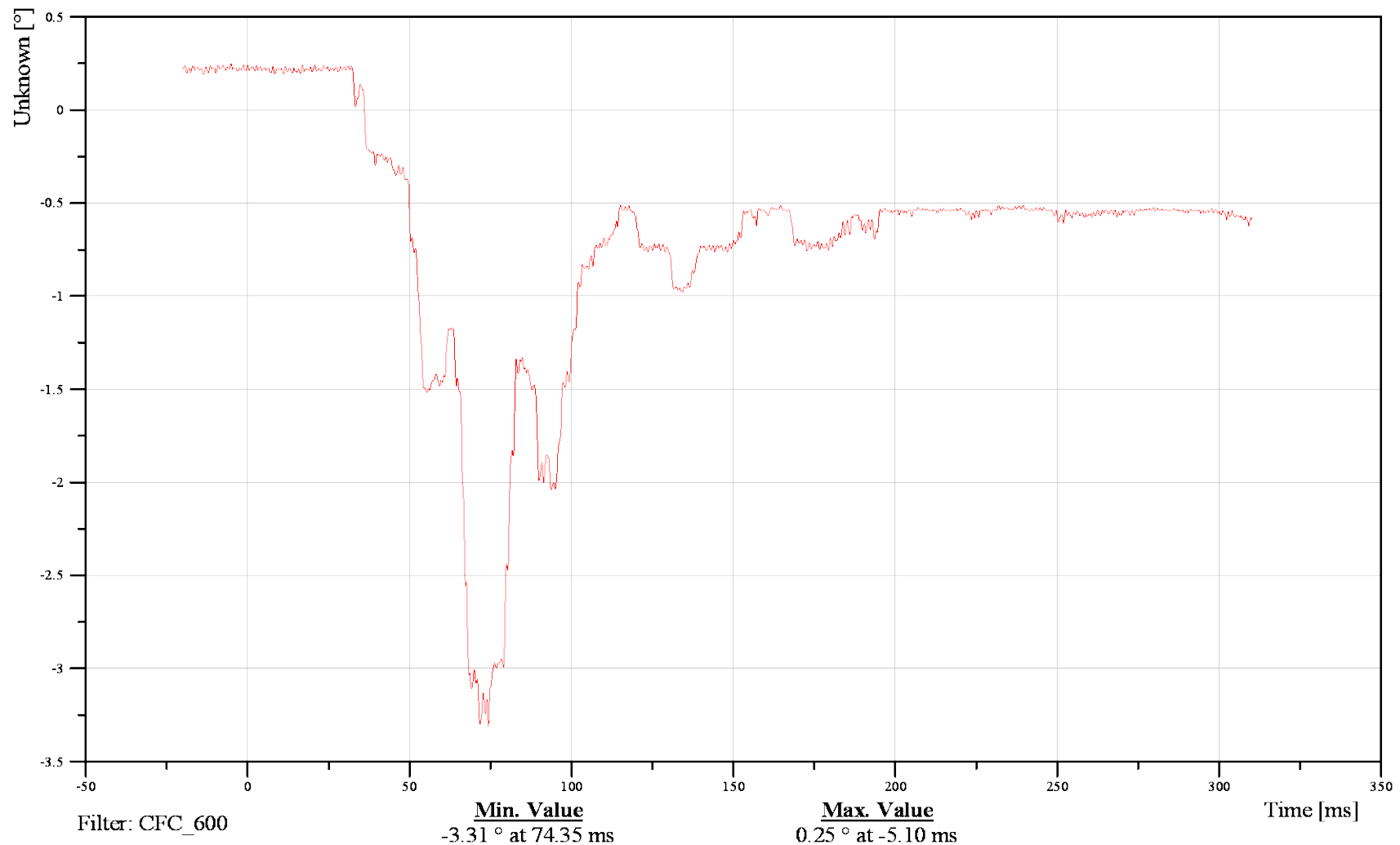
Time: 14:31

Customer: VRTC

14TRRILE03WFANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 IRTRAC X Deflection

Date: 03/27/2013

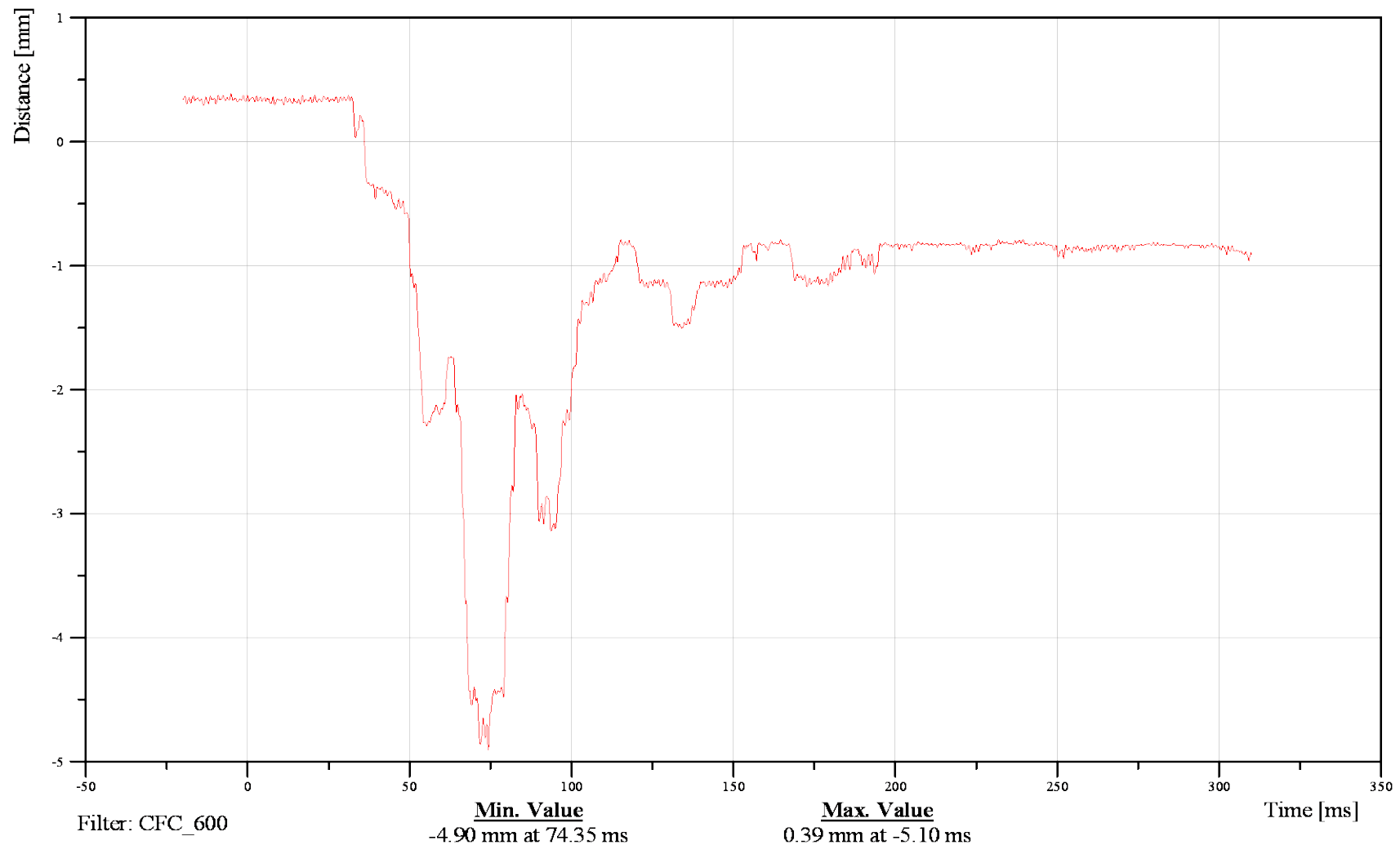
Time: 14:31

Customer: VRTC

14TRRILE03WFDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Rib 3 IRTRAC Y Deflection

Date: 03/27/2013

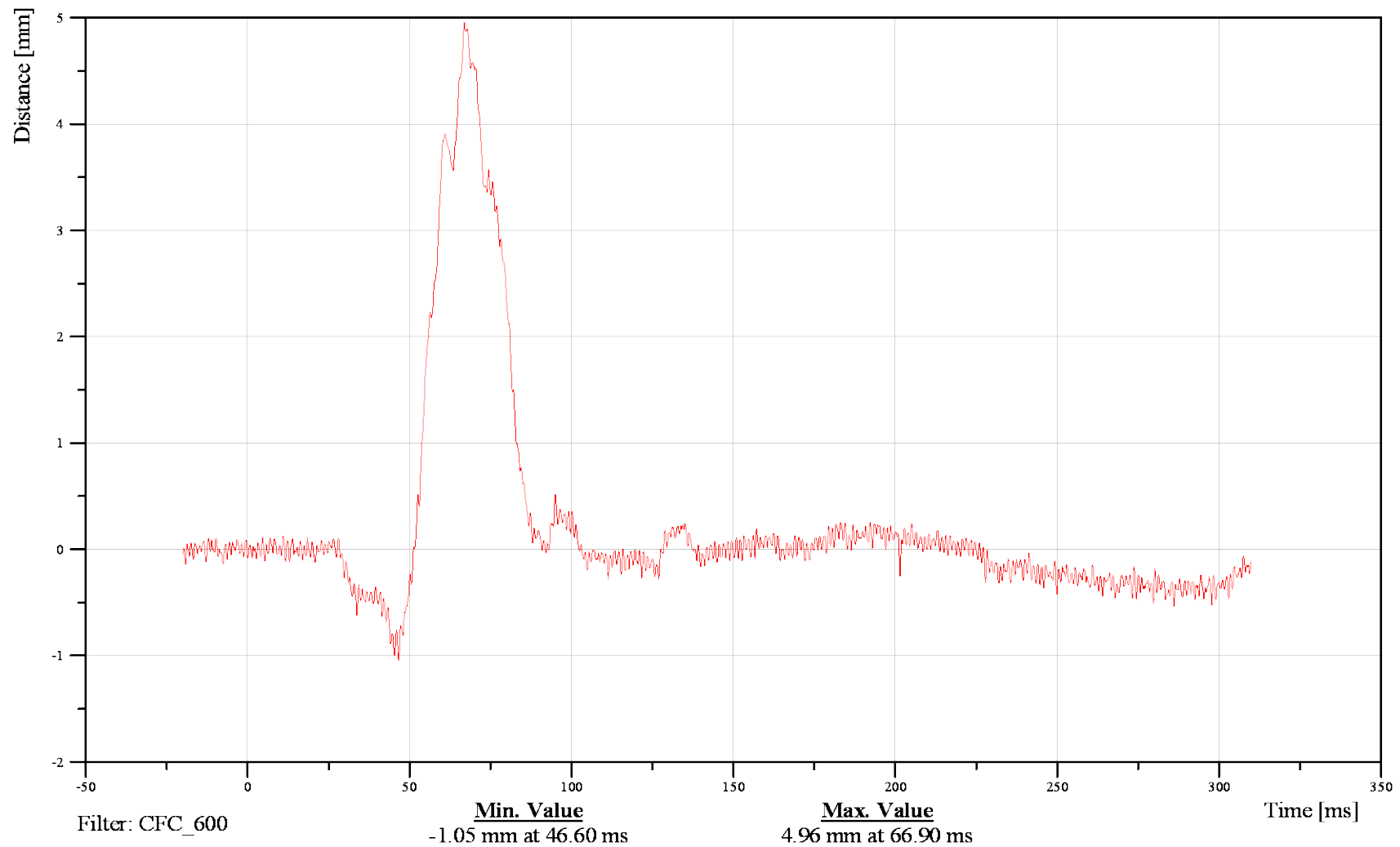
Time: 14:31

Customer: VRTC

14TRRILE03WFDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Longitudinal Ax

Date: 03/27/2013

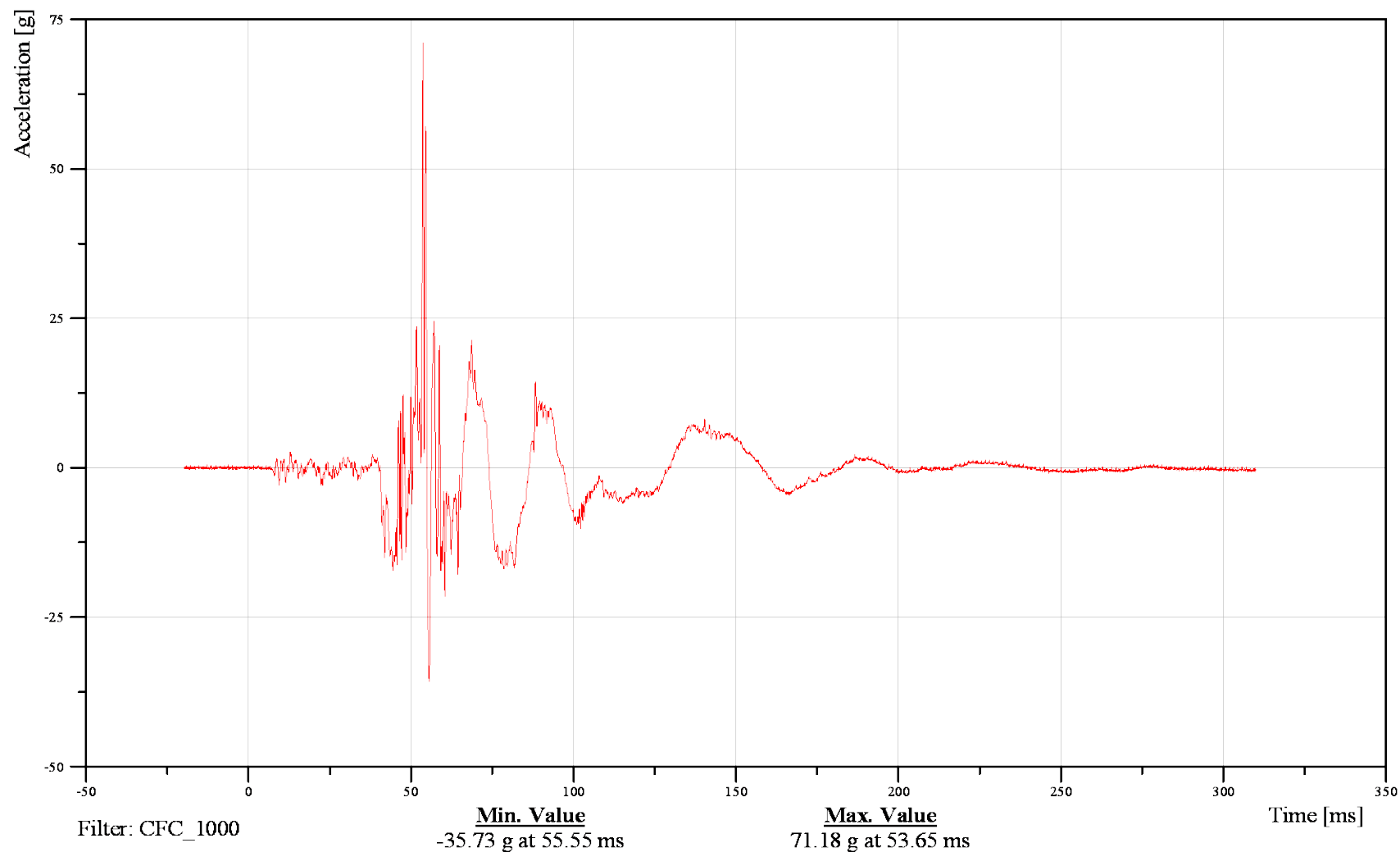
Time: 14:31

Customer: VRTC

14ABRILE01WFACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Lateral Ay

Date: 03/27/2013

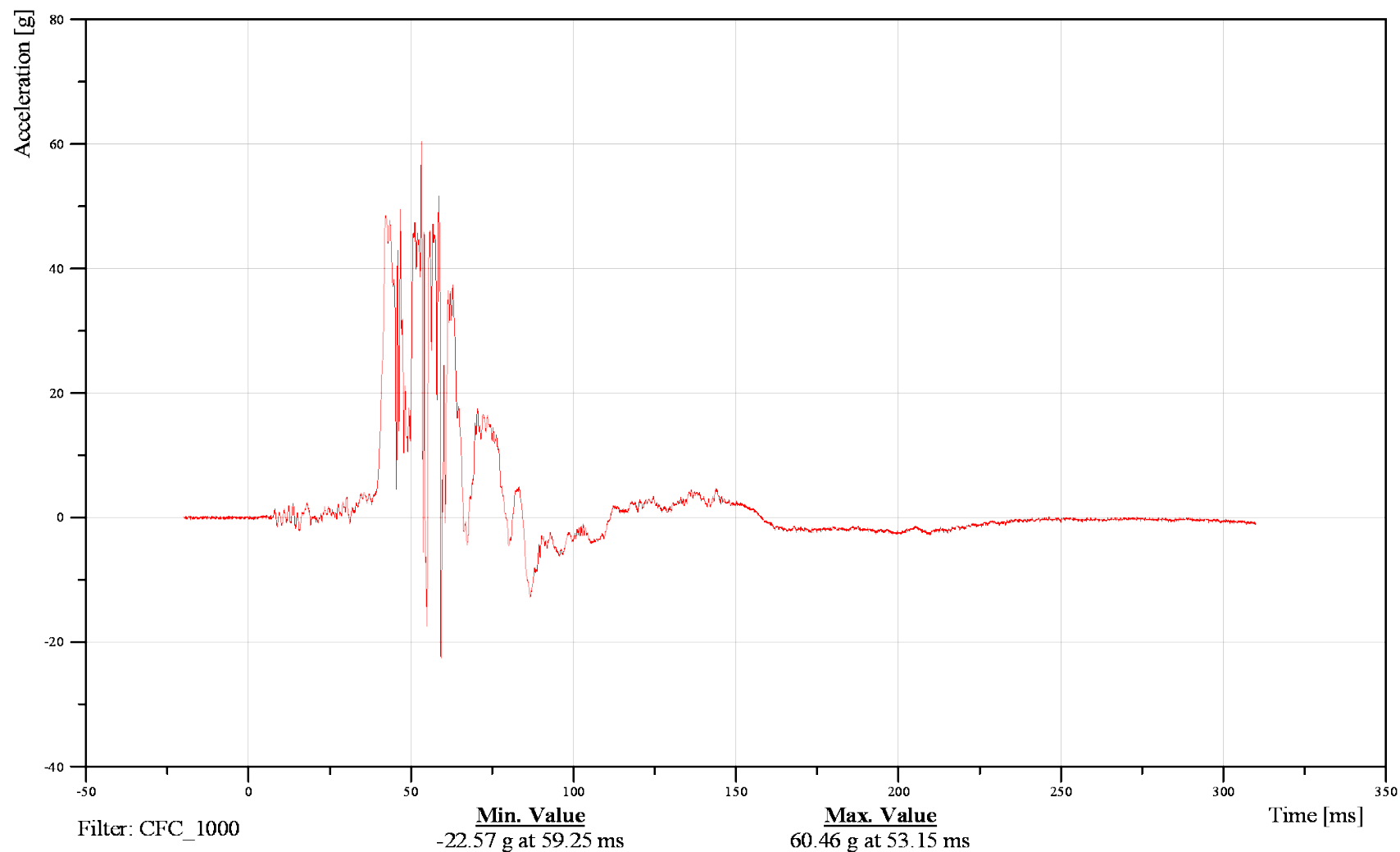
Time: 14:31

Customer: VRTC

14ABRILE01WFACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Vertical Az

Date: 03/27/2013

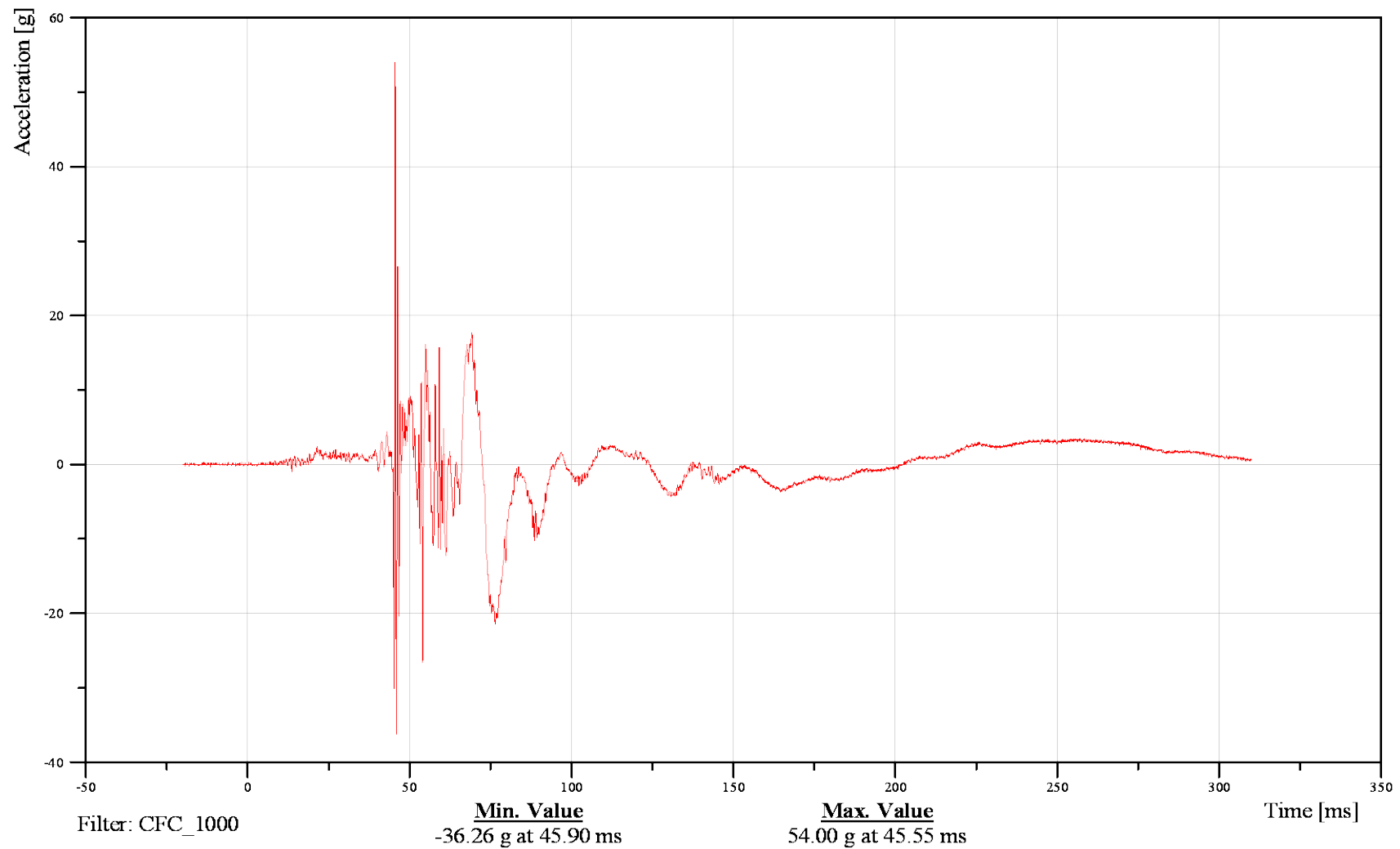
Time: 14:31

Customer: VRTC

14ABRILE01WFACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 A Resultant

Date: 03/27/2013

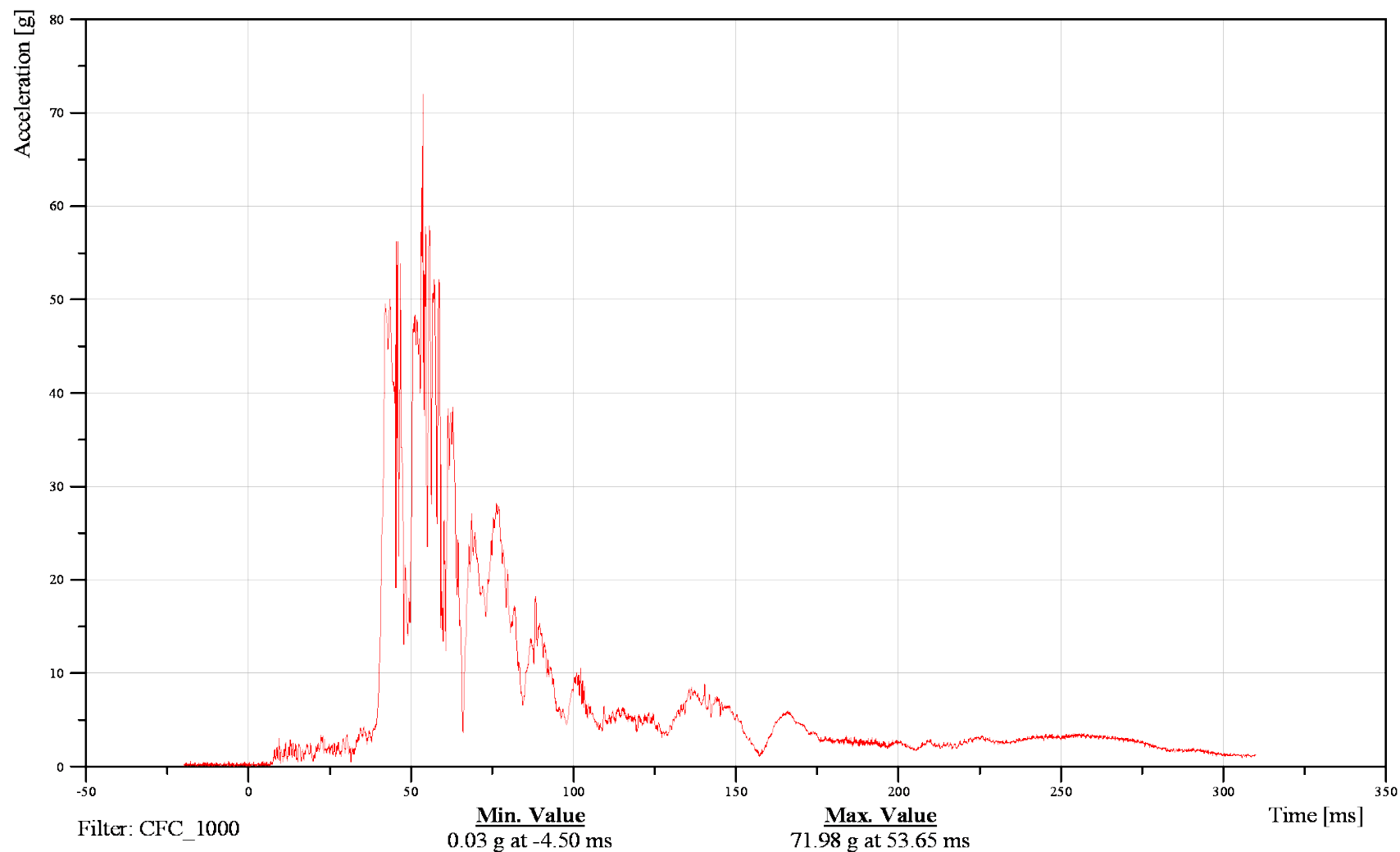
Time: 14:31

Customer: VRTC

14ABRILE01WFACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 IRTRAC compression

Date: 03/27/2013

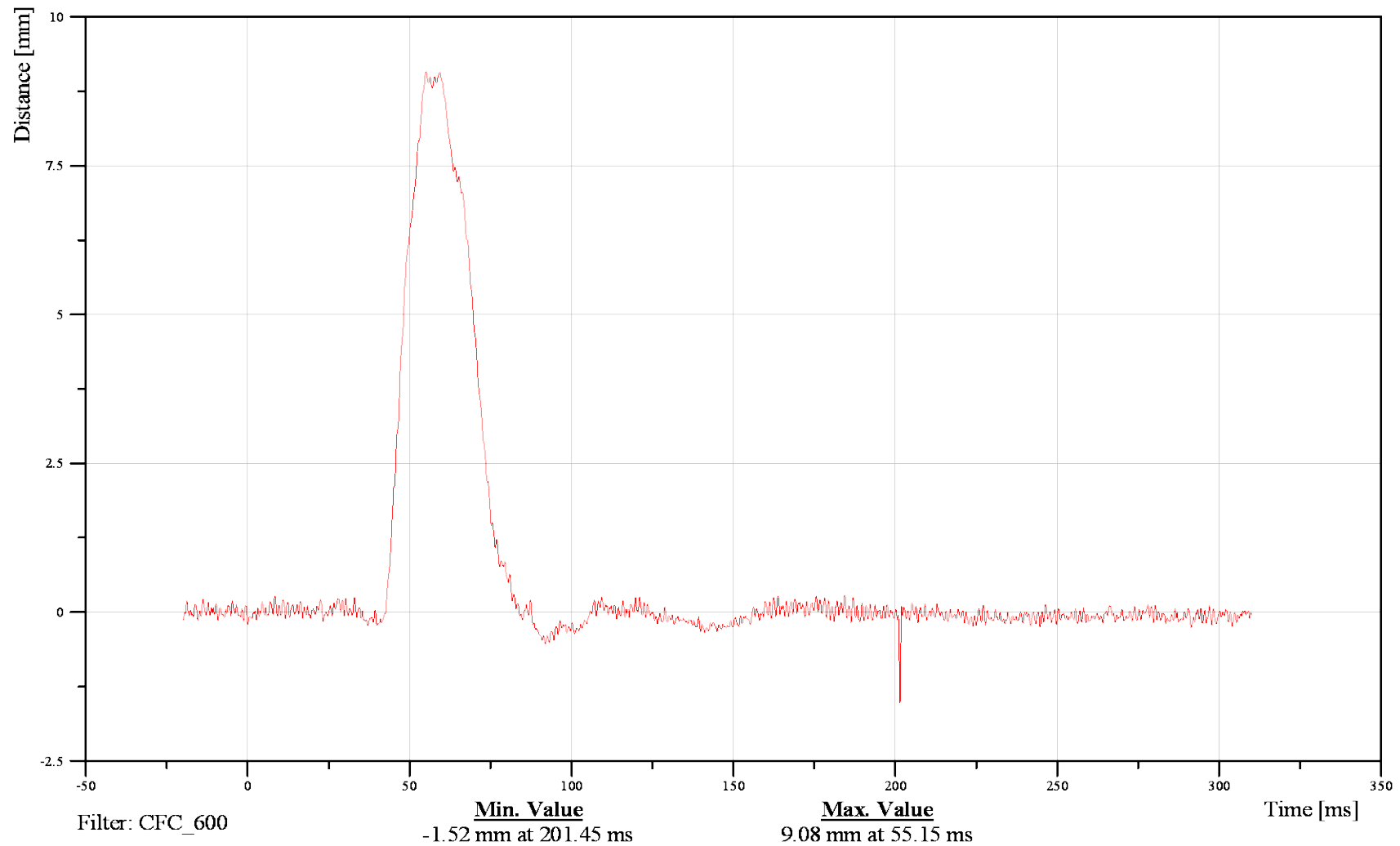
Time: 14:31

Customer: VRTC

14ABRILE01WFDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 Rotational angle

Date: 03/27/2013

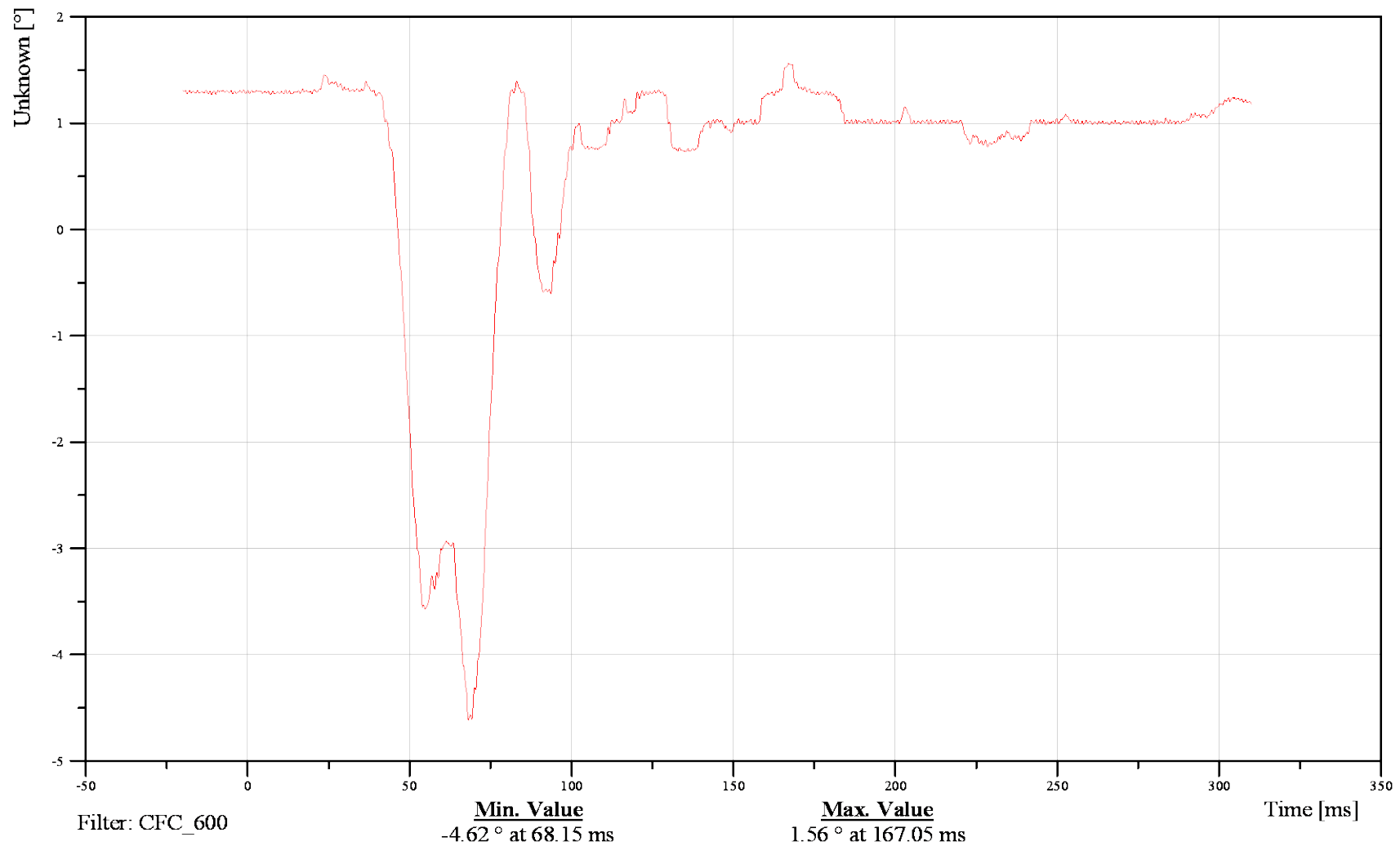
Time: 14:31

Customer: VRTC

14ABRILE01WFANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 IRTRAC X Deflection

Date: 03/27/2013

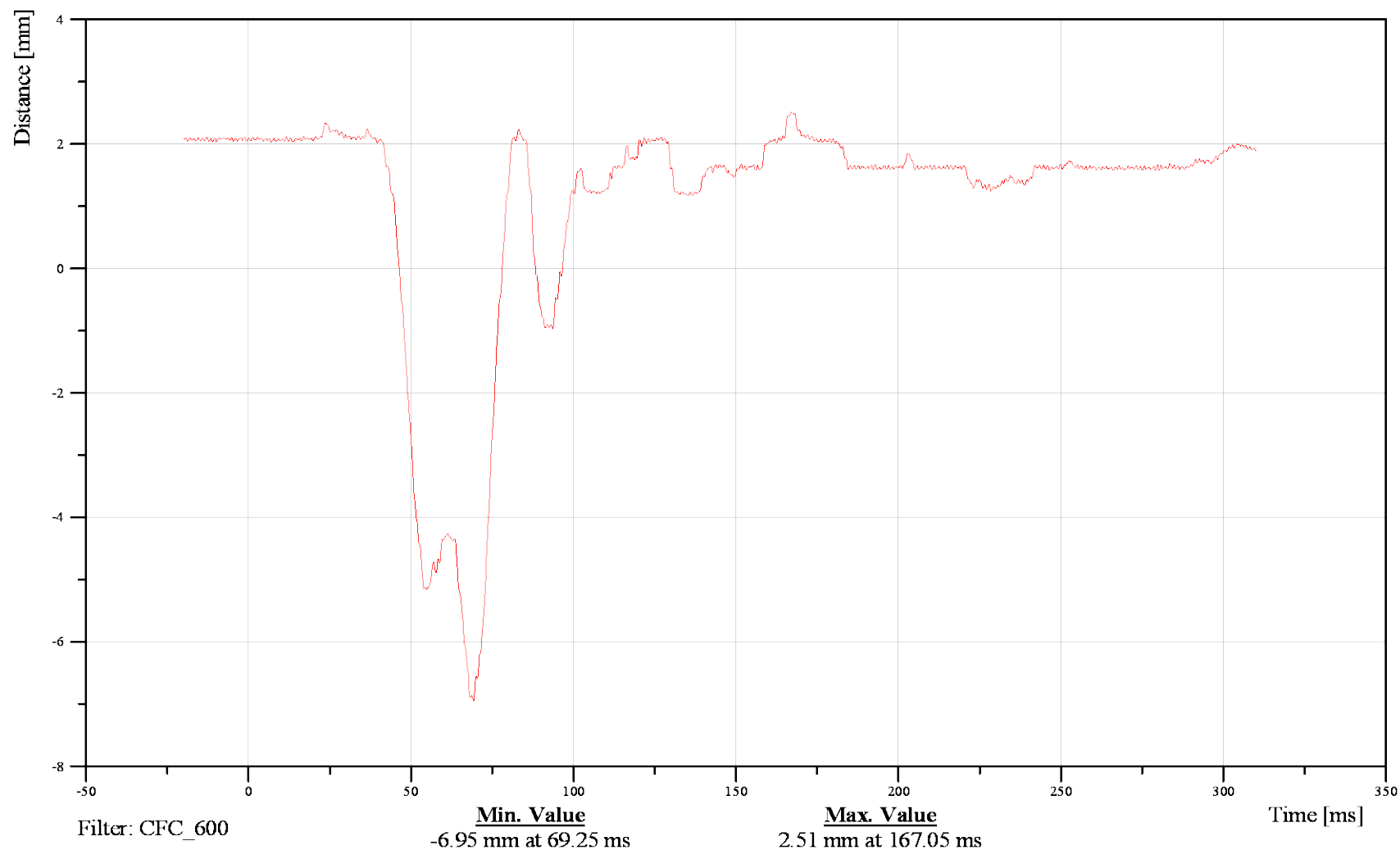
Time: 14:31

Customer: VRTC

14ABRILE01WFDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 1 IRTRAC Y Deflection

Date: 03/27/2013

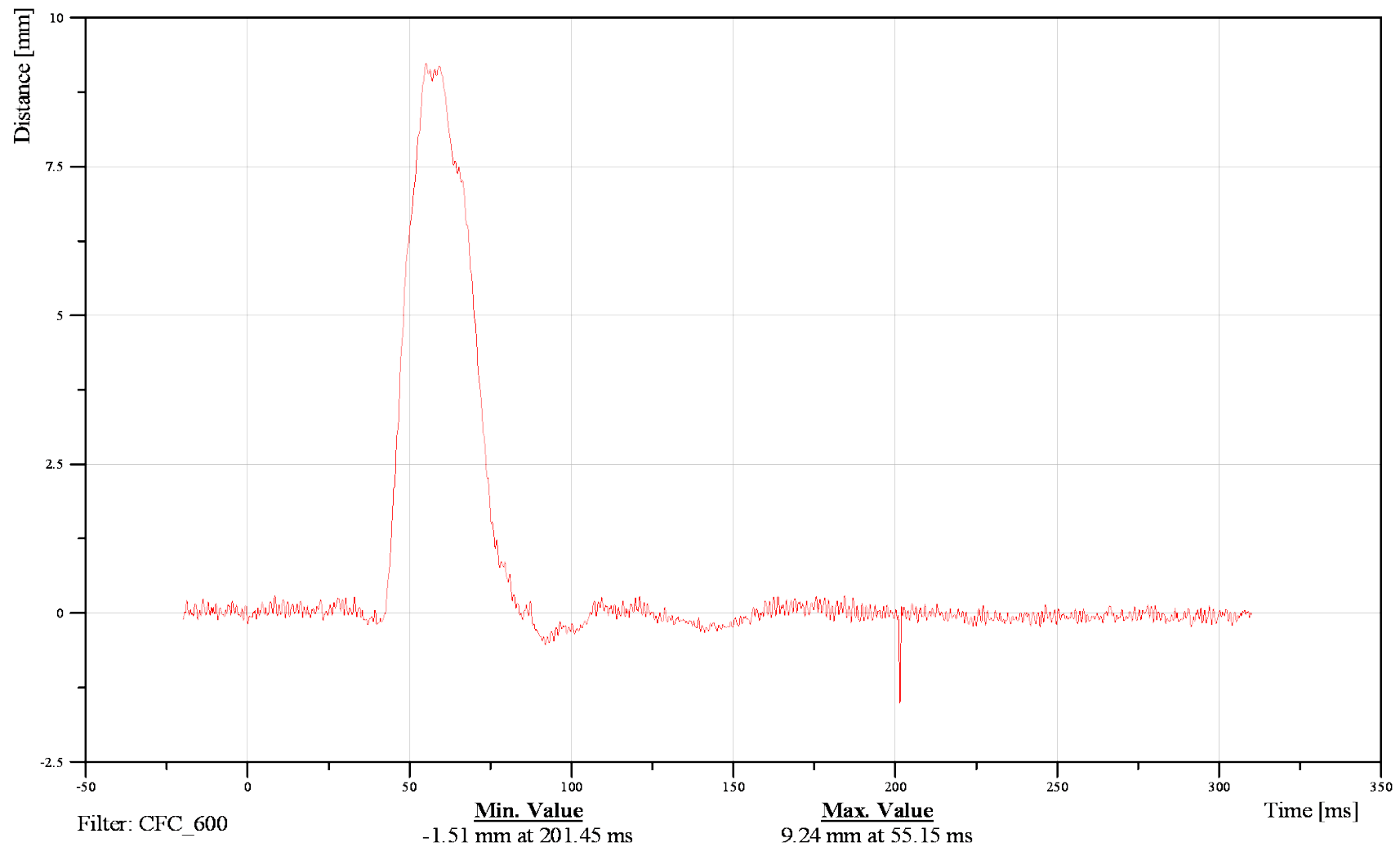
Time: 14:31

Customer: VRTC

14ABRILE01WFDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Longitudinal Ax

Date: 03/27/2013

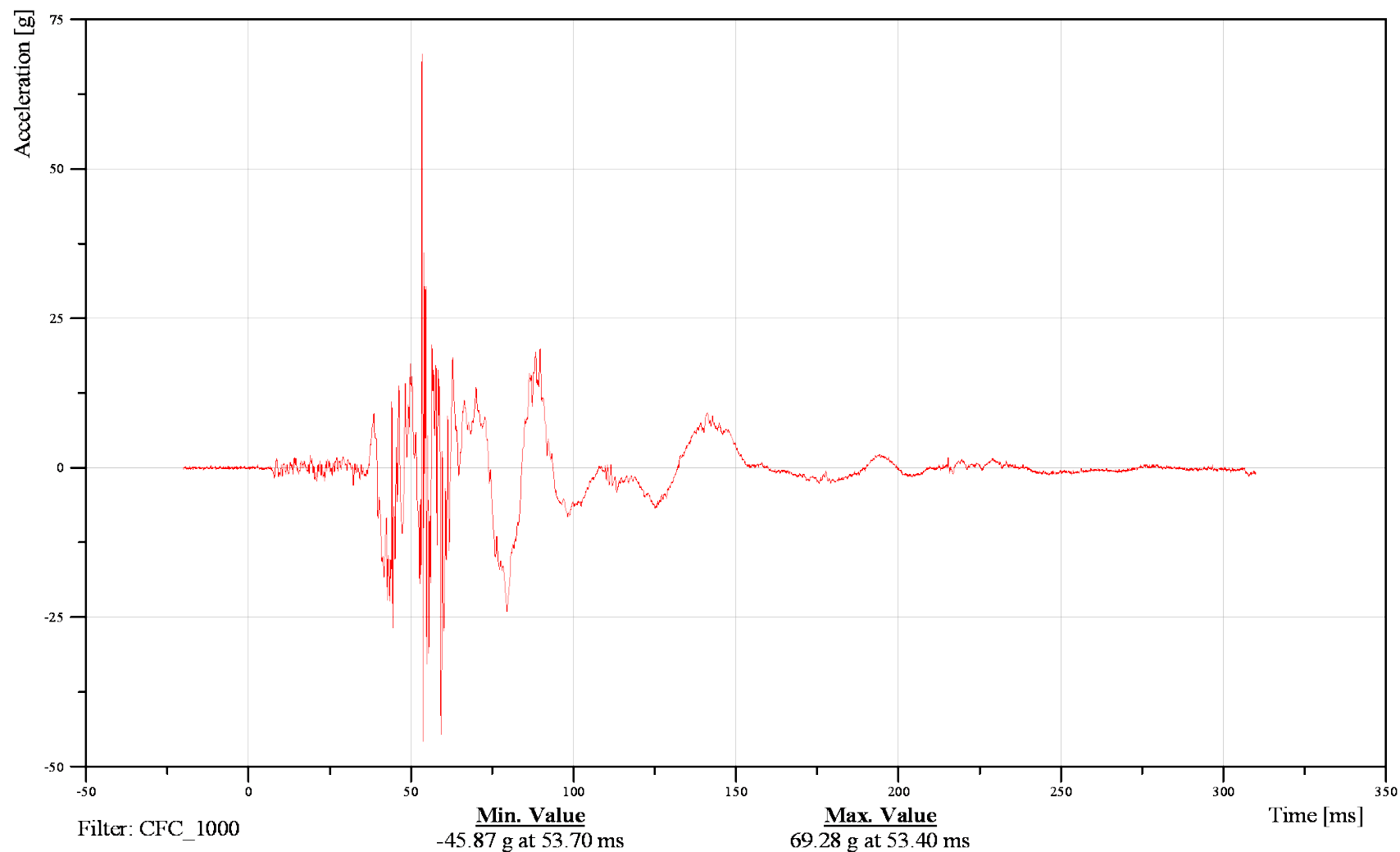
Time: 14:31

Customer: VRTC

14ABRILE02WFACXA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Lateral Ay

Date: 03/27/2013

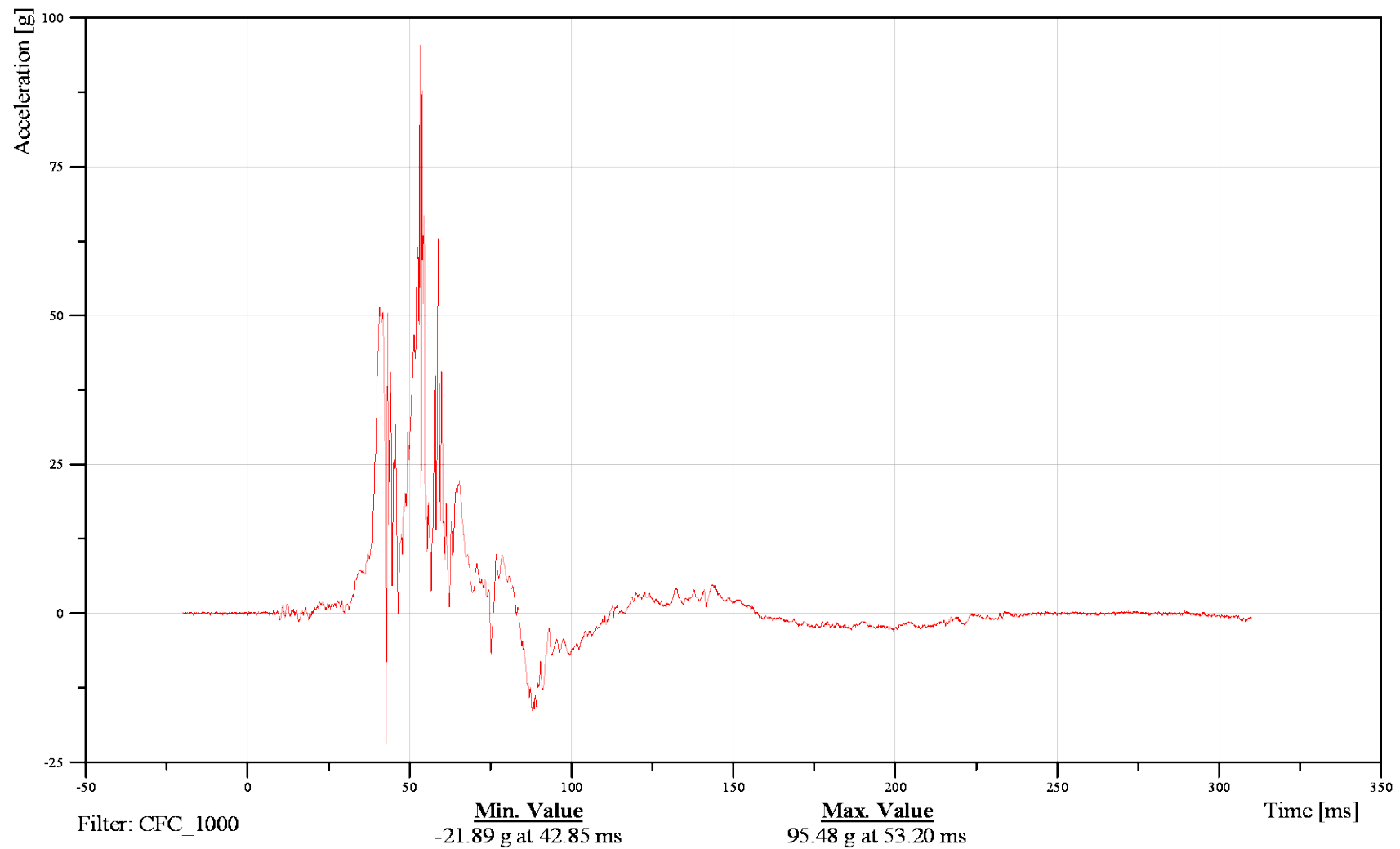
Time: 14:31

Customer: VRTC

14ABRILE02WFACYA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Vertical Az

Date: 03/27/2013

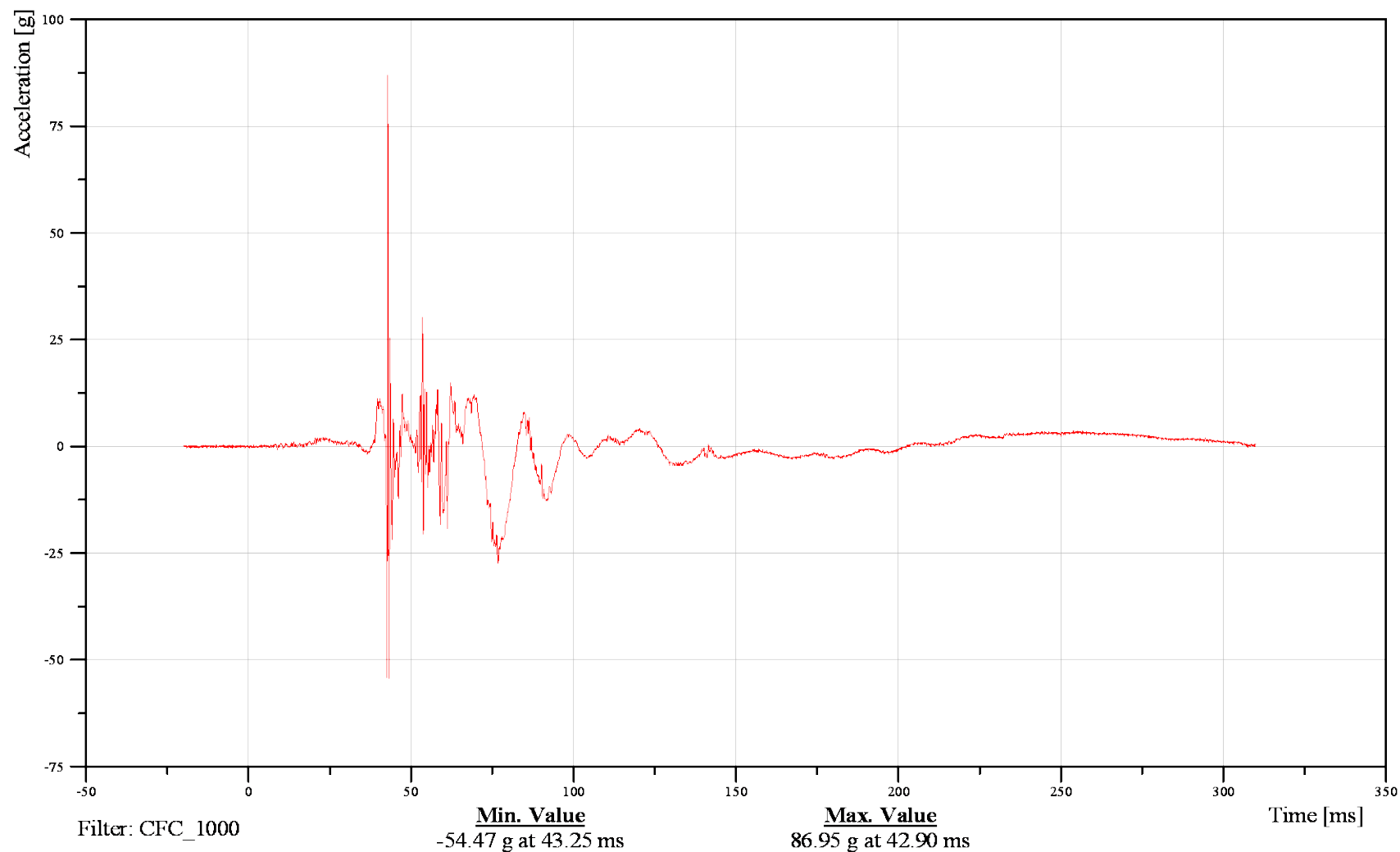
Time: 14:31

Customer: VRTC

14ABRILE02WFACZA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 A Resultant

Date: 03/27/2013

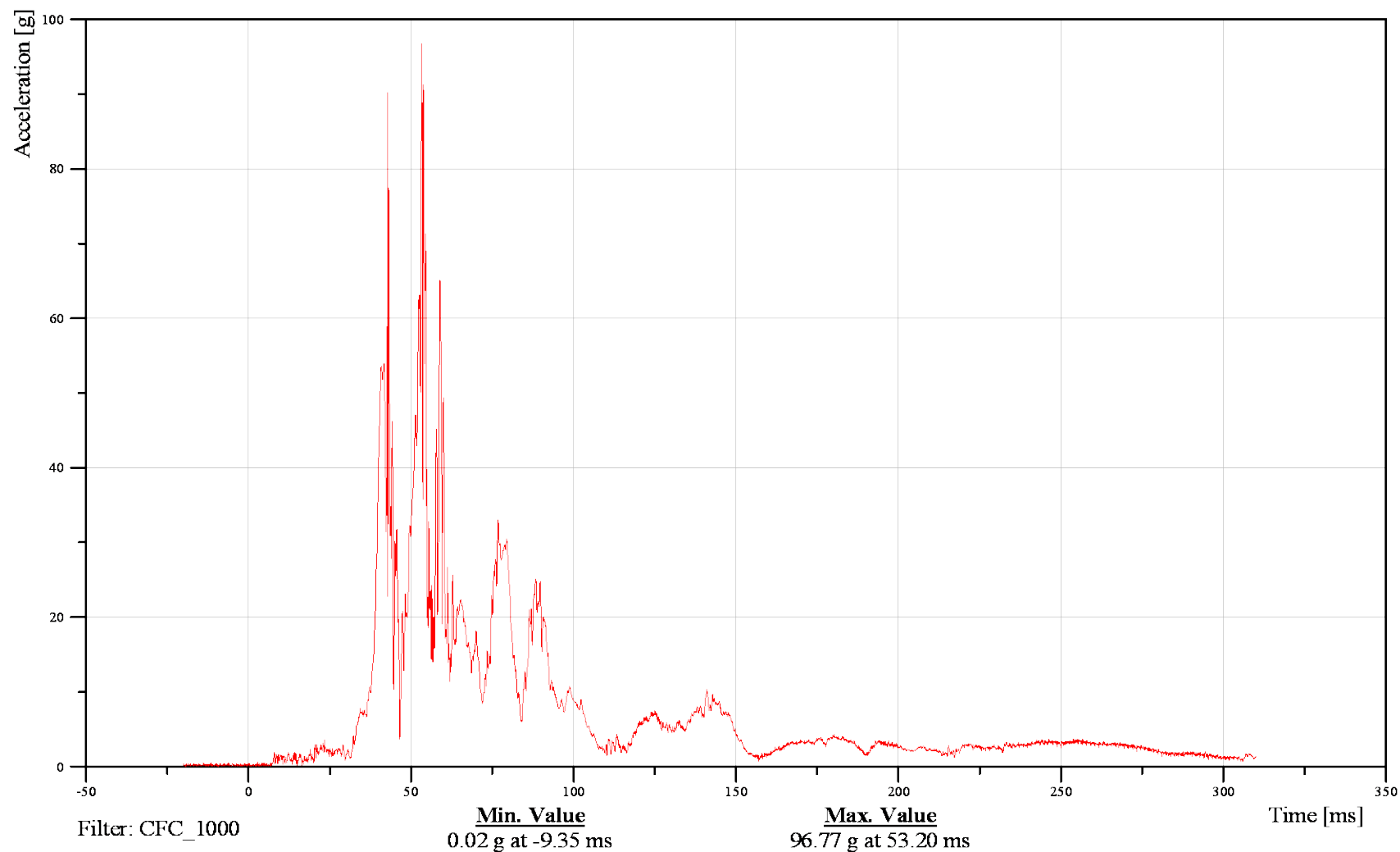
Time: 14:31

Customer: VRTC

14ABRILE02WFACRA

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 IRTRAC compression

Date: 03/27/2013

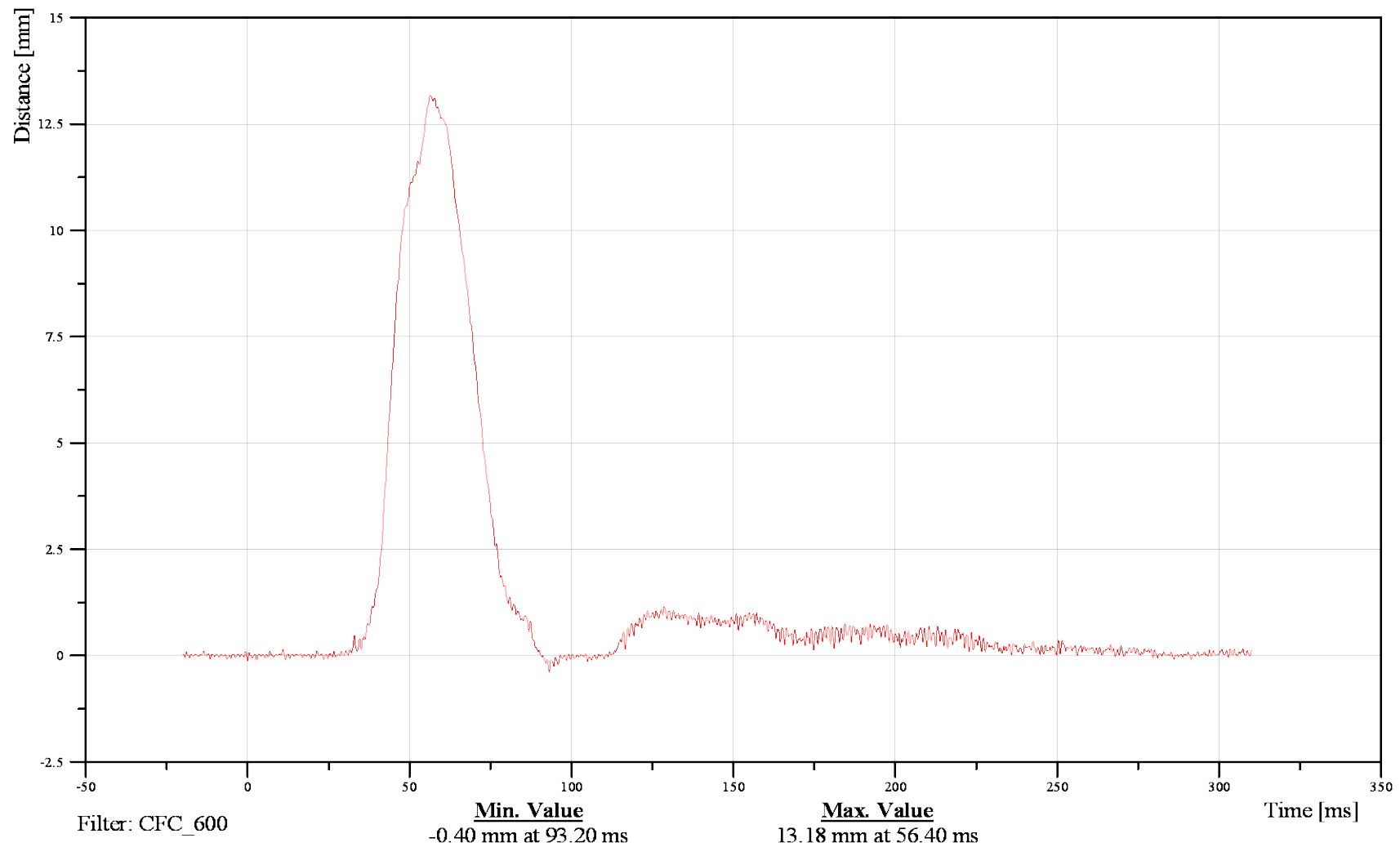
Time: 14:31

Customer: VRTC

14ABRILE02WFDC0B

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 Rotational angle

Date: 03/27/2013

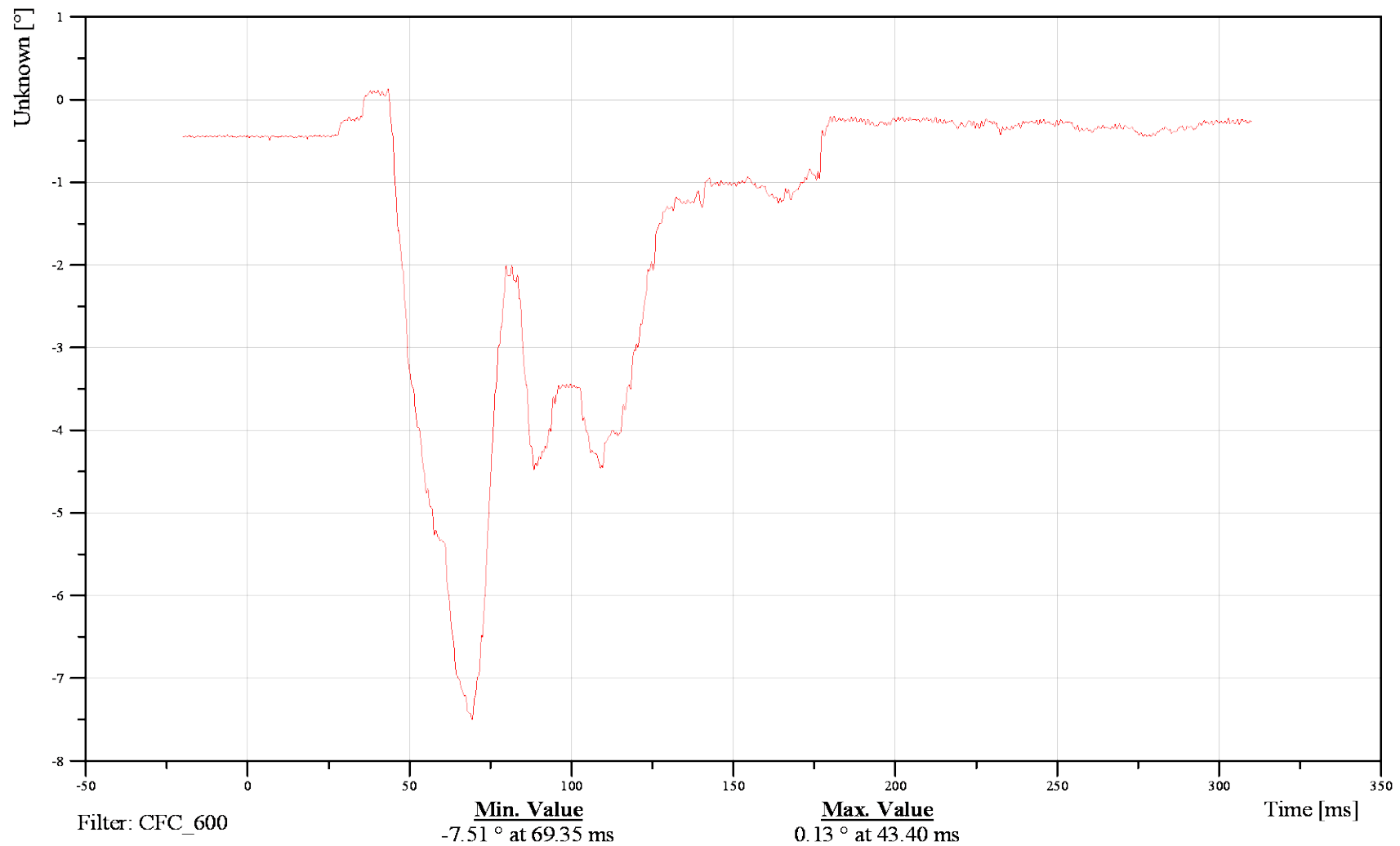
Time: 14:31

Customer: VRTC

14ABRILE02WFANZB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 IRTRAC X Deflection

Date: 03/27/2013

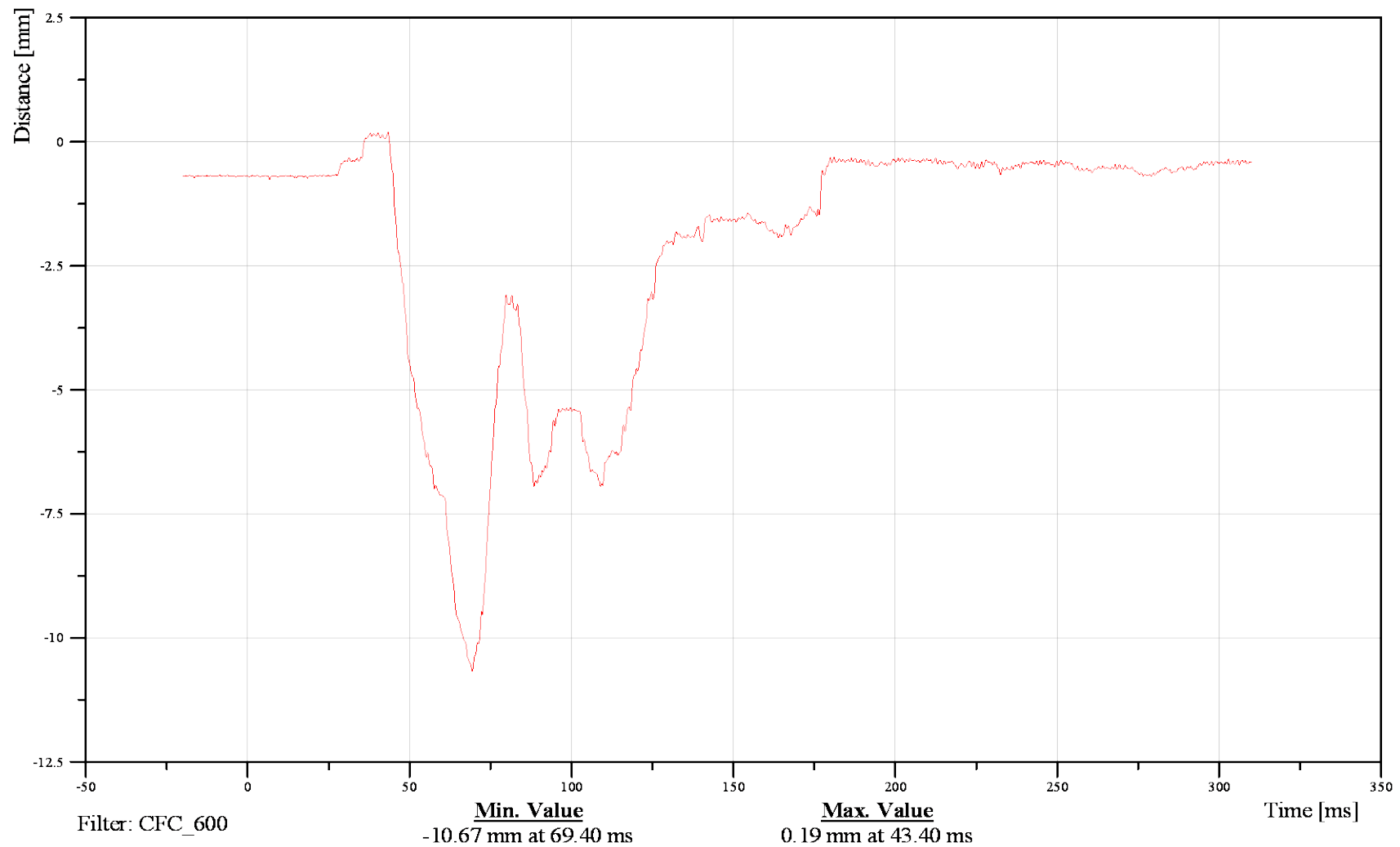
Time: 14:31

Customer: VRTC

14ABRILE02WFDSXB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Abdominal Rib 2 IRTRAC Y Deflection

Date: 03/27/2013

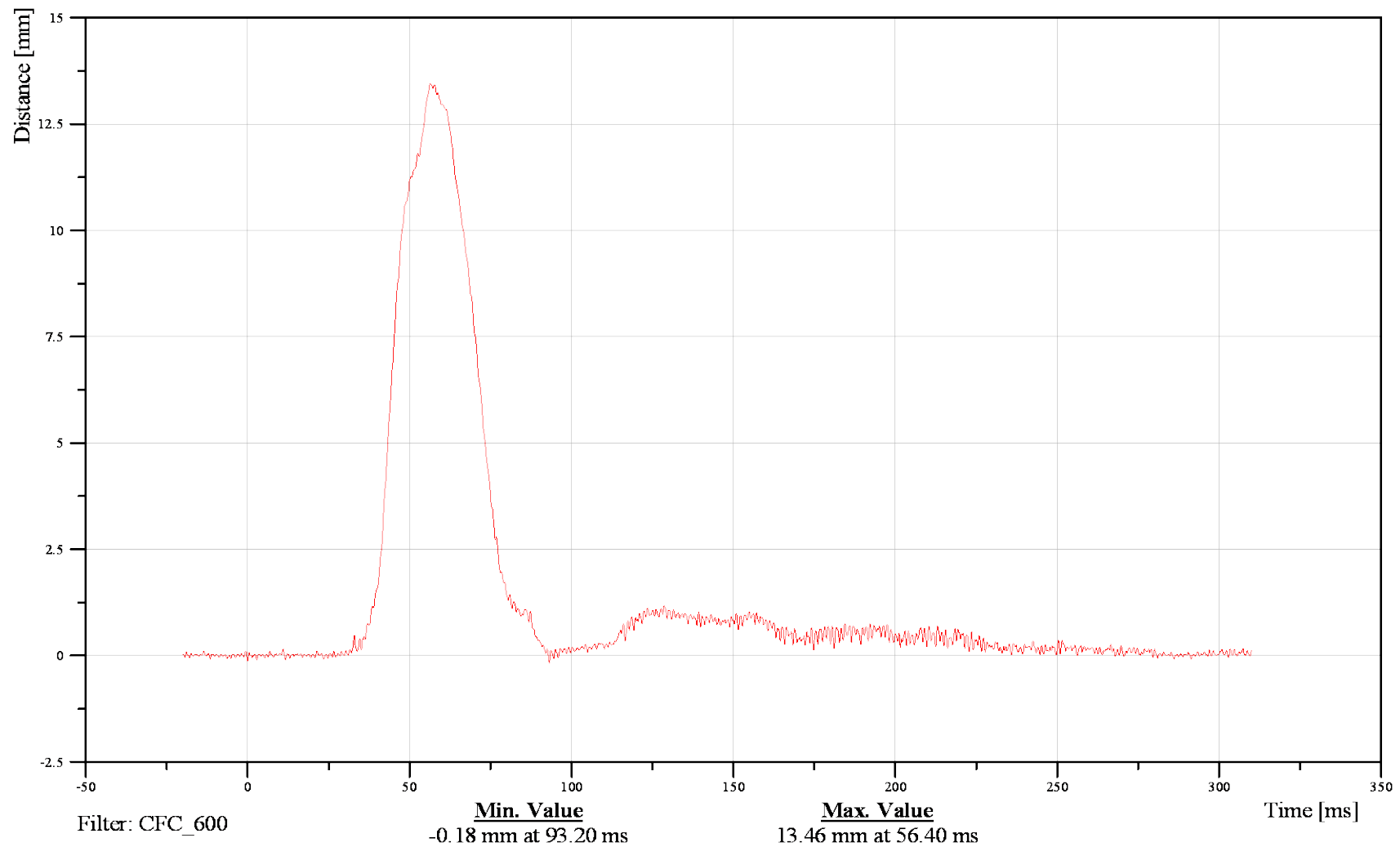
Time: 14:31

Customer: VRTC

14ABRILE02WFDSYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Longitudinal Ax

Date: 03/27/2013

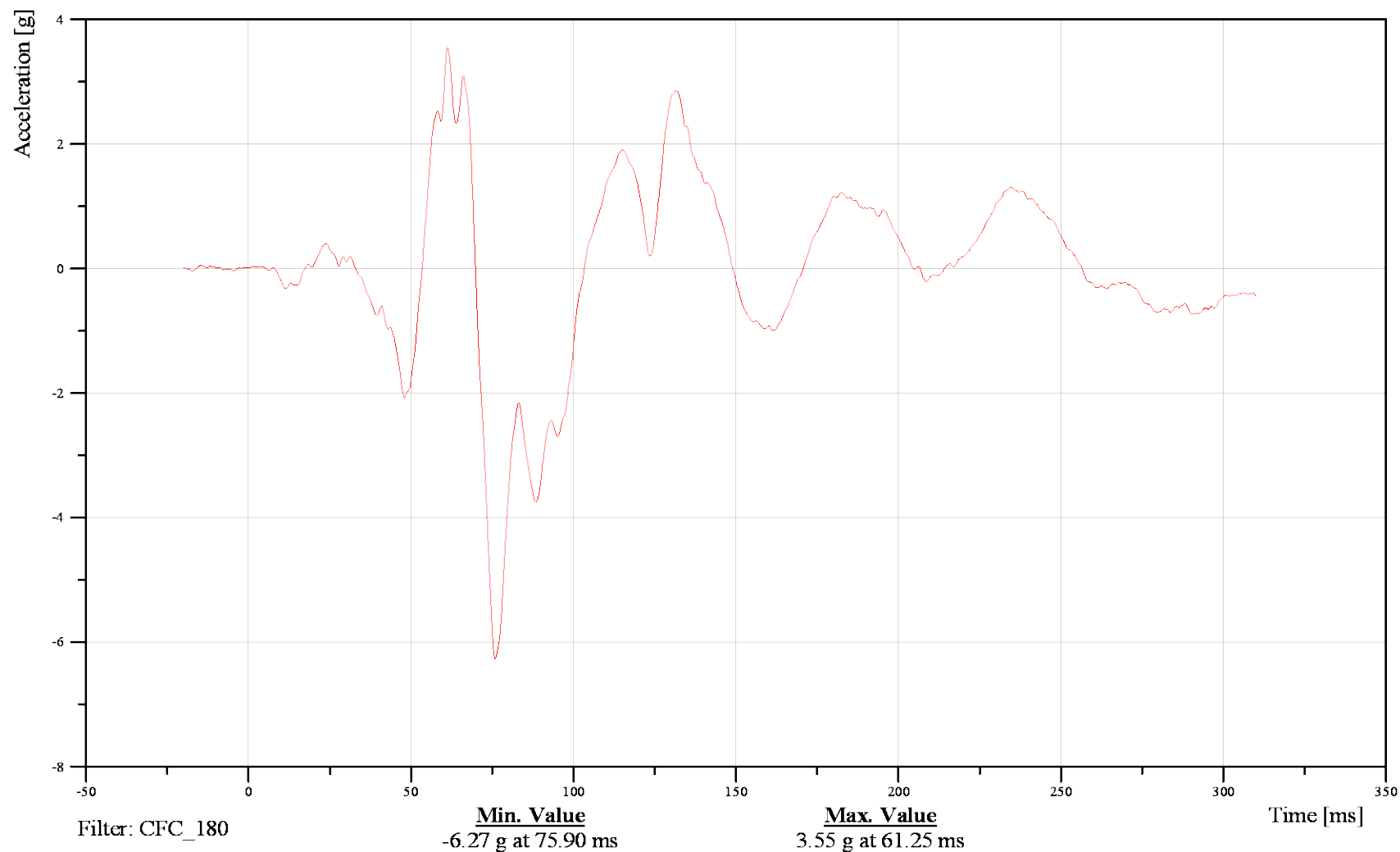
Time: 14:31

Customer: VRTC

14THSP0400WFACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Lateral Ay

Date: 03/27/2013

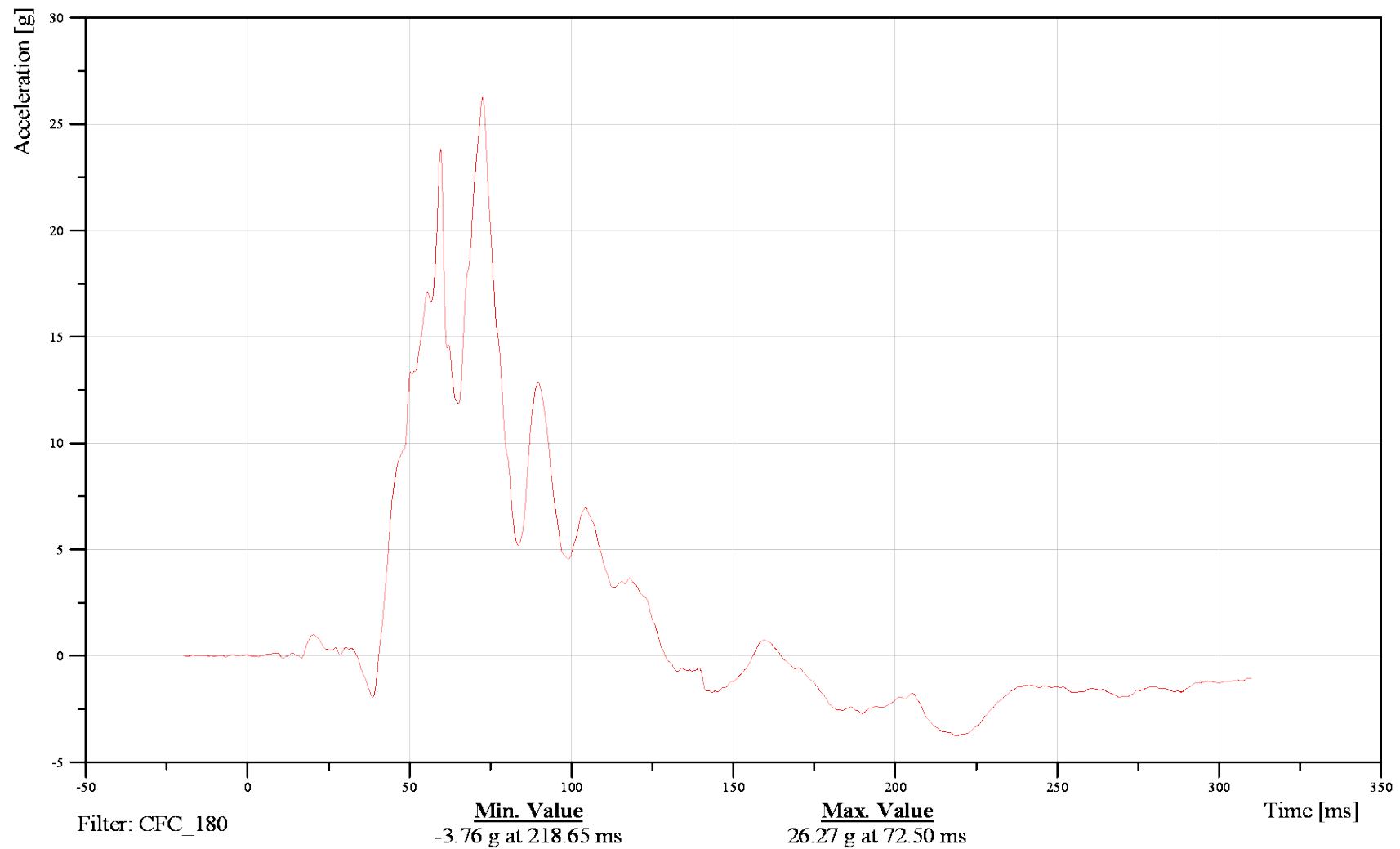
Time: 14:31

Customer: VRTC

14THSP0400WFACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 Vertical Az

Date: 03/27/2013

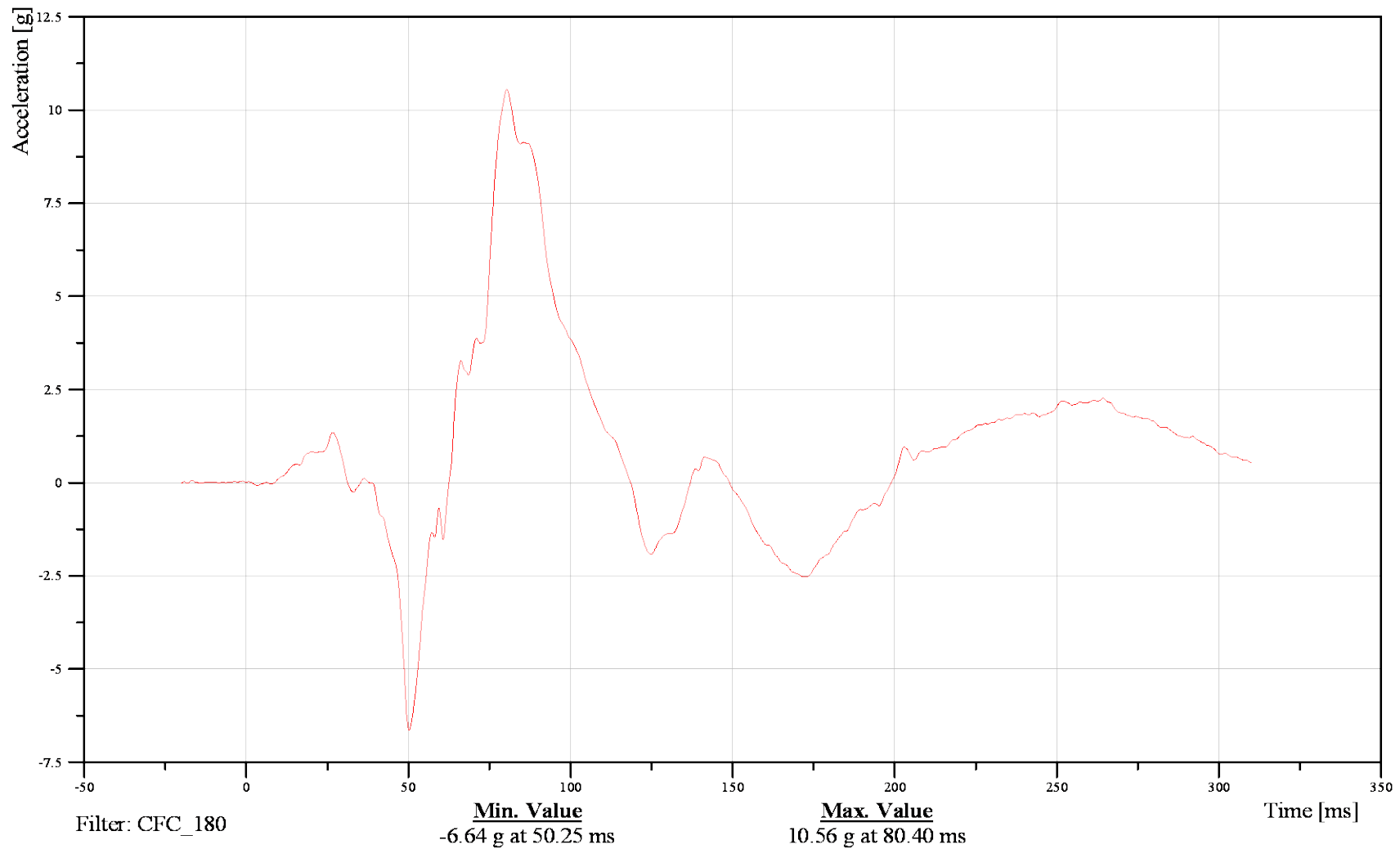
Time: 14:31

Customer: VRTC

14THSP0400WFACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T4 A Resultant

Date: 03/27/2013

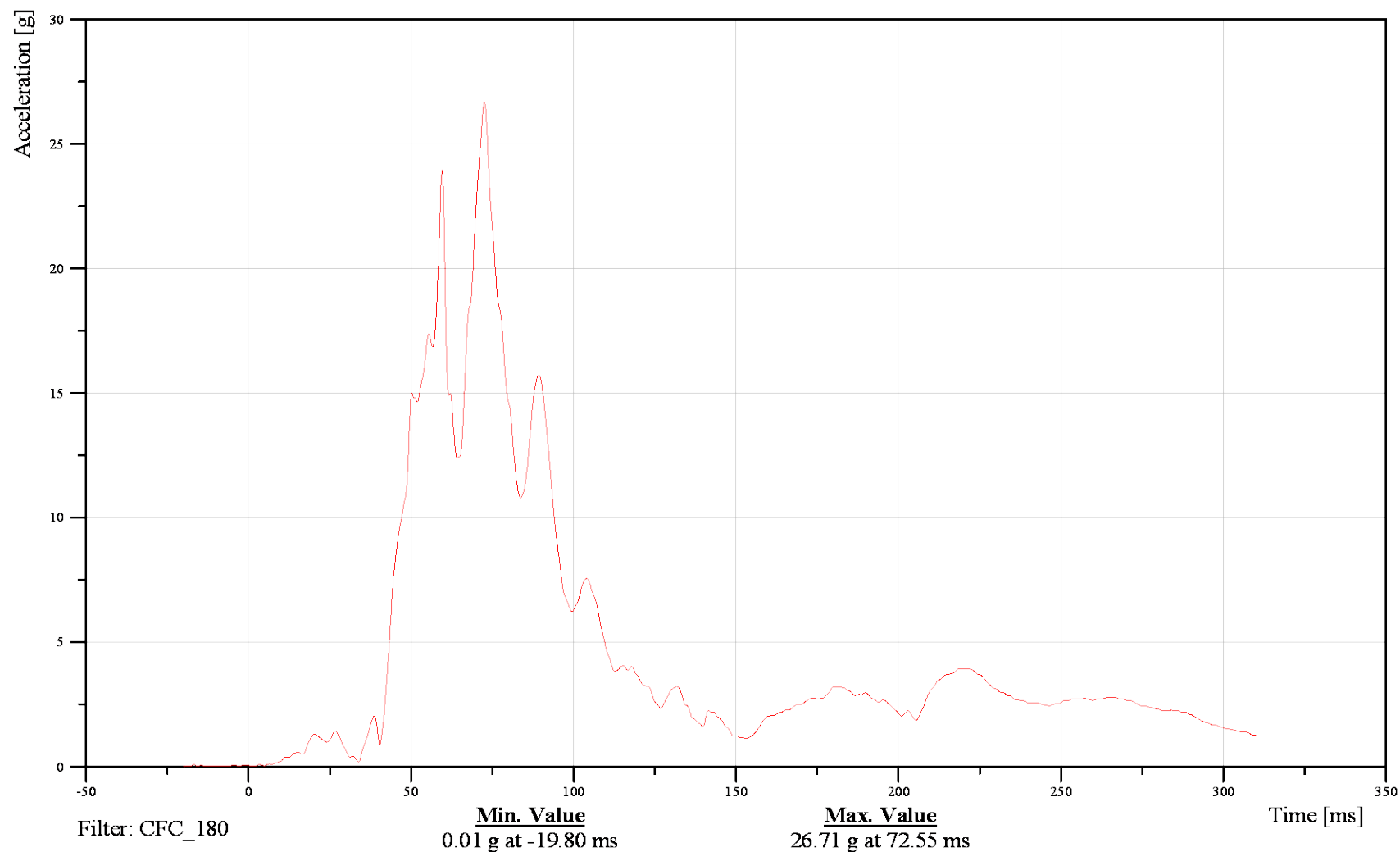
Time: 14:31

Customer: VRTC

14THSP0400WFACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Longitudinal Ax

Date: 03/27/2013

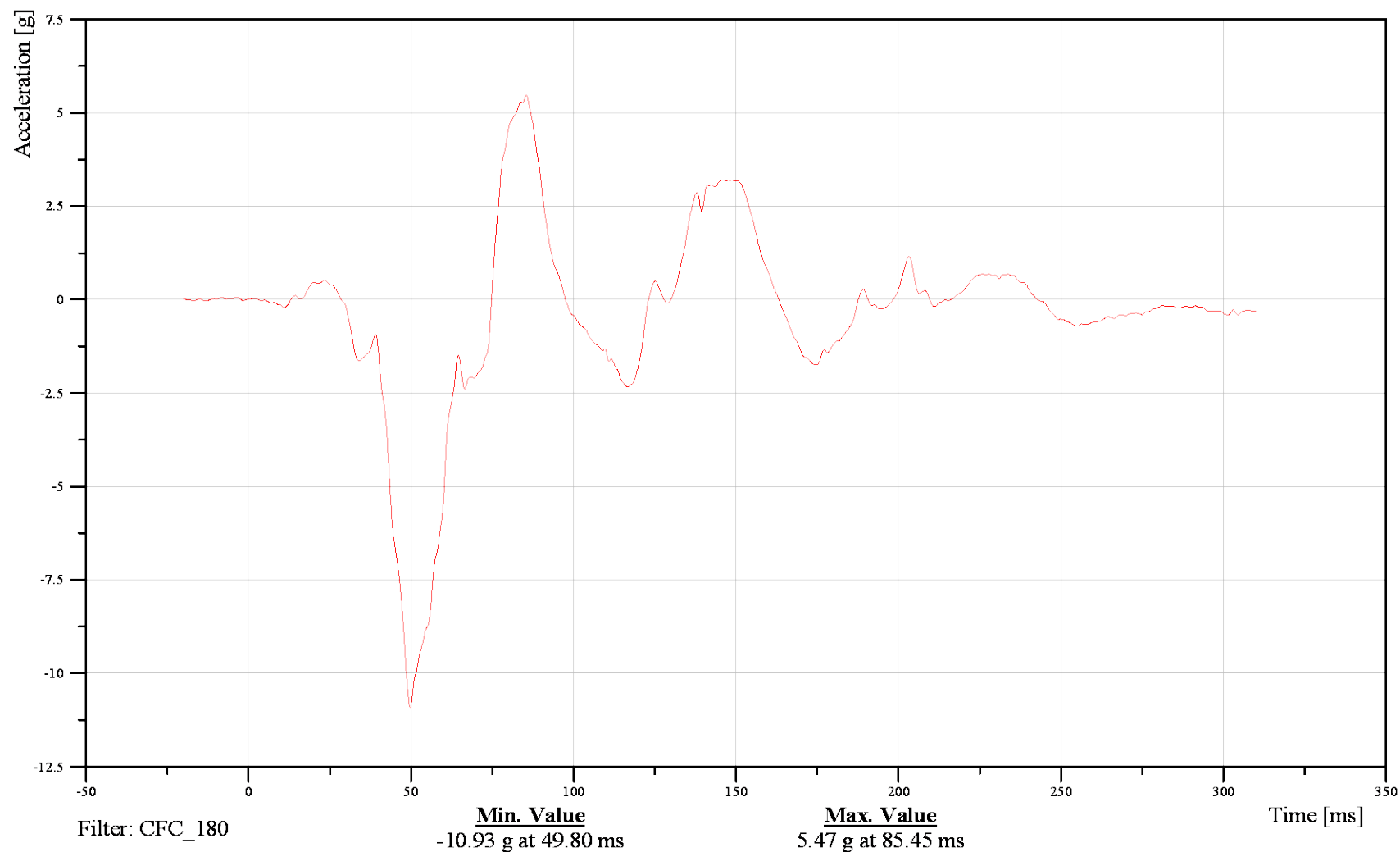
Time: 14:31

Customer: VRTC

14THSP1200WFACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Lateral Ay

Date: 03/27/2013

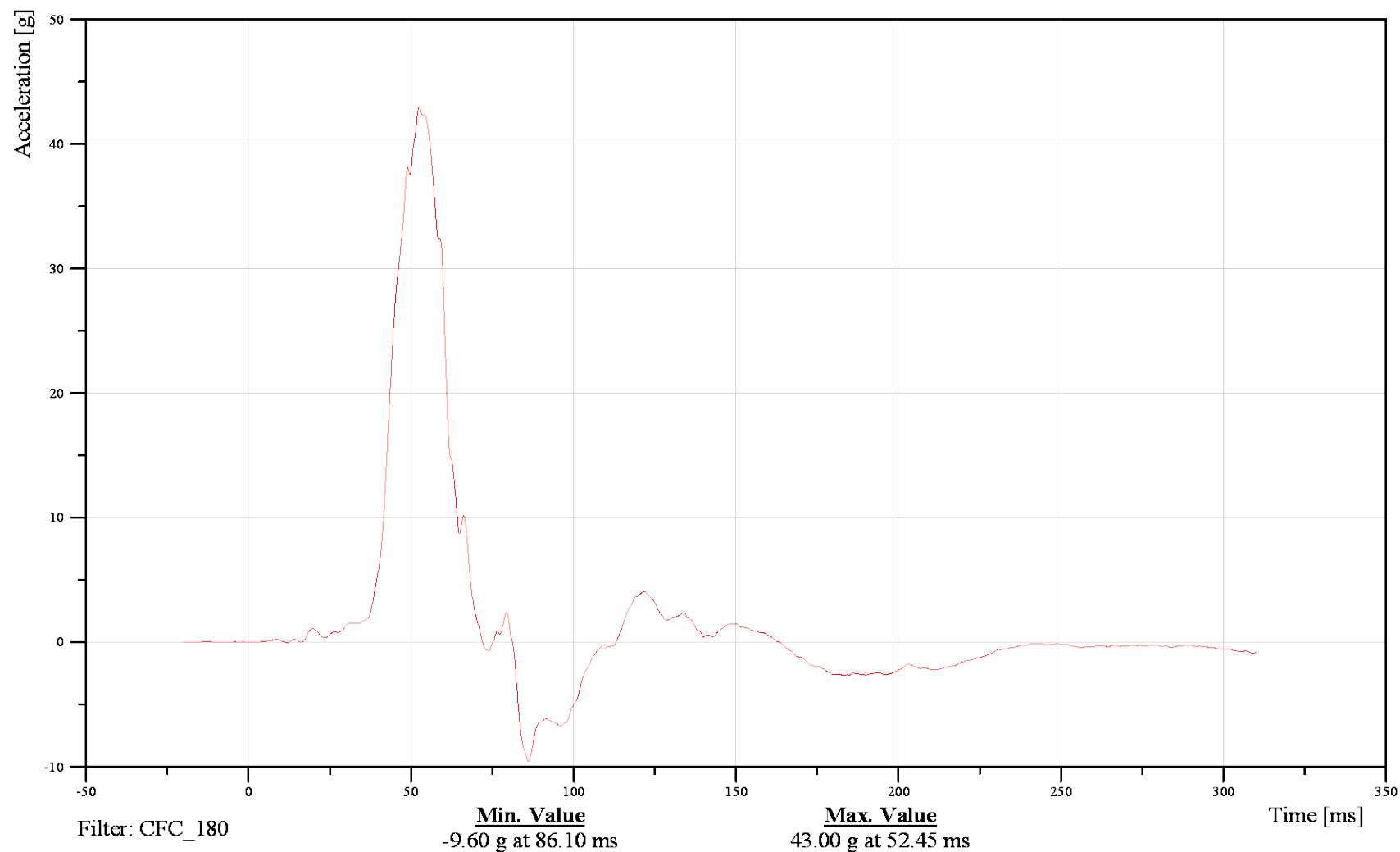
Time: 14:31

Customer: VRTC

14THSP1200WFACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 Vertical Az

Date: 03/27/2013

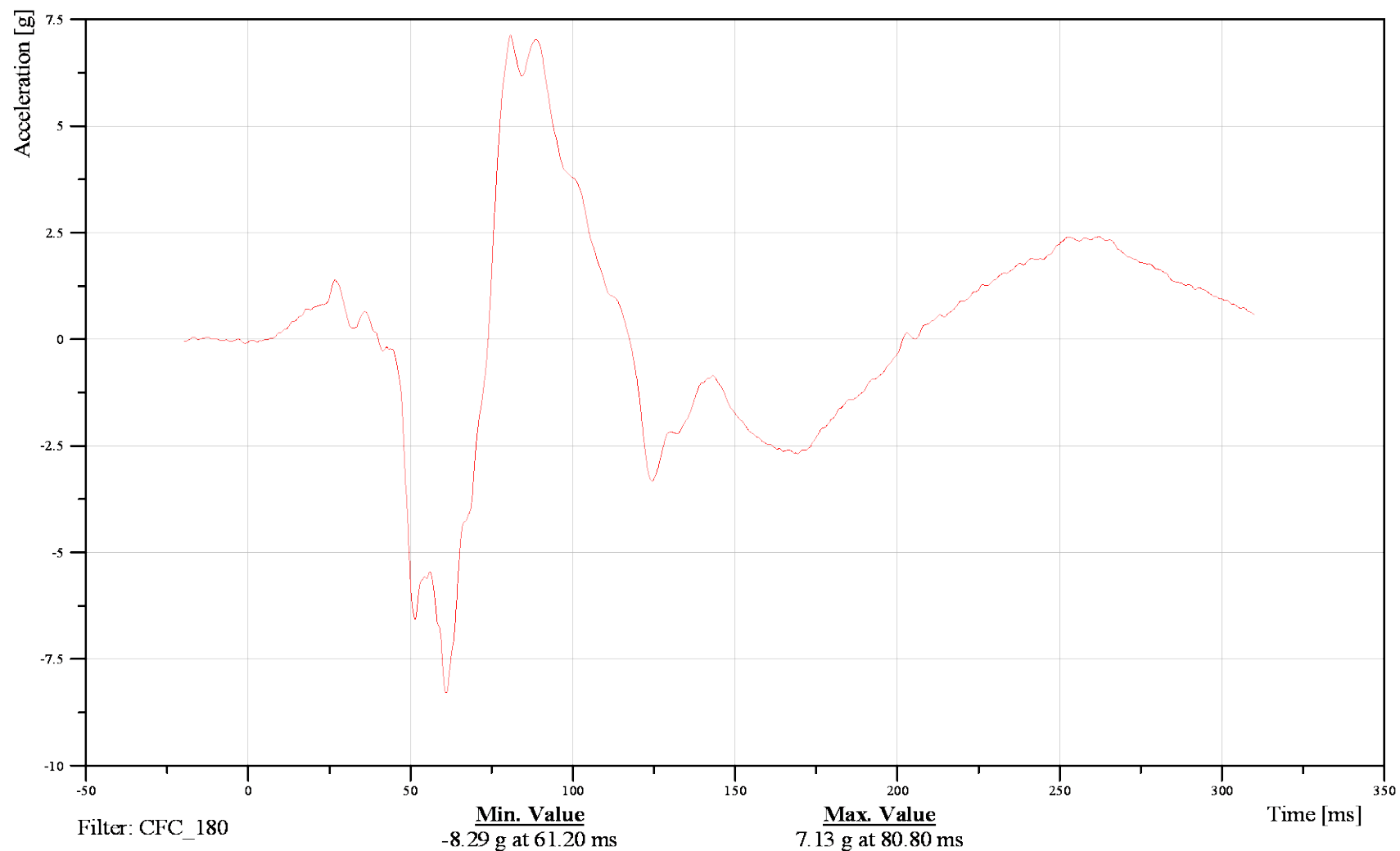
Time: 14:31

Customer: VRTC

14THSP1200WFACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

T12 A Resultant

Date: 03/27/2013

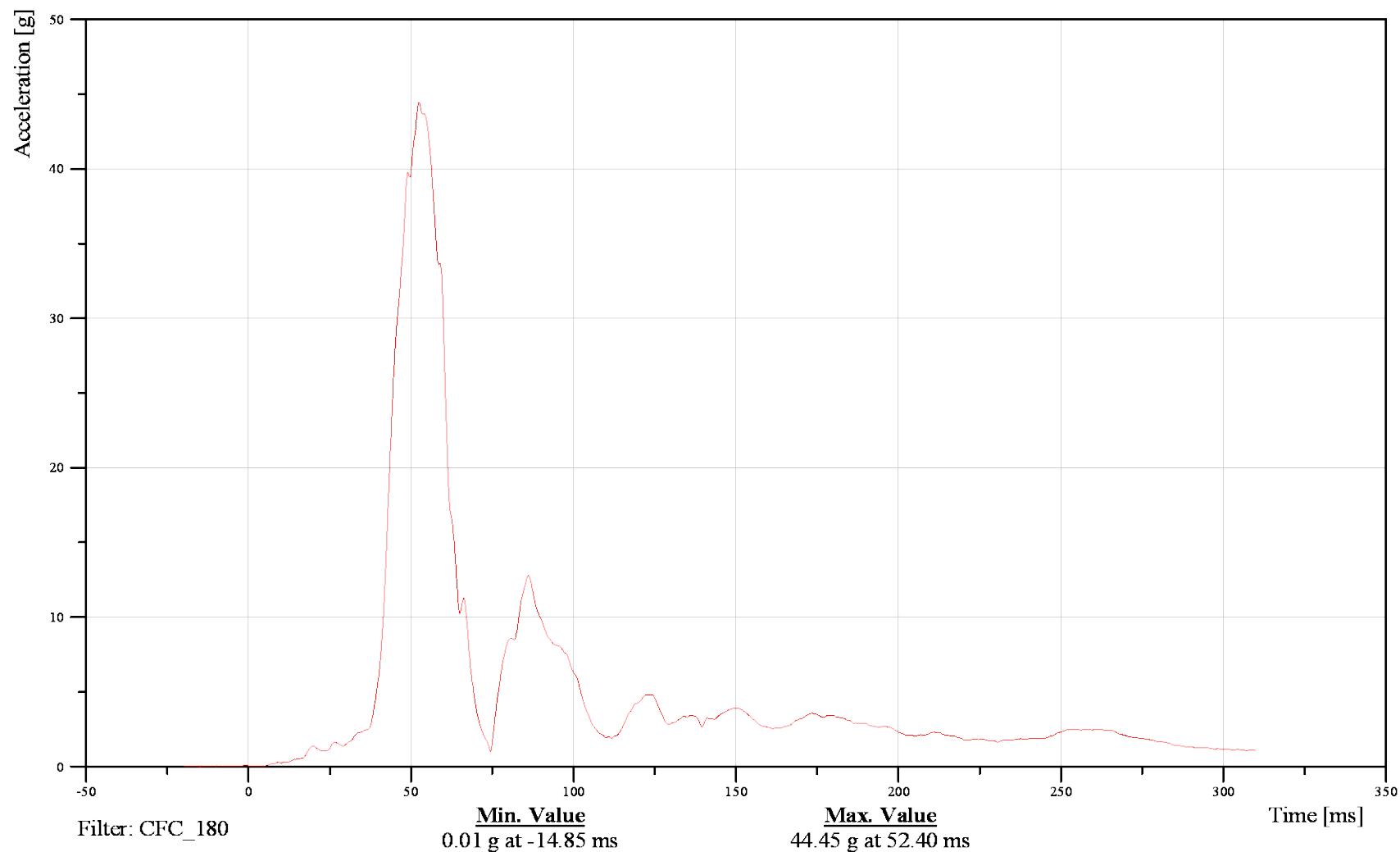
Time: 14:31

Customer: VRTC

14THSP1200WFACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Longitudinal Ax

Date: 03/27/2013

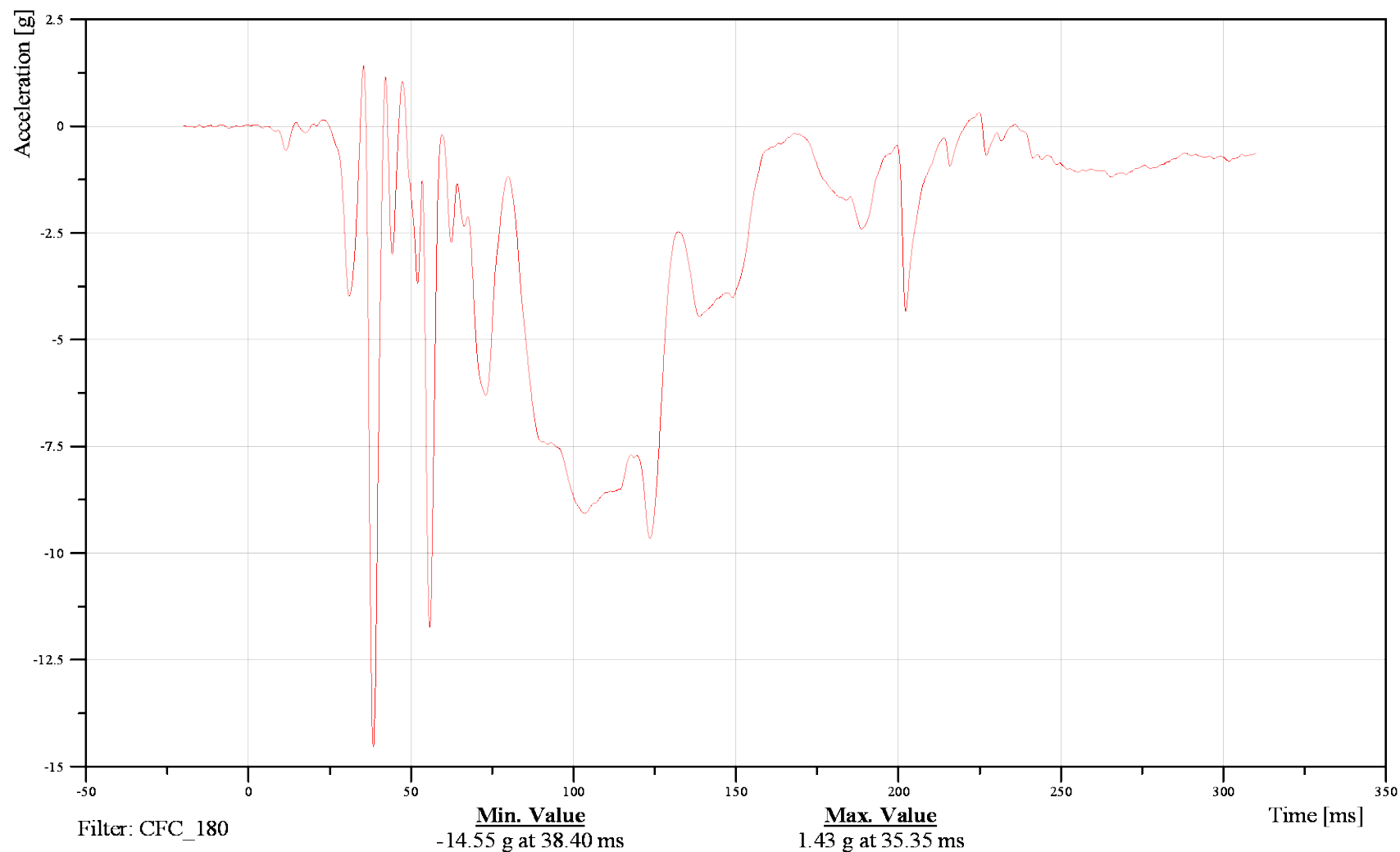
Time: 14:31

Customer: VRTC

14PELV0000WFACXC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Lateral Ay

Date: 03/27/2013

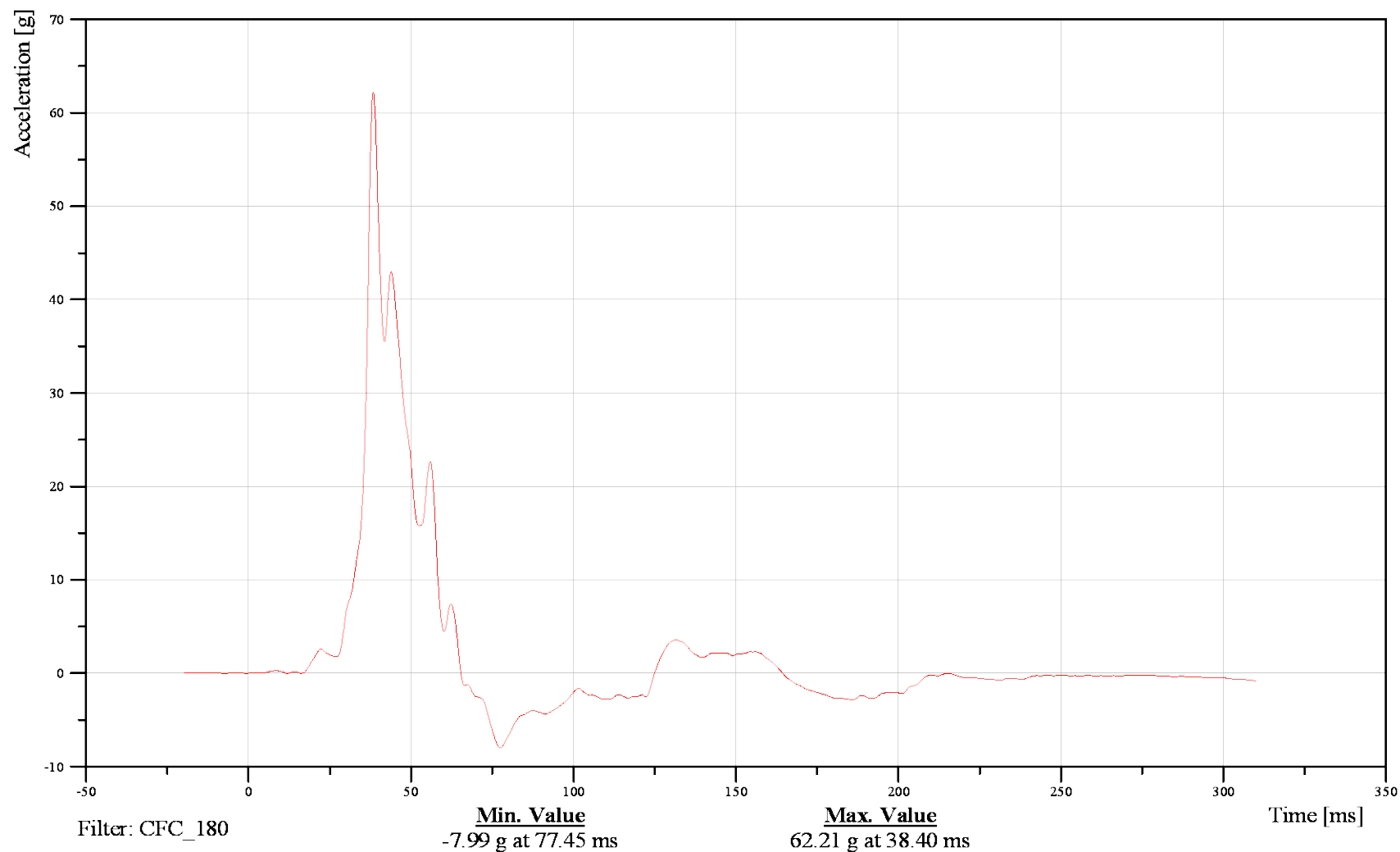
Time: 14:31

Customer: VRTC

14PELV0000WFACYC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Vertical Az

Date: 03/27/2013

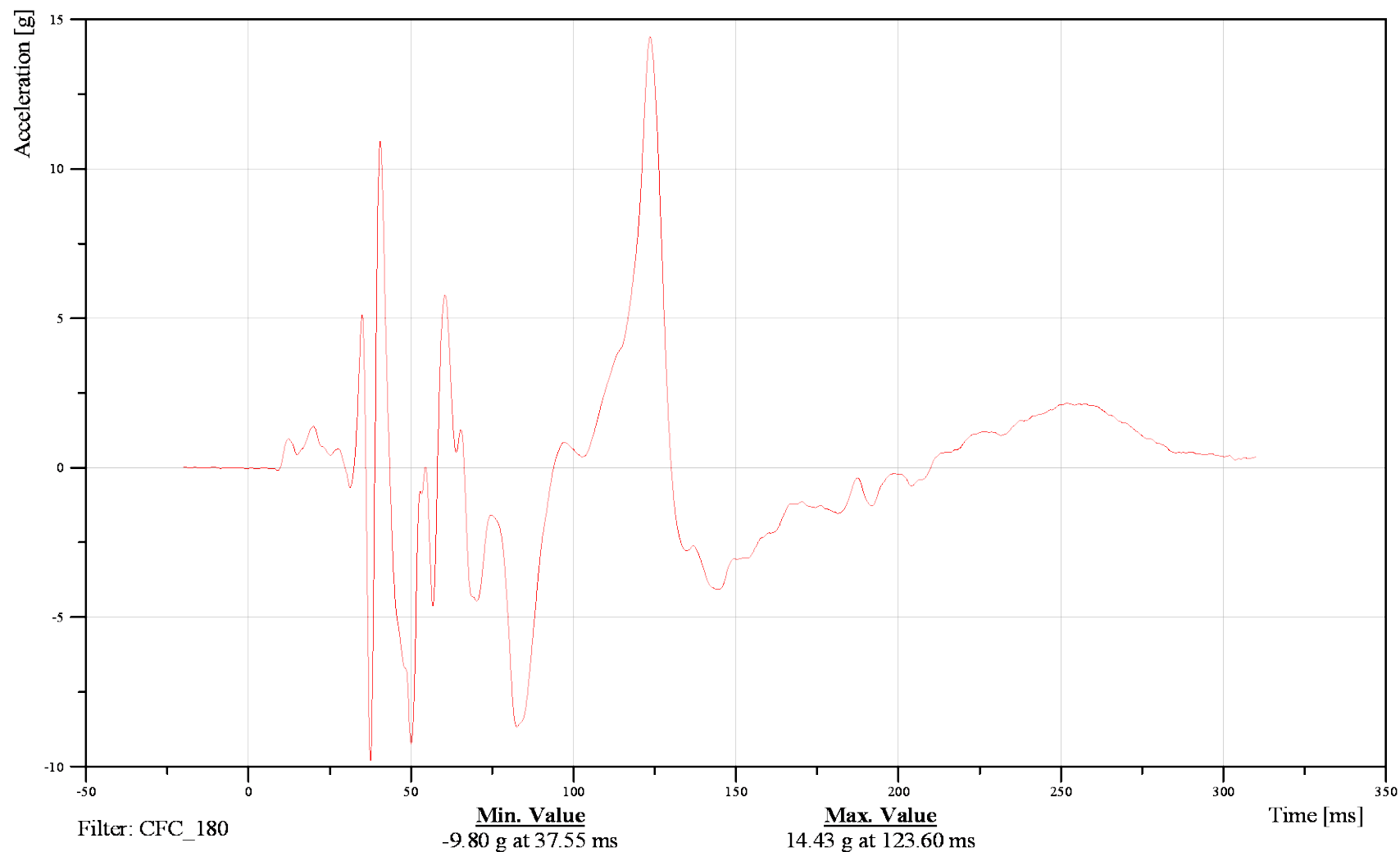
Time: 14:31

Customer: VRTC

14PELV0000WFACZC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis A Resultant

Date: 03/27/2013

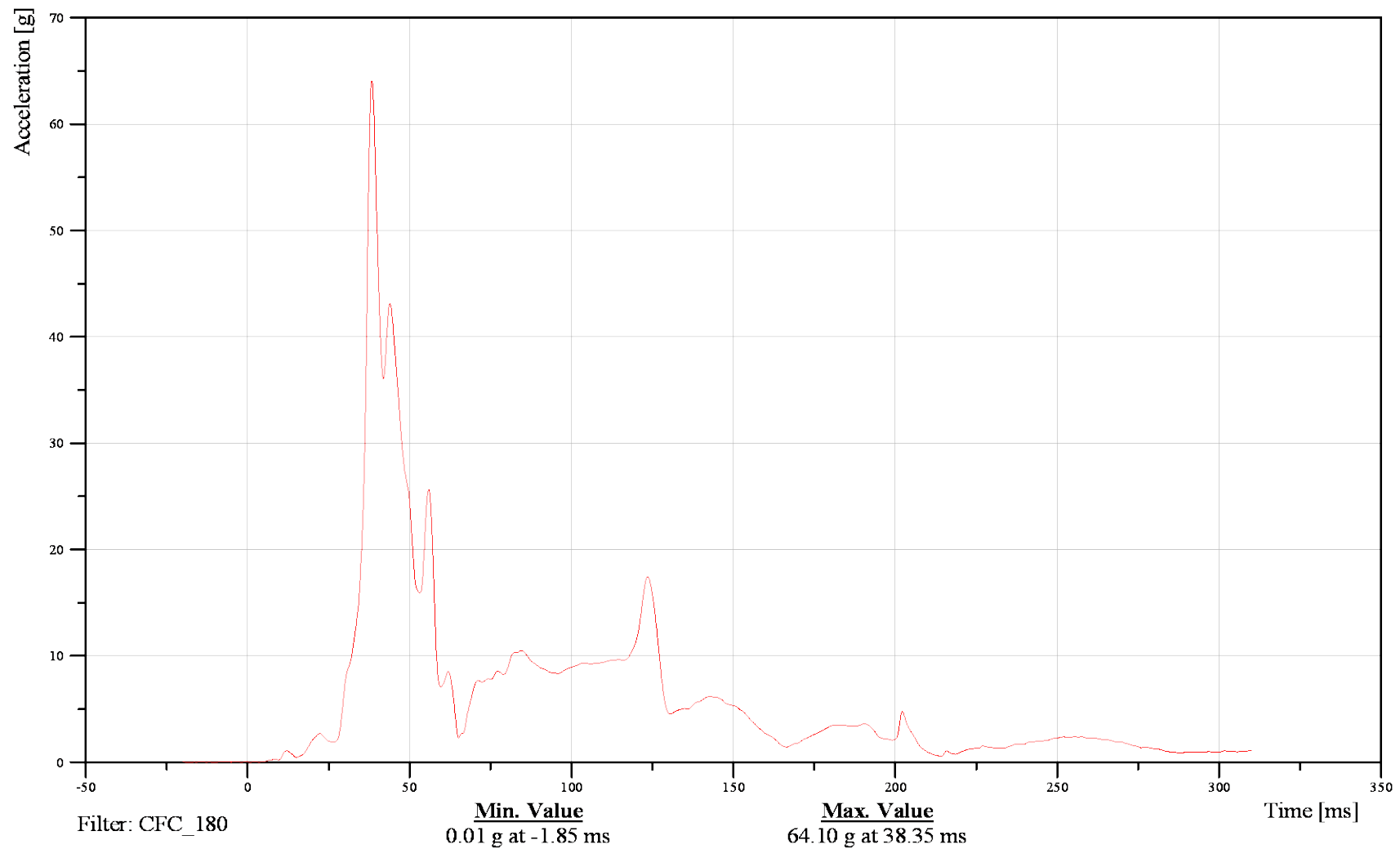
Time: 14:31

Customer: VRTC

14PELV0000WFACRC

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pubic Force Fy

Date: 03/27/2013

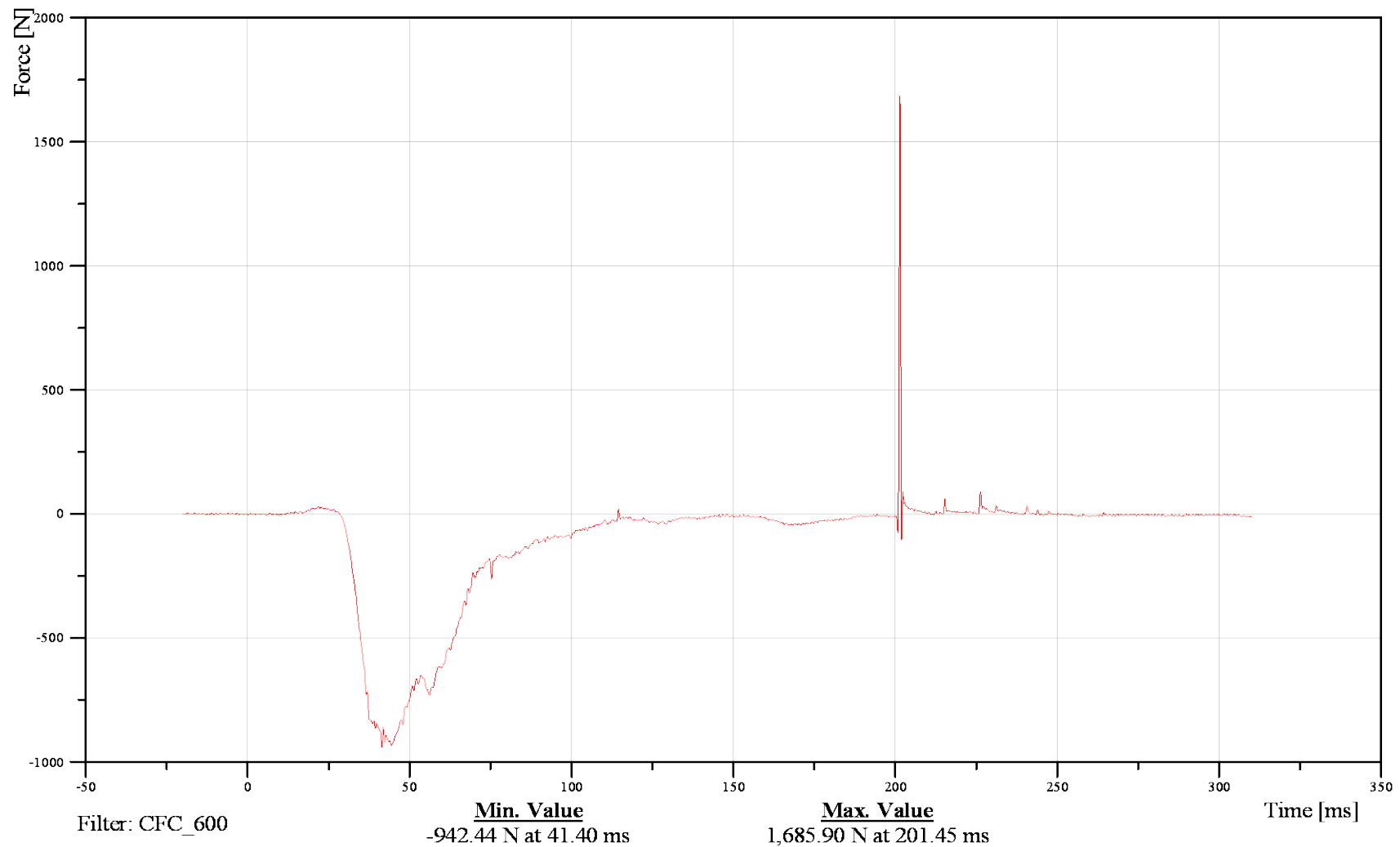
Time: 14:31

Customer: VRTC

14PUBC0000WFFOYB

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

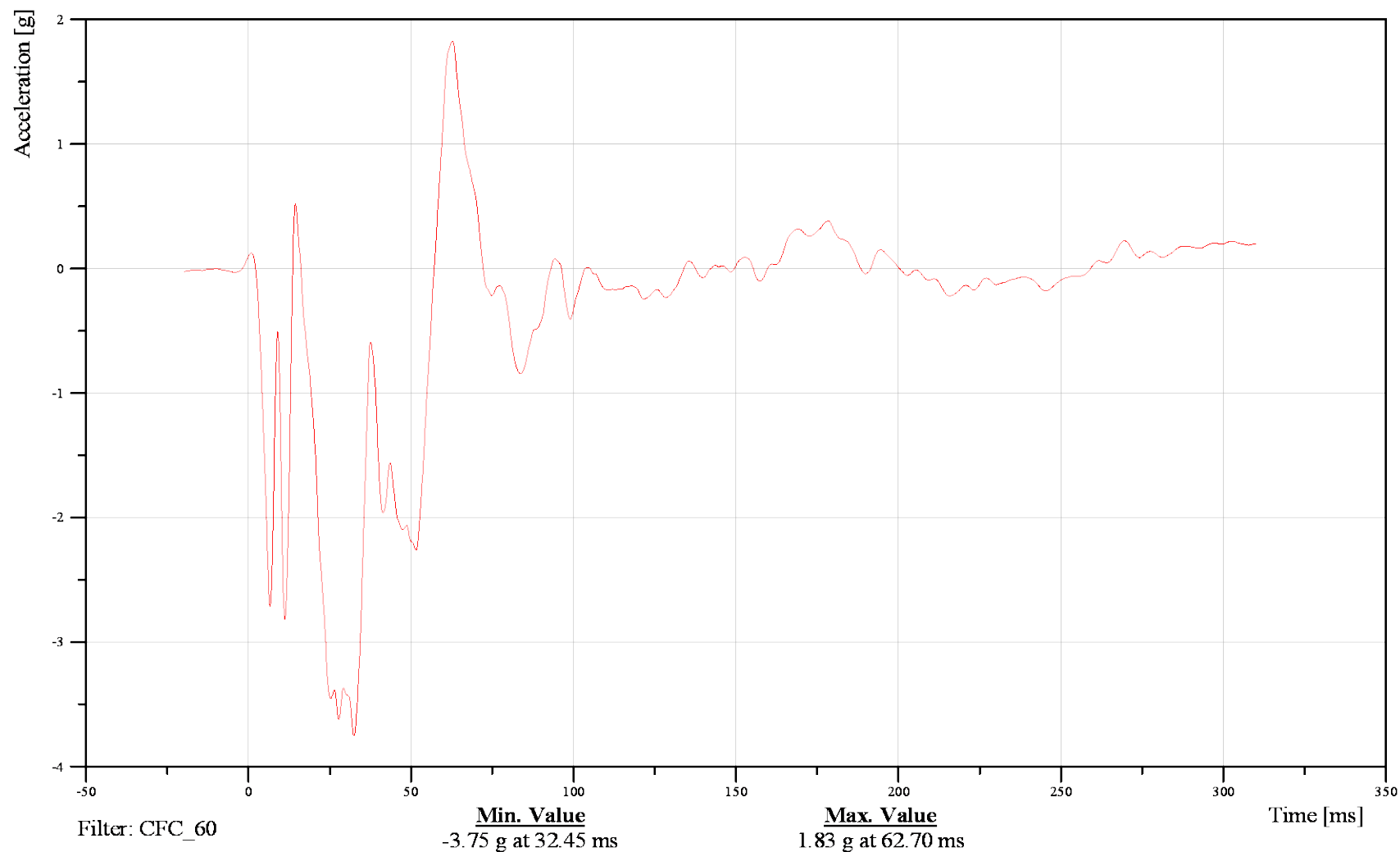
Vehicle CG (X)

Date: 03/27/2013
Time: 14:31

Customer: VRTC

11VEHCCG0000ACXD

TRC Inc. Test Lab: CTF
Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Vehicle CG (Y)

Date: 03/27/2013

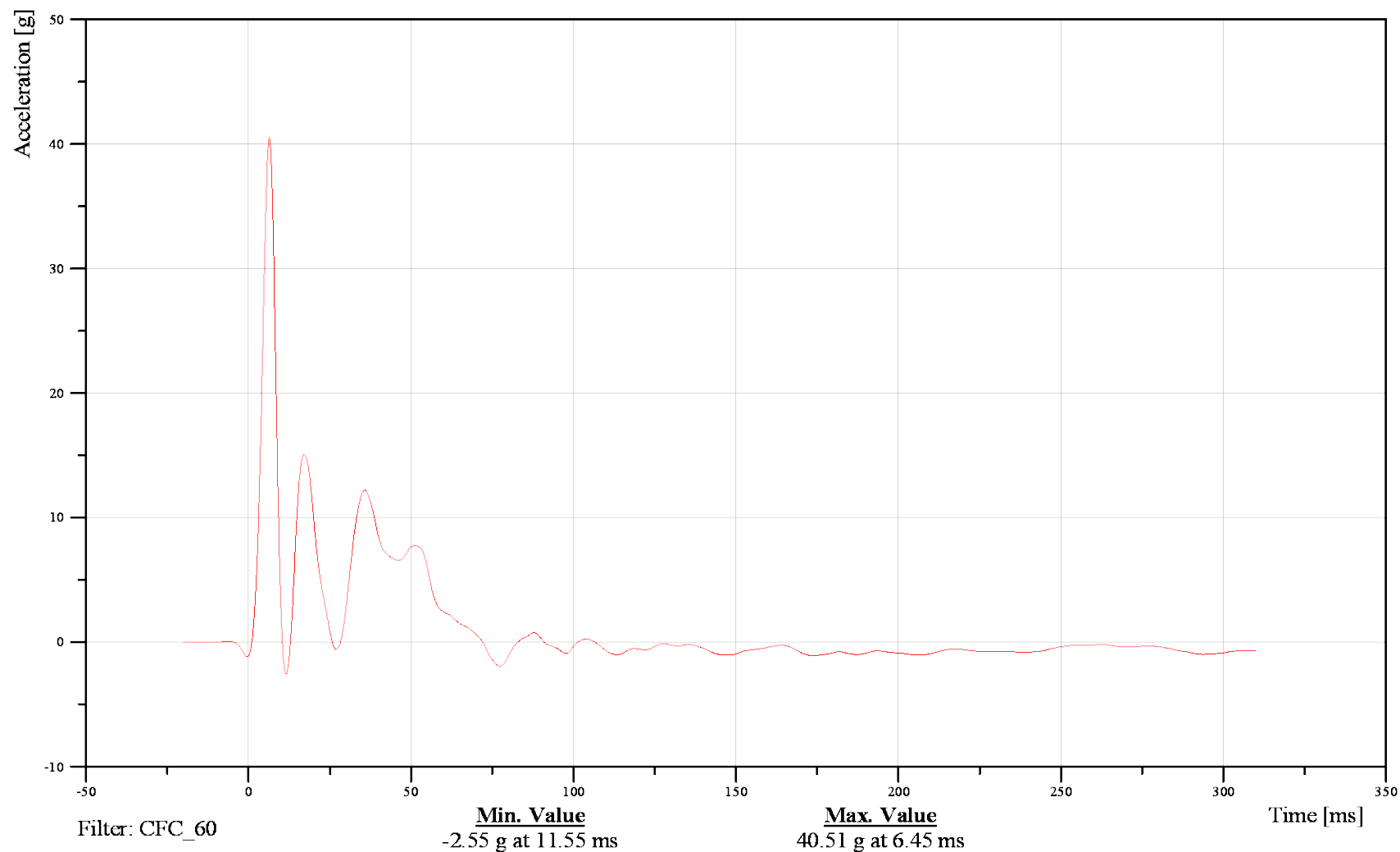
Time: 14:31

Customer: VRTC

11VEHCCG0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Vehicle CG (Z)

Date: 03/27/2013

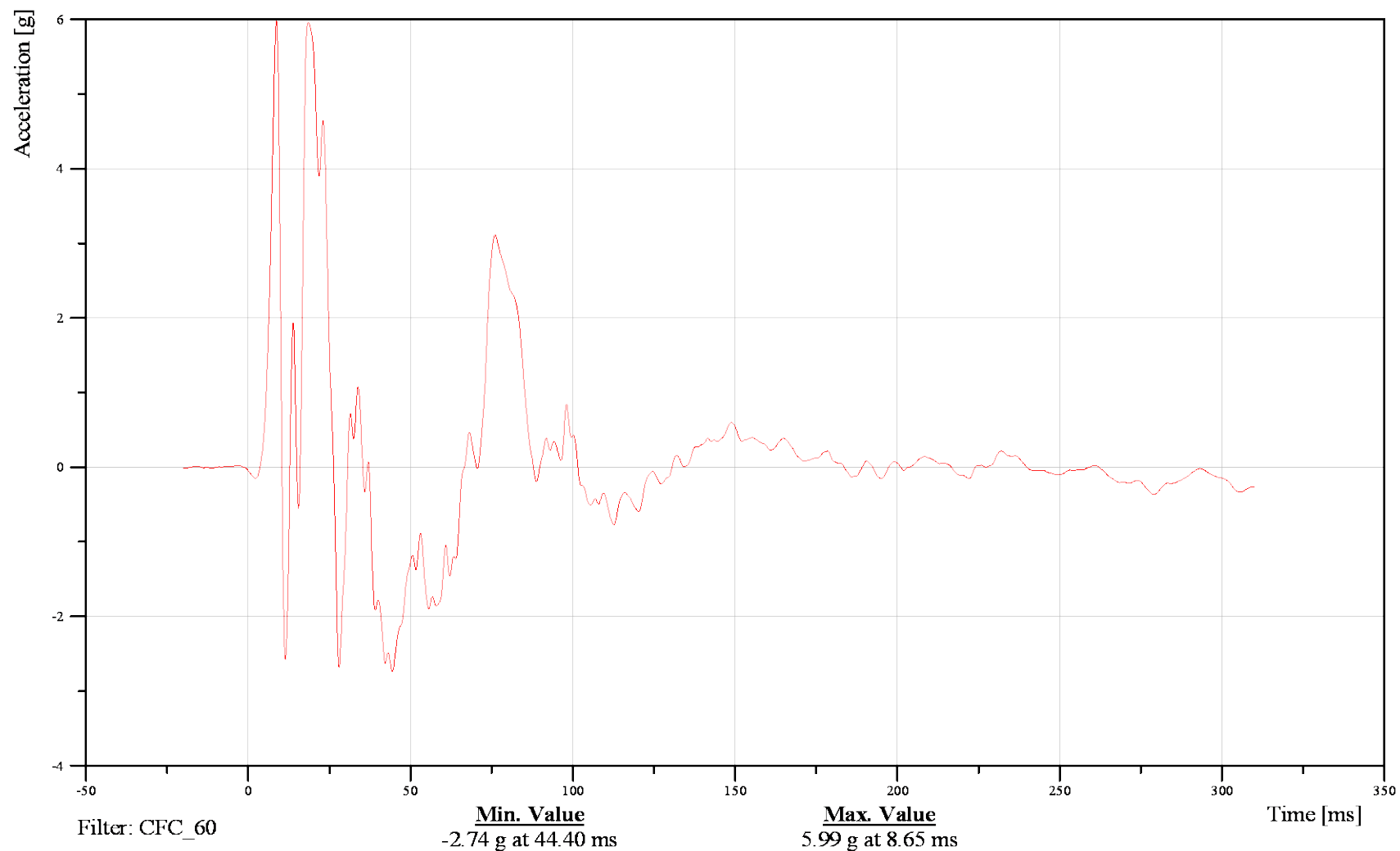
Time: 14:31

Customer: VRTC

11VEHCCG0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Vehicle CG Resultant

Date: 03/27/2013

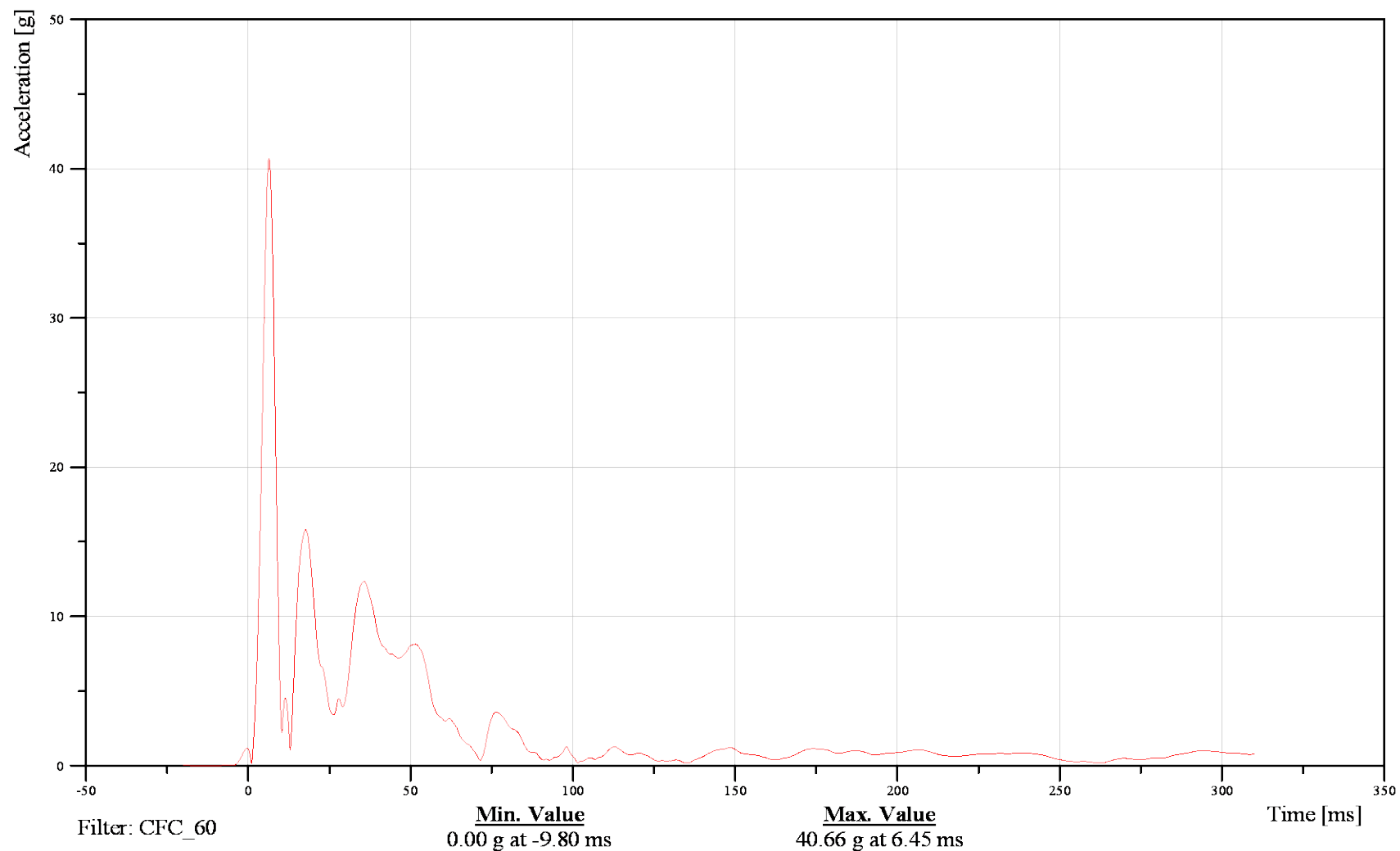
Time: 14:31

Customer: VRTC

11VEHCCG0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Front Sill at Front Seat (X)

Date: 03/27/2013

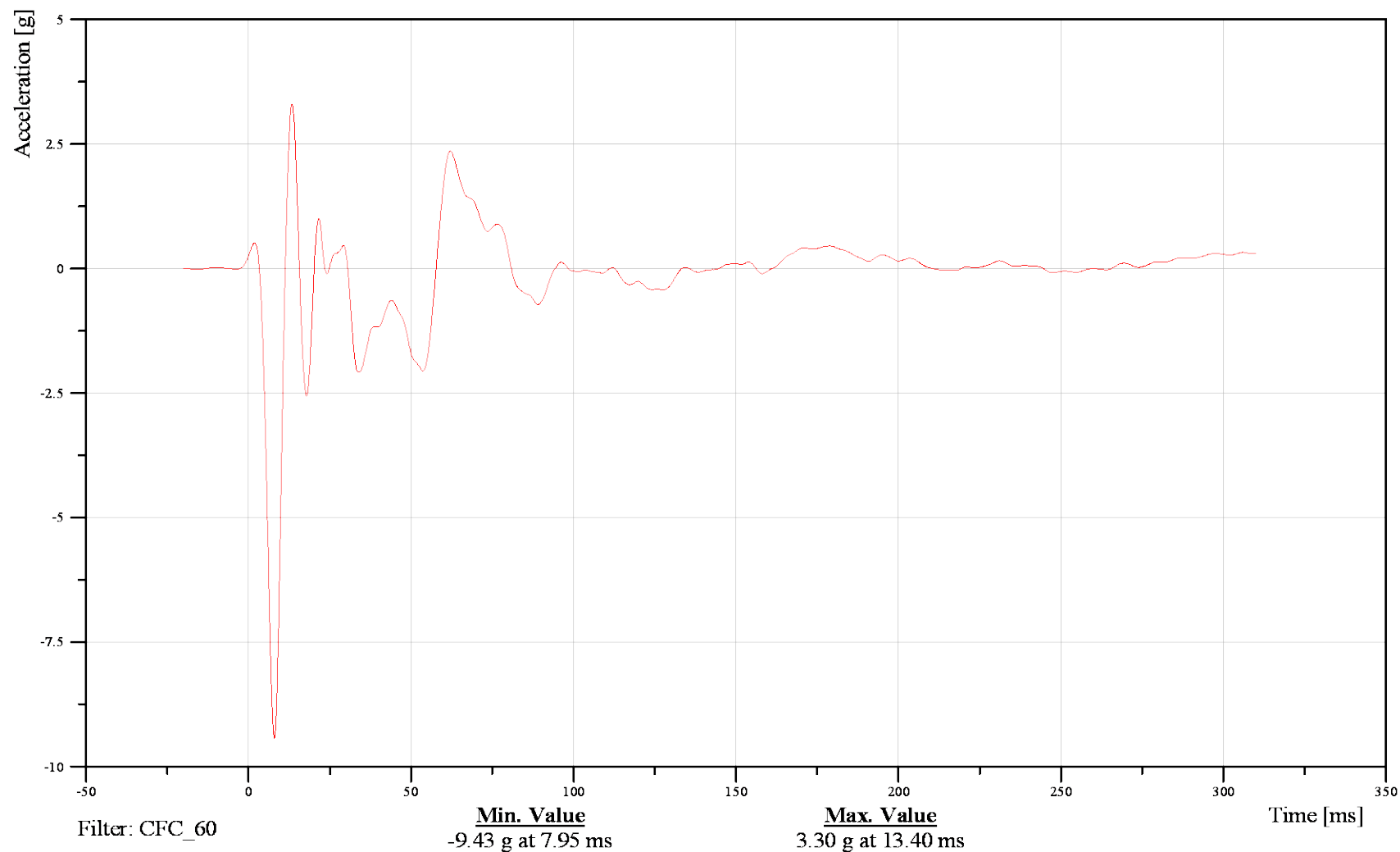
Time: 14:31

Customer: VRTC

11SILBRIFR00ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Front Sill at Front Seat (Y)

Date: 03/27/2013

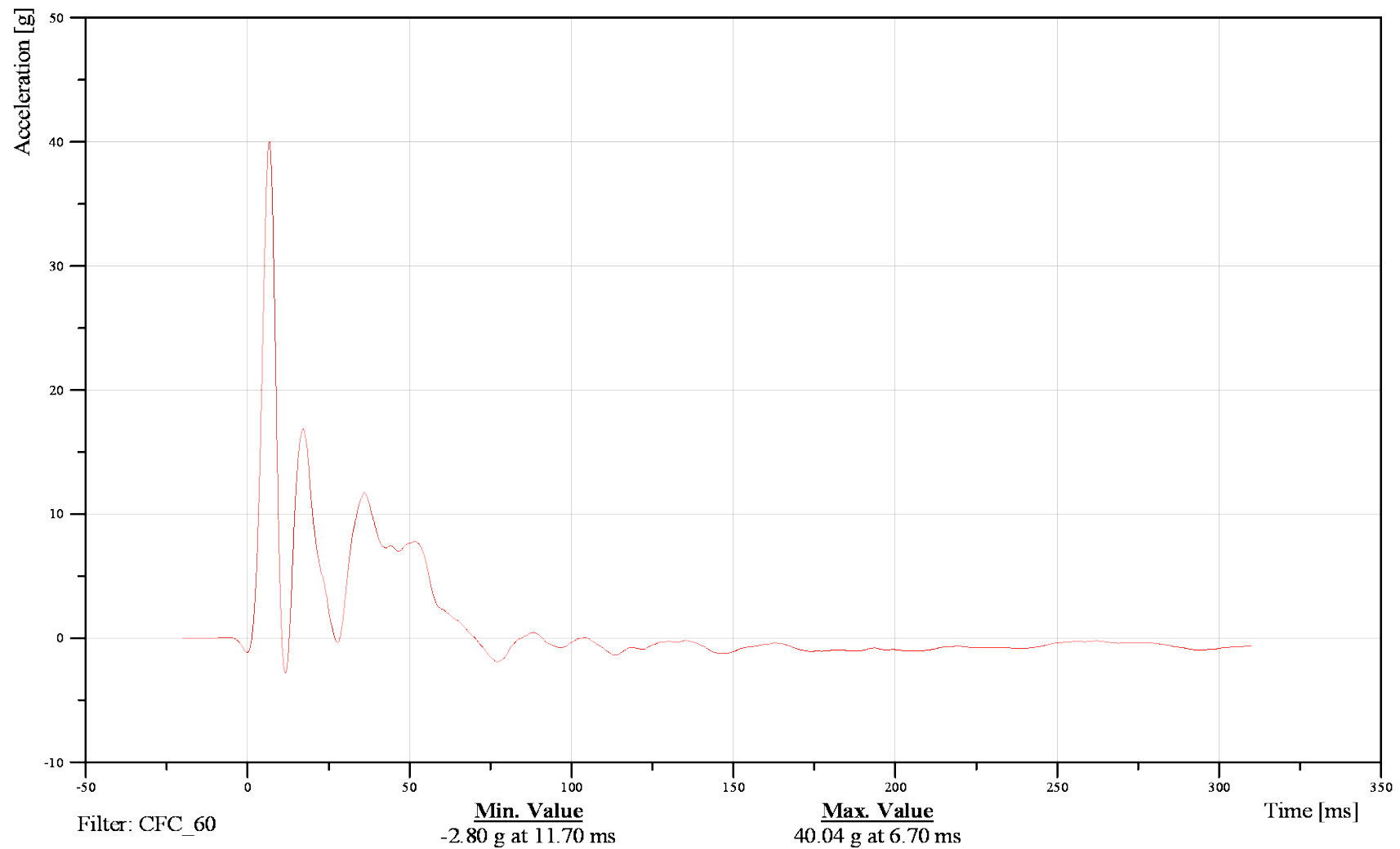
Time: 14:31

Customer: VRTC

11SILBRIFR00ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Front Sill at Front Seat (Z)

Date: 03/27/2013

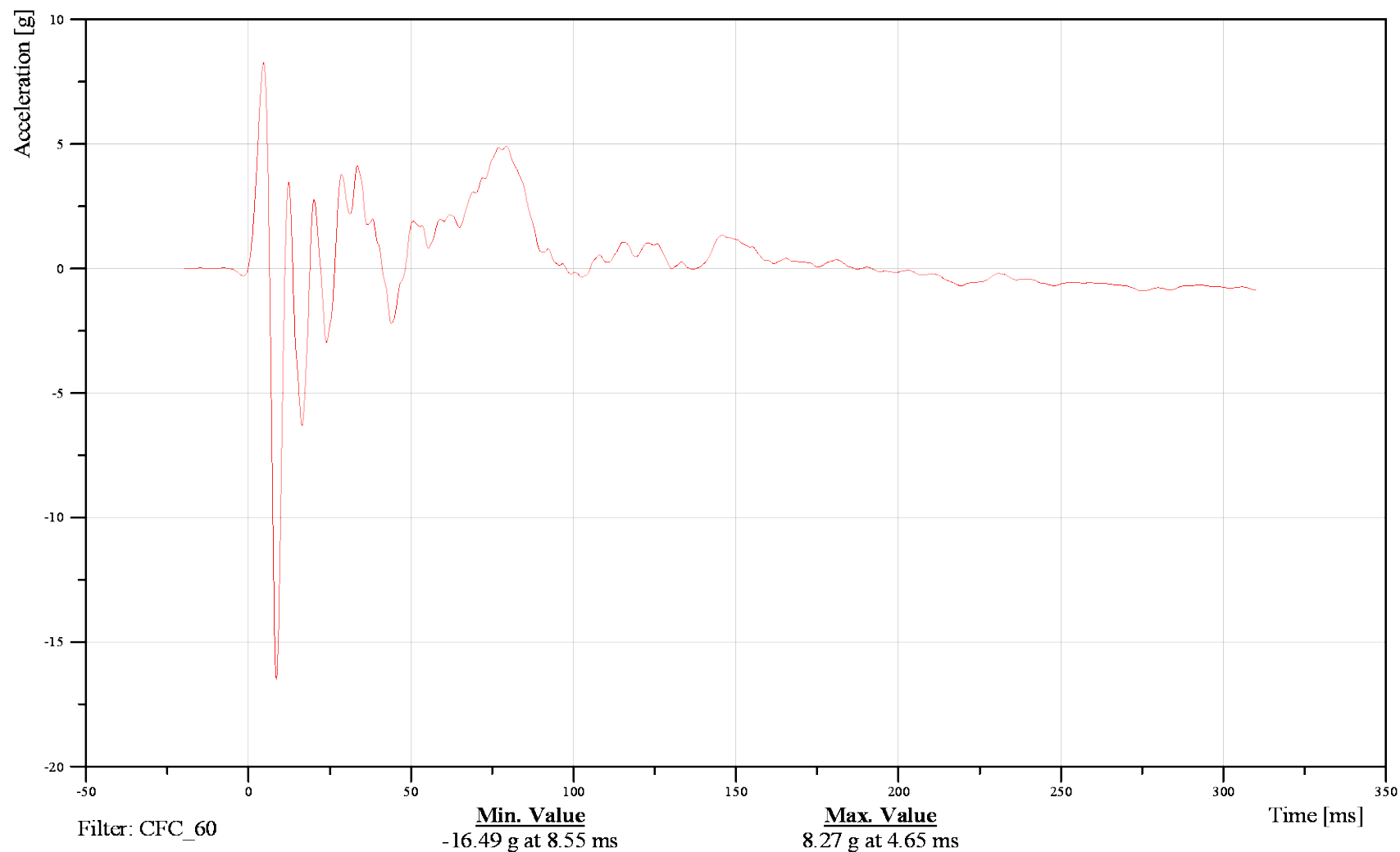
Time: 14:31

Customer: VRTC

11SILBRIFR00ACZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Front Sill at Front Seat Resultant

Date: 03/27/2013

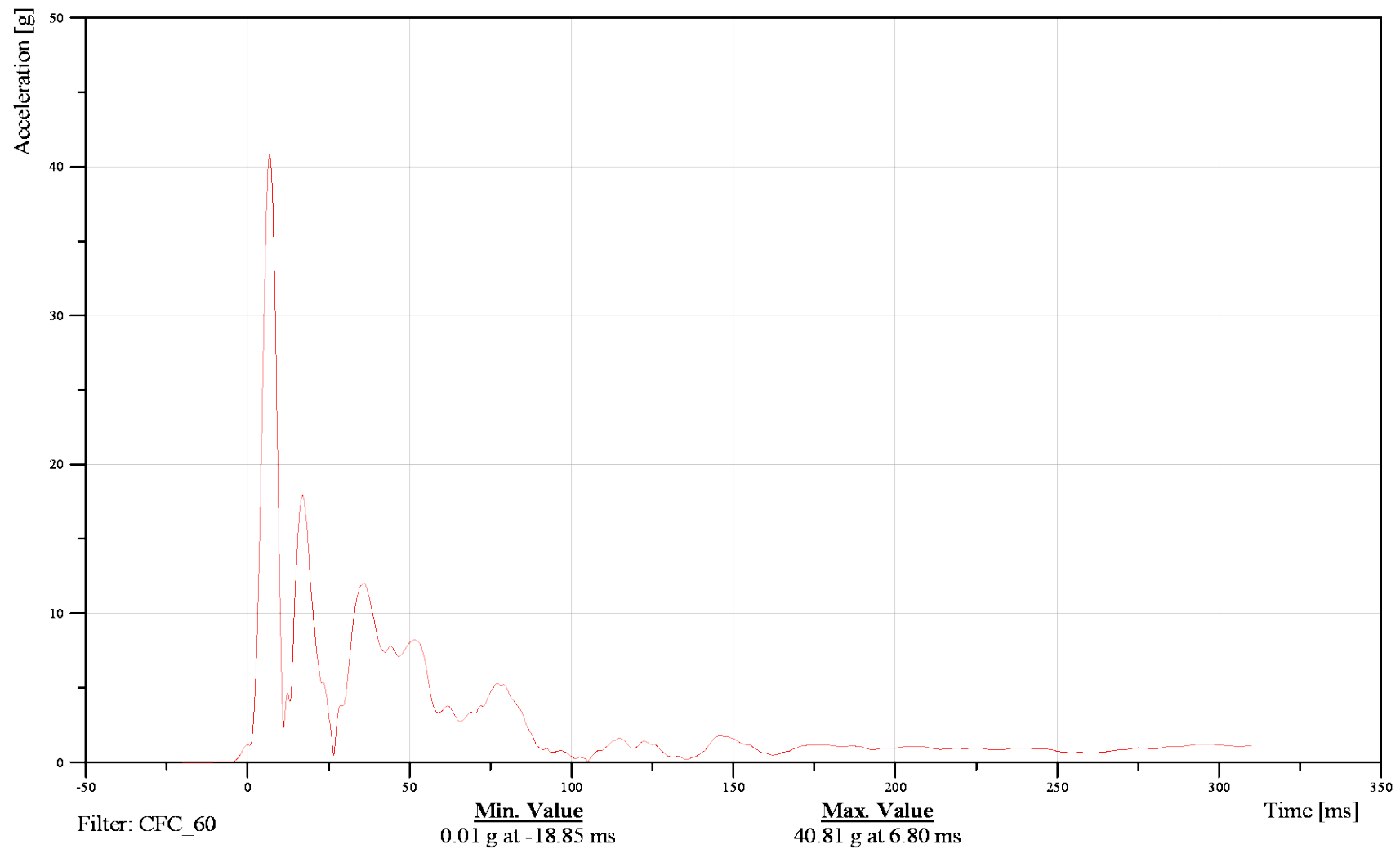
Time: 14:31

Customer: VRTC

11SILBRIFR00ACRD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Rear Sill at Rear Seat (X)

Date: 03/27/2013

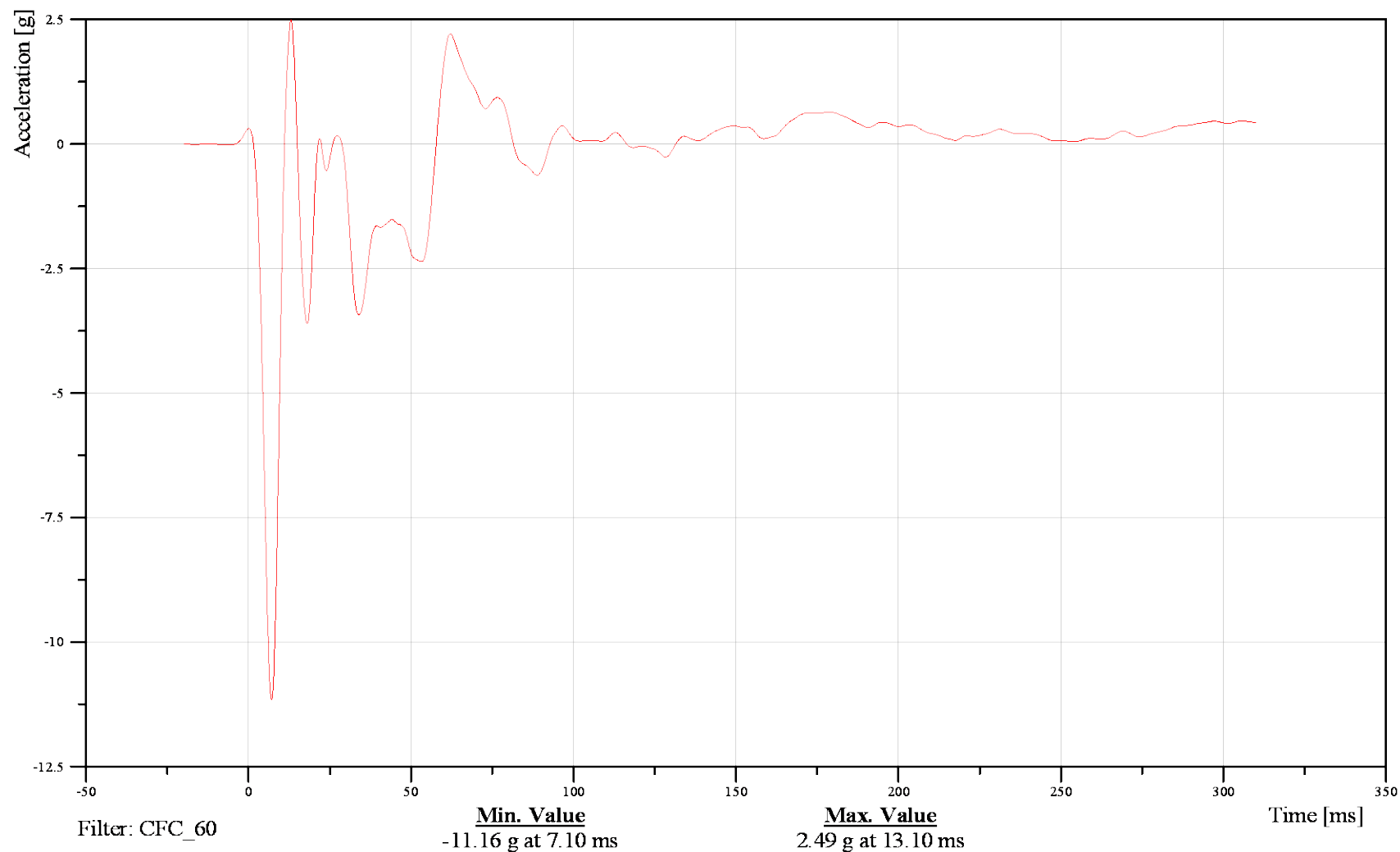
Time: 14:31

Customer: VRTC

11SILBRIRE00ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Rear Sill at Rear Seat (Y)

Date: 03/27/2013

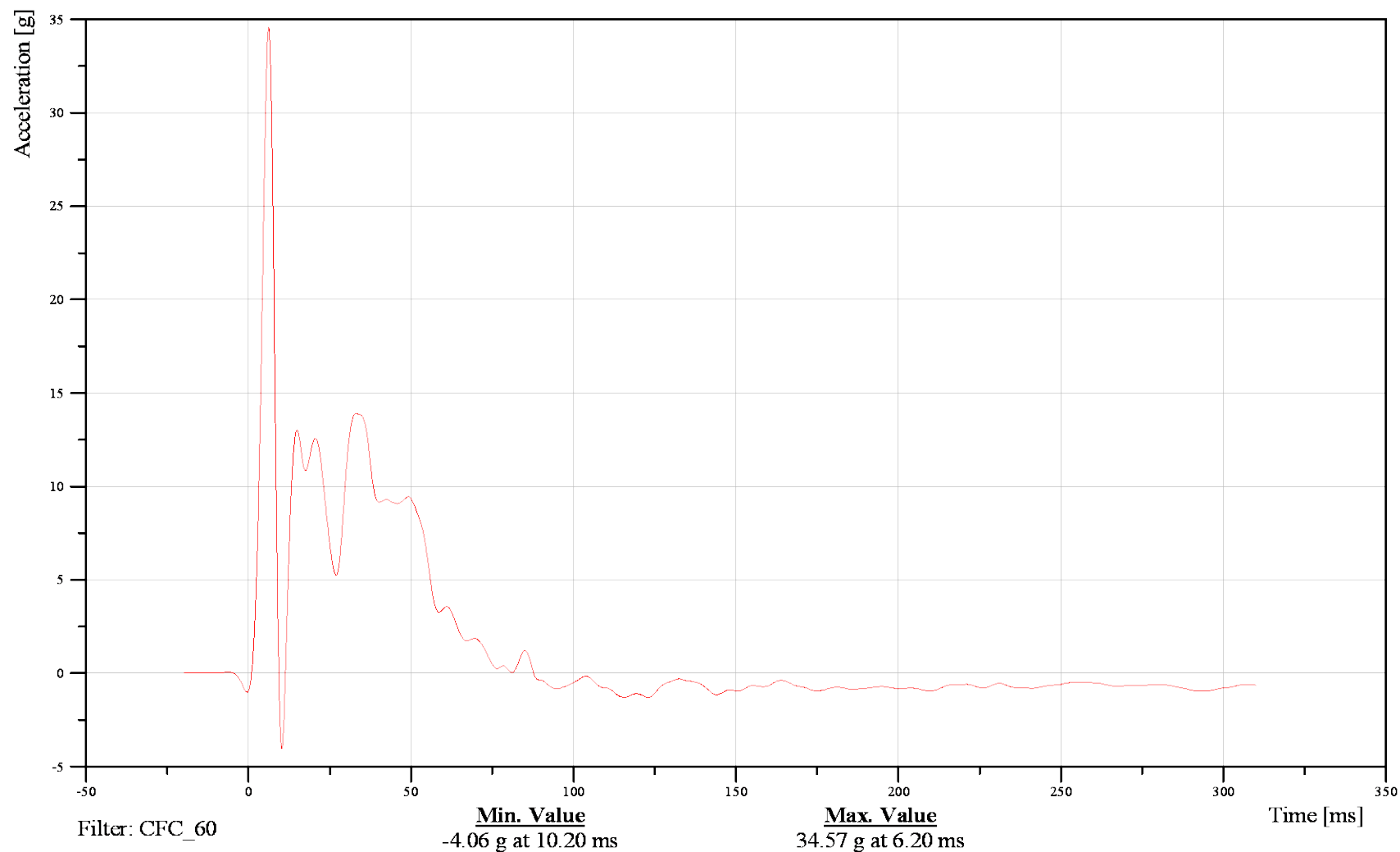
Time: 14:31

Customer: VRTC

11SILBRIRE00ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Rear Sill at Rear Seat (Z)

Date: 03/27/2013

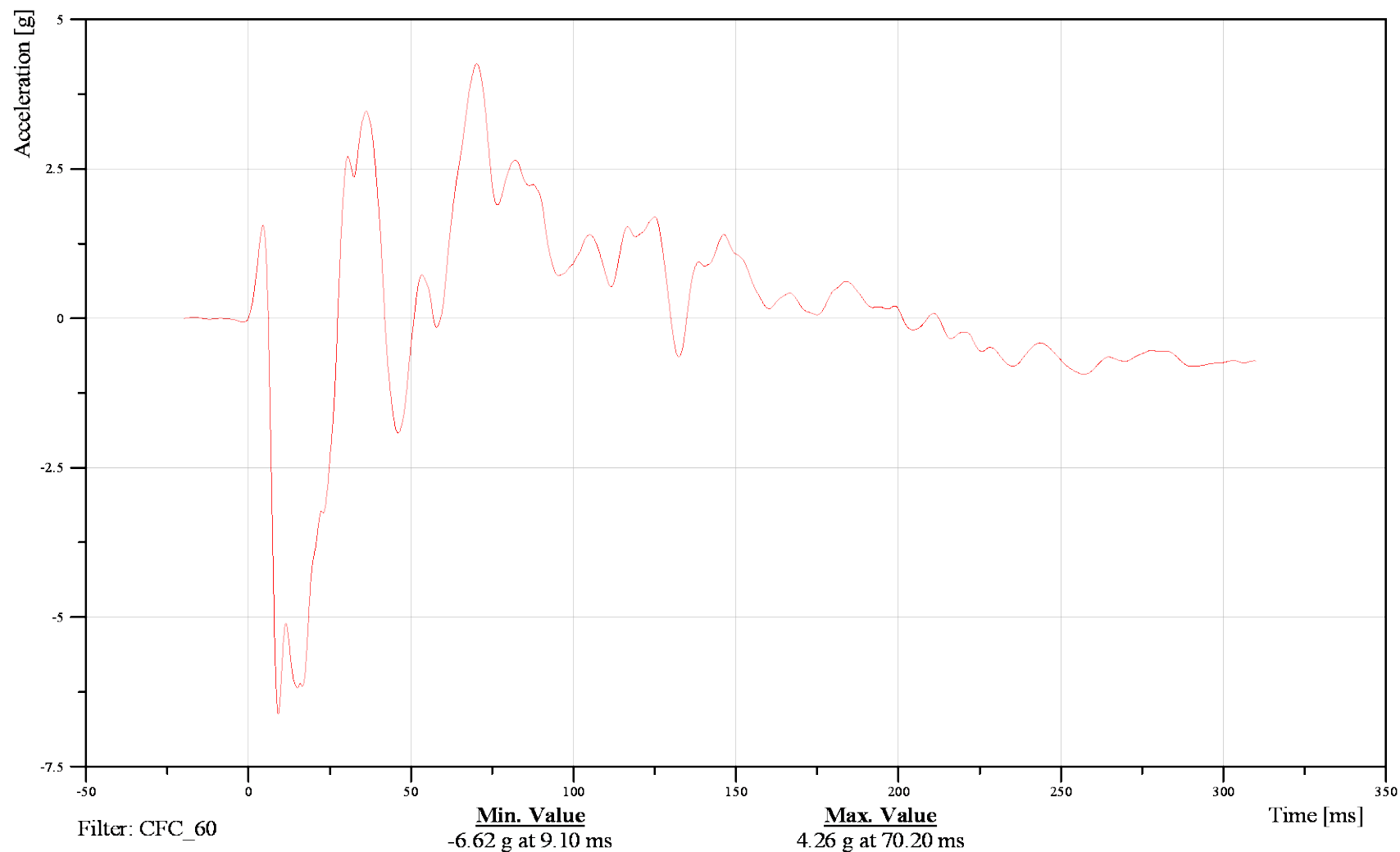
Time: 14:31

Customer: VRTC

11SILBRIRE00ACZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Right Rear Sill at Rear Seat Resultant

Date: 03/27/2013

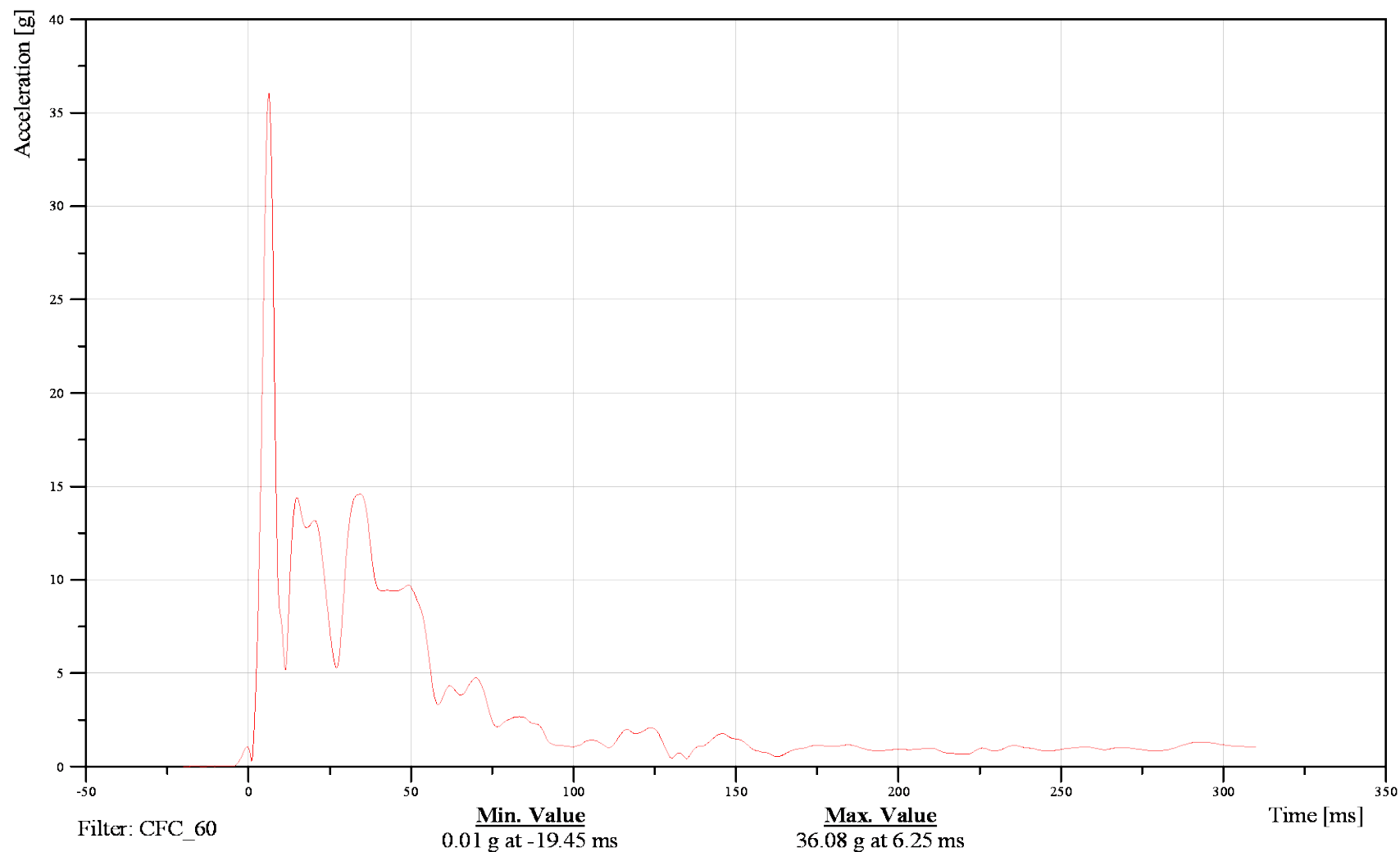
Time: 14:31

Customer: VRTC

11SILBRIRE00ACRD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Side Sill at Front Seat (Y)

Date: 03/27/2013

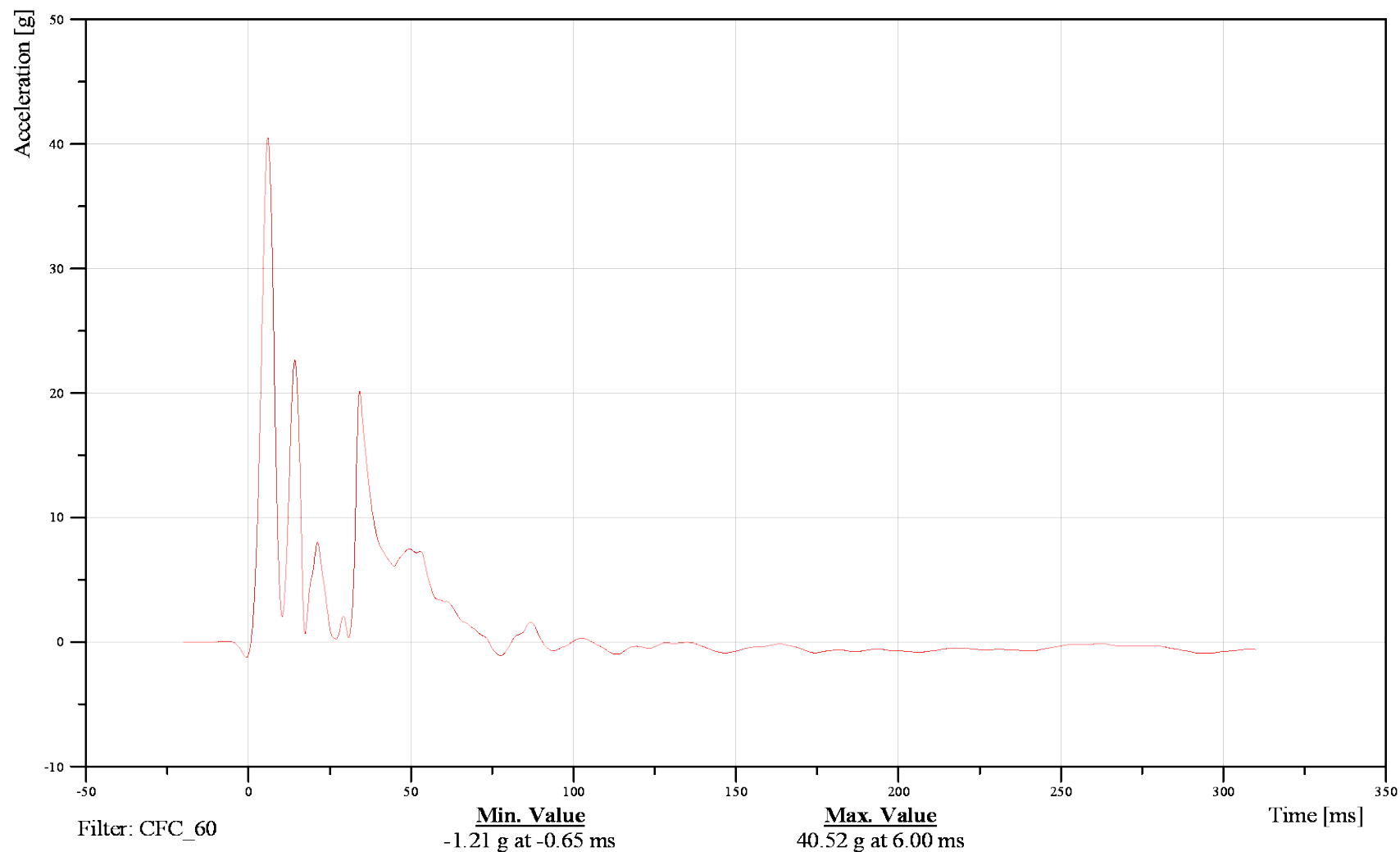
Time: 14:31

Customer: VRTC

11SILBLEFR00ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Side Sill at Rear Seat (Y)

Date: 03/27/2013

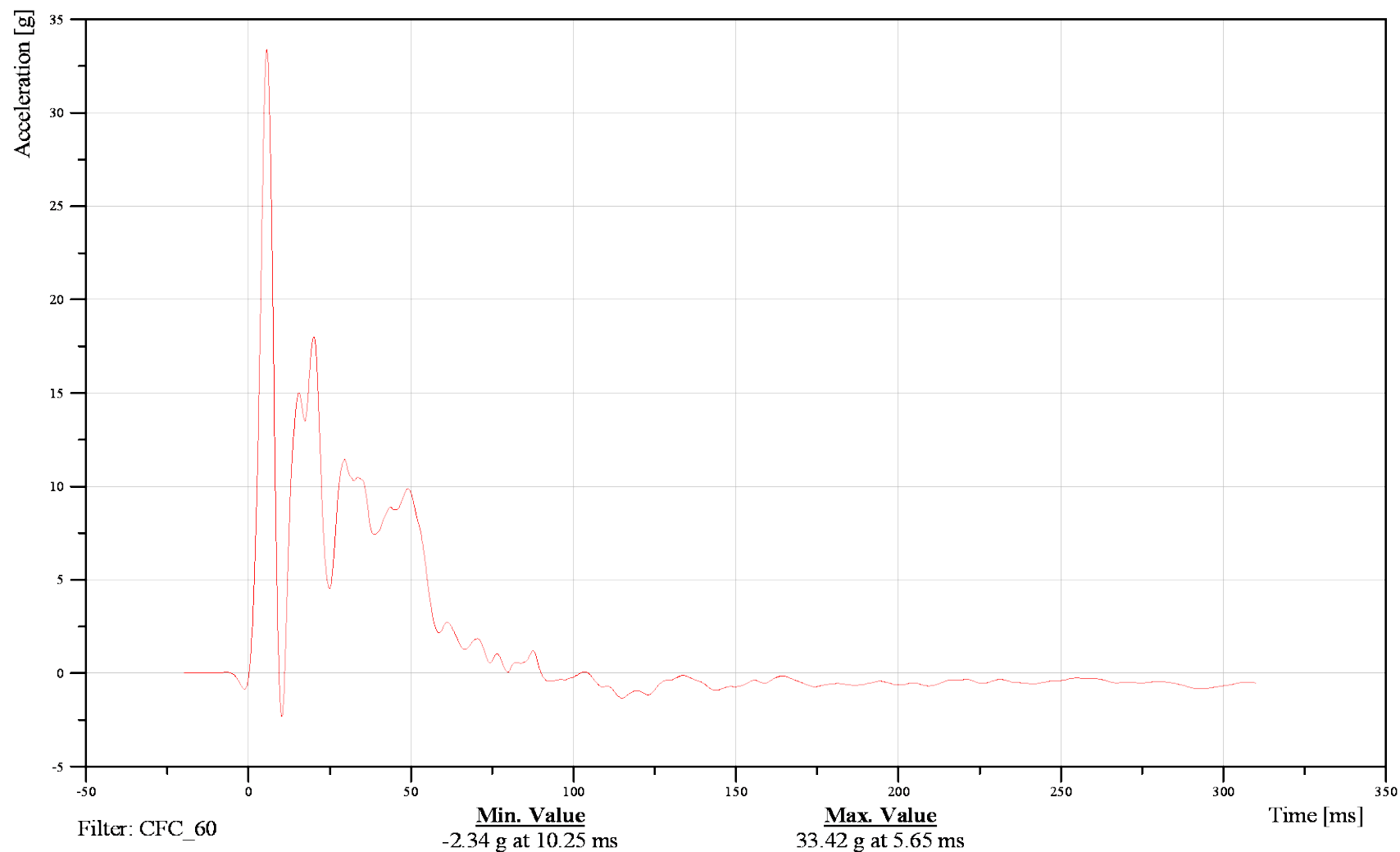
Time: 14:31

Customer: VRTC

11SILBLERE00ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Lower A Post (Y)

Date: 03/27/2013

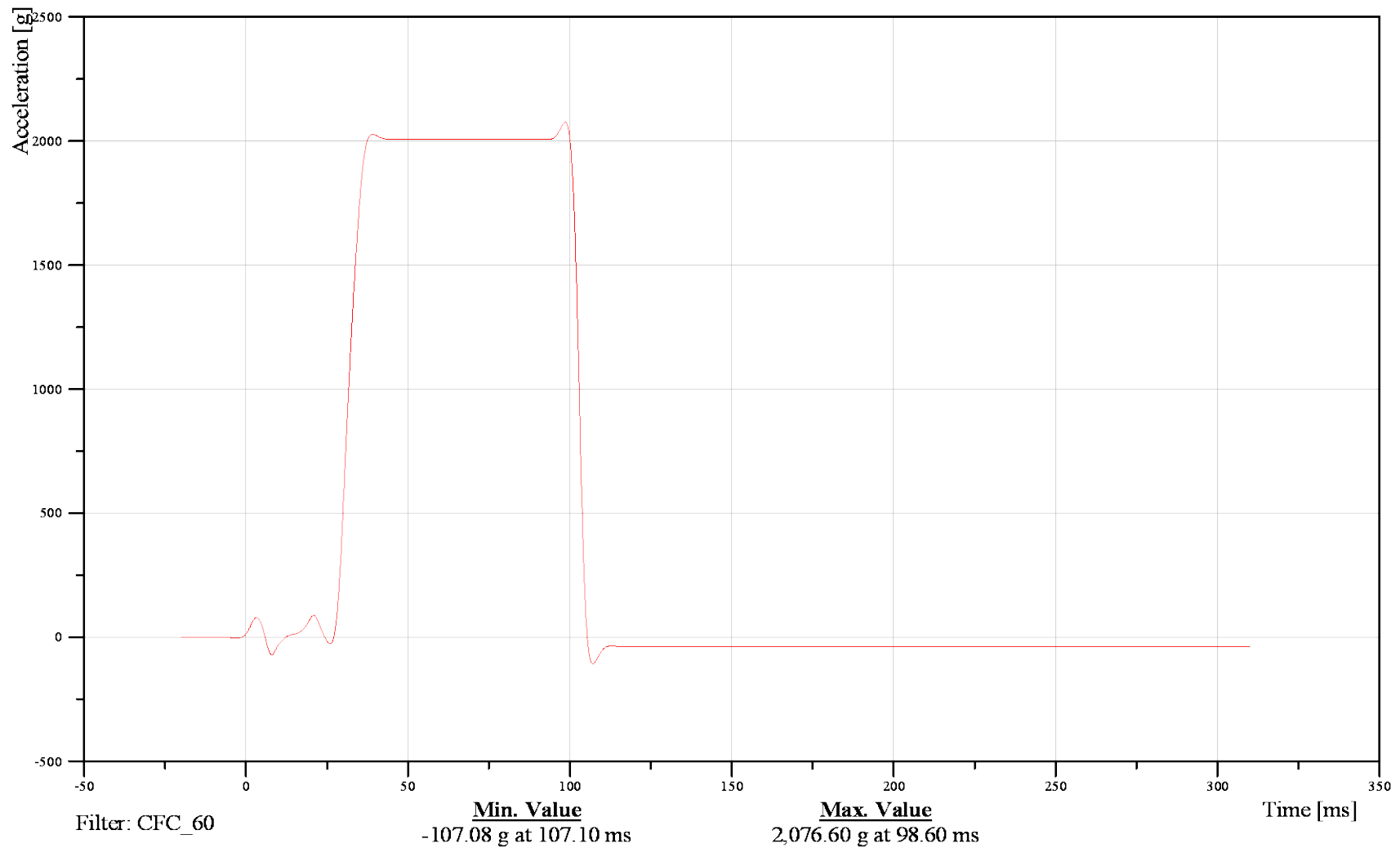
Time: 14:31

Customer: VRTC

11APILO0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Date: 03/27/2013

Time: 14:31

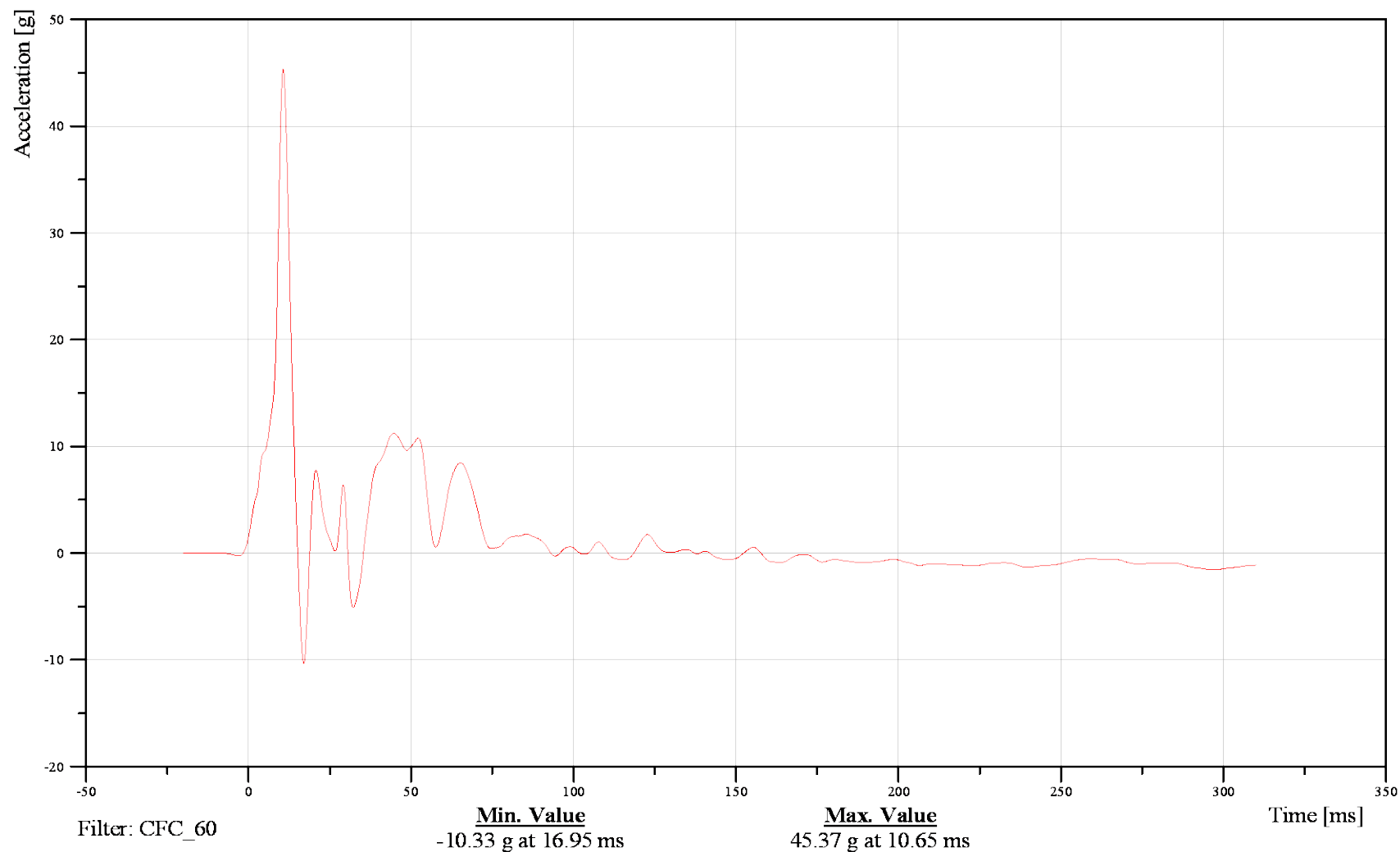
Left Middle A-Post (Y)

Customer: VRTC

11APILMI0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Lower B Post (Y)

Date: 03/27/2013

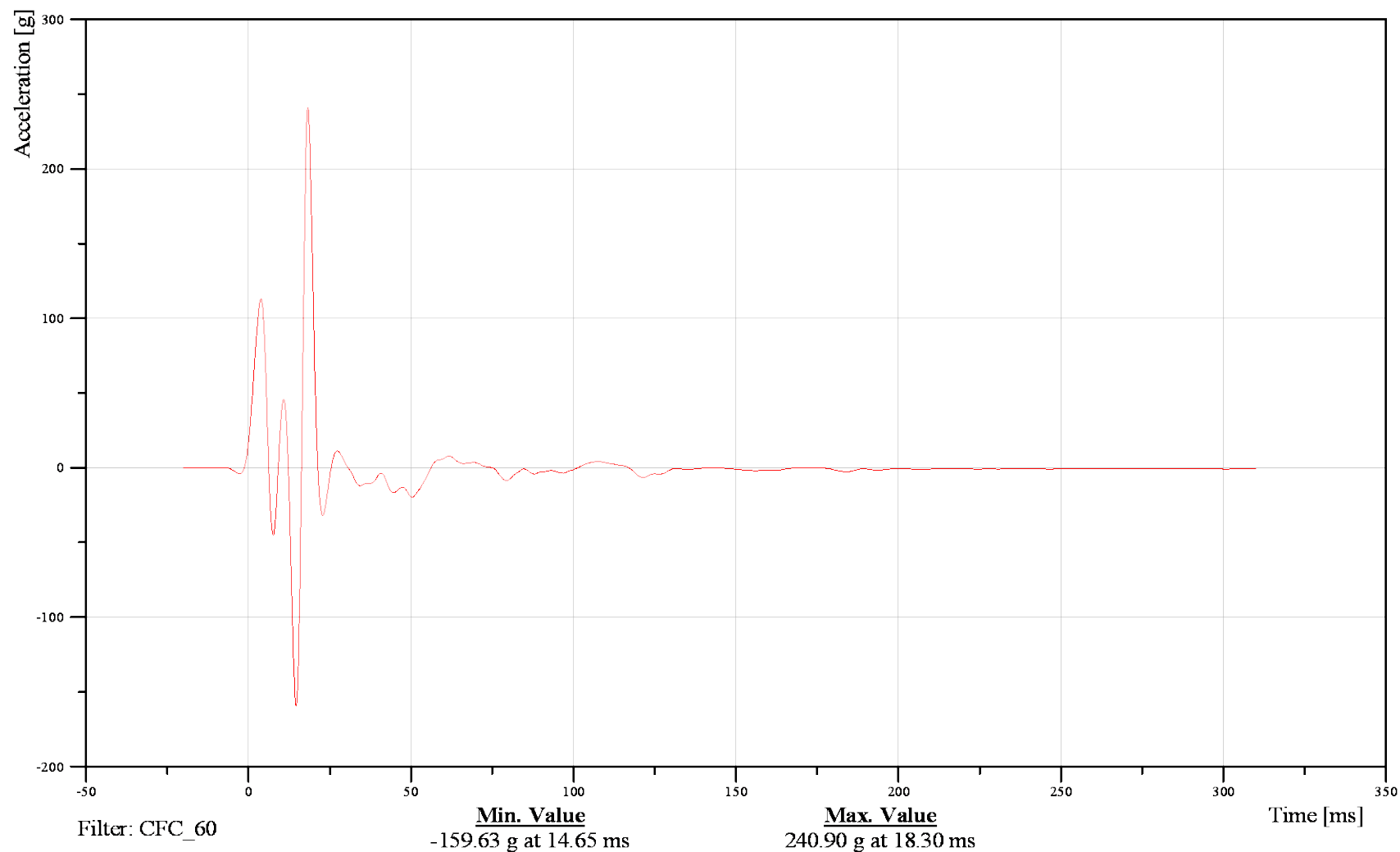
Time: 14:31

Customer: VRTC

11BPILLO0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Middle B Post (Y)

Date: 03/27/2013

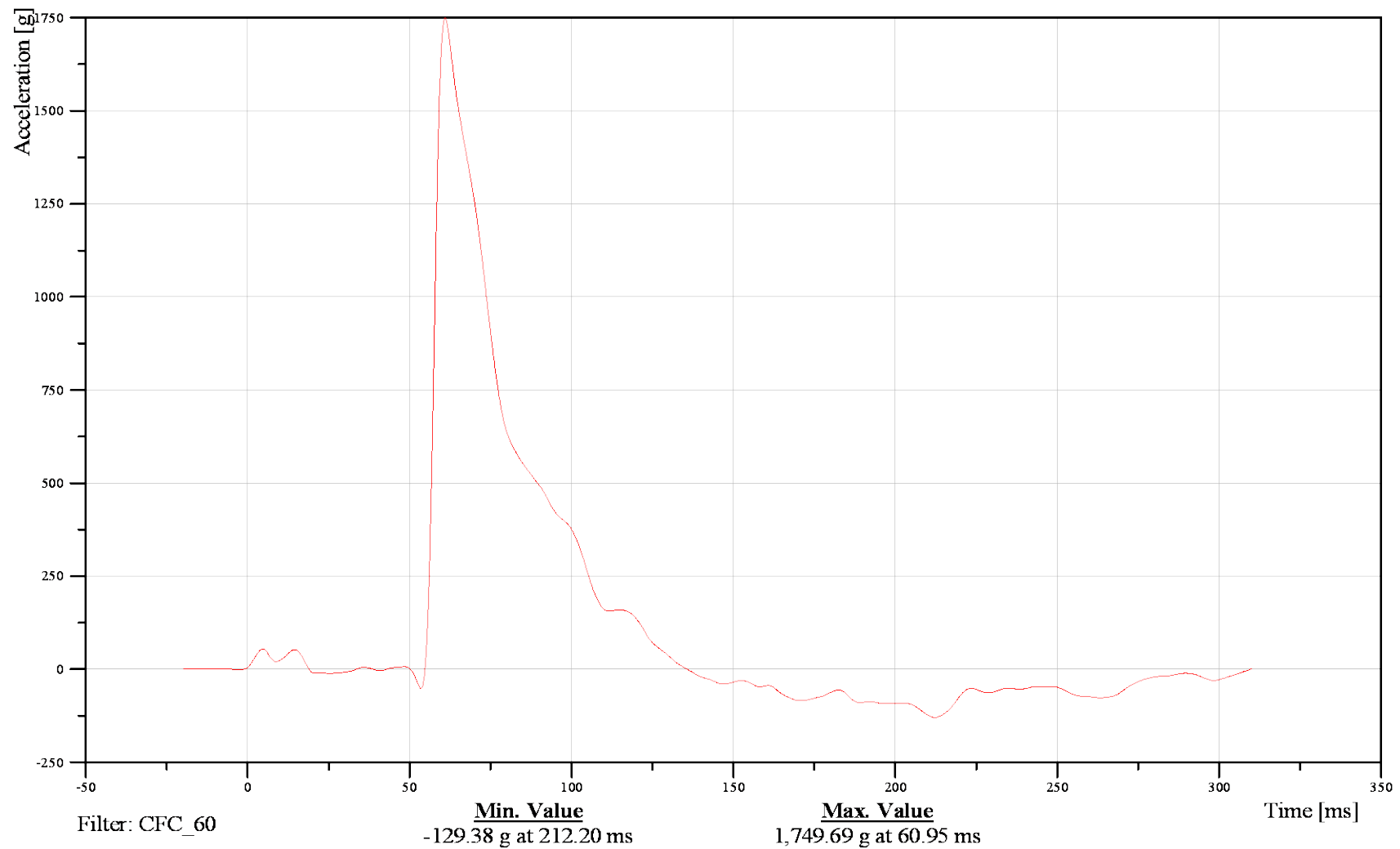
Time: 14:31

Customer: VRTC

11BPILMI0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Front Seat Track (Y)

Date: 03/27/2013

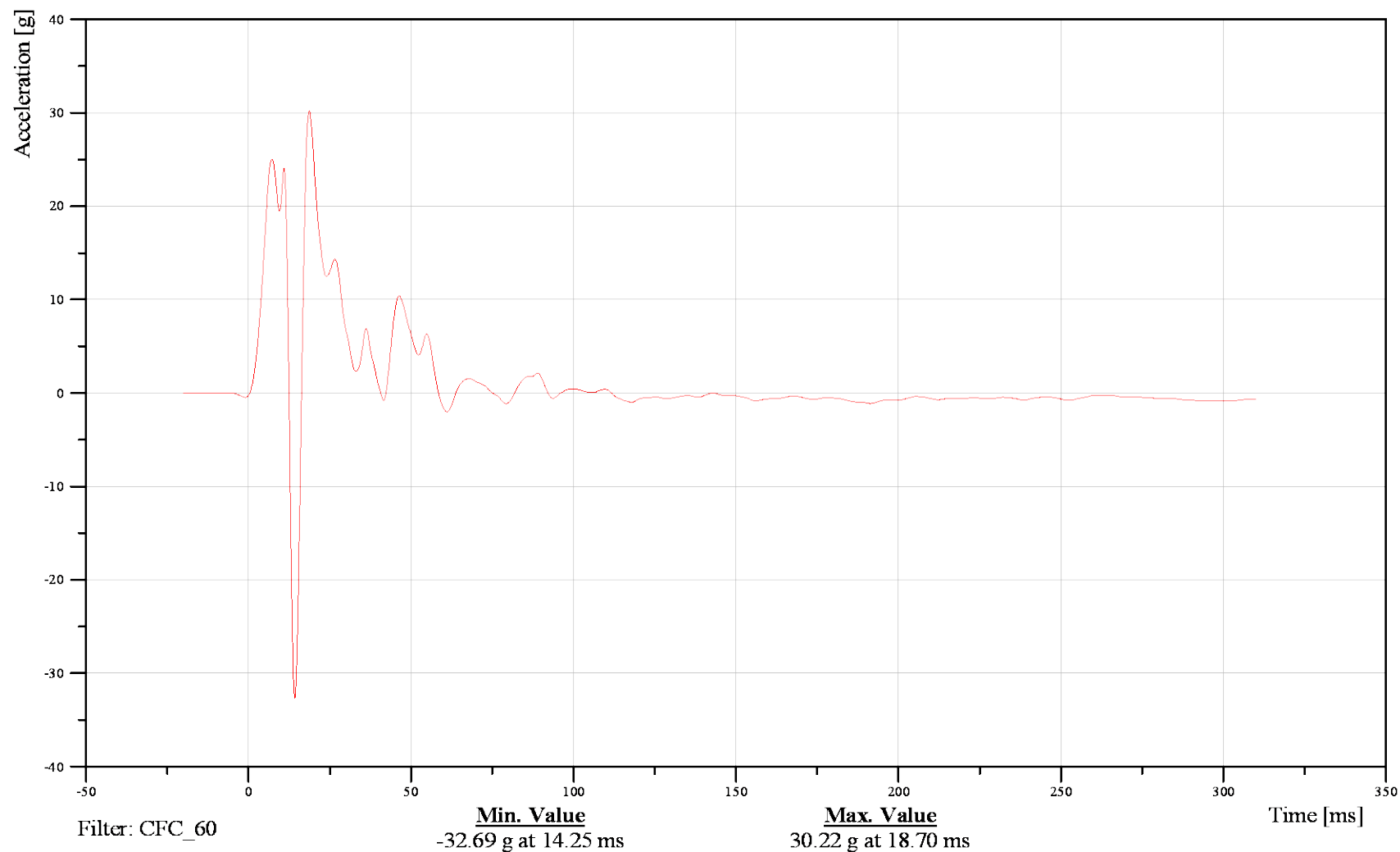
Time: 14:31

Customer: VRTC

11SETR000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

LEFT REAR SEAT STRUCTURE AY

Date: 03/27/2013

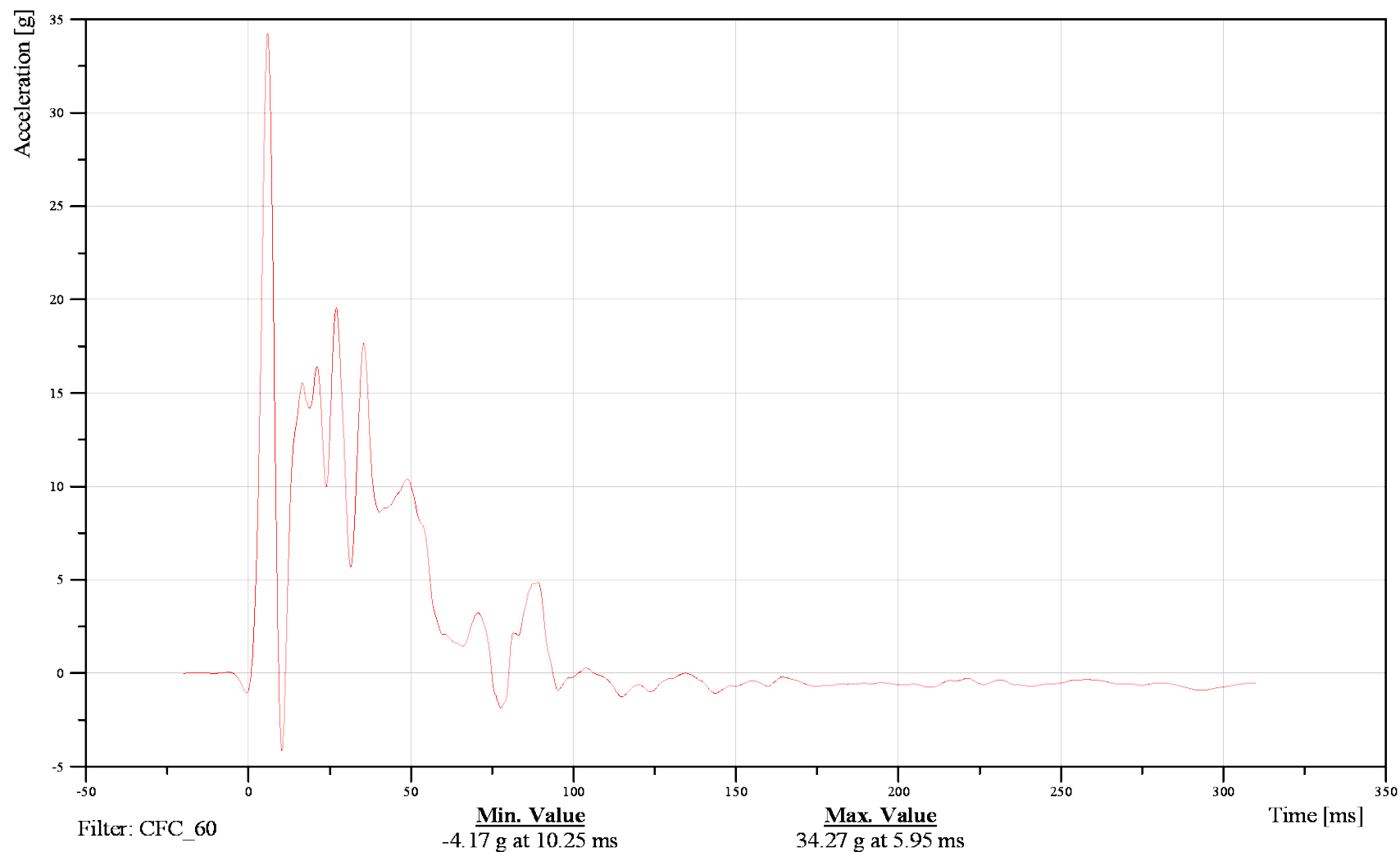
Time: 14:31

Customer: VRTC

11SETRLERE00ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

RIGHT REAR OCCUPANT COMPARTMENT AY

Date: 03/27/2013

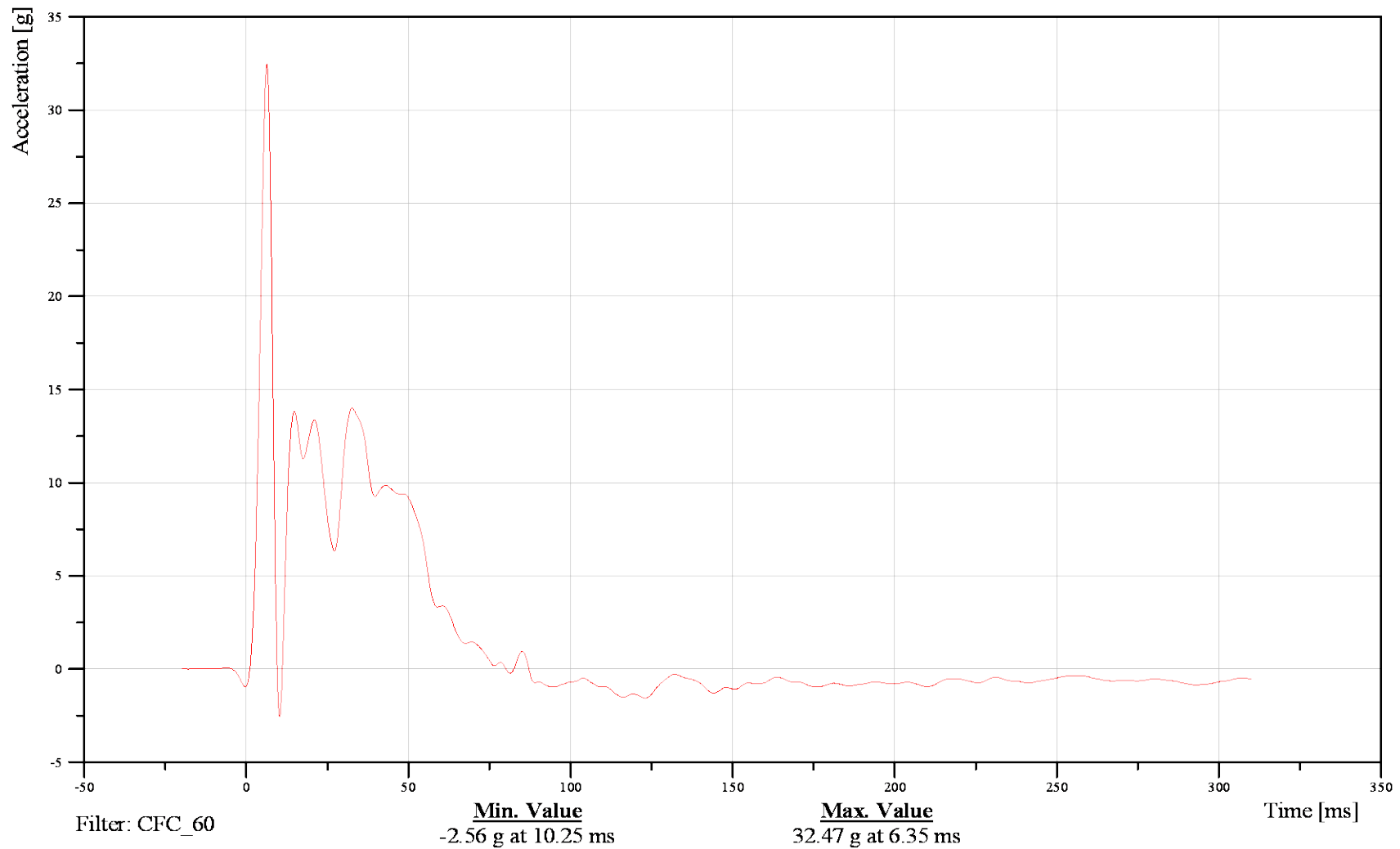
Time: 14:31

Customer: VRTC

11VEHCRIRE00ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

ENGINE BLOCK AX

Date: 03/27/2013

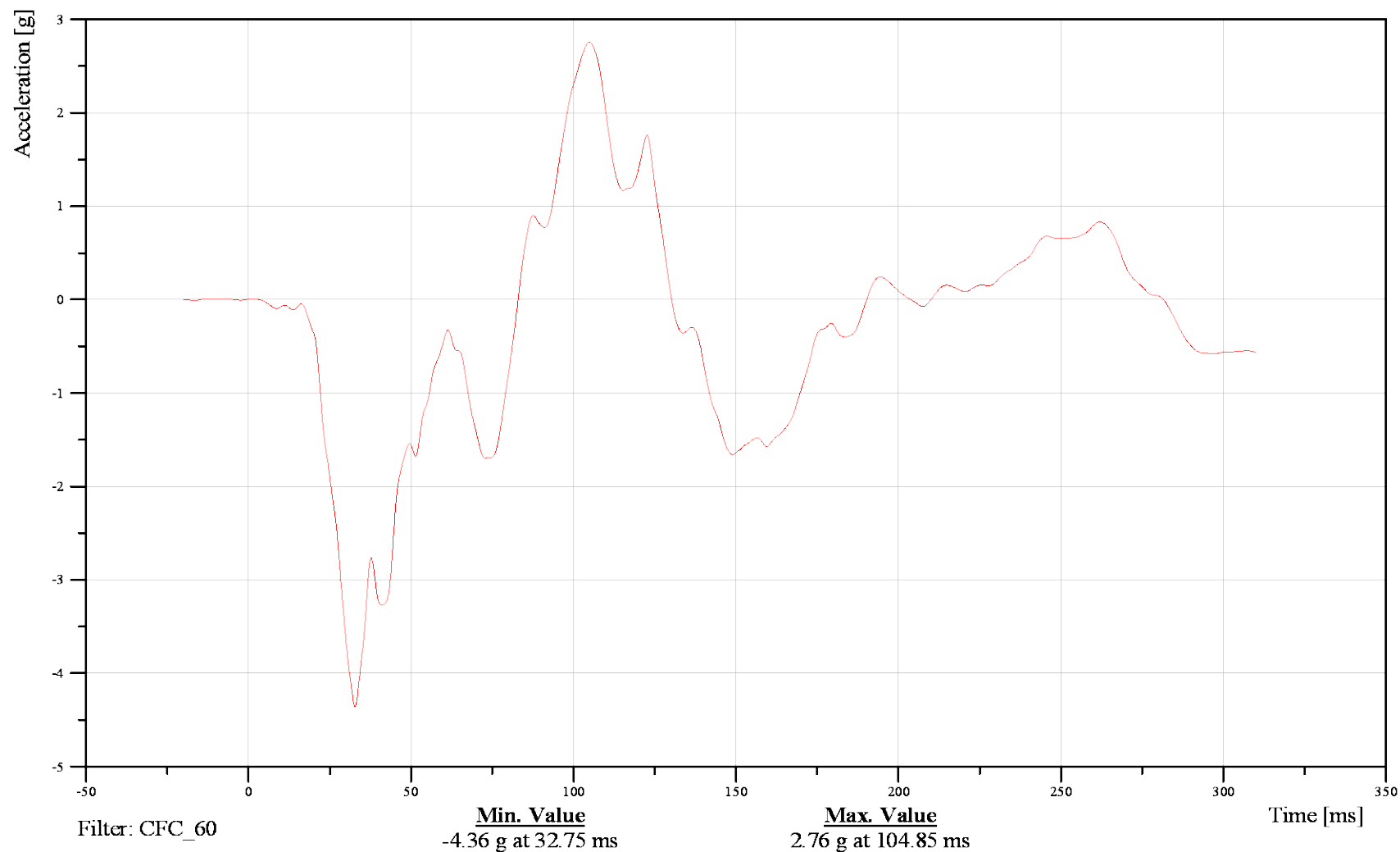
Time: 14:31

Customer: VRTC

11ENGNTTP0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

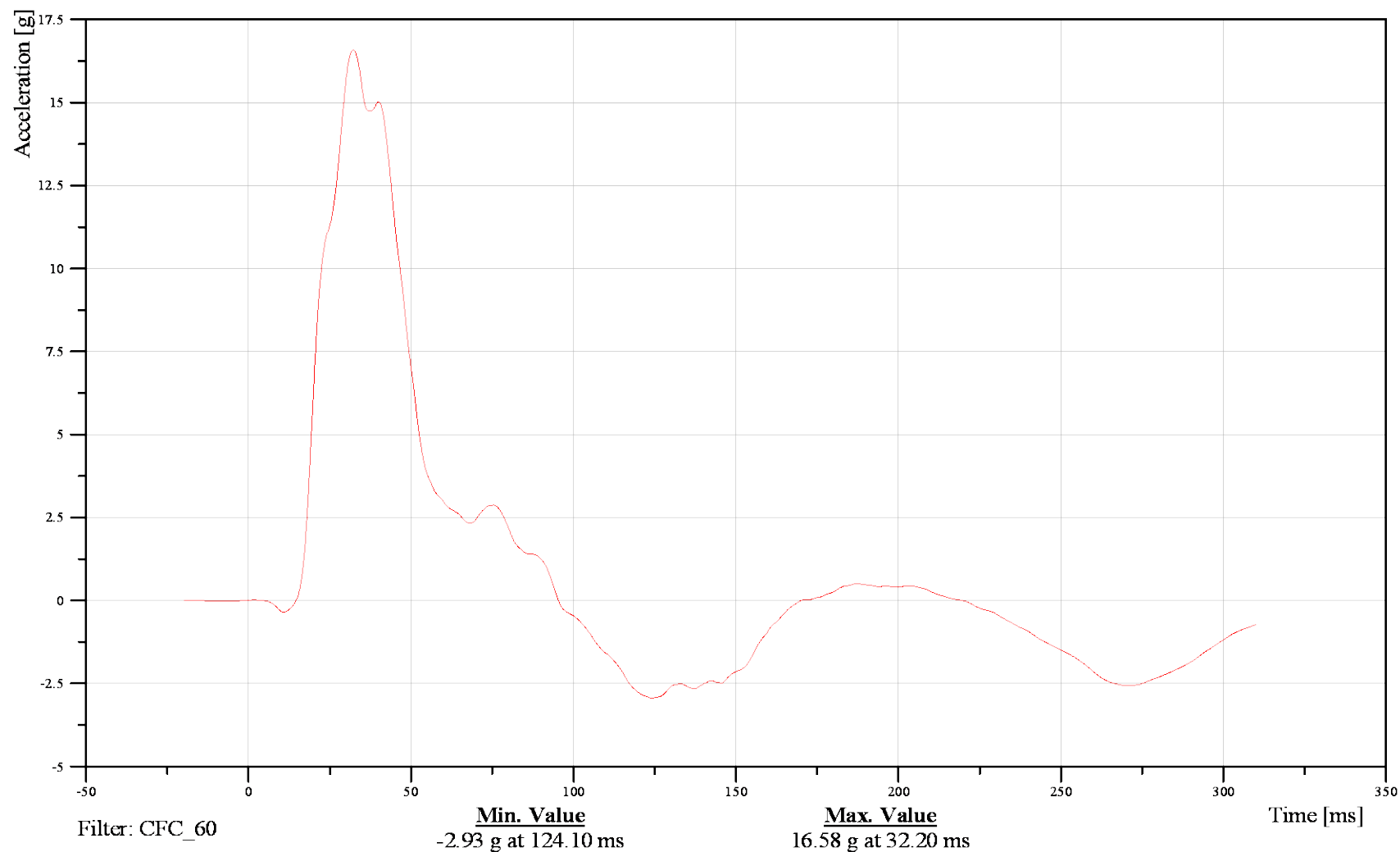
ENGINE BLOCK AY

Date: 03/27/2013
Time: 14:31

Customer: VRTC

11ENGNTTP0000ACYD

TRC Inc. Test Lab: CTF
Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Rear Floor Pan Above Axle (X)

Date: 03/27/2013

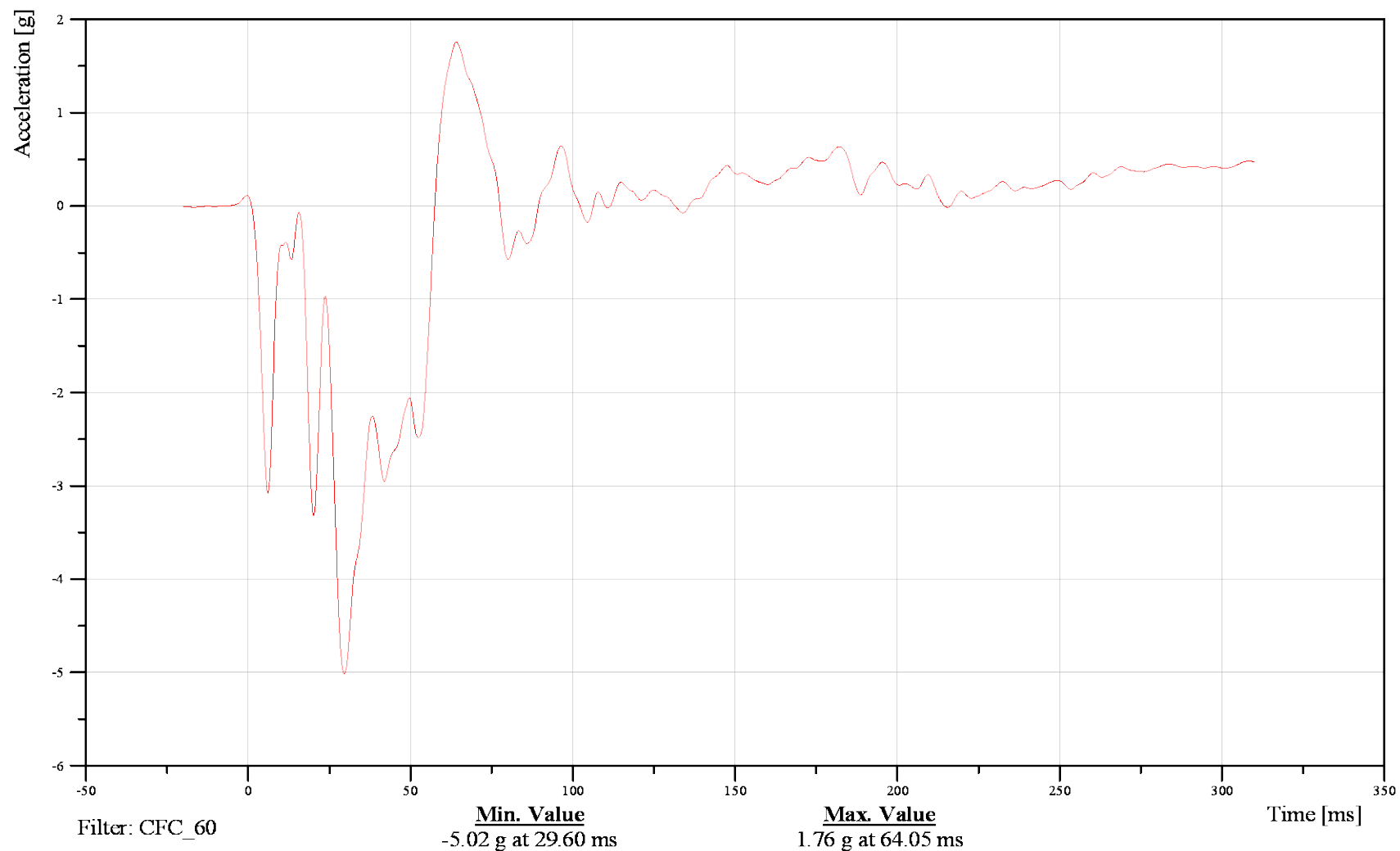
Time: 14:31

Customer: VRTC

11FORA000000ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Rear Floor Pan Above Axle (Y)

Date: 03/27/2013

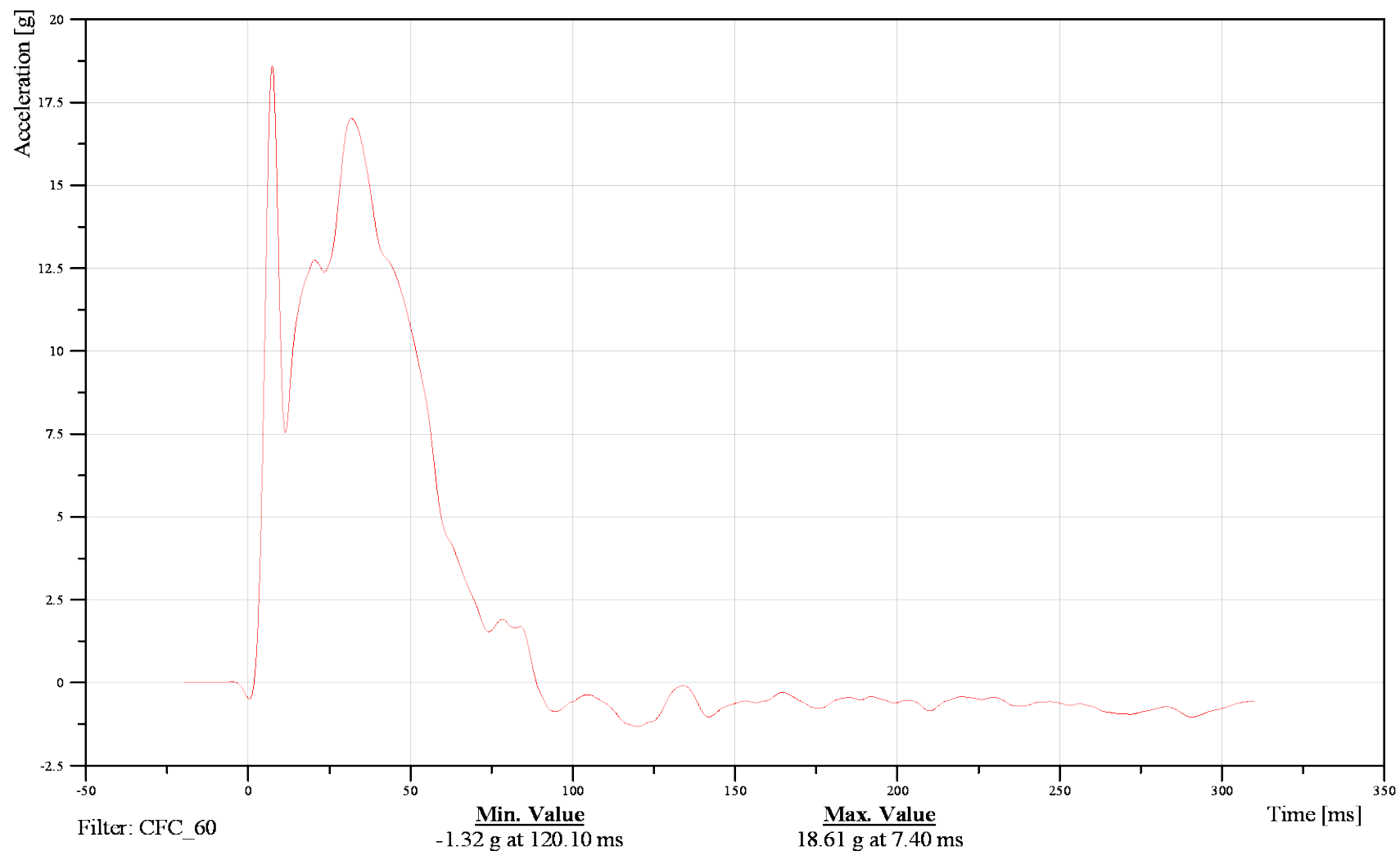
Time: 14:31

Customer: VRTC

11FORA000000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Rear Floor Pan Above Axle (Z)

Date: 03/27/2013

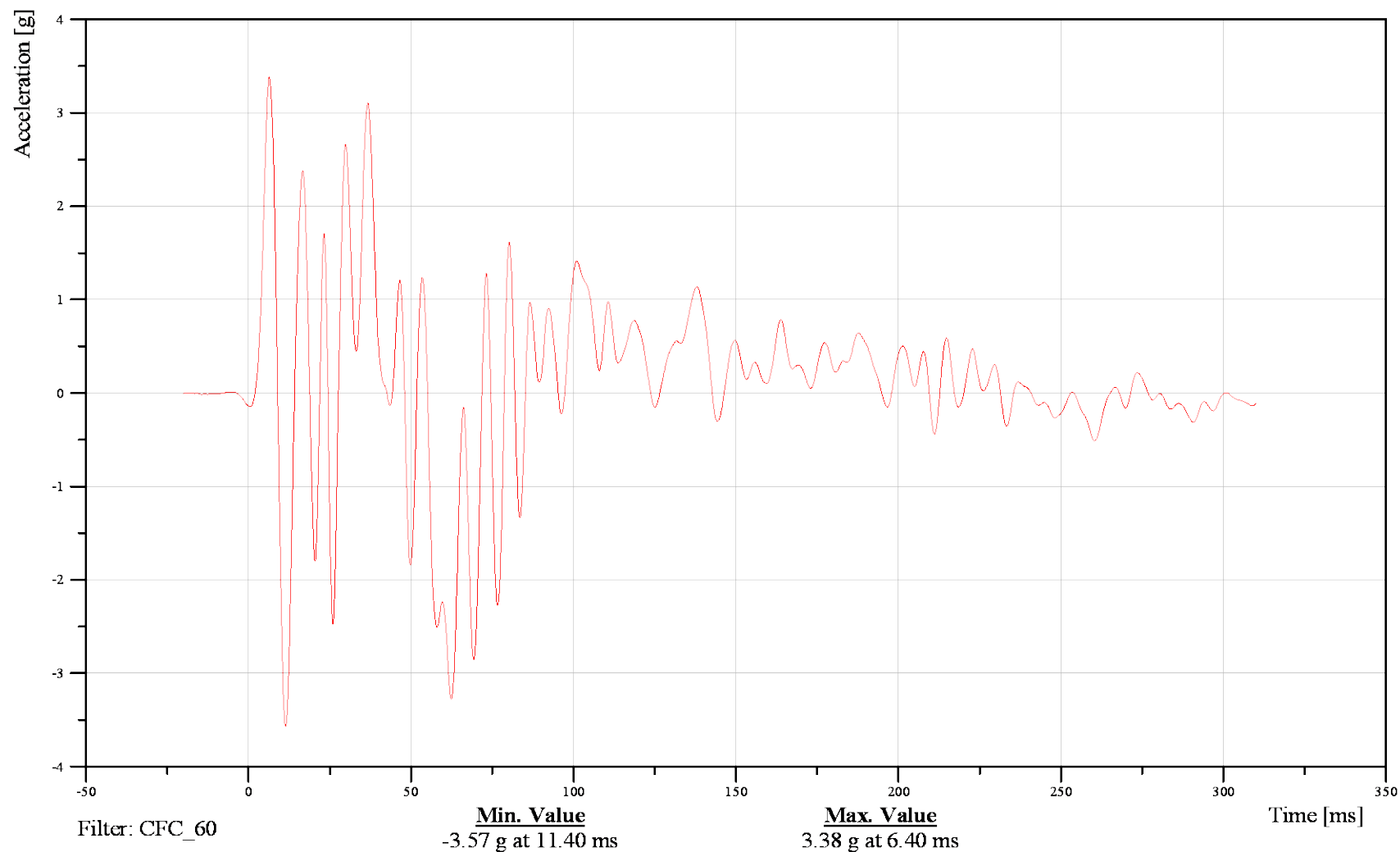
Time: 14:31

Customer: VRTC

11FORA000000ACZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Rear Floor Pan Above Axle Resultant

Date: 03/27/2013

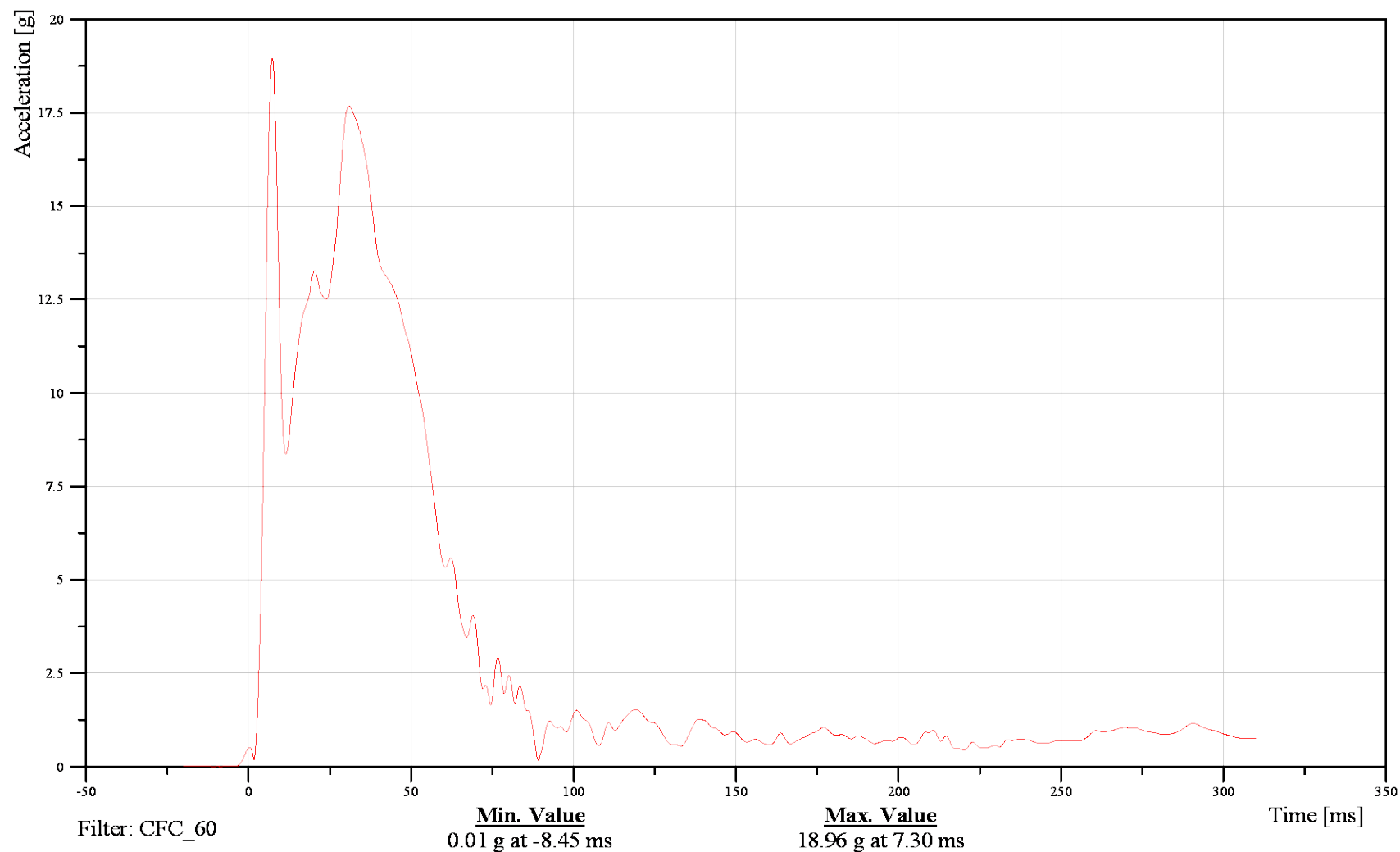
Time: 14:31

Customer: VRTC

11FORA000000ACRD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Vehicle at EDR (X)

Date: 03/27/2013

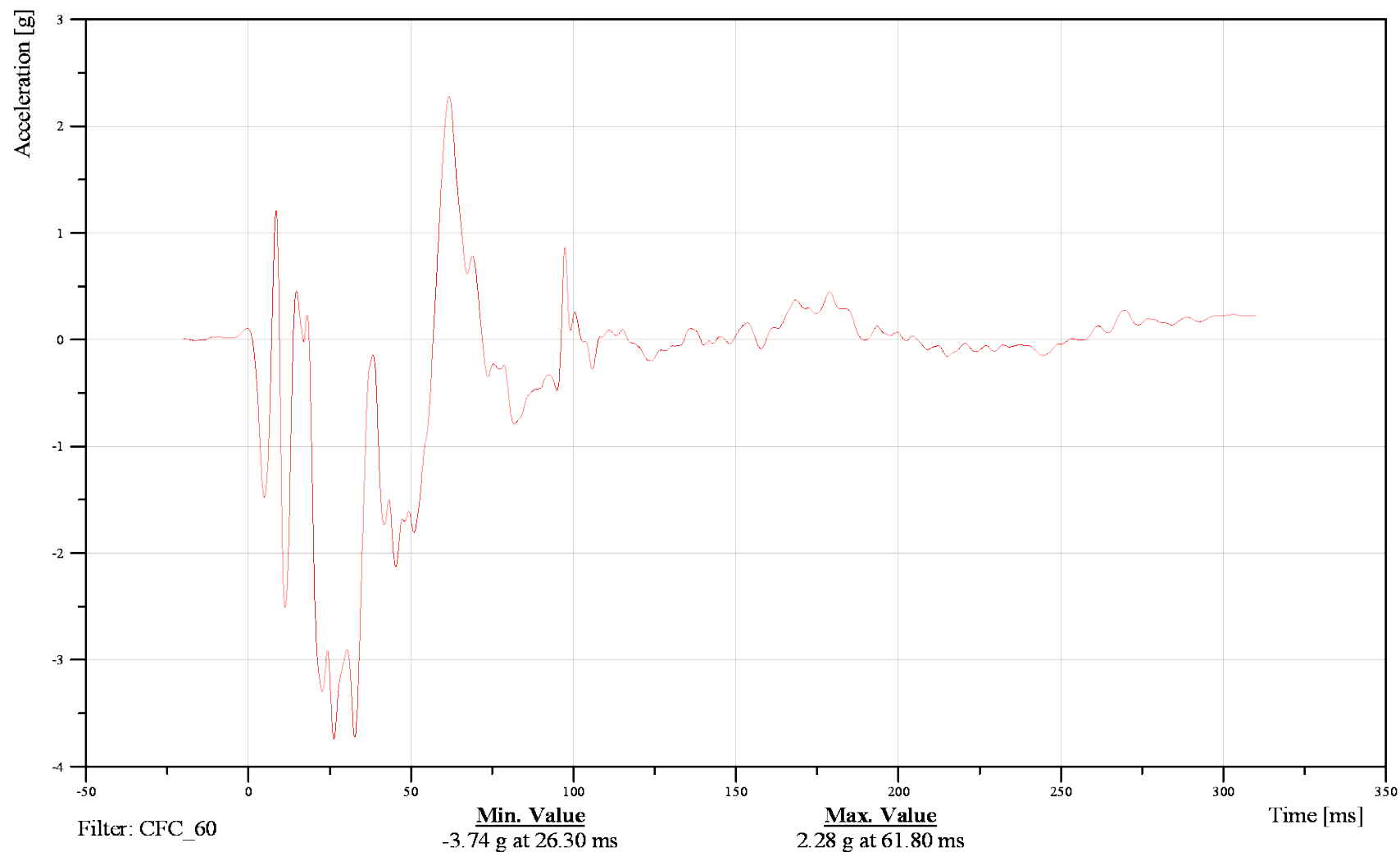
Time: 14:31

Customer: VRTC

11VEHCEDR000ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Vehicle at EDR (Y)

Date: 03/27/2013

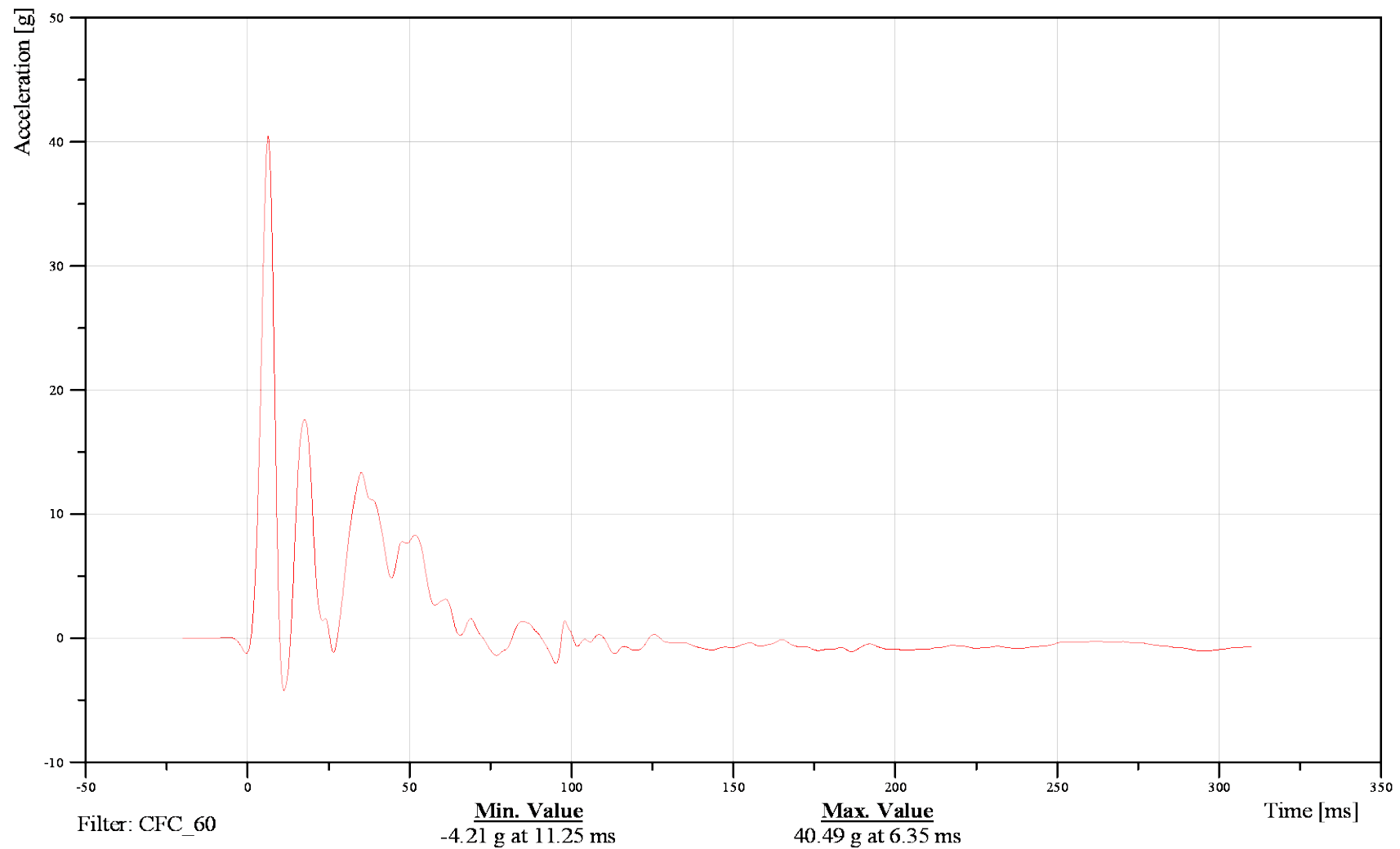
Time: 14:31

Customer: VRTC

11VEHCEDR000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Vehicle at EDR (Z)

Date: 03/27/2013

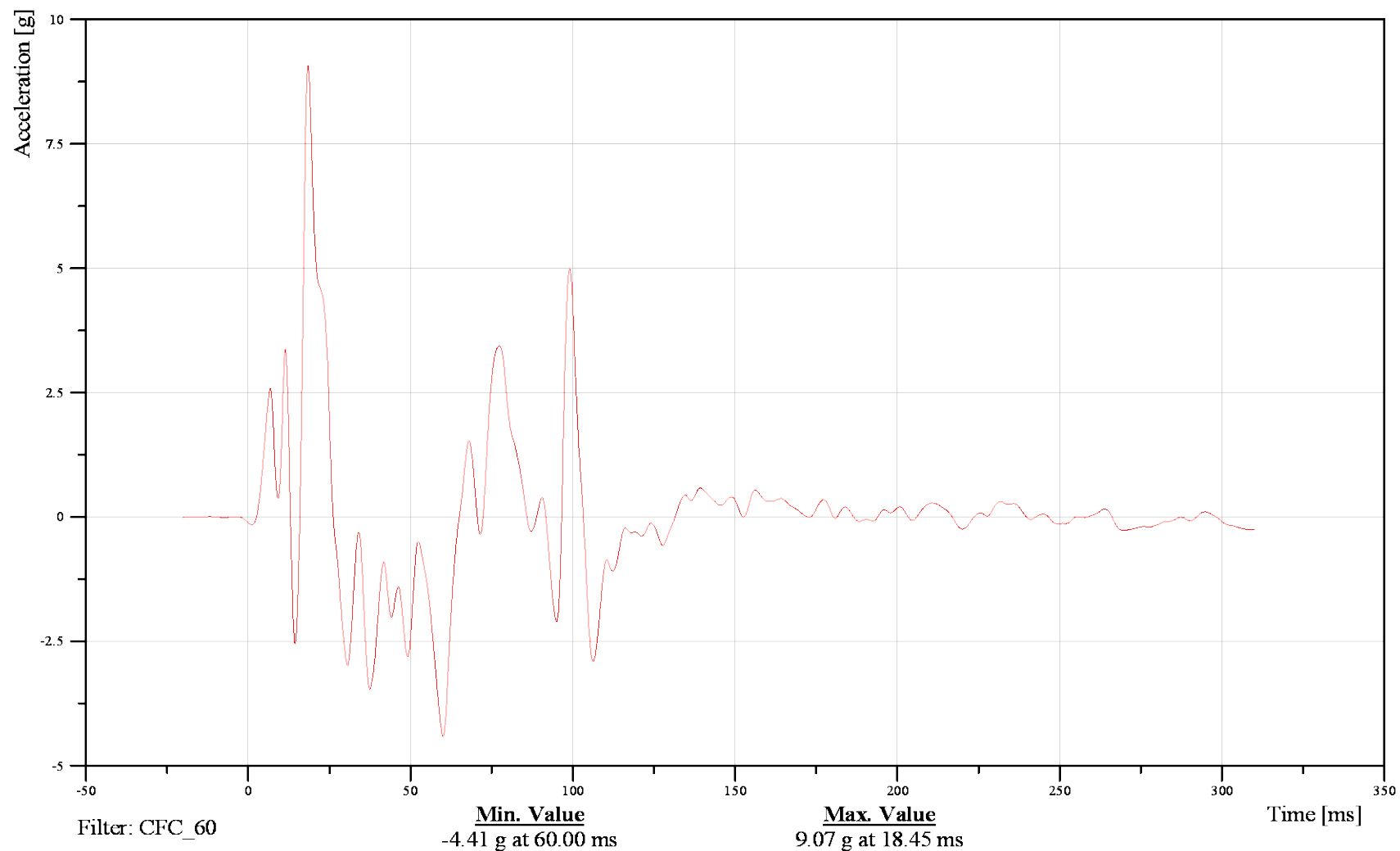
Time: 14:31

Customer: VRTC

11VEHCEDR000ACZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Vehicle at EDR Resultant

Date: 03/27/2013

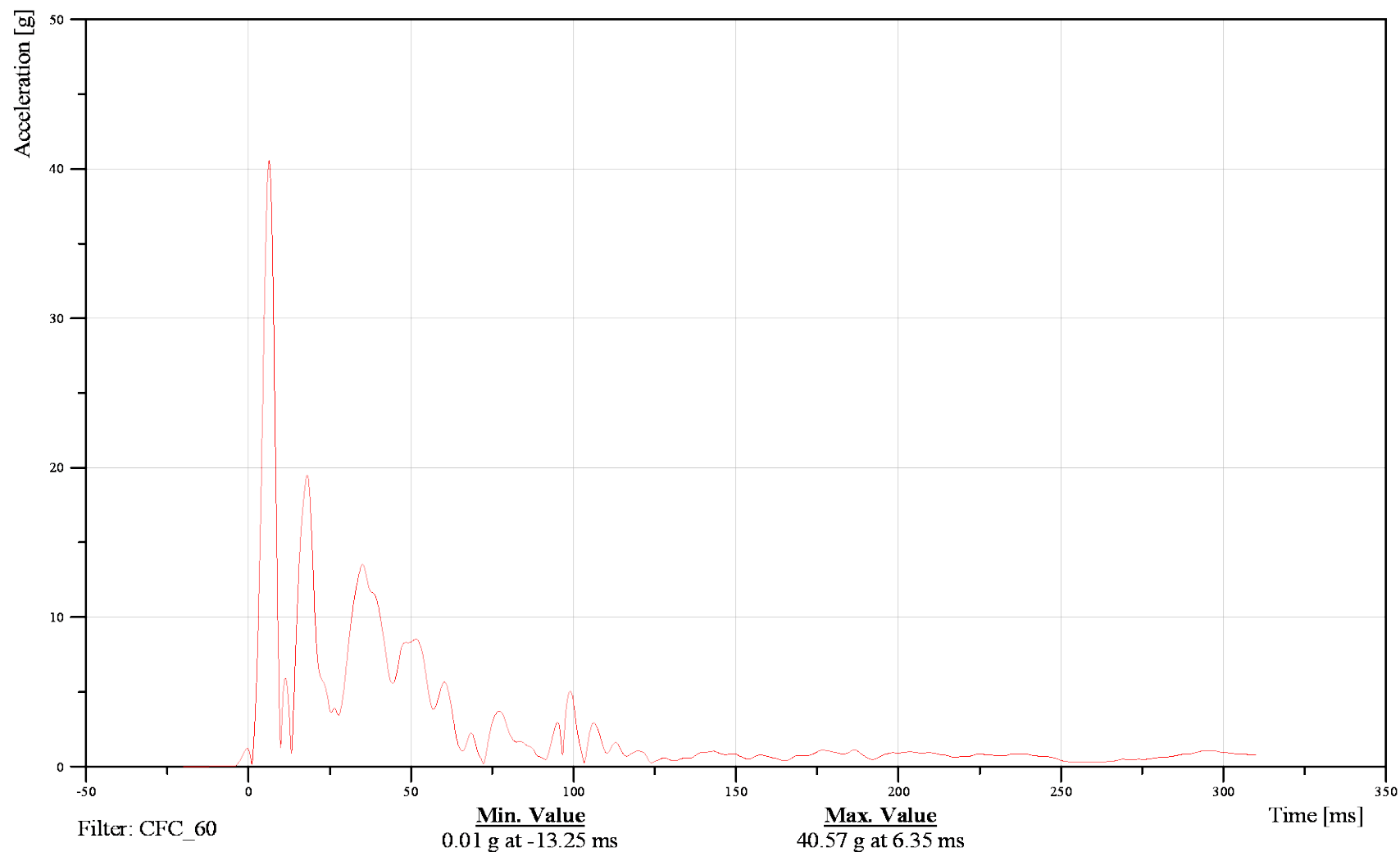
Time: 14:31

Customer: VRTC

11VEHCEDR000ACRD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

REAR DECK AX

Date: 03/27/2013

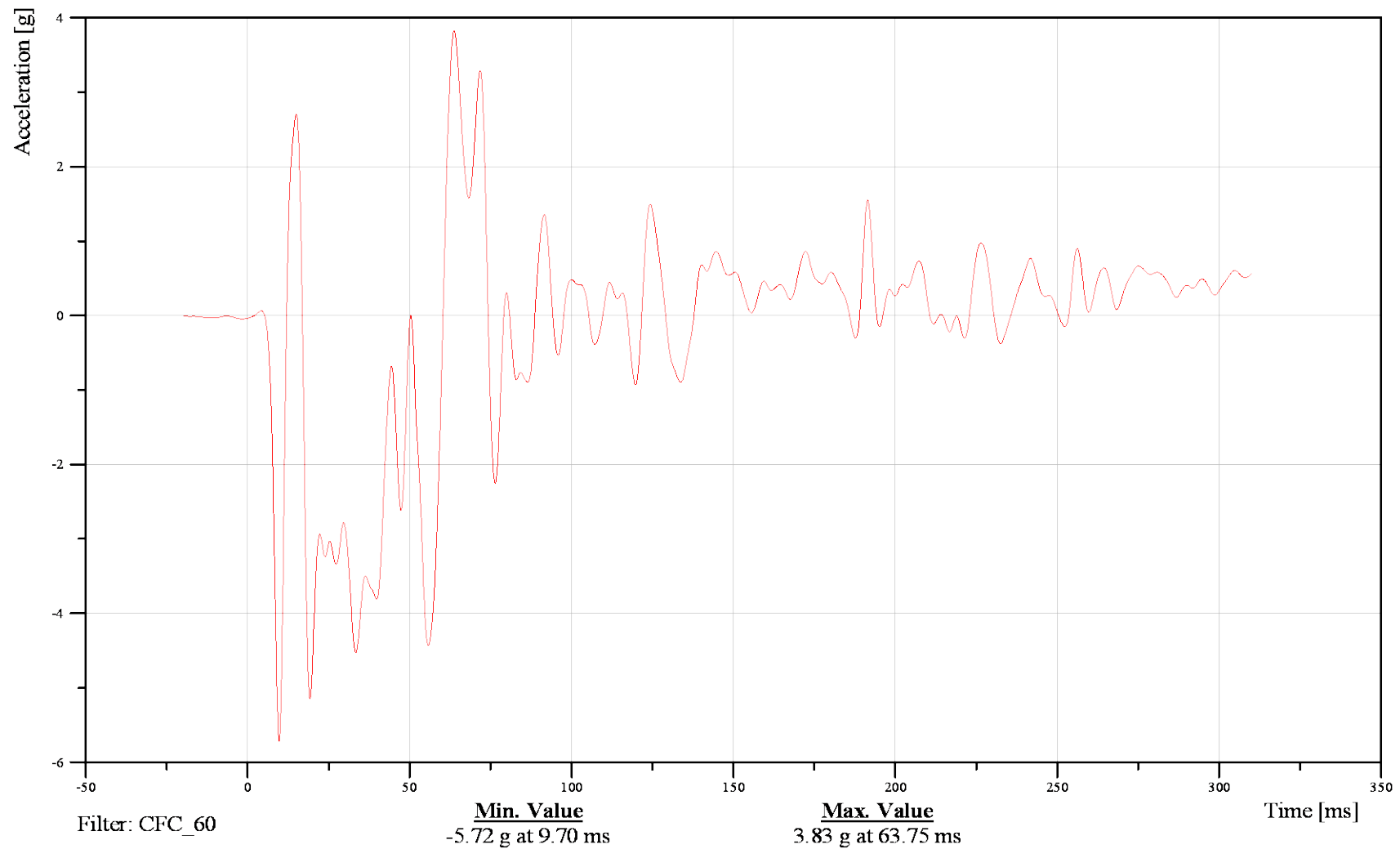
Time: 14:31

Customer: VRTC

10FORARD0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

REAR DECK AY

Date: 03/27/2013

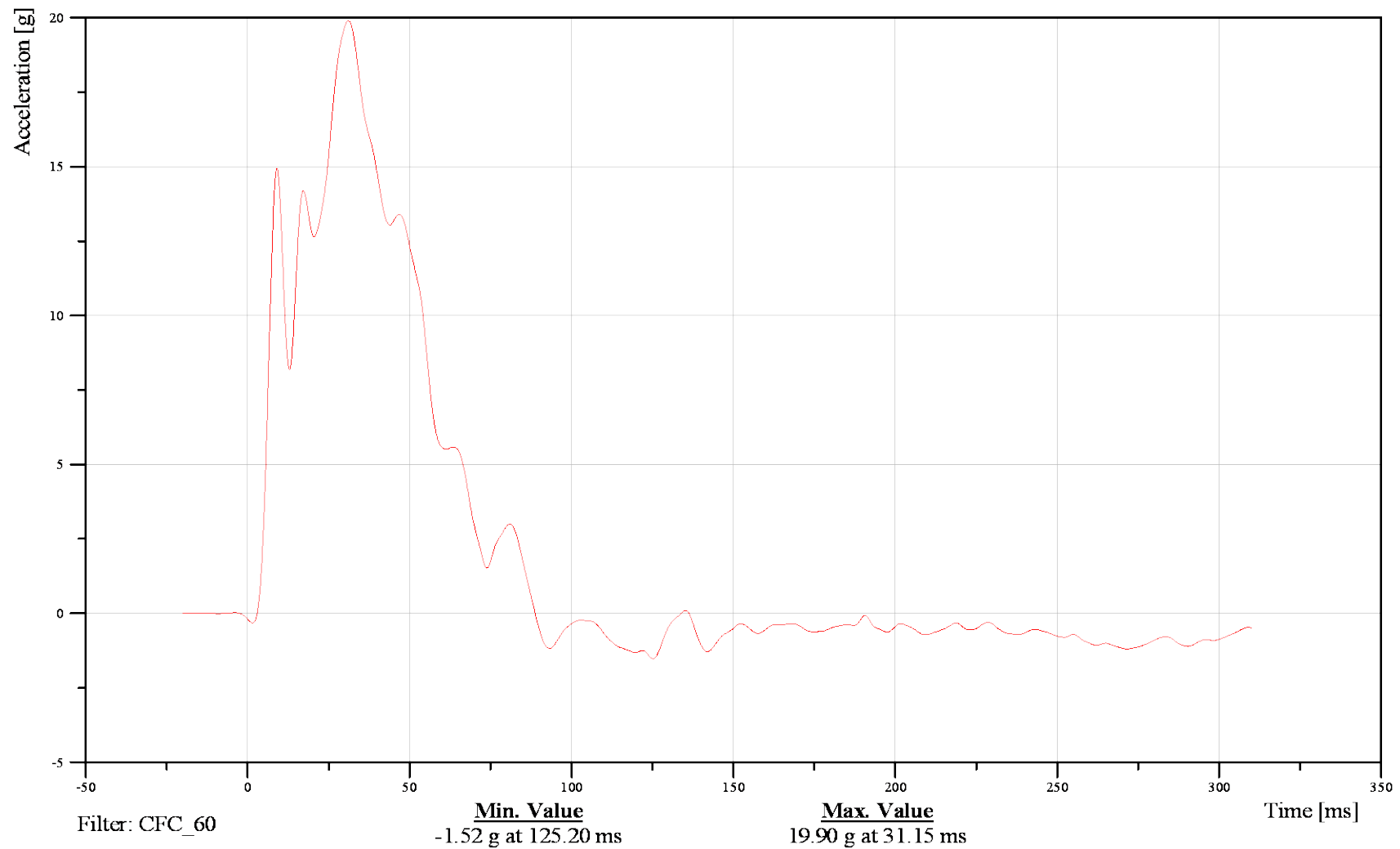
Time: 14:31

Customer: VRTC

10FORARD0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





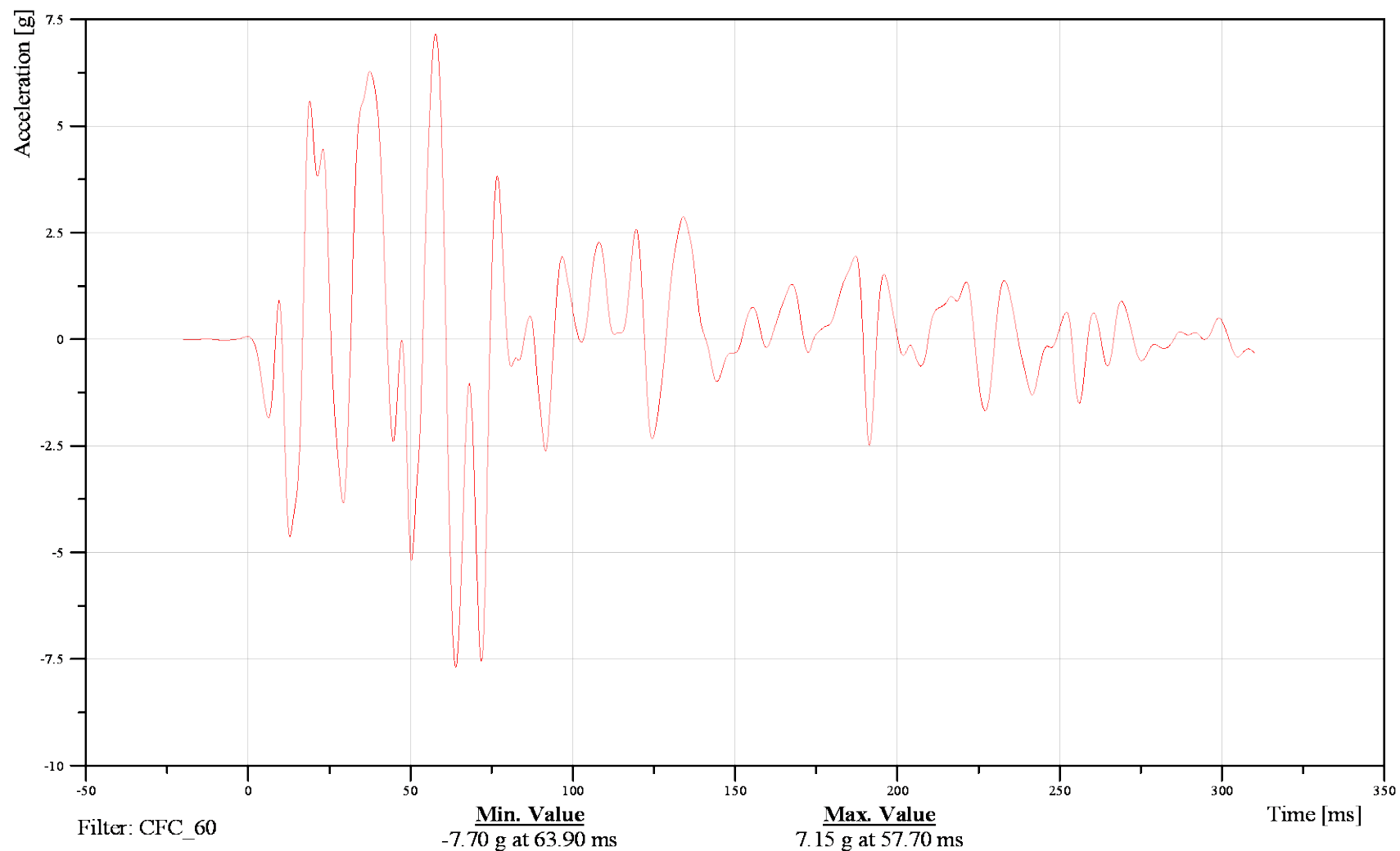
FMVSS 214 Side Impact 2012 Chevrolet Traverse
REAR DECK AZ

Date: 03/27/2013
Time: 14:31

Customer: VRTC

10FORARD0000ACZD

TRC Inc. Test Lab: CTF
Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

REAR DECK A Resultant

Date: 03/27/2013

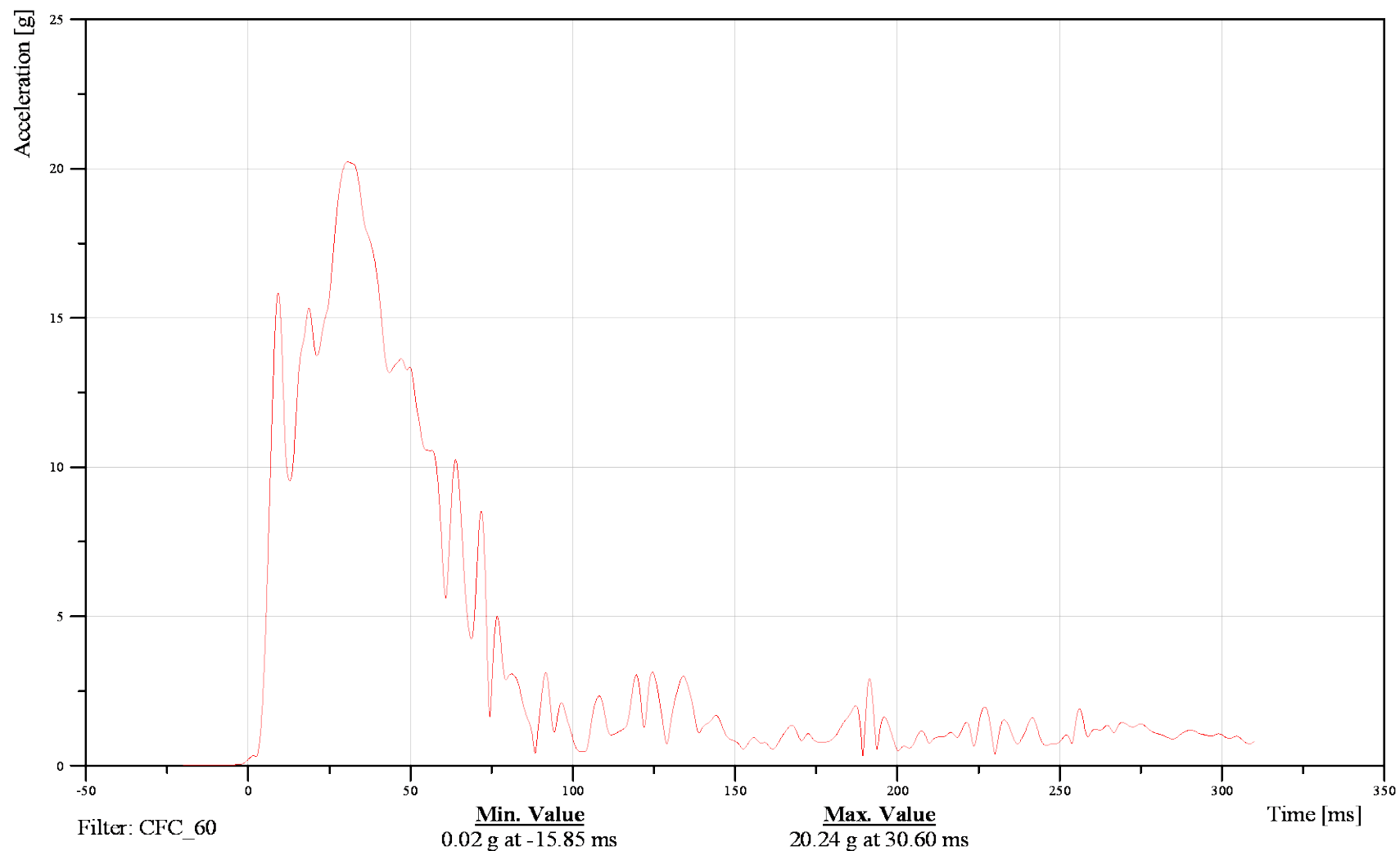
Time: 14:31

Customer: VRTC

10FORARD0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 130326





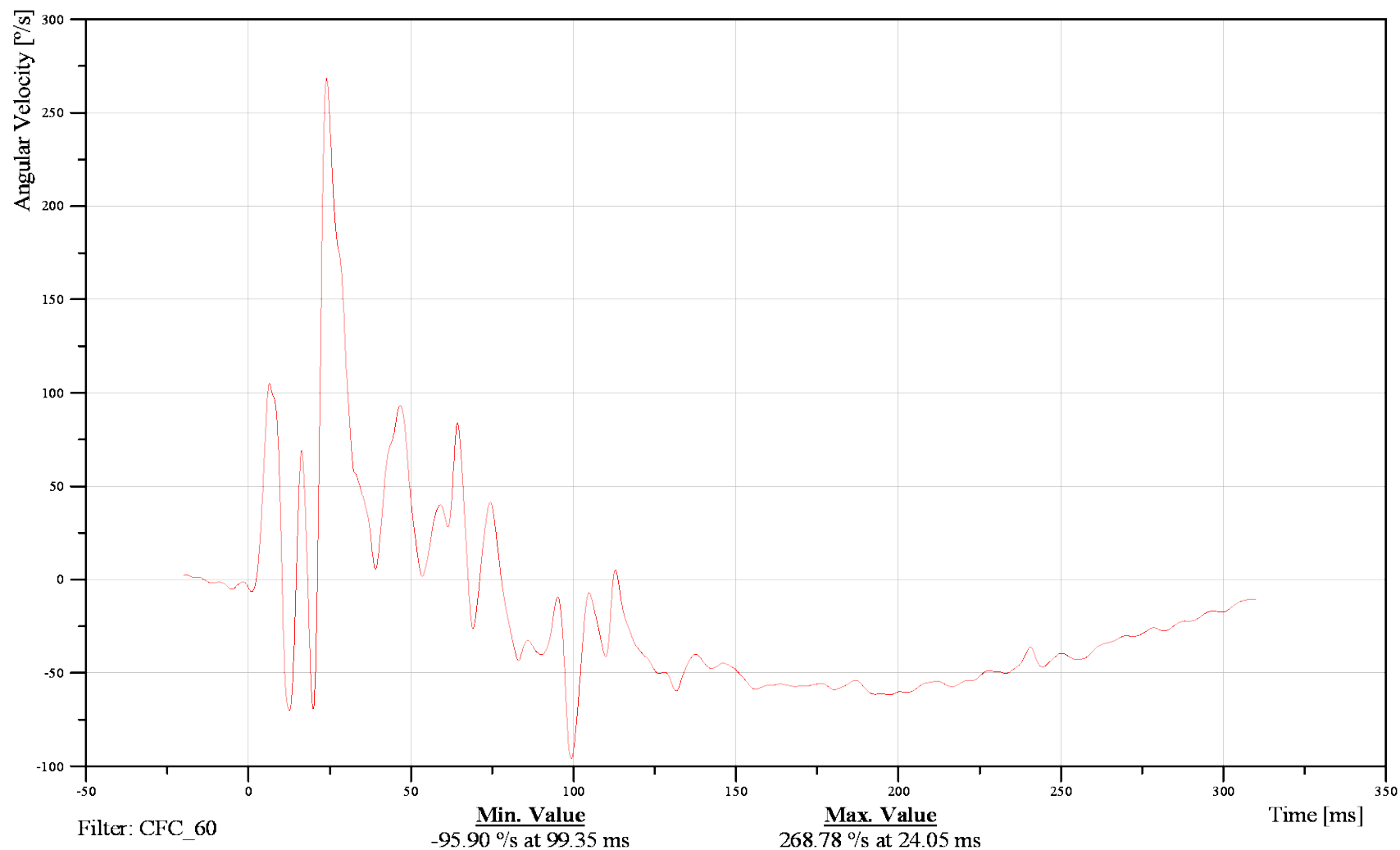
FMVSS 214 Side Impact 2012 Chevrolet Traverse
VEHICLE CENTER OF GRAVITY (X) ROLL RATE GYRO

Date: 03/27/2013
Time: 14:31

Customer: VRTC

10VEHCCG0000AVXD

TRC Inc. Test Lab: CTF
Test Number: 130326





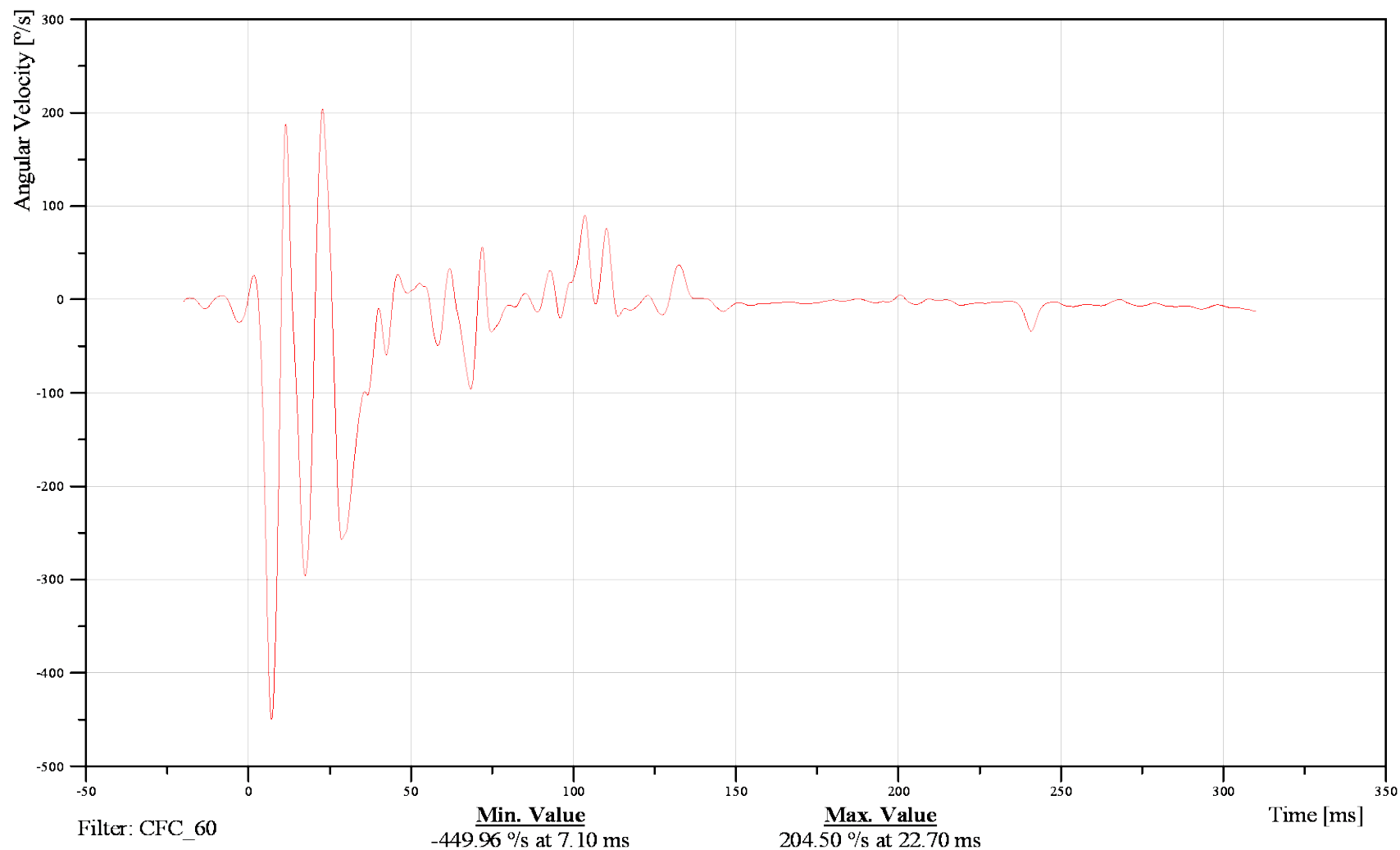
FMVSS 214 Side Impact 2012 Chevrolet Traverse
VEHICLE CENTER OF GRAVITY (Y) PITCH RATE GYRO

Date: 03/27/2013
Time: 14:31

Customer: VRTC

10VEHCCG0000AVYD

TRC Inc. Test Lab: CTF
Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse
VEHICLE CENTER OF GRAVITY (Z) YAW RATE GYRO

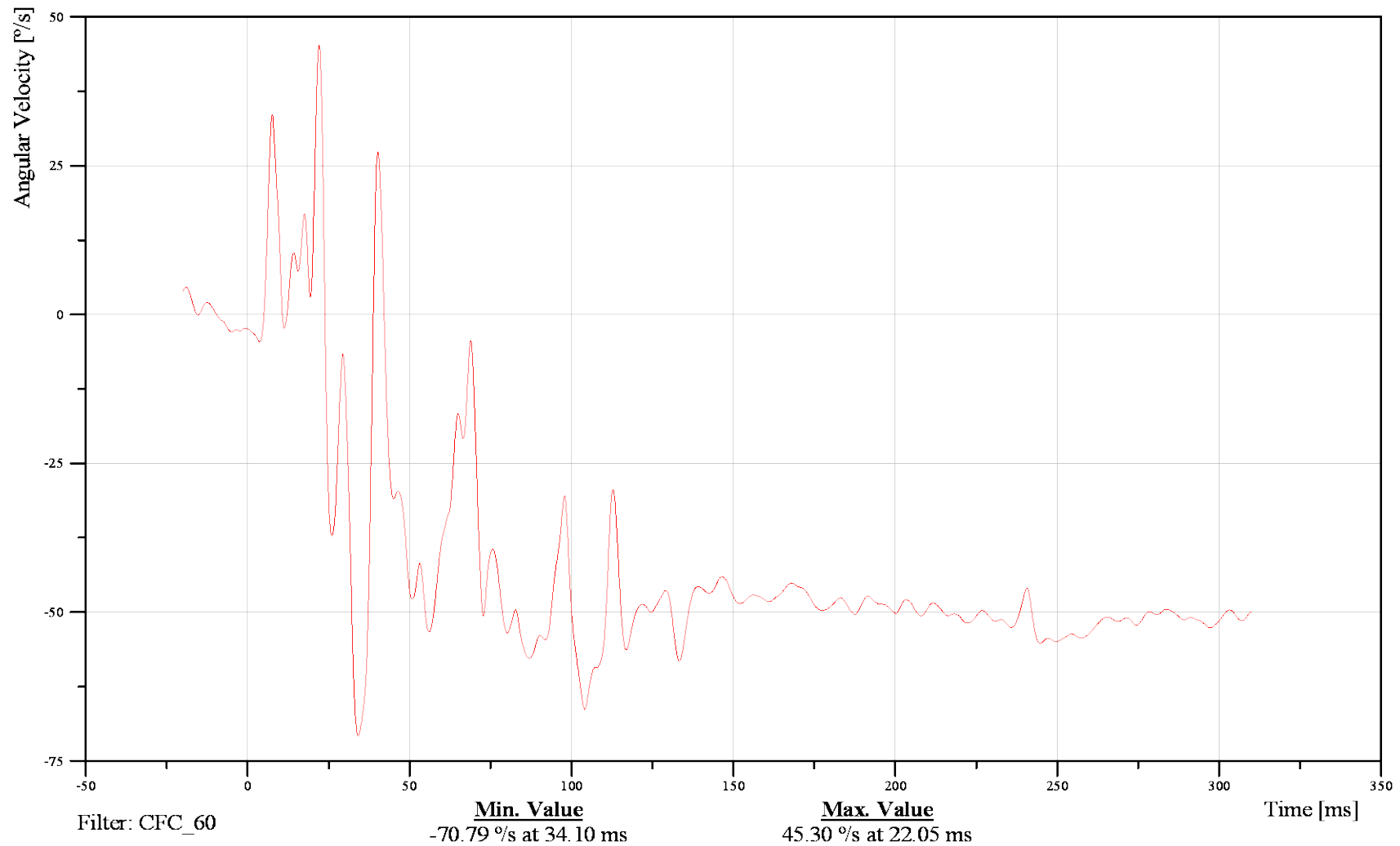
Date: 03/27/2013
Time: 14:31

Customer: VRTC

10VEHCCG0000AVZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

VEHICLE AT EDR (X) ROLL RATE GYRO

Date: 03/27/2013

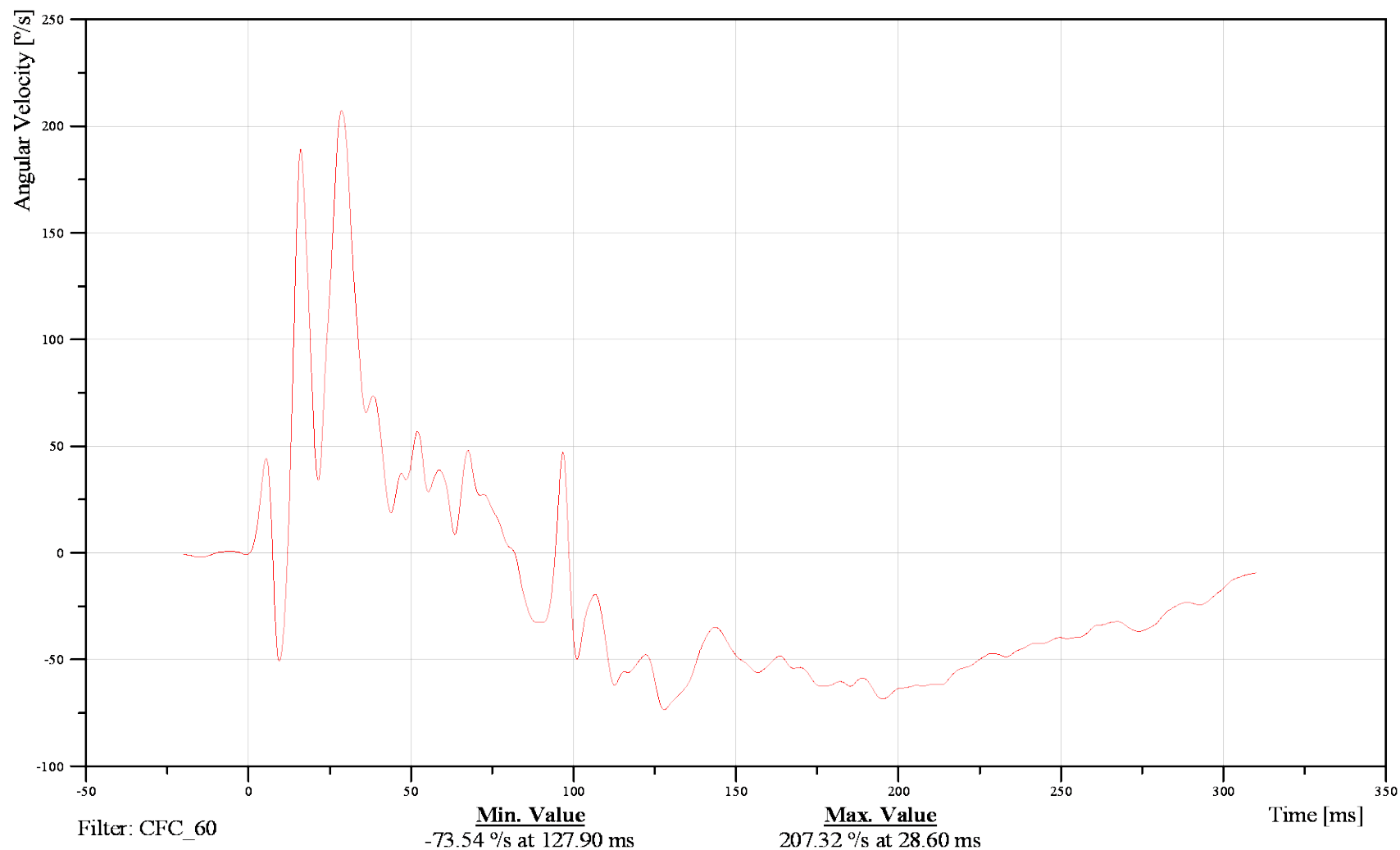
Time: 14:31

Customer: VRTC

10VEHCEDR000AVXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

VEHICLE AT EDR (Y) PITCH RATE GYRO

Date: 03/27/2013

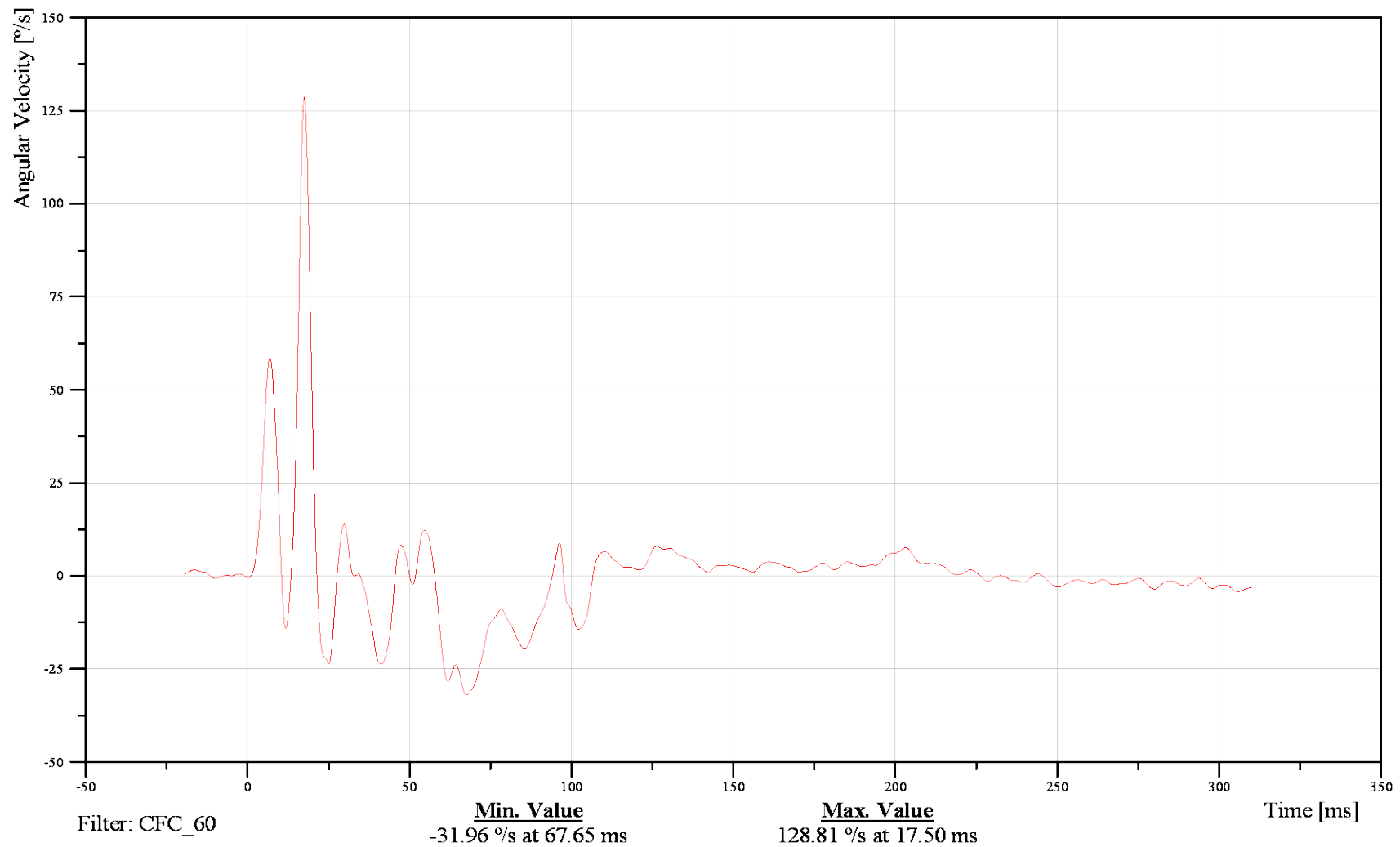
Time: 14:31

Customer: VRTC

10VEHCEDR000AVYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

VEHICLE AT EDR (Z) YAW RATE GYRO

Date: 03/27/2013

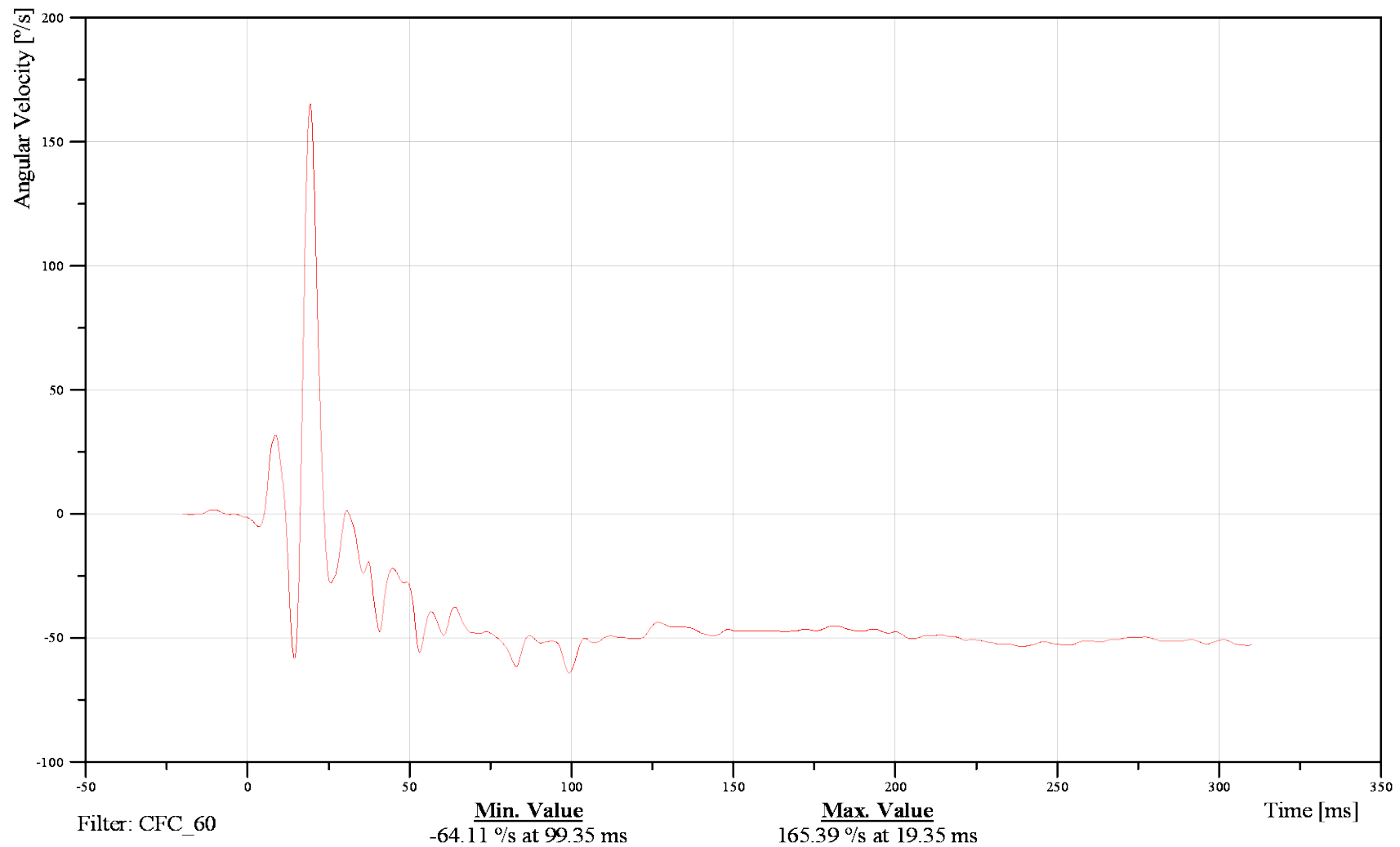
Time: 14:31

Customer: VRTC

10VEHCEDR000AVZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

REAR DECK (X) ROLL RATE GYRO

Date: 03/27/2013

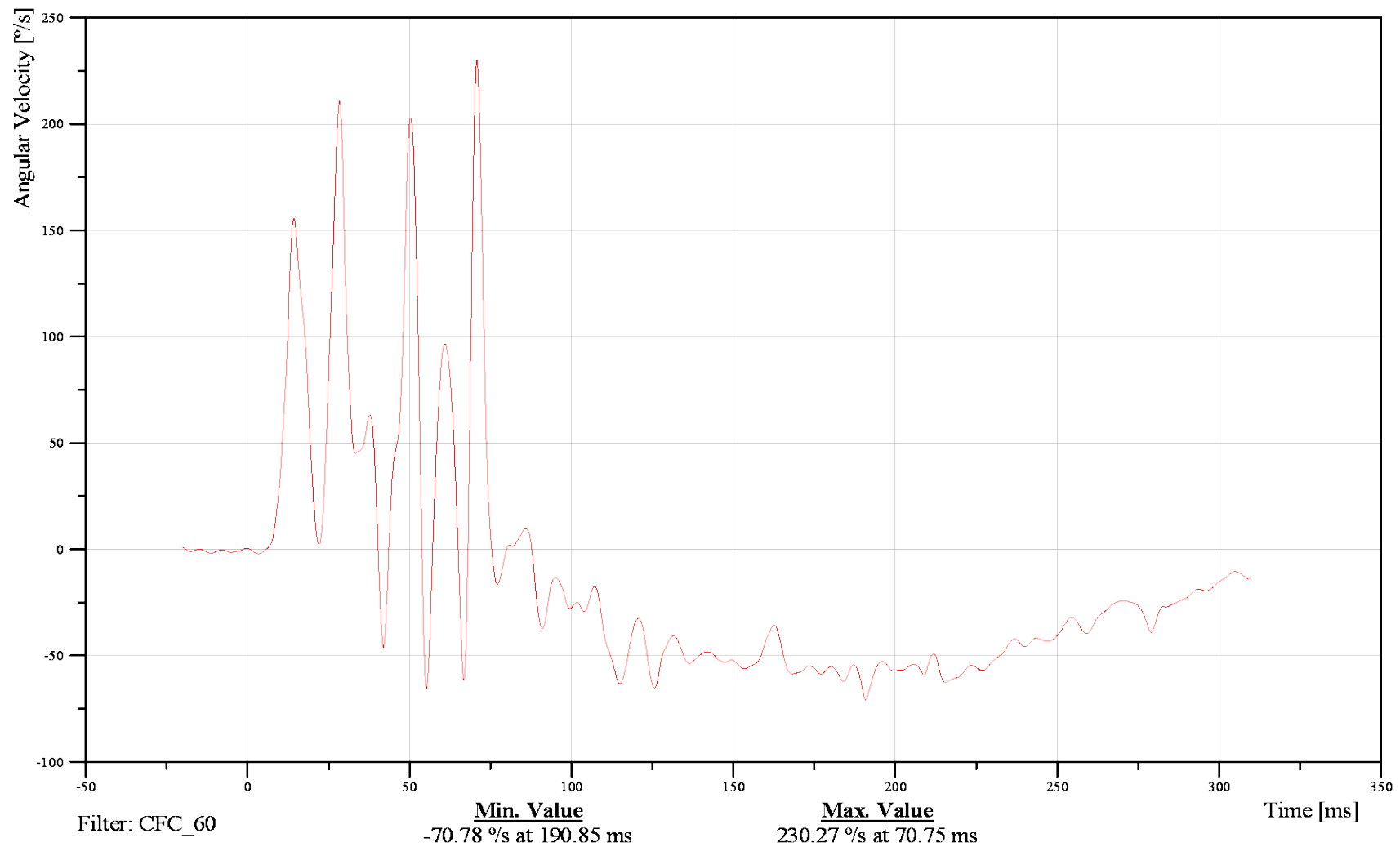
Time: 14:31

Customer: VRTC

10FORARD0000AVXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

REAR DECK (Y) PITCH RATE GYRO

Date: 03/27/2013

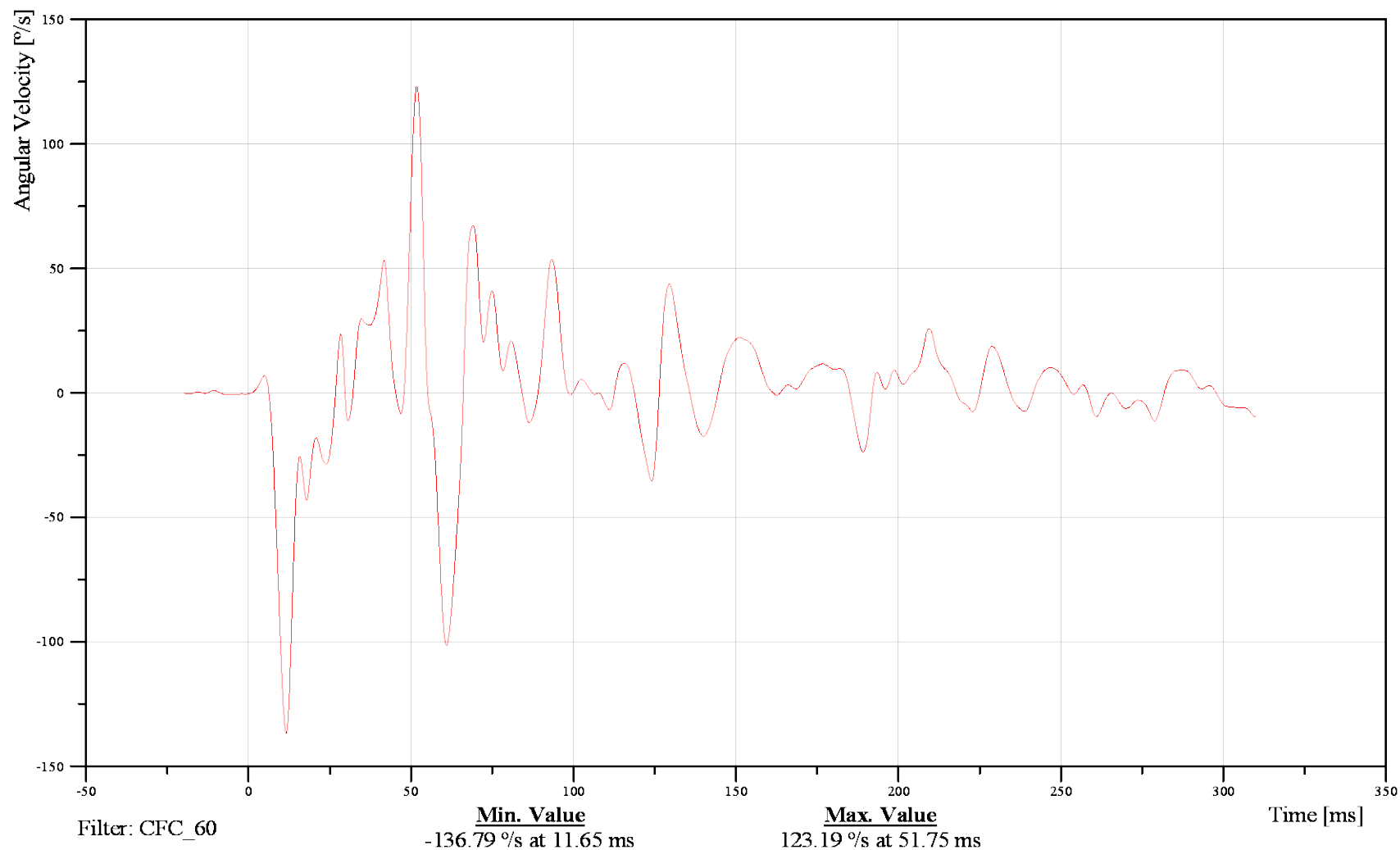
Time: 14:31

Customer: VRTC

10FORARD0000AVYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

REAR DECK (Z) YAW RATE GYRO

Date: 03/27/2013

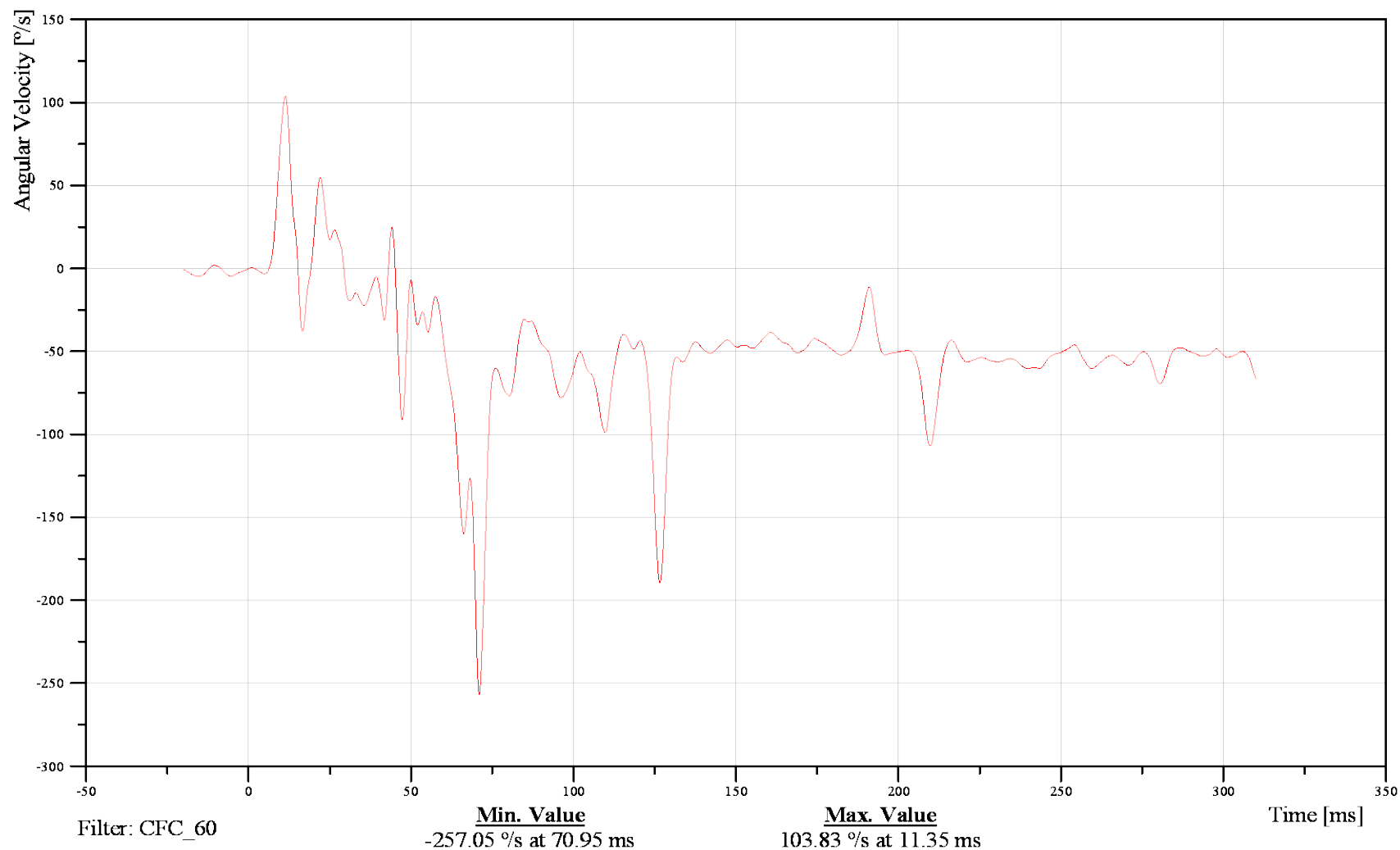
Time: 14:31

Customer: VRTC

10FORARD0000AVZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Front Door Mid Centerline (Y)

Date: 03/27/2013

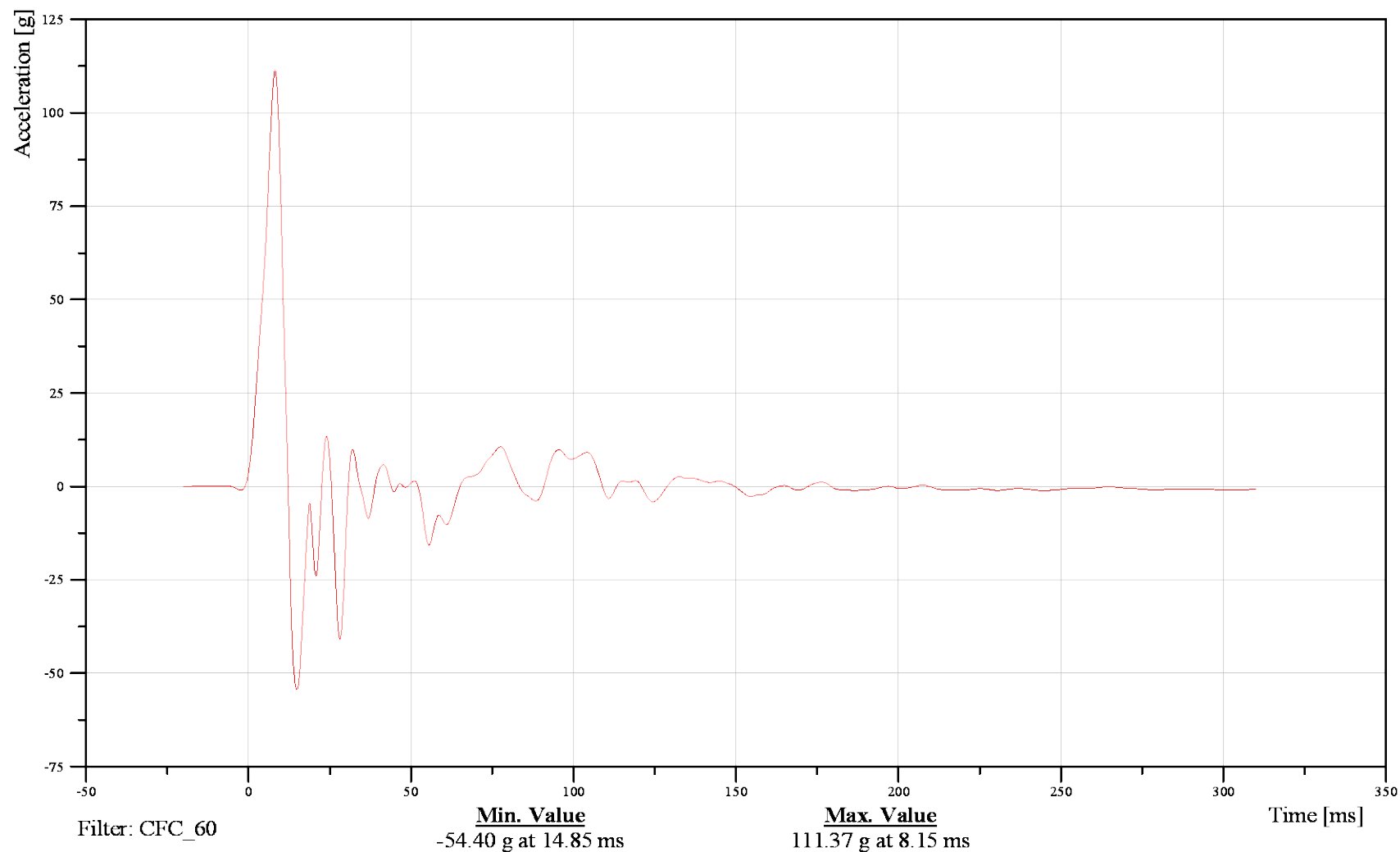
Time: 14:31

Customer: VRTC

11DOORMIMI71ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Front Door Mid Rear (Y)

Date: 03/27/2013

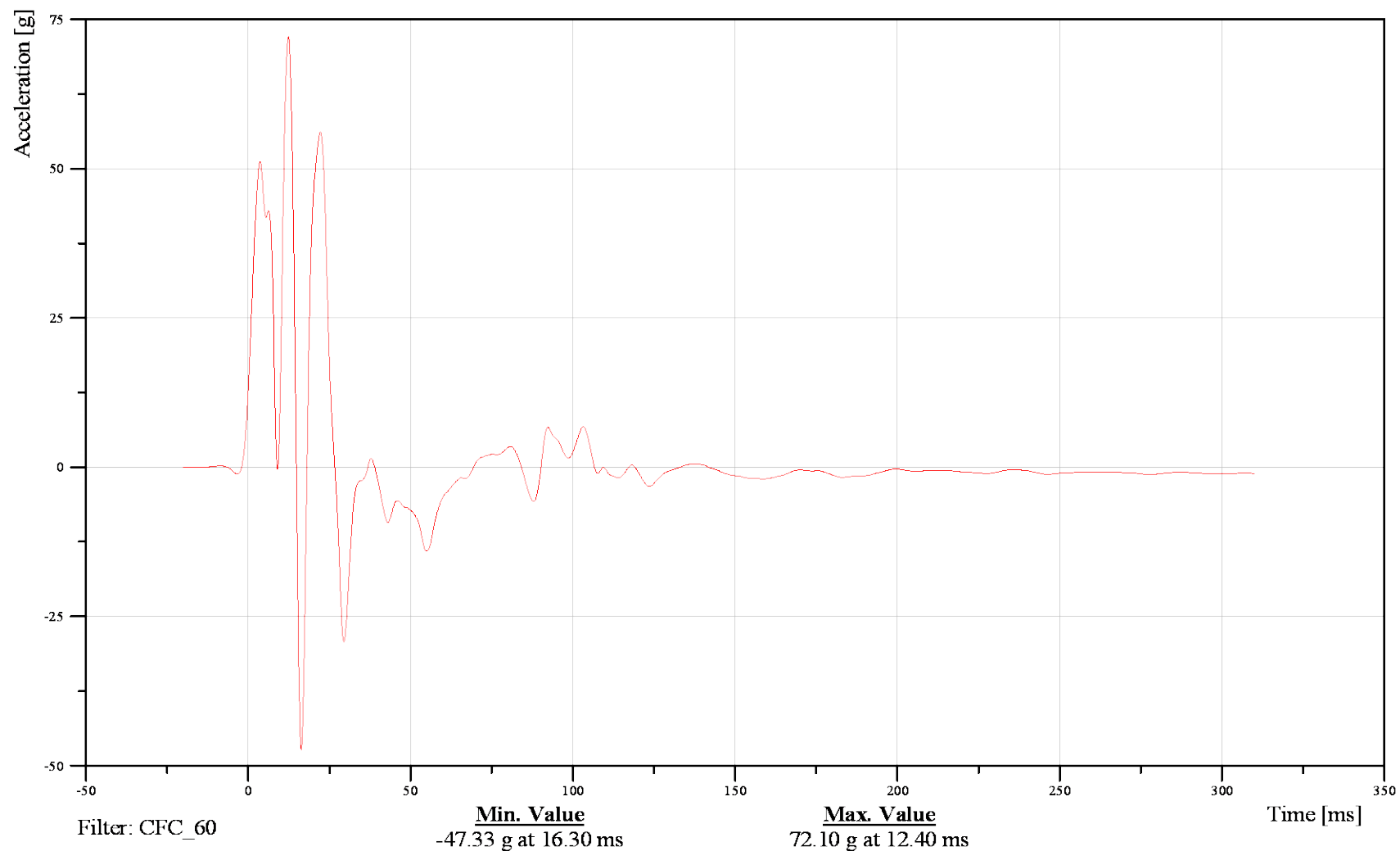
Time: 14:31

Customer: VRTC

11DOORMIRE71ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Front Door Upper Centerline (Y)

Date: 03/27/2013

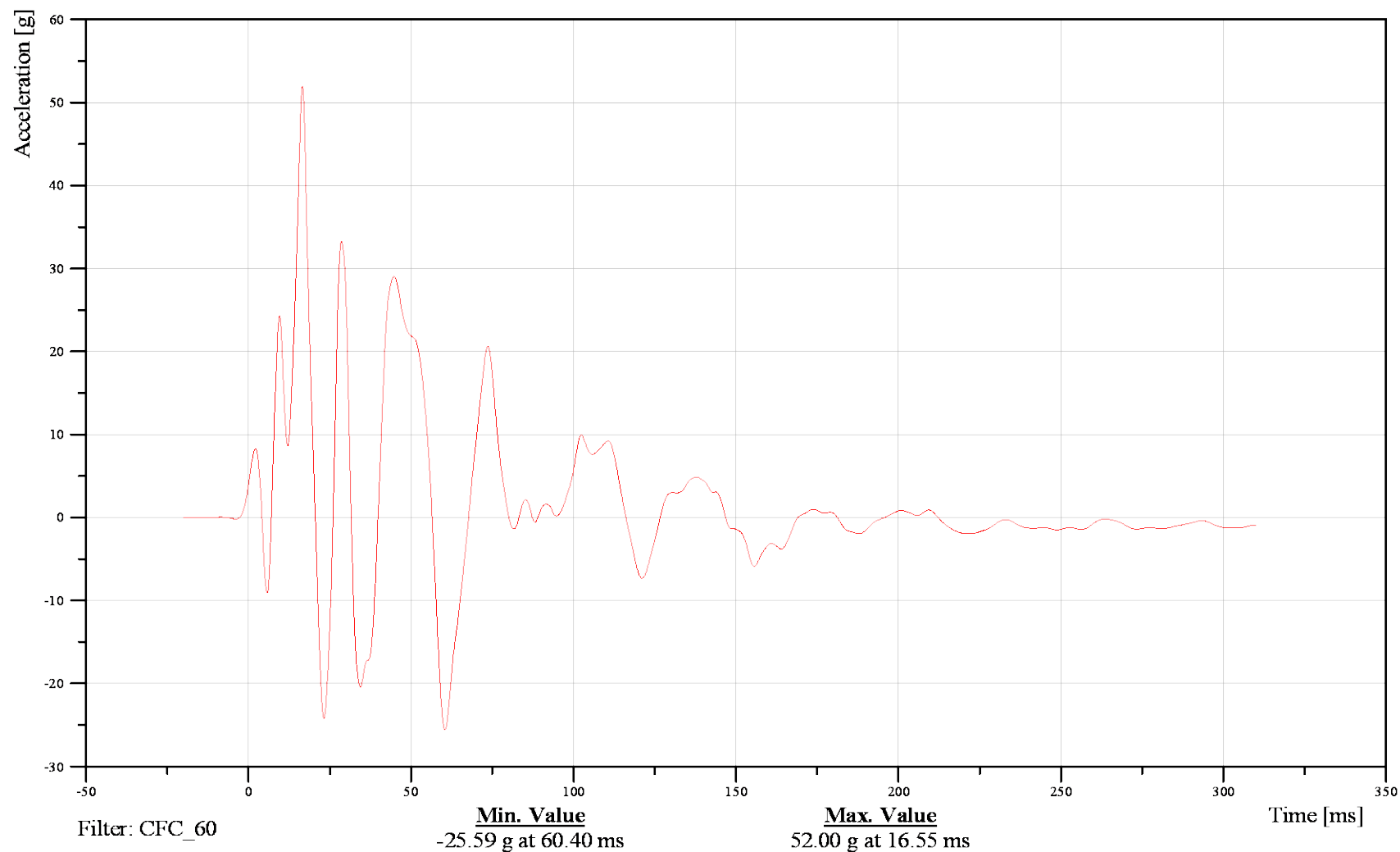
Time: 14:31

Customer: VRTC

11DOORMIUP71ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Rear Door Mid Rear (Y)

Date: 03/27/2013

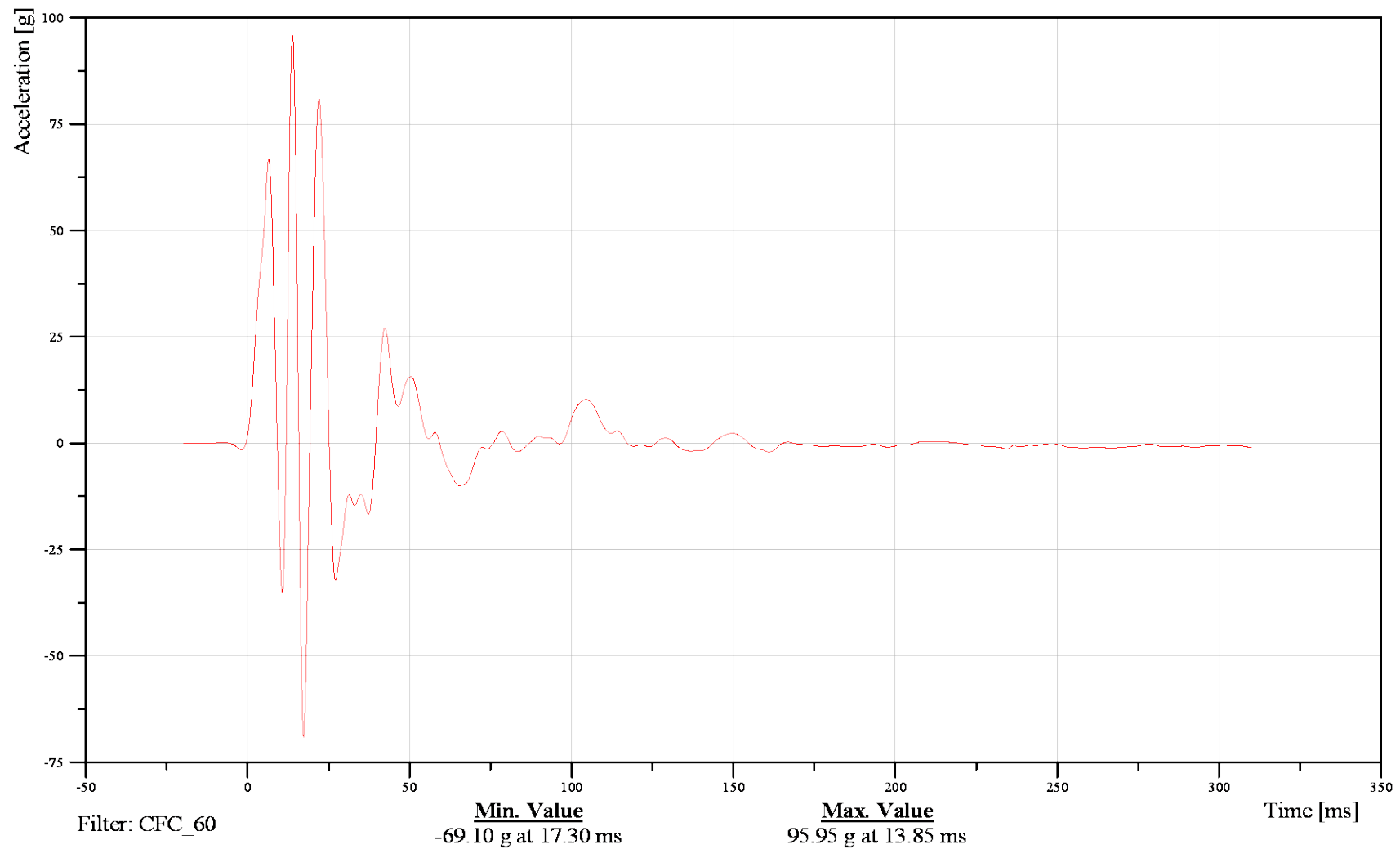
Time: 14:31

Customer: VRTC

14DOORMIRE71ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Left Rear Door Upper Centerline (Y)

Date: 03/27/2013

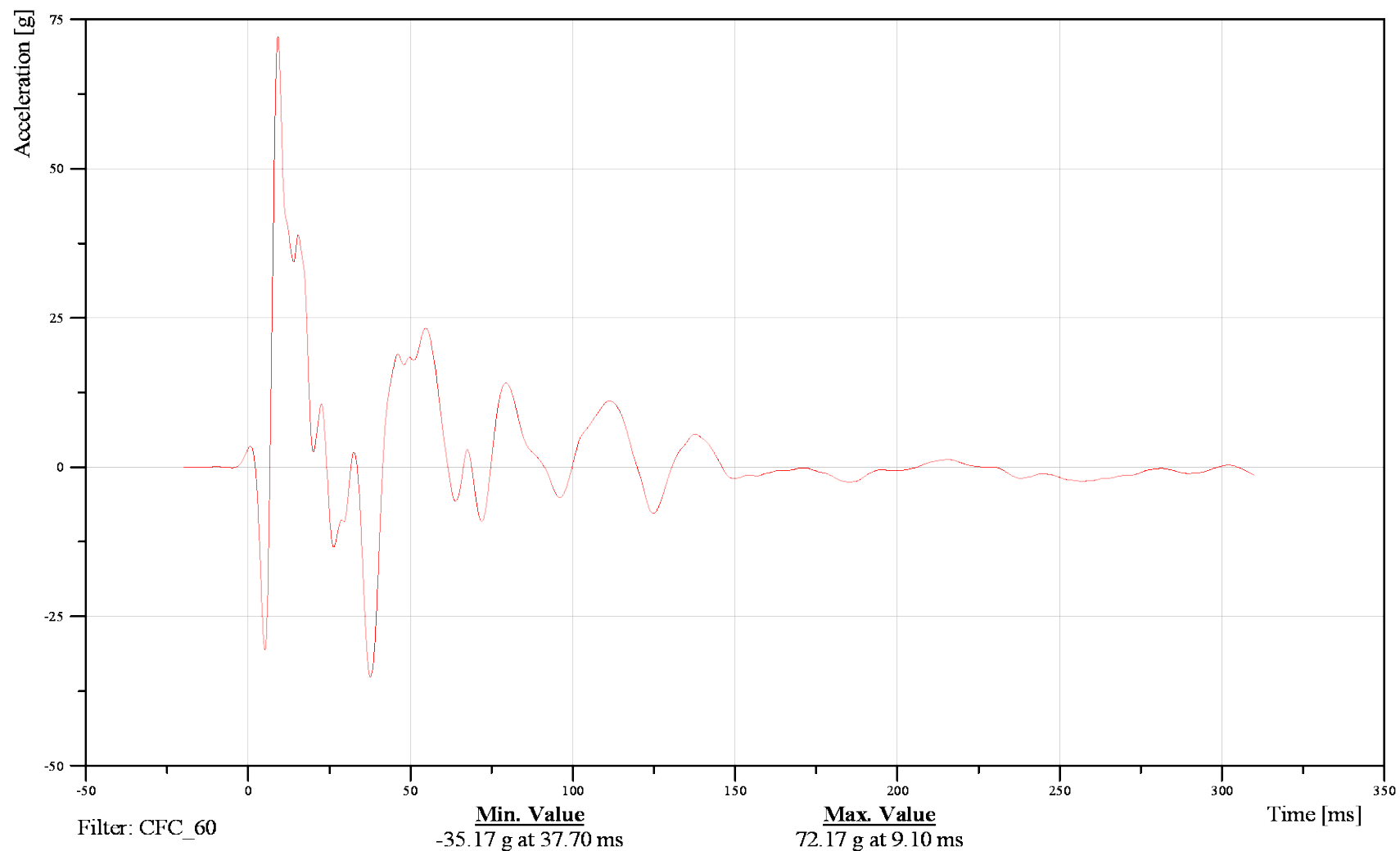
Time: 14:31

Customer: VRTC

14DOORMIUP71ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Driver SAB Timing Ind.

Date: 03/27/2013

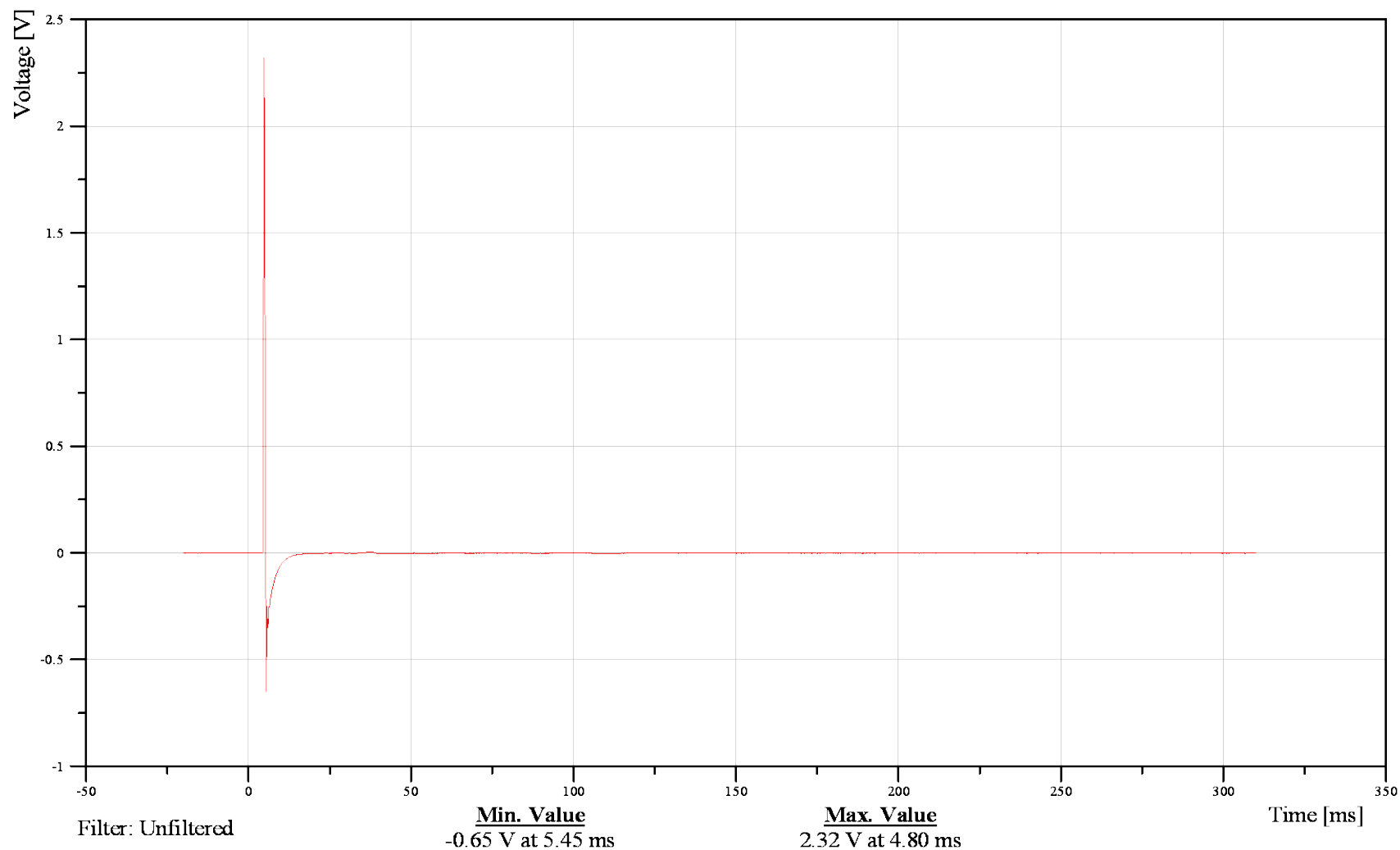
Time: 14:31

Customer: VRTC

11SENS010000VO00

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Driver SCAB Timing Ind.

Date: 03/27/2013

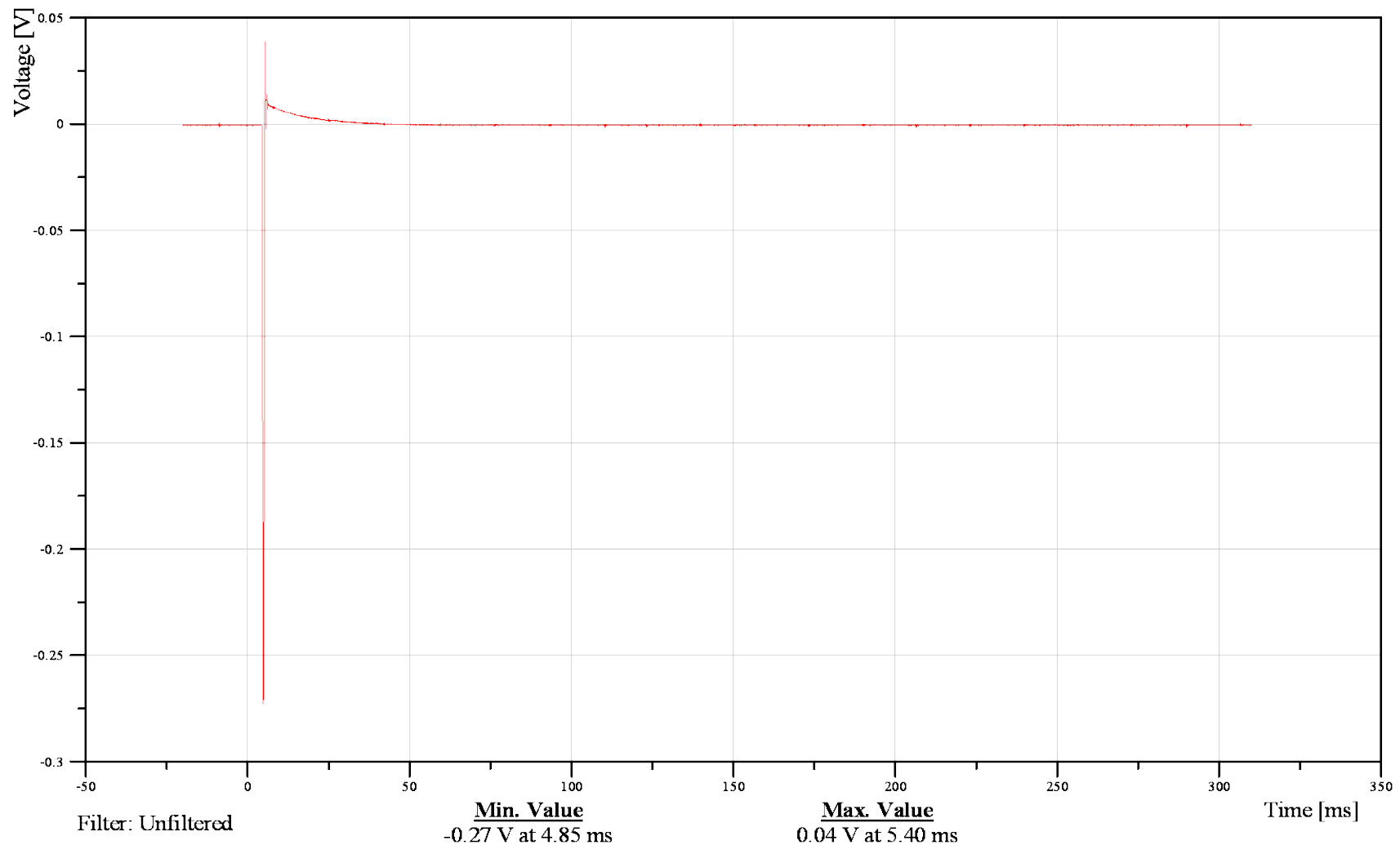
Time: 14:31

Customer: VRTC

11SENS020000VO00

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Front Pass. SAB Timing Ind.

Date: 03/27/2013

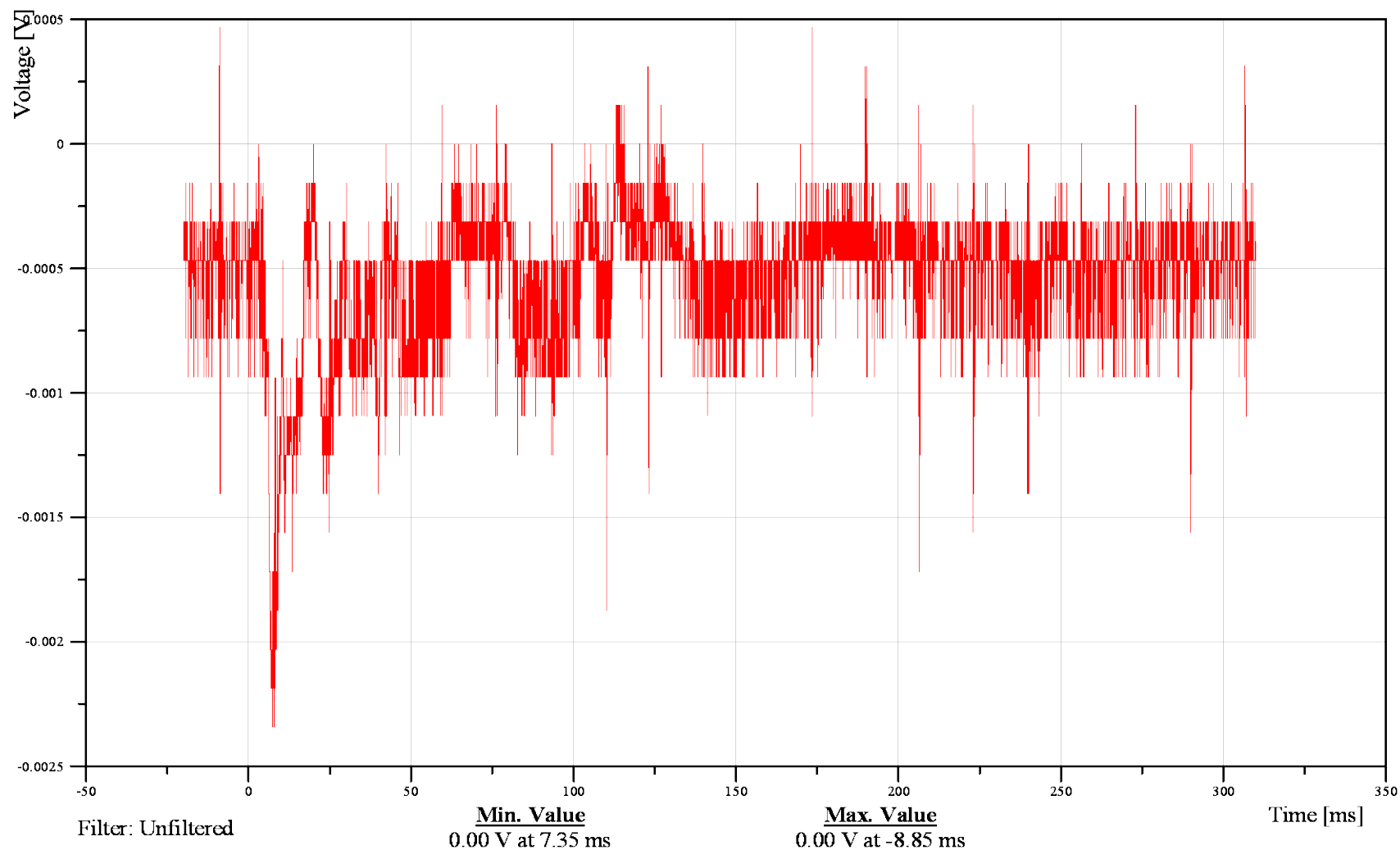
Time: 14:31

Customer: VRTC

13SENS010000VO00

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Front Pass. SCAB Timing Ind.

Date: 03/27/2013

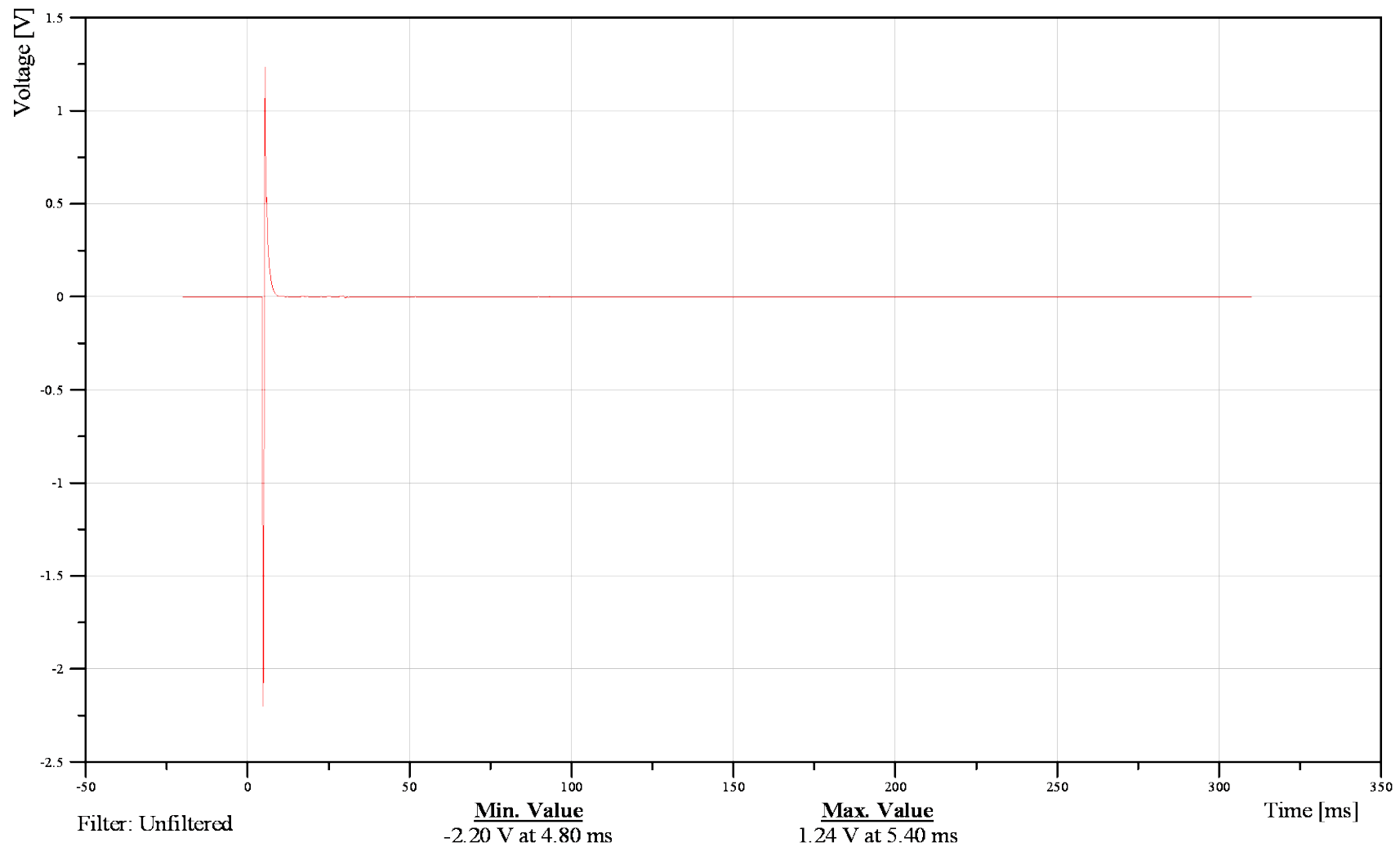
Time: 14:31

Customer: VRTC

13SENS020000VO00

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Inboard Head Contact

Date: 03/27/2013

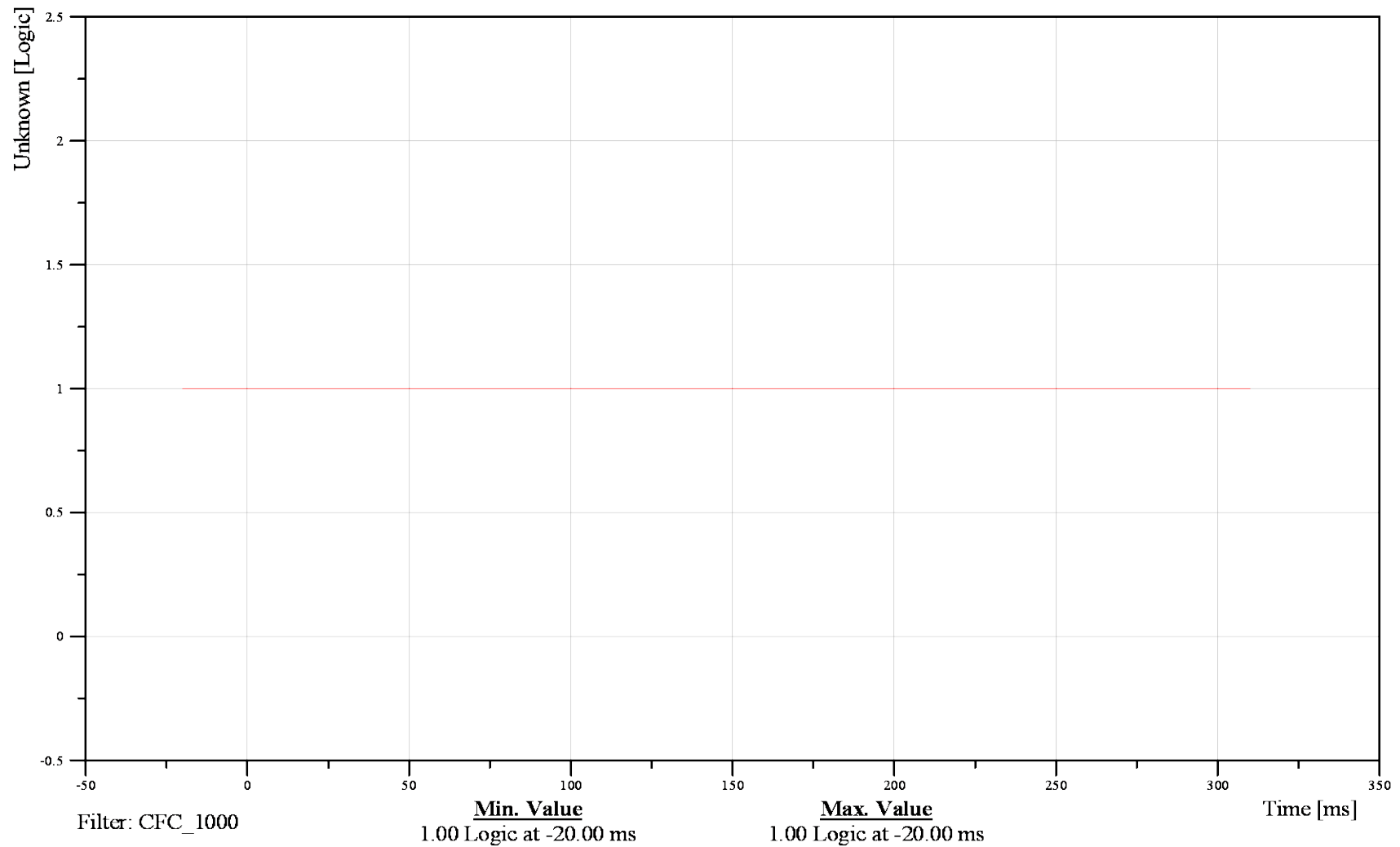
Time: 14:31

Customer: VRTC

11HEADCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Outboard Head Contact

Date: 03/27/2013

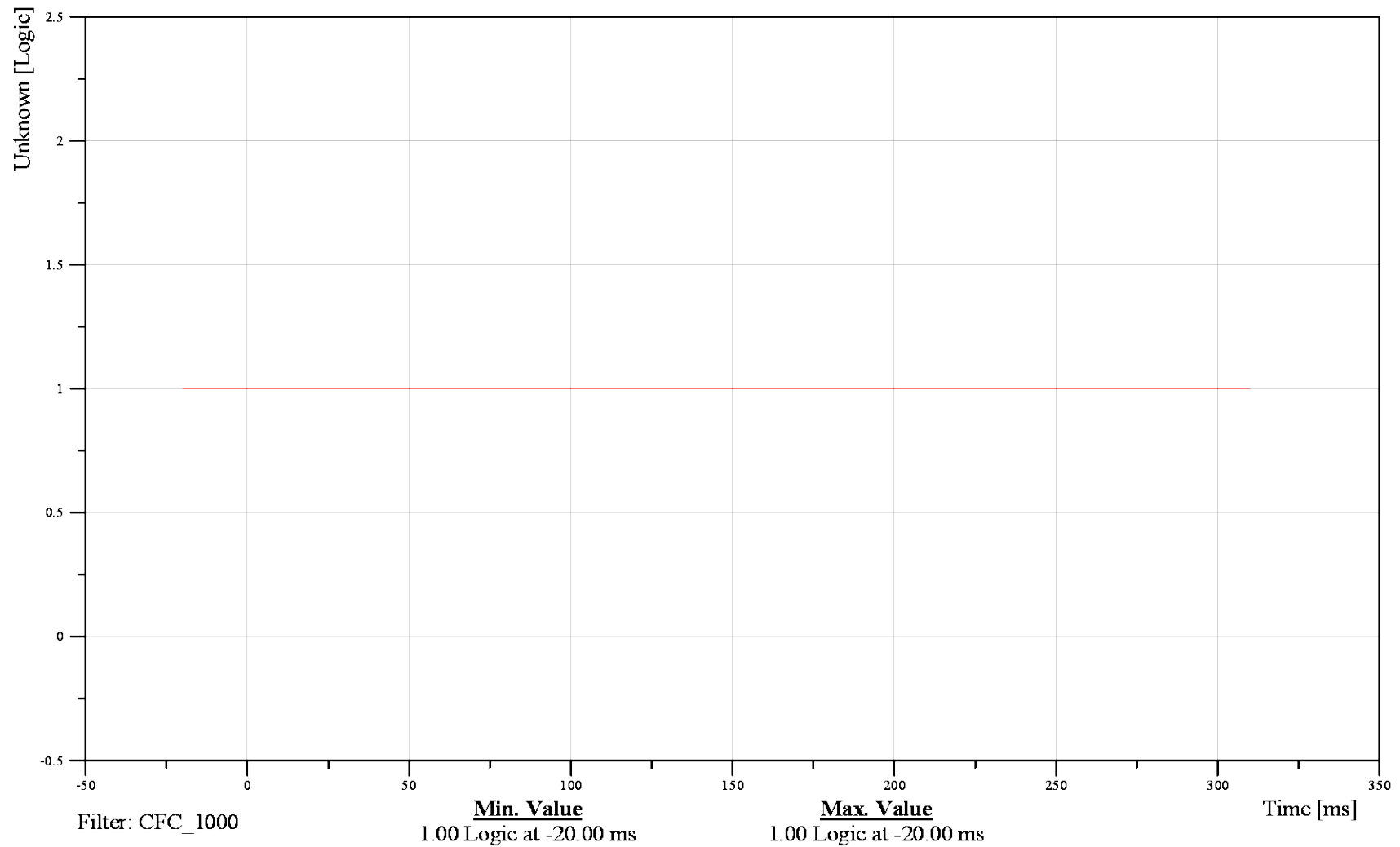
Time: 14:31

Customer: VRTC

11HEADCONT01VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Contact

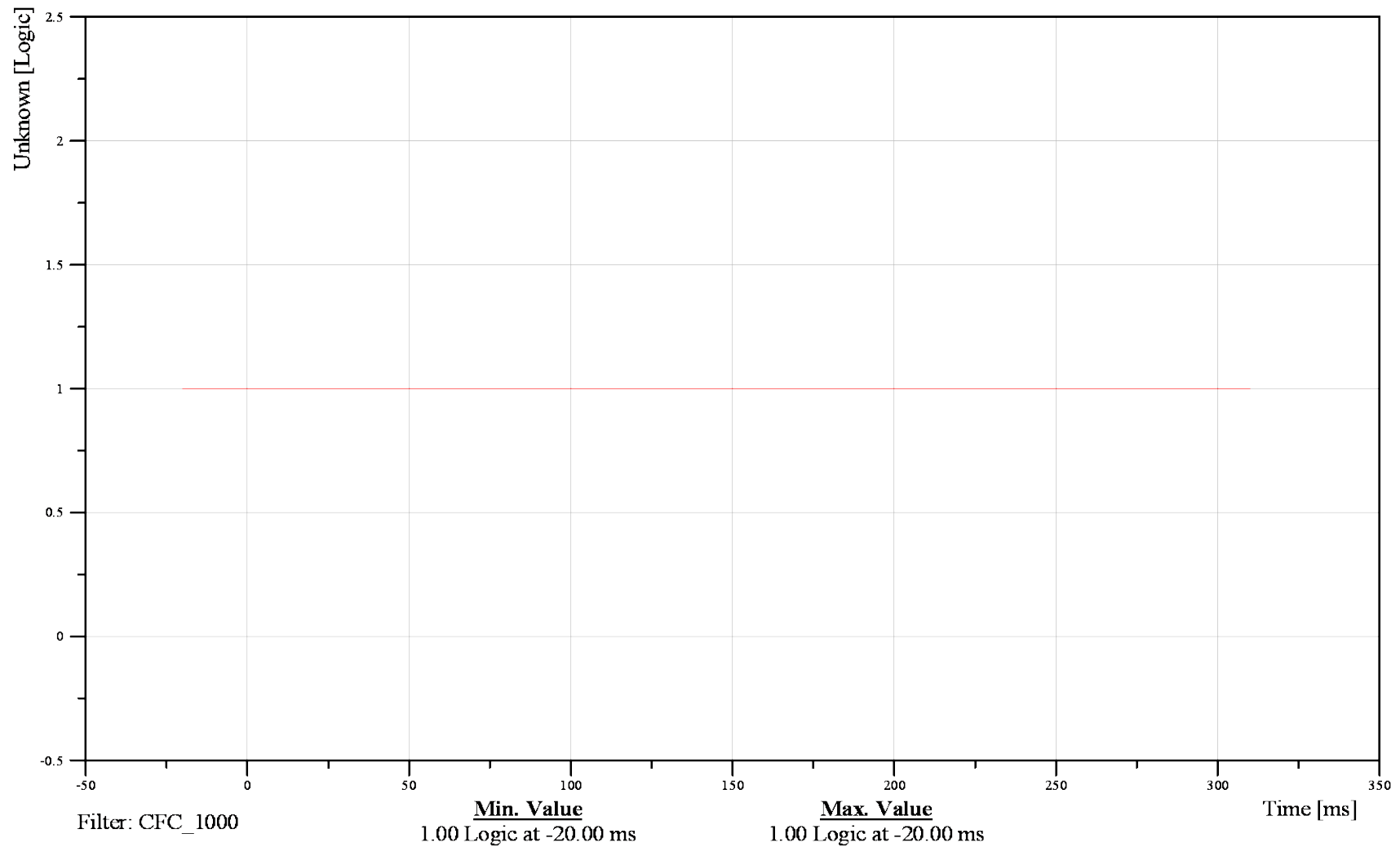
Date: 03/27/2013
Time: 14:31

Customer: VRTC

11SHLDCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Contact

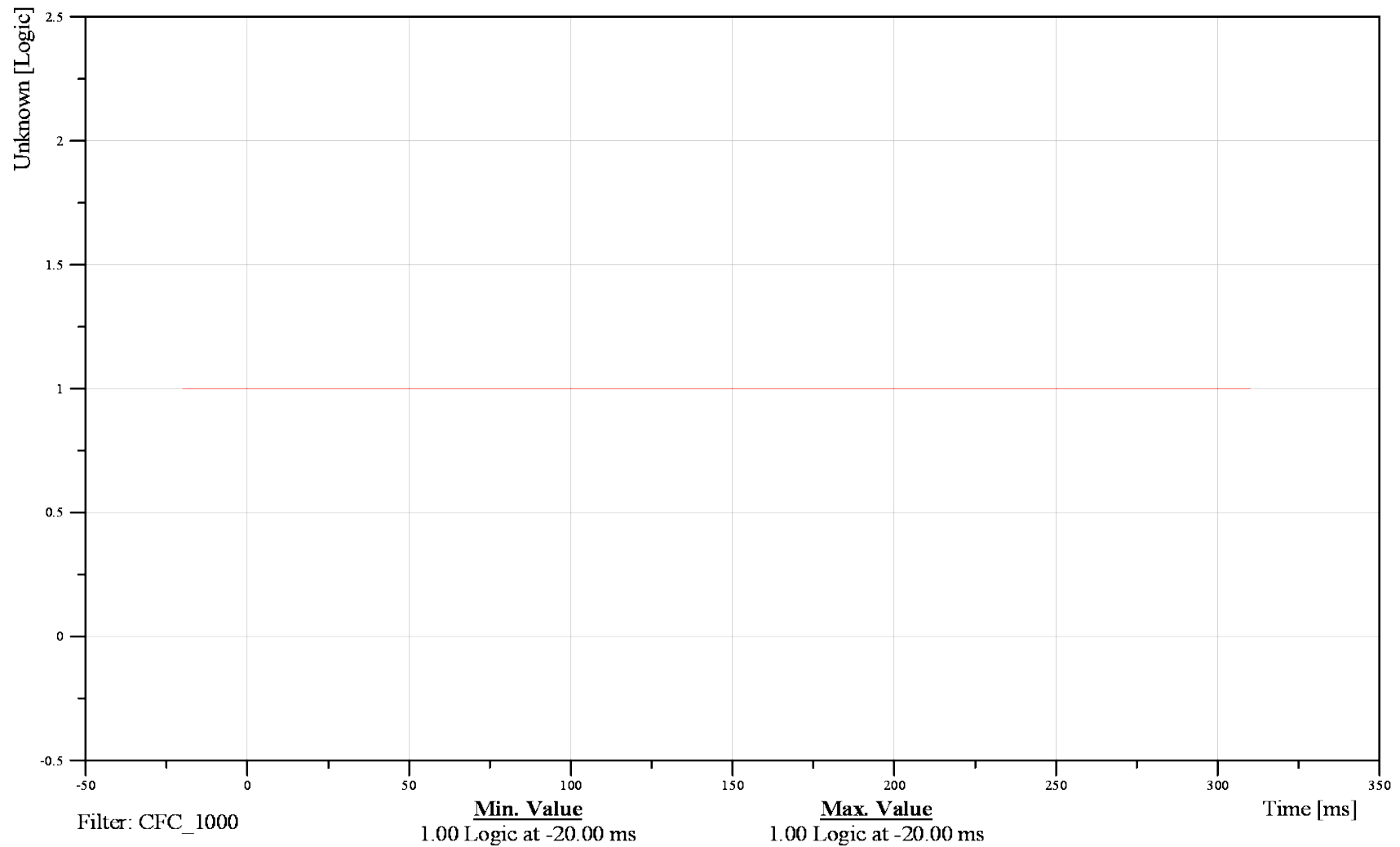
Date: 03/27/2013
Time: 14:31

Customer: VRTC

11THORCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Date: 03/27/2013

Time: 14:31

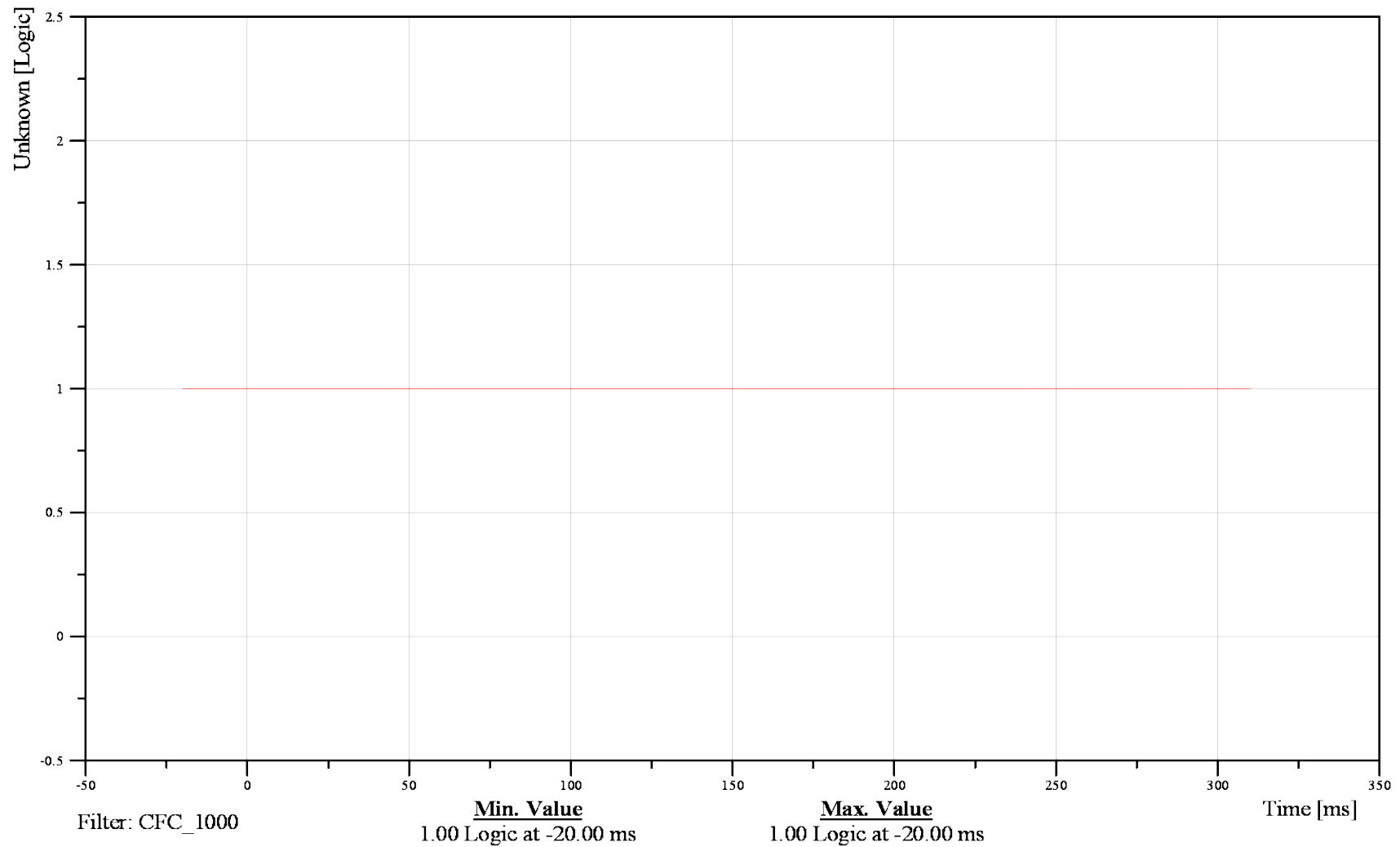
Leg Contact

Customer: VRTC

11LEGCONT000VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Internal Front Contact

Date: 03/27/2013

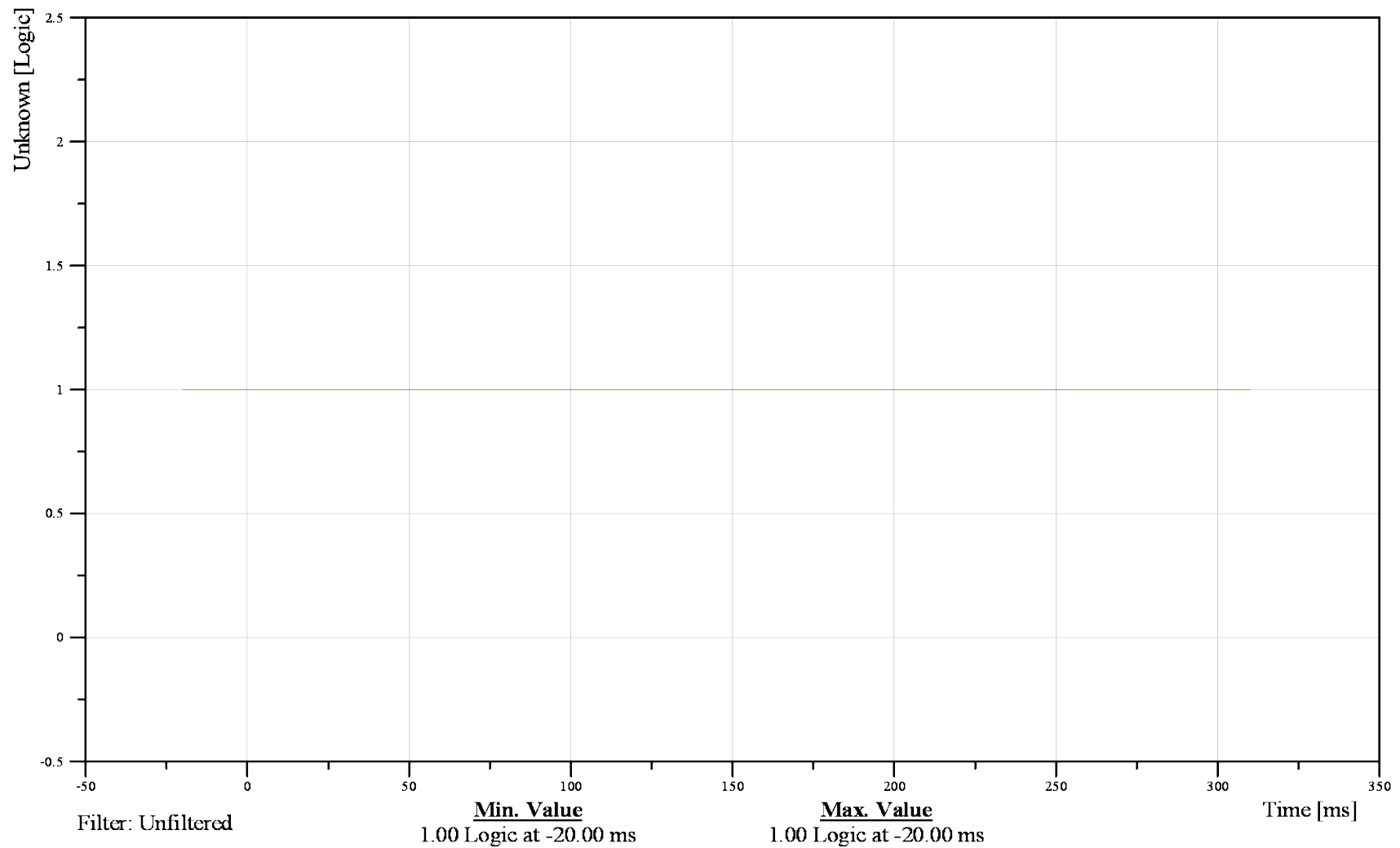
Time: 14:31

Customer: VRTC

11PELVFR00WSVO00

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Internal Top Rear Contact

Date: 03/27/2013

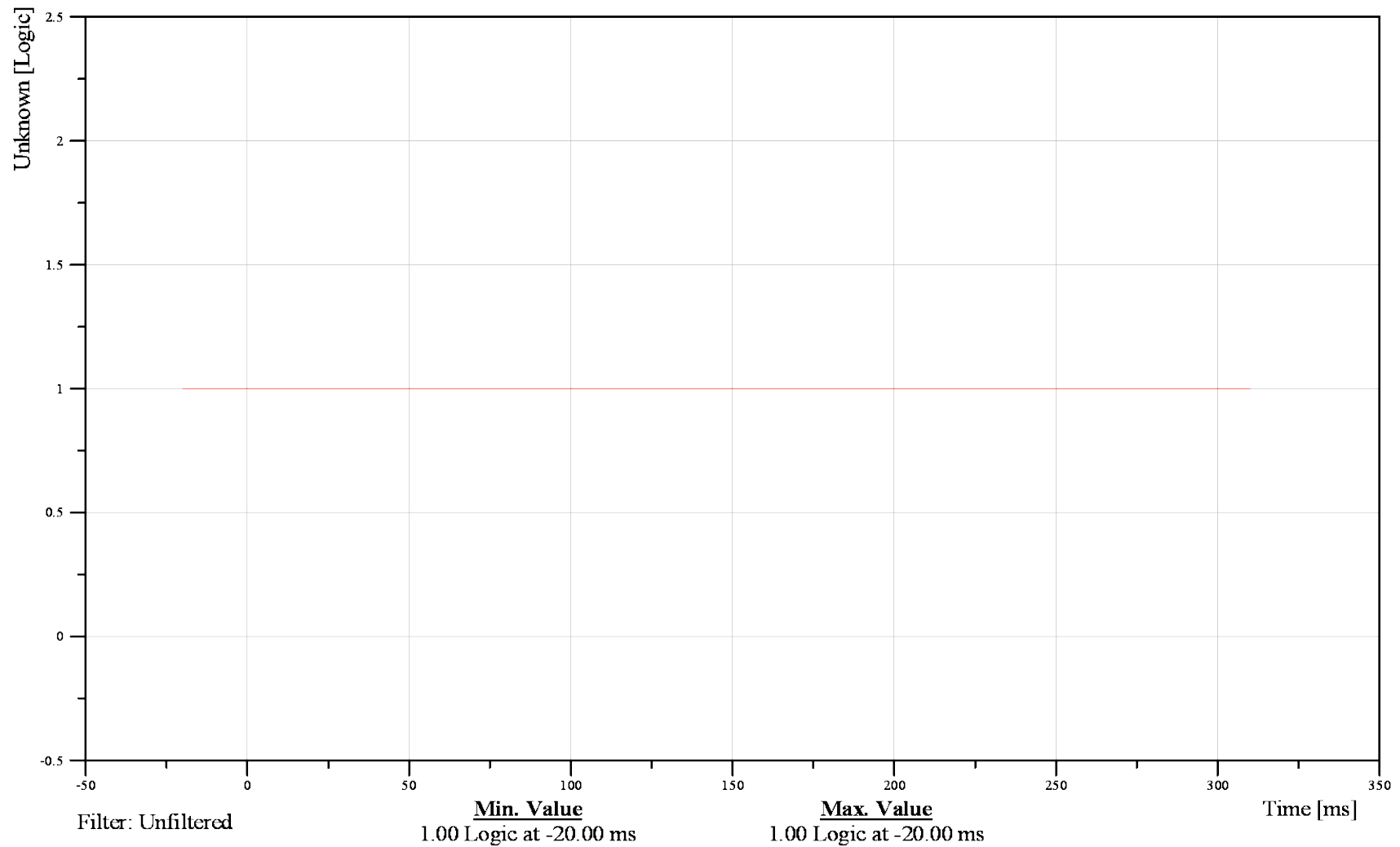
Time: 14:31

Customer: VRTC

11PELVTPREWSVO00

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Pelvis Internal Bottom Rear Contact

Date: 03/27/2013

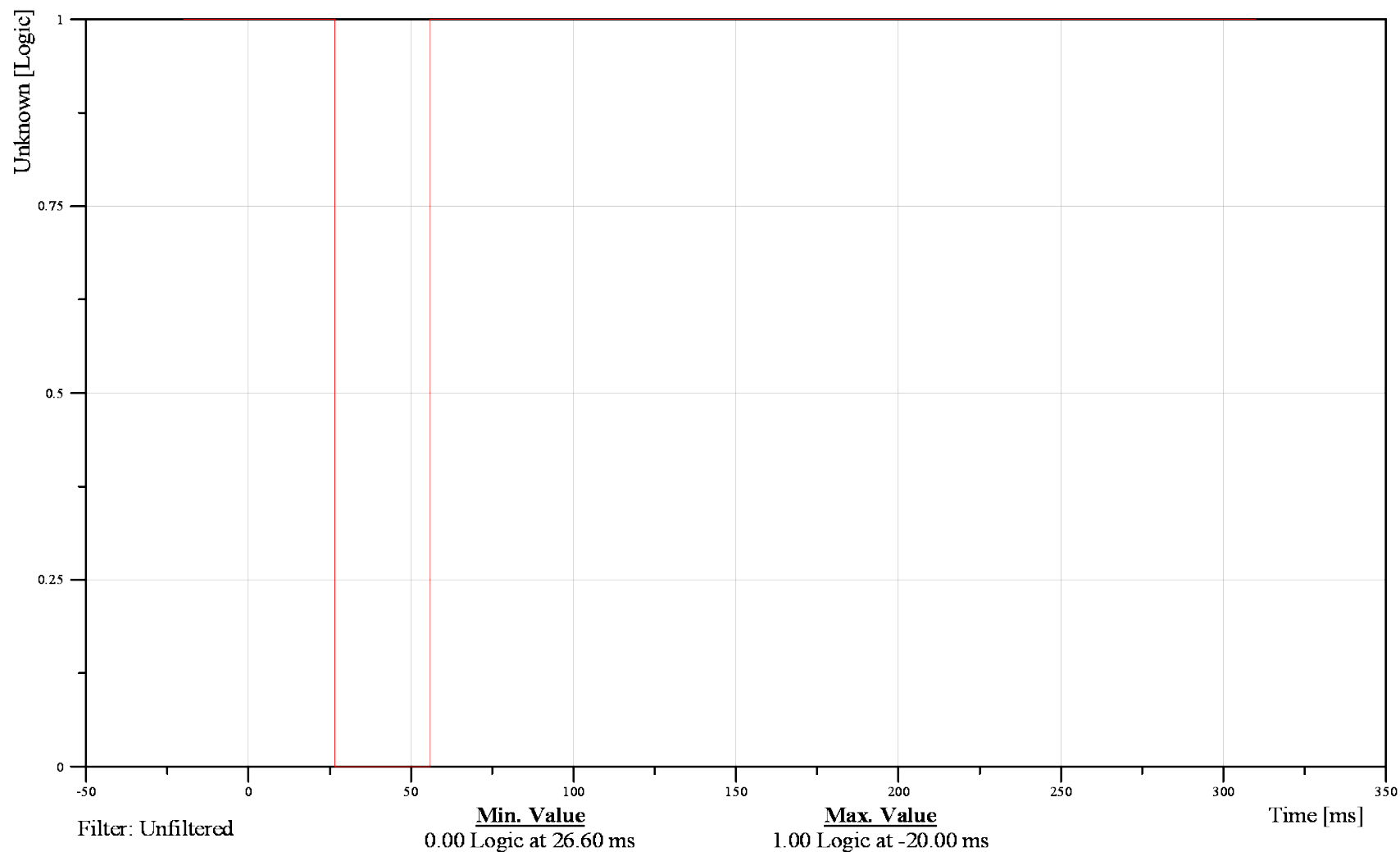
Time: 14:31

Customer: VRTC

11PELVBOREWSVO00

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Inboard Head Contact

Date: 03/27/2013

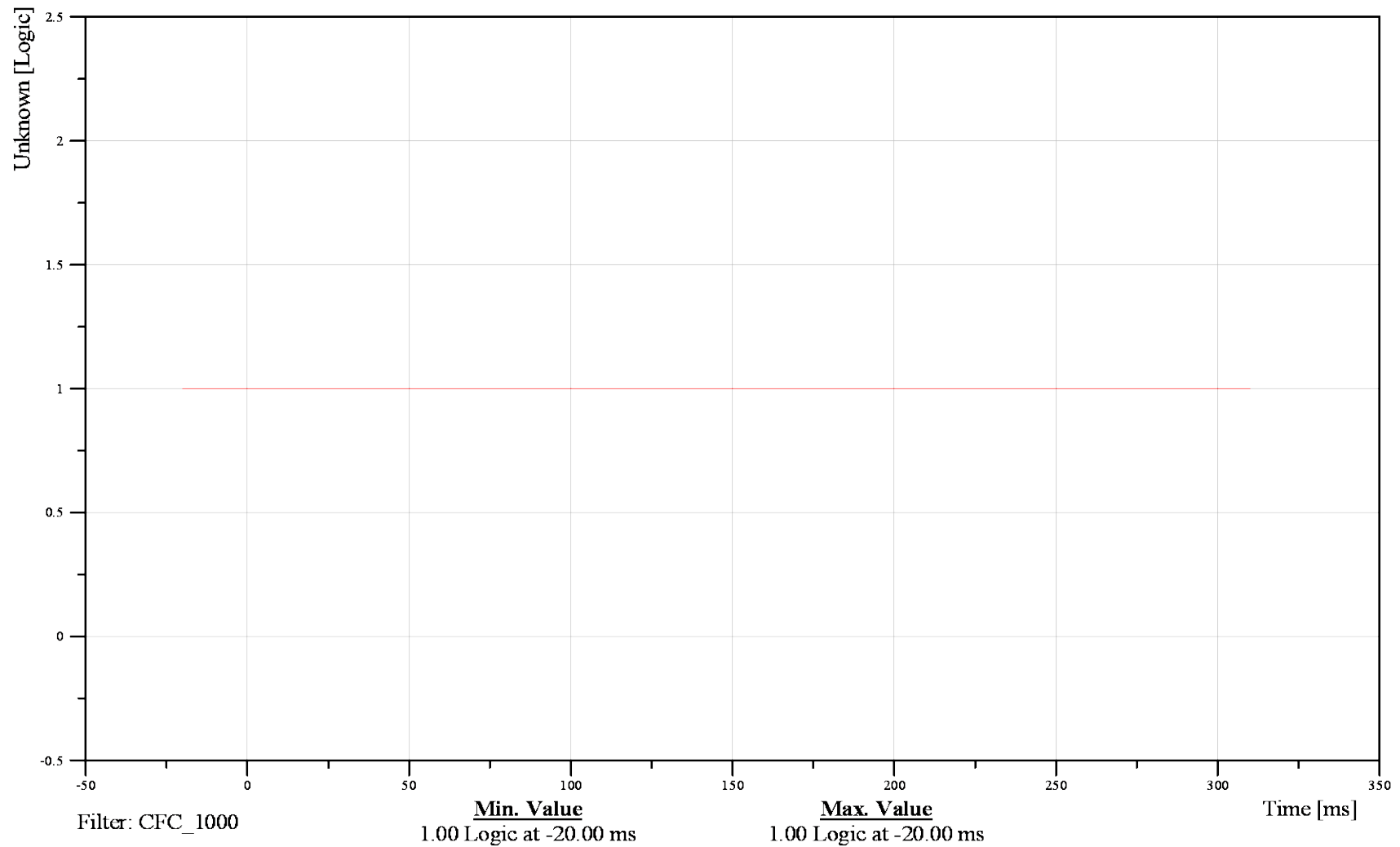
Time: 14:31

Customer: VRTC

13HEADCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Date: 03/27/2013

Time: 14:31

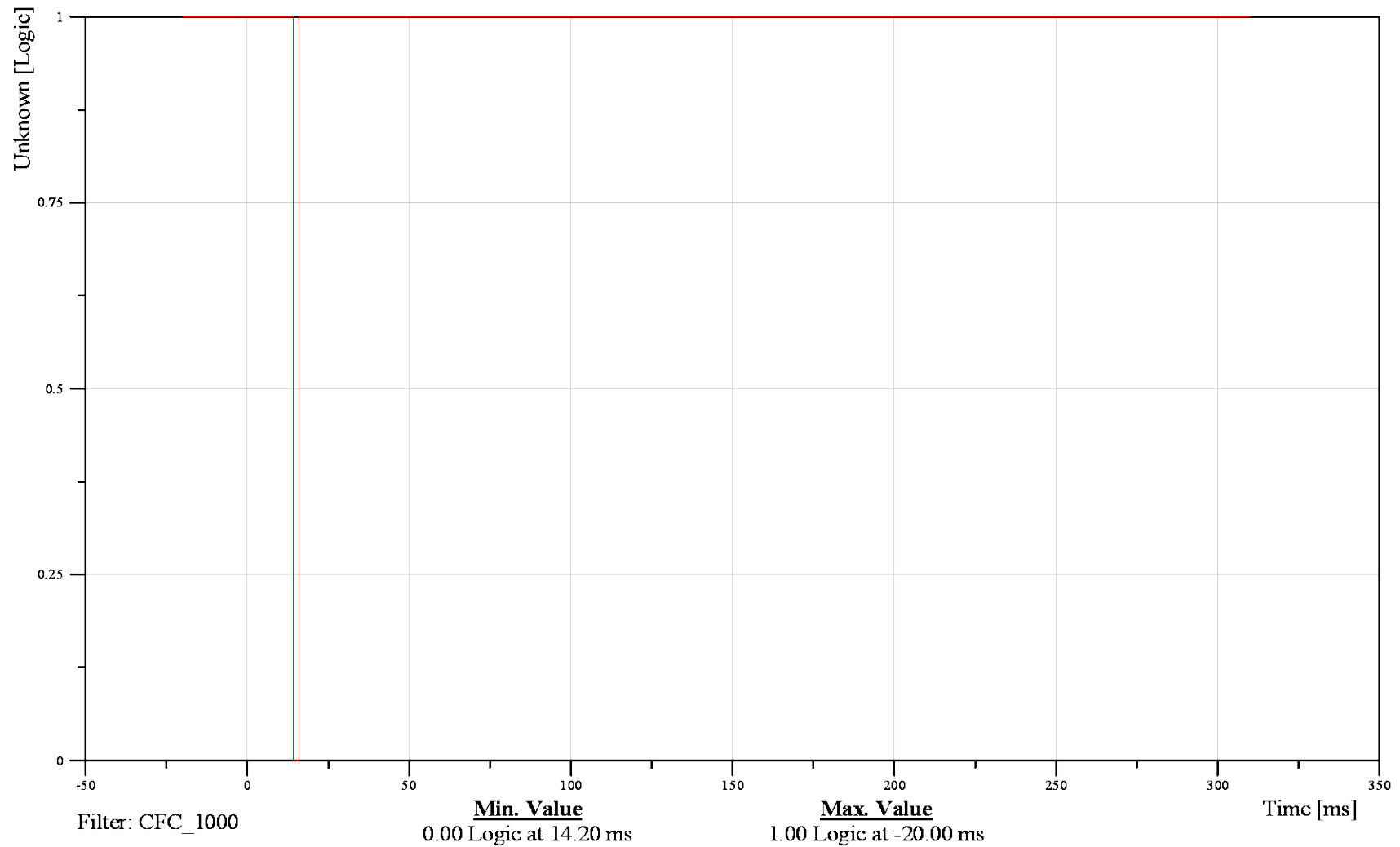
Outboard Head Contact

Customer: VRTC

13HEADCONT01VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Contact

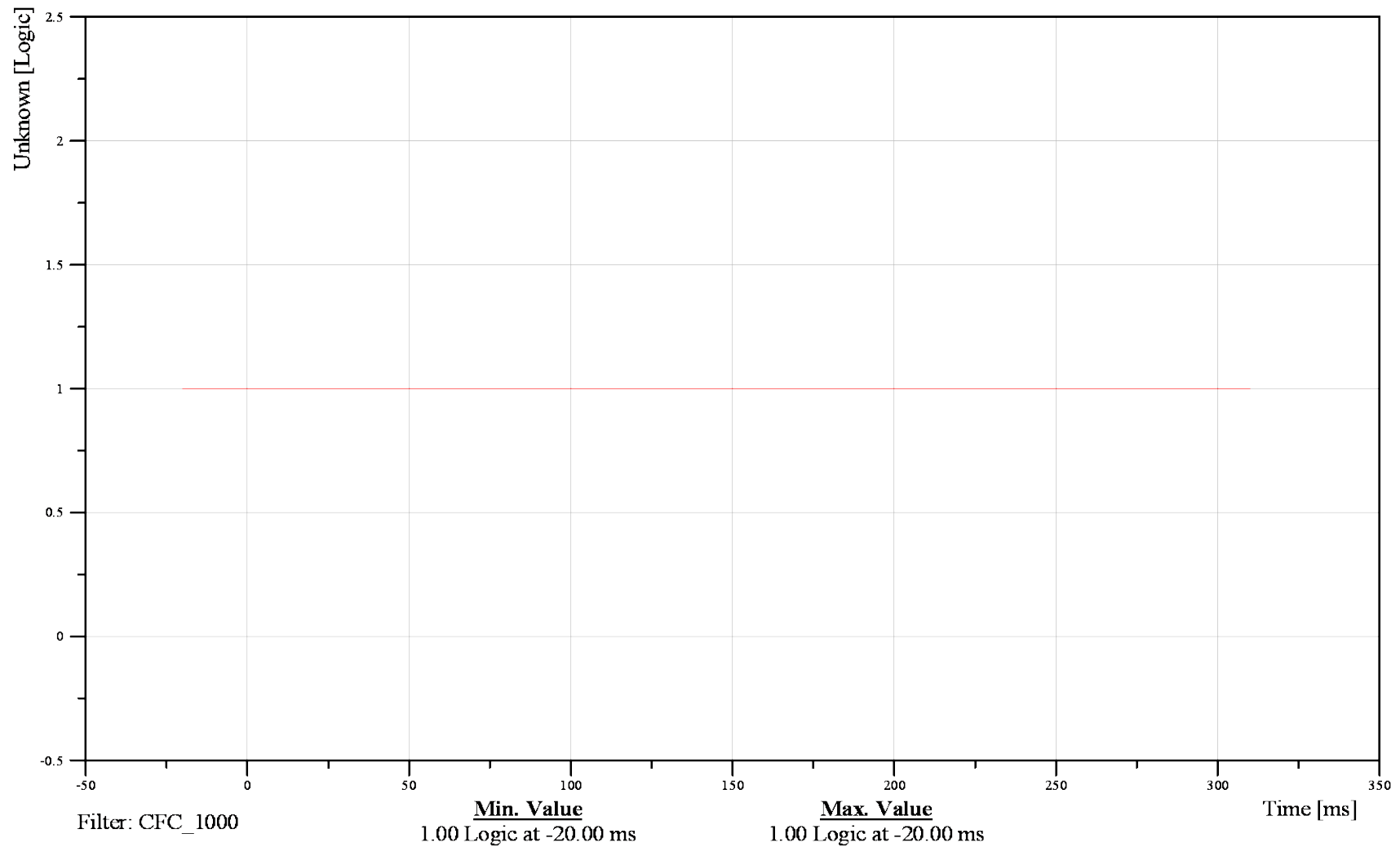
Date: 03/27/2013
Time: 14:31

Customer: VRTC

13SHLDCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Contact

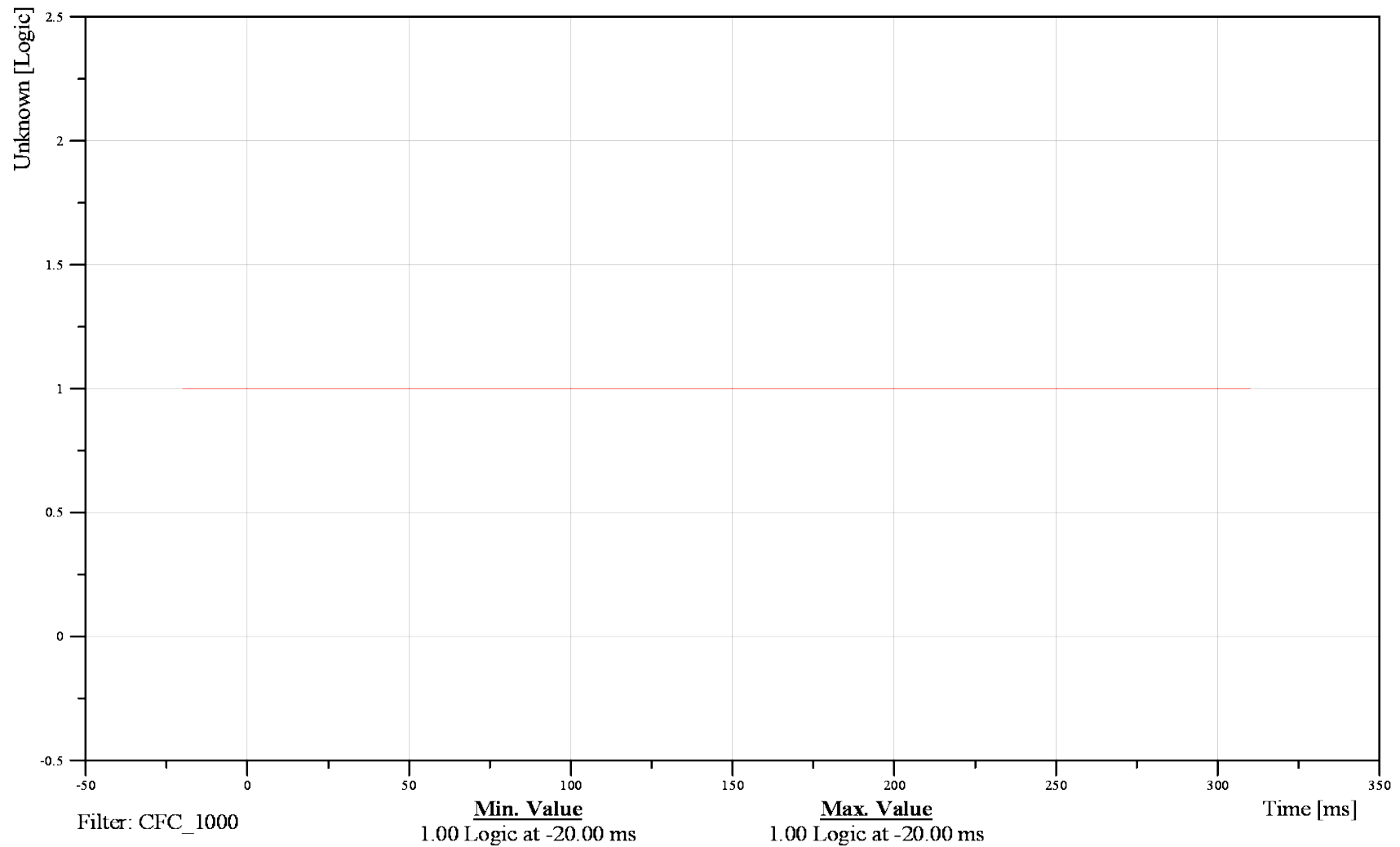
Date: 03/27/2013
Time: 14:31

Customer: VRTC

13THORCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Date: 03/27/2013

Time: 14:31

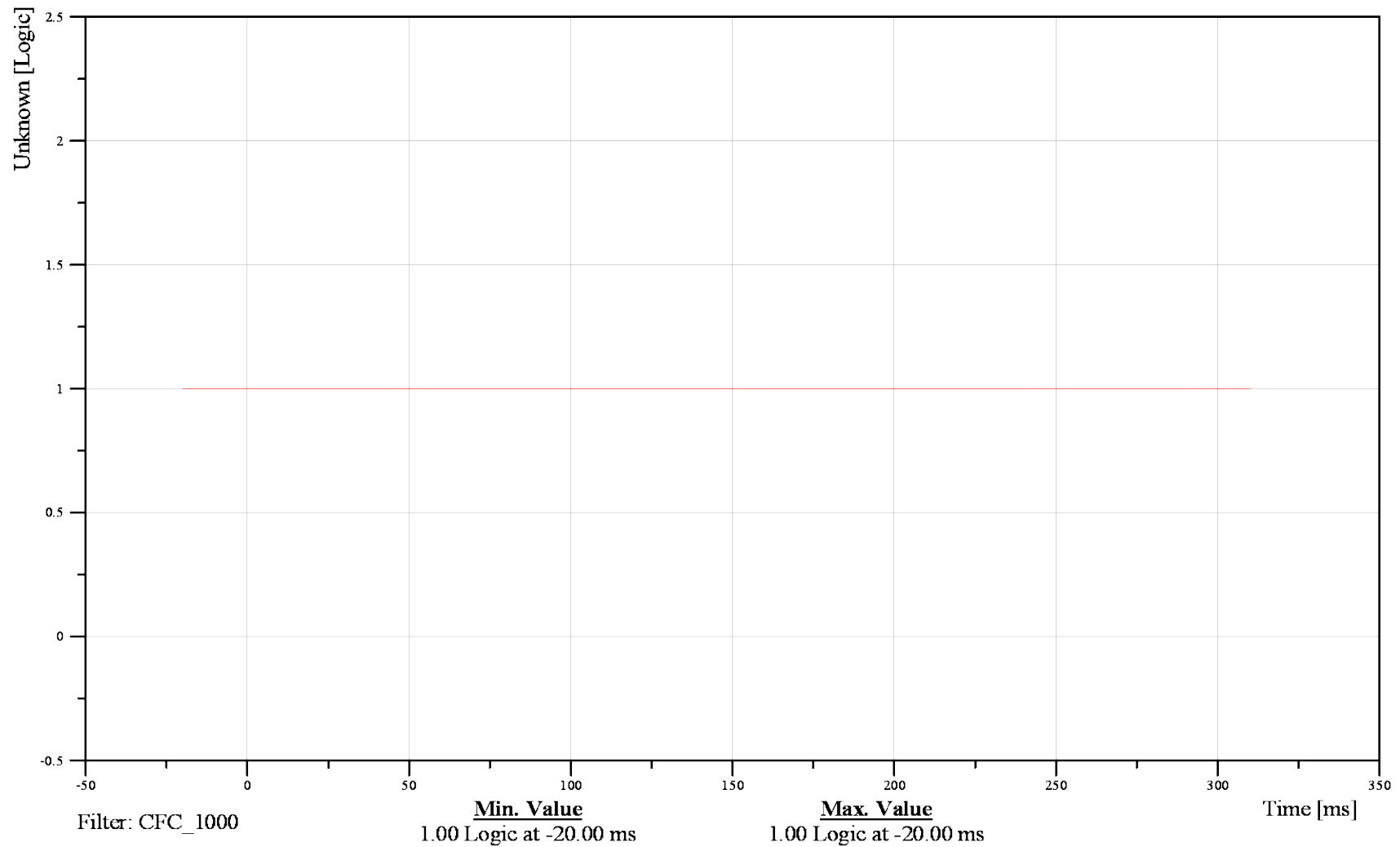
Leg Contact

Customer: VRTC

13LEGCONT000VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Head Contact

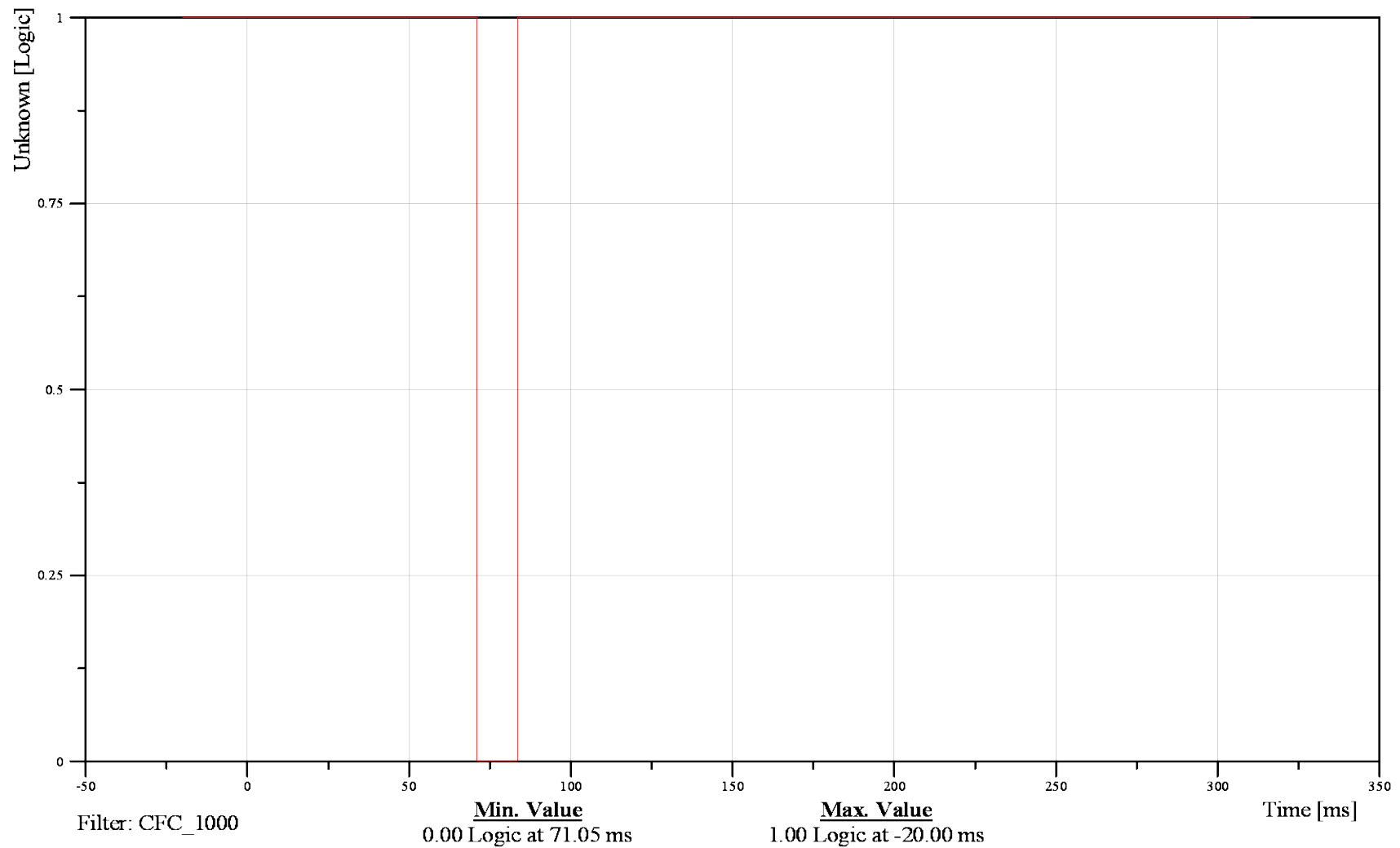
Date: 03/27/2013
Time: 14:31

Customer: VRTC

14HEADCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Shoulder Contact

Date: 03/27/2013

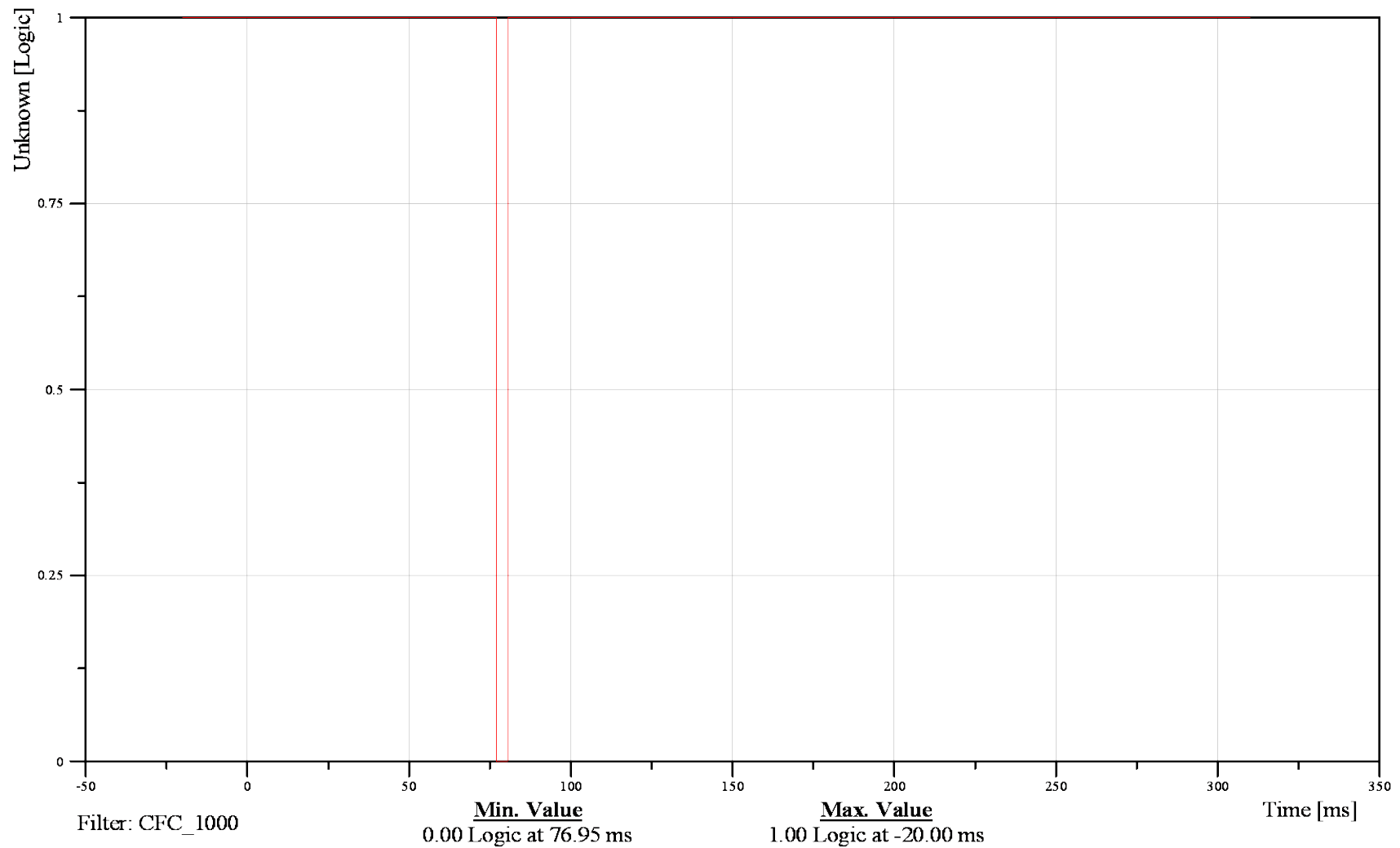
Time: 14:31

Customer: VRTC

14SHLDCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Thorax Contact

Date: 03/27/2013

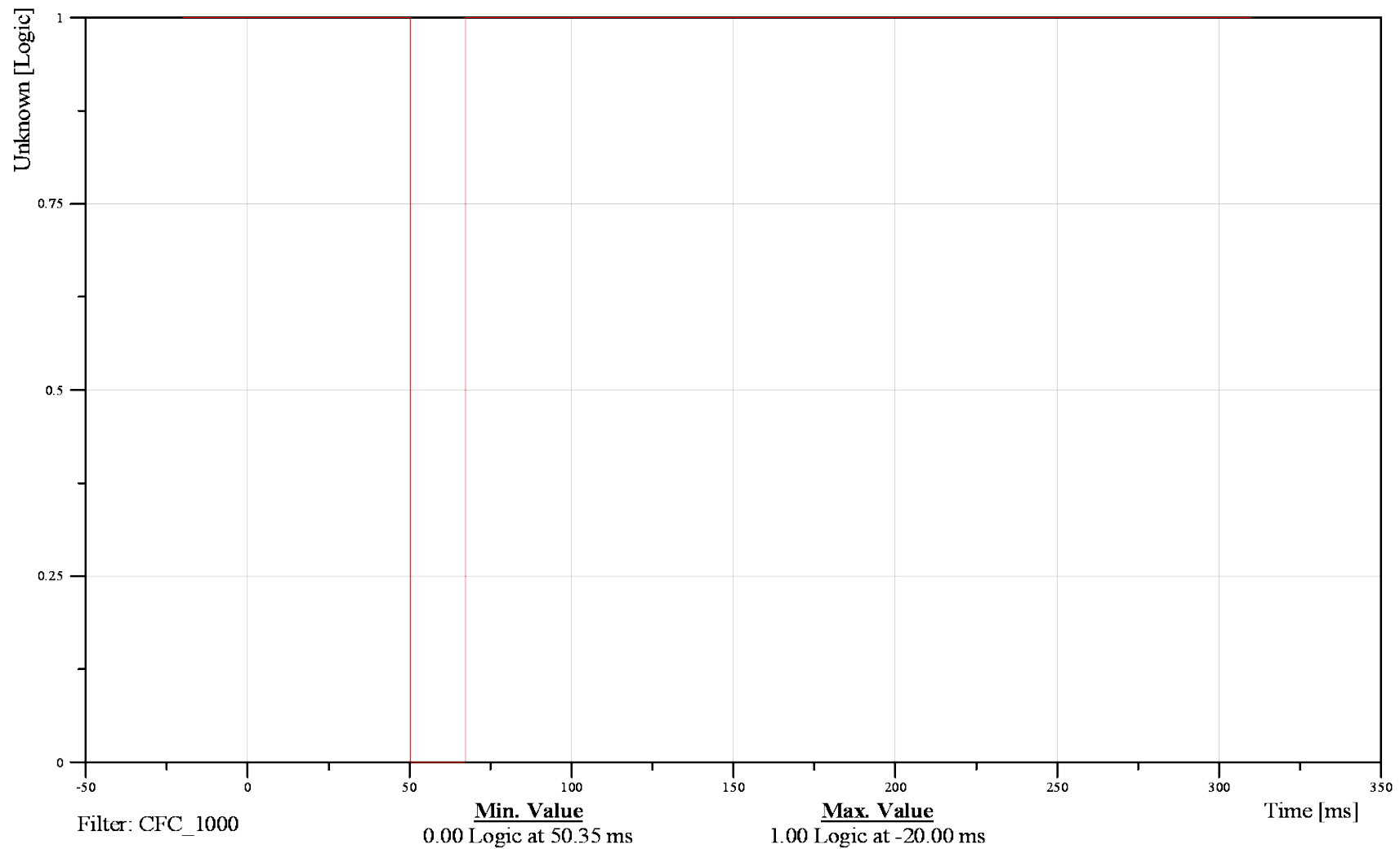
Time: 14:31

Customer: VRTC

14THORCONT00VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

Date: 03/27/2013

Time: 14:31

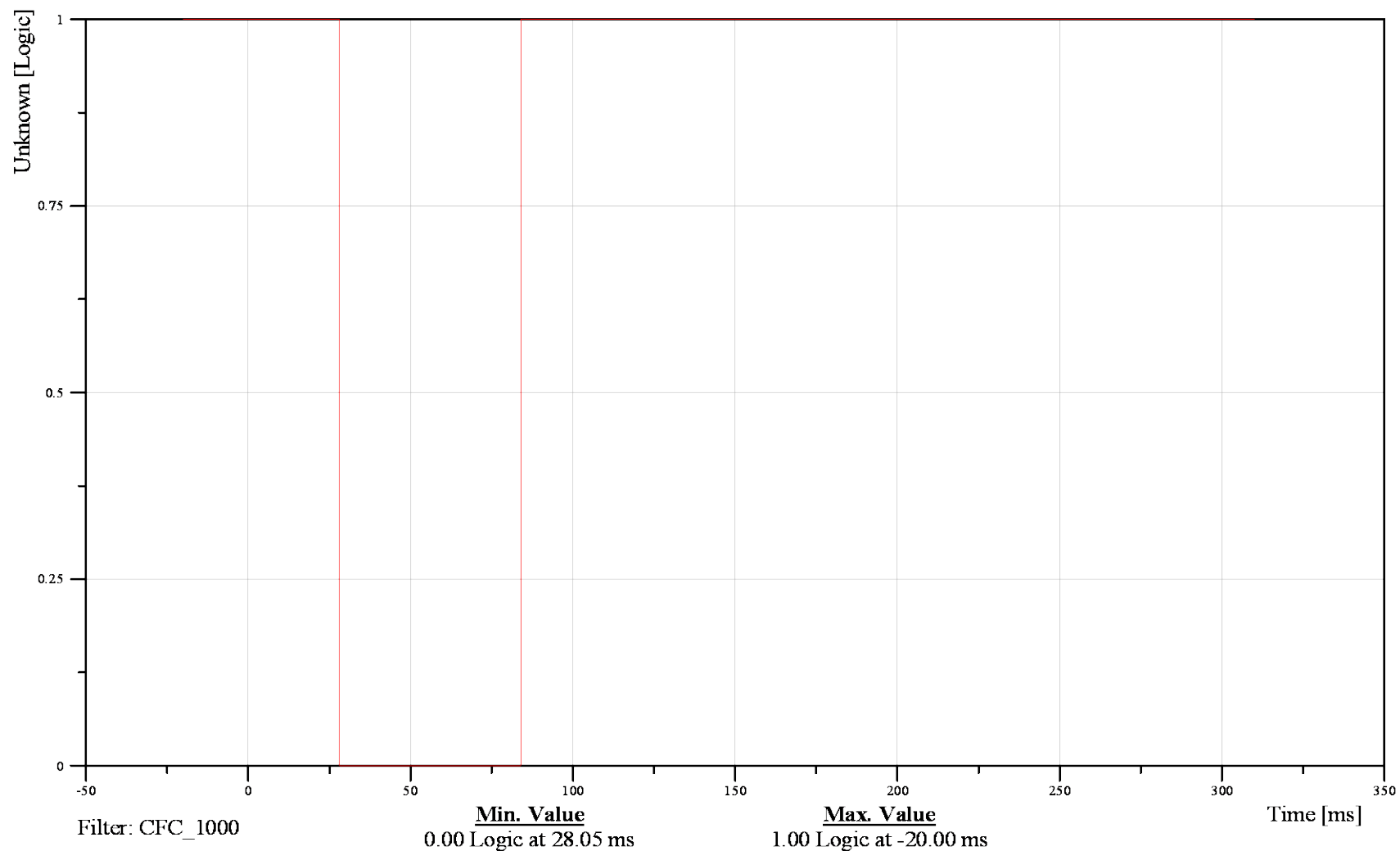
Leg Contact

Customer: VRTC

14LEGCONT000VO0A

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

MDB CG AX

Date: 03/27/2013

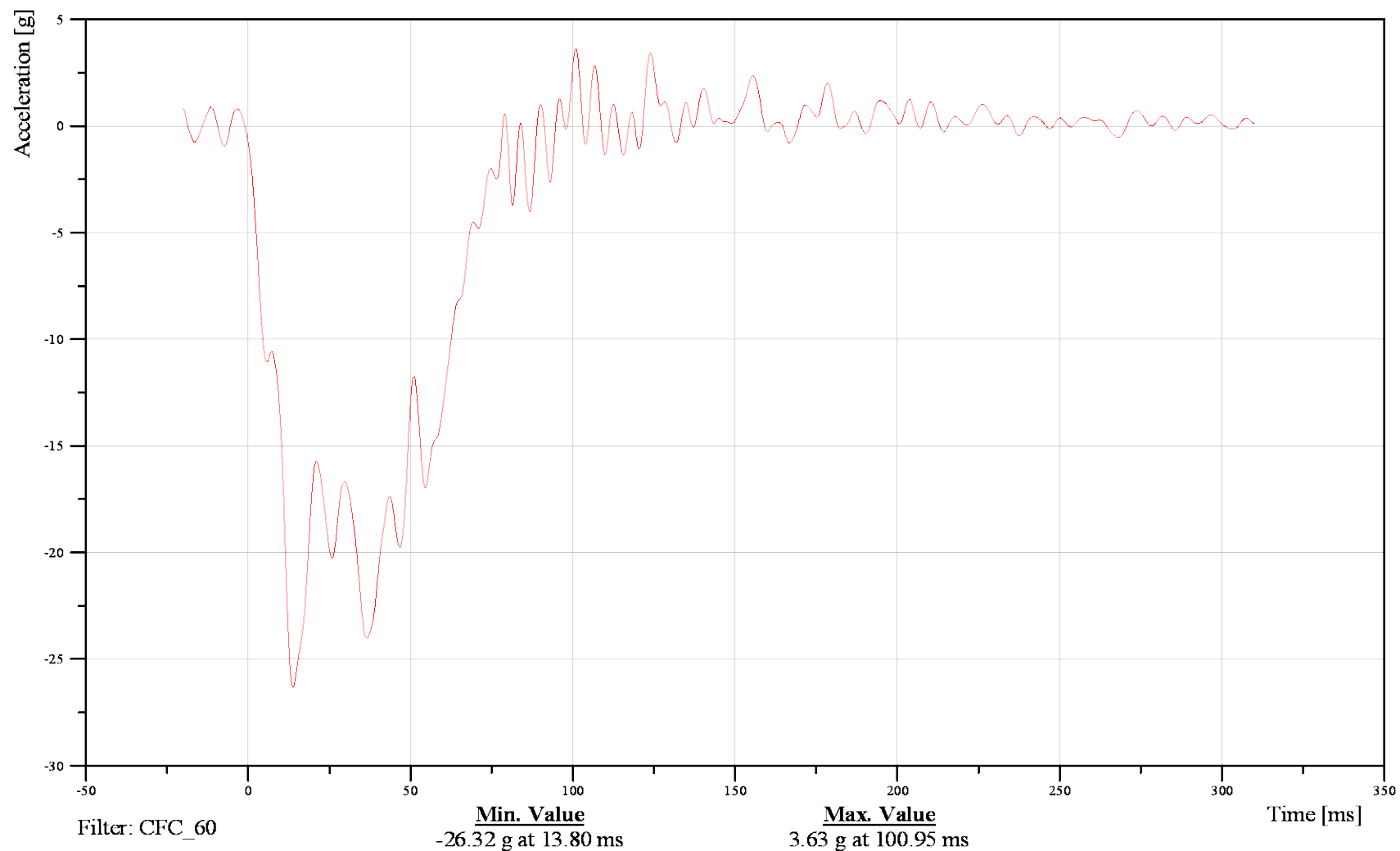
Time: 14:31

Customer: VRTC

M0MBARCG0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

MDB CG AY

Date: 03/27/2013

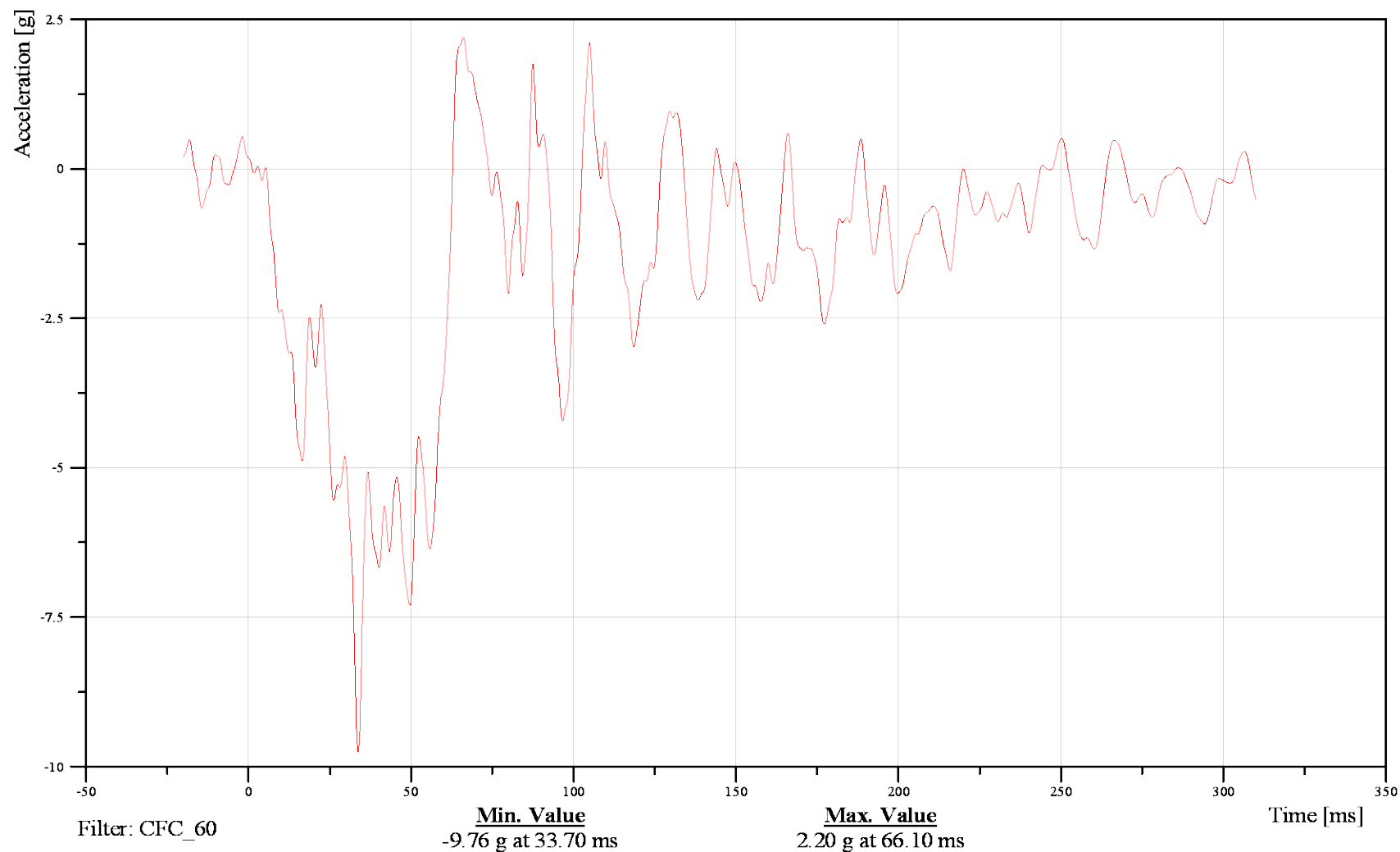
Time: 14:31

Customer: VRTC

M0MBARCG0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

MDB CG AZ

Date: 03/27/2013

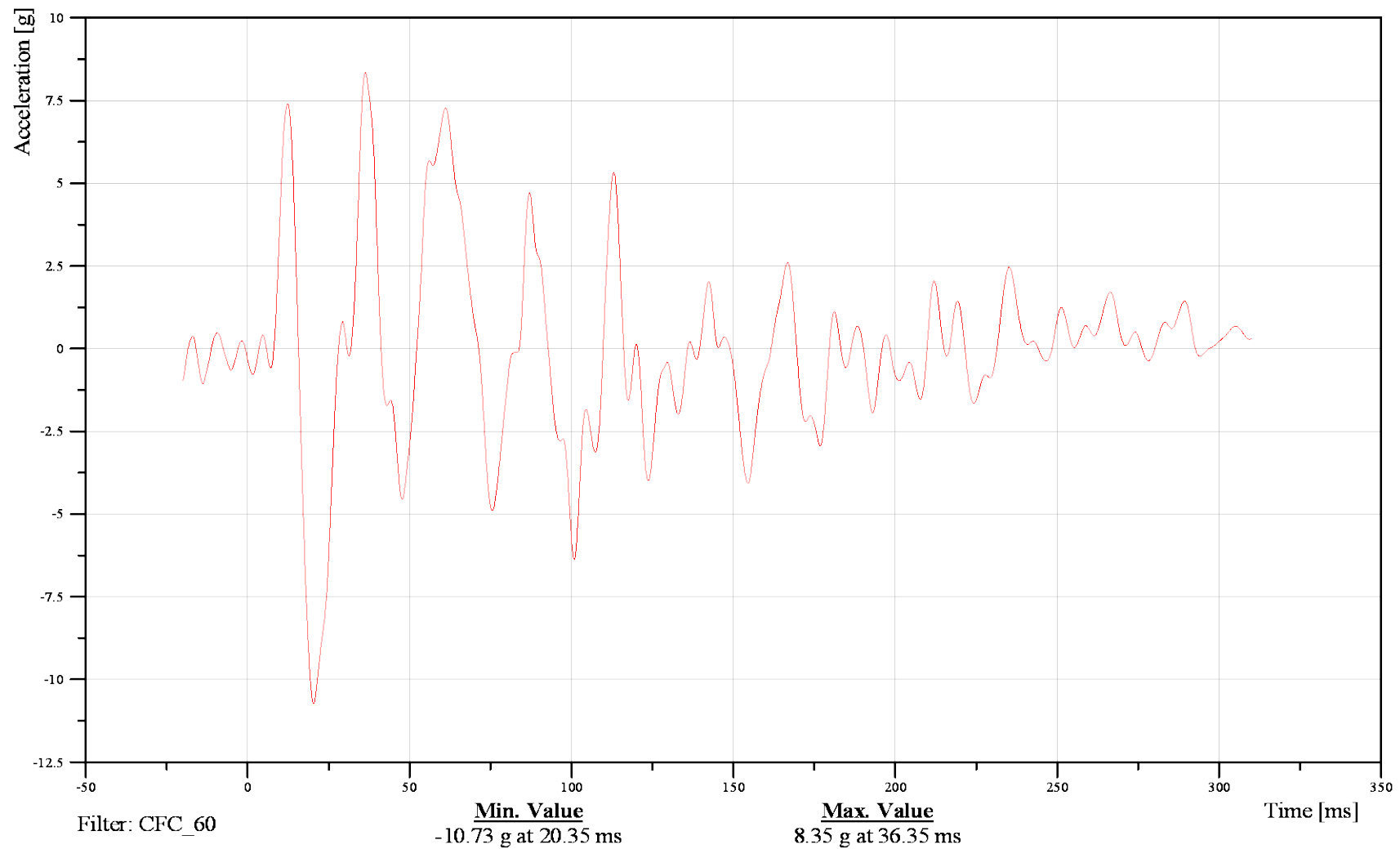
Time: 14:31

Customer: VRTC

M0MBCRG0000ACZD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

MDB CG A Resultant

Date: 03/27/2013

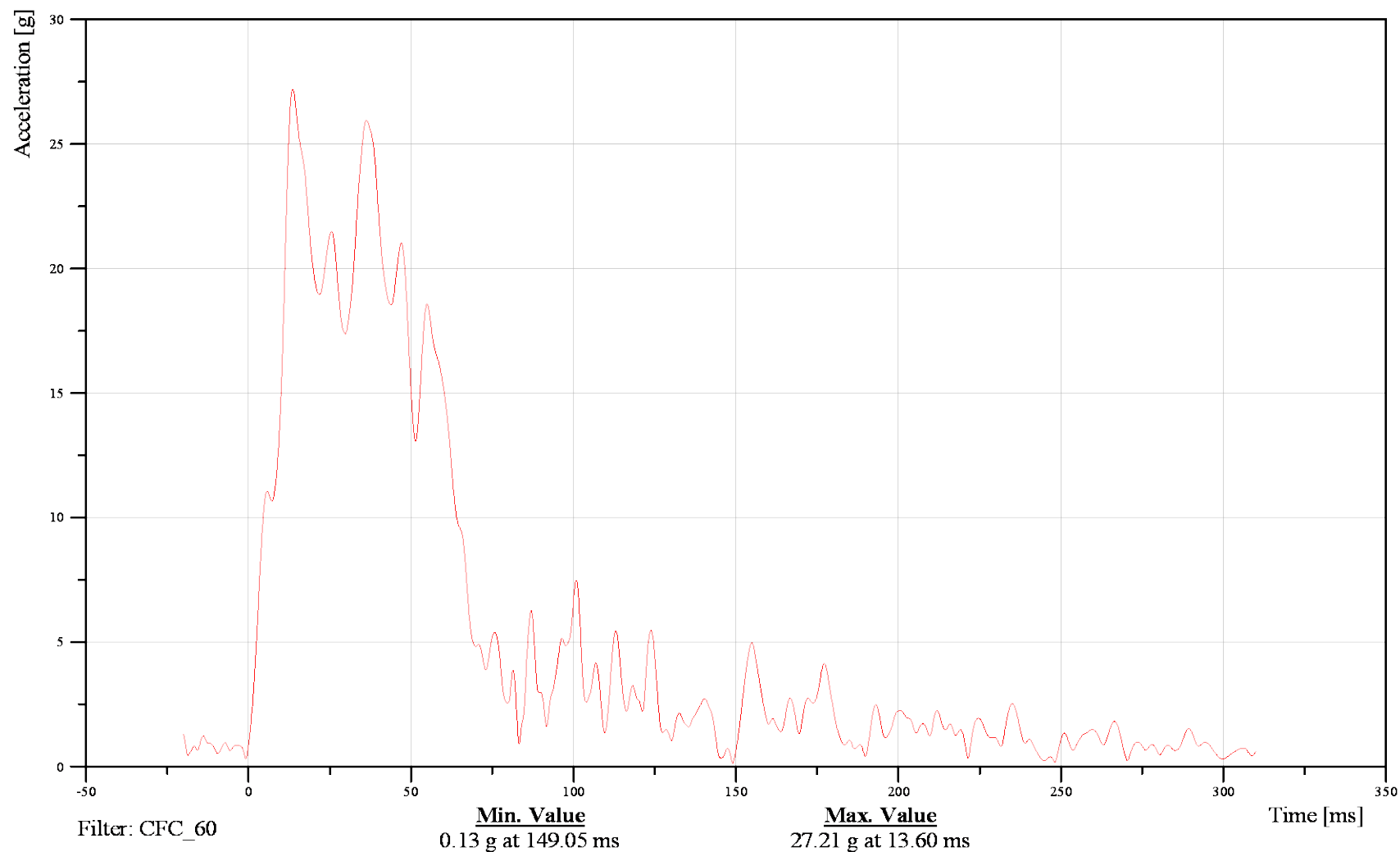
Time: 14:31

Customer: VRTC

M0MBARCG0000ACRD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

MDB REAR AX

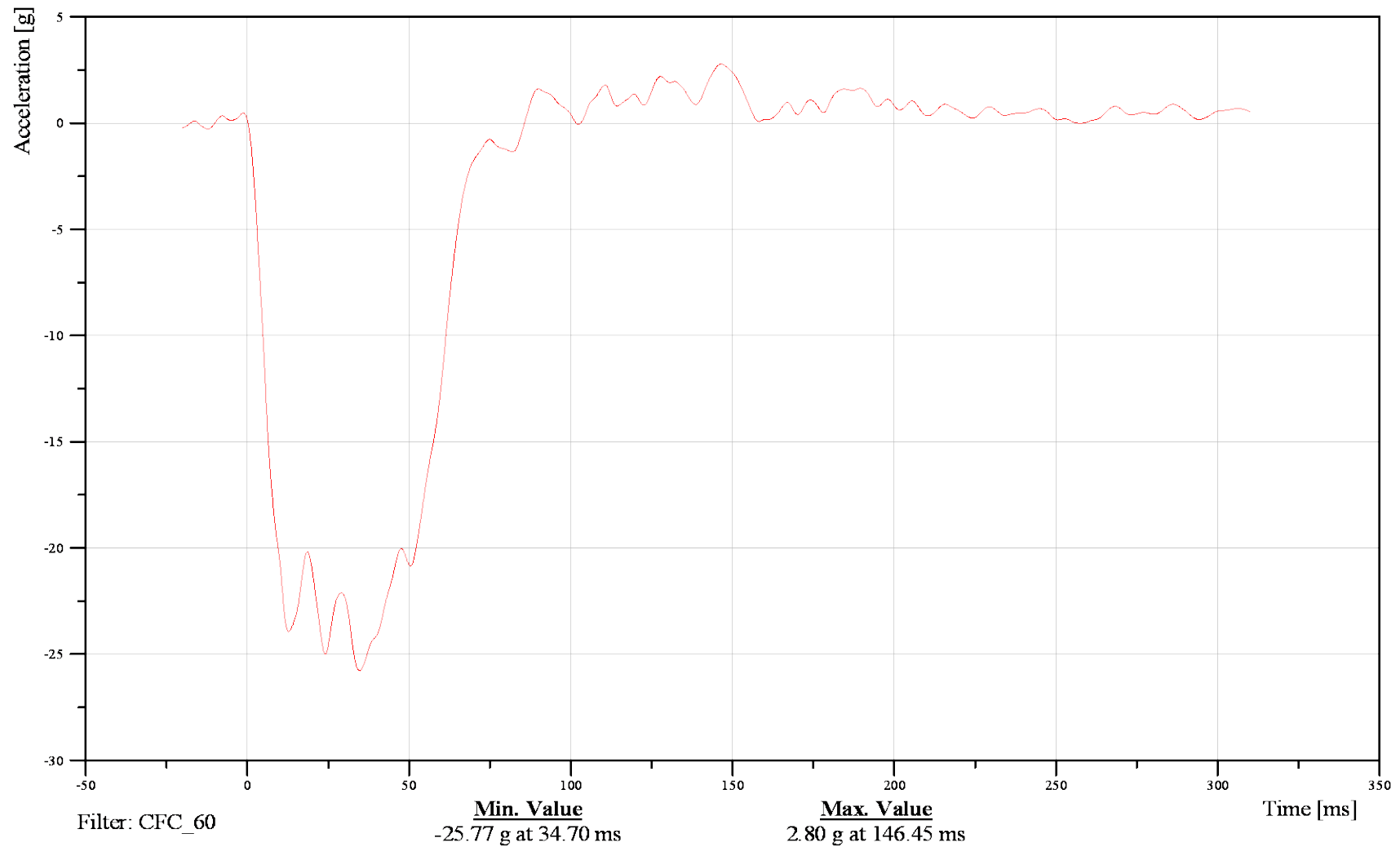
Date: 03/27/2013
Time: 14:31

Customer: VRTC

M0FRAMRE0000ACXD

TRC Inc. Test Lab: CTF

Test Number: 130326





FMVSS 214 Side Impact 2012 Chevrolet Traverse

MDB REAR AY

Date: 03/27/2013

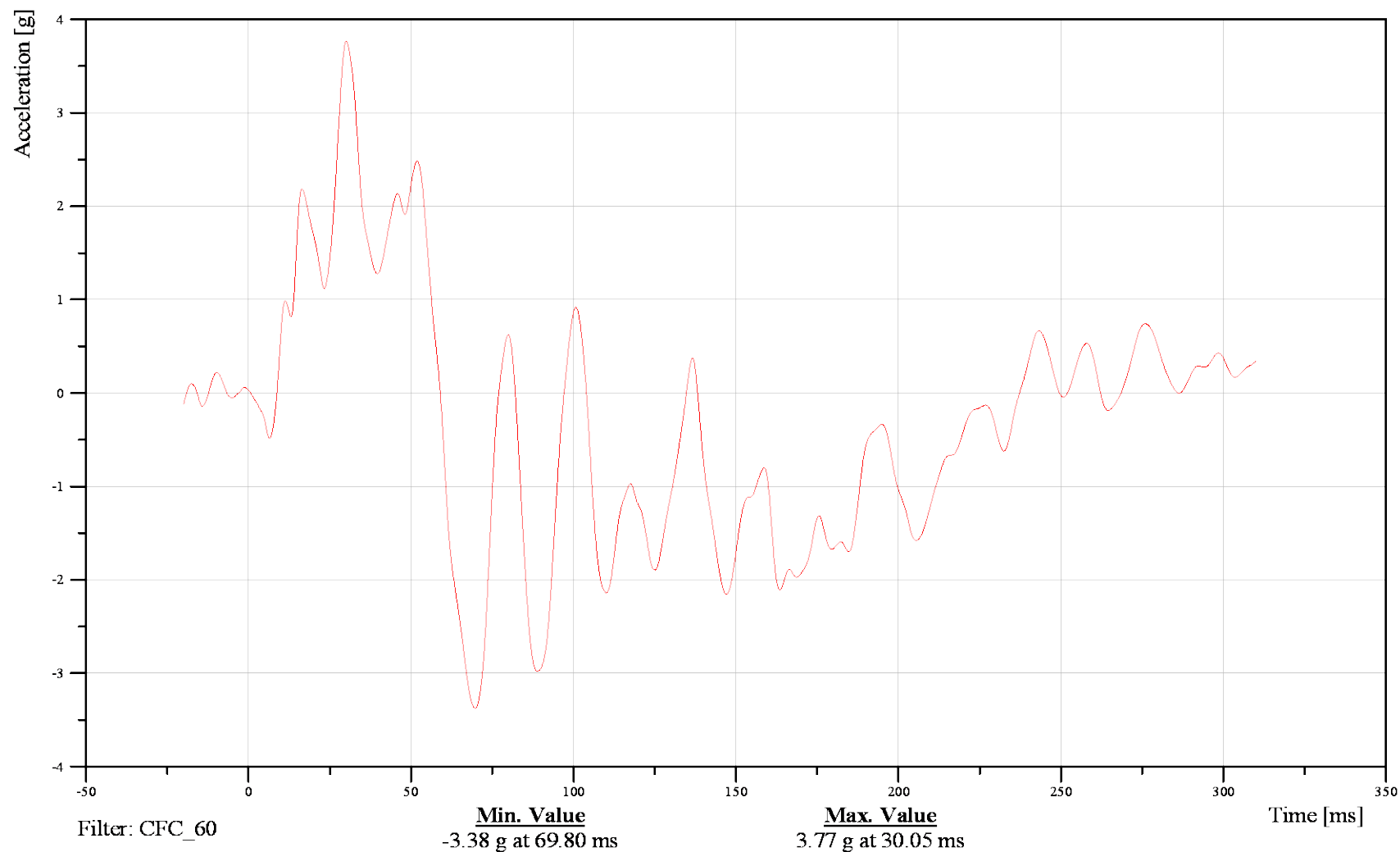
Time: 14:31

Customer: VRTC

M0FRAMRE0000ACYD

TRC Inc. Test Lab: CTF

Test Number: 130326



Appendix C

WorldSID Configuration and Performance Verification Data

Calibration Test Results

Pre-Test

WorldSID: 016

Configured for Left Side Impact

Transportation Research Center Inc.

Front Head Drop

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

Test Date: 2/12/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Peak Head Resultant Acceleration	205 - 255 g	241.7 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	-6.9 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

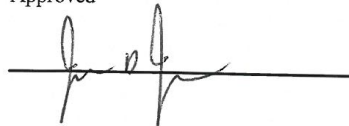
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.12.2013 14:54:47 614

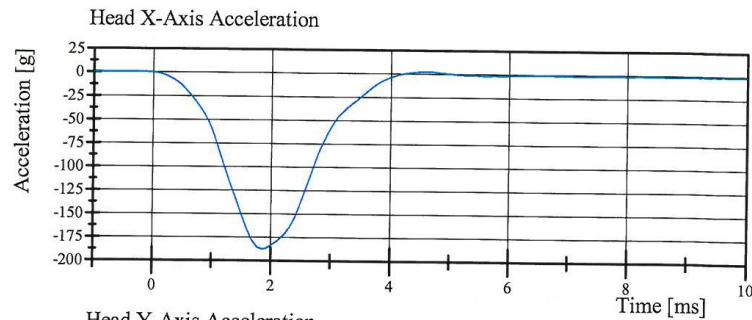


Transportation Research Center Inc.

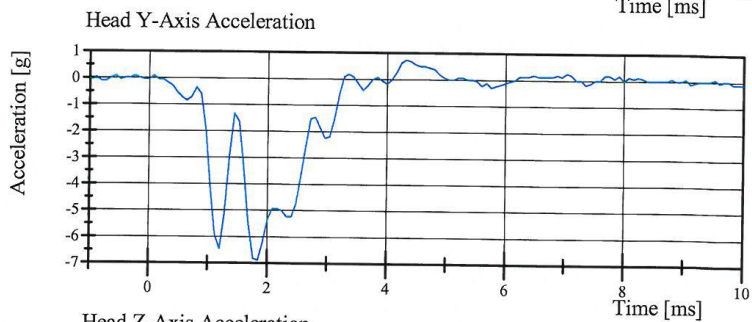
Front Head Drop

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

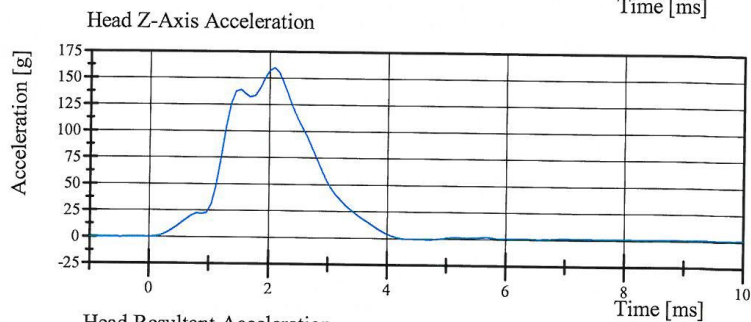
Test Date: 2/12/2013



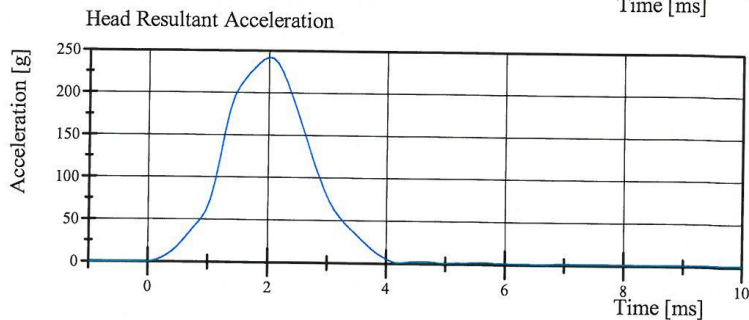
Filter Class: CFC_1000
Max: 2.4 gn at 4.6 ms
Min: -187.6 gn at 1.8 ms



Filter Class: CFC_1000
Max: 0.7 gn at 4.3 ms
Min: -6.9 gn at 1.8 ms



Filter Class: CFC_1000
Max: 159.8 gn at 2.1 ms
Min: -0.9 gn at 4.6 ms



Filter Class: CFC_1000
Max: 241.7 gn at 2.0 ms
Min: 0.1 gn at 0.0 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.12.2013 14:55:02 614



Transportation Research Center Inc.

Left Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-4

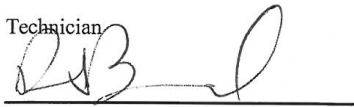
Test Date: 2/22/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Peak Head Resultant Acceleration	104 - 123 g	110.7 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	-2.8 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

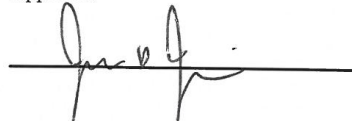
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.22.2013 08:01:49 611

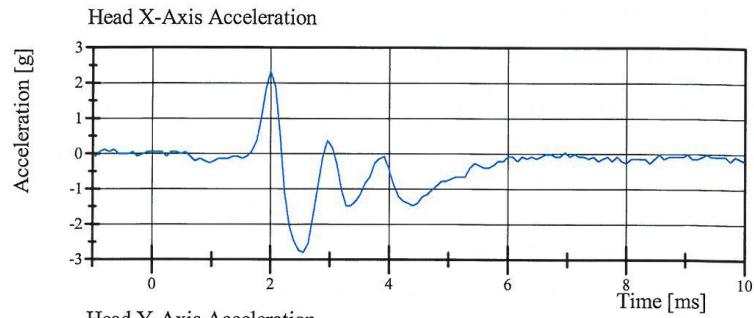


Transportation Research Center Inc.

Left Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-4

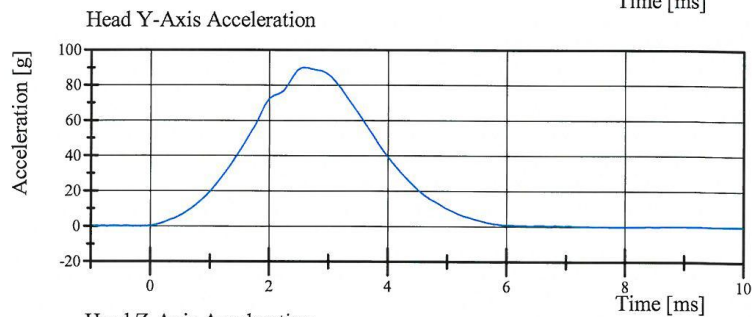
Test Date: 2/22/2013



Filter Class: CFC_1000

Max: 2.3 gn at 2.0 ms

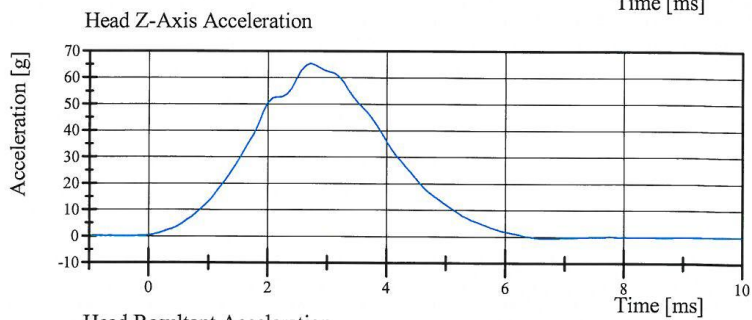
Min: -2.8 gn at 2.6 ms



Filter Class: CFC_1000

Max: 90.0 gn at 2.6 ms

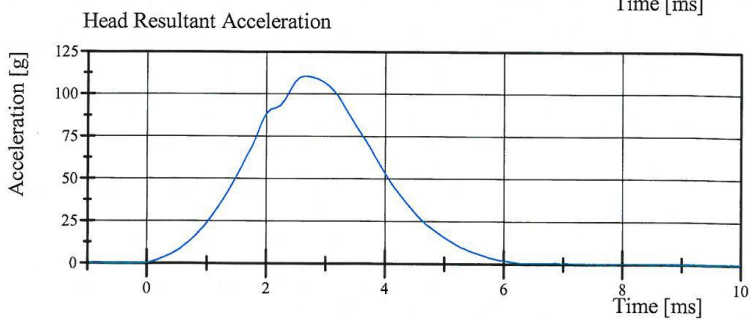
Min: -0.2 gn at 7.9 ms



Filter Class: CFC_1000

Max: 65.4 gn at 2.7 ms

Min: -0.5 gn at 6.9 ms



Filter Class: CFC_1000

Max: 110.7 gn at 2.6 ms

Min: 0.0 gn at -0.5 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.22.2013 08:01:56 611



Transportation Research Center Inc.

Right Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-2

Test Date: 2/21/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Peak Head Resultant Acceleration	104 - 123 g	120.6 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	4.7 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

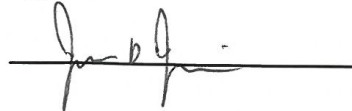
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 15:42:54 609

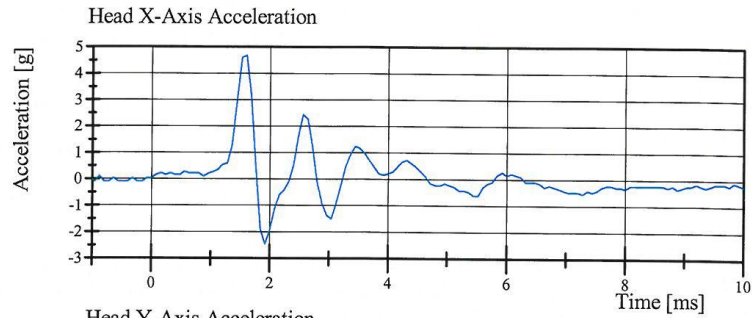


Transportation Research Center Inc.

Right Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-2

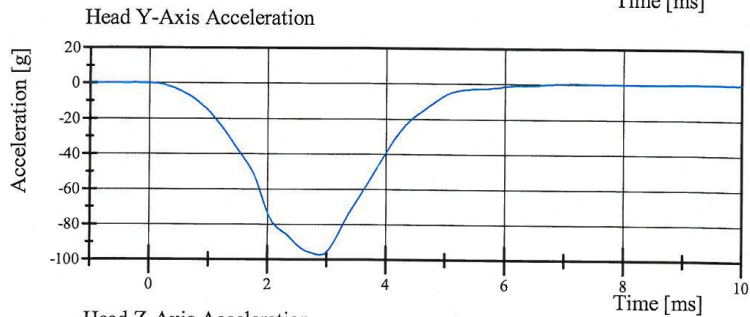
Test Date: 2/21/2013



Filter Class: CFC_1000

Max: 4.7 gn at 1.6 ms

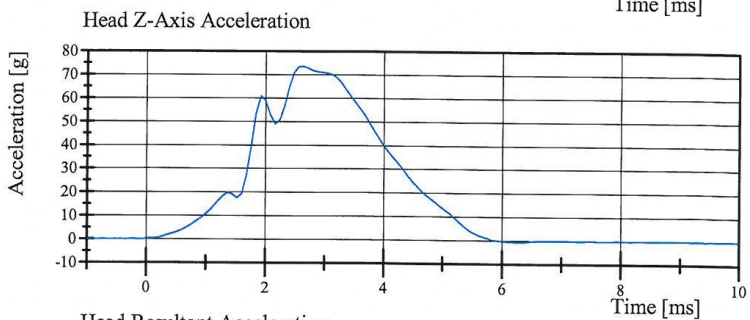
Min: -2.5 gn at 1.9 ms



Filter Class: CFC_1000

Max: 0.5 gn at 7.1 ms

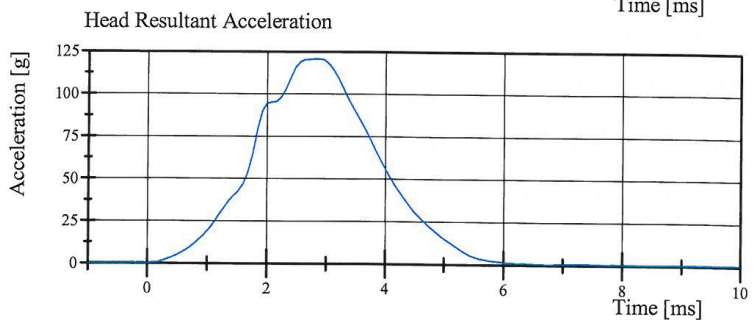
Min: -97.4 gn at 2.9 ms



Filter Class: CFC_1000

Max: 73.5 gn at 2.6 ms

Min: -0.6 gn at 6.2 ms



Filter Class: CFC_1000

Max: 120.6 gn at 2.9 ms

Min: 0.0 gn at -0.6 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 15:43:30 609



Transportation Research Center Inc.

Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

Test Date: 2/12/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	33 %	Yes
Pendulum Velocity	(-3.3) - (-3.5) m/s	-3.35 m/s	Yes
Pendulum Integrated Velocity			
Change at 4 ms	0.77 - 1.04 m/s	0.936 m/s	Yes
Change at 8 ms	1.6 - 2.16 m/s	2.043 m/s	Yes
Change at 12 ms	2.43 - 3.29 m/s	3.213 m/s	Yes
Maximum Headform Flexion	(-50) - (-61) deg	-52.8 deg	Yes
Headform Flexion Decay			
- from Peak to Zero Degrees	58 - 72 ms	60.6 ms	Yes
Total Neck Occipital Condyles Moment	55 - 68 N·m	64.7 N·m	Yes
Total Neck Occipital Condyles Moment			
Decay Time to 0 N·m	71 - 87 ms	79.0 ms	Yes
Maximum Forward Pot Rotation			
Peak	(-32) - (-39) °	-34.5 °	Yes
Time of Peak	56 - 68 ms	57.0 ms	Yes
Maximum Rear Pot Rotation			
Peak	(-30) - (-37) °	-31.2 °	Yes
Time of Peak	56 - 68 ms	60.5 ms	Yes

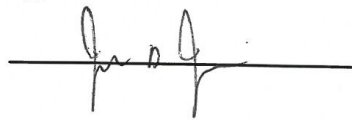
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.12.2013 13:40:24 1337



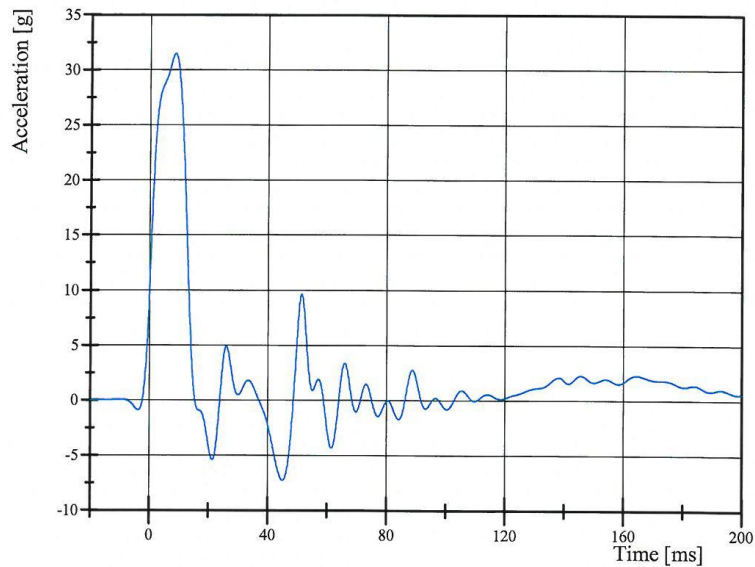
Transportation Research Center Inc.

Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

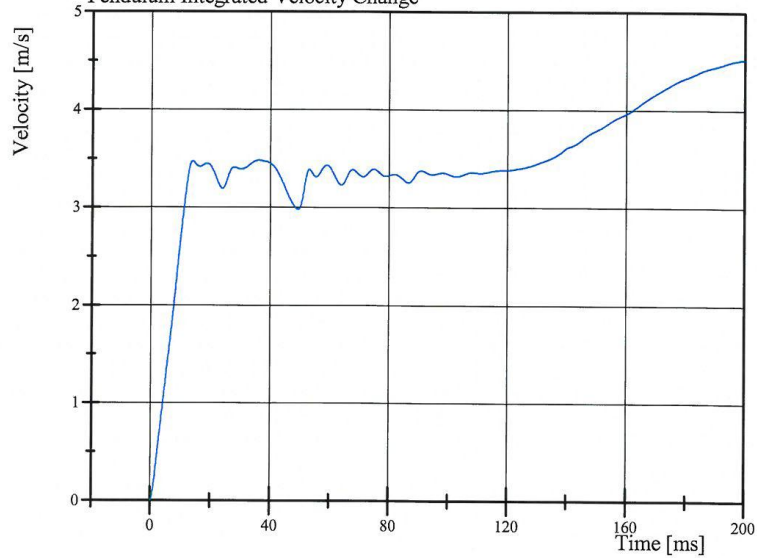
Test Date: 2/12/2013

Pendulum Acceleration



Filter Class: CFC_60
Max: 31.5 gn at 8.6 ms
Min: -7.3 gn at 45.0 ms

Pendulum Integrated Velocity Change



Filter Class: CFC_180
Max: 4.5 m/s at 200.0 ms
Min: 0.0 m/s at 0.0 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.12.2013 13:40:32 1337

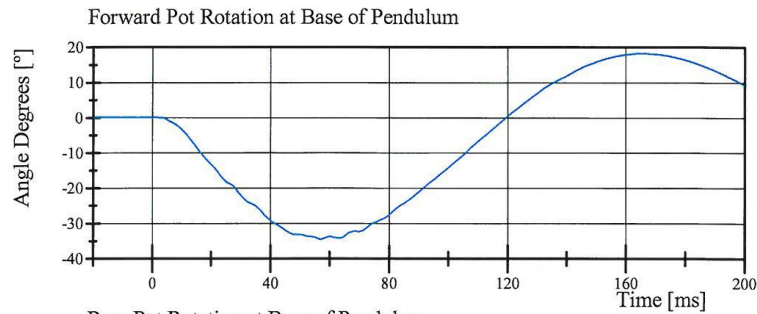


Transportation Research Center Inc.

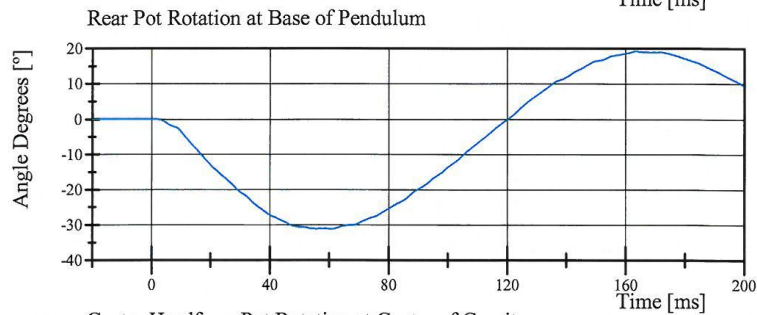
Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

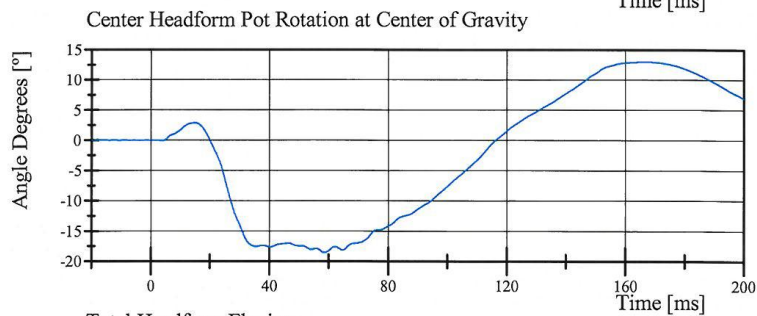
Test Date: 2/12/2013



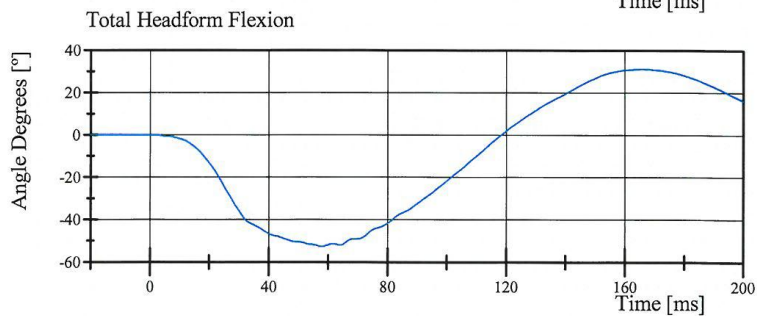
Filter Class: CFC_180
Max: 18.2 ° at 165.6 ms
Min: -34.5 ° at 57.0 ms



Filter Class: CFC_180
Max: 19.2 ° at 163.4 ms
Min: -31.2 ° at 60.5 ms



Filter Class: CFC_180
Max: 13.0 ° at 167.0 ms
Min: -18.5 ° at 58.6 ms



Filter Class: CFC_180
Max: 31.2 ° at 165.8 ms
Min: -52.8 ° at 57.8 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.12.2013 13:40:33 1337

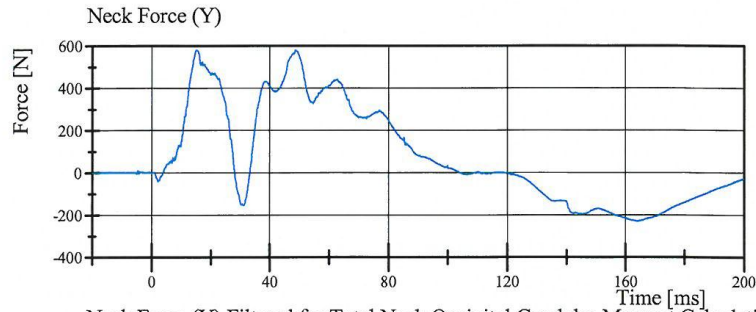


Transportation Research Center Inc.

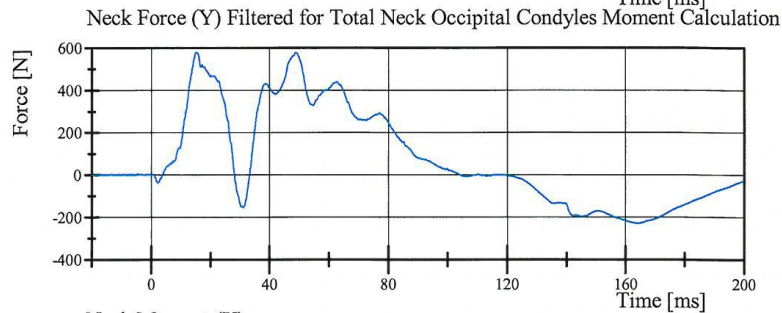
Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

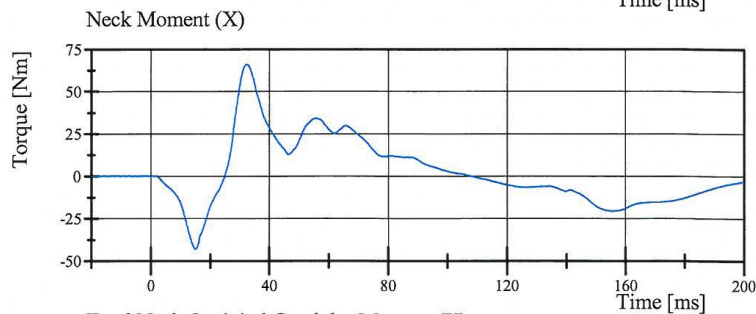
Test Date: 2/12/2013



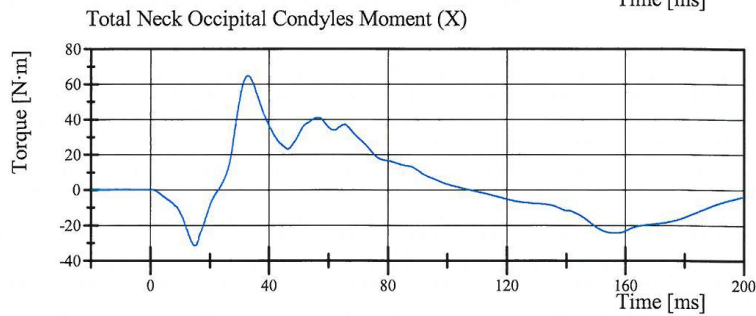
Filter Class: CFC_1000
Max: 579.9 N at 15.1 ms
Min: -229.1 N at 163.9 ms



Filter Class: CFC_600
Max: 579.6 N at 15.1 ms
Min: -228.8 N at 164.0 ms



Filter Class: CFC_600
Max: 66.1 Nm at 32.4 ms
Min: -42.9 Nm at 15.0 ms



Filter Class: Without (Consta
Max: 64.7 N·m at 33.0 ms
Min: -31.6 N·m at 15.0 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.12.2013 13:40:34 1337



Transportation Research Center Inc.

Left Lateral Shoulder

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

Test Date: 2/21/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.9 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.39 m/s	Yes
Impactor Force	(-2,600) - (-3,300) N	-2,826.6 N	Yes
Shoulder Displacement	35 - 44 mm	38.1 mm	Yes

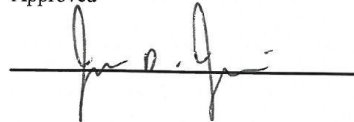
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 10:47:23 3988

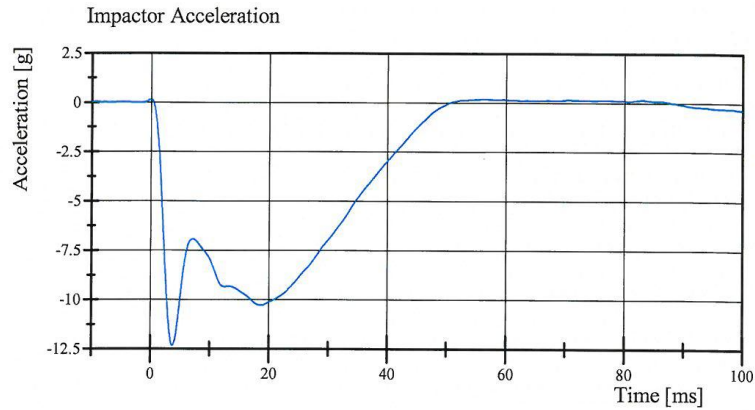


Transportation Research Center Inc.

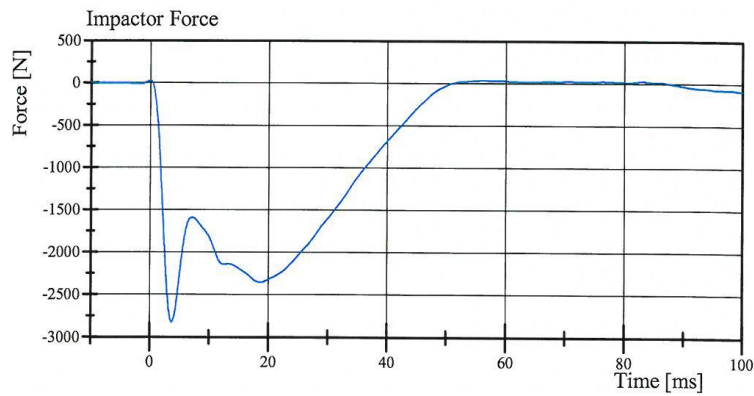
Left Lateral Shoulder

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

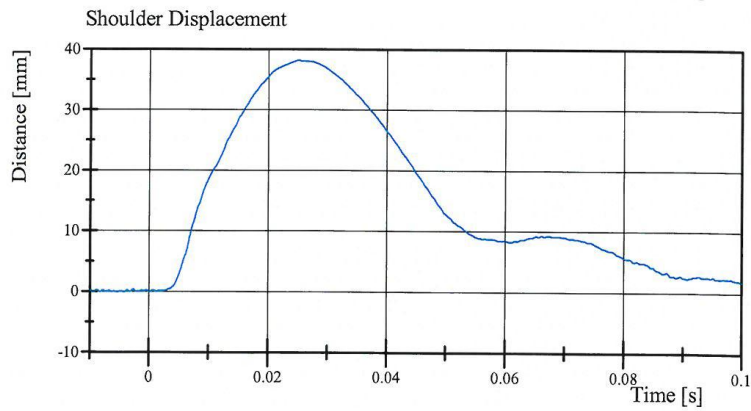
Test Date: 2/21/2013



Filter Class: CFC_180
Max: 0.2 gn at 56.2 ms
Min: -12.3 gn at 3.8 ms



Filter Class: CFC_180
Max: 38.7 N at 56.2 ms
Min: -2,826.6 N at 3.8 ms



Filter Class: CFC_600
Max: 38.1 mm at 0.0 s
Min: -3.3 mm at 0.1 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 10:47:29 3988



Transportation Research Center Inc.

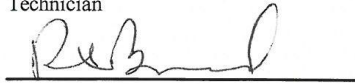
Left Lateral Thorax with Arm
WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1
Test Date: 2/21/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Impactor Velocity	6.6 - 6.8 m/s	6.79 m/s	Yes
Impactor Force	(-4,900) - (-5,800) N	-5,779.1 N	Yes
Upper Thorax Rib Displacement	35 - 47 mm	39.2 mm	Yes
Center Thorax Rib Displacement	46 - 56 mm	46.6 mm	Yes
Lower Thorax Rib Displacement	39 - 46 mm	39.6 mm	Yes
Upper Spine Lateral Acceleration	28 - 37 g	30.2 g	Yes
Lower Spine Lateral Acceleration	22 - 28 g	23.8 g	Yes

Test meets specifications.

Comments:

Technician



Approved



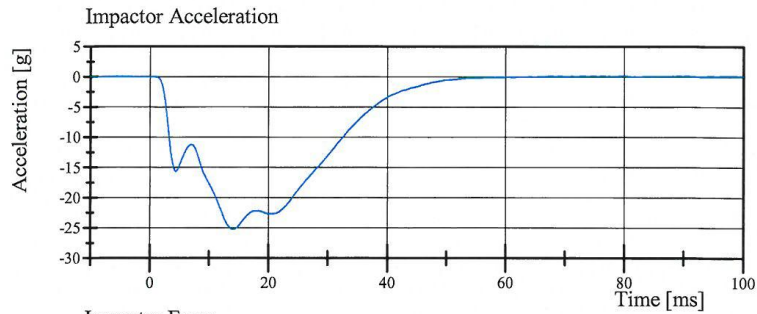
Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 11:11:30 3989

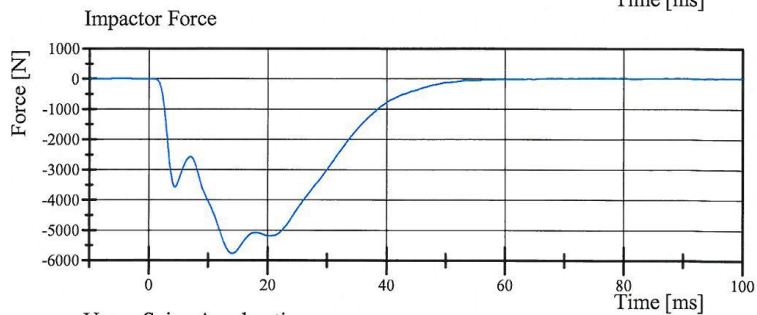


Transportation Research Center Inc.

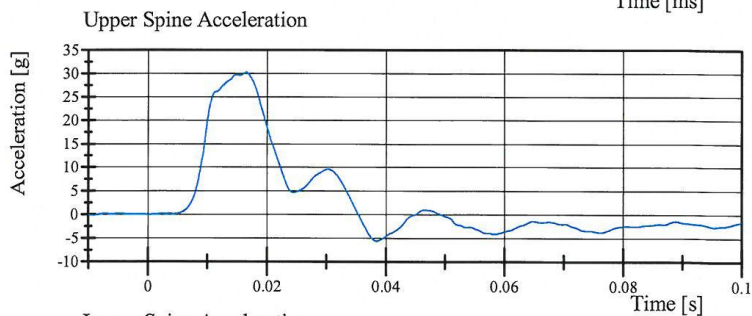
Left Lateral Thorax with Arm
WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1
Test Date: 2/21/2013



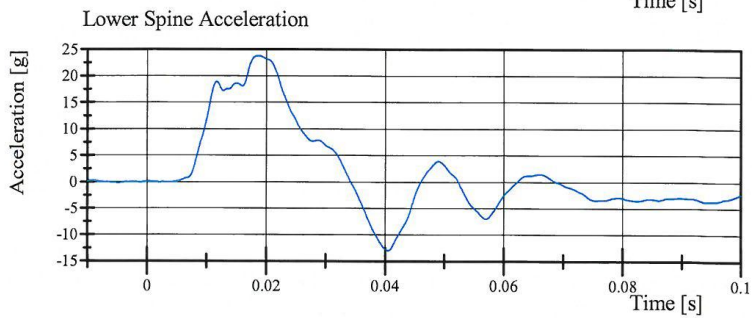
Filter Class: CFC_180
Max: 0.1 gn at 76.4 ms
Min: -25.2 gn at 14.1 ms



Filter Class: CFC_180
Max: 27.3 N at 76.4 ms
Min: -5,779.1 N at 14.1 ms



Filter Class: CFC_180
Max: 30.2 gn at 0.0 s
Min: -5.6 gn at 0.0 s



Filter Class: CFC_180
Max: 23.8 gn at 0.0 s
Min: -13.0 gn at 0.0 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

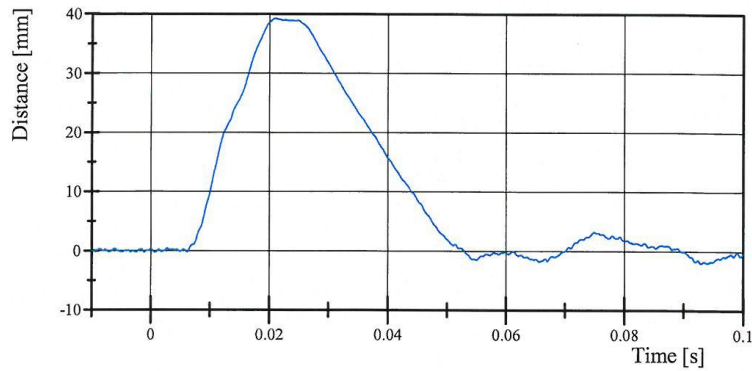
02.21.2013 11:11:39 3989



Transportation Research Center Inc.

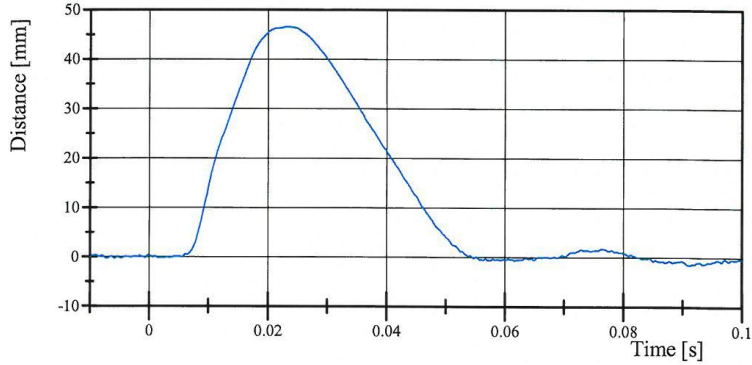
Left Lateral Thorax with Arm
WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1
Test Date: 2/21/2013

Upper Thorax Rib Displacement



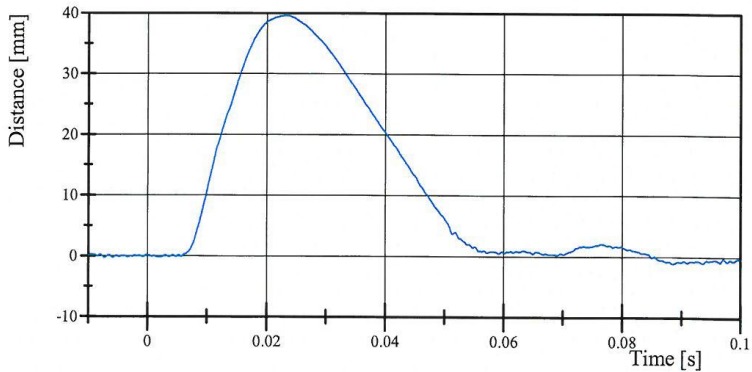
Filter Class: CFC_600
Max: 39.2 mm at 0.0 s
Min: -3.5 mm at 0.2 s

Center Thorax Rib Displacement



Filter Class: CFC_600
Max: 46.6 mm at 0.0 s
Min: -3.2 mm at 0.3 s

Lower Thorax Rib Displacement



Filter Class: CFC_600
Max: 39.6 mm at 0.0 s
Min: -1.1 mm at 0.2 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 11:11:39 3989



Transportation Research Center Inc.

Left Lateral Thorax without Arm
WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1
Test Date: 2/21/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	26 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.338 m/s	Yes
Impactor Force	(-3,200) - (-3,800) N	-3,731.9 N	Yes
Upper Thorax Rib Displacement	33 - 43 mm	33.9 mm	Yes
Center Thorax Rib Displacement	35 - 43 mm	35.5 mm	Yes
Lower Thorax Rib Displacement	32 - 40 mm	34.2 mm	Yes
Upper Spine Lateral Acceleration	14 - 20 g	14.1 g	Yes
Lower Spine Lateral Acceleration	14 - 22 g	15.5 g	Yes

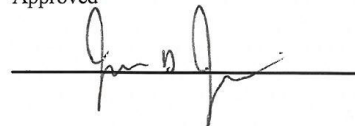
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 11:37:38 3989

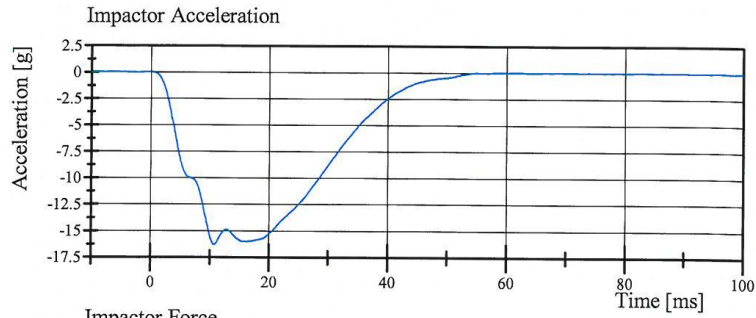


Transportation Research Center Inc.

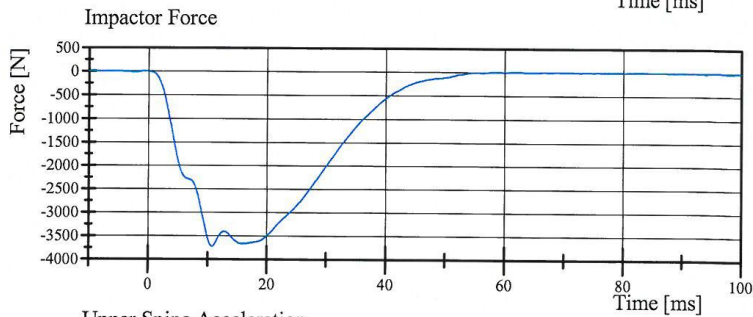
Left Lateral Thorax without Arm

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

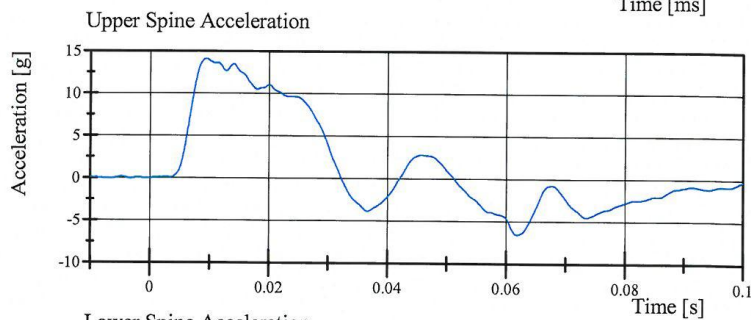
Test Date: 2/21/2013



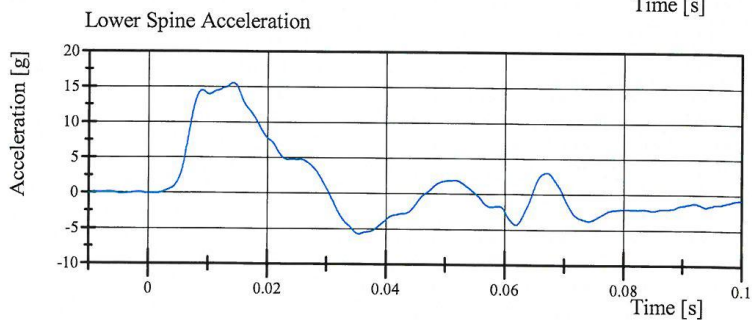
Filter Class: CFC_180
Max: 0.0 gn at 70.4 ms
Min: -16.3 gn at 10.7 ms



Filter Class: CFC_180
Max: 8.9 N at 70.4 ms
Min: -3,731.9 N at 10.7 ms



Filter Class: CFC_180
Max: 14.1 gn at 0.0 s
Min: -6.5 gn at 0.1 s



Filter Class: CFC_180
Max: 15.5 gn at 0.0 s
Min: -5.7 gn at 0.0 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

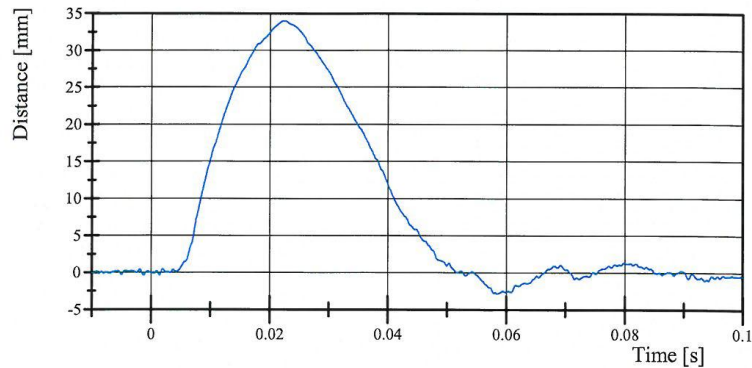
02.21.2013 11:37:46 3989



Transportation Research Center Inc.

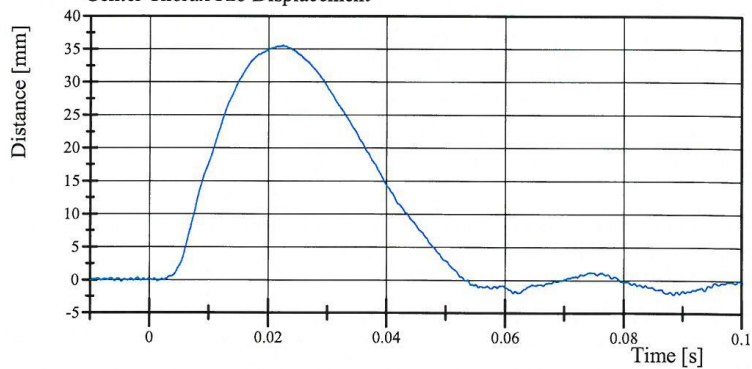
Left Lateral Thorax without Arm
WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1
Test Date: 2/21/2013

Upper Thorax Rib Displacement



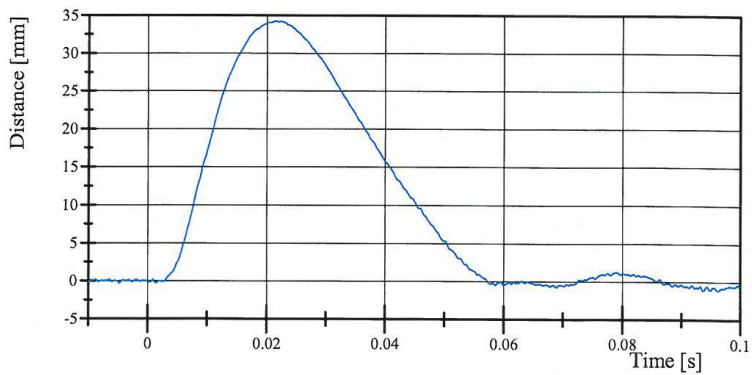
Filter Class: CFC_600
Max: 33.9 mm at 0.0 s
Min: -2.8 mm at 0.1 s

Center Thorax Rib Displacement



Filter Class: CFC_600
Max: 35.5 mm at 0.0 s
Min: -2.3 mm at 0.1 s

Lower Thorax Rib Displacement



Filter Class: CFC_600
Max: 34.2 mm at 0.0 s
Min: -1.2 mm at 0.1 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 11:37:47 3989



Transportation Research Center Inc.

Left Lateral Abdomen

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-2

Test Date: 2/21/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.35 m/s	Yes
Impactor Force	(-2,700) - (-3,100) N	-3,074.4 N	Yes
Upper Abdominal Rib Displacement	33 - 40 mm	33.6 mm	Yes
Lower Abdominal Rib Displacement	30 - 36 mm	29.3 mm	No
Lower Spine Lateral Acceleration	15 - 20 g	16.8 g	Yes

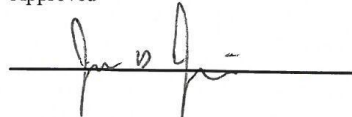
Test does not meet specifications.

Comments: Ok per A.Louden

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.22.2013 07:27:51 3994

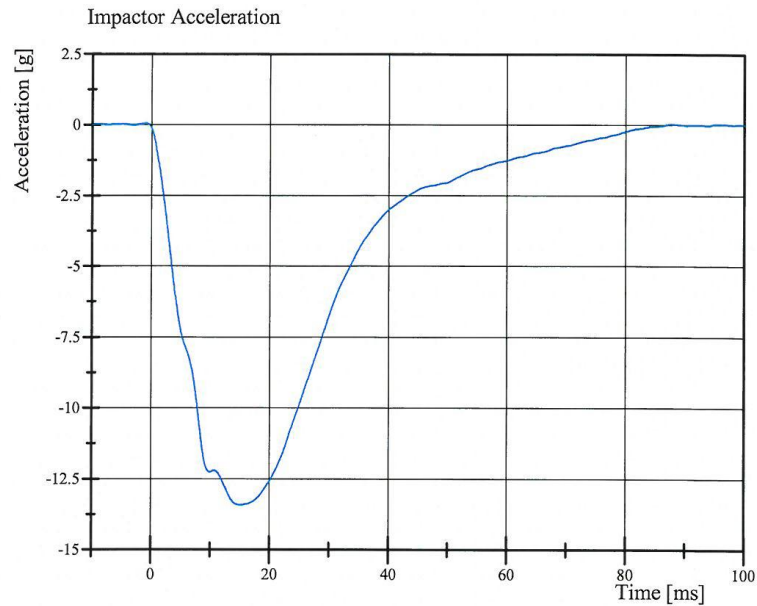


Transportation Research Center Inc.

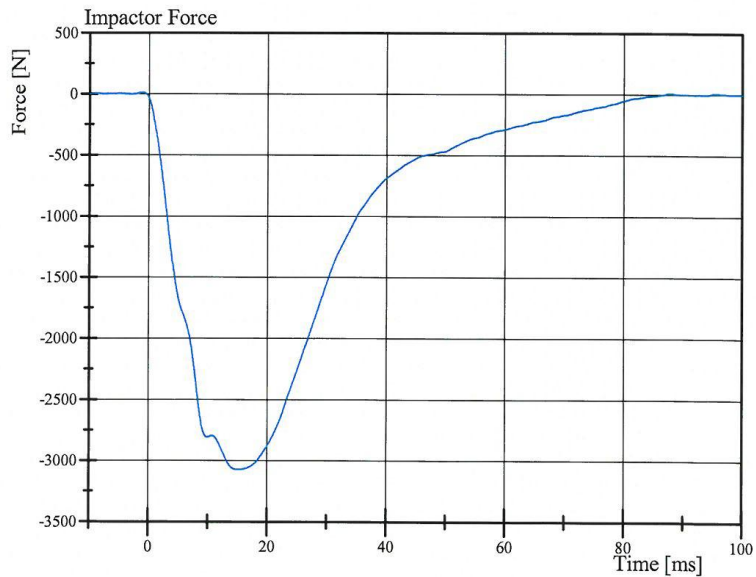
Left Lateral Abdomen

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-2

Test Date: 2/21/2013



Filter Class: CFC_180
Max: 0.0 gn at -1.0 ms
Min: -13.4 gn at 15.0 ms



Filter Class: CFC_180
Max: 6.2 N at -1.0 ms
Min: -3,074.4 N at 15.0 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.22.2013 07:28:37 3994



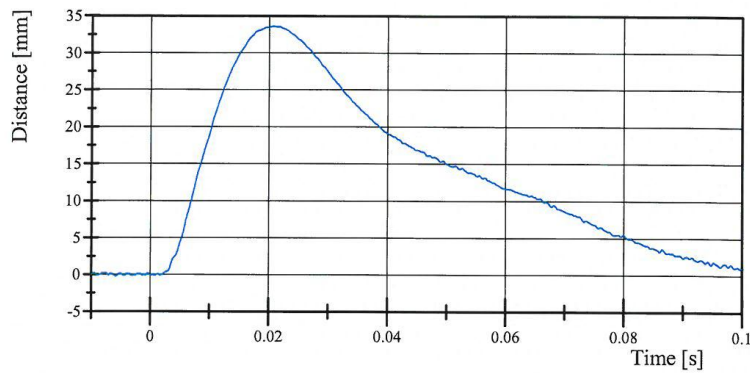
Transportation Research Center Inc.

Left Lateral Abdomen

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-2

Test Date: 2/21/2013

Upper Abdominal Rib Displacement

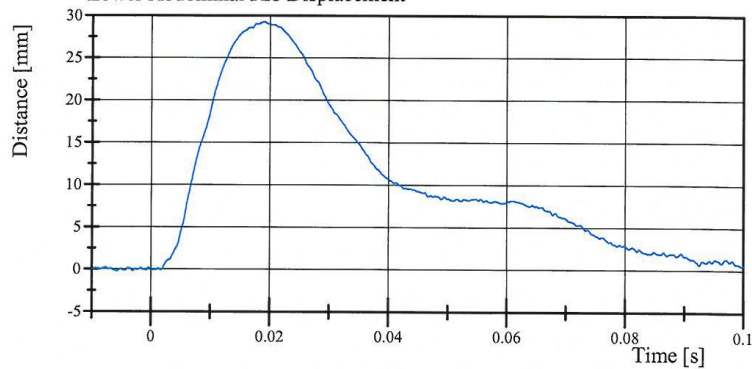


Filter Class: CFC_600

Max: 33.6 mm at 0.0 s

Min: -0.5 mm at -0.0 s

Lower Abdominal Rib Displacement

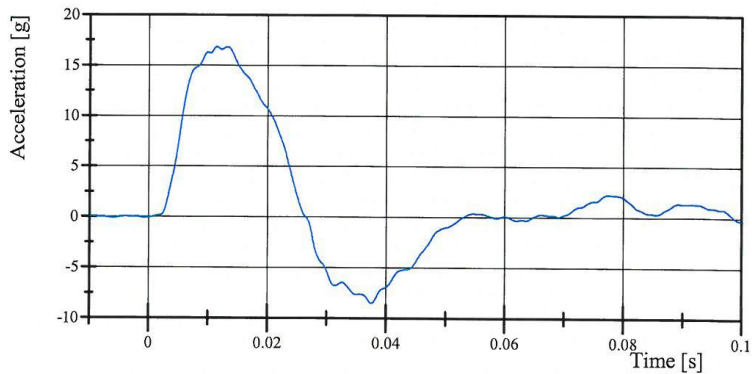


Filter Class: CFC_600

Max: 29.3 mm at 0.0 s

Min: -0.5 mm at 0.3 s

Lower Spine Acceleration (Y)



Filter Class: CFC_180

Max: 16.8 gn at 0.0 s

Min: -8.5 gn at 0.0 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.22.2013 07:28:38 3994



Transportation Research Center Inc.

Left Lateral Pelvis

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

Test Date: 2/21/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Impactor Velocity	6.6 - 6.8 m/s	6.75 m/s	Yes
Impactor Force	(-6,800) - (-8,200) N	-7,172.5 N	Yes
Pelvis Lateral Acceleration	37 - 47 g	41.7 g	Yes
Lower Spine Lateral Acceleration	10 - 14 g	11.7 g	Yes

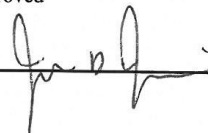
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 15:00:00 3998

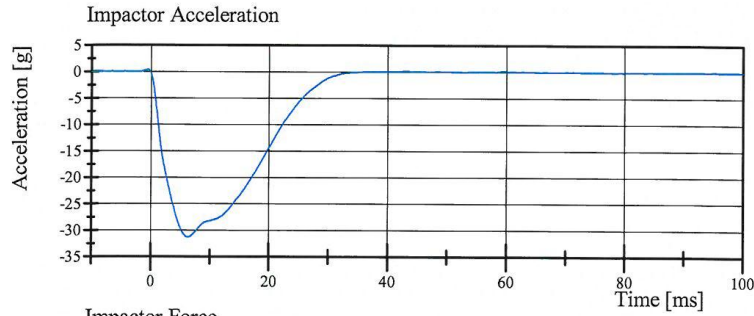


Transportation Research Center Inc.

Left Lateral Pelvis

WorldSID ISO 15830-2 Serial No. 016 Certification No. 12-1

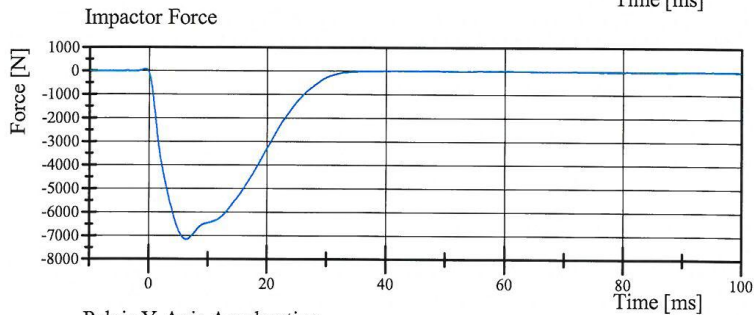
Test Date: 2/21/2013



Filter Class: CFC_180

Max: 0.3 gn at -0.6 ms

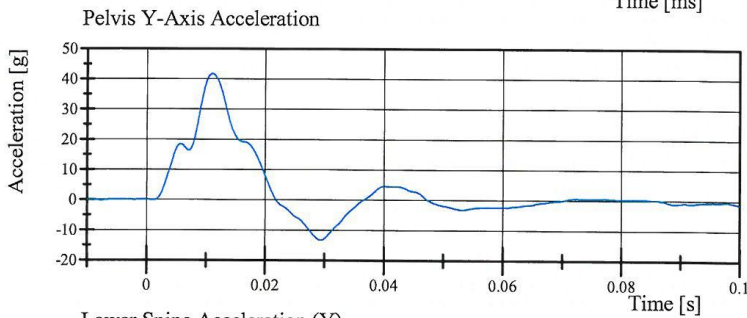
Min: -31.3 gn at 6.3 ms



Filter Class: CFC_180

Max: 72.9 N at -0.6 ms

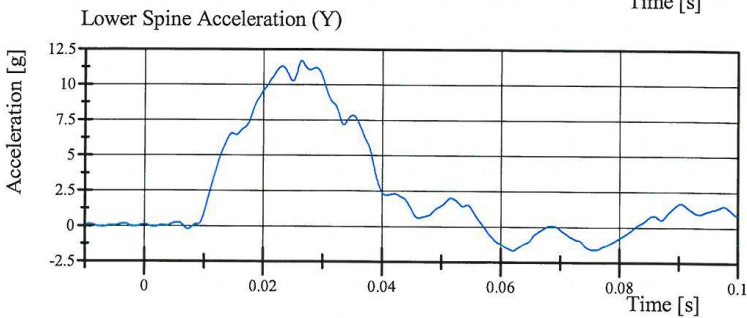
Min: -7,172.5 N at 6.3 ms



Filter Class: CFC_180

Max: 41.7 gn at 0.0 s

Min: -13.3 gn at 0.0 s



Filter Class: CFC_180

Max: 11.7 gn at 0.0 s

Min: -1.7 gn at 0.1 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

02.21.2013 15:00:08 3998



Calibration Test Results

Pre-Test

WorldSID: 014

Configured for Left Side Impact

Transportation Research Center Inc.

Front Head Drop

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

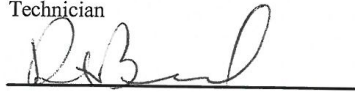
Test Date: 3/15/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.1 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Peak Head Resultant Acceleration	205 - 255 g	233.5 g	Yes
Peak Head Lateral Acceleration	(-15) - 15 g	7.3 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

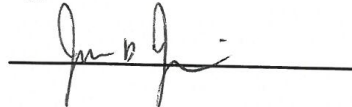
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.15.2013 13:07:48 614

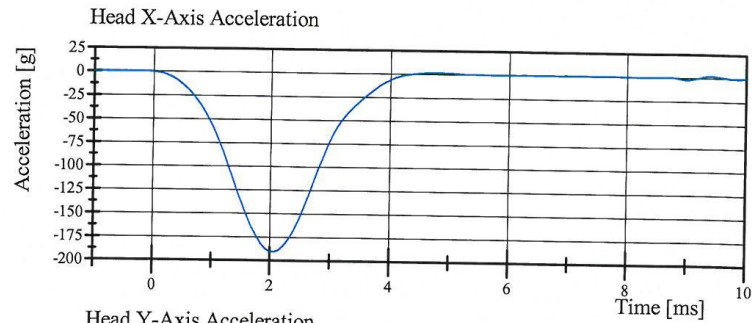


Transportation Research Center Inc.

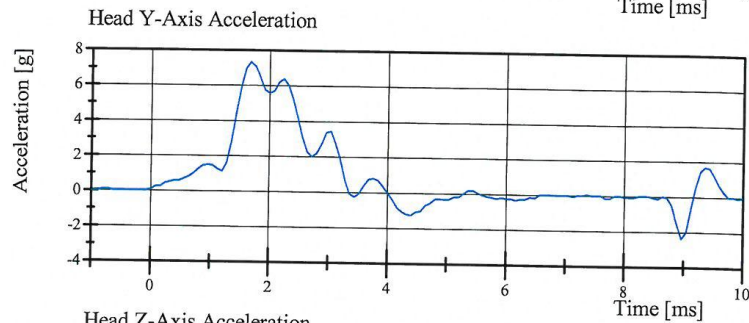
Front Head Drop

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

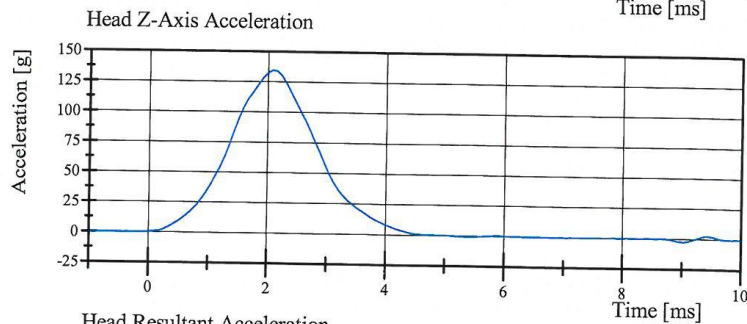
Test Date: 3/15/2013



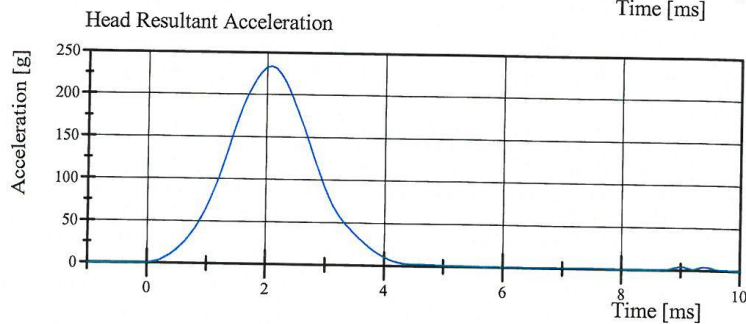
Filter Class: CFC_1000
Max: 2.4 gn at 9.4 ms
Min: -190.7 gn at 2.1 ms



Filter Class: CFC_1000
Max: 7.3 gn at 1.7 ms
Min: -2.4 gn at 9.0 ms



Filter Class: CFC_1000
Max: 134.7 gn at 2.1 ms
Min: -2.6 gn at 9.0 ms



Filter Class: CFC_1000
Max: 233.5 gn at 2.1 ms
Min: 0.1 gn at -0.1 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.15.2013 13:08:02 614



Transportation Research Center Inc.

Left Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

Test Date: 3/15/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	33 %	Yes
Peak Head Resultant Acceleration	104 - 123 g	114.8 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	3.5 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

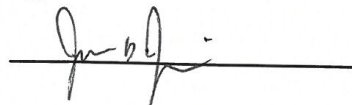
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.15.2013 13:17:39 610

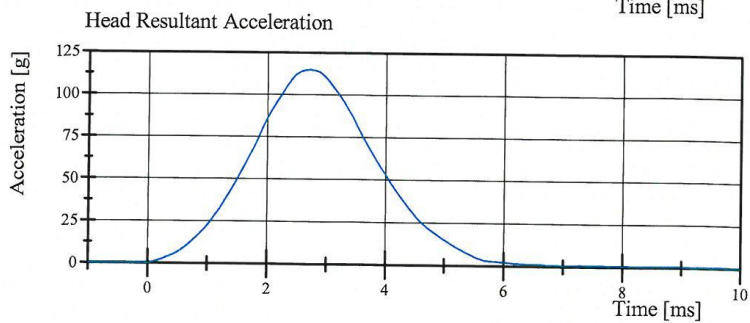
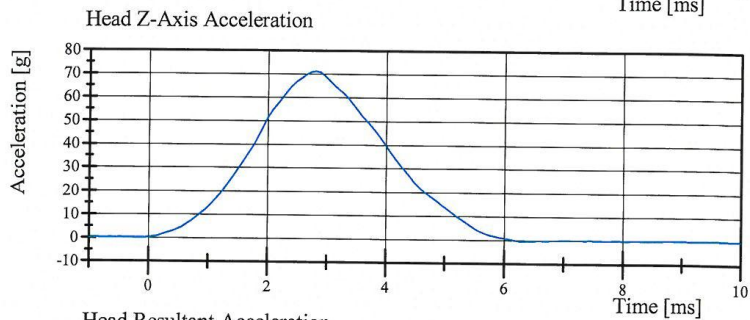
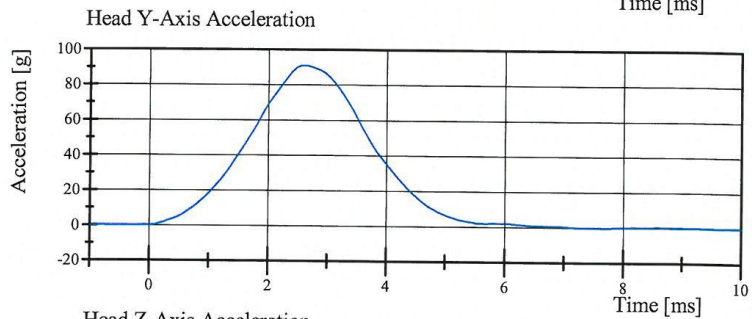
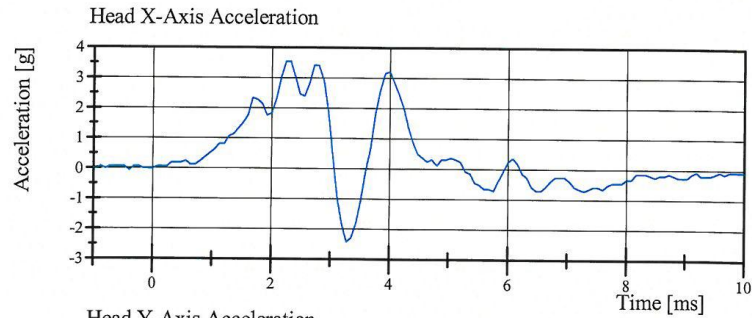


Transportation Research Center Inc.

Left Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

Test Date: 3/15/2013



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.15.2013 13:17:51 610



Transportation Research Center Inc.

Right Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

Test Date: 3/15/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.3 °C	Yes
Relative Humidity	10 - 70 %	31 %	Yes
Peak Head Resultant Acceleration	104 - 123 g	114.1 g	Yes
Peak Head Longitudinal Acceleration	(-15) - 15 g	-4.5 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

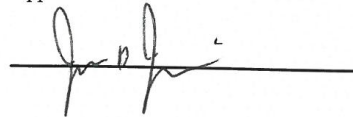
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.15.2013 13:26:59 611

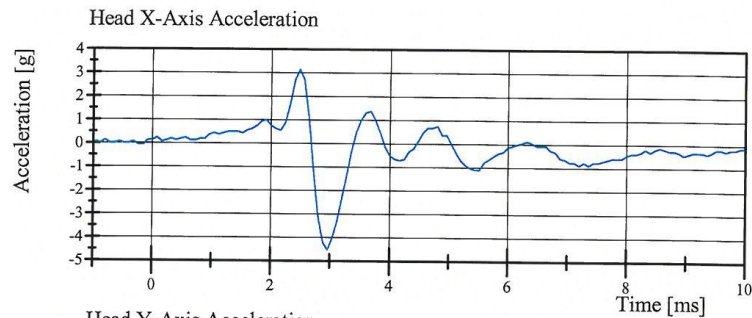


Transportation Research Center Inc.

Right Lateral Head Drop

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

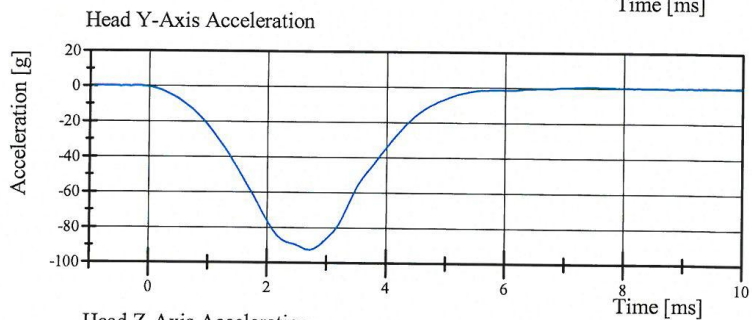
Test Date: 3/15/2013



Filter Class: CFC_1000

Max: 3.1 gn at 2.5 ms

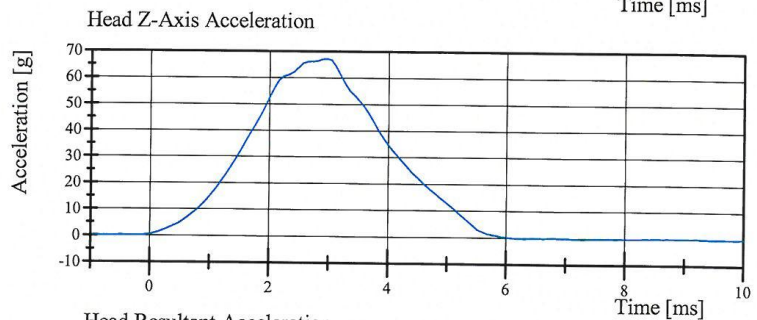
Min: -4.5 gn at 3.0 ms



Filter Class: CFC_1000

Max: 0.7 gn at 7.4 ms

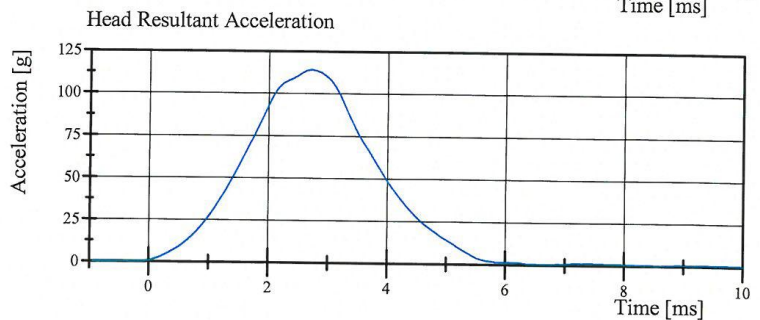
Min: -92.9 gn at 2.7 ms



Filter Class: CFC_1000

Max: 67.3 gn at 3.0 ms

Min: -0.4 gn at 7.3 ms



Filter Class: CFC_1000

Max: 114.1 gn at 2.7 ms

Min: 0.0 gn at -0.6 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.15.2013 13:27:06 611



Transportation Research Center Inc.

Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-4

Test Date: 3/18/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Pendulum Velocity	(-3.3) - (-3.5) m/s	-3.34 m/s	Yes
Pendulum Integrated Velocity Change at 4 ms	0.77 - 1.04 m/s	0.987 m/s	Yes
Change at 8 ms	1.6 - 2.16 m/s	2.056 m/s	Yes
Change at 12 ms	2.43 - 3.29 m/s	3.191 m/s	Yes
Maximum Headform Flexion	(-50) - (-61) deg	-51.2 deg	Yes
Headform Flexion Decay - from Peak to Zero Degrees	58 - 72 ms	58.7 ms	Yes
Total Neck Occipital Condyles Moment	55 - 68 N·m	67.2 N·m	Yes
Total Neck Occipital Condyles Moment Decay Time to 0 N·m	71 - 87 ms	79.0 ms	Yes
Maximum Forward Pot Rotation			
Peak	(-32) - (-39) °	-33.7 °	Yes
Time of Peak	56 - 68 ms	58.4 ms	Yes
Maximum Rear Pot Rotation			
Peak	(-30) - (-37) °	-30.3 °	Yes
Time of Peak	56 - 68 ms	58.1 ms	Yes

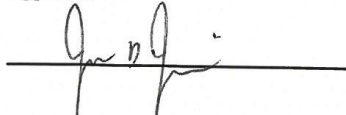
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.18.2013 07:36:57 1338



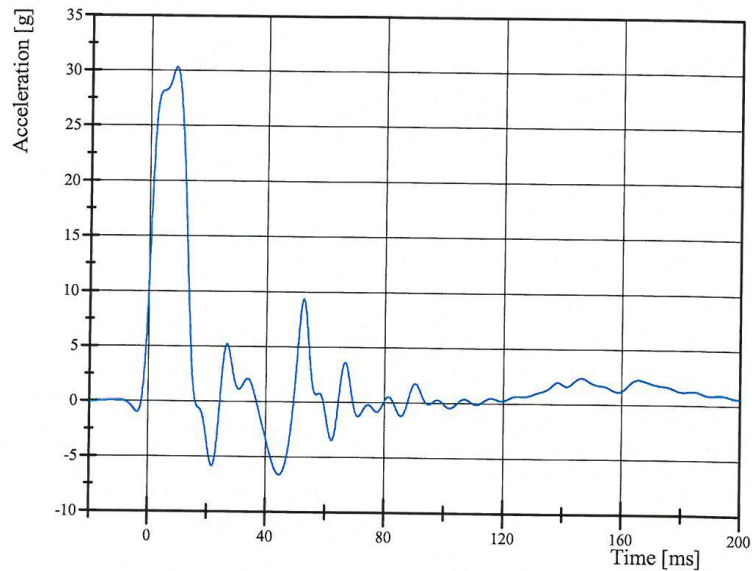
Transportation Research Center Inc.

Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-4

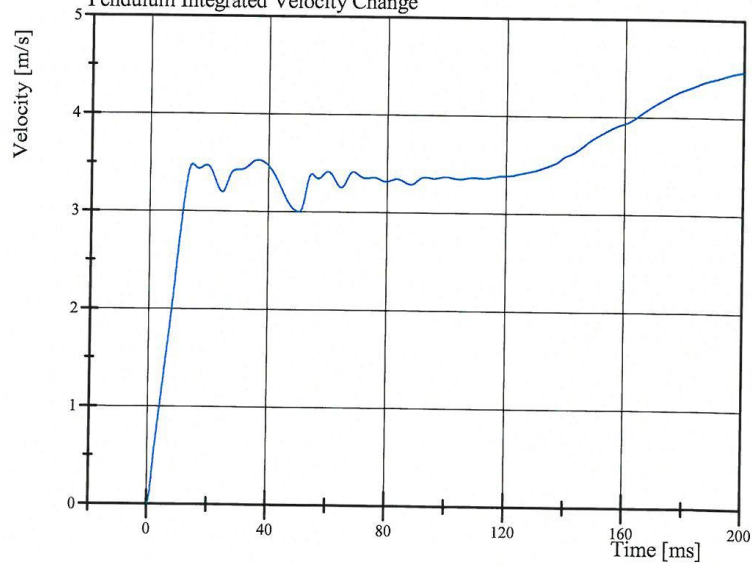
Test Date: 3/18/2013

Pendulum Acceleration



Filter Class: CFC_60
Max: 30.3 gn at 8.7 ms
Min: -6.6 gn at 44.6 ms

Pendulum Integrated Velocity Change



Filter Class: CFC_180
Max: 4.5 m/s at 200.0 ms
Min: 0.0 m/s at 0.0 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.18.2013 07:37:04 1338

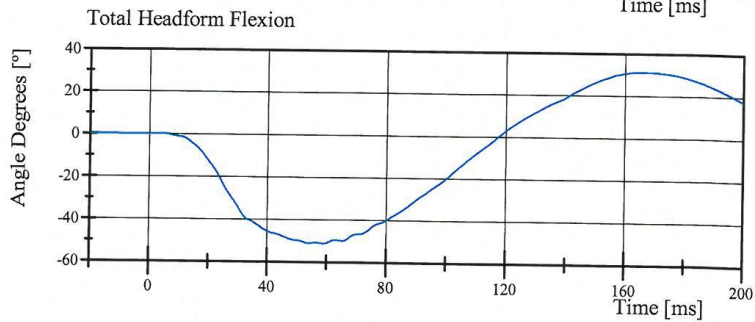
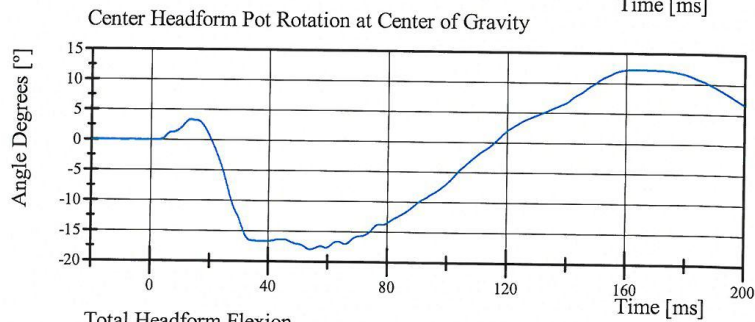
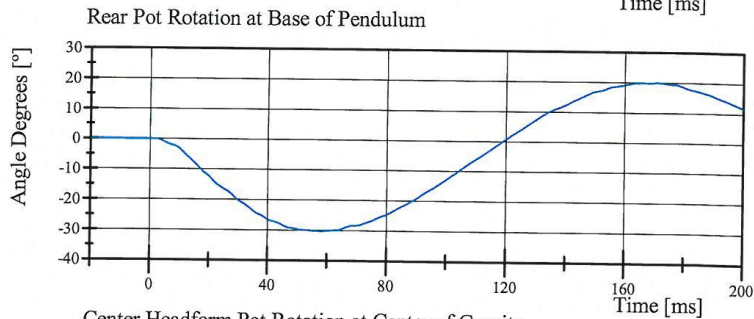
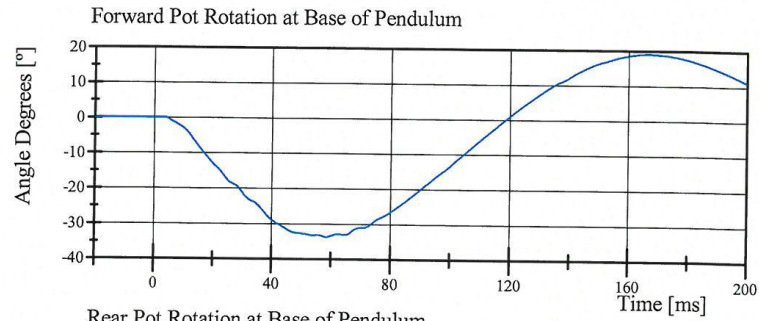


Transportation Research Center Inc.

Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-4

Test Date: 3/18/2013



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.18.2013 07:37:05 1338

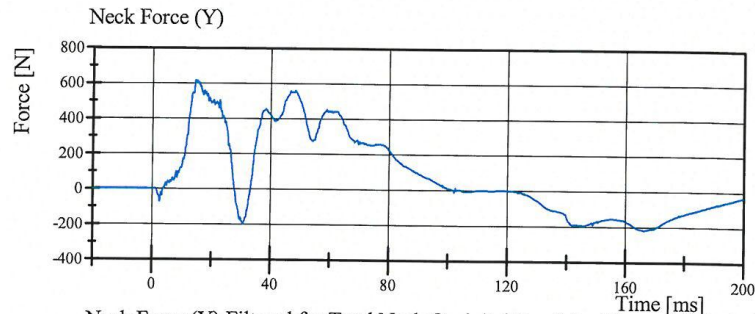


Transportation Research Center Inc.

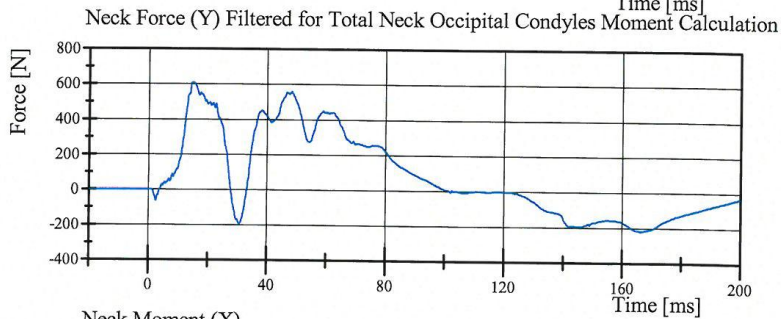
Left Lateral Neck

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-4

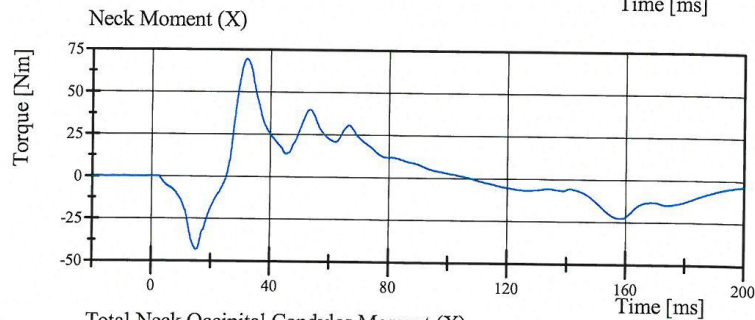
Test Date: 3/18/2013



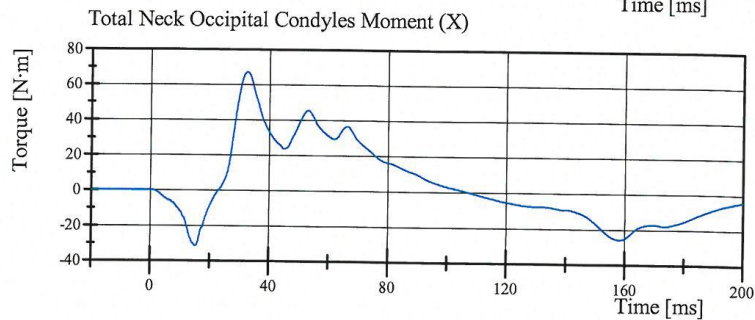
Filter Class: CFC_1000
Max: 613.7 N at 14.4 ms
Min: -219.6 N at 166.3 ms



Filter Class: CFC_600
Max: 607.8 N at 15.0 ms
Min: -219.1 N at 166.3 ms



Filter Class: CFC_600
Max: 69.3 Nm at 32.0 ms
Min: -43.3 Nm at 15.0 ms



Filter Class: Without (Consta
Max: 67.2 N·m at 32.5 ms
Min: -31.5 N·m at 15.0 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.18.2013 07:37:06 1338



Transportation Research Center Inc.

Left Lateral Shoulder

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

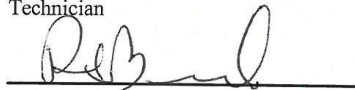
Test Date: 3/19/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	33 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.39 m/s	Yes
Impactor Force	(-2,600) - (-3,300) N	-3,074.9 N	Yes
Shoulder Displacement	35 - 44 mm	38.8 mm	Yes

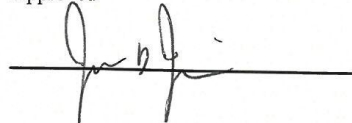
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 08:38:46 4000

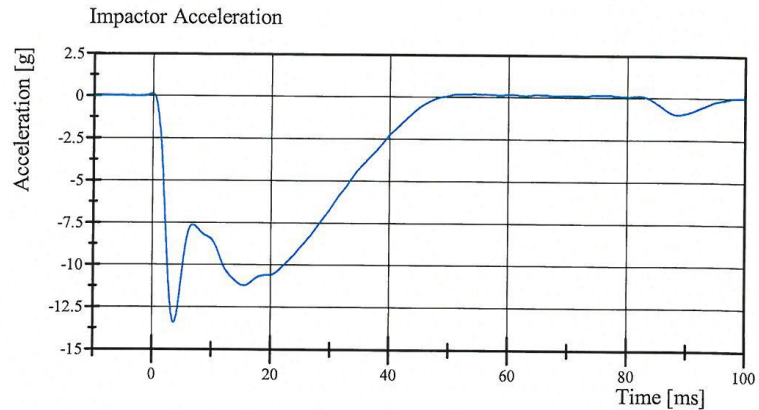


Transportation Research Center Inc.

Left Lateral Shoulder

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

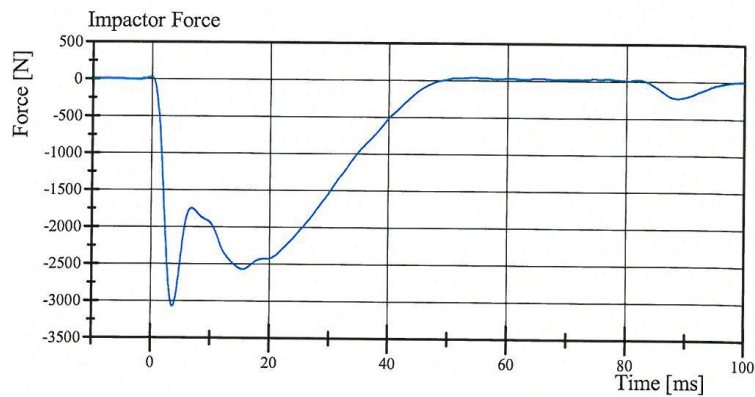
Test Date: 3/19/2013



Filter Class: CFC_180

Max: 0.2 g at 54.2 ms

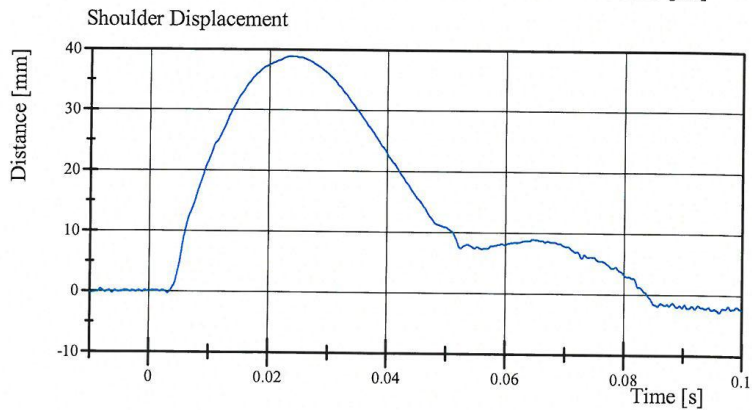
Min: -13.4 g at 3.7 ms



Filter Class: CFC_180

Max: 41.1 N at 54.2 ms

Min: -3,074.9 N at 3.7 ms



Filter Class: CFC_600

Max: 38.8 mm at 0.0 s

Min: -4.3 mm at 0.2 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 08:39:02 4000



Transportation Research Center Inc.

Left Lateral Thorax with Arm

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-2

Test Date: 3/19/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	27 %	Yes
Impactor Velocity	6.6 - 6.8 m/s	6.79 m/s	Yes
Impactor Force	(-4,900) - (-5,800) N	-5,583.1 N	Yes
Upper Thorax Rib Displacement	35 - 47 mm	38.2 mm	Yes
Center Thorax Rib Displacement	46 - 56 mm	49.7 mm	Yes
Lower Thorax Rib Displacement	39 - 46 mm	42.5 mm	Yes
Upper Spine Lateral Acceleration	28 - 37 g	29.1 g	Yes
Lower Spine Lateral Acceleration	22 - 28 g	26.4 g	Yes

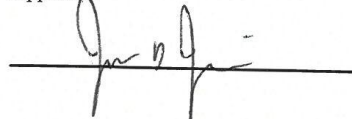
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 09:40:48 3980

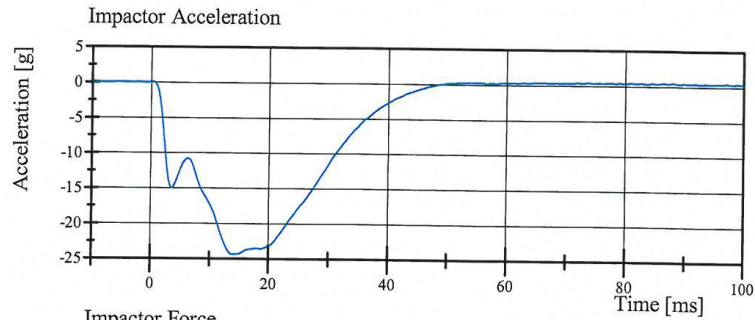


Transportation Research Center Inc.

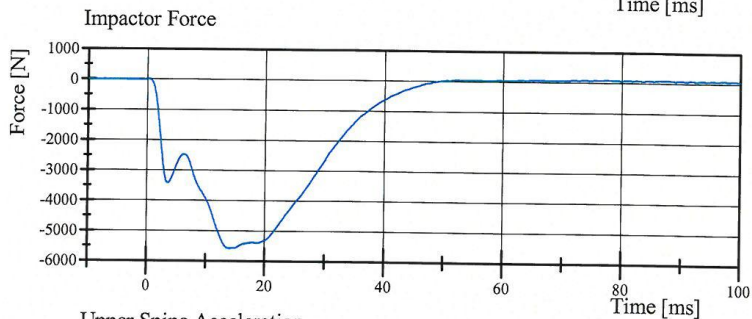
Left Lateral Thorax with Arm

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-2

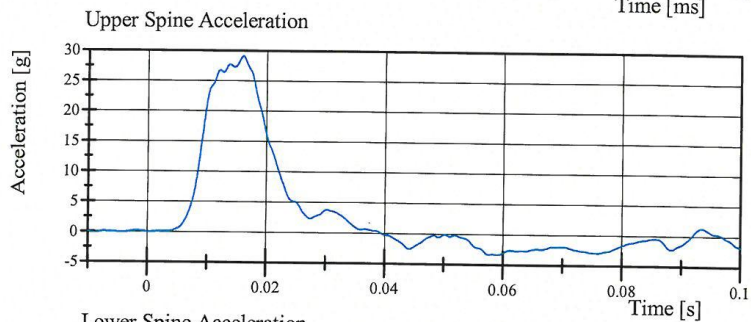
Test Date: 3/19/2013



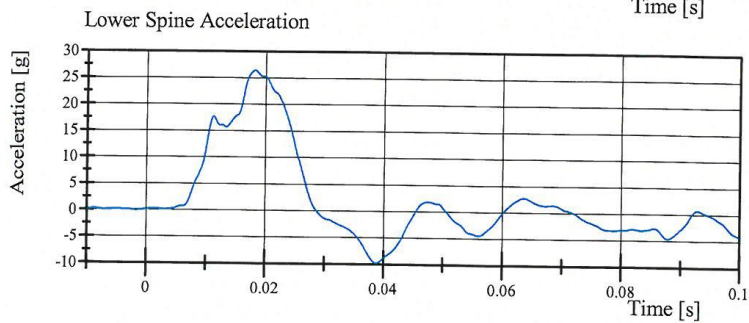
Filter Class: CFC_180
Max: 0.4 g at 77.3 ms
Min: -24.4 g at 14.1 ms



Filter Class: CFC_180
Max: 94.5 N at 77.3 ms
Min: -5,583.1 N at 14.1 ms



Filter Class: CFC_180
Max: 29.1 g at 0.0 s
Min: -4.4 g at 0.2 s



Filter Class: CFC_180
Max: 26.4 g at 0.0 s
Min: -9.8 g at 0.0 s

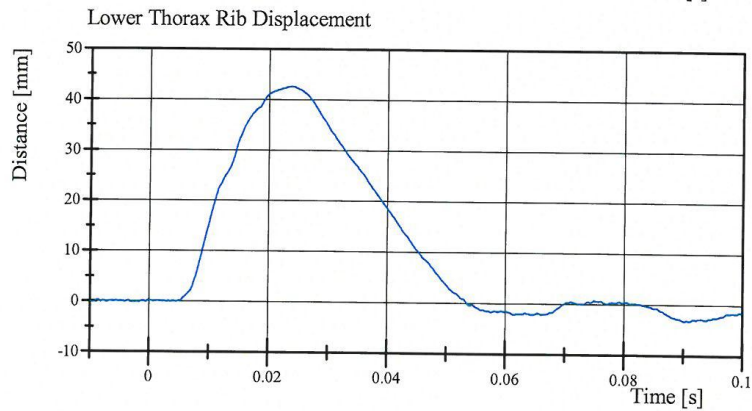
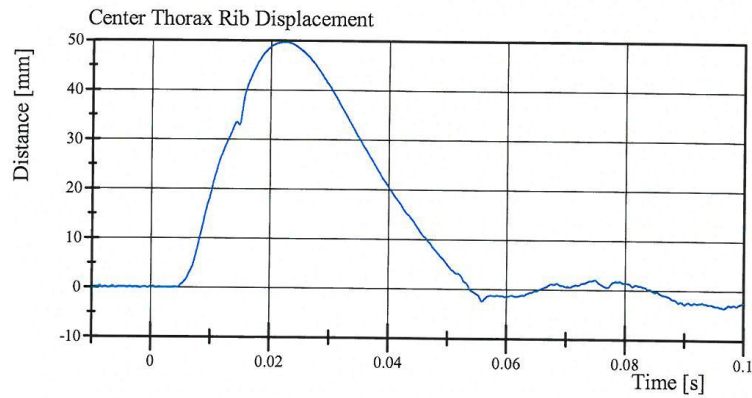
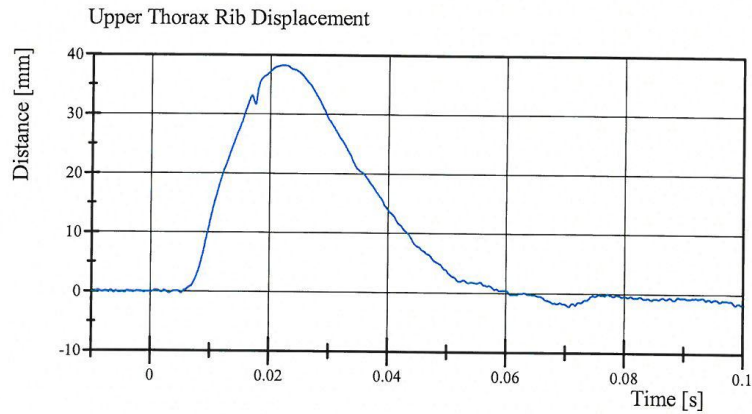
Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 09:41:01 3980



Transportation Research Center Inc.

Left Lateral Thorax with Arm
WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-2
Test Date: 3/19/2013



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 09:41:01 3980



Transportation Research Center Inc.

Left Lateral Thorax without Arm
WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-3
Test Date: 3/19/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	26 %	Yes
Impactor Velocity	4.20 - 4.40 m/s	4.303 m/s	Yes
Impactor Force	(-3,200) - (-3,800) N	-3,903.9 N	No
Upper Thorax Rib Displacement	33 - 43 mm	33.7 mm	Yes
Center Thorax Rib Displacement	35 - 43 mm	37.7 mm	Yes
Lower Thorax Rib Displacement	32 - 40 mm	35.4 mm	Yes
Upper Spine Lateral Acceleration	14 - 20 g	15.0 g	Yes
Lower Spine Lateral Acceleration	14 - 22 g	16.8 g	Yes

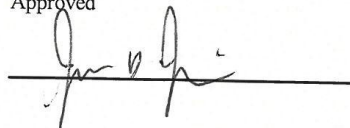
Test does not meet specifications.

Comments: Ok per A.Louden

Technician



Approved



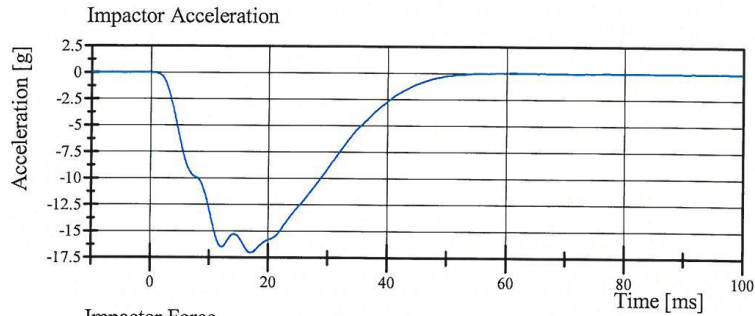
Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.20.2013 07:38:30 3971

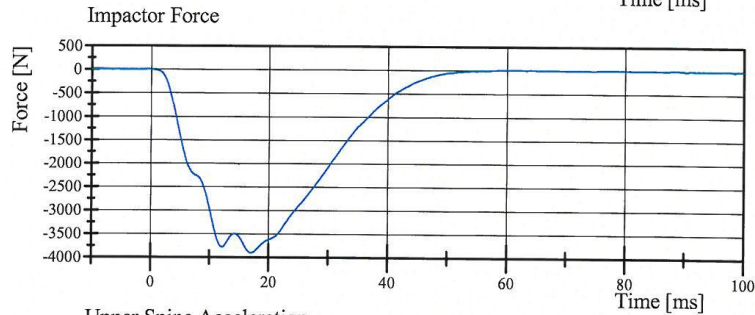


Transportation Research Center Inc.

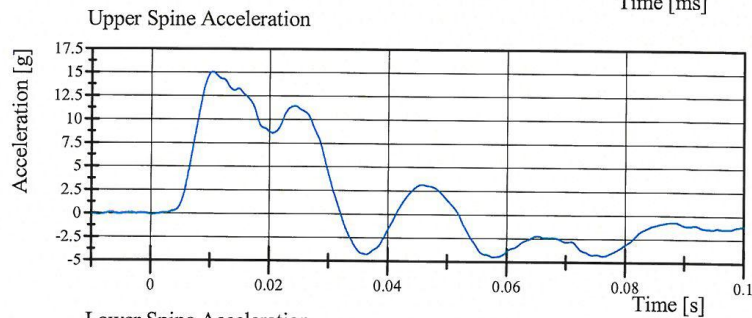
Left Lateral Thorax without Arm
WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-3
Test Date: 3/19/2013



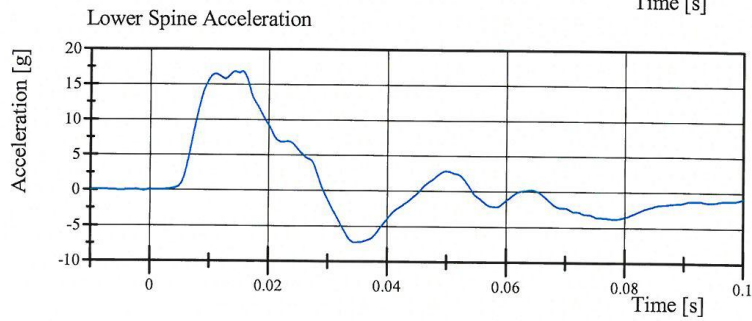
Filter Class: CFC_180
Max: 0.1 g at 61.1 ms
Min: -17.0 g at 17.0 ms



Filter Class: CFC_180
Max: 12.2 N at 61.1 ms
Min: -3,903.9 N at 17.0 ms



Filter Class: CFC_180
Max: 15.0 g at 0.0 s
Min: -4.5 g at 0.1 s



Filter Class: CFC_180
Max: 16.8 g at 0.0 s
Min: -7.4 g at 0.0 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

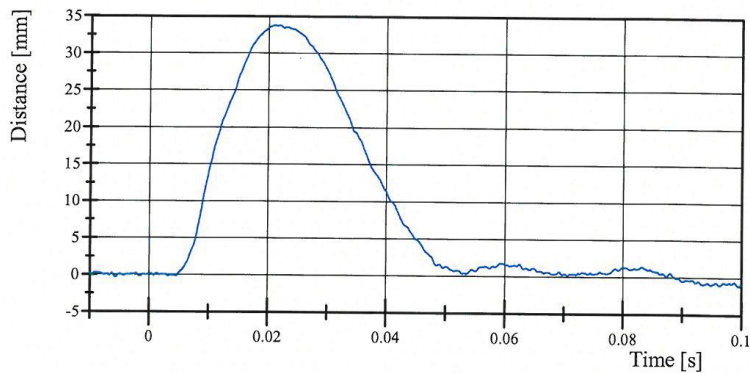
03.20.2013 07:38:57 3971



Transportation Research Center Inc.

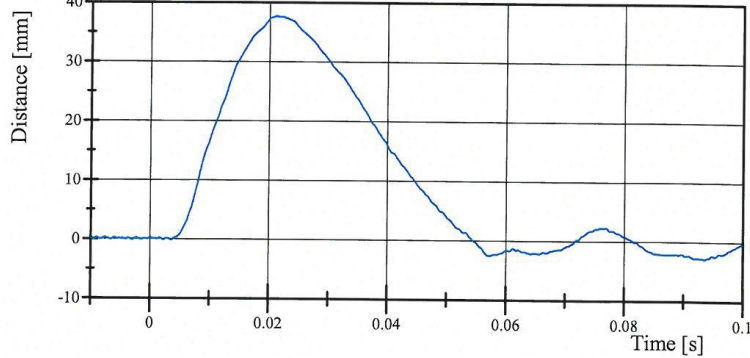
Left Lateral Thorax without Arm
WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-3
Test Date: 3/19/2013

Upper Thorax Rib Displacement



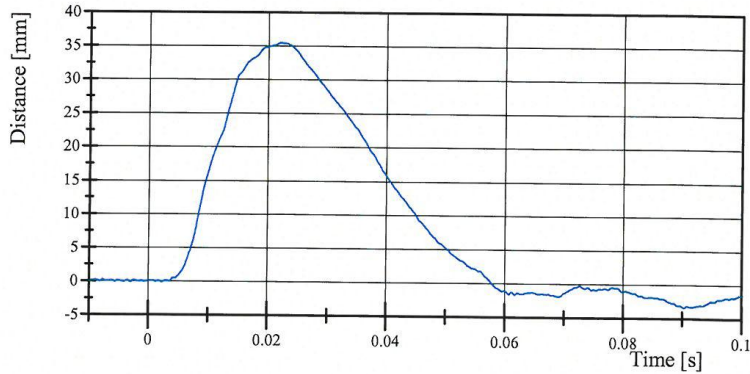
Filter Class: CFC_600
Max: 33.7 mm at 0.0 s
Min: -1.7 mm at 0.2 s

Center Thorax Rib Displacement



Filter Class: CFC_600
Max: 37.7 mm at 0.0 s
Min: -2.9 mm at 0.1 s

Lower Thorax Rib Displacement



Filter Class: CFC_600
Max: 35.4 mm at 0.0 s
Min: -3.4 mm at 0.1 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.20.2013 07:38:57 3971



Transportation Research Center Inc.

Left Lateral Abdomen

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

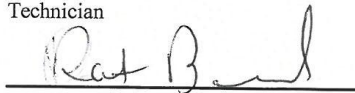
Test Date: 3/19/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.38 m/s	Yes
Impactor Force	(-2,700) - (-3,100) N	-3,025.7 N	Yes
Upper Abdominal Rib Displacement	33 - 40 mm	33.6 mm	Yes
Lower Abdominal Rib Displacement	30 - 36 mm	32.7 mm	Yes
Lower Spine Lateral Acceleration	15 - 20 g	17.6 g	Yes

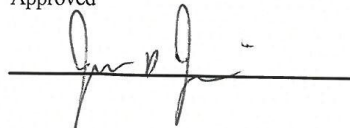
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 13:15:55 3998

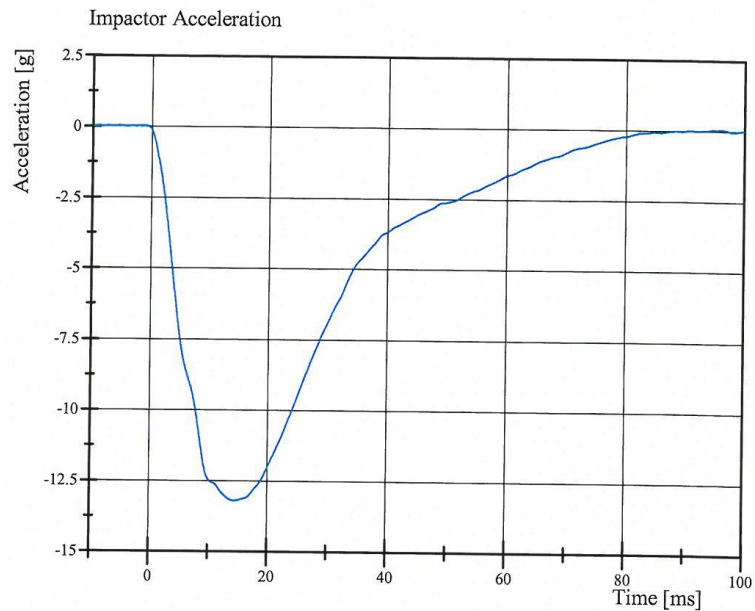


Transportation Research Center Inc.

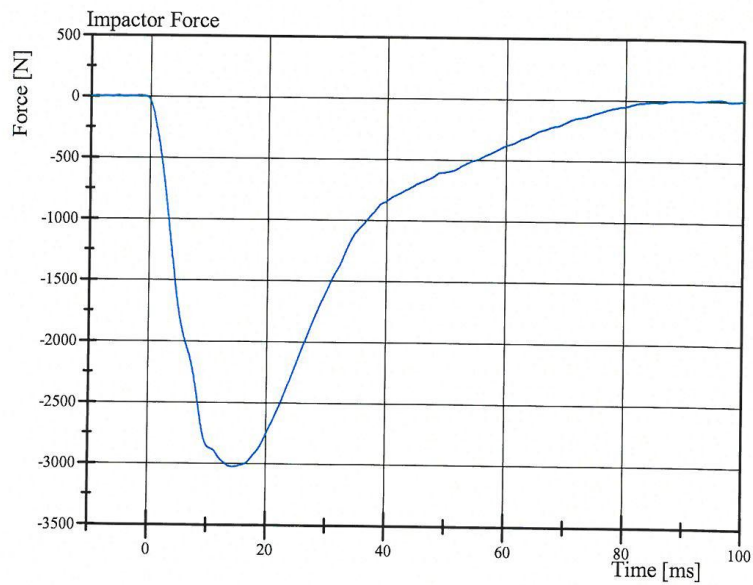
Left Lateral Abdomen

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

Test Date: 3/19/2013



Filter Class: CFC_180
Max: 0.0 g at 96.1 ms
Min: -13.2 g at 14.4 ms



Filter Class: CFC_180
Max: 9.2 N at 96.1 ms
Min: -3,025.7 N at 14.4 ms

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 13:16:02 3998



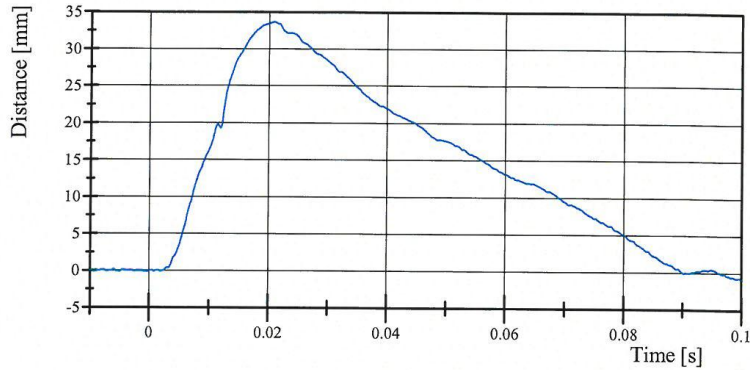
Transportation Research Center Inc.

Left Lateral Abdomen

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

Test Date: 3/19/2013

Upper Abdominal Rib Displacement

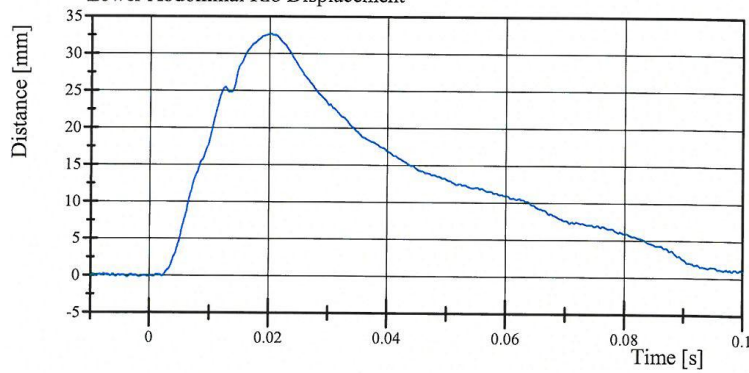


Filter Class: CFC_600

Max: 33.6 mm at 0.0 s

Min: -1.6 mm at 0.1 s

Lower Abdominal Rib Displacement

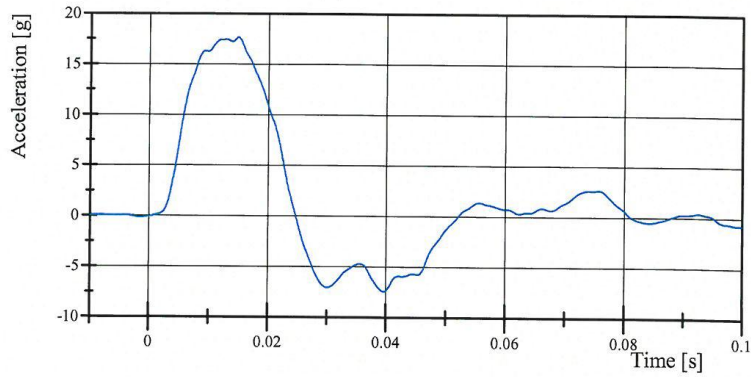


Filter Class: CFC_600

Max: 32.7 mm at 0.0 s

Min: -0.8 mm at 0.4 s

Lower Spine Acceleration (Y)



Filter Class: CFC_180

Max: 17.6 g at 0.0 s

Min: -7.4 g at 0.0 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 13:16:03 3998



Transportation Research Center Inc.

Left Lateral Pelvis

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

Test Date: 3/19/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	35 %	Yes
Impactor Velocity	6.6 - 6.8 m/s	6.69 m/s	Yes
Impactor Force	(-6,800) - (-8,200) N	-7,434.4 N	Yes
Pelvis Lateral Acceleration	37 - 47 g	46.5 g	Yes
Lower Spine Lateral Acceleration	10 - 14 g	11.9 g	Yes

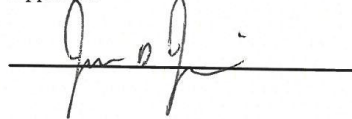
Test meets specifications.

Comments:

Technician



Approved



Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 14:15:47 3993

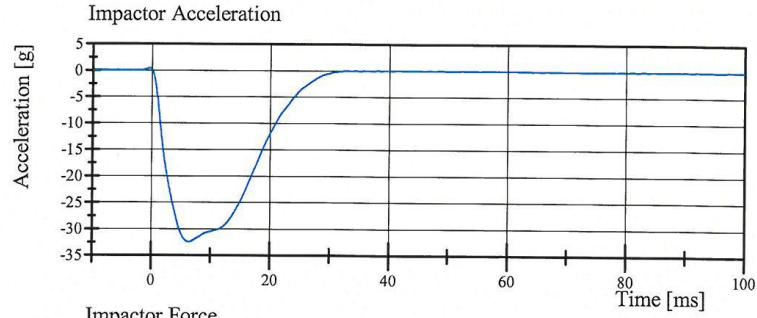


Transportation Research Center Inc.

Left Lateral Pelvis

WorldSID ISO 15830-2 Serial No. 014 Certification No. 12-1

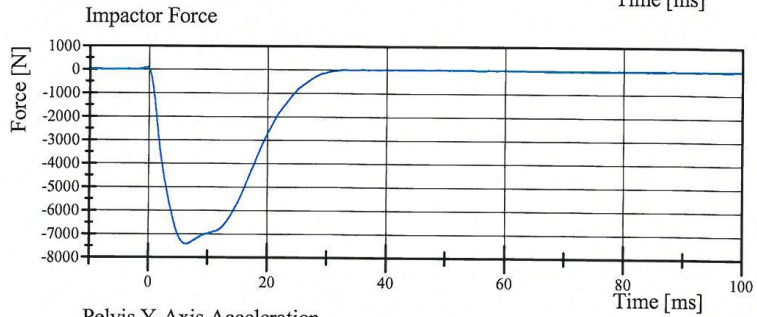
Test Date: 3/19/2013



Filter Class: CFC_180

Max: 0.3 g at -0.4 ms

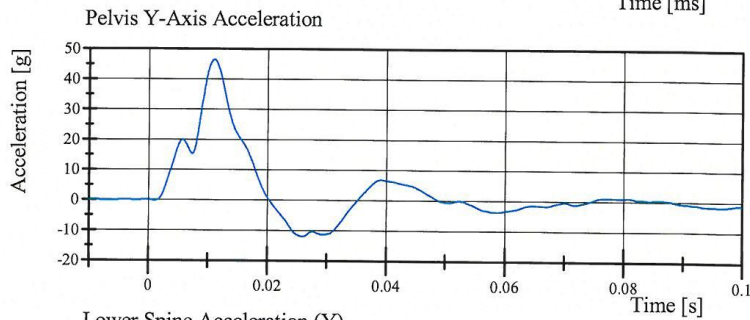
Min: -32.5 g at 6.4 ms



Filter Class: CFC_180

Max: 78.7 N at -0.4 ms

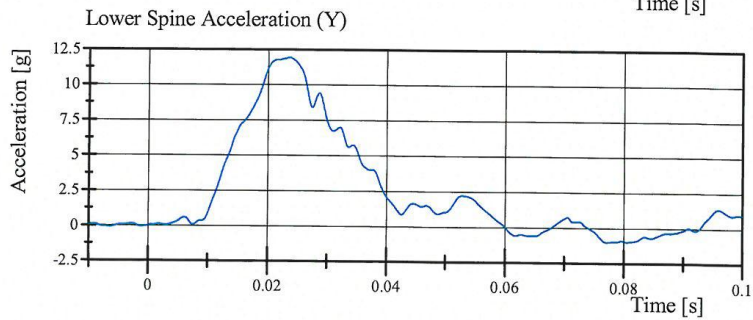
Min: -7,434.4 N at 6.4 ms



Filter Class: CFC_180

Max: 46.5 g at 0.0 s

Min: -12.0 g at 0.0 s



Filter Class: CFC_180

Max: 11.9 g at 0.0 s

Min: -1.0 g at 0.1 s

Specification Source: ISO 15830-2, dated 02/10/2009
with Polarity in accordance with J211

03.19.2013 14:15:54 3993



Calibration Test Results

Pre-Test

WorldSID: DG 236

Configured for Left Side Impact

Transportation Research Center Inc.

Front Head Drop

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-1

Test Date: 3/1/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.6 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Peak Head Resultant Acceleration	250 - 300 g	245.9 g	No
Peak Head Lateral Acceleration	(-15) - 15 g	-3.7 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

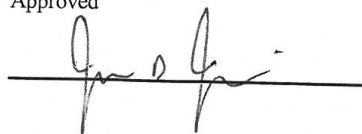
Test does not meet specifications.

Comments: OK per A. Louden

Technician



Approved



Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.04.2013 11:26:11 980



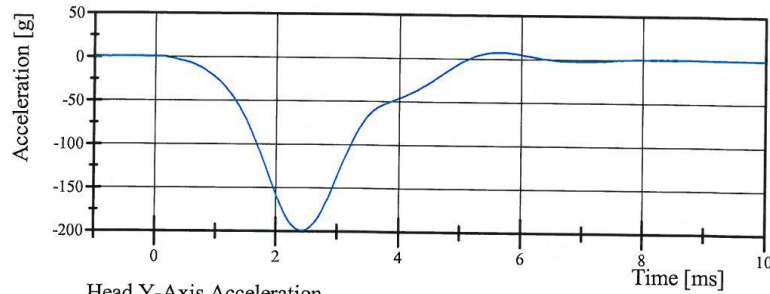
Transportation Research Center Inc.

Front Head Drop

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-1

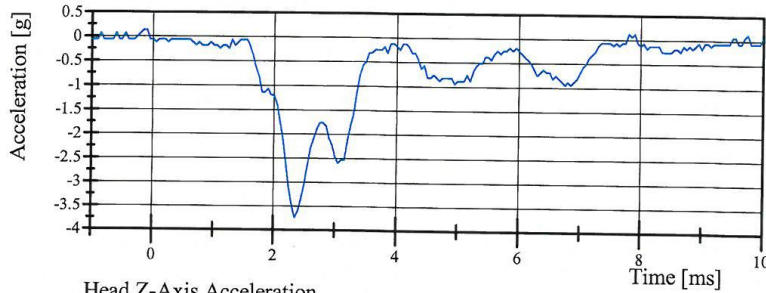
Test Date: 3/1/2013

Head X-Axis Acceleration



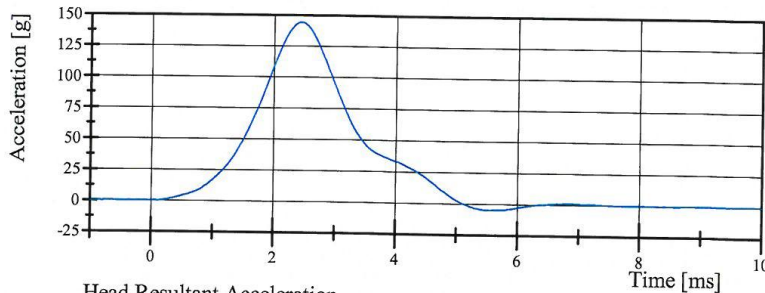
Filter Class: CFC_1000
Max: 7.5 gn at 5.6 ms
Min: -199.2 gn at 2.4 ms

Head Y-Axis Acceleration



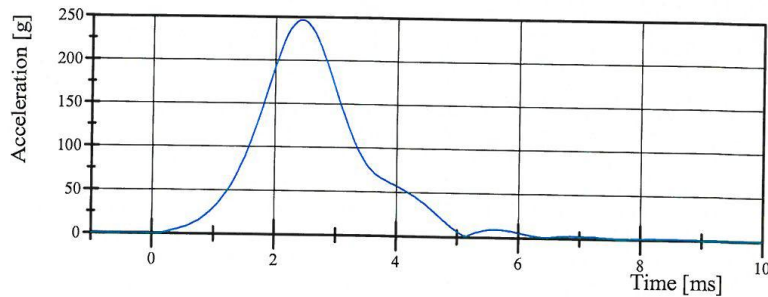
Filter Class: CFC_1000
Max: 0.1 gn at -0.1 ms
Min: -3.7 gn at 2.4 ms

Head Z-Axis Acceleration



Filter Class: CFC_1000
Max: 144.2 gn at 2.5 ms
Min: -4.9 gn at 5.5 ms

Head Resultant Acceleration



Filter Class: CFC_1000
Max: 245.9 gn at 2.5 ms
Min: 0.1 gn at -0.4 ms

Transportation Research Center Inc.

Left Lateral Head Drop

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3

Test Date: 3/4/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.9 °C	Yes
Relative Humidity	10 - 70 %	25 %	Yes
Peak Head Resultant Acceleration	124 - 149 g	112.4 g	No
Peak Head Longitudinal Acceleration	(-15) - 15 g	-7.6 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

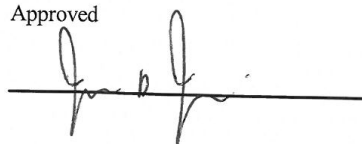
Test does not meet specifications.

Comments: OK per A.Louden

Technician



Approved



Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.04.2013 11:36:25 971

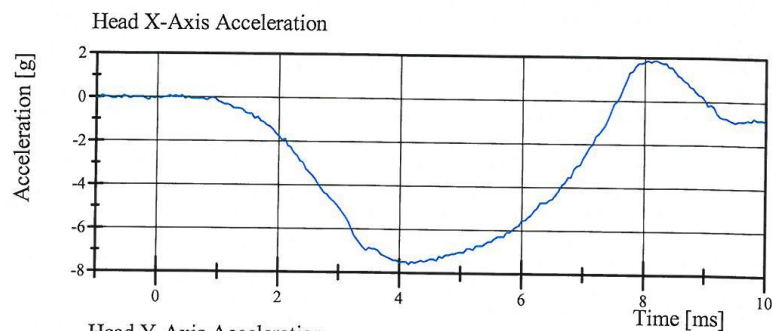


Transportation Research Center Inc.

Left Lateral Head Drop

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3

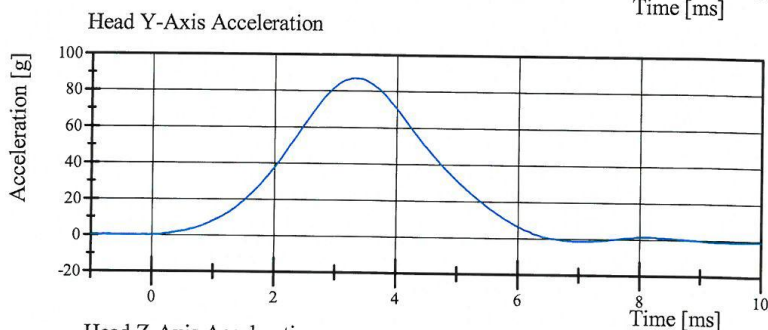
Test Date: 3/4/2013



Filter Class: CFC_1000

Max: 1.9 gn at 8.1 ms

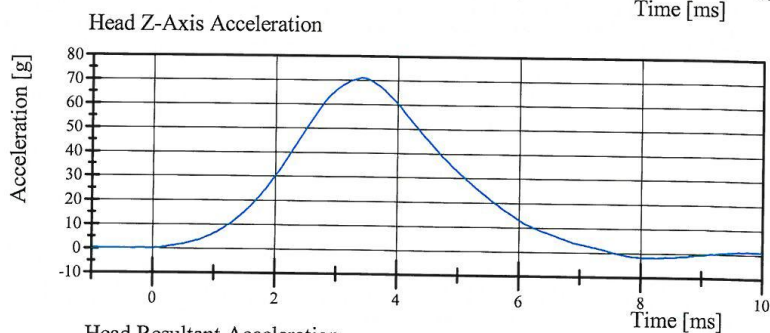
Min: -7.6 gn at 4.2 ms



Filter Class: CFC_1000

Max: 87.1 gn at 3.3 ms

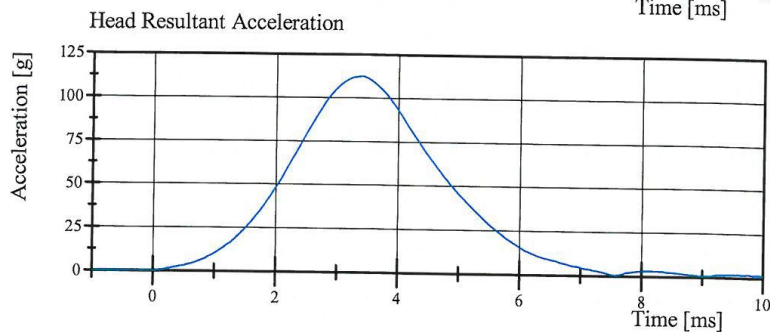
Min: -1.3 gn at 7.0 ms



Filter Class: CFC_1000

Max: 70.9 gn at 3.4 ms

Min: -2.0 gn at 8.0 ms



Filter Class: CFC_1000

Max: 112.4 gn at 3.4 ms

Min: 0.0 gn at -0.8 ms

Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.04.2013 11:36:53 971



Transportation Research Center Inc.

Right Lateral Head Drop

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-1

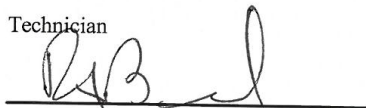
Test Date: 3/1/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.4 °C	Yes
Relative Humidity	10 - 70 %	28 %	Yes
Peak Head Resultant Acceleration	124 - 149 g	112.6 g	No
Peak Head Longitudinal Acceleration	(-15) - 15 g	-5.3 g	Yes
Is Acceleration Curve Unimodal within 10% of Peak?	Yes	Yes	Yes

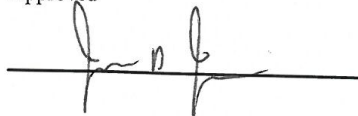
Test does not meet specifications.

Comments: OK per A.Louden

Technician



Approved



Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.04.2013 11:33:03 976

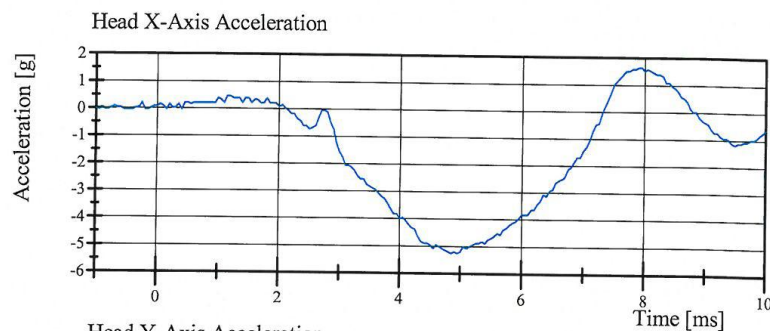


Transportation Research Center Inc.

Right Lateral Head Drop

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-1

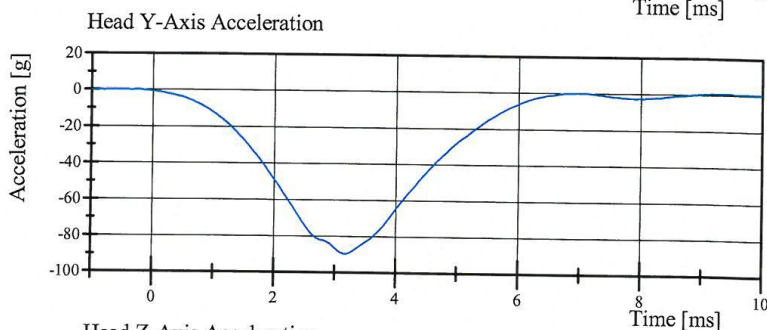
Test Date: 3/1/2013



Filter Class: CFC_1000

Max: 1.6 gn at 7.9 ms

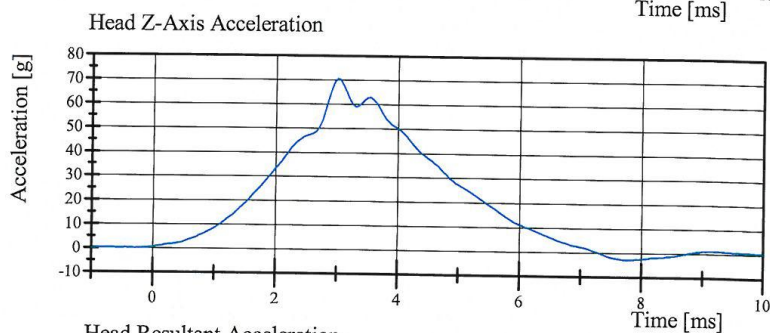
Min: -5.3 gn at 4.9 ms



Filter Class: CFC_1000

Max: 0.8 gn at 9.3 ms

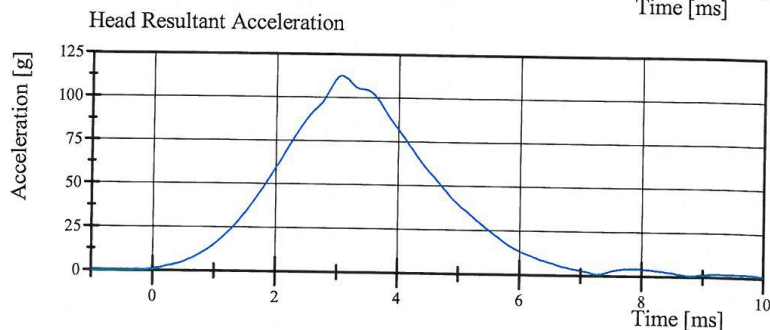
Min: -89.8 gn at 3.2 ms



Filter Class: CFC_1000

Max: 70.5 gn at 3.0 ms

Min: -2.9 gn at 7.7 ms



Filter Class: CFC_1000

Max: 112.6 gn at 3.1 ms

Min: 0.0 gn at -0.8 ms

Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.04.2013 11:33:43 976



Transportation Research Center Inc.

Left Lateral Shoulder

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-2

Test Date: 3/5/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.2 °C	Yes
Relative Humidity	10 - 70 %	32 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.21 m/s	Yes
Impactor Force	(-1,580) - (-2,280) N	-2,164.7 N	Yes
Shoulder Displacement	23.4 - 36.6 mm	28.83 mm	Yes

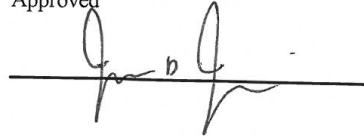
Test meets specifications.

Comments:

Technician



Approved



Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.05.2013 09:31:58 3989



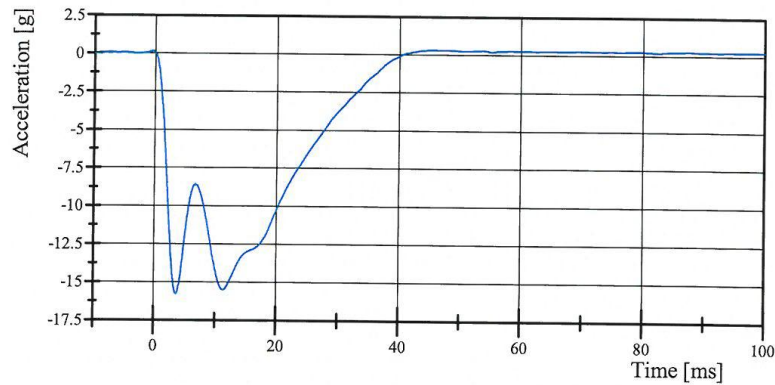
Transportation Research Center Inc.

Left Lateral Shoulder

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-2

Test Date: 3/5/2013

Impactor Acceleration

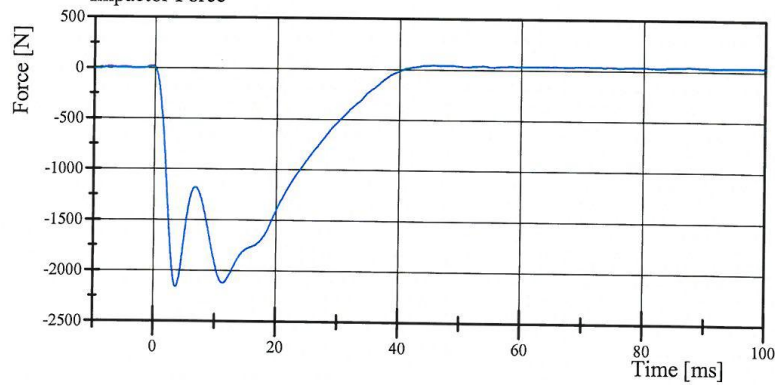


Filter Class: CFC_180

Max: 0.3 gn at 45.6 ms

Min: -15.8 gn at 3.6 ms

Impactor Force

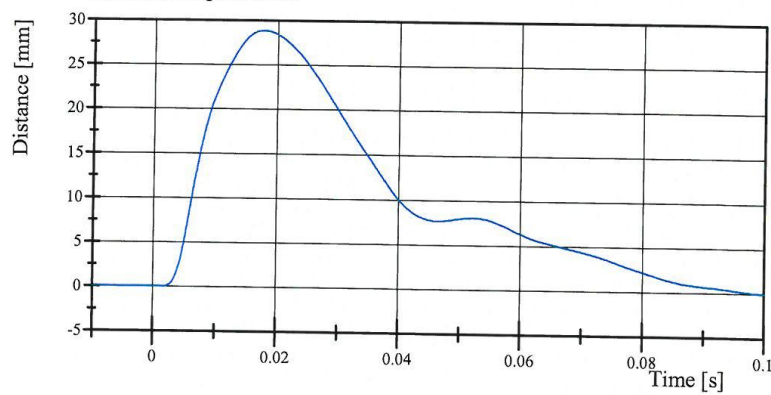


Filter Class: CFC_180

Max: 41.9 N at 45.6 ms

Min: -2,164.7 N at 3.6 ms

Shoulder Displacement



Filter Class: CFC_600

Max: 28.8 mm at 0.0 s

Min: -0.2 mm at 0.2 s

Transportation Research Center Inc.

Left Lateral Thorax with Arm
WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3
Test Date: 3/5/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	20.9 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Impactor Velocity	6.6 - 6.8 m/s	6.70 m/s	Yes
Impactor Force	(-5,020) - (-6,130) N	-5,980.2 N	Yes
Upper Thorax Rib Displacement	18.3 - 26.4 mm	19.55 mm	Yes
Center Thorax Rib Displacement	21.6 - 26.4 mm	22.25 mm	Yes
Lower Thorax Rib Displacement	19.7 - 26.6 mm	22.37 mm	Yes
Upper Spine Lateral Acceleration	34.7 - 52 g	46.65 g	Yes
Lower Spine Lateral Acceleration	44.5 - 54.9 g	53.98 g	Yes

Test meets specifications.

Comments:

Technician



Approved



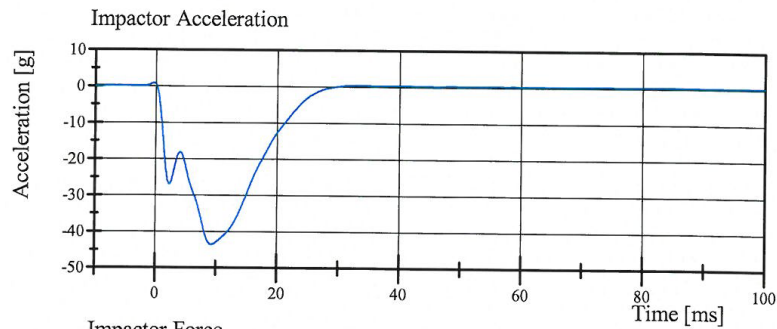
Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.05.2013 11:56:29 3990

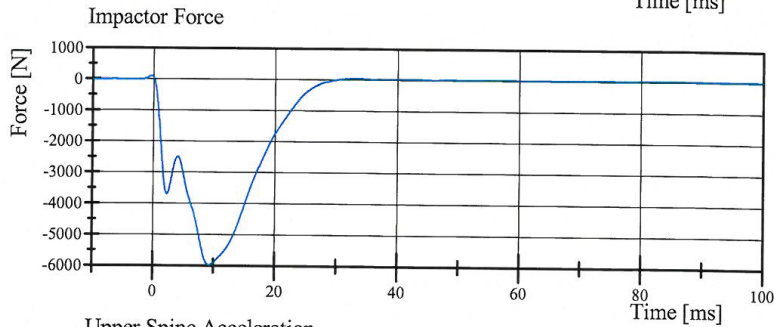


Transportation Research Center Inc.

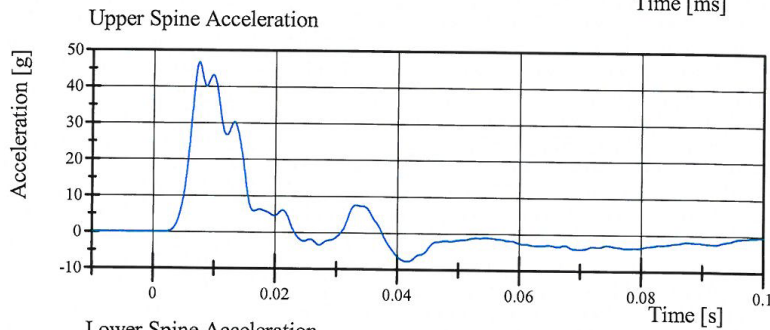
Left Lateral Thorax with Arm
WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3
Test Date: 3/5/2013



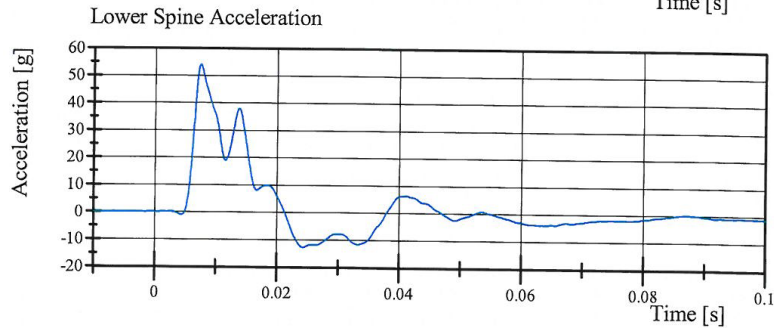
Filter Class: CFC_180
Max: 0.7 gn at -0.4 ms
Min: -43.7 gn at 9.3 ms



Filter Class: CFC_180
Max: 97.8 N at -0.4 ms
Min: -5,980.2 N at 9.3 ms



Filter Class: CFC_180
Max: 46.6 gn at 0.0 s
Min: -7.7 gn at 0.0 s

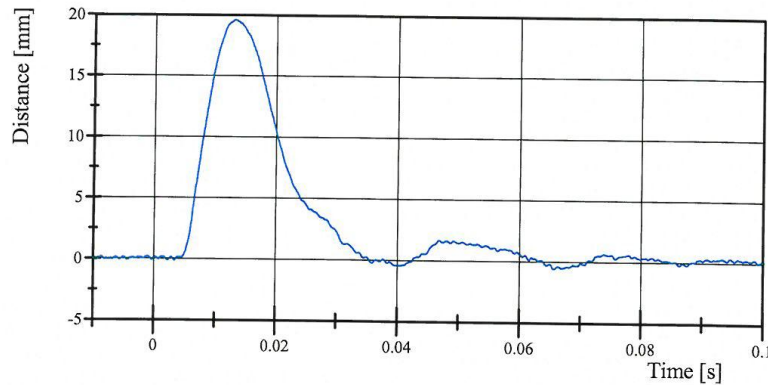


Filter Class: CFC_180
Max: 54.0 gn at 0.0 s
Min: -12.8 gn at 0.0 s

Transportation Research Center Inc.

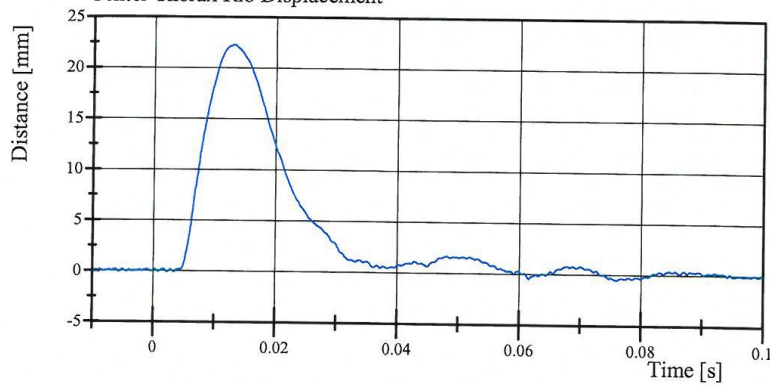
Left Lateral Thorax with Arm
WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3
Test Date: 3/5/2013

Upper Thorax Rib Displacement



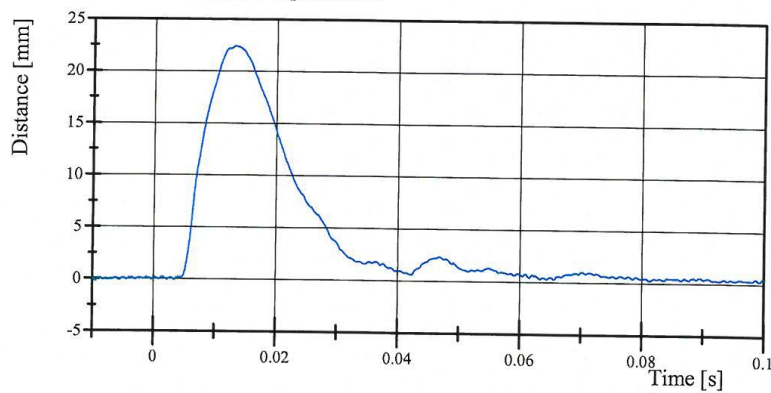
Filter Class: CFC_600
Max: 19.6 mm at 0.0 s
Min: -0.6 mm at 0.1 s

Center Thorax Rib Displacement



Filter Class: CFC_600
Max: 22.2 mm at 0.0 s
Min: -0.5 mm at 0.1 s

Lower Thorax Rib Displacement



Filter Class: CFC_600
Max: 22.4 mm at 0.0 s
Min: -0.5 mm at 0.2 s

Transportation Research Center Inc.

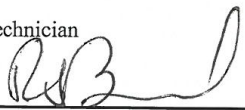
Left Lateral Thorax without Arm
WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3
Test Date: 3/5/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.0 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.31 m/s	Yes
Impactor Force	(-2,640) - (-3,220) N	-3,338.5 N	No
Upper Thorax Rib Displacement	20.5 - 27.7 mm	20.83 mm	Yes
Center Thorax Rib Displacement	21.7 - 26.7 mm	22.09 mm	Yes
Lower Thorax Rib Displacement	20.9 - 27.3 mm	24.57 mm	Yes
Upper Spine Lateral Acceleration	21.2 - 27.5 g	24.42 g	Yes
Lower Spine Lateral Acceleration	20.6 - 28.9 g	24.40 g	Yes

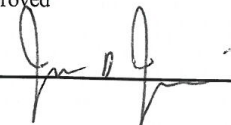
Test does not meet specifications.

Comments: OK per A.Louden

Technician



Approved



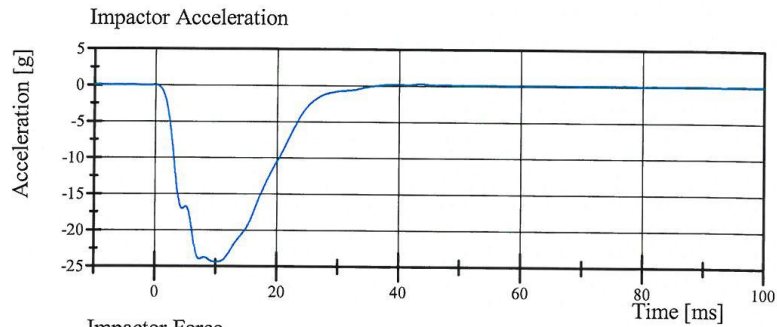
Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.06.2013 08:29:34 3993

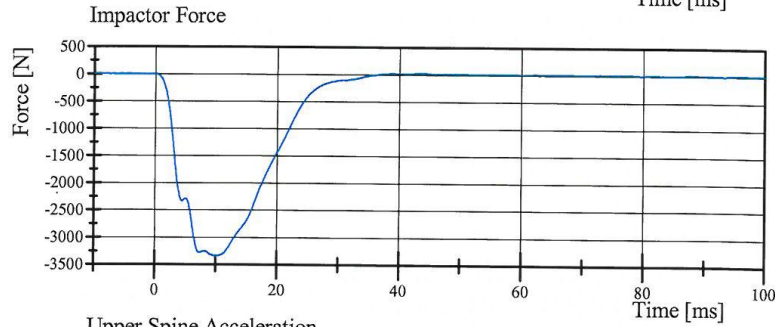


Transportation Research Center Inc.

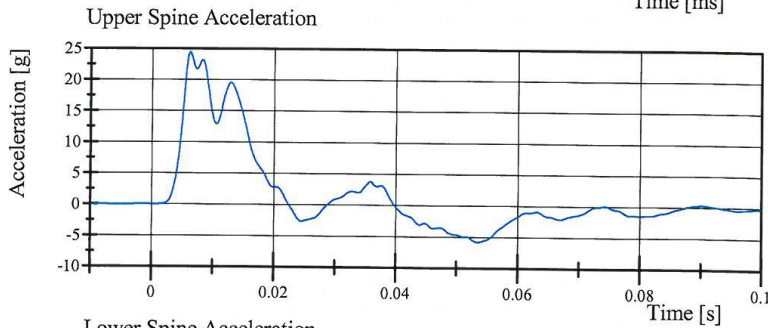
Left Lateral Thorax without Arm
WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3
Test Date: 3/5/2013



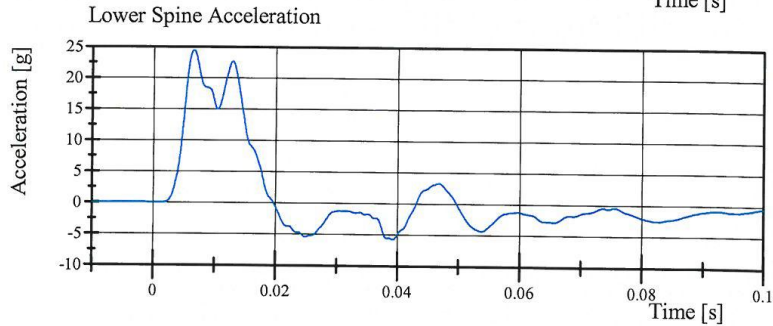
Filter Class: CFC_180
Max: 0.2 gn at 43.4 ms
Min: -24.4 gn at 10.0 ms



Filter Class: CFC_180
Max: 29.0 N at 43.4 ms
Min: -3,338.5 N at 10.0 ms



Filter Class: CFC_180
Max: 24.4 gn at 0.0 s
Min: -5.8 gn at 0.1 s

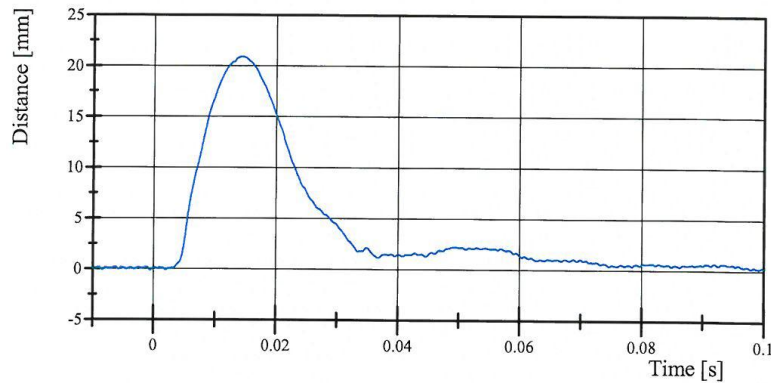


Filter Class: CFC_180
Max: 24.4 gn at 0.0 s
Min: -5.7 gn at 0.0 s

Transportation Research Center Inc.

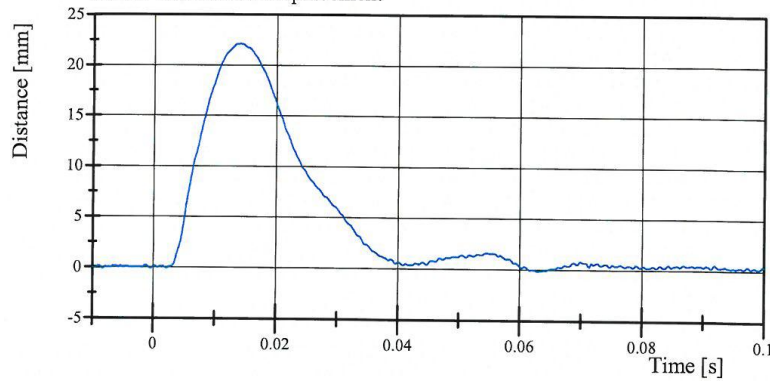
Left Lateral Thorax without Arm
WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-3
Test Date: 3/5/2013

Upper Thorax Rib Displacement



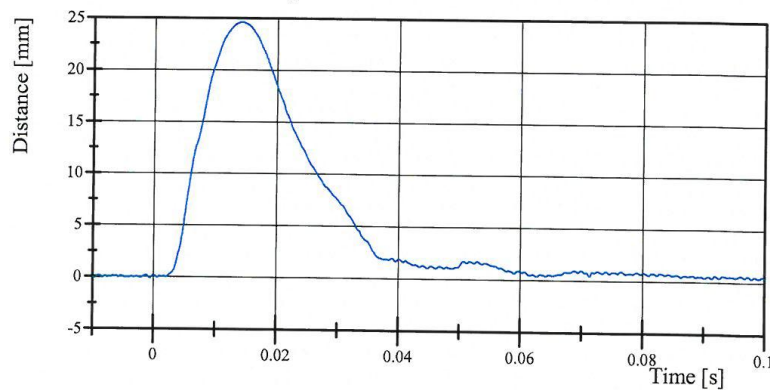
Filter Class: CFC_600
Max: 20.8 mm at 0.0 s
Min: -0.3 mm at 0.2 s

Center Thorax Rib Displacement



Filter Class: CFC_600
Max: 22.1 mm at 0.0 s
Min: -0.2 mm at -0.1 s

Lower Thorax Rib Displacement



Filter Class: CFC_600
Max: 24.6 mm at 0.0 s
Min: -0.3 mm at 0.1 s

Transportation Research Center Inc.

Left Lateral Abdomen

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-4

Test Date: 3/6/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.7 °C	Yes
Relative Humidity	10 - 70 %	34 %	Yes
Impactor Velocity	4.2 - 4.4 m/s	4.39 m/s	Yes
Impactor Force	(-2,210) - (-2,700) N	-2,601.7 N	Yes
Upper Abdominal Rib Displacement	23.1 - 31.2 mm	25.92 mm	Yes
Lower Abdominal Rib Displacement	22.7 - 27.8 mm	23.44 mm	Yes
Lower Spine Lateral Acceleration	24.4 - 30.6 g	27.06 g	Yes

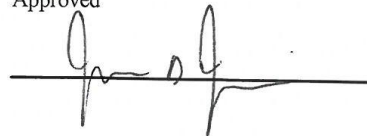
Test meets specifications.

Comments:

Technician



Approved



Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.06.2013 11:00:15 3969



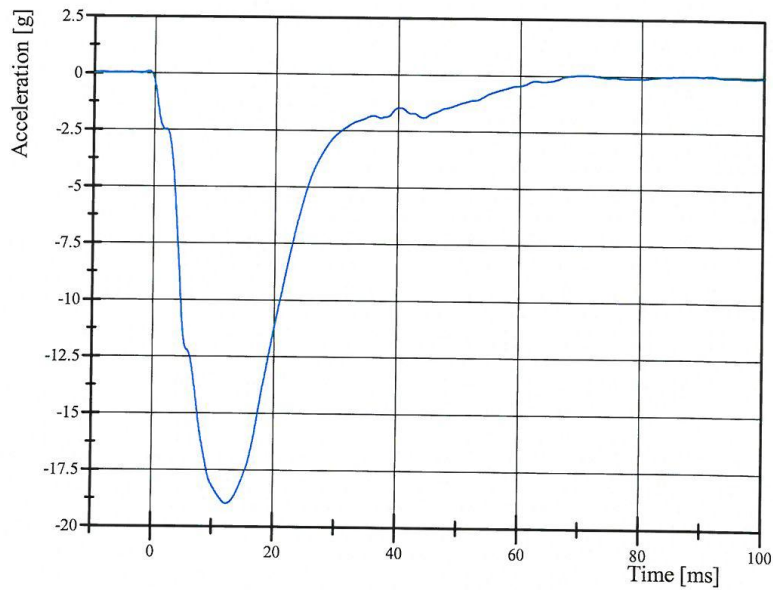
Transportation Research Center Inc.

Left Lateral Abdomen

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-4

Test Date: 3/6/2013

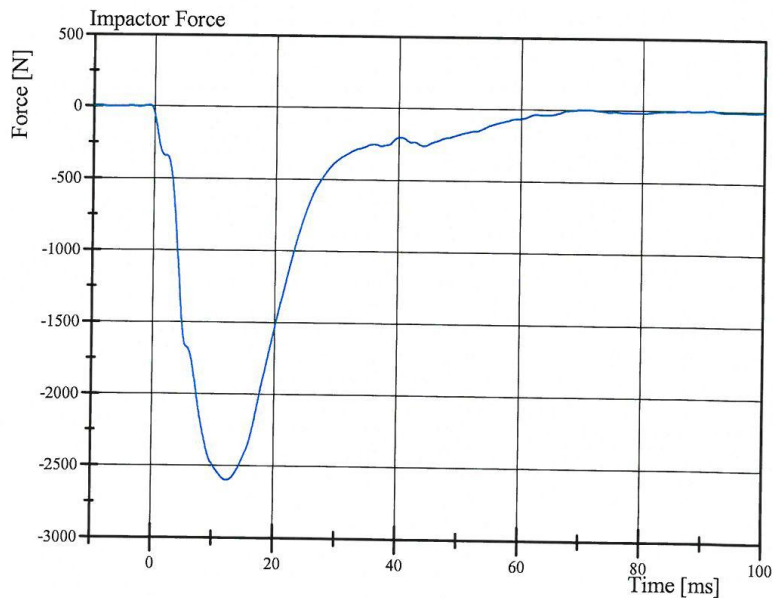
Impactor Acceleration



Filter Class: CFC_180

Max: 0.0 gn at -0.9 ms

Min: -19.0 gn at 12.3 ms



Filter Class: CFC_180

Max: 6.2 N at -0.9 ms

Min: -2,601.7 N at 12.3 ms

Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.06.2013 11:00:35 3969



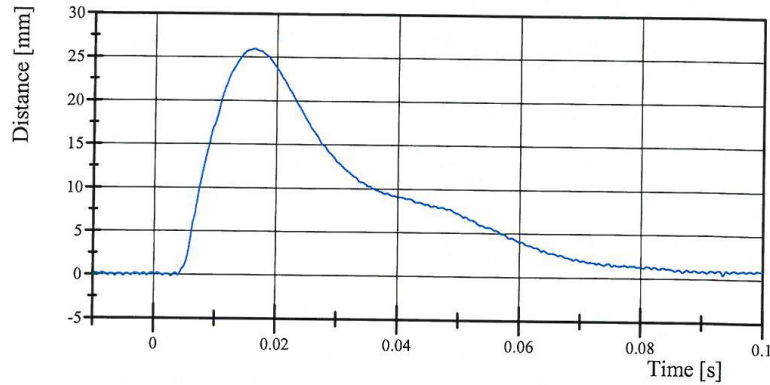
Transportation Research Center Inc.

Left Lateral Abdomen

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-4

Test Date: 3/6/2013

Upper Abdominal Rib Displacement

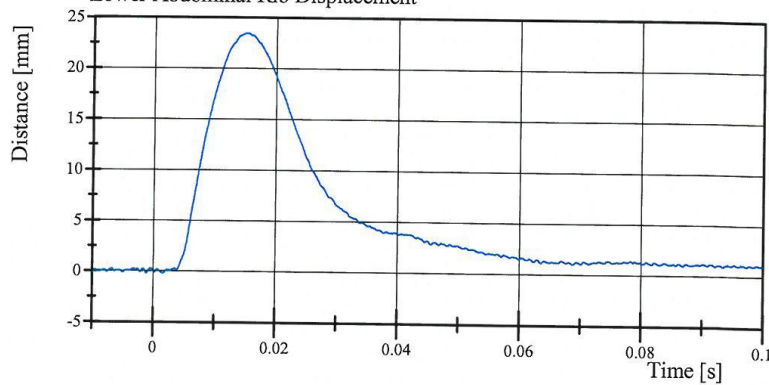


Filter Class: CFC_600

Max: 25.9 mm at 0.0 s

Min: -0.3 mm at -0.1 s

Lower Abdominal Rib Displacement

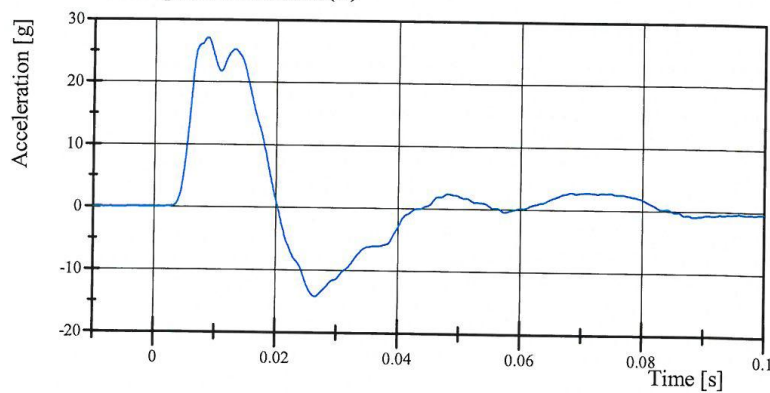


Filter Class: CFC_600

Max: 23.4 mm at 0.0 s

Min: -0.3 mm at -0.1 s

Lower Spine Acceleration (Y)



Filter Class: CFC_180

Max: 27.1 gn at 0.0 s

Min: -14.3 gn at 0.0 s

Transportation Research Center Inc.

Left Lateral Pelvis

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-1

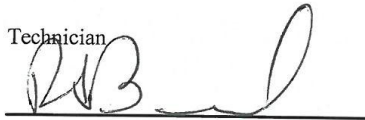
Test Date: 3/6/2013

Test Parameter	Specification	Test Results	Pass
Temperature	20.6 - 22.2 °C	21.5 °C	Yes
Relative Humidity	10 - 70 %	29 %	Yes
Impactor Velocity	6.6 - 6.8 m/s	6.68 m/s	Yes
Impactor Force	(-4,620) - (-5,650) N	-4,787.2 N	Yes
Pelvis Lateral Acceleration	48.6 - 74.4 g	61.33 g	Yes
Lower Spine Lateral Acceleration	11.8 - 15.8 g	13.84 g	Yes
Pubic Lateral Force	(-770) - (-1,200) N	-1,084.6 N	Yes

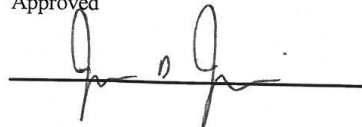
Test meets specifications.

Comments:

Technician



Approved



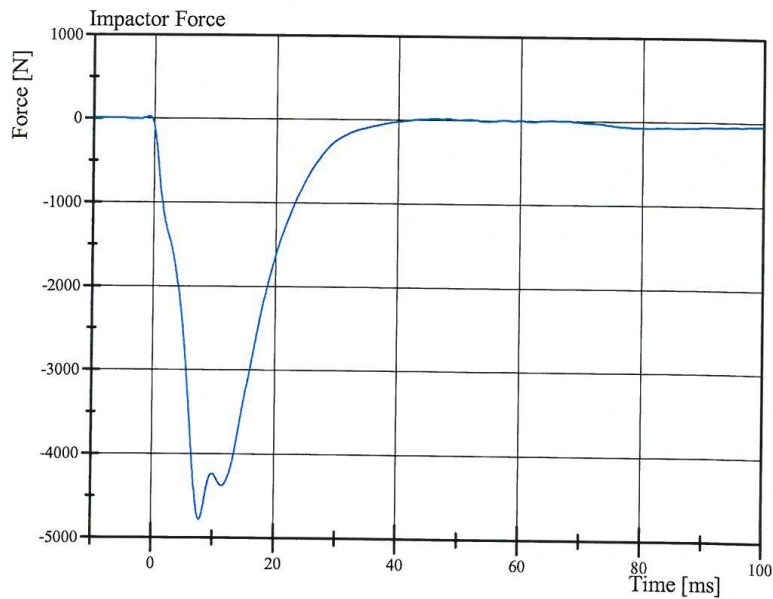
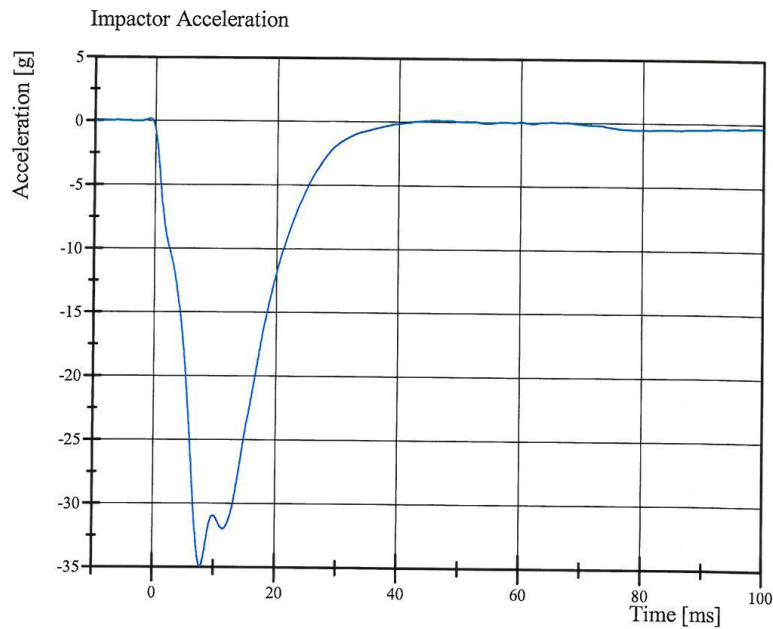
Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.06.2013 09:53:32 3990



Transportation Research Center Inc.

Left Lateral Pelvis
WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-1
Test Date: 3/6/2013



Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.06.2013 09:53:40 3990



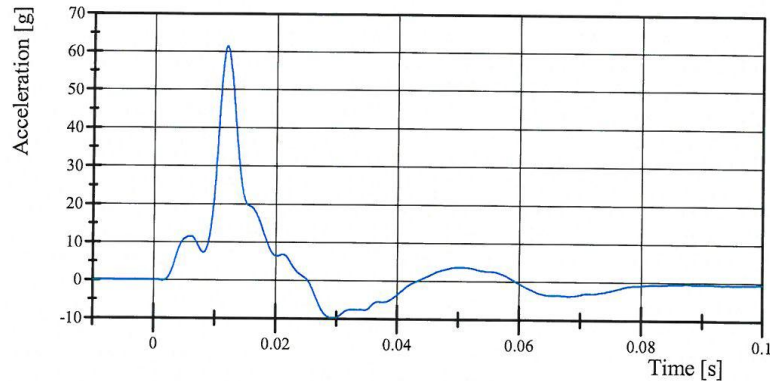
Transportation Research Center Inc.

Left Lateral Pelvis

WorldSID W5-9900 Rev C Serial No. DG0236 Certification No. 4-1

Test Date: 3/6/2013

Pelvis Y-Axis Acceleration

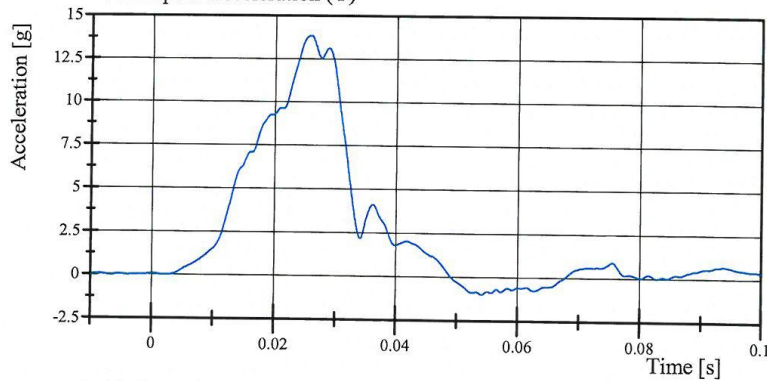


Filter Class: CFC_180

Max: 61.3 gn at 0.0 s

Min: -9.8 gn at 0.0 s

Lower Spine Acceleration (Y)

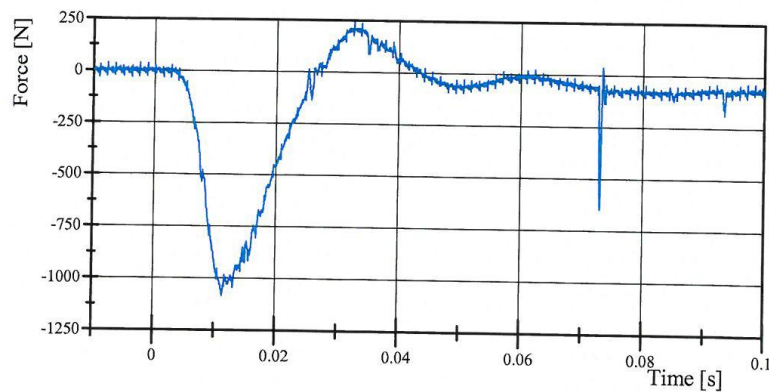


Filter Class: CFC_180

Max: 13.8 gn at 0.0 s

Min: -1.2 gn at 0.1 s

Pubic Lateral Force



Filter Class: CFC_1000

Max: 238.2 N at 0.0 s

Min: -1,084.6 N at 0.0 s

Specification Source: W5-9900 User Manual WorldSID 5th, Rev C
with Polarity in accordance with J211

03.06.2013 09:53:40 3990



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
SAE J211 MAR95

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

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

Channel Report Test Number 130326

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	Polarity
1	Trig D1	10ZERO000000VO0A	EVENT	1	Logic	Bipolar
2	ARS-12K-ARS0238	11HEADCG00WSANXA	Head X-Axis Angular Displacement	5000	°/s	Bipolar
3	ARS-12K-ARS0253	11HEADCG00WSANYA	Head Y-Axis Angular Displacement	5000	°/s	Bipolar
4	ARS-12K-ARS2799	11HEADCG00WSANZA	Head Z-Axis Angular Displacement	5000	°/s	Bipolar
5	ARS-8K-ARS2338	14HEADCG00WSANXA	Head X-Axis Angular Displacement	5000	°/s	Bipolar
6	ARS-12K-ARS2350	14HEADCG00WSANYA	Head Y-Axis Angular Displacement	5000	°/s	Bipolar
7	ARS-12K-ARS2629	14HEADCG00WSANZA	Head Z-Axis Angular Displacement	5000	°/s	Bipolar
8	P77748	11VEHCCG0000ACXA	Vehicle CG (X)	2000	g	Bipolar
9	P77721	11VEHCCG0000ACYA	Vehicle CG (Y)	2000	g	-Bipolar
10	P77741	11VEHCCG0000ACZA	Vehicle CG (Z)	2000	g	-Bipolar
11	P77675	11SILBRIFR00ACXA	Right Front Sill at Front Seat (X)	2000	g	Bipolar
12	P78093	11SILBRIFR00ACYA	Right Front Sill at Front Seat (Y)	2000	g	-Bipolar
13	P77746	11SILBRIFR00ACZA	Right Front Sill at Front Seat (Z)	2000	g	-Bipolar
14	P80147	11SILBRIRE00ACXA	Right Rear Sill at Rear Seat (X)	2000	g	Bipolar
15	P80145	11SILBRIRE00ACYA	Right Rear Sill at Rear Seat (Y)	2000	g	-Bipolar
16	P80158	11SILBRIRE00ACZA	Right Rear Sill at Rear Seat (Z)	2000	g	Bipolar
17	P80354	11SILBLEFR00ACYA	Left Side Sill at Front Seat (Y)	2000	g	Bipolar
18	P77739	11SILBLERE00ACYA	Left Side Sill at Rear Seat (Y)	2000	g	Bipolar
19	P76450	11APILLO0000ACYA	Left Lower A Post (Y)	2000	g	-Bipolar
20	P74233	11APILMI0000ACYA	Left Middle A-Post (Y)	2000	g	-Bipolar
21	P76398	11BPILLO0000ACYA	Left Lower B Post (Y)	2000	g	-Bipolar
22	P73596	11BPILMI0000ACYA	Left Middle B Post (Y)	2000	g	-Bipolar
23	P75993	11SETR000000ACYA	Front Seat Track (Y)	2000	g	Bipolar
24	P66710	11SETRLERE00ACYA	LEFT REAR SEAT STRUCTURE AY	2000	g	Bipolar
25	P75777	112OCCRIRE00ACYA	RIGHT REAR OCCUPANT COMPARTMENT AY	2000	g	-Bipolar

Channel Report Test Number 130326 Continued

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	Polarity
26	P80138	11ENGNTPO000ACXA	ENGINE BLOCK AX	2000	g	Bipolar
27	P80360	11ENGNTPO000ACYA	ENGINE BLOCK AY	2000	g	-Bipolar
28	P76251	11FORA000000ACXA	Rear Floor Pan Above Axle (X)	2000	g	Bipolar
29	P76044	11FORA000000ACYA	Rear Floor Pan Above Axle (Y)	2000	g	-Bipolar
30	P75726	11FORA000000ACZA	Rear Floor Pan Above Axle (Z)	2000	g	-Bipolar
31	P76411	11VEHEDR0000ACXA	Vehicle at EDR (X)	2000	g	Bipolar
32	P78112	11VEHEDR0000ACYA	Vehicle at EDR (Y)	2000	g	-Bipolar
33	P78103	11VEHEDR0000ACZA	Vehicle at EDR (Z)	2000	g	-Bipolar
34	P80132	10DECKRR0000ACXA	REAR DECK AX	2000	g	Bipolar
35	P77652	10DECKRR0000ACYA	REAR DECK AY	2000	g	-Bipolar
36	P80137	10DECKRR0000ACZA	REAR DECK AZ	2000	g	-Bipolar
37	P80134	11DOORMIMI71ACYA	Left Front Door Mid Centerline (Y)	2000	g	Bipolar
38	P79383	11DOORMIRE71ACYA	Left Front Door Mid Rear (Y)	2000	g	Bipolar
39	P80156	11DOORMIUP71ACYA	Left Front Door Upper Centerline (Y)	2000	g	Bipolar
40	P76399	14DOORMIRE71ACYA	Left Rear Door Mid Rear (Y)	2000	g	Bipolar
41	P78118	14DOORMIUP71ACYA	Left Rear Door Upper Centerline (Y)	2000	g	Bipolar
42	ARS-1500-ARS0330	10VEHCCG0000AVXA	VEHICLE CENTER OF GRAVITY (X) ROLL RATE GYRO	1500	°/s	Bipolar
43	ARS-1500-ARS0010	10VEHCCG0000AVYA	VEHICLE CENTER OF GRAVITY (Y) PITCH RATE GYRO	1500	°/s	Bipolar
44	ARS-1500-ARS4512	10VEHCCG0000AVZA	VEHICLE CENTER OF GRAVITY (Z) YAW RATE GYRO	1500	°/s	Bipolar
45	ARS-1500-ARS0323	10VEHEDR0000AVXA	VEHICLE AT EDR (X) ROLL RATE GYRO	1500	°/s	Bipolar
46	ARS-1500-ARS0300	10VEHEDR0000AVYA	VEHICLE AT EDR (Y) PITCH RATE GYRO	1500	°/s	Bipolar
47	ARS-1500-ARS2331	10VEHEDR0000AVZA	VEHICLE AT EDR (Z) YAW RATE GYRO	1500	°/s	Bipolar
48	ARS-1500-ARS6391	10DECKRR0000AVXA	REAR DECK (X) ROLL RATE GYRO	1500	°/s	Bipolar
49	ARS-1500-ARS6392	10DECKRR0000AVYA	REAR DECK (Y) PITCH RATE GYRO	1500	°/s	Bipolar
50	ARS-1500-ARS5397	10DECKRR0000AVZA	REAR DECK (Z) YAW RATE GYRO	1500	°/s	Bipolar
51	ABFire1	11SENS010000VO0A	SAB TIMING IND	5	V	Bipolar
52	ABFire2	11SENS020000VO00	SCAB TIMING IND	5	V	Bipolar

Channel Report Test Number 130326 Continued

Ref	Transducer ID	ISO Signal Identifier	Description	FScale	Units	Polarity
53	ABFire3	13SENS010000VO00	Front Pass. SAB Timing Ind.	5	V	Bipolar
54	ABFire4	13SENS020000VO00	Front Pass. SCAB Timing Ind.	5	V	Bipolar
55	Bit.01	11HEADCONT00VO0A	Inboard Head Contact	1	Logic	Bipolar
56	Bit.02	11HEADCONT01VO0A	Outboard Head Contact	1	Logic	Bipolar
57	Bit.03	11SHLDCONT00VO0A	Shoulder Contact	1	Logic	Bipolar
58	Bit.04	11THORCONT00VO0A	Thorax Contact	1	Logic	Bipolar
59	Bit.05	11LEGCONT000VO0A	Leg Contact	1	Logic	Bipolar
60	Bit.06	11PELVFR00WSVO00	Pelvis Internal Front Contact	1	Logic	Bipolar
61	Bit.07	11PELVTPREWSVO00	Pelvis Internal Top Rear Contact	1	Logic	Bipolar
62	Bit.08	11PELVBOREWSVO00	Pelvis Internal Bottom Rear Contact	1	Logic	Bipolar
63	Bit.00	13HEADCONT00VO0A	Inboard Head Contact	1	Logic	Bipolar
64	Bit.01	13HEADCONT01VO0A	Outboard Head Contact	1	Logic	Bipolar
65	Bit.02	13SHLDCONT00VO0A	Shoulder Contact	1	Logic	Bipolar
66	Bit.03	13THORCONT00VO0A	Thorax Contact	1	Logic	Bipolar
67	Bit.04	13LEGCONT000VO0A	Leg Contact	1	Logic	Bipolar
68	Bit.05	14HEADCONT00VO0A	Head Contact	1	Logic	Bipolar
69	Bit.06	14SHLDCONT00VO0A	Shoulder Contact	1	Logic	Bipolar
70	Bit.07	14THORCONT00VO0A	Thorax Contact	1	Logic	Bipolar
71	Bit.08	14LEGCONT000VO0A	Leg Contact	1	Logic	Bipolar
72	P75528	M0MBARCG0000ACXA	MDB CG AX	2000	g	Bipolar
73	P76339	M0MBARCG0000ACYA	MDB CG AY	2000	g	Bipolar
74	P75707	M0MBARCG0000ACZA	MDB CG AZ	2000	g	-Bipolar
75	P80142	M0FRAMRE0000ACXA	MDB REAR AX	2000	g	Bipolar
76	P80136	M0FRAMRE0000ACYA	MDB REAR AY	2000	g	Bipolar

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Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
1	11HEADCG00WSACXA	Head Longitudinal Ax	1000	+	yes	1000
2	11HEADCG00WSACYA	Head Lateral Ay	1000	+	yes	1000
3	11HEADCG00WSACZA	Head Vertical Az	1000	+	yes	1000
3A	11HEADCG00WSACRA	Head A Resultant	1000			
4	11HEAD0000WSAAXA	Head Rotational Acceleration Rx	1000	-	yes	50000
5	11HEAD0000WSAAYA	Head Rotational Acceleration Ry	1000	+	yes	50000
6	11HEAD0000WSAAZA	Head Rotational Acceleration Rz	1000	+	yes	50000
7	11HEADCG00WSAVXA	Head X-Axis Angular Velocity	1000	+	yes	5000
8	11HEADCG00WSAVYA	Head Y-Axis Angular Velocity	1000	+	yes	5000
9	11HEADCG00WSAVZA	Head Z-Axis Angular Velocity	1000	+	yes	5000
10	11NECKUP00WSFOXA	Neck Upper Force Fx	1000	-	yes	10000
11	11NECKUP00WSFOYA	Neck Upper Force Fy	1000	+	yes	10000
12	11NECKUP00WSFOZA	Neck Upper Force Fz	1000	-	yes	12000
13	11NECKUP00WSMOXA	Neck Upper Moment Mx	600	+	yes	300
14	11NECKUP00WSMOYA	Neck Upper Moment My	600	+	yes	300
15	11NECKUP00WSMOZA	Neck Upper Moment Mz	600	+	yes	200
16	11NECKLO00WSFOXA	Neck Lower Force Fx	1000	+	yes	10000
17	11NECKLO00WSFOYA	Neck Lower Force Fy	1000	+	yes	10000
18	11NECKLO00WSFOZA	Neck Lower Force Fz	1000	-	yes	12000
19	11NECKLO00WSMOXA	Neck Lower Moment Mx	600	+	yes	300
20	11NECKLO00WSMOYA	Neck Lower Moment My	600	+	yes	300
21	11NECKLO00WSMOZA	Neck Lower Moment Mz	600	+	yes	200
22	11SHLDLE00WSACXA	Shoulder Longitudinal Ax	1000	+	yes	500
23	11SHLDLE00WSACYA	Shoulder Lateral Ay	1000	+	yes	500
24	11SHLDLE00WSACZA	Shoulder Vertical Az	1000	+	yes	500
24A	11SHLDLE00WSACRA	Shoulder A Resultant	1000			
25	11SHLDLE00WSFOXA	Shoulder Force Fx	1000	+	yes	5000

Command File Test Number 130326 Continued

Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
26	11SHLDLE00WSFOYA	Shoulder Force Fy	1000	-	yes	10000
27	11SHLDLE00WSFOZA	Shoulder Force Fz	1000	+	yes	5000
28	11SHRILE00WSDSYA	Shoulder Y Disp	600	+	yes	90
29	11THSP0100WSACXA	T1 Longitudinal Ax	180	+	yes	1000
30	11THSP0100WSACYA	T1 Lateral Ay	180	+	yes	1000
31	11THSP0100WSACZA	T1 Vertical Az	180	-	yes	1000
31A	11THSP0100WSACRA	T1 A Resultant	180			
32	11TRRILE01WSACXA	Thorax Rib 1 Longitudinal Ax	1000	+	yes	500
33	11TRRILE01WSACYA	Thorax Rib 1 Lateral Ay	1000	+	yes	500
34	11TRRILE01WSACZA	Thorax Rib 1 Vertical Az	1000	+	yes	500
34A	11TRRILE01WSACRA	Thorax Rib 1 A Resultant	1000			
35	11TRRILE01WSDSYA	Thorax Rib 1 Lateral Disp	600	+	yes	90
36	11TRRILE02WSACXA	Thorax Rib 2 Longitudinal Ax	1000	+	yes	500
37	11TRRILE02WSACYA	Thorax Rib 2 Lateral Ay	1000	+	yes	500
38	11TRRILE02WSACZA	Thorax Rib 2 Vertical Az	1000	+	yes	500
38A	11TRRILE02WSACRA	Thorax Rib 2 A Resultant	1000			
39	11TRRILE02WSDCOA	Thorax Rib 2 IRTRAC compression	600	+	no	110
40	11TRRILE02WSANZA	Thorax Rib 2 Rotational angle	600	+	no	110
41	11TRRILE02WSDSXA	Thorax Rib 2 IRTRAC X Deflection	600	+	no	110
42	11TRRILE02WSDSYA	Thorax Rib 2 IRTRAC Y Deflection	600	+	no	110
43	11TRRILE03WSACXA	Thorax Rib 3 Longitudinal Ax	1000	+	yes	500
44	11TRRILE03WSACYA	Thorax Rib 3 Lateral Ay	1000	+	yes	500
45	11TRRILE03WSACZA	Thorax Rib 3 Vertical Az	1000	+	yes	500
45A	11TRRILE03WSACRA	Thorax Rib 3 A Resultant	1000			
46	11TRRILE03WSDCOA	Thorax Rib 3 IRTRAC compression	600	+	no	110
47	11TRRILE03WSANZA	Thorax Rib 3 Rotational angle	600	+	no	110
48	11TRRILE03WSDSXA	Thorax Rib 3 IRTRAC X Deflection	600	+	no	110
49	11TRRILE03WSDSYA	Thorax Rib 3 IRTRAC Y Deflection	600	+	no	110

Command File Test Number 130326 Continued

Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
50	11ABRILE01WSACXA	Abdominal Rib 1 Longitudinal Ax	1000	+	yes	500
51	11ABRILE01WSACYA	Abdominal Rib 1 Lateral Ay	1000	+	yes	500
52	11ABRILE01WSACZA	Abdominal Rib 1 Vertical Az	1000	+	yes	500
52A	11ABRILE01WSACRA	Abdominal Rib 1 A Resultant	1000	+	yes	
53	11ABRILE01WSDCOA	Abdominal Rib 1 IRTAC compression	600	+	no	110
54	11ABRILE01WSANZA	Abdominal Rib 1 Rotational angle	600	+	no	110
55	11ABRILE01WSDSXA	Abdominal Rib 1 IRTAC X Deflection	600	+	no	110
56	11ABRILE01WSDSYA	Abdominal Rib 1 IRTAC Y Deflection	600	+	no	110
57	11ABRILE02WSACXA	Abdominal Rib 2 Longitudinal Ax	1000	+	yes	500
58	11ABRILE02WSACYA	Abdominal Rib 2 Lateral Ay	1000	+	yes	500
59	11ABRILE02WSACZA	Abdominal Rib 2 Vertical Az	1000	+	yes	500
59A	11ABRILE02WSACRA	Abdominal Rib 2 A Resultant	1000			
60	11ABRILE02WSDSYA	Abdominal Rib 2 Lateral Disp	600	+	yes	90
61	11THSP0400WSACXA	T4 Longitudinal Ax	180	+	yes	1000
62	11THSP0400WSACYA	T4 Lateral Ay	180	+	yes	1000
63	11THSP0400WSACZA	T4 Vertical Az	180	+	yes	1000
63A	11THSP0400WSACRA	T4 A Resultant	180			
64	11THSP1200WSACXA	T12 Longitudinal Ax	180	+	yes	1000
65	11THSP1200WSACYA	T12 Lateral Ay	180	+	yes	1000
66	11THSP1200WSACZA	T12 Vertical Az	180	+	yes	1000
66A	11THSP1200WSACRA	T12 A Resultant	180			
67	11PELV0000WSACXA	Pelvis Longitudinal Ax	1000	+	yes	1000
68	11PELV0000WSACYA	Pelvis Lateral Ay	1000	+	yes	1000
69	11PELV0000WSACZA	Pelvis Vertical Az	1000	+	yes	1000
69A	11PELV0000WSACRA	Pelvis A Resultant	1000			
70	11PUBC0000WSFOYA	Pubic Force Fy	600	+	yes	12000
71	11LUSP0000WSFOXA	Lumbar Force Fx	600	+	yes	10000
72	11LUSP0000WSFOYA	Lumbar Force Fy	600	+	yes	10000

Command File Test Number 130326 Continued

Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
73	11LUSP0000WSFOZA	Lumbar Force Fz	600	-	yes	12000
74	11LUSP0000WSMOXA	Lumbar Moment Mx	600	+	yes	300
75	11LUSP0000WSMOYA	Lumbar Moment My	600	+	yes	300
76	11LUSP0000WSMOZA	Lumbar Moment Mz	600	+	yes	200
77	11SACRRI00WSMOXA	Sacro-Iliac Right Moment Mx	600	+	yes	800
78	11SACRRI00WSMOYA	Sacro-Iliac Right Moment My	600	+	yes	400
79	11SACRRI00WSMOZA	Sacro-Iliac Right Moment Mz	600	+	yes	400
80	11SACRRI00WSFOXA	Sacro-Iliac Right Force Fx	600	+	yes	6000
81	11SACRRI00WSFOYA	Sacro-Iliac Right Force Fy	600	-	yes	12000
82	11SACRRI00WSFOZA	Sacro-Iliac Right Force Fz	600	-	yes	6000
83	11SACRLE00WSMOXA	Sacro-Iliac Left Moment Mx	600	+	yes	800
84	11SACRLE00WSMOYA	Sacro-Iliac Left Moment My	600	+	yes	400
85	11SACRLE00WSMOZA	Sacro-Iliac Left Moment Mz	600	+	yes	400
86	11SACRLE00WSFOXA	Sacro-Iliac Left Force Fx	600	+	yes	6000
87	11SACRLE00WSFOYA	Sacro-Iliac Left Force Fy	600	-	yes	12000
88	11SACRLE00WSFOZA	Sacro-Iliac Left Force Fz	600	+	yes	6000
89	11FEACLE00WSFOXA	Left Femoral Neck Force Fx	600	-	yes	10000
90	11FEACLE00WSFOYA	Left Femoral Neck Force Fy	600	-	yes	25000
91	11FEACLE00WSFOZA	Left Femoral Neck Force Fz	600	-	yes	10000
92	11FEACRI00WSFOXA	Right Femoral Neck Force Fx	600	-	yes	10000
93	11FEACRI00WSFOYA	Right Femoral Neck Force Fy	600	-	yes	25000
94	11FEACRI00WSFOZA	Right Femoral Neck Force Fz	600	-	yes	10000
95	13HEADCG00WSACXA	Head Longitudinal Ax	1000	+	yes	500
96	13HEADCG00WSACYA	Head Lateral Ay	1000	+	yes	500
97	13HEADCG00WSACZA	Head Vertical Az	1000	+	yes	500
97A	13HEADCG00WSACRA	Head A Resultant	1000			
98	13HEAD0000WSAAXA	Head Rotational Acceleration Rx	1000	+	yes	50000
99	13HEAD0000WSAAYA	Head Rotational Acceleration Ry	1000	-	yes	50000

Command File Test Number 130326 Continued

Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
100	13HEAD000WSAAZA	Head Rotational Acceleration Rz	1000	+	yes	50000
101	13NECKUP00WSFOXA	Neck Upper Force Fx	1000	-	yes	10000
102	13NECKUP00WSFOYA	Neck Upper Force Fy	1000	+	yes	10000
103	13NECKUP00WSFOZA	Neck Upper Force Fz	1000	-	yes	12000
104	13NECKUP00WSMOXA	Neck Upper Moment Mx	600	-	yes	300
105	13NECKUP00WSMOYA	Neck Upper Moment My	600	+	yes	300
106	13NECKUP00WSMOZA	Neck Upper Moment Mz	600	+	yes	200
107	13NECKLO00WSFOXA	Neck Lower Force Fx	1000	+	yes	10000
108	13NECKLO00WSFOYA	Neck Lower Force Fy	1000	+	yes	10000
109	13NECKLO00WSFOZA	Neck Lower Force Fz	1000	-	yes	12000
110	13NECKLO00WSMOXA	Neck Lower Moment Mx	600	+	yes	300
111	13NECKLO00WSMOYA	Neck Lower Moment My	600	+	yes	300
112	13NECKLO00WSMOZA	Neck Lower Moment Mz	600	+	yes	200
113	13SHLDLE00WSACXA	Shoulder Longitudinal Ax	1000	+	yes	500
114	13SHLDLE00WSACYA	Shoulder Lateral Ay	1000	+	yes	500
115	13SHLDLE00WSACZA	Shoulder Vertical Az	1000	+	yes	500
115A	13SHLDLE00WSACRA	Shoulder A Resultant	1000			
116	13SHLDLE00WSFOXA	Shoulder Force Fx	1000	+	yes	5000
117	13SHLDLE00WSFOYA	Shoulder Force Fy	1000	-	yes	10000
118	13SHLDLE00WSFOZA	Shoulder Force Fz	1000	-	yes	5000
119	13SHRILE00WSDSYA	Shoulder Y Disp	600	+	yes	90
120	13THSP0100WSACXA	T1 Longitudinal Ax	180	+	yes	500
121	13THSP0100WSACYA	T1 Lateral Ay	180	+	yes	500
122	13THSP0100WSACZA	T1 Vertical Az	180	+	yes	500
122A	13THSP0100WSACRA	T1 A Resultant	180			
123	13TRRILE01WSACXA	Thorax Rib 1 Longitudinal Ax	1000	+	yes	500
124	13TRRILE01WSACYA	Thorax Rib 1 Lateral Ay	1000	+	yes	500
125	13TRRILE01WSACZA	Thorax Rib 1 Vertical Az	1000	+	yes	500

Command File Test Number 130326 Continued

Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
125A	13TRRILE01WSACRA	Thorax Rib 1 A Resultant	1000			
126	13TRRILE01WSDSYA	Thorax Rib 1 Lateral Disp	600	+	yes	90
127	13TRRILE02WSACXA	Thorax Rib 2 Longitudinal Ax	1000	+	yes	500
128	13TRRILE02WSACYA	Thorax Rib 2 Lateral Ay	1000	+	yes	500
129	13TRRILE02WSACZA	Thorax Rib 2 Vertical Az	1000	+	yes	500
129A	13TRRILE02WSACRA	Thorax Rib 2 A Resultant	1000			
130	13TRRILE02WSDSYA	Thorax Rib 2 Lateral Disp	600	+	yes	90
131	13TRRILE03WSACXA	Thorax Rib 3 Longitudinal Ax	1000	+	yes	500
132	13TRRILE03WSACYA	Thorax Rib 3 Lateral Ay	1000	+	yes	500
133	13TRRILE03WSACZA	Thorax Rib 3 Vertical Az	1000	+	yes	500
133A	13TRRILE03WSACRA	Thorax Rib 3 A Resultant	1000			
134	13TRRILE03WSDSYA	Thorax Rib 3 Lateral Disp	600	+	yes	90
135	13ABRILE01WSACXA	Abdominal Rib 1 Longitudinal Ax	1000	+	yes	2000
136	13ABRILE01WSACYA	Abdominal Rib 1 Lateral Ay	1000	+	yes	500
137	13ABRILE01WSACZA	Abdominal Rib 1 Vertical Az	1000	+	yes	500
137A	13ABRILE01WSACRA	Abdominal Rib 1 A Resultant	1000			
138	13ABRILE01WSDSYA	Abdominal Rib 1 Lateral Disp	600	+	yes	90
139	13ABRILE02WSACXA	Abdominal Rib 2 Longitudinal Ax	1000	+	yes	500
140	13ABRILE02WSACYA	Abdominal Rib 2 Lateral Ay	1000	+	yes	500
141	13ABRILE02WSACZA	Abdominal Rib 2 Vertical Az	1000	+	yes	500
141A	13ABRILE02WSACRA	Abdominal Rib 2 A Resultant	1000			
142	13ABRILE02WSDSYA	Abdominal Rib 2 Lateral Disp	600	+	yes	90
143	13THSP0400WSACXA	T4 Longitudinal Ax	180	+	yes	500
144	13THSP0400WSACYA	T4 Lateral Ay	180	+	yes	500
145	13THSP0400WSACZA	T4 Vertical Az	180	+	yes	500
145A	13THSP0400WSACRA	T4 A Resultant	180			
146	13THSP1200WSACXA	T12 Longitudinal Ax	180	-	yes	500
147	13THSP1200WSACYA	T12 Lateral Ay	180	-	yes	500

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Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
148	13THSP1200WSACZA	T12 Vertical Az	180	-	yes	500
148A	13THSP1200WSACRA	T12 A Resultant	180			
149	13PELVCG00WSACXA	Pelvis Longitudinal Ax	1000	+	yes	500
150	13PELVCG00WSACYA	Pelvis Lateral Ay	1000	+	yes	500
151	13PELVCG00WSACZA	Pelvis Vertical Az	1000	+	yes	500
151A	13PELVCG00WSACRA	Pelvis A Resultant	1000			
152	13PUBC0000WSFOYA	Pubic Force Fy	600	+	yes	12000
153	14HEADCG00WFACXA	Head Longitudinal Ax	1000	+	yes	400
154	14HEADCG00WFACYA	Head Lateral Ay	1000	+	yes	400
155	14HEADCG00WFACZA	Head Vertical Az	1000	-	yes	400
155A	14HEADCG00WFACRA	Head A Resultant	1000			
156	14HEAD0000WFAAXA	Head Rotational Acceleration Rx	1000	+	yes	50000
157	14HEAD0000WFAAYA	Head Rotational Acceleration Ry	1000	+	yes	50000
158	14HEAD0000WFAAZA	Head Rotational Acceleration Rz	1000	+	yes	50000
159	14HEADCG00WFAVXA	Head X-Axis Angular Velocity	1000	+	yes	5000
160	14HEADCG00WFAVYA	Head Y-Axis Angular Velocity	1000	+	yes	5000
161	14HEADCG00WFAVZA	Head Z-Axis Angular Velocity	1000	+	yes	5000
162	14NECKUP00WFFOXA	Neck Upper Force Fx	1000	+	yes	10000
163	14NECKUP00WFFOYA	Neck Upper Force Fy	1000	+	yes	10000
164	14NECKUP00WFFOZA	Neck Upper Force Fz	1000	+	yes	12000
165	14NECKUP00WFMOXA	Neck Upper Moment Mx	600	-	yes	200
166	14NECKUP00WFMOYA	Neck Upper Moment My	600	+	yes	300
167	14NECKUP00WFMOZA	Neck Upper Moment Mz	600	+	yes	200
168	14NECKLO00WFFOXA	Neck Lower Force Fx	1000	+	yes	10000
169	14NECKLO00WFFOYA	Neck Lower Force Fy	1000	+	yes	10000
170	14NECKLO00WFFOZA	Neck Lower Force Fz	1000	+	yes	12000
171	14NECKLO00WFMOXA	Neck Lower Moment Mx	600	+	yes	300
172	14NECKLO00WFMOYA	Neck Lower Moment My	600	+	yes	300

Command File Test Number 130326 Continued

Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
173	14NECKLO00WFM0ZA	Neck Lower Moment Mz	600	+	yes	200
174	14SHLDLE00WFACXA	Shoulder Longitudinal Ax	1000	+	yes	400
175	14SHLDLE00WFACYA	Shoulder Lateral Ay	1000	+	yes	400
176	14SHLDLE00WFACZA	Shoulder Vertical Az	1000	+	yes	400
176A	14SHLDLE00WFACRA	Shoulder A Resultant	1000			
177	14SHLDLE00WFF0XA	Shoulder Force Fx	600	-	yes	4000
178	14SHLDLE00WFF0YA	Shoulder Force Fy	600	+	yes	5000
179	14SHLDLE00WFF0ZA	Shoulder Force Fz	600	-	yes	4000
180	14SHLDLE00WFDSYA	Shoulder Displacement Dy	600	+	yes	102
181	14THSP0100WFACXA	T1 Longitudinal Ax	180	+	yes	400
182	14THSP0100WFACYA	T1 Lateral Ay	180	+	yes	400
183	14THSP0100WFACZA	T1 Vertical Az	180	+	yes	400
183A	14THSP0100WFACRA	T1 A Resultant	180			
184	14TRRILE01WFACXA	Thorax Rib 1 Longitudinal Ax	1000	+	yes	400
185	14TRRILE01WFACYA	Thorax Rib 1 Lateral Ay	1000	+	yes	400
186	14TRRILE01WFACZA	Thorax Rib 1 Vertical Az	1000	+	yes	400
186A	14TRRILE01WFACRA	Thorax Rib 1 A Resultant	1000			
187	14TRRILE01WFDC0A	Thorax Rib 1 IRTRAC compression	600	+	no	110
188	14TRRILE01WFANZA	Thorax Rib 1 Rotational angle	600	+	no	110
189	14TRRILE01WFDSXA	Thorax Rib 1 IRTRAC X Deflection	600	+	no	110
190	14TRRILE01WFDSYA	Thorax Rib 1 IRTRAC Y Deflection	600	+	no	110
191	14TRRILE02WFACXA	Thorax Rib 2 Longitudinal Ax	1000	+	yes	400
192	14TRRILE02WFACYA	Thorax Rib 2 Lateral Ay	1000	+	yes	400
193	14TRRILE02WFACZA	Thorax Rib 2 Vertical Az	1000	+	yes	400
193A	14TRRILE02WFACRA	Thorax Rib 2 A Resultant	1000			
194	14TRRILE02WFDC0A	Thorax Rib 2 IRTRAC compression	600	+	no	110
195	14TRRILE02WFANZA	Thorax Rib 2 Rotational angle	600	+	no	110
196	14TRRILE02WFDSXA	Thorax Rib 2 IRTRAC X Deflection	600	+	no	110

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Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
197	14TRRILE02WFDSYA	Thorax Rib 2 IRTRAC Y Deflection	600	+	no	110
198	14TRRILE03WFACXA	Thorax Rib 3 Longitudinal Ax	1000	+	yes	400
199	14TRRILE03WFACYA	Thorax Rib 3 Lateral Ay	1000	+	yes	400
200	14TRRILE03WFACZA	Thorax Rib 3 Vertical Az	1000	+	yes	400
200A	14TRRILE03WFACRA	Thorax Rib 3 A Resultant	1000			
201	14TRRILE03WFDCOA	Thorax Rib 3 IRTRAC compression	600	+	no	110
202	14TRRILE03WFANZA	Thorax Rib 3 Rotational angle	600	+	no	110
203	14TRRILE03WFDSXA	Thorax Rib 3 IRTRAC X Deflection	600	+	no	110
204	14TRRILE03WFDSYA	Thorax Rib 3 IRTRAC Y Deflection	600	+	no	110
205	14ABRILE01WFACXA	Abdominal Rib 1 Longitudinal Ax	1000	+	yes	400
206	14ABRILE01WFACYA	Abdominal Rib 1 Lateral Ay	1000	+	yes	400
207	14ABRILE01WFACZA	Abdominal Rib 1 Vertical Az	1000	+	yes	400
207A	14ABRILE01WFACRA	Abdominal Rib 1 A Resultant	1000			
208	14ABRILE01WFDCOA	Abdominal Rib 1 IRTRAC compression	600	+	no	110
209	14ABRILE01WFANZA	Abdominal Rib 1 Rotational angle	600	+	no	110
210	14ABRILE01WFDSXA	Abdominal Rib 1 IRTRAC X Deflection	600	+	no	110
211	14ABRILE01WFDSYA	Abdominal Rib 1 IRTRAC Y Deflection	600	+	no	110
212	14ABRILE02WFACXA	Abdominal Rib 2 Longitudinal Ax	1000	+	yes	400
213	14ABRILE02WFACYA	Abdominal Rib 2 Lateral Ay	1000	+	yes	400
214	14ABRILE02WFACZA	Abdominal Rib 2 Vertical Az	1000	+	yes	400
214A	14ABRILE02WFACRA	Abdominal Rib 2 A Resultant	1000			
215	14ABRILE02WFDCOA	Abdominal Rib 2 IRTRAC compression	600	+	no	110
216	14ABRILE02WFANZA	Abdominal Rib 2 Rotational angle	600	+	no	110
217	14ABRILE02WFDSXA	Abdominal Rib 2 IRTRAC X Deflection	600	+	no	110
218	14ABRILE02WFDSYA	Abdominal Rib 2 IRTRAC Y Deflection	600	+	no	110
219	14THSP0400WFACXA	T4 Longitudinal Ax	180	+	yes	400
220	14THSP0400WFACYA	T4 Lateral Ay	180	+	yes	400

Command File Test Number 130326 Continued

Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
221	14THSP0400WFACZA	T4 Vertical Az	180	+	yes	400
221A	14THSP0400WFACRA	T4 A Resultant	180			
222	14THSP1200WFACXA	T12 Longitudinal Ax	180	+	yes	400
223	14THSP1200WFACYA	T12 Lateral Ay	180	+	yes	400
224	14THSP1200WFACZA	T12 Vertical Az	180	+	yes	400
224A	14THSP1200WFACRA	T12 A Resultant	180			
225	14PELV0000WFACXA	Pelvis Longitudinal Ax	180	+	yes	400
226	14PELV0000WFACYA	Pelvis Lateral Ay	180	-	yes	400
227	14PELV0000WFACZA	Pelvis Vertical Az	180	+	yes	400
227A	14PELV0000WFACRA	Pelvis A Resultant	180			
228	14PUBC0000WFFOYA	Pubic Force Fy	600	-	yes	12000
229	11VEHCCG0000ACXA	Vehicle CG (X)	60	+	yes	2000
230	11VEHCCG0000ACYA	Vehicle CG (Y)	60	+	yes	2000
231	11VEHCCG0000ACZA	Vehicle CG (Z)	60	+	yes	2000
231A	11VEHCCG0000ACRA	Vehicle CG Resultant	60			
232	11SILBRIFR00ACXA	Right Front Sill at Front Seat (X)	60	+	yes	2000
233	11SILBRIFR00ACYA	Right Front Sill at Front Seat (Y)	60	+	yes	2000
234	11SILBRIFR00ACZA	Right Front Sill at Front Seat (Z)	60	+	yes	2000
234A	11SILBRIFR00ACRA	Right Front Sill at Front Seat Resultant	60			
235	11SILBRIRE00ACXA	Right Rear Sill at Rear Seat (X)	60	+	yes	2000
236	11SILBRIRE00ACYA	Right Rear Sill at Rear Seat (Y)	60	+	yes	2000
237	11SILBRIRE00ACZA	Right Rear Sill at Rear Seat (Z)	60	+	yes	2000
237A	11SILBRIRE00ACRA	Right Rear Sill at Rear Seat Resultant	60			
238	11SILBLEFR00ACYA	Left Side Sill at Front Seat (Y)	60	+	yes	2000
239	11SILBLERE00ACYA	Left Side Sill at Rear Seat (Y)	60	+	yes	2000
240	11APILLO0000ACYA	Left Lower A Post (Y)	60	+	yes	2000
241	11APILMI0000ACYA	Left Middle A-Post (Y)	60	+	yes	2000

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Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
242	11BPILLO0000ACYA	Left Lower B Post (Y)	60	+	yes	2000
243	11BPILMI0000ACYA	Left Middle B Post (Y)	60	+	yes	2000
244	11SETR000000ACYA	Front Seat Track (Y)	60	+	yes	2000
245	11SETRLERE00ACYA	LEFT REAR SEAT STRUCTURE AY	60	+	yes	2000
246	11VEHCRIRE00ACYA	RIGHT REAR OCCUPANT COMPARTMENT AY	60	+	yes	2000
247	11ENGNTPO000ACXA	ENGINE BLOCK AX	60	+	yes	2000
248	11ENGNTPO000ACYA	ENGINE BLOCK AY	60	+	yes	2000
249	11FORA000000ACXA	Rear Floor Pan Above Axle (X)	60	+	yes	2000
250	11FORA000000ACYA	Rear Floor Pan Above Axle (Y)	60	+	yes	2000
251	11FORA000000ACZA	Rear Floor Pan Above Axle (Z)	60	+	yes	2000
251A	11FORA000000ACRA	Rear Floor Pan Above Axle Resultant	60			
252	11VEHCEDR000ACXA	Vehicle at EDR (X)	60	+	yes	2000
253	11VEHCEDR000ACYA	Vehicle at EDR (Y)	60	+	yes	2000
254	11VEHCEDR000ACZA	Vehicle at EDR (Z)	60	+	yes	2000
254A	11VEHCEDR000ACRA	Vehicle at EDR Resultant	60			
255	10FORARD0000ACXA	REAR DECK AX	60	+	yes	2000
256	10FORARD0000ACYA	REAR DECK AY	60	+	yes	2000
257	10FORARD0000ACZA	REAR DECK AZ	60	+	yes	2000
257A	10FORARD0000ACRA	REAR DECK A Resultant	60			
258	10VEHCCG0000AVXA	VEHICLE CENTER OF GRAVITY (X) ROLL RATE GYRO	60	+	yes	1500
259	10VEHCCG0000AVYA	VEHICLE CENTER OF GRAVITY (Y) PITCH RATE GYRO	60	+	yes	1500
260	10VEHCCG0000AVZA	VEHICLE CENTER OF GRAVITY (Z) YAW RATE GYRO	60	+	yes	1500
261	10VEHCEDR000AVXA	VEHICLE AT EDR (X) ROLL RATE GYRO	60	+	yes	1500
262	10VEHCEDR000AVYA	VEHICLE AT EDR (Y) PITCH RATE GYRO	60	+	yes	1500
263	10VEHCEDR000AVZA	VEHICLE AT EDR (Z) YAW RATE GYRO	60	+	yes	1500
264	10FORARD0000AVXA	REAR DECK (X) ROLL RATE GYRO	60	+	yes	1500

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Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
265	10FORARD0000AVYA	REAR DECK (Y) PITCH RATE GYRO	60	+	yes	1500
266	10FORARD0000AVZA	REAR DECK (Z) YAW RATE GYRO	60	+	yes	1500
267	11DOORMIMI71ACYA	Left Front Door Mid Centerline (Y)	60	+	yes	2000
268	11DOORMIRE71ACYA	Left Front Door Mid Rear (Y)	60	+	yes	2000
269	11DOORMIUP71ACYA	Left Front Door Upper Centerline (Y)	60	+	yes	2000
270	14DOORMIRE71ACYA	Left Rear Door Mid Rear (Y)	60	+	yes	2000
271	14DOORMIUP71ACYA	Left Rear Door Upper Centerline (Y)	60	+	yes	2000
272	11SENS010000VO00	Driver SAB Timing Ind.	0	+	no	5
273	11SENS020000VO00	Driver SCAB Timing Ind.	0	+	no	5
274	13SENS010000VO00	Front Pass. SAB Timing Ind.	0	+	no	5
275	13SENS020000VO00	Front Pass. SCAB Timing Ind.	0	+	no	5
276	11HEADCONT00VO0A	Inboard Head Contact	1000	+	no	1
277	11HEADCONT01VO0A	Outboard Head Contact	1000	+	no	1
278	11SHLDCONT00VO0A	Shoulder Contact	1000	+	no	1
279	11THORCONT00VO0A	Thorax Contact	1000	+	no	1
280	11LEGCONT000VO0A	Leg Contact	1000	+	no	1
281	11PELVFR00WSVO00	Pelvis Internal Front Contact	0	+	no	1
282	11PELVTPREWSVO00	Pelvis Internal Top Rear Contact	0	+	no	1
283	11PELVBOREWSVO00	Pelvis Internal Bottom Rear Contact	0	+	no	1
284	13HEADCONT00VO0A	Inboard Head Contact	1000	+	no	1
285	13HEADCONT01VO0A	Outboard Head Contact	1000	+	no	1
286	13SHLDCONT00VO0A	Shoulder Contact	1000	+	no	1
287	13THORCONT00VO0A	Thorax Contact	1000	+	no	1
288	13LEGCONT000VO0A	Leg Contact	1000	+	no	1
289	14HEADCONT00VO0A	Head Contact	1000	+	no	1
290	14SHLDCONT00VO0A	Shoulder Contact	1000	+	no	1
291	14THORCONT00VO0A	Thorax Contact	1000	+	no	1

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Channel	ISO mnemonic	Channel Title	Filter	Flip	Zero	Full Scale
292	14LEGCONT000VO0A	Leg Contact	1000	+	no	1
293	M0MBARCG0000ACXA	MDB CG AX	60	+	yes	2000
294	M0MBARCG0000ACYA	MDB CG AY	60	+	yes	2000
295	M0MBARCG0000ACZA	MDB CG AZ	60	+	yes	2000
295A	M0MBARCG0000ACRA	MDB CG A Resultant	60			
296	M0FRAMRE0000ACXA	MDB REAR AX	60	+	yes	2000
297	M0FRAMRE0000ACYA	MDB REAR AY	60	+	yes	2000

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