

REPORT NUMBER: 201UI-CAL-09-08

**SAFETY COMPLIANCE TESTING FOR FMVSS 201  
OCCUPANT PROTECTION IN INTERIOR IMPACT  
UPPER INTERIOR HEAD IMPACT PROTECTION**

**FORD MOTOR COMPANY  
2010 FORD FUSION HYBRID**

NHTSA NUMBER: CA0200

CALSPAN TEST NUMBER: 8877-08

CALSPAN  
TRANSPORTATION SCIENCES CENTER  
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BUFFALO, NEW YORK 14225



Test Date: June 3, 2009

FINAL REPORT

PREPARED FOR:

U. S. DEPARTMENT OF TRANSPORTATION  
National Highway Traffic Safety Administration  
Enforcement  
Office of Vehicle Safety Compliance  
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16. <i>Abstract</i>  Compliance tests were conducted on the subject vehicle, a 2010 Ford Fusion Hybrid, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure TP-201U-01 for determination of FMVSS 201 compliance. Test failures identified were as follows in the table below:																							
<table border="1"> <thead> <tr> <th>Target Point</th> <th>Horizontal</th> <th>Vertical</th> <th>Velocity</th> <th>HIC</th> <th>HICd</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>None</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>						Target Point	Horizontal	Vertical	Velocity	HIC	HICd	None	-	-	-	-	-	None	-	-	-	-	-
Target Point	Horizontal	Vertical	Velocity	HIC	HICd																		
None	-	-	-	-	-																		
None	-	-	-	-	-																		
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## **SECTION 1**

### **PURPOSE AND TEST PROCEDURE**

This head impact compliance test is part of the FMVSS 201 Upper Interior Head Impact Protection Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-04-C-01027. The purpose of this head impact compliance test was to determine whether the subject vehicle, a 2010 Ford Fusion Hybrid, NHTSA No. CA0200, meets the performance requirements of FMVSS 201, Occupant Protection in Interior Impact. The compliance test was conducted in accordance with the OVSC Laboratory Test Procedure No. TP-201U-01 dated April\_03, 1998.

## SECTION 2

### SUMMARY OF UPPER INTERIOR HEAD IMPACTS

A 2010 Ford Fusion Hybrid , NHTSA No. CA0200 , was tested at various upper interior locations by a 4.54 kg 50<sup>th</sup> percentile headform. A total of twelve (12) impacts were performed in this test series. The target area impacts were chosen by the NHTSA Contracting Officer's Technical Representative (COTR). A summary of test results can be found on Data Sheet 2-1, Summary of Upper Interior Head Impact Tests. The twelve (12) area chosen for testing were:

RP1	SR3	URRP	BP4	BP1
SR2A	AP3	AP1	RP2	BP2
URBP	AP2			

The selected impact areas on the test vehicle appeared to comply with the performance requirements of FMVSS 201.

Five Free Motion Headforms (FMH) were used in this test series. All five FMH's were calibrated prior to and after the test series. Calibration information are included in Appendix B. Each FMH weighed  $4.54 \pm 0.5$  kg and had an orthogonal tri-axis accelerometer pack mounted at the headform's center of gravity (c.g.).

A total of three (3) channels of data for each test were recorded on a Keyser-Threde data acquisition system. Data plots, along with still images, can be found in Section 3, Summary of Test Results and Data Plots.

To document each target area impact test, a Weinberger high-speed video camera was placed at an appropriate location to record the headform contact with the selected target area.

**DATA SHEET 2-1**  
**SUMMARY OF UPPER INTERIOR HEAD IMPACT TESTS**

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09 (SEE CERTIFICATION LABEL)
COLOR:	Black

TARGET CODE	Target Coordinates						Approach Angles (degrees)		Velocity (kph)	FMH HIC	HIC(d)
	Driver Side			Passenger Side			Horizontal	Vertical			
	X(mm)	Y(mm)	Z(mm)	X(mm)	Y(mm)	Z(mm)					
AP1	2157.724	-516.343	1471.584	2158.7163	518.8134	1472.278	Relocated 2 circles		-	-	-
AP1 R2	2164.89	-537.334	1435.878	2163.5716	538.7278	1437.499	117°	25°	18.59	179.5	301.8
AP2	2071.539	-573.589	1384.735	2067.7665	575.0212	1382.866	223°	50°	18.76	384.4	456.4
AP3	1880.555	-611.609	1302.905	1884.3871	612.0926	1303.126	138°	45°	18.63	340.9	423.6
FH1	2080.061	-399.251	1480.049	2075.8464	402.0757	1480.764	-	-	-	-	-
FH2	2061.865	-252.884	1482.413	2056.8564	258.4667	1484.494	Relocated 1 circle		-	-	-
FH2 R1	2062.375	-275.337	1481.056	2057.0096	281.5303	1482.698	-	-	-	-	-
SR1	2309.381	-483.467	1474.524	2307.2997	488.1655	1470.197	-	-	-	-	-
SR2A	2459.854	-478.935	1486.433	2458.2734	479.343	1483.365	90°	43°	18.74	382.6	455.0
SR2B	2353.826	-499.188	1505.218	2351.9488	499.8324	1502.517	Relocated 2 circles		-	-	-
SR2B R2	2334.479	-463.583	1485.309	2325.8574	482.2197	1472.901	-	-	-	-	-
BP1	2655.73	-487.726	1502.243	2653.9718	488.4728	1499.09	90°	20°	18.56	457.7	511.7
BP2	2620.688	-603.125	1277.053	2619.4166	604.6007	1276.996	270°	0°	23.41	581.2	604.9
BP3	2571.619	-620.657	1304.244	2569.0903	622.7615	1302.668	-	-	-	-	-
BP4	2669.587	-662.125	1206.821	2667.6393	664.8119	1204.816	143°	-10°	23.63	647.9	655.2
SR3	3017.914	-503.19	1482.9	3014.823	499.7517	1482.256	90°	39°	18.71	339.9	422.9
RP1	3454.185	-498.74	1458.264	3451.37	498.3255	1456.4	78°	13°	23.72	669.9	671.8
RP2	3477.906	-593.997	1308.433	3473.5392	596.7962	1308.529	Relocated 2 circles		-	-	-
RP2 R2	3466.886	-566.853	1352.358	3462.3643	570.7982	1351.172	277°	10°	18.85	187.6	308.0
RH	3456.479	-360.992	1501.249	3445.9095	365.2566	1500.735	-	-	-	-	-
URAP	2303.716	-370.559	1512.436	2302.7104	384.6788	1510.609	-	-	-	-	-
URFSR	2455.563	-370.108	1543.466	2461.7716	365.7966	1542.64	-	-	-	-	-
URBP	2656.074	-347.513	1541.561	2654.3817	365.0856	1537.493	270°	50°	23.81	664.2	667.5
URRSR	3099.729	-359.844	1547.029	3096.1802	380.9977	1539.551	-	-	-	-	-
URRP	3294.174	-357.494	1548.256	3313.0551	382.274	1541.034	40°	50°	23.81	679.9	679.3

\*HIC(d)=0.75446(Free Motion Headform HIC)+166.4



**DATA SHEET 2-2**

**GENERAL TEST AND VEHICLE PARAMETER DATA**

<b>TEST VEHICLE INFORMATION:</b>									
Year/Make/Model/Body Style:				2010 Ford Fusion Hybrid					
VIN:				3FADP0L38AR132742					
Month & Year of Manufacture:				04/09 (SEE CERTIFICATION LABEL)					
Vehicle Body Color:				Black					
Engine Data:	4	Cylinders;	-	CID;	2.5	Liters;	-	cc	
Engine Placement:		x	Longitudinal;	or		-	Lateral		
Transmission:	CVT	Speed;	-	Manual;	x	Automatic;	-	Overdrive	
Final Drive:	-	Rear Wheel Drive;	x	Front Wheel Drive;	-	Four Wheel Drive			
Odometer Reading:		77	km						
Options:	x	A/C;	x	Power Steering;	x	Pwr.Brakes;	x	Pwr. Windows	
Interior Trim Information :									
1. Adjustable seat belt anchorages on both B-pillars – Has 0-3 detents : placed in detent 1 from 0.									
2. Side rails had grab handles attached to all outboard seating positions									
3. Normal roof vehicle									

<b>DATA FROM TIRE PLACARD:</b>									
Tire Pressure (at capacity);				230		kPa FRONT			
				230		kPa REAR			
Recommended Tire Size:				P225/50R17					
Tires on Test Vehicle:		P225/50R17		Manufacturer:			Michelin		
Vehicle Capacity Data:									
Number of Occupants:	2	Front;	3	Rear;	-	3rd Seat;	5	Total	
Type of Front Seats:	x	Bucket;	-	Bench;	-	Split Bench			
Type of Front Seat Back:	-	Fixed;	x	Adjustable with	x	Lever or	-	Knob	
Vehicle Capacity Weight (VCW)=				385		kg (A)			
No. of Occupants x 68 kg. =				340		kg (B)			
Rated Cargo/Luggage Weight (RCLW) =				45.0		kg (A-B) Max. RCLW = 136 kg.			

**DATA SHEET 2-2**

**GENERAL TEST AND VEHICLE PARAMETER DATA (cont.)**

<b>TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:</b>							
Left Front	=	<b>497.0</b>	<b>kg</b>	Left Rear	=	<b>330.5</b>	<b>kg</b>
Right Front	=	<b>512.0</b>	<b>kg</b>	Right Rear	=	<b>345.5</b>	<b>kg</b>
TOTAL FRONT	=	<b>1009.0</b>	<b>kg</b>	TOTAL REAR	=	<b>676.0</b>	<b>kg</b>
% of Total Weight	=	<b>59.9%</b>	<b>%</b>	% of Total Weight	=	<b>40.1%</b>	<b>%</b>
TOTAL WEIGHT	=	<b>1685.0</b>				<b>kg</b>	

<b>CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:</b>		
Total Test Vehicle Delivered Weight=	<b>1685.0</b>	kg (A)
+ Rated Cargo/Luggage Weight =	<b>45.0</b>	kg (B)
TEST VEHICLE TARGET WEIGHT =	<b>1730.0</b>	kg (A+B)

<b>WEIGHT OF TEST VEHICLE (FULLY LOADED):</b>							
Left Front	=	<b>494.5</b>	<b>kg</b>	Left Rear	=	<b>351.0</b>	<b>kg</b>
Right Front	=	<b>510.5</b>	<b>kg</b>	Right Rear	=	<b>367.0</b>	<b>kg</b>
TOTAL FRONT	=	<b>1005.0</b>	<b>kg</b>	TOTAL REAR	=	<b>718.0</b>	<b>kg</b>
% of Total Weight	=	<b>58.3%</b>	<b>%</b>	% of Total Weight	=	<b>41.7%</b>	<b>%</b>
TOTAL TEST WEIGHT	=	<b>1723.0</b>					
Weight of vehicle secured in test vehicles cargo area	=	<b>38.0</b>				<b>kg</b>	

<b>TEST VEHICLE ATTITUDE (all dimensions in millimeters):</b>				
AS DELIVERED:	Left Front	<b>740</b>	Left Rear	<b>738</b>
	Right Front	<b>733</b>	Right Rear	<b>741</b>
FULLY LOADED:	Left Front	<b>738</b>	Left Rear	<b>732</b>
	Right Front	<b>731</b>	Right Rear	<b>735</b>
Test Vehicle Wheelbase:	<b>2728</b>		millimeters	

<b>TEST VEHICLE PITCH AND ROLL ANGLES:</b>				
AS DELIVERED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	<b>↑0.8↓</b>	Front Bumper	<b>↓0.1↑</b>
	Right Door Sill	<b>↓0.6↑</b>	Rear Bumper	<b>↓0.1↑</b>
FULLY LOADED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	<b>↑0.6↓</b>	Front Bumper	<b>↓0.1↑</b>
	Right Door Sill	<b>↓0.5↑</b>	Rear Bumper	<b>↓0.1↑</b>
AS TESTED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	<b>↑0.6↓</b>	Front Bumper	<b>↓0.1↑</b>
	Right Door Sill	<b>↓0.6↑</b>	Rear Bumper	<b>↓0.1↑</b>

DATA SHEET 2-3

APPROACH ANGLE LIMITS

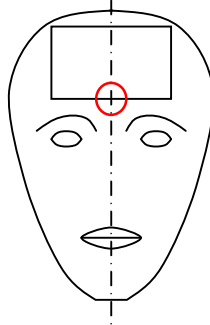
Target Code	Left Side				Target Code	Right Side			
	Horizontal Angles (deg.)		Vertical Angles (deg.)			Horizontal Angles (deg.)		Vertical Angles (deg.)	
	Minimum	Maximum	Minimum	Maximum		Minimum	Maximum	Minimum	Maximum
AP1	207	254	-5	25	AP1	106	153	-5	25
AP2	207	254	-5	50	AP2	106	153	-5	50
AP3	207	254	-5	45	AP3	106	153	-5	45
BP1	202	279	-10	21	BP1	81	158	-10	21
BP2	ANY		0	0	BP2	ANY		0	0
BP3	202	279	-10	-5	BP3	81	158	-10	-5
BP4	202	279	-10	-10	BP4	81	158	-10	-10
RP1	270	345	-10	13	RP1	15	90	-10	13
RP2	270	345	-10	10	RP2	15	90	-10	10
FH1	180		0	50	FH1	180		0	50
FH2	180		0	50	FH2	180		0	50
RH	360		0	50	RH	0		0	50
SR1	270		0	43	SR1	90		0	43
SR2A	270		0	43	SR2A	90		0	43
SR2B	270		0	43	SR2B	90		0	43
SR3	270		0	39	SR3	90		0	39
URAP	ANY		0	50	URAP	ANY		0	50
URBP	ANY		0	50	URBP	ANY		0	50
URRP	ANY		0	50	URRP	ANY		0	50

Note : BP2 target location – Seat belt anchorage

**DATA SHEET 2-4**

**SUMMARY TARGET IMPACT LOCATION ON FMH**

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black



ã RIGHT SIDE OF FACE

TARGET	Distance Above Point 0 (mm)	Distance Over From Pt. O (mm)
RP1	47	0
SR3	31	0
URRP	34	4R
BP4	30	5L
BP1	47	0
SR2A	24	1R
AP3	8	7L
AP1	13	33R
RP2	19	0
BP2	19	4L
URBP	37	4L
AP2	16	1R

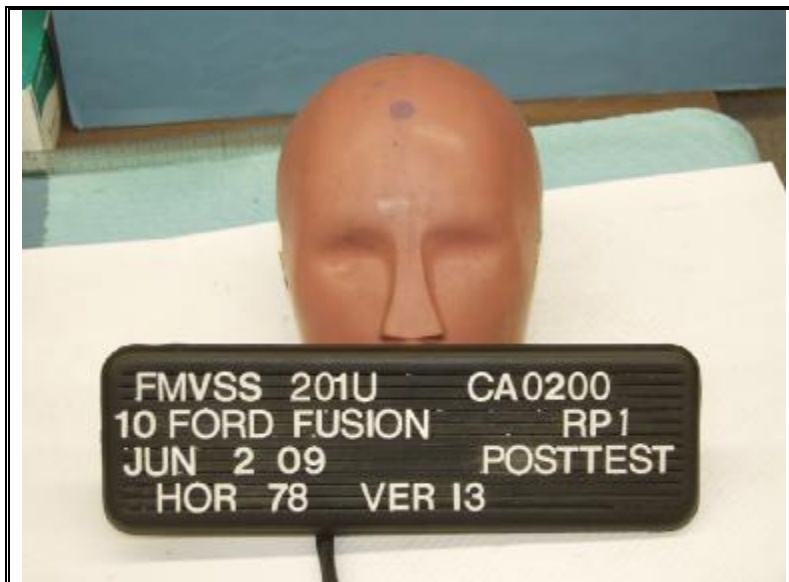
**SECTION 3**

**SUMMARY OF TEST RESULTS AND DATA PLOTS**

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	01
Test Date:	06/02/09
Target Location:	REAR PILLAR
Target Code:	RP1
Horizontal Impact Angle:	78°
Vertical Impact Angle:	13°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	10:30
Headform Number:	1142

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	0	<input type="checkbox"/>	mm right <input type="checkbox"/> mm left
On Centerline	47		mm up



POST-IMPACT RP1 HEADFORM

Free Motion HIC	669.9
HIC(d)	671.8
Impact Velocity (kph)	23.72
HIC T1 (msec)	3.4
HIC T2 (msec)	11.4

# FMVSS 201U 2010 FORD FUSION CA0200 - RP1

FMH Headform 1142

Location: RP1

Test Date: June 02, 2009

Work File: RP1

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 671.8

Lab Humidity: 42 %

HIC (36ms): 669.9

Velocity at Impact: 23.72 KPH

t1: 3.4 msec

t2: 11.4 msec

Free Flight Distance: 223.83 mm

Duration: 7.9 msec

Average Acceleration: 11.1 g

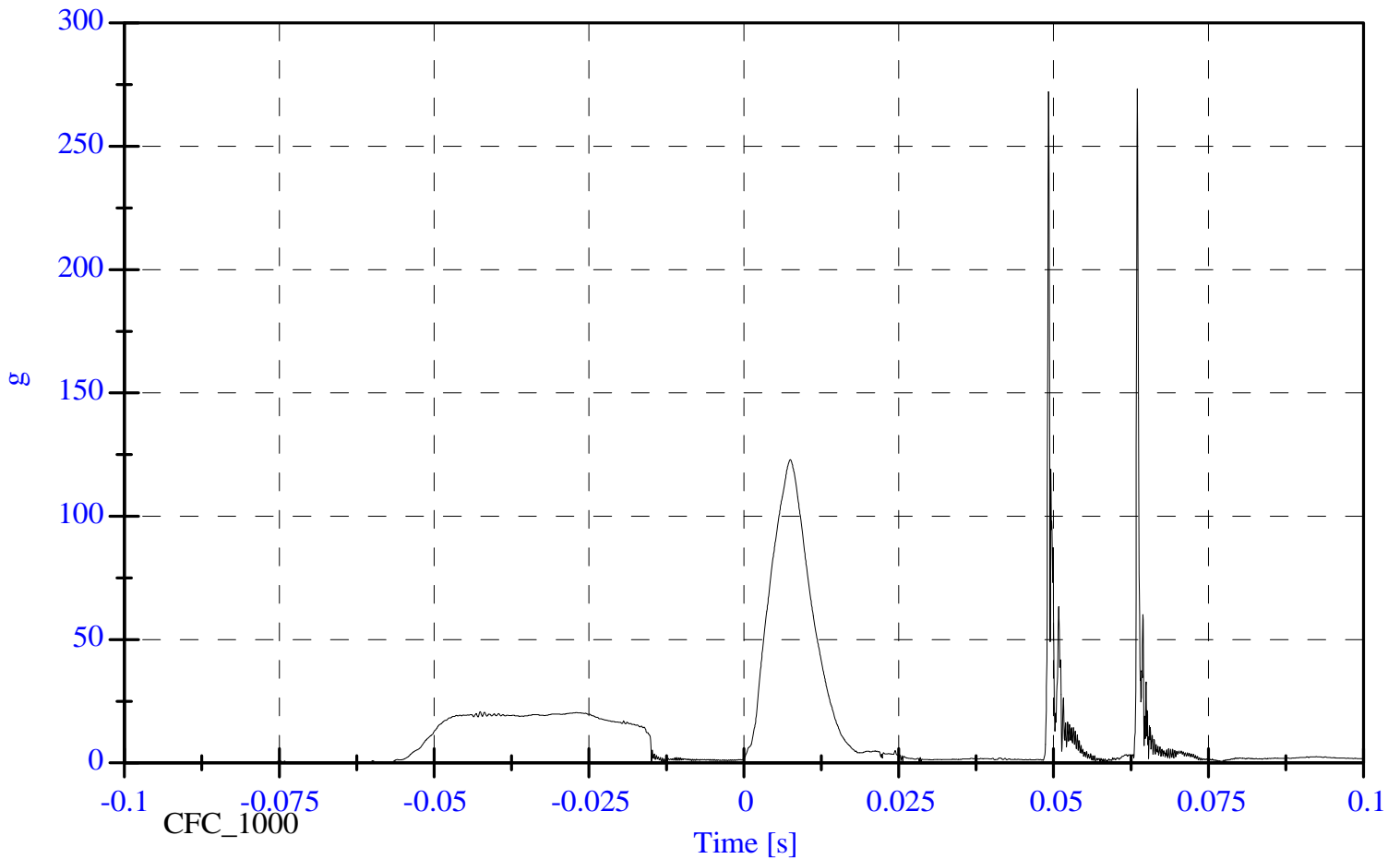
Maximum: 123.0 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 123.0 [g] at 0.007 [s]

Min: 0.0 [g] at -0.078 [s]



FMVSS 201U 2010 FORD FUSION

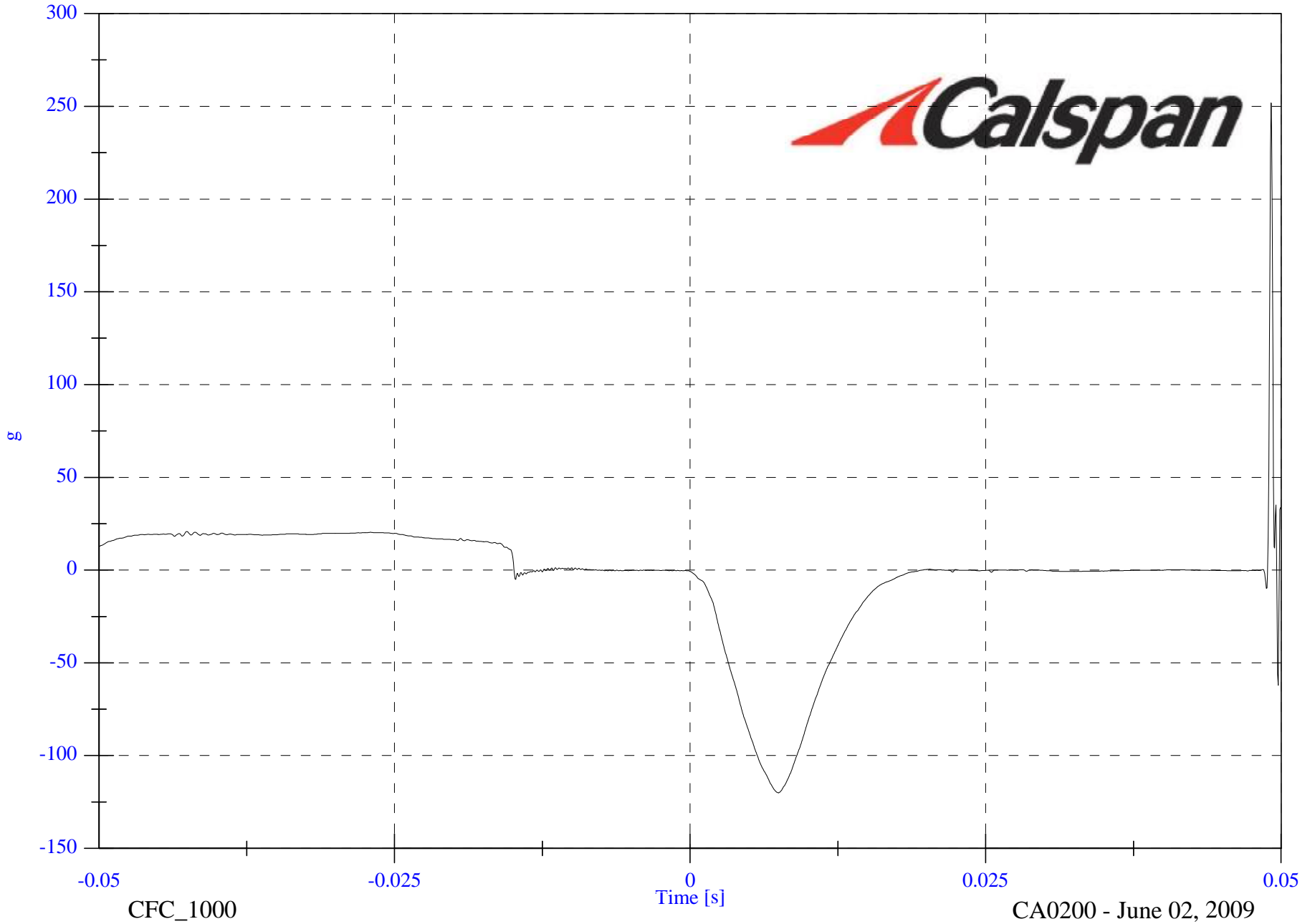
Headform X Acceleration

Max: 251.8 [g] at 0.049 [s]

Min: -120.1 [g] at 0.007 [s]



CA0200 PASSENGER SIDE RP1 IMPACT PLOT #1



CFC\_1000

CA0200 - June 02, 2009



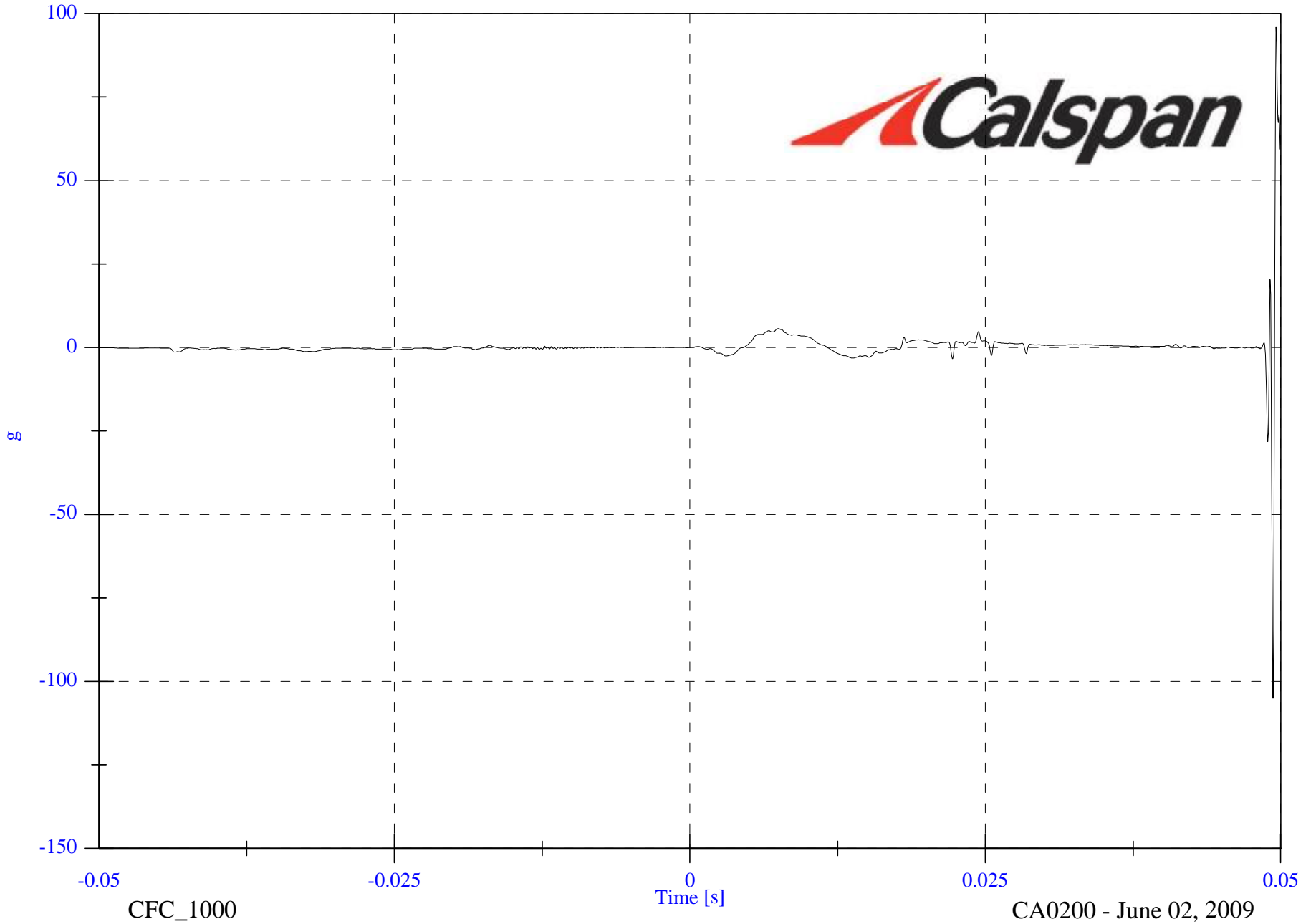
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 96.1 [g] at 0.050 [s]  
Min: -105.1 [g] at 0.049 [s]



CA0200 PASSENGER SIDE RP1 IMPACT PLOT #2



CFC\_1000

CA0200 - June 02, 2009

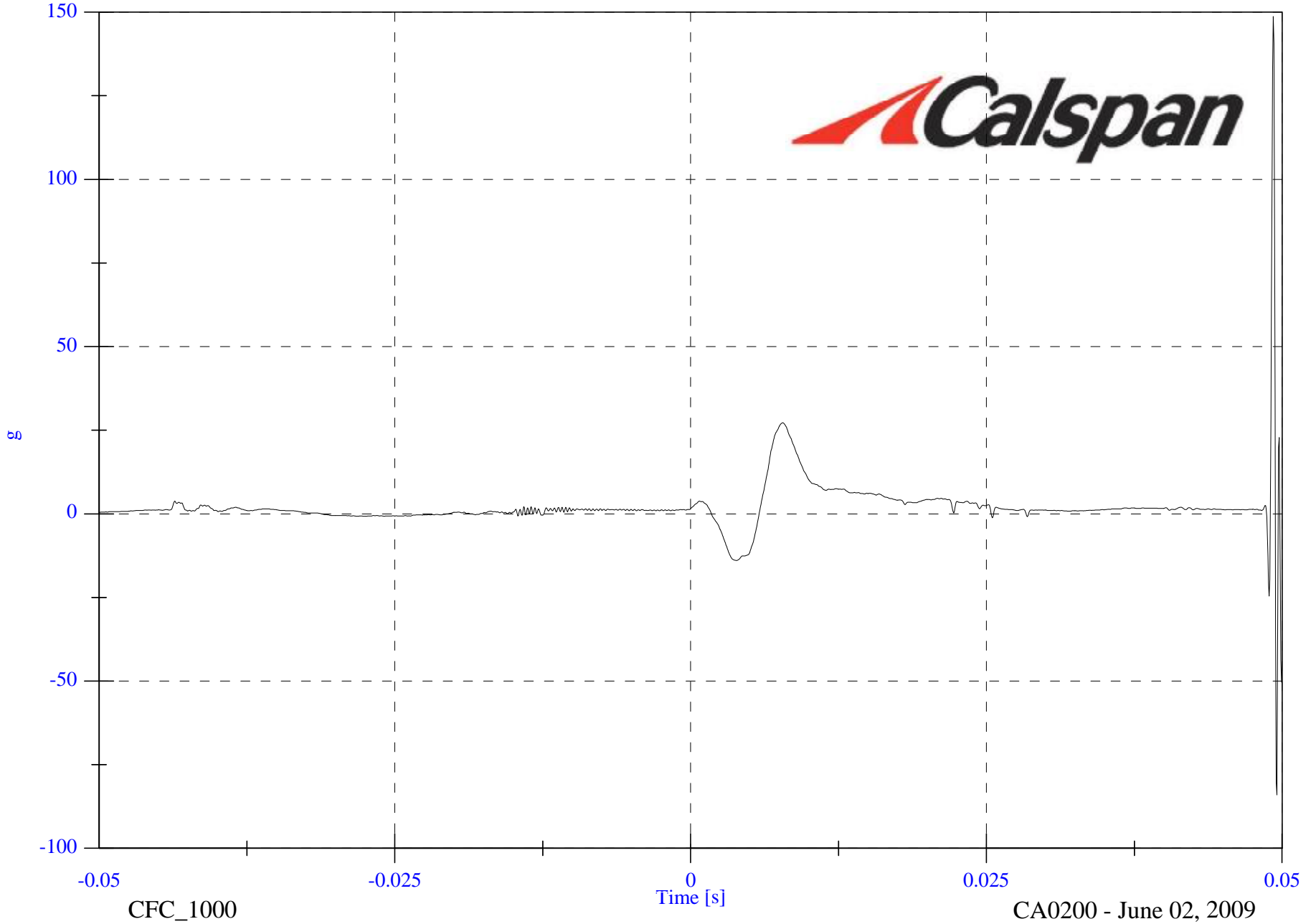
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 148.7 [g] at 0.049 [s]

Min: -84.1 [g] at 0.050 [s]

CA0200 PASSENGER SIDE RP1 IMPACT PLOT #3



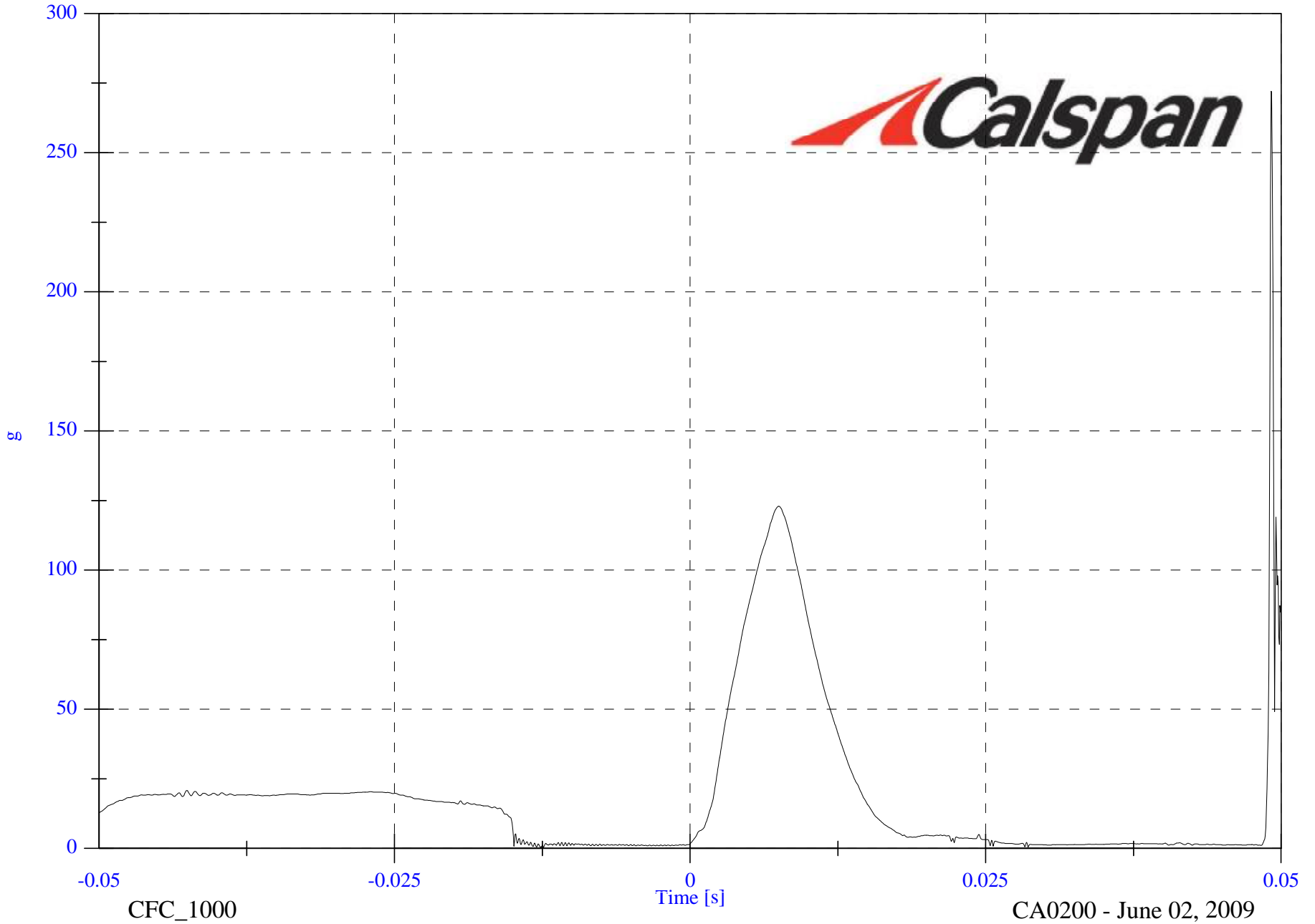
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 272.1 [g] at 0.049 [s]

Min: 0.3 [g] at -0.012 [s]

CA0200 PASSENGER SIDE RP1 IMPACT PLOT #4



CFC\_1000

CA0200 - June 02, 2009

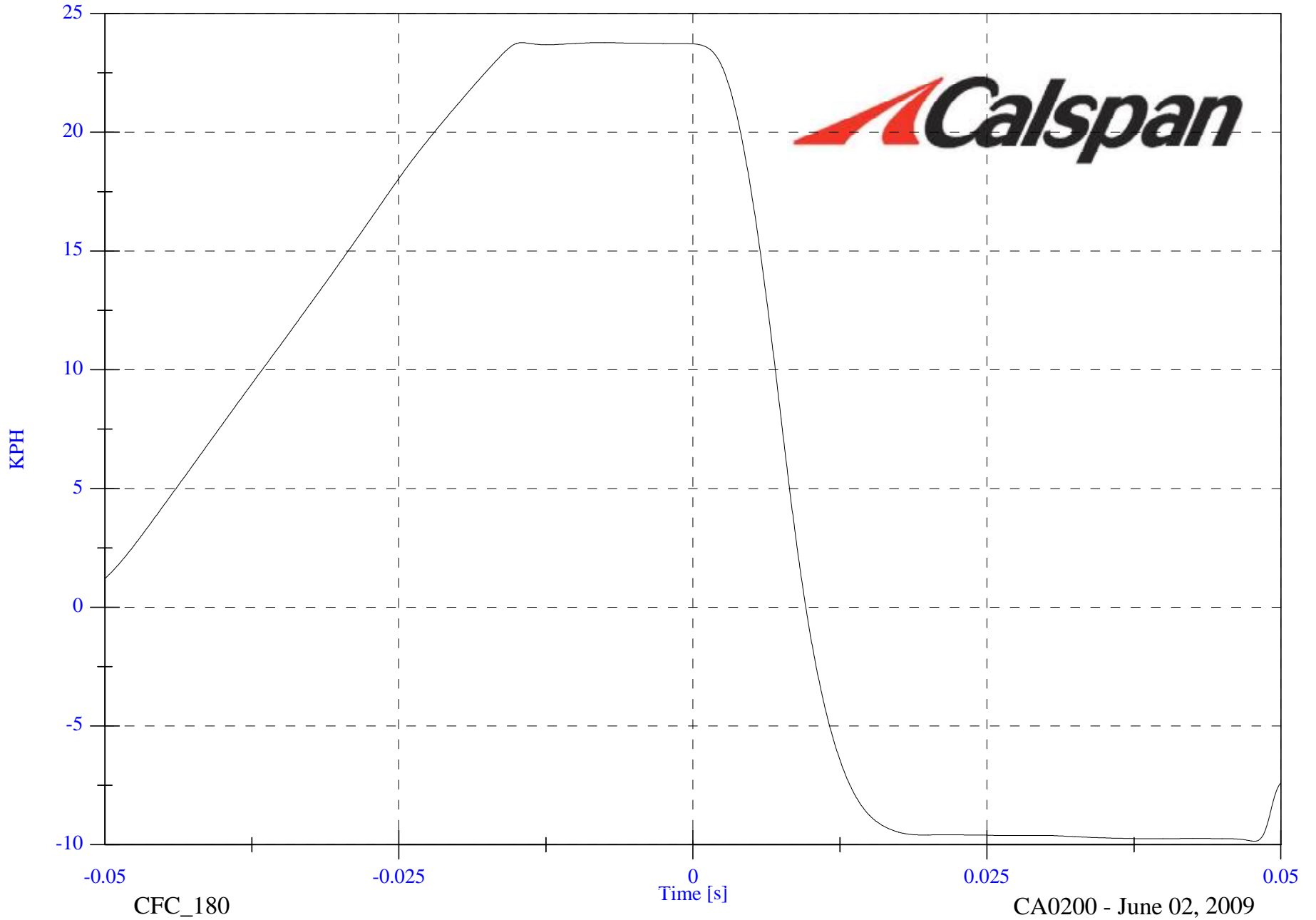
FMVSS 201U 2010 FORD FUSION

Max: 23.8 [KPH] at -0.015 [s]

Min: -9.9 [KPH] at 0.048 [s]

Headform Velocity

CA0200 PASSENGER SIDE RP1 IMPACT PLOT #5



CFC\_180

CA0200 - June 02, 2009



PRE-IMPACT RP1



POST-IMPACT RP1

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	02
Test Date:	06/02/09
Target Location:	SIDE RAIL
Target Code:	SR3
Horizontal Impact Angle:	90°
Vertical Impact Angle:	39°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	11:00
Headform Number:	1140

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	0	<input type="checkbox"/>	mm right <input type="checkbox"/> mm left
On Centerline	31		mm up



POST-IMPACT SR3 HEADFORM

Free Motion HIC	339.9
HIC(d)	422.9
Impact Velocity (kph)	18.71
HIC T1 (msec)	1.8
HIC T2 (msec)	9.2

# FMVSS 201U 2010 FORD FUSION CA0200 - SR3

FMH Headform 1140

Location: SR3

Test Date: June 02, 2009

Work File: SR3

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 422.9

Lab Humidity: 42 %

HIC (36ms): 339.9

Velocity at Impact: 18.71 KPH

t1: 1.8 msec

t2: 9.2 msec

Free Flight Distance: 219.24 mm

Duration: 7.4 msec

Average Acceleration: 7.1 g

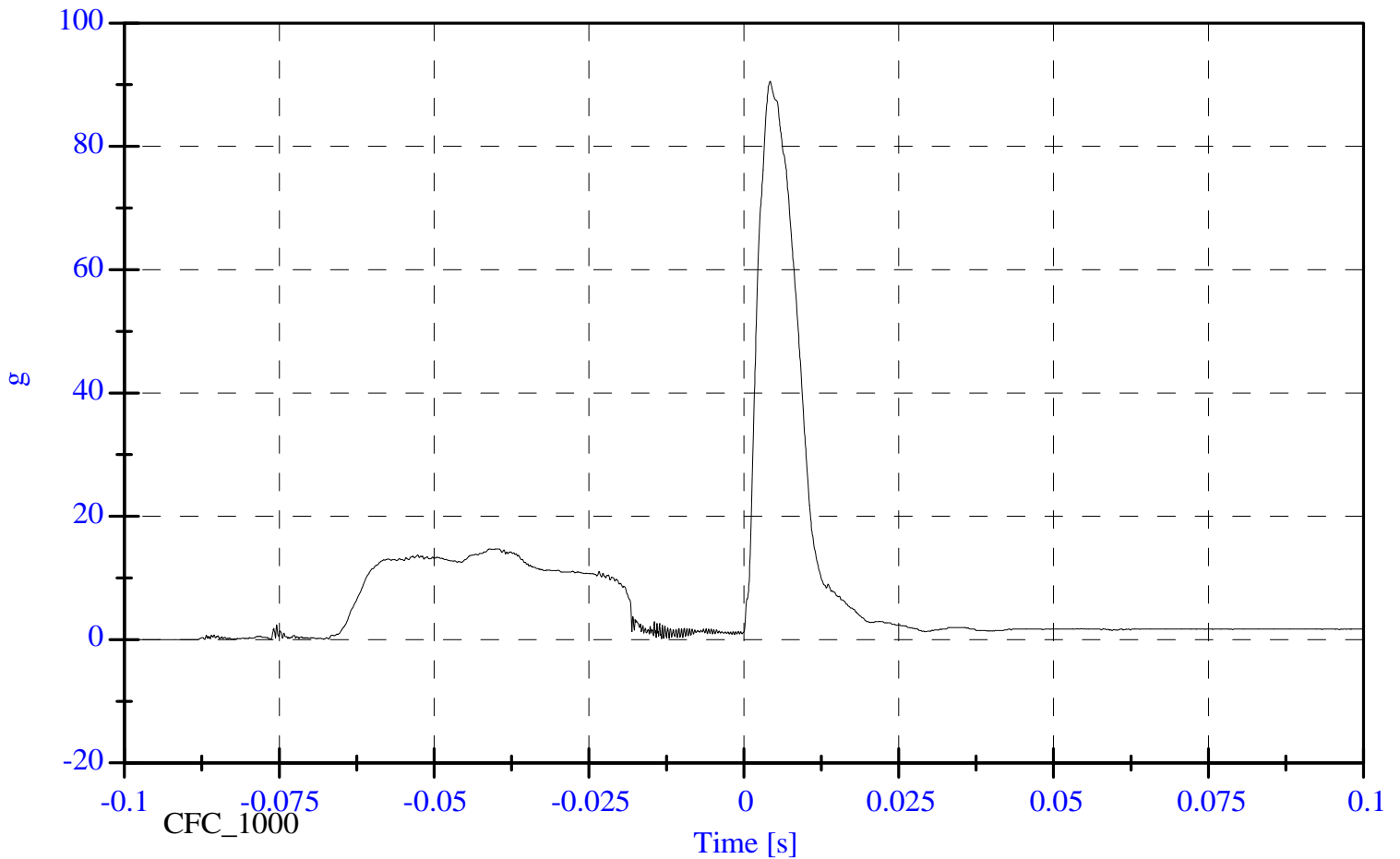
Maximum: 90.6 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 90.6 [g] at 0.004 [s]

Min: -0.0 [g] at -0.099 [s]





FMVSS 201U 2010 FORD FUSION

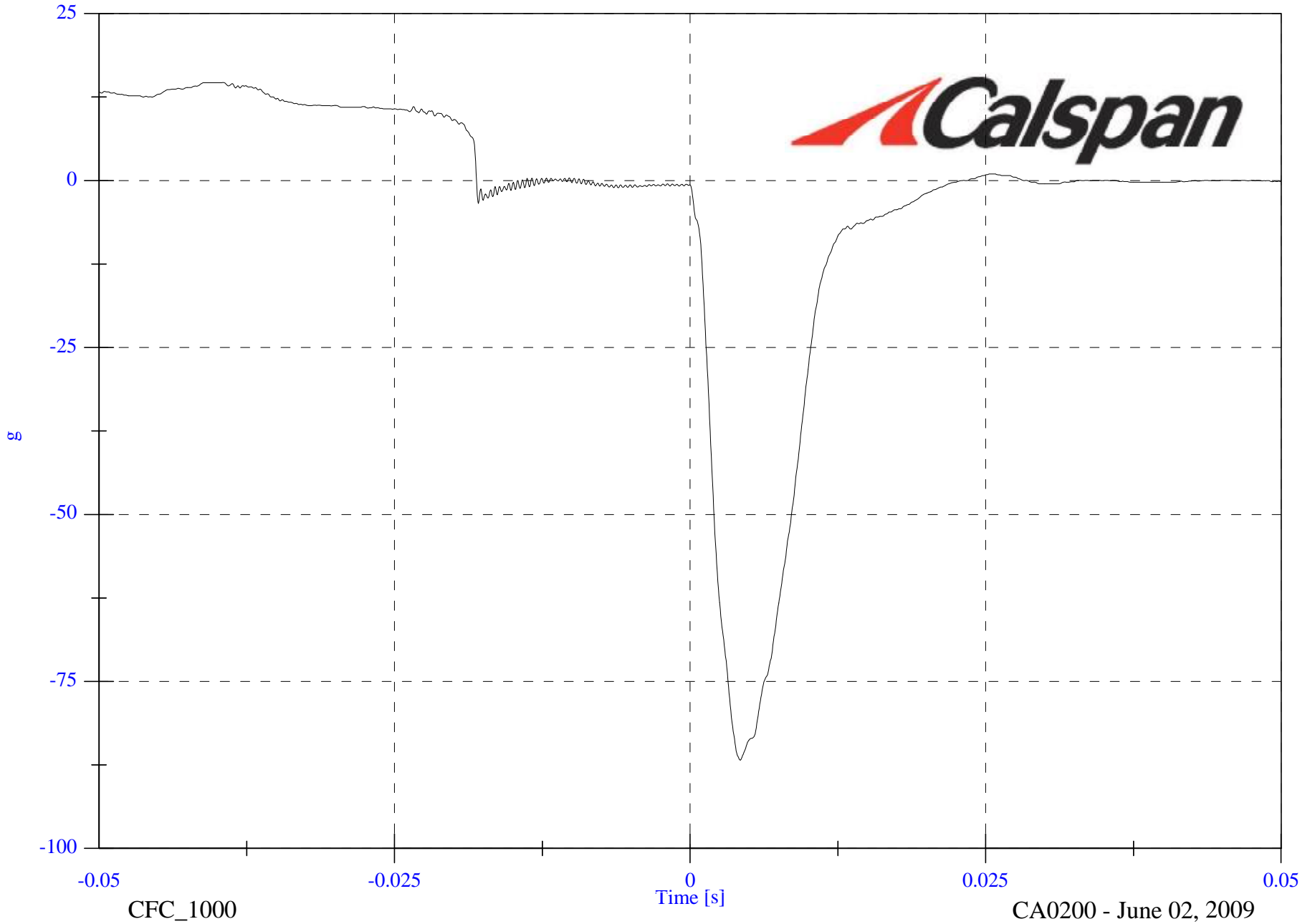
Headform X Acceleration

Max: 14.6 [g] at -0.039 [s]

Min: -86.8 [g] at 0.004 [s]



CA0200 PASSENGER SIDE SR3 IMPACT PLOT #1



CFC\_1000

CA0200 - June 02, 2009

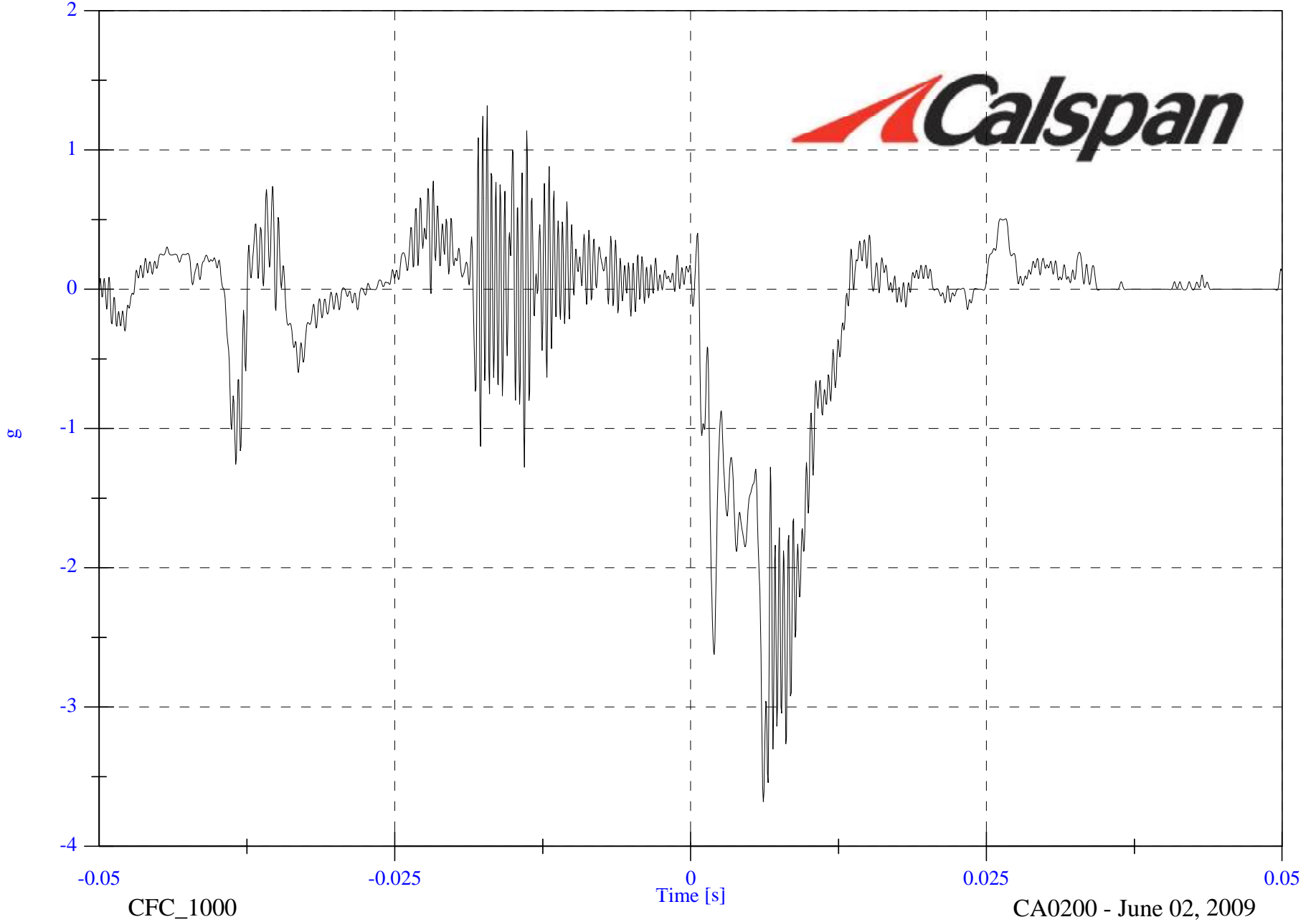
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 1.3 [g] at -0.017 [s]  
Min: -3.7 [g] at 0.006 [s]



CA0200 PASSENGER SIDE SR3 IMPACT PLOT #2



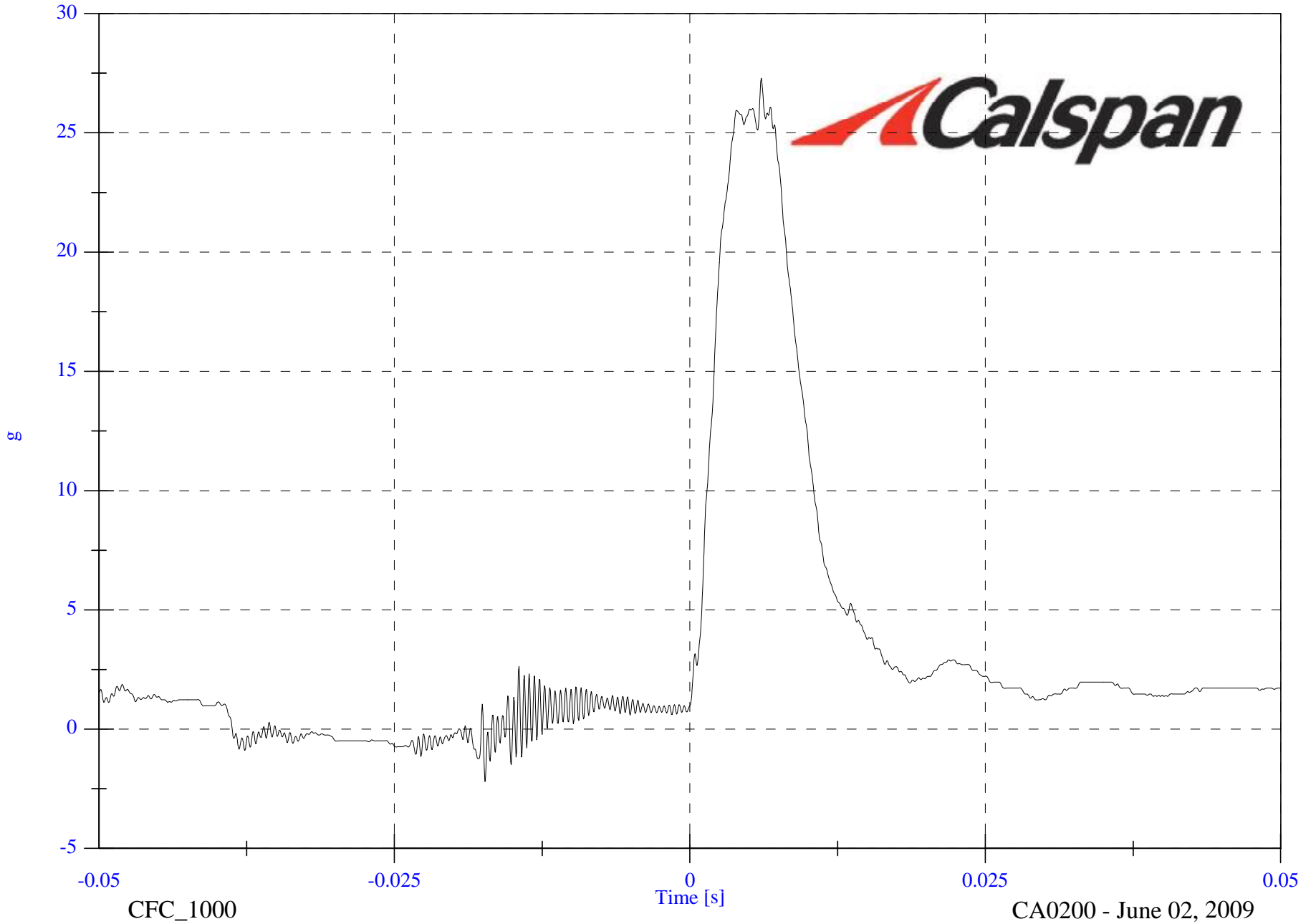
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 27.3 [g] at 0.006 [s]

Min: -2.2 [g] at -0.017 [s]

CA0200 PASSENGER SIDE SR3 IMPACT PLOT #3



CFC\_1000

CA0200 - June 02, 2009

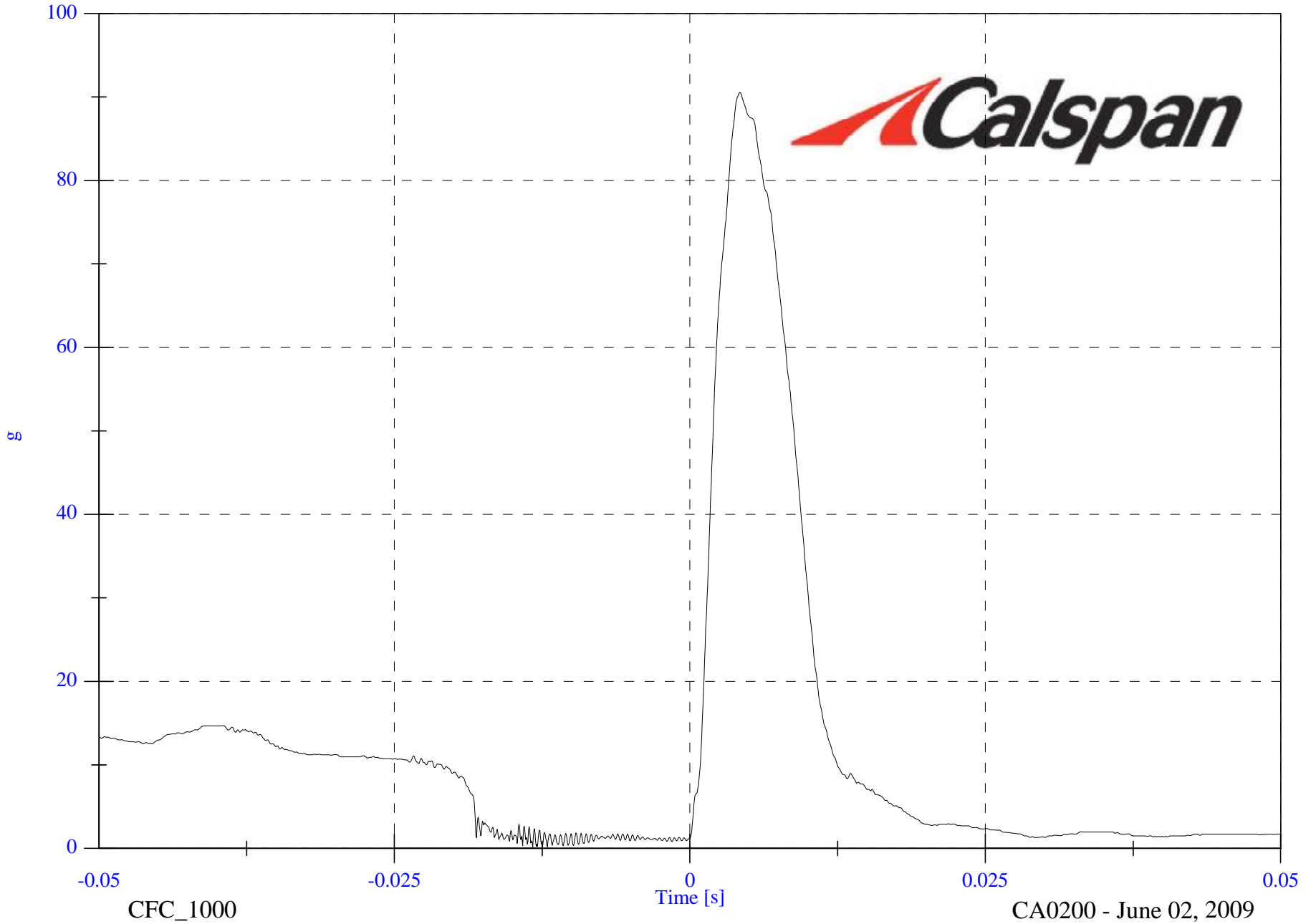
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 90.6 [g] at 0.004 [s]

Min: 0.2 [g] at -0.013 [s]

CA0200 PASSENGER SIDE SR3 IMPACT PLOT #4



CA0200 - June 02, 2009

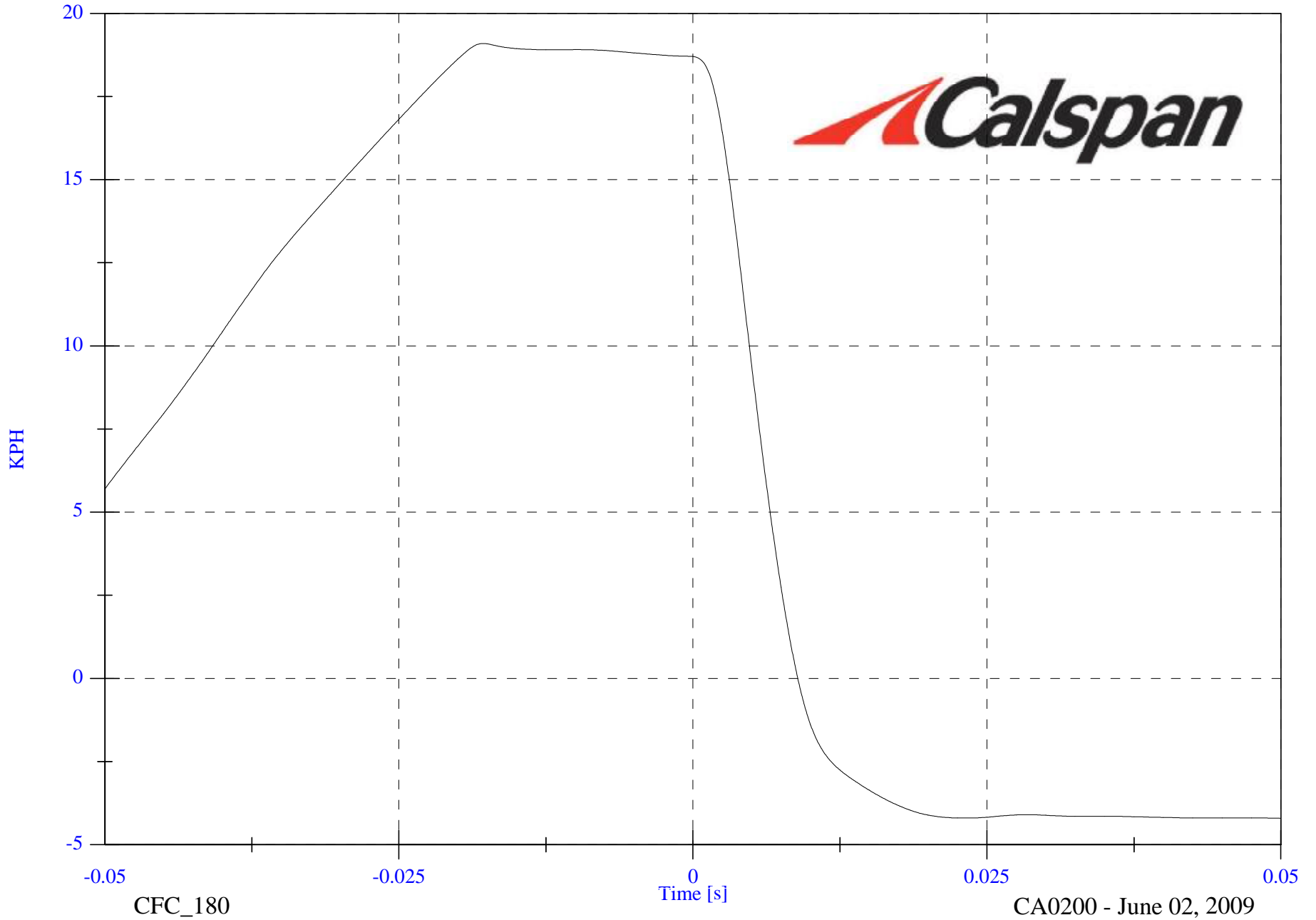
FMVSS 201U 2010 FORD FUSION

Max: 19.1 [KPH] at -0.018 [s]

Min: -4.2 [KPH] at 0.050 [s]

Headform Velocity

CA0200 PASSENGER SIDE SR3 IMPACT PLOT #5



CFC\_180

CA0200 - June 02, 2009



PRE-IMPACT SR3



POST-IMPACT SR3

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	03
Test Date:	06/02/09
Target Location:	UPPER ROOF
Target Code:	URRP
Horizontal Impact Angle:	40°
Vertical Impact Angle:	50°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	11:30
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	4	<input checked="" type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	34				mm up



POST-IMPACT URRP HEADFORM (Placard was mislabeled SR3 – correction is URRP)

Free Motion HIC	679.9
HIC(d)	679.3
Impact Velocity (kph)	23.81
HIC T1 (msec)	2.3
HIC T2 (msec)	9.4



# FMVSS 201U 2010 FORD FUSION CA0200 - URRP

FMH Headform 805

Location: URRP

Test Date: June 02, 2009

Work File: URRP

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 679.3

Lab Humidity: 42 %

HIC (36ms): 679.9

Velocity at Impact: 23.81 KPH

t1: 2.3 msec

t2: 9.4 msec

Free Flight Distance: 220.39 mm

Duration: 7.1 msec

Average Acceleration: 9.2 g

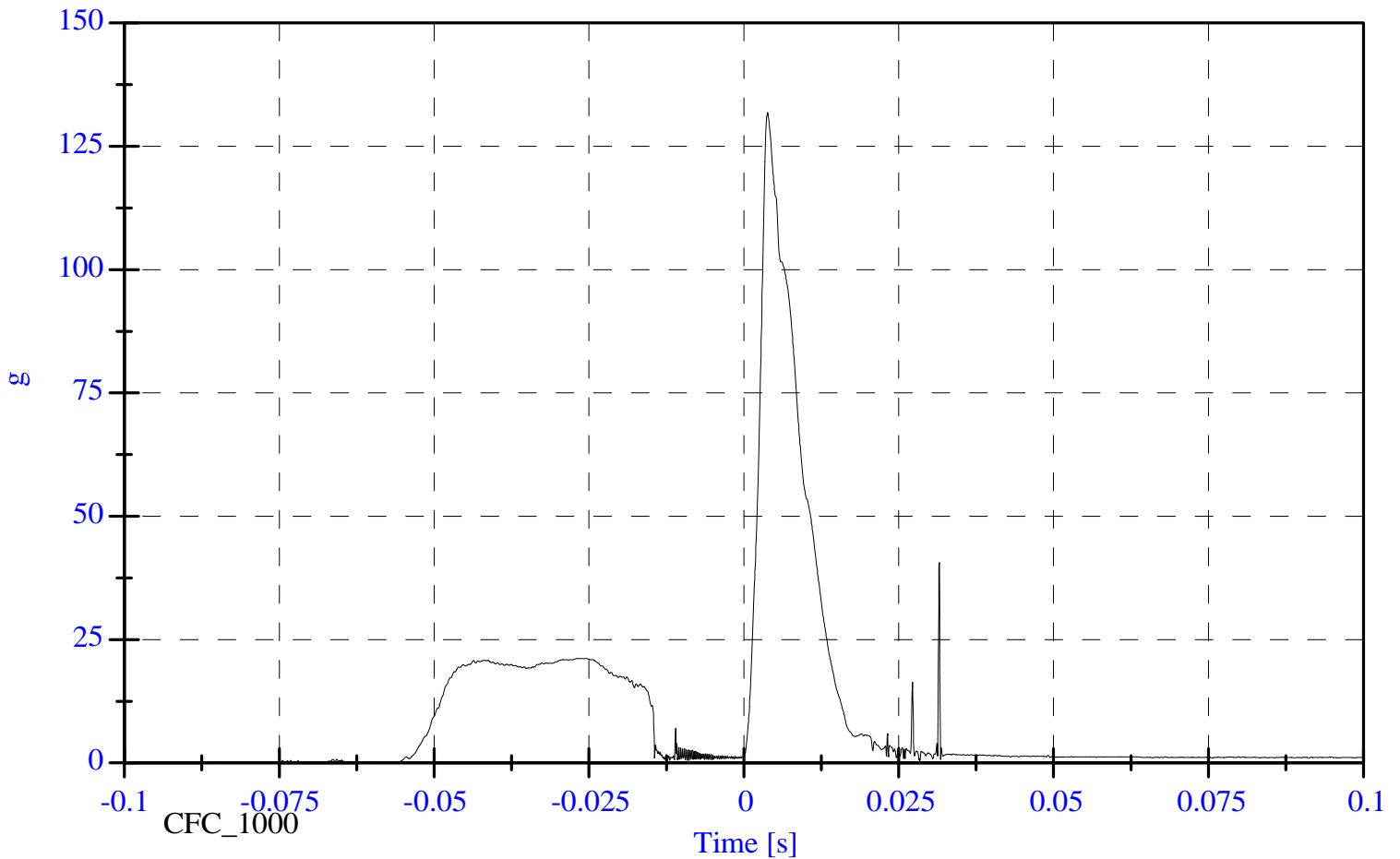
Maximum: 131.8 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 131.8 [g] at 0.004 [s]

Min: 0.0 [g] at -0.090 [s]

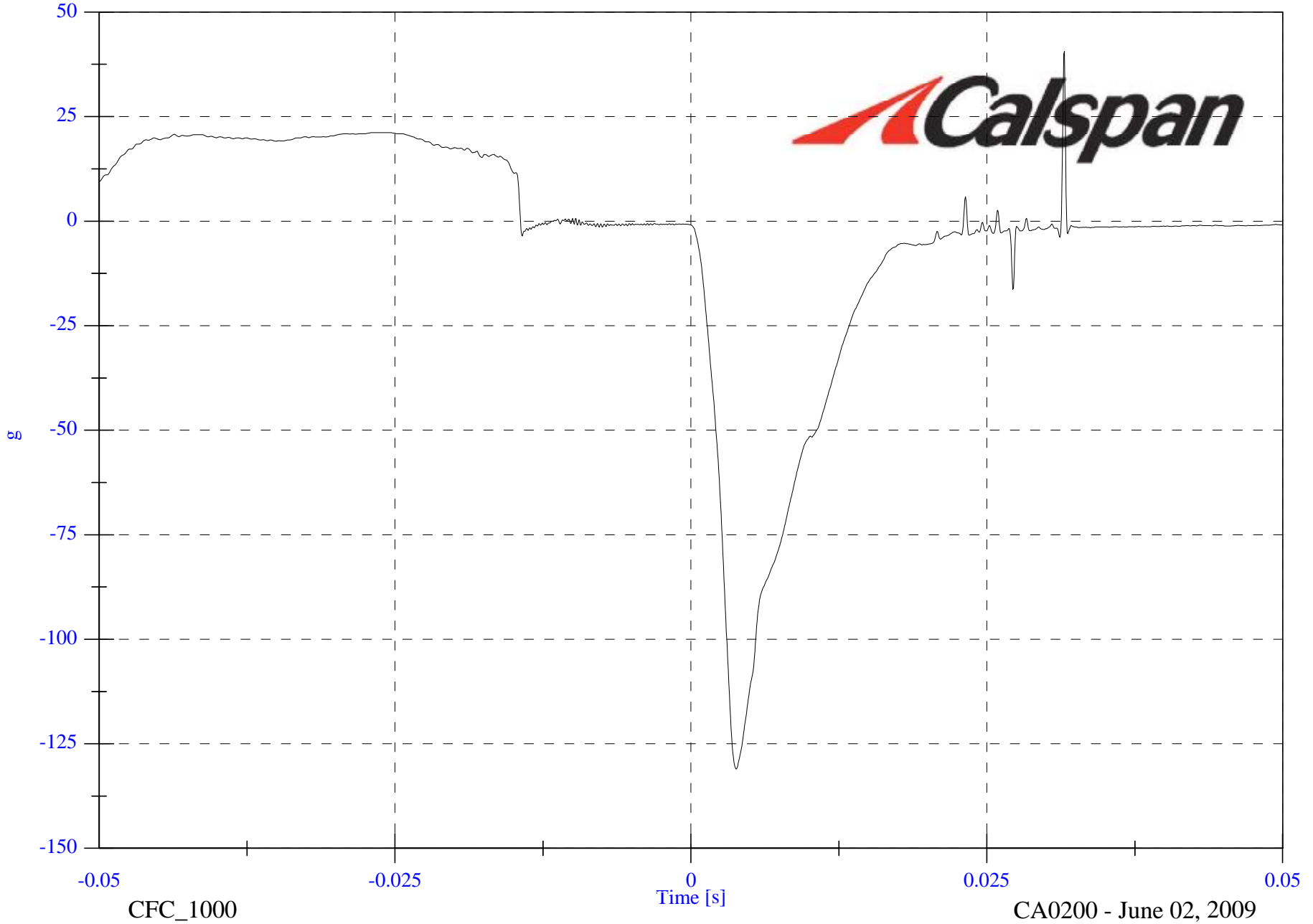


FMVSS 201U 2010 FORD FUSION

Headform X Acceleration

Max: 40.6 [g] at 0.032 [s]  
Min: -131.1 [g] at 0.004 [s]

CA0200 PASSENGER SIDE URRP IMPACT PLOT #1



CA0200 - June 02, 2009

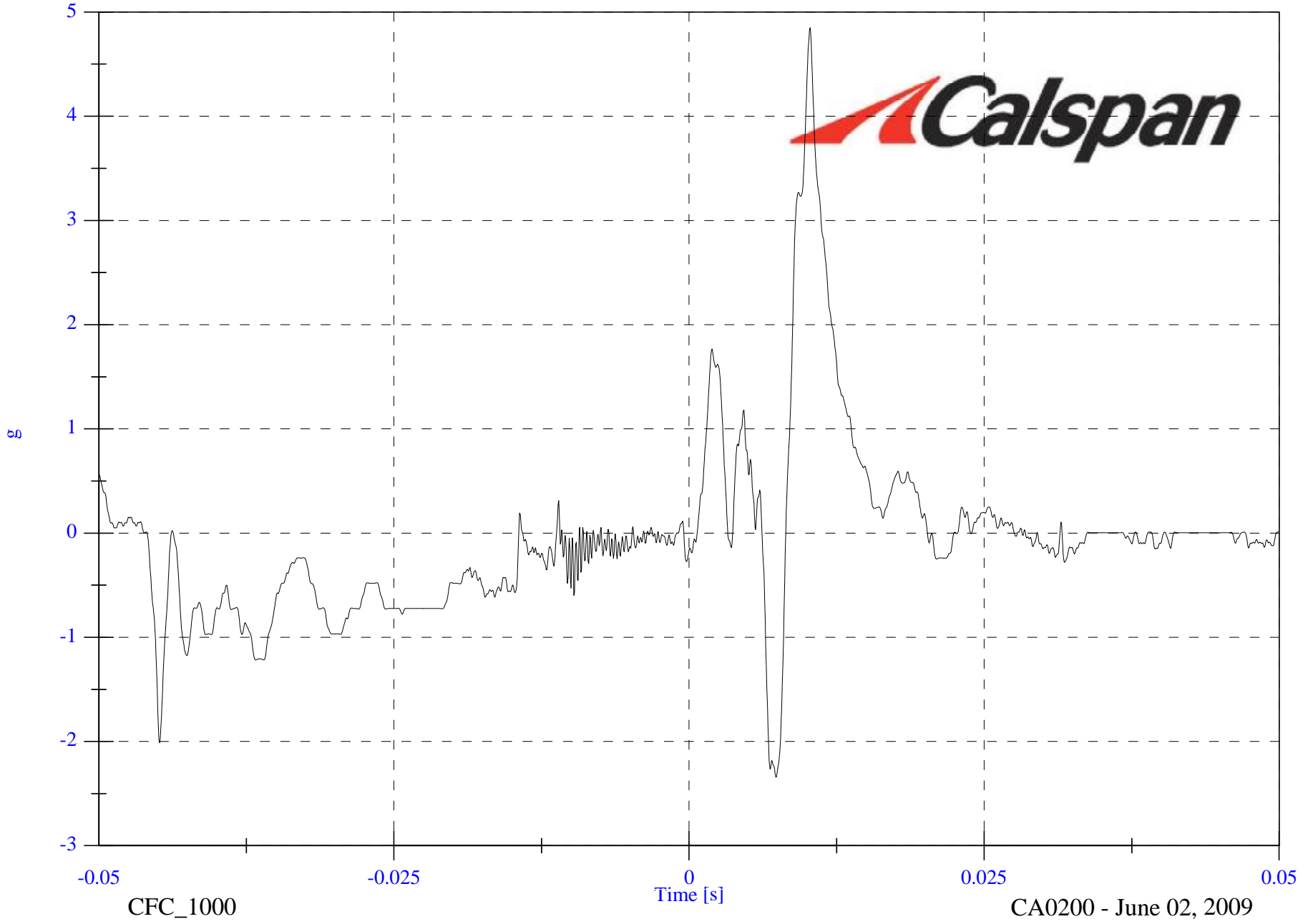
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 4.8 [g] at 0.010 [s]

Min: -2.3 [g] at 0.007 [s]

CA0200 PASSENGER SIDE URRP IMPACT PLOT #2



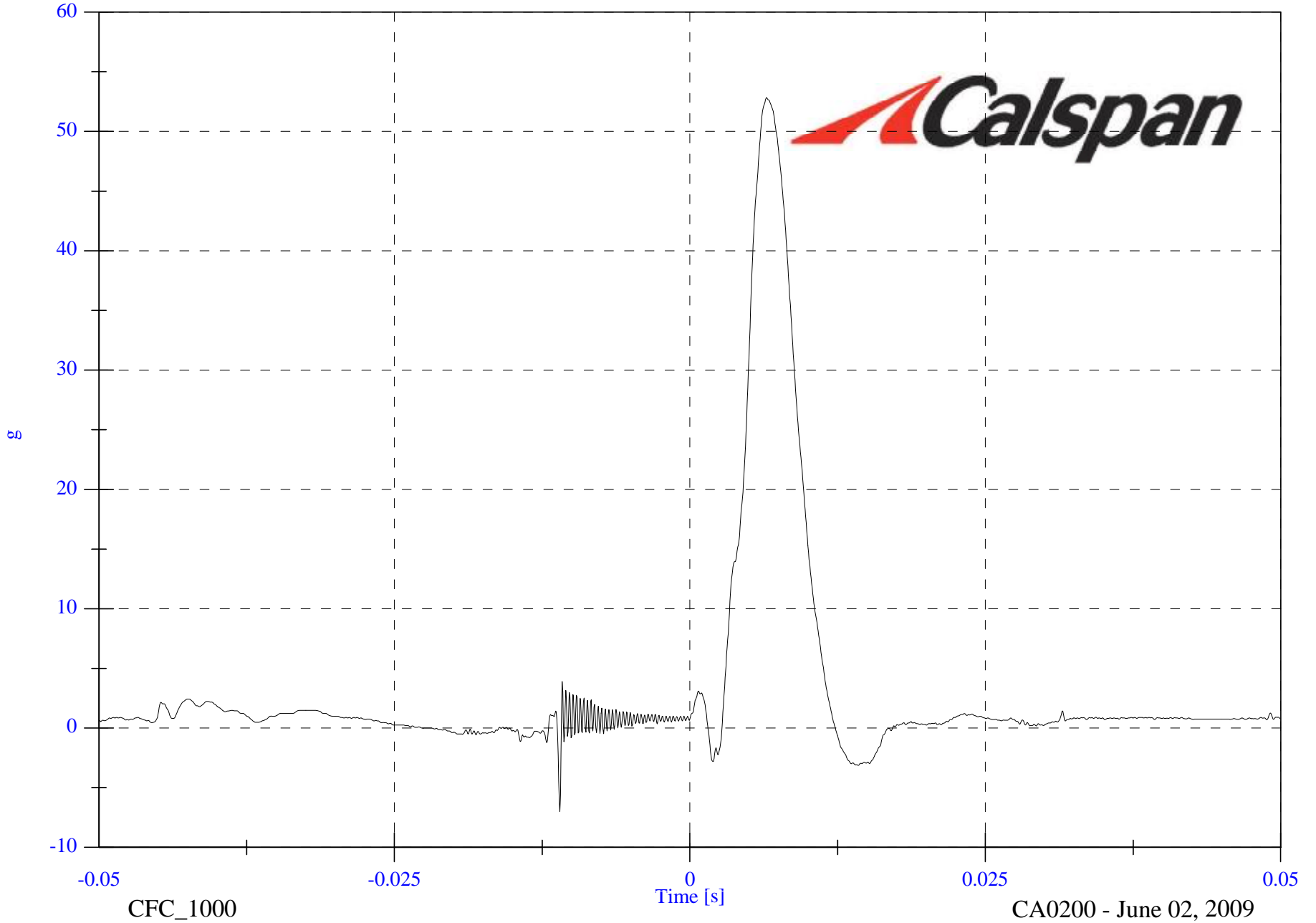
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 52.8 [g] at 0.006 [s]

Min: -7.0 [g] at -0.011 [s]

CA0200 PASSENGER SIDE URRP IMPACT PLOT #3



CFC\_1000

CA0200 - June 02, 2009

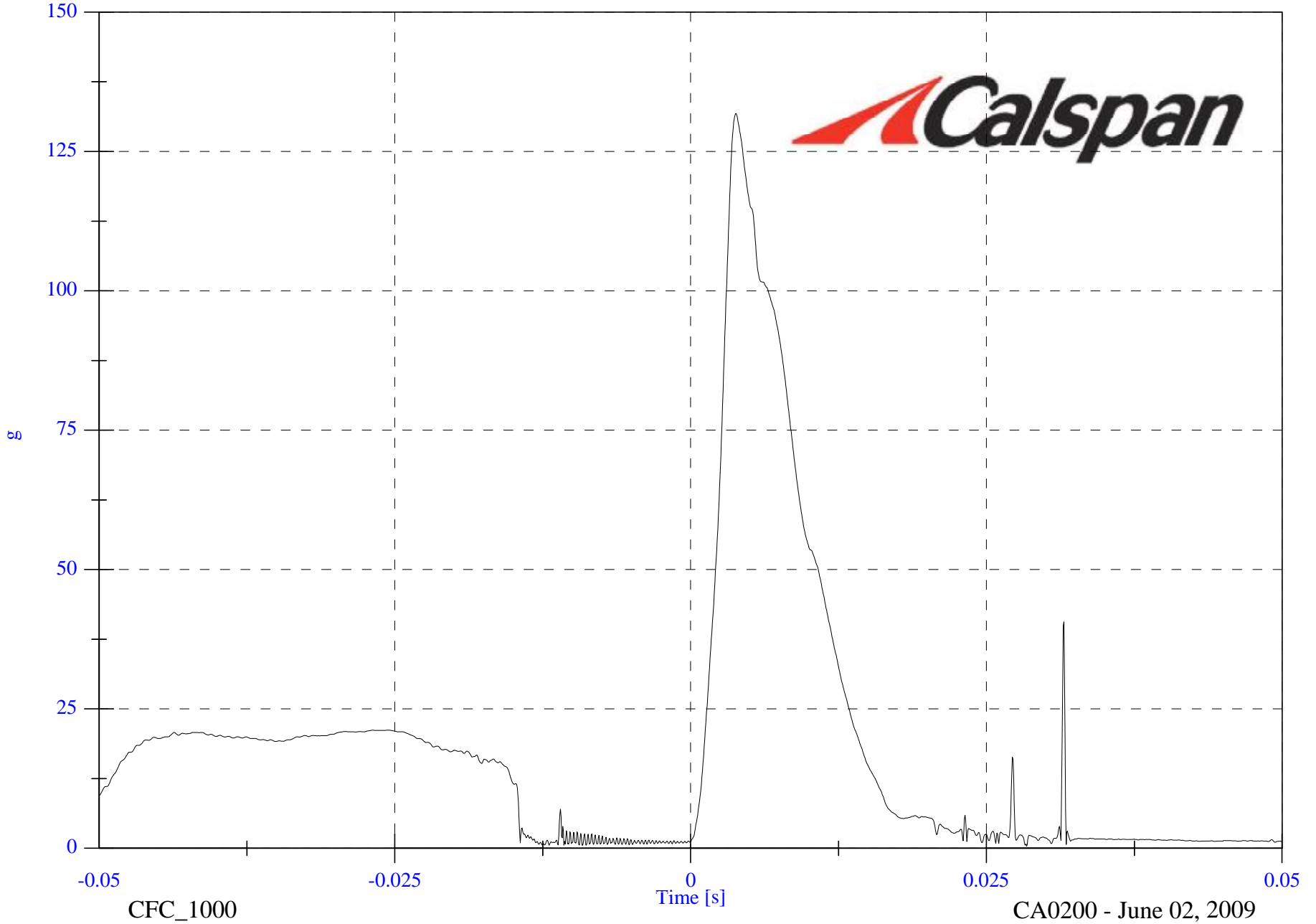
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 131.8 [g] at 0.004 [s]

Min: 0.4 [g] at 0.028 [s]

CA0200 PASSENGER SIDE URRP IMPACT PLOT #4



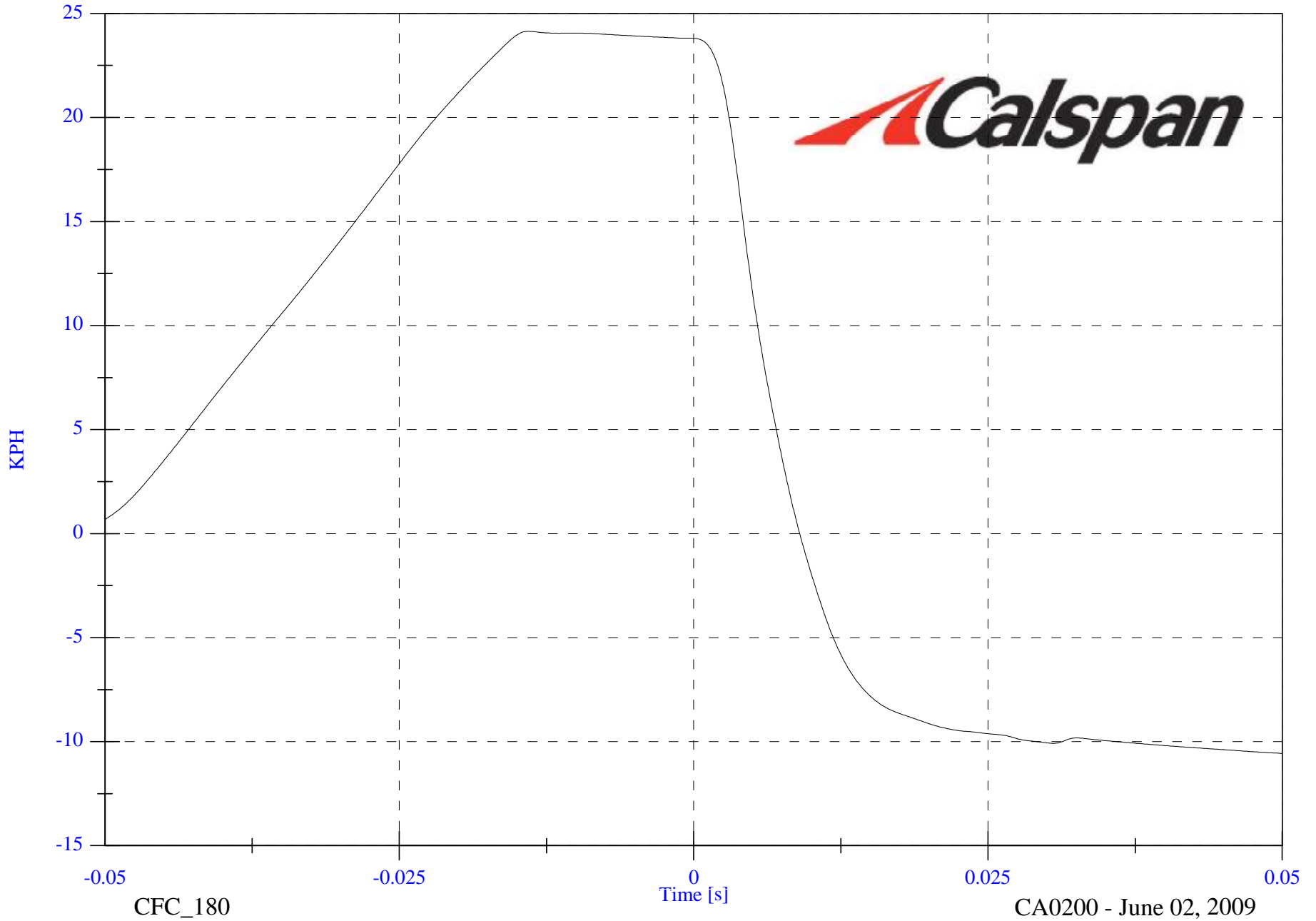
FMVSS 201U 2010 FORD FUSION

Max: 24.1 [KPH] at -0.014 [s]

Min: -10.6 [KPH] at 0.050 [s]

Headform Velocity

CA0200 PASSENGER SIDE URRP IMPACT PLOT #5





**PRE-IMPACT URRP (Placard was mislabeled SR3 – correction is URRP)**



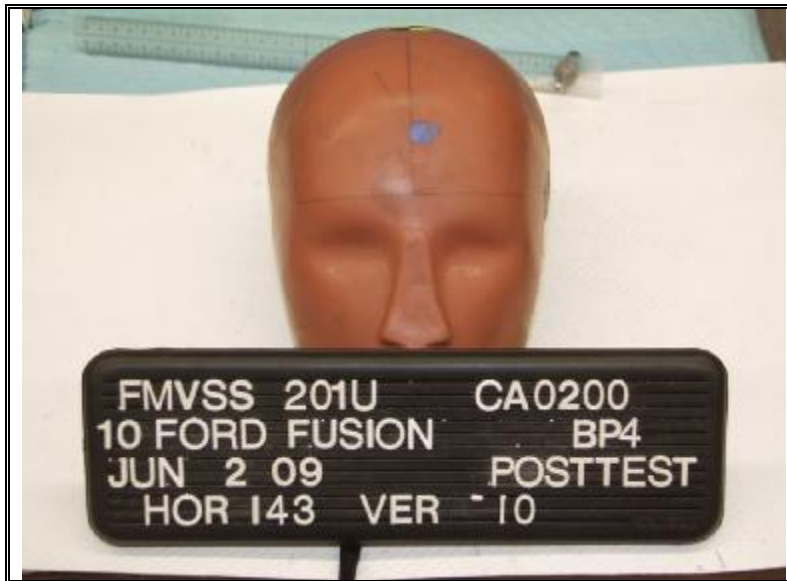
POST-IMPACT URRP (Placard was mislabeled SR3 – correction is URRP)



VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	04
Test Date:	06/02/09
Target Location:	B-PILLAR
Target Code:	BP4
Horizontal Impact Angle:	143°
Vertical Impact Angle:	-10°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	12:00
Headform Number:	0355

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	5	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	30		mm up



POST-IMPACT BP4 HEADFORM

Free Motion HIC	647.9
HIC(d)	655.2
Impact Velocity (kph)	23.63
HIC T1 (msec)	1.5
HIC T2 (msec)	10.3

# FMVSS 201U 2010 FORD FUSION CA0200 - BP4

FMH Headform 0355

Location: BP4

Test Date: June 02, 2009

Work File: BP4

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 655.2

Lab Humidity: 42 %

HIC (36ms): 647.9

Velocity at Impact: 23.63 KPH

t1: 1.5 msec

t2: 10.3 msec

Free Flight Distance: 230.10 mm

Duration: 8.8 msec

Average Acceleration: 8.8 g

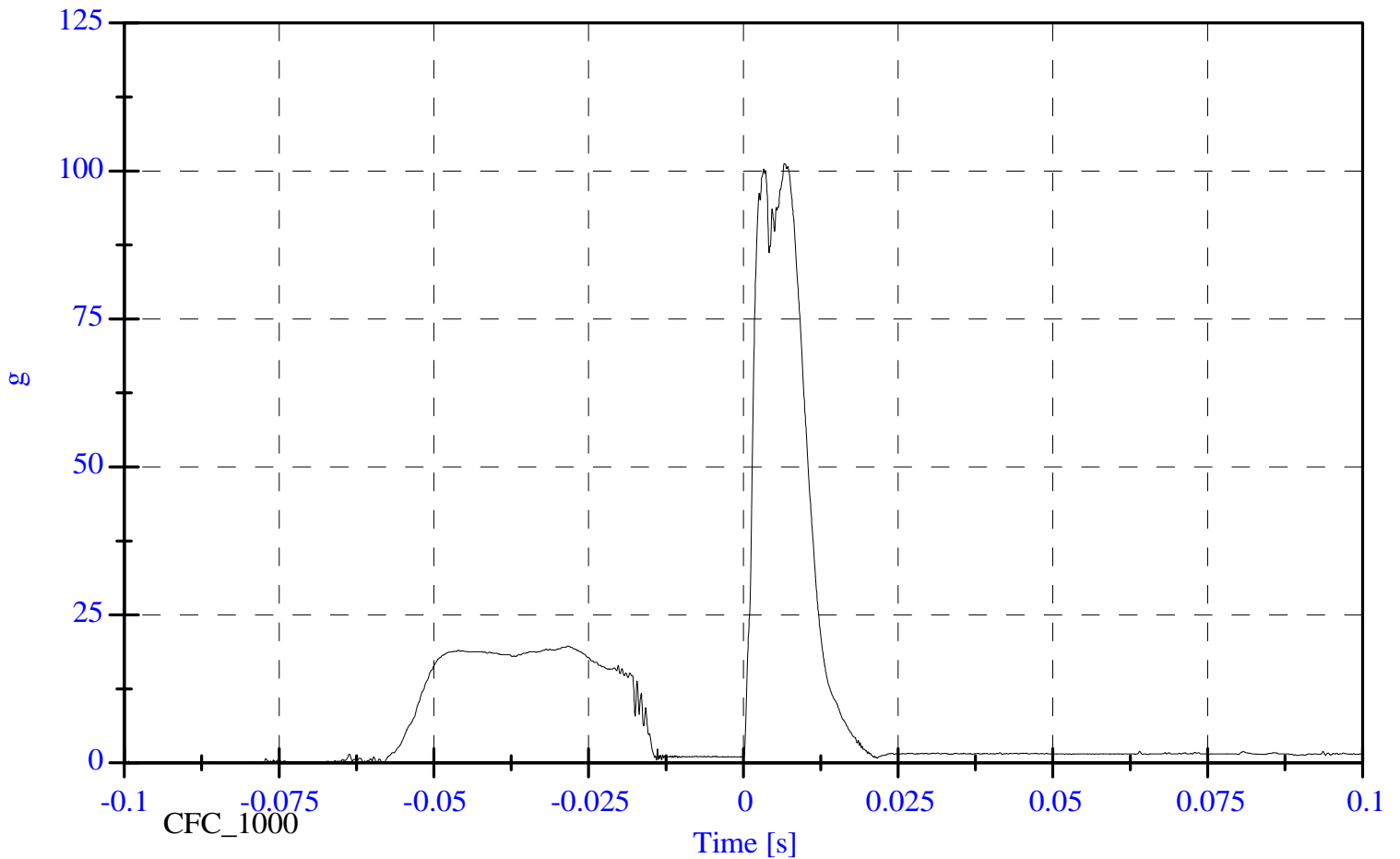
Maximum: 101.3 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 101.3 [g] at 0.007 [s]

Min: 0.0 [g] at -0.090 [s]



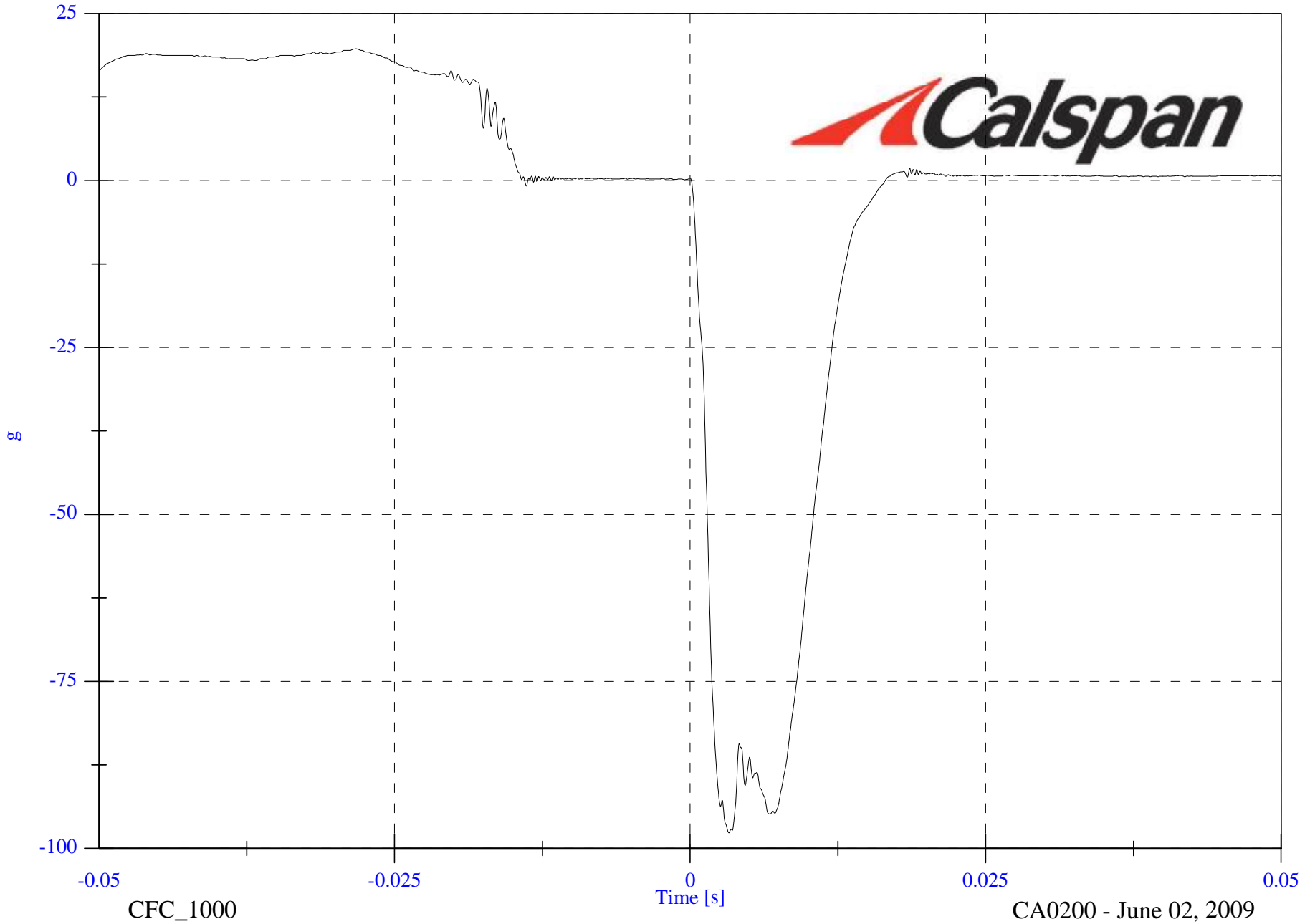
FMVSS 201U 2010 FORD FUSION

Headform X Acceleration

Max: 19.7 [g] at -0.028 [s]

Min: -97.7 [g] at 0.003 [s]

CA0200 PASSENGER SIDE BP4 IMPACT PLOT #1



CA0200 - June 02, 2009

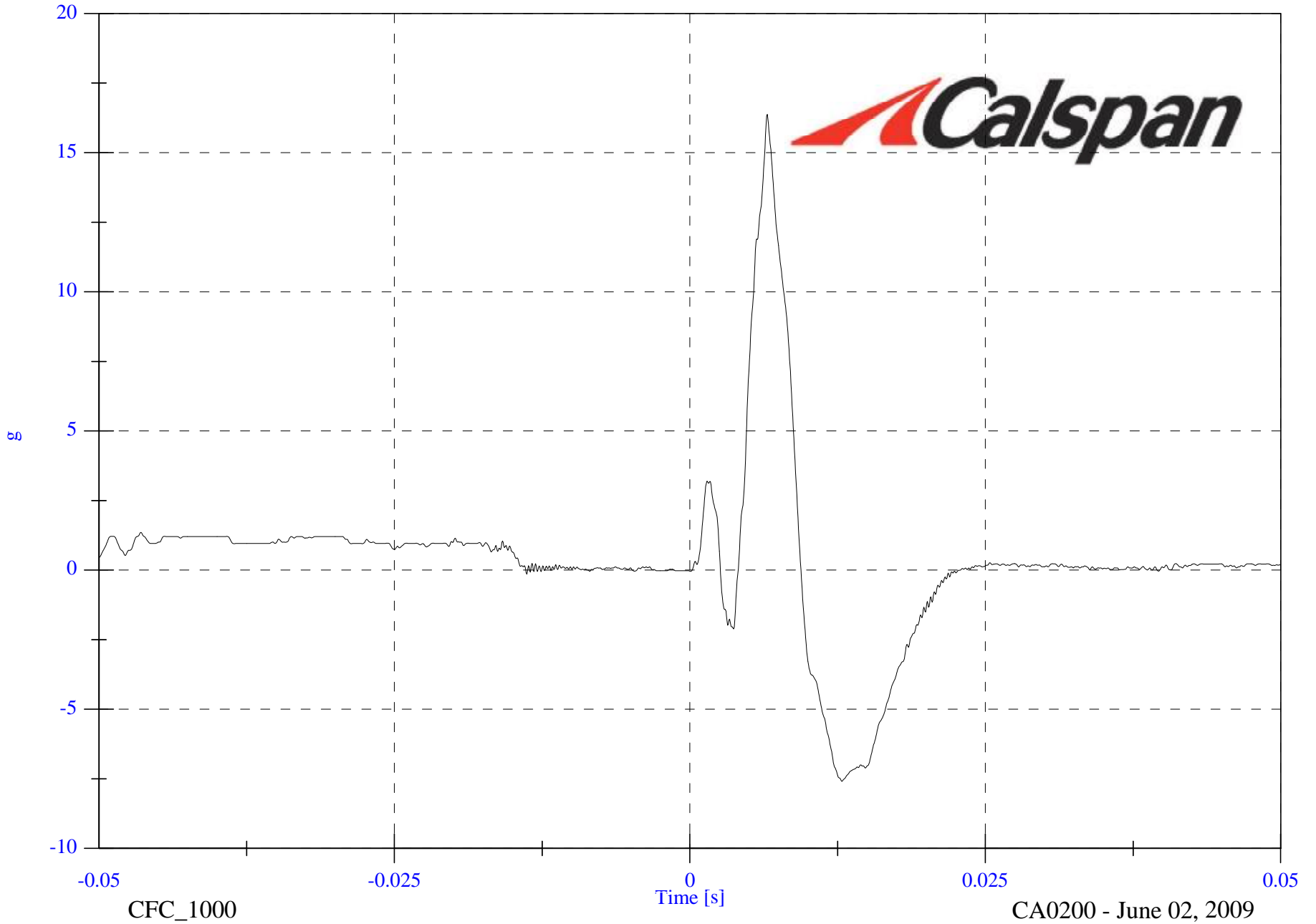
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 16.4 [g] at 0.007 [s]

Min: -7.6 [g] at 0.013 [s]

CA0200 PASSENGER SIDE BP4 IMPACT PLOT #2



FMVSS 201U 2010 FORD FUSION

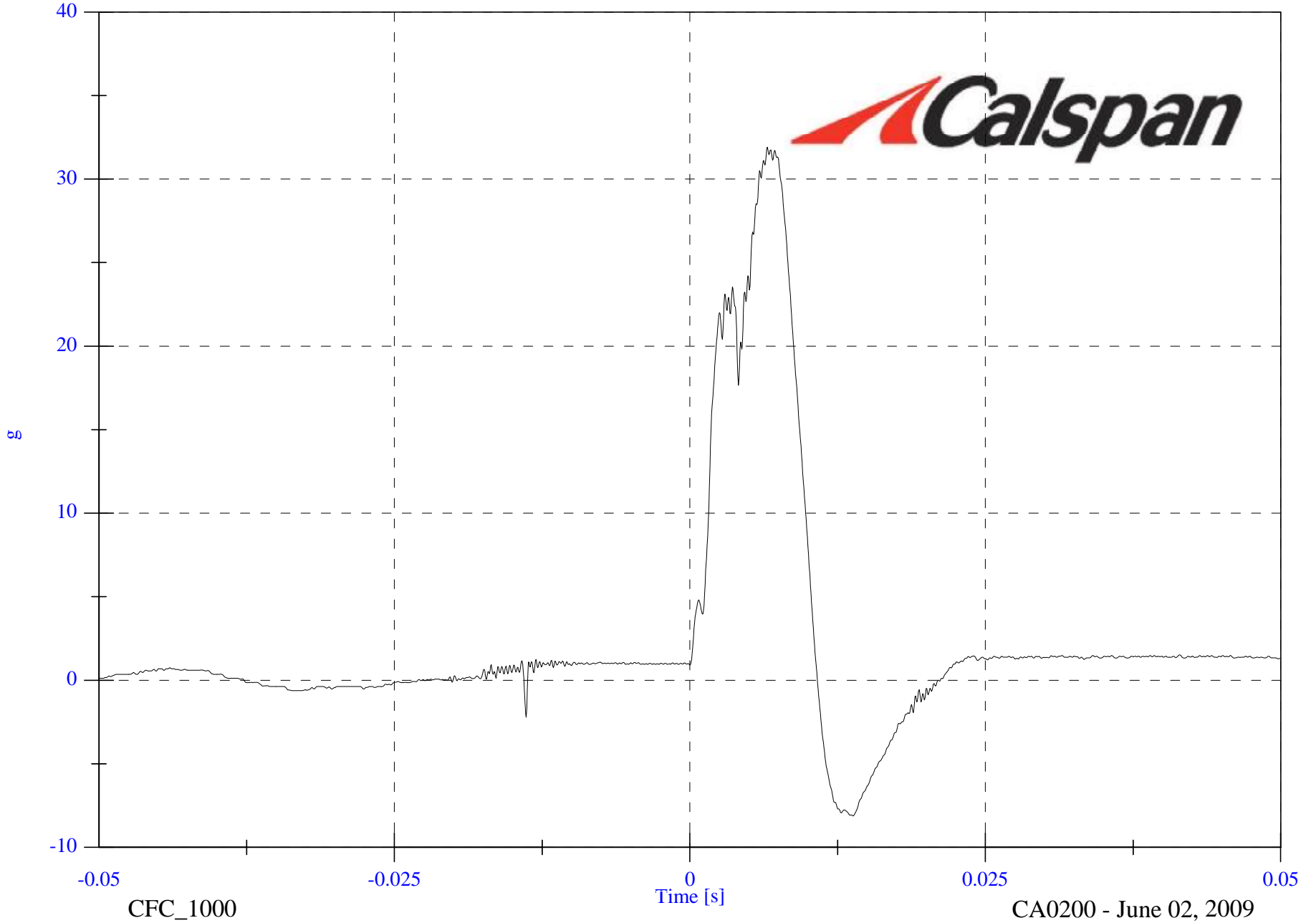
Headform Z Acceleration

Max: 31.9 [g] at 0.007 [s]

Min: -8.1 [g] at 0.014 [s]



CA0200 PASSENGER SIDE BP4 IMPACT PLOT #3



CFC\_1000

CA0200 - June 02, 2009

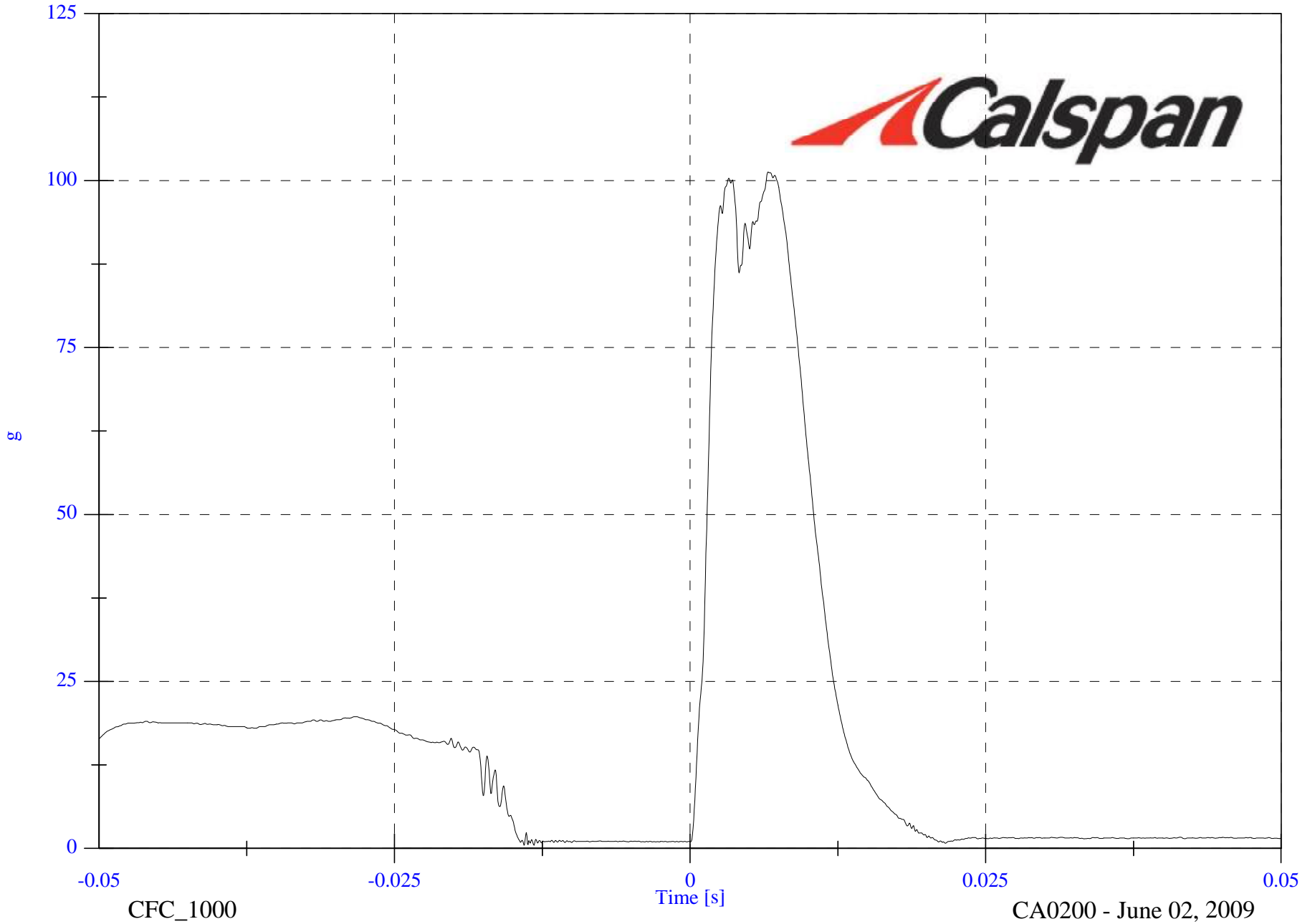
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 101.3 [g] at 0.007 [s]

Min: 0.5 [g] at -0.014 [s]

CA0200 PASSENGER SIDE BP4 IMPACT PLOT #4



CA0200 - June 02, 2009

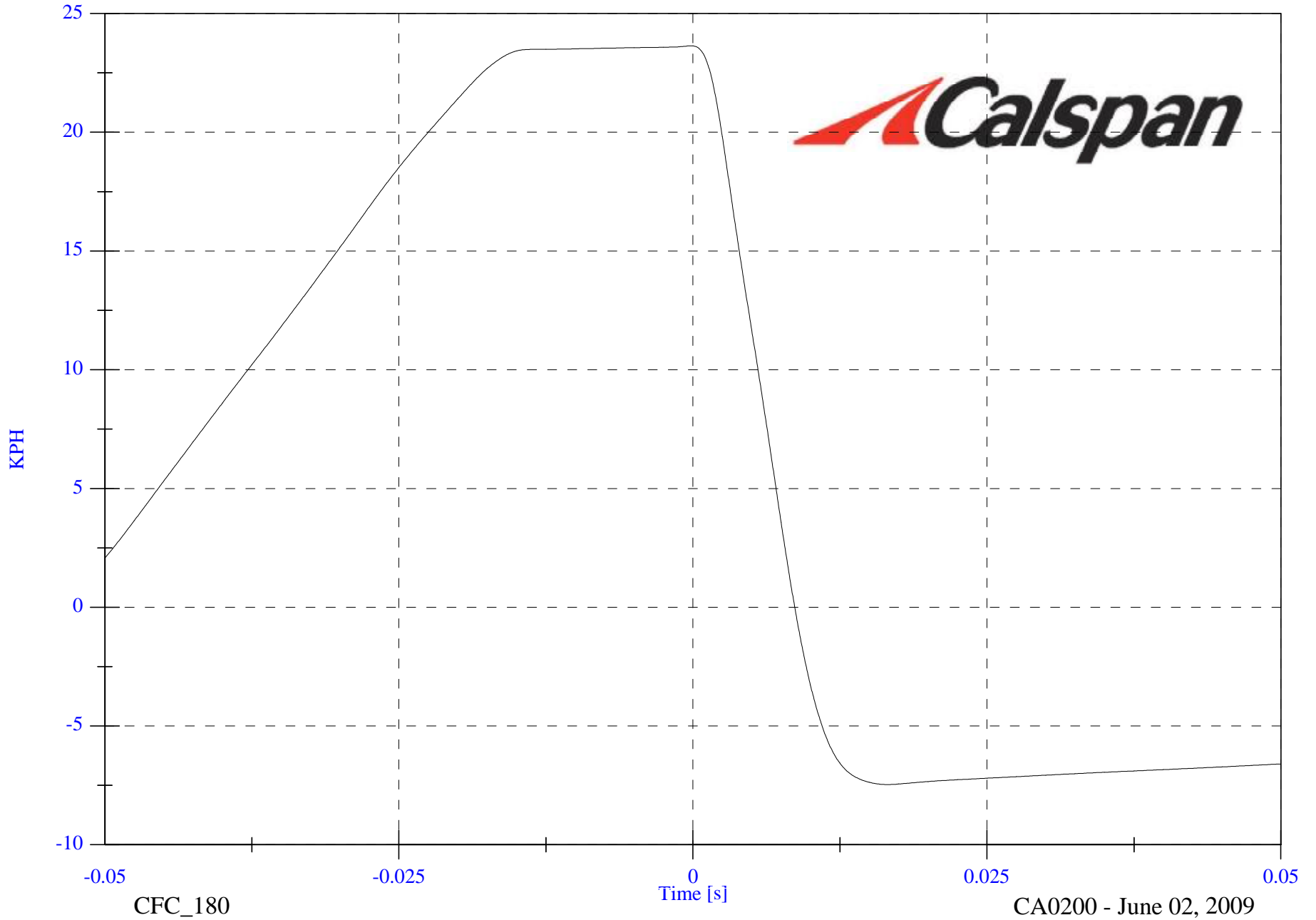
FMVSS 201U 2010 FORD FUSION

Max: 23.6 [KPH] at -0.000 [s]

Min: -7.5 [KPH] at 0.017 [s]

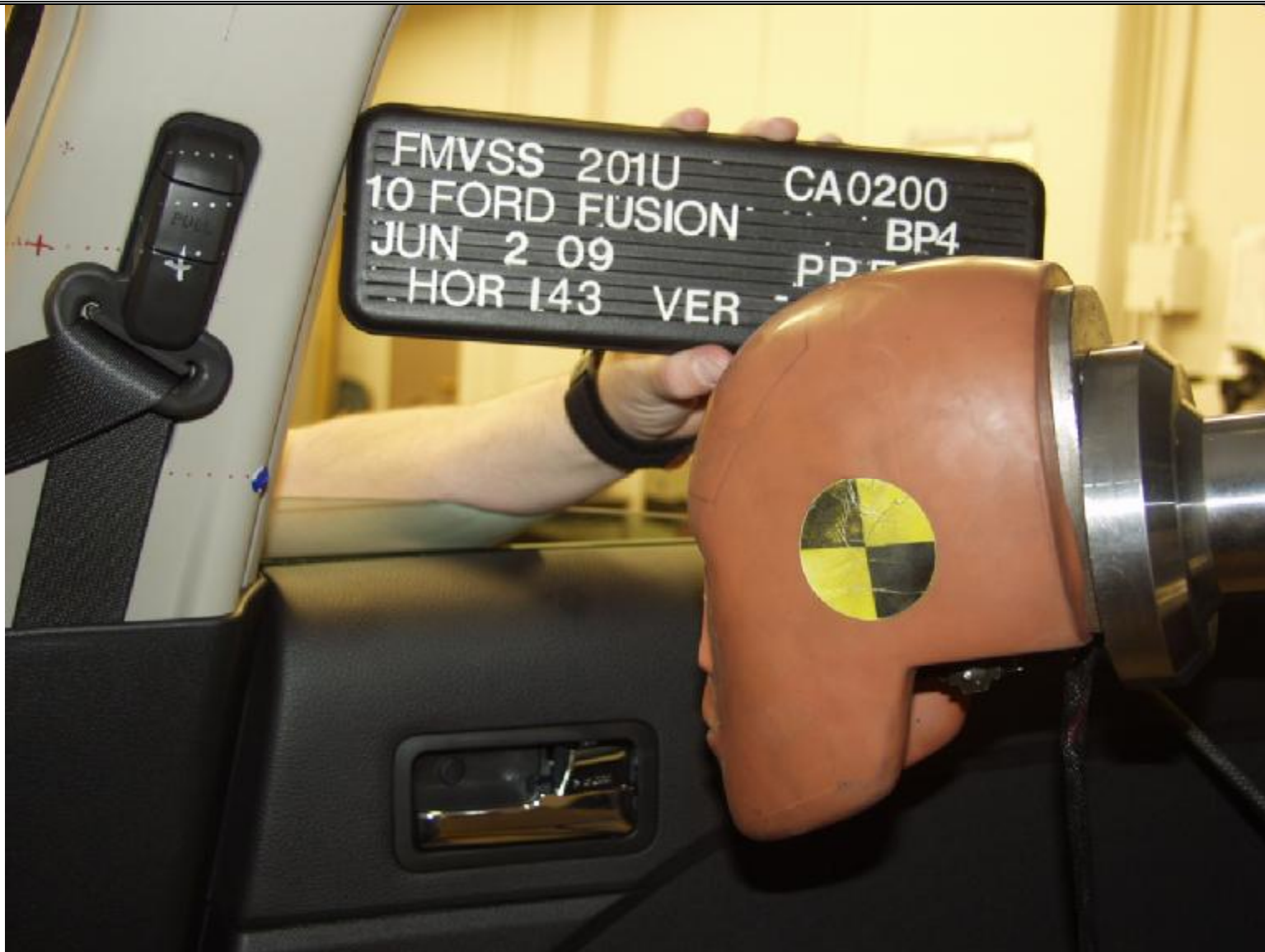
Headform Velocity

CA0200 PASSENGER SIDE BP4 IMPACT PLOT #5



CFC\_180

CA0200 - June 02, 2009



PRE-IMPACT BP4



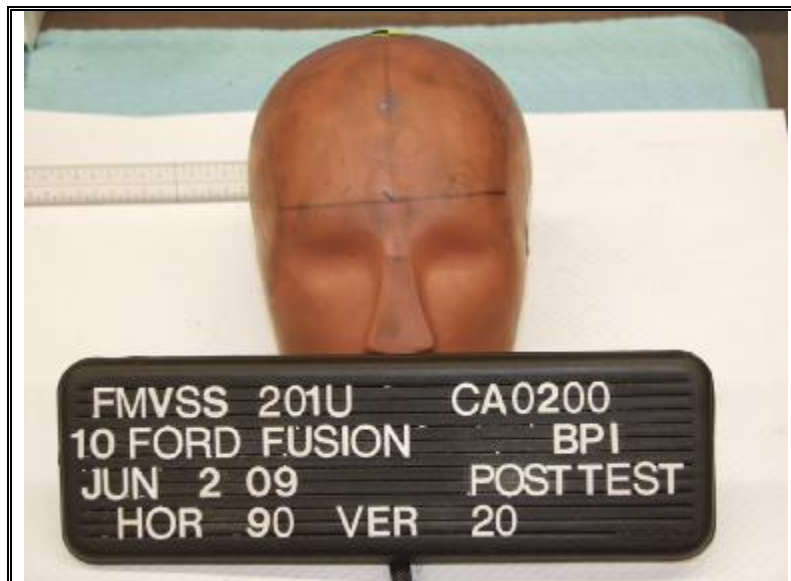


POST-IMPACT BP4

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	05
Test Date:	06/02/09
Target Location:	B-PILLAR
Target Code:	BP1
Horizontal Impact Angle:	90°
Vertical Impact Angle:	20°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	13:20
Headform Number:	0062

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	0	mm right	mm left
On Centerline	47	mm up	



POST-IMPACT BP1 HEADFORM

Free Motion HIC	457.7
HIC(d)	511.7
Impact Velocity (kph)	18.56
HIC T1 (msec)	4.2
HIC T2 (msec)	11.9

# FMVSS 201U 2010 FORD FUSION CA0200 - BP1

FMH Headform 0062

Location: BP1

Test Date: June 02, 2009

Work File: BP1

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 511.7

Lab Humidity: 42 %

HIC (36ms): 457.7

Velocity at Impact: 18.56 KPH

t1: 4.2 msec

t2: 11.9 msec

Free Flight Distance: 224.97 mm

Duration: 7.6 msec

Average Acceleration: 7.9 g

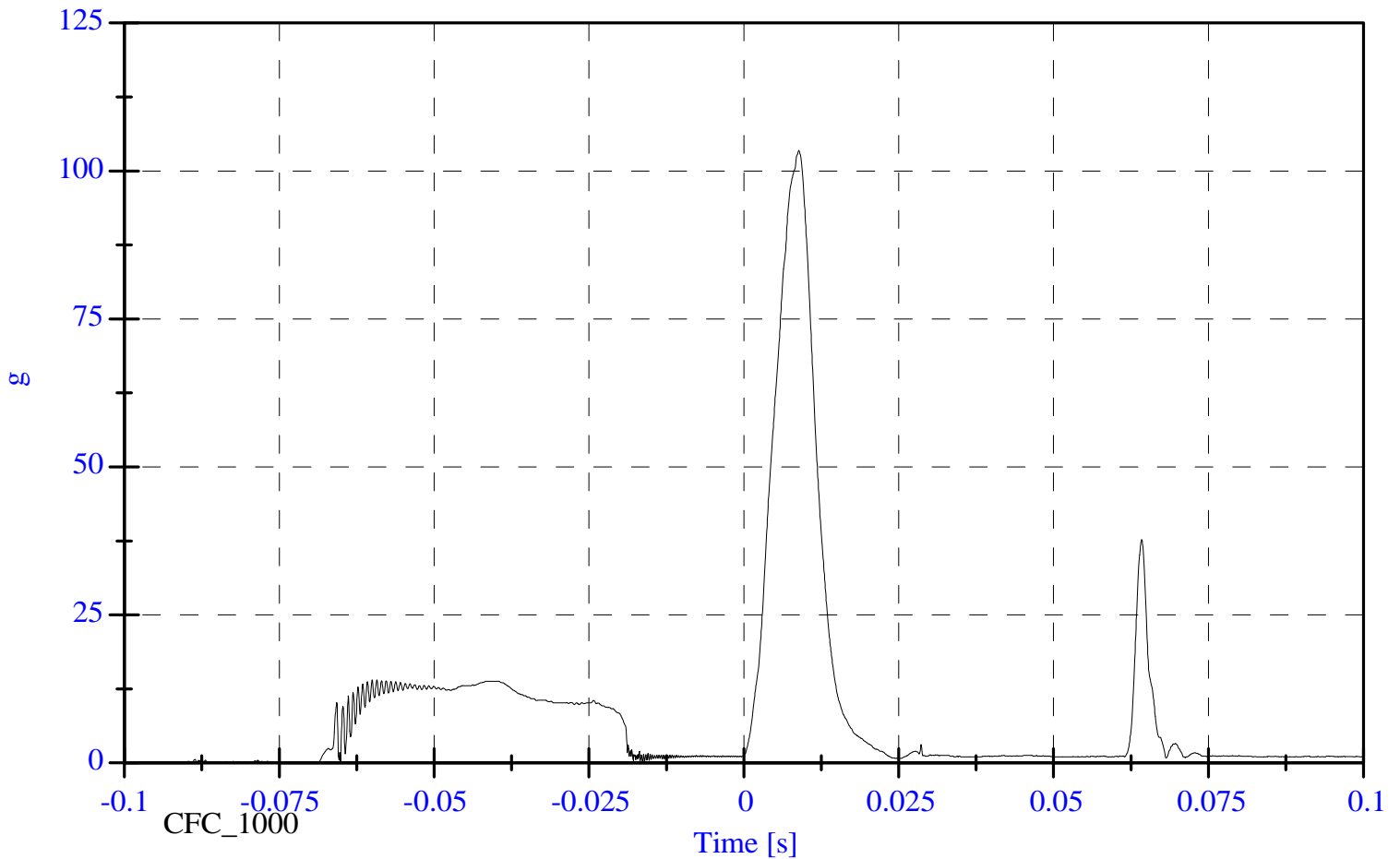
Maximum: 103.5 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 103.5 [g] at 0.009 [s]

Min: 0.0 [g] at -0.084 [s]



FMVSS 201U 2010 FORD FUSION

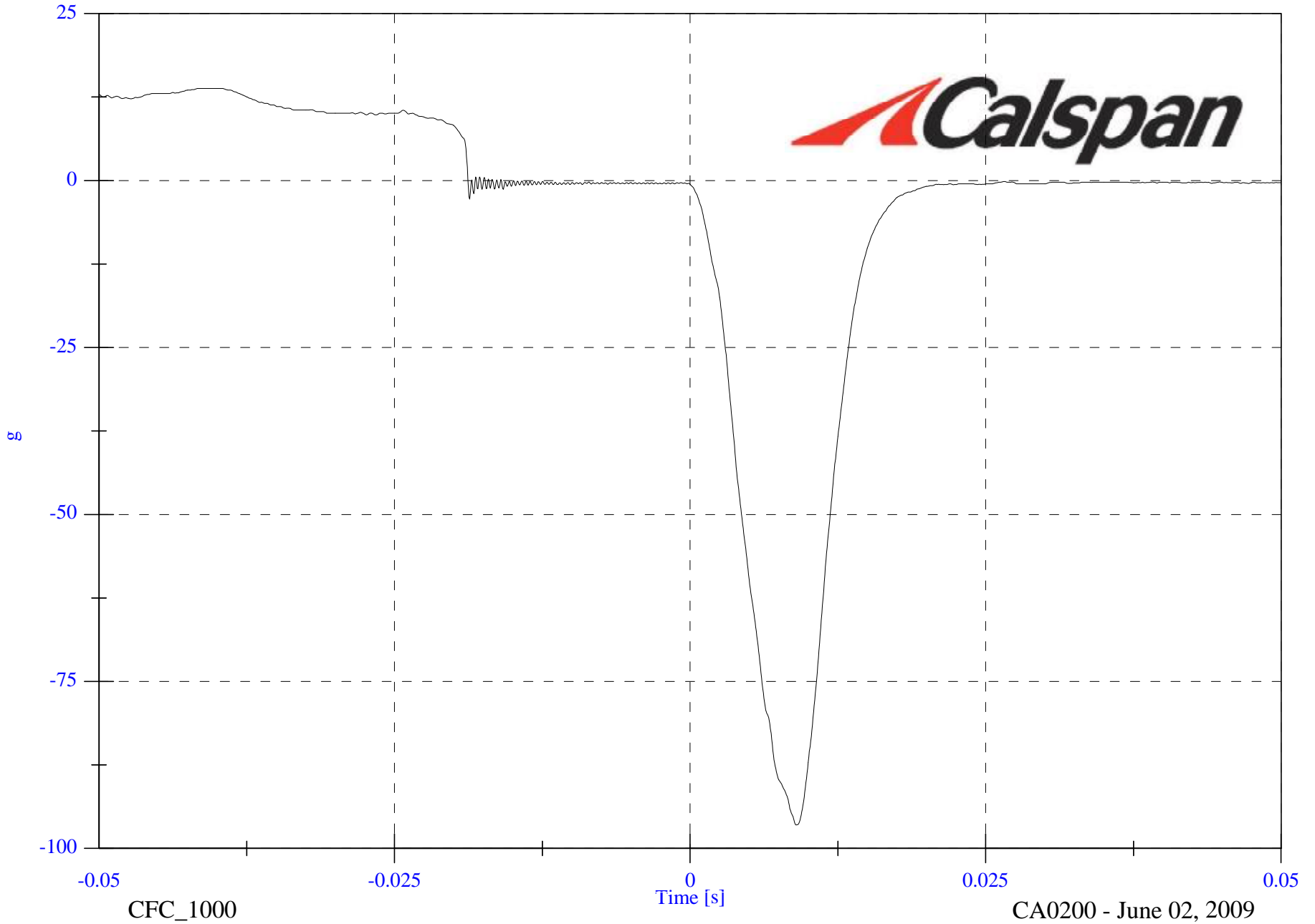
Headform X Acceleration

Max: 13.8 [g] at -0.040 [s]

Min: -96.5 [g] at 0.009 [s]



CA0200 PASSENGER SIDE BP1 IMPACT PLOT #1



CFC\_1000

CA0200 - June 02, 2009

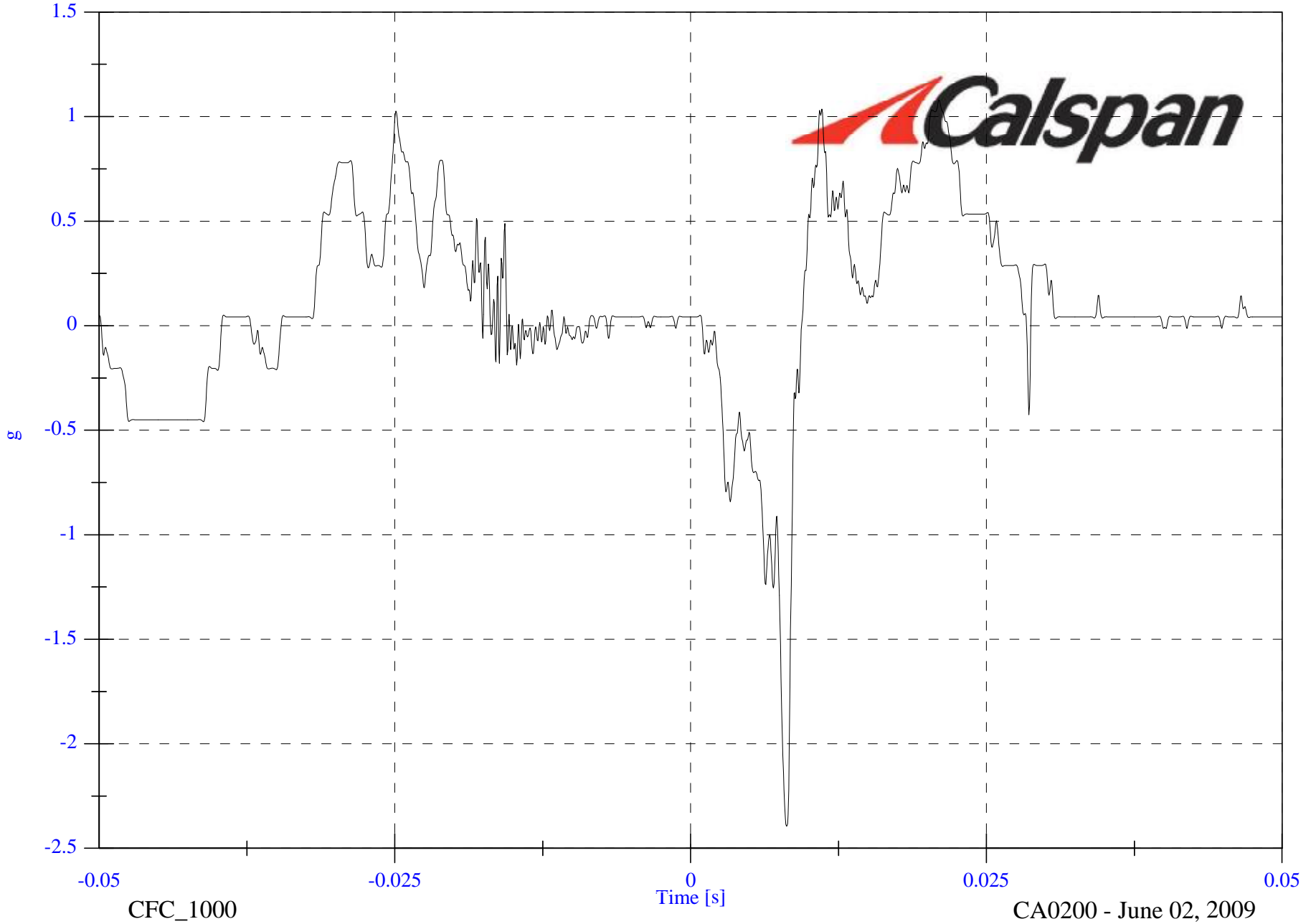
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 1.1 [g] at 0.021 [s]

Min: -2.4 [g] at 0.008 [s]

CA0200 PASSENGER SIDE BP1 IMPACT PLOT #2



CFC\_1000

CA0200 - June 02, 2009

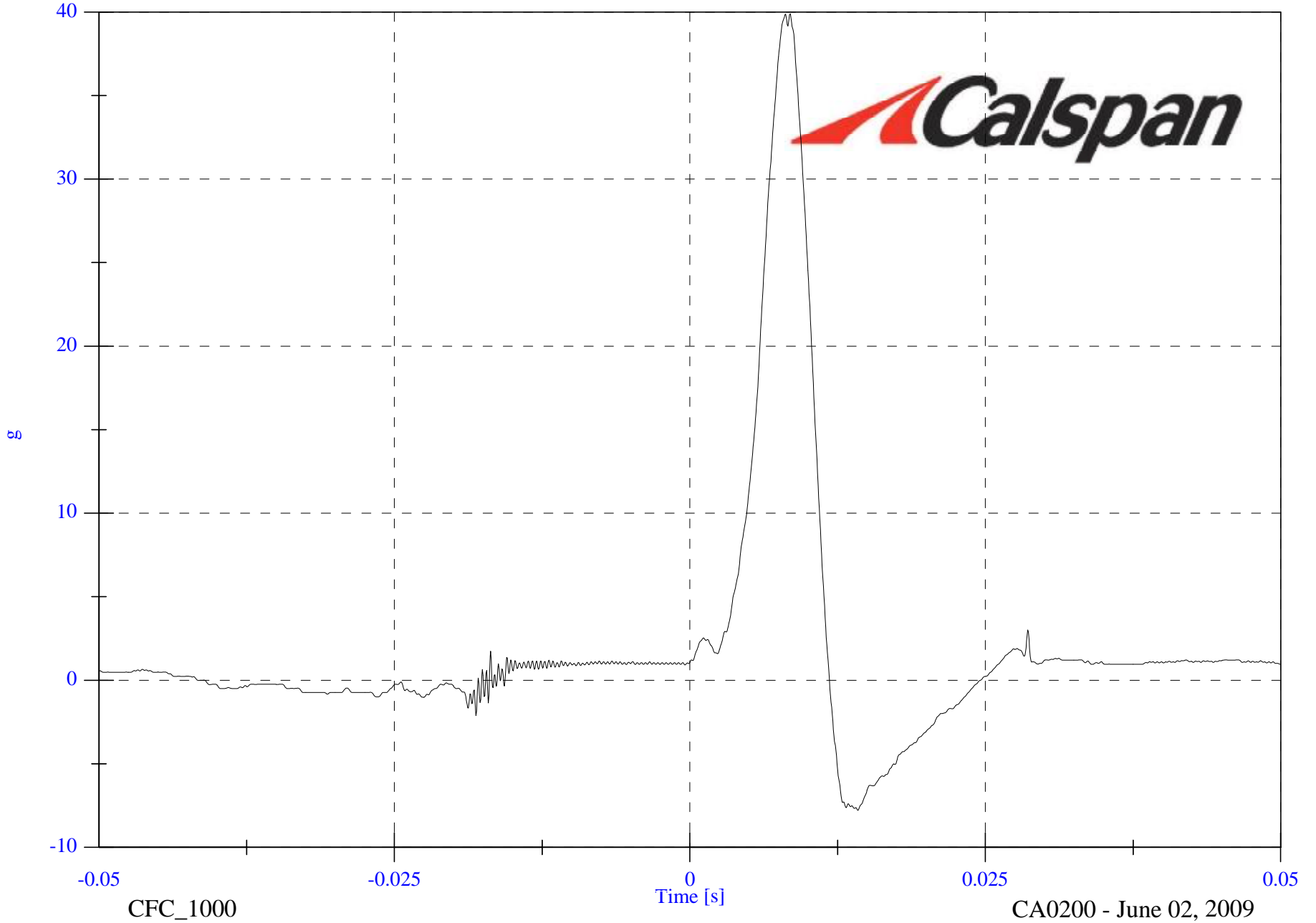
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 39.9 [g] at 0.008 [s]

Min: -7.8 [g] at 0.014 [s]

CA0200 PASSENGER SIDE BP1 IMPACT PLOT #3



CFC\_1000

CA0200 - June 02, 2009

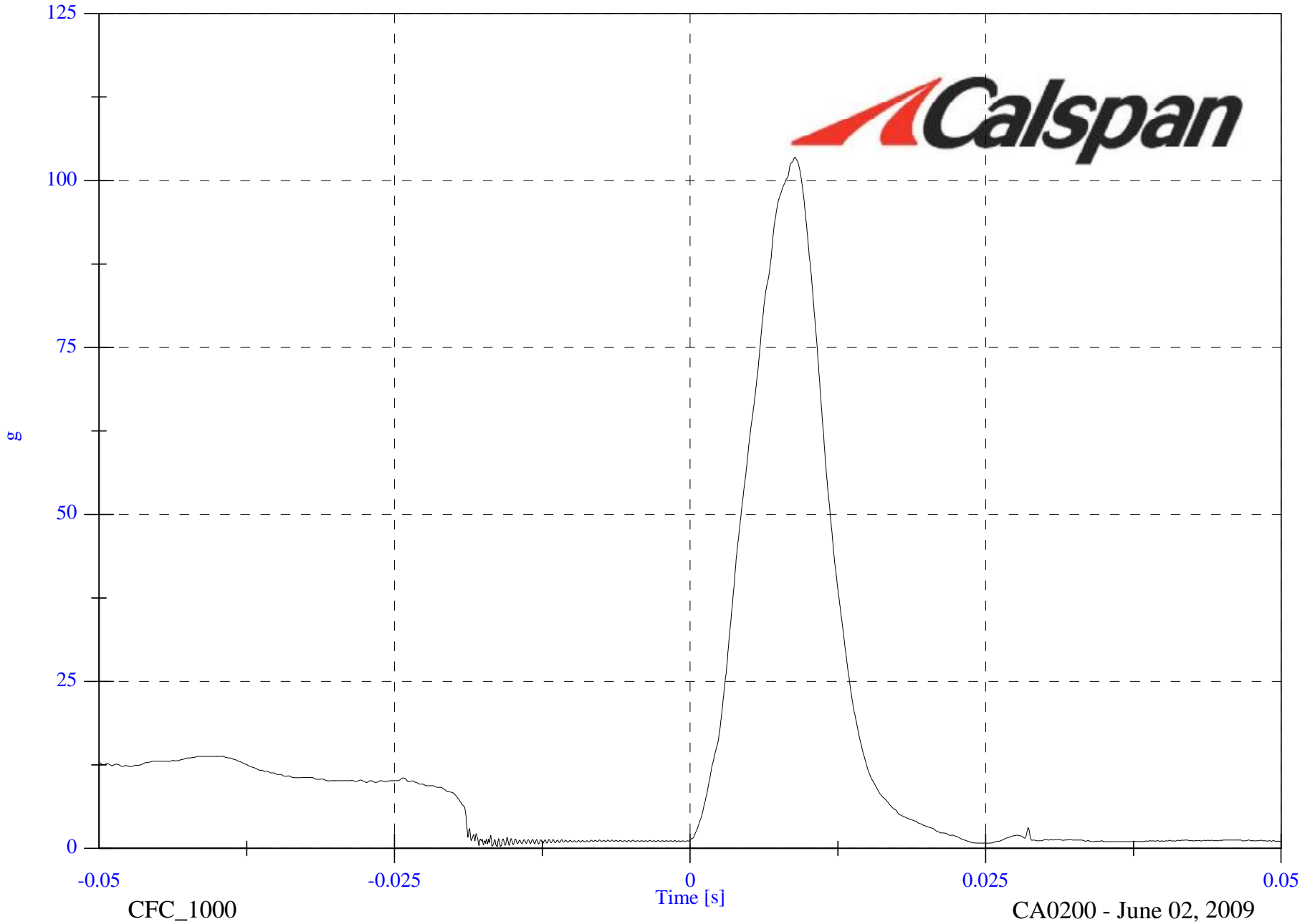
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 103.5 [g] at 0.009 [s]

Min: 0.3 [g] at -0.016 [s]

CA0200 PASSENGER SIDE BP1 IMPACT PLOT #4



CFC\_1000

CA0200 - June 02, 2009

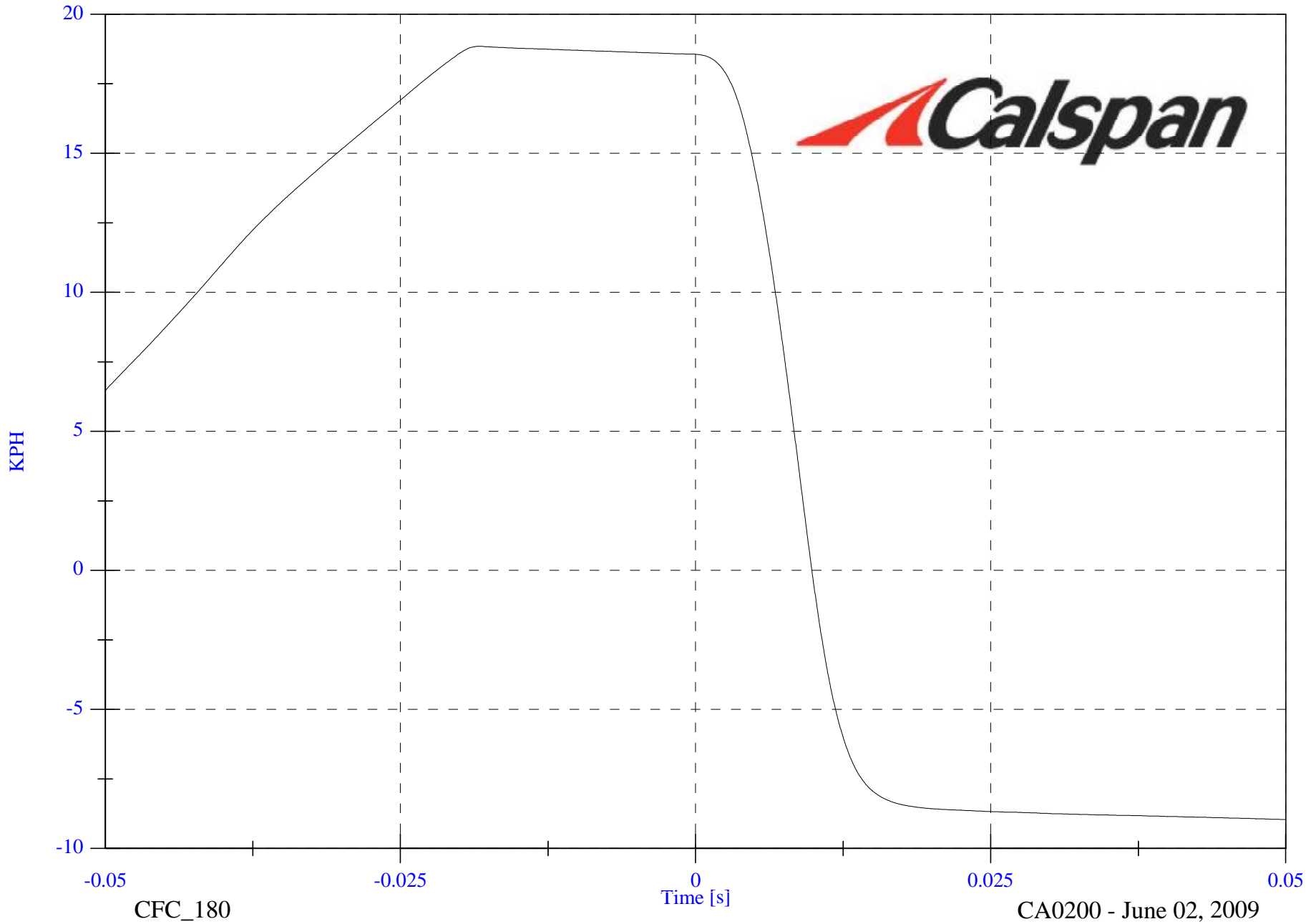
FMVSS 201U 2010 FORD FUSION

Max: 18.8 [KPH] at -0.018 [s]

Min: -9.0 [KPH] at 0.050 [s]

Headform Velocity

CA0200 PASSENGER SIDE BP1 IMPACT PLOT #5



CFC\_180

CA0200 - June 02, 2009





PRE-IMPACT BPI



POST-IMPACT BPI

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	06
Test Date:	06/02/09
Target Location:	SIDE RAIL
Target Code:	SR2A
Horizontal Impact Angle:	90°
Vertical Impact Angle:	43°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	13:57
Headform Number:	1142

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	1	<input checked="" type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	24				mm up



POST-IMPACT SR2A HEADFORM

Free Motion HIC	382.6
HIC(d)	455.0
Impact Velocity (kph)	18.74
HIC T1 (msec)	2.3
HIC T2 (msec)	9.1

# FMVSS 201U 2010 FORD FUSION CA0200 - SR2A

FMH Headform 1142

Location: SR2A

Test Date: June 02, 2009

Work File: SR2A

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 455.0

Lab Humidity: 42 %

HIC (36ms): 382.6

Velocity at Impact: 18.72 KPH

t1: 2.3 msec

t2: 9.1 msec

Free Flight Distance: 221.91 mm

Duration: 6.8 msec

Average Acceleration: 7.0 g

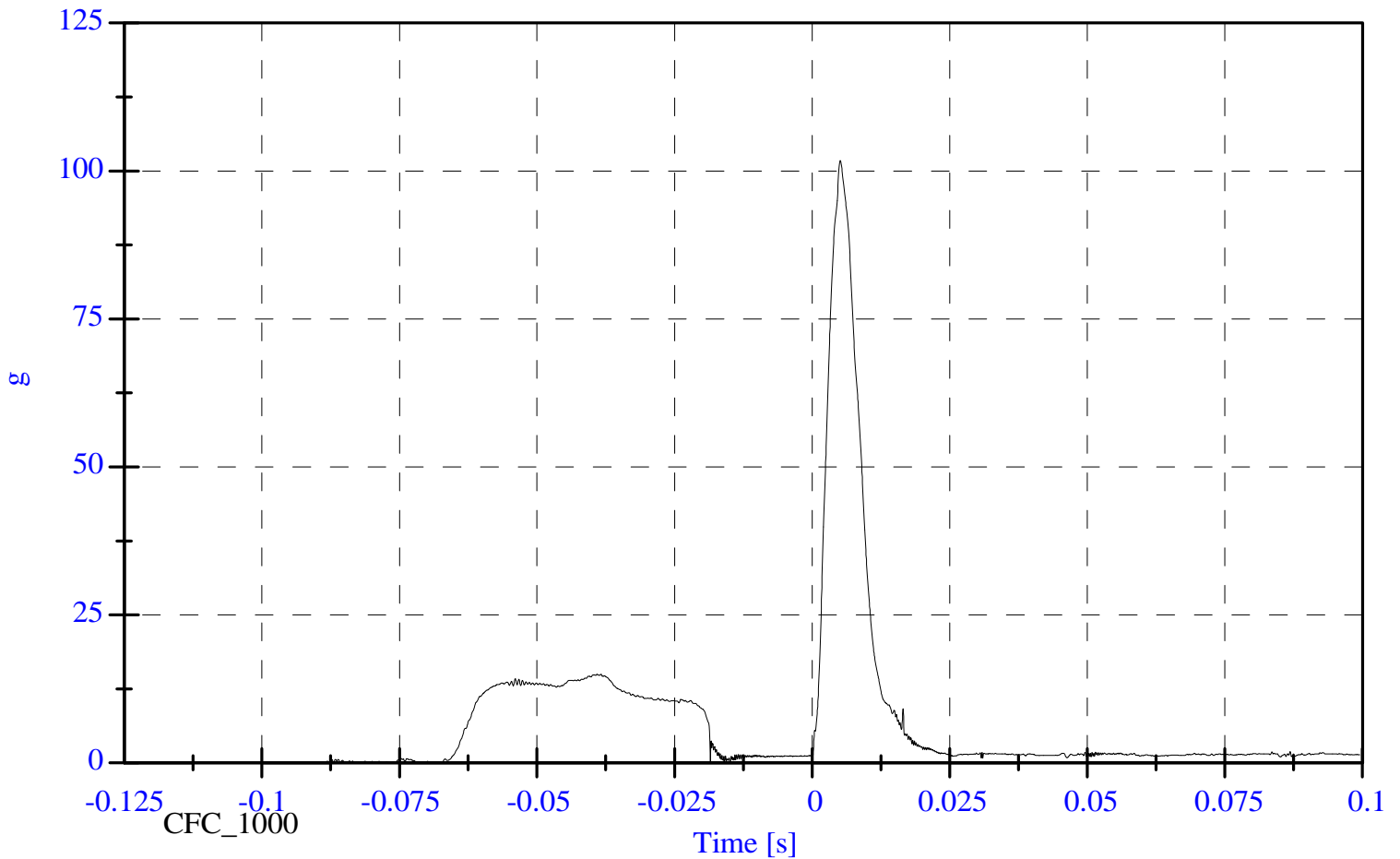
Maximum: 101.8 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 101.8 [g] at 0.005 [s]

Min: 0.0 [g] at -0.089 [s]



FMVSS 201U 2010 FORD FUSION

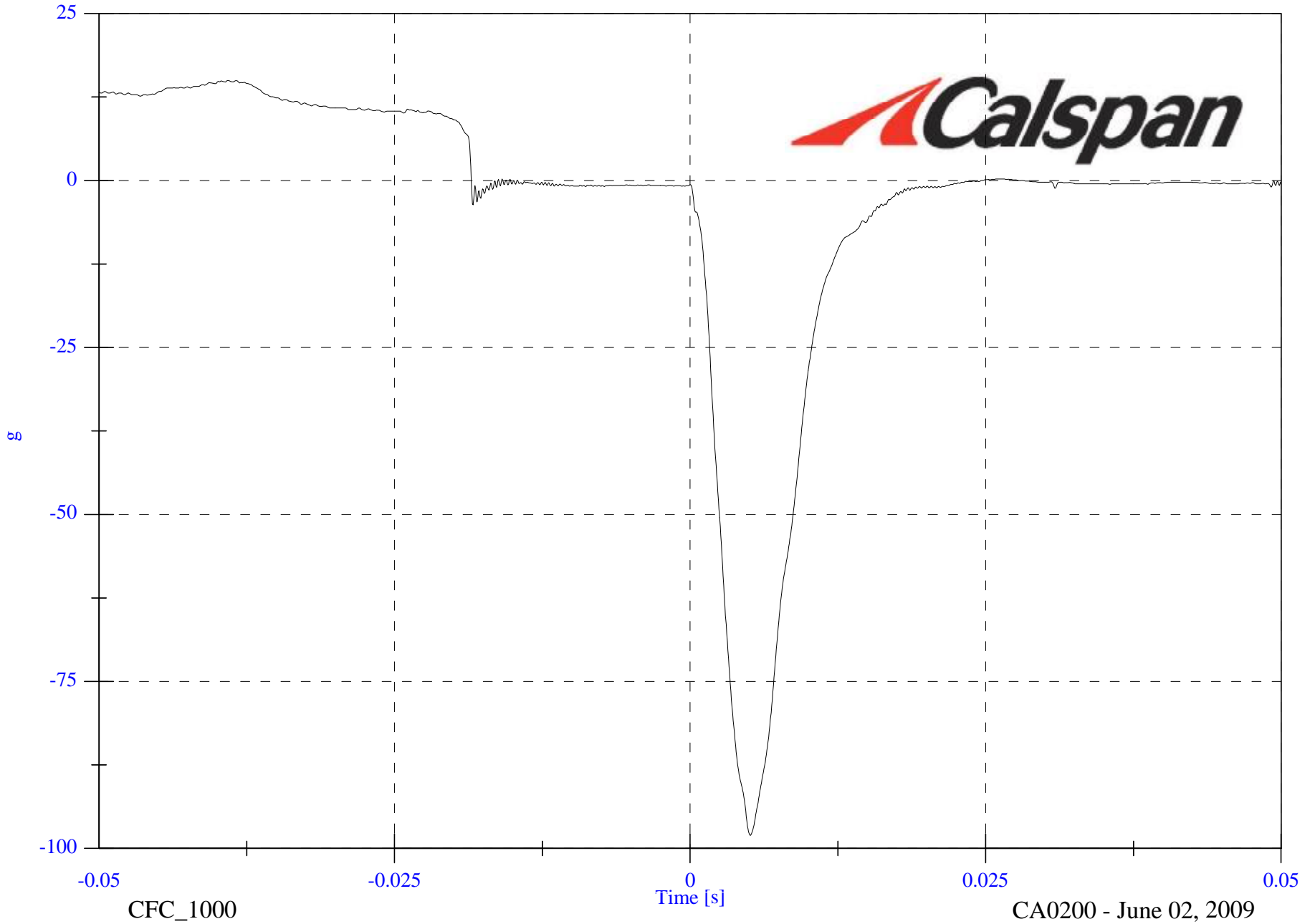
Headform X Acceleration

Max: 15.0 [g] at -0.039 [s]

Min: -98.1 [g] at 0.005 [s]



CA0200 PASSENGER SIDE SR2A IMPACT PLOT #1



CFC\_1000

CA0200 - June 02, 2009

FMVSS 201U 2010 FORD FUSION

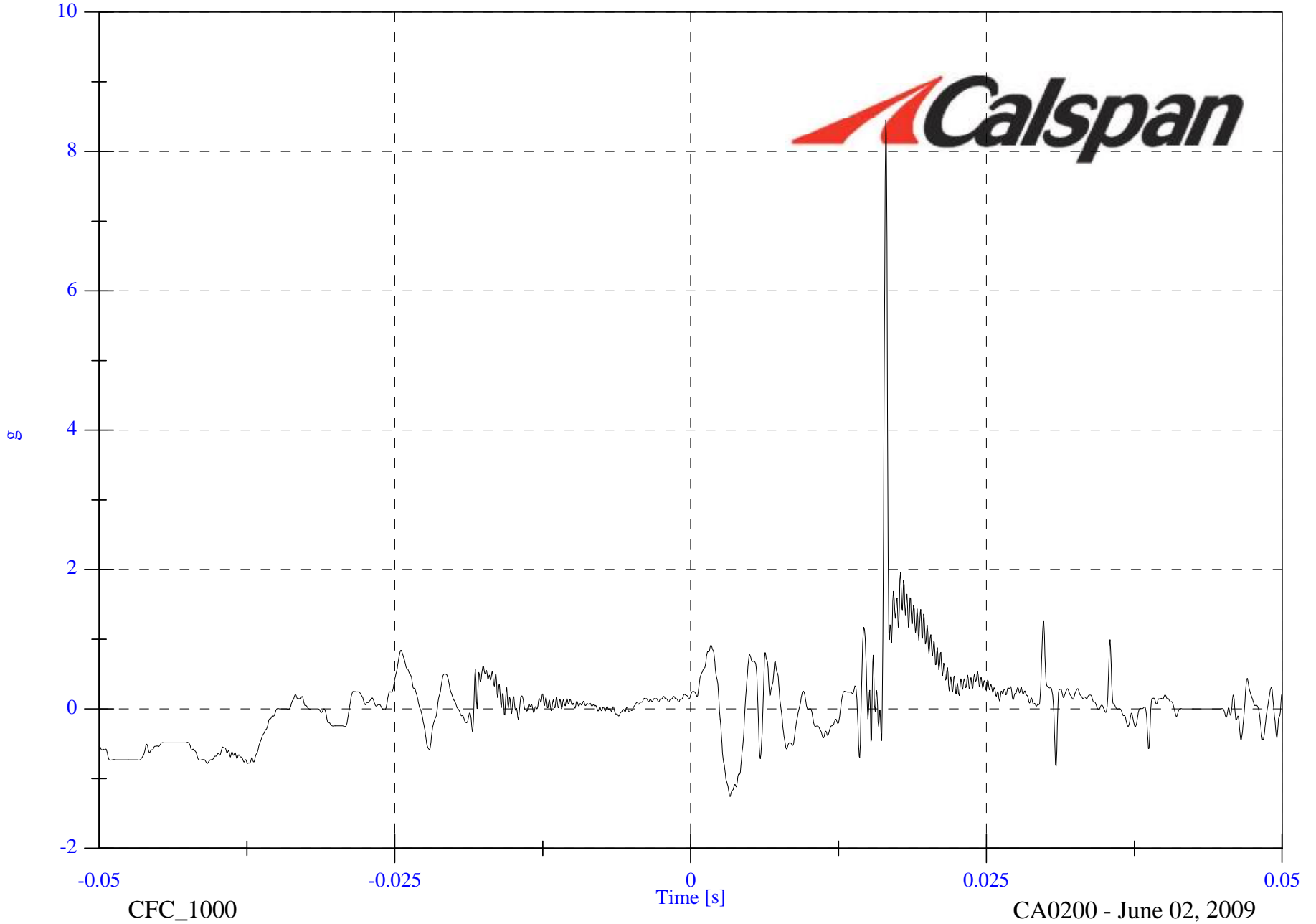
Headform Y Acceleration

Max: 8.5 [g] at 0.016 [s]

Min: -1.3 [g] at 0.003 [s]



CA0200 PASSENGER SIDE SR2A IMPACT PLOT #2



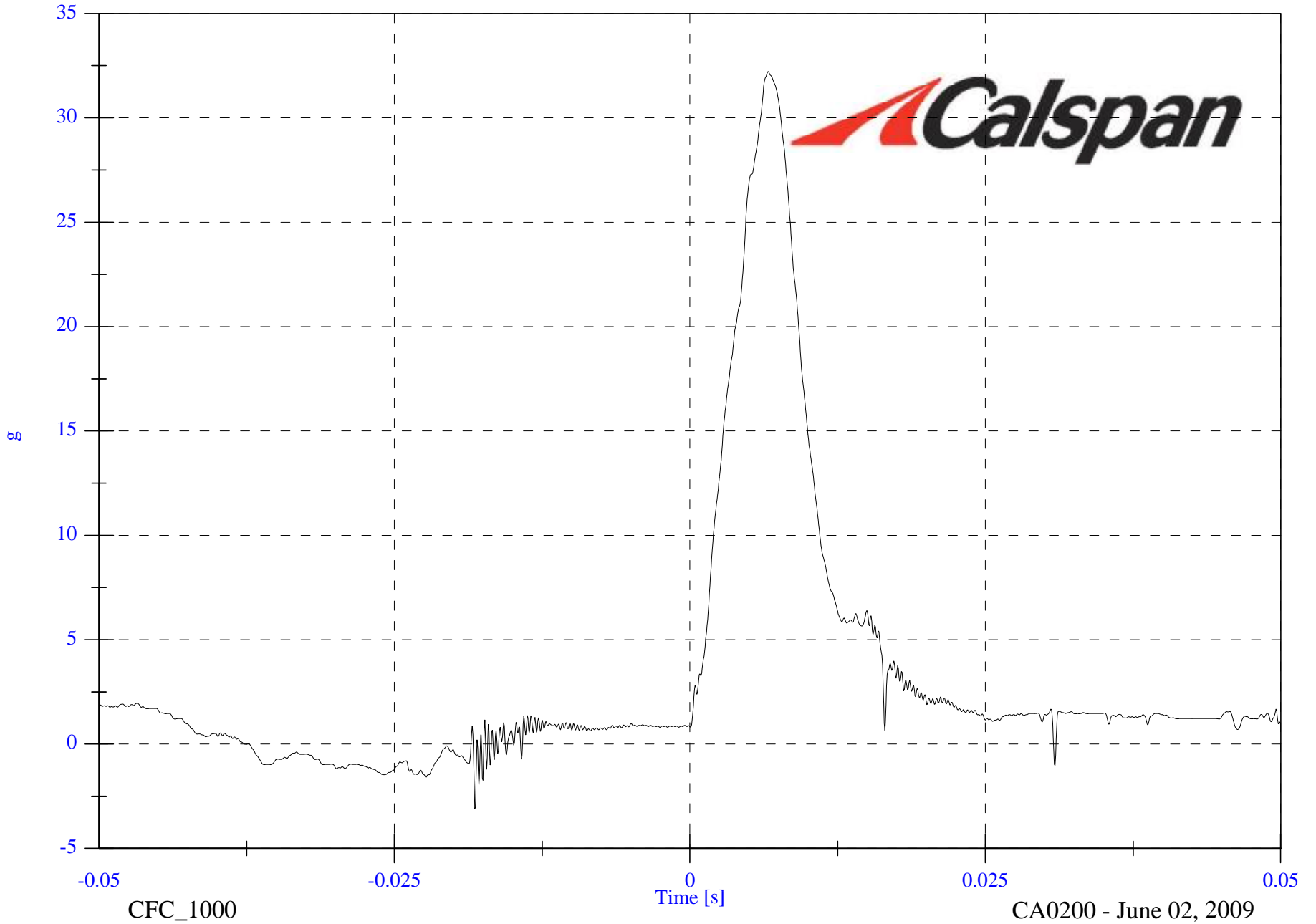
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 32.2 [g] at 0.007 [s]

Min: -3.1 [g] at -0.018 [s]

CA0200 PASSENGER SIDE SR2A IMPACT PLOT #3



CFC\_1000

CA0200 - June 02, 2009

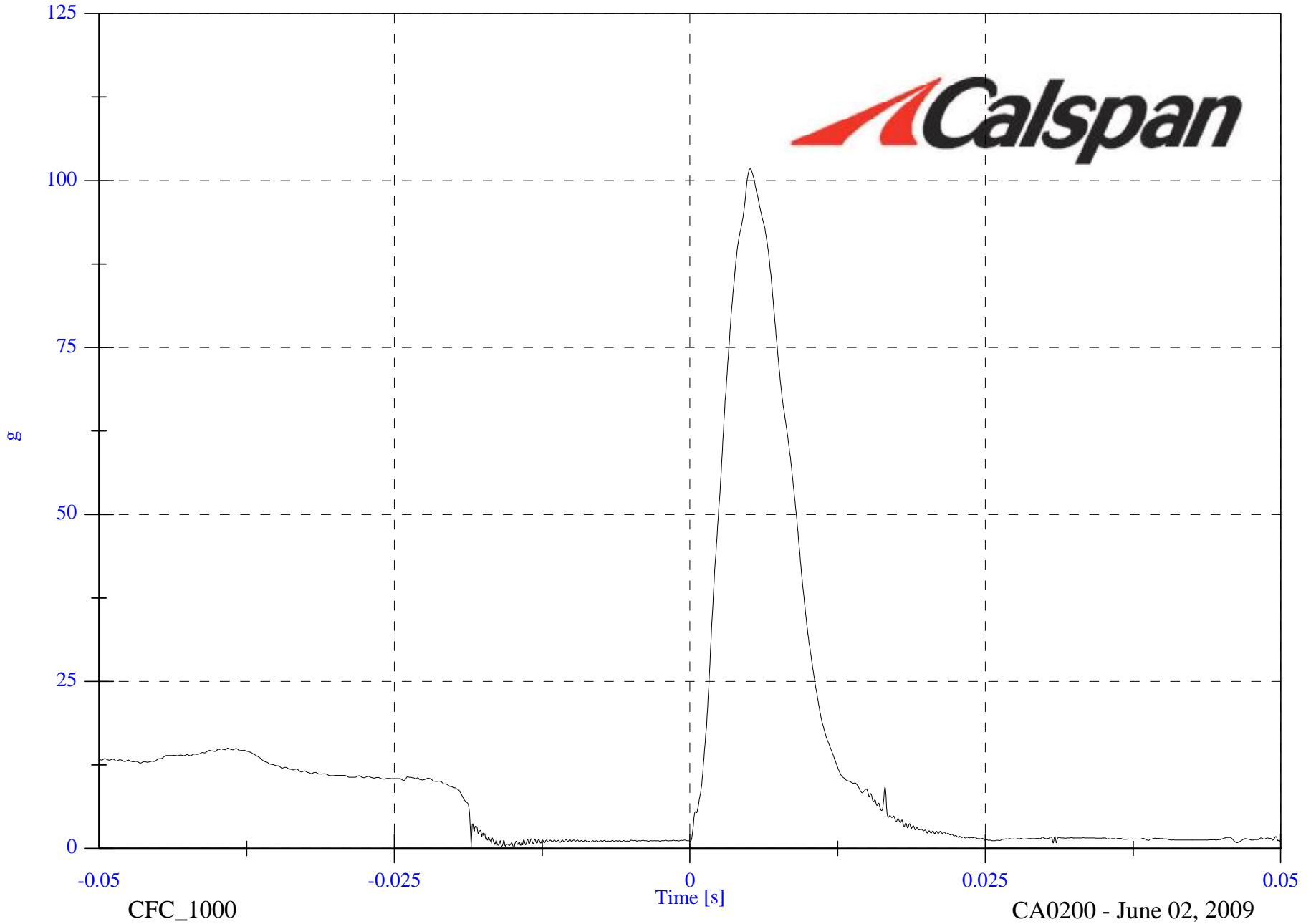
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 101.8 [g] at 0.005 [s]

Min: 0.1 [g] at -0.015 [s]

CA0200 PASSENGER SIDE SR2A IMPACT PLOT #4



CFC\_1000

CA0200 - June 02, 2009



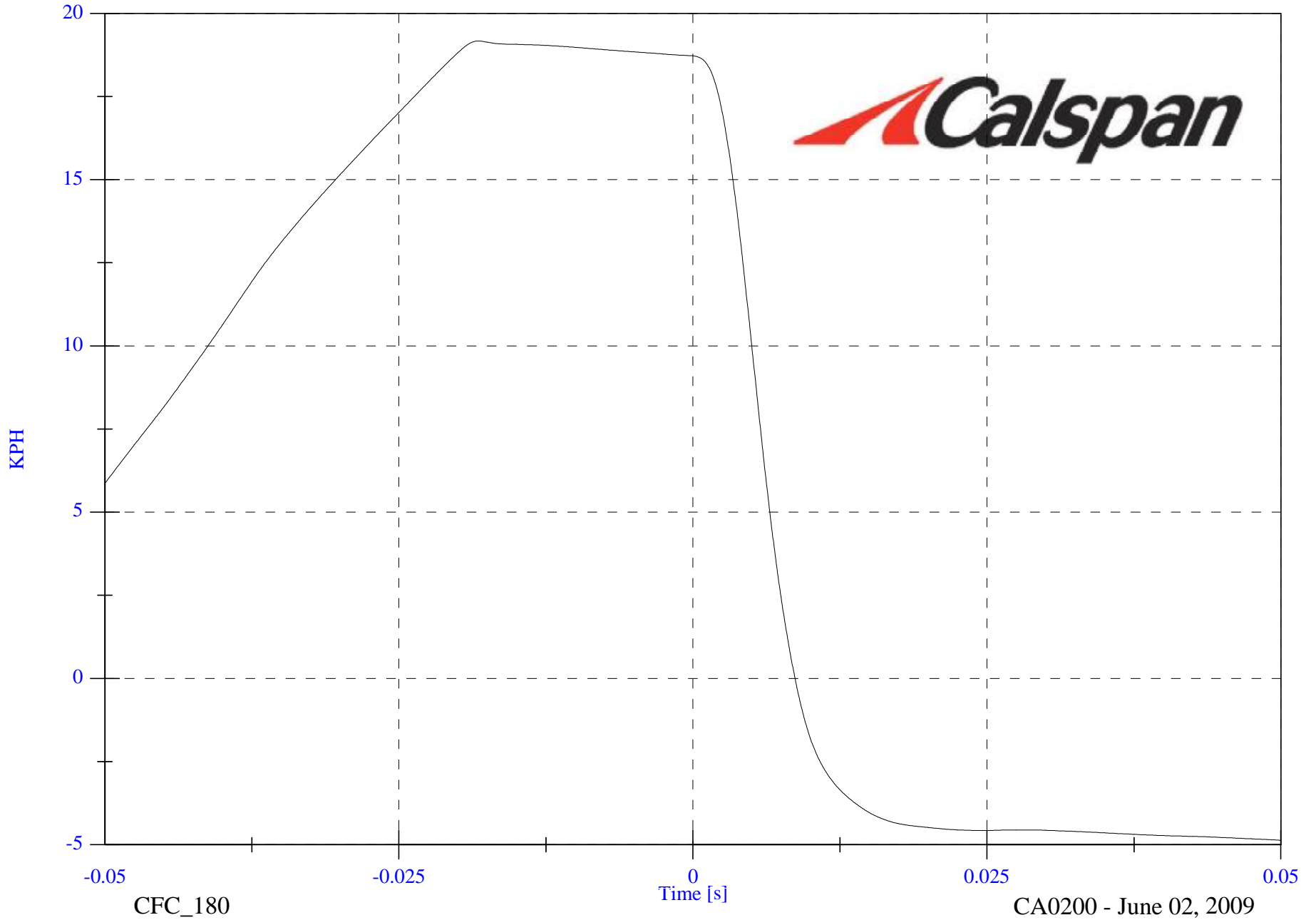
FMVSS 201U 2010 FORD FUSION

Max: 19.2 [KPH] at -0.018 [s]

Min: -4.9 [KPH] at 0.050 [s]

Headform Velocity

CA0200 PASSENGER SIDE SR2A IMPACT PLOT #5



CFC\_180

CA0200 - June 02, 2009



PRE-IMPACT SR2A



POST-IMPACT SR2A

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	07
Test Date:	06/02/09
Target Location:	A-PILLAR
Target Code:	AP3
Horizontal Impact Angle:	138°
Vertical Impact Angle:	45°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	14:30
Headform Number:	1140

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	7	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	8		mm up



POST-IMPACT AP3 HEADFORM

Free Motion HIC	423.6
HIC(d)	340.9
Impact Velocity (kph)	18.63
HIC T1 (msec)	6.5
HIC T2 (msec)	12.8

# FMVSS 201U 2010 FORD FUSION CA0200 - AP3

FMH Headform 1140

Location: AP3

Test Date: June 02, 2009

Work File: AP3

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 423.6

Lab Humidity: 42 %

HIC (36ms): 340.9

Velocity at Impact: 18.63 KPH

t1: 6.5 msec

t2: 12.8 msec

Free Flight Distance: 219.60 mm

Duration: 6.3 msec

Average Acceleration: 9.6 g

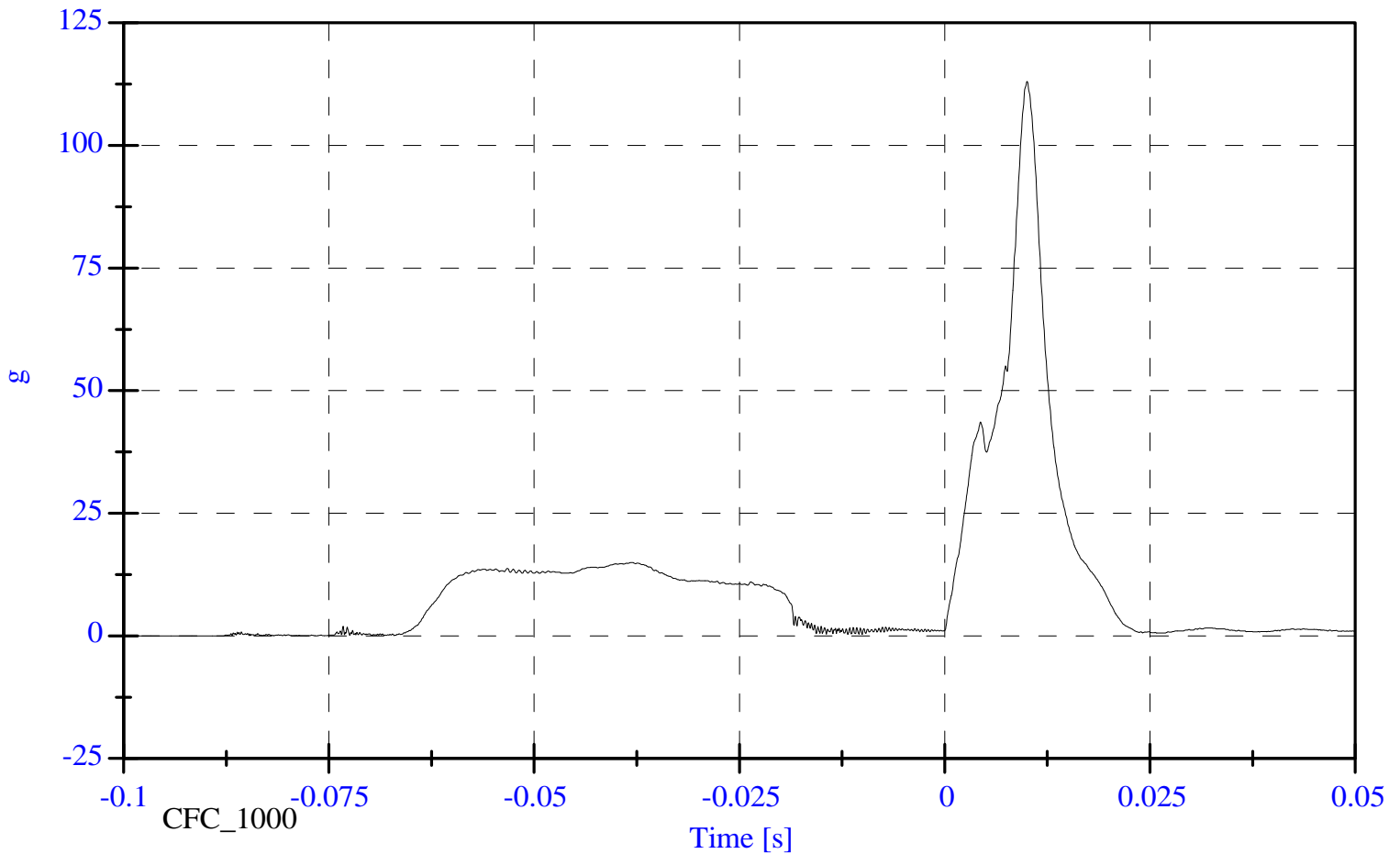
Maximum: 113.0 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 113.0 [g] at 0.010 [s]

Min: -0.0 [g] at -0.099 [s]



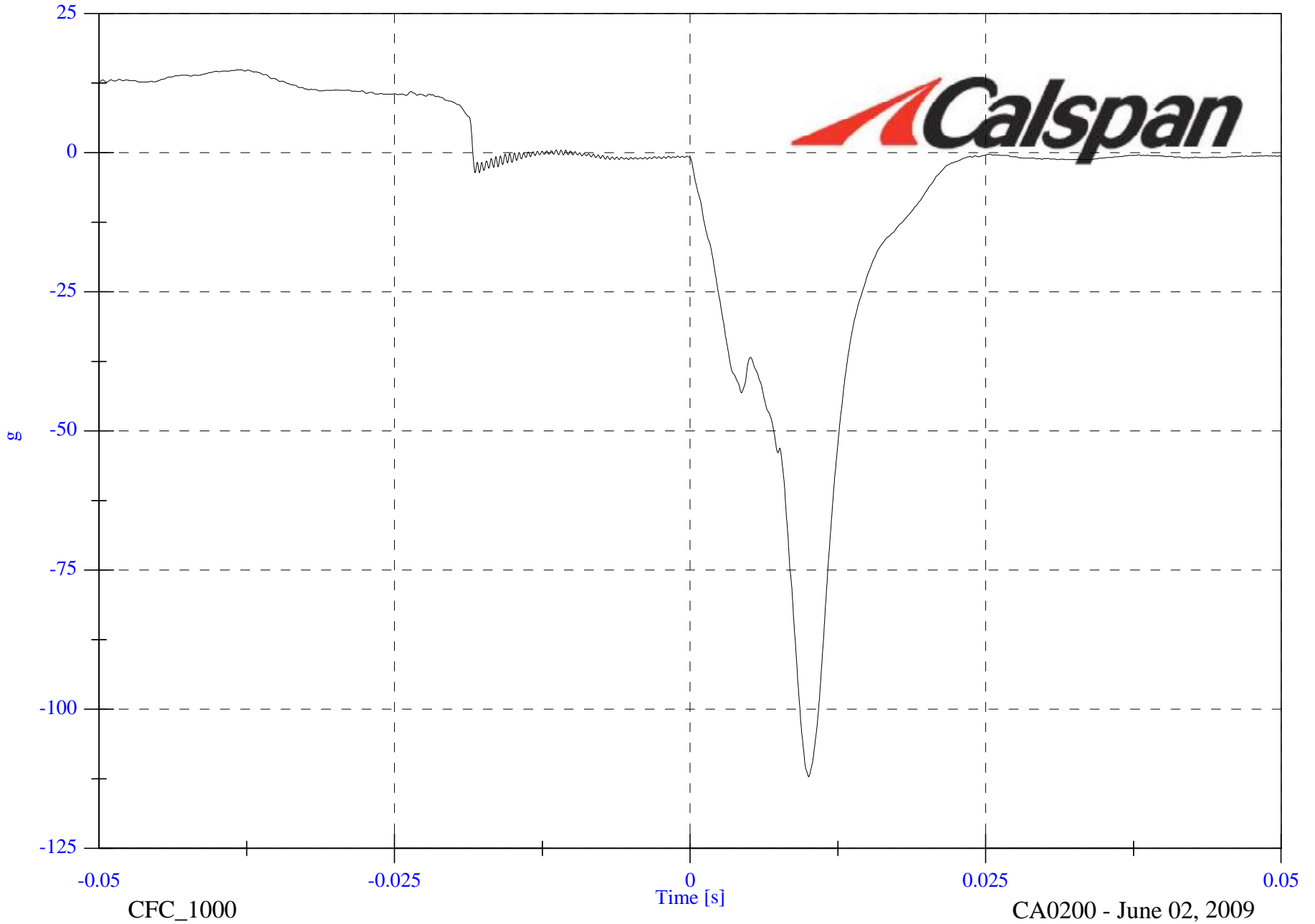
FMVSS 201U 2010 FORD FUSION

Headform X Acceleration

Max: 14.9 [g] at -0.038 [s]

Min: -112.1 [g] at 0.010 [s]

CA0200 PASSENGER SIDE AP3 IMPACT PLOT #1



CFC\_1000

CA0200 - June 02, 2009

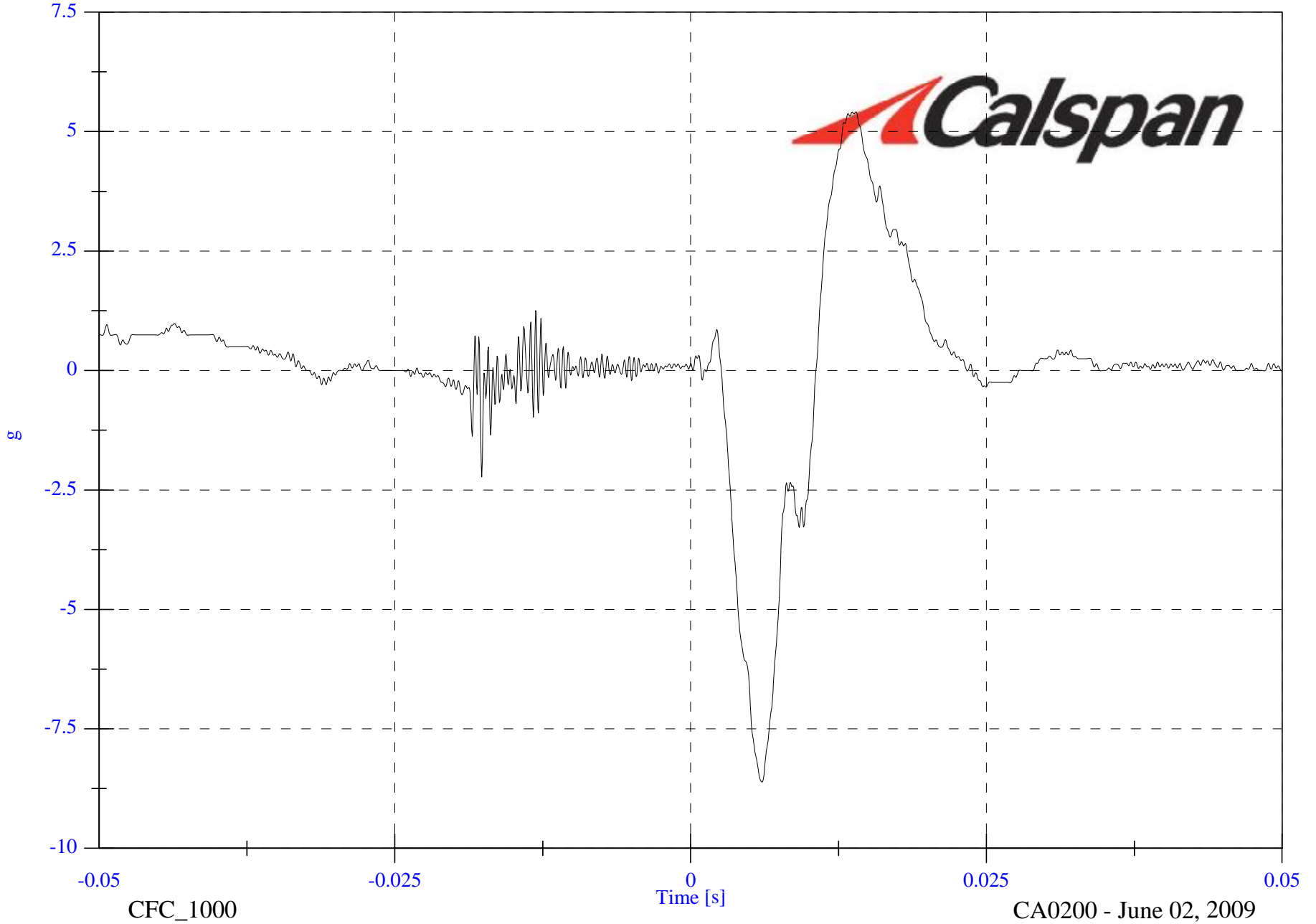
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 5.4 [g] at 0.014 [s]

Min: -8.6 [g] at 0.006 [s]

CA0200 PASSENGER SIDE AP3 IMPACT PLOT #2



CFC\_1000

CA0200 - June 02, 2009

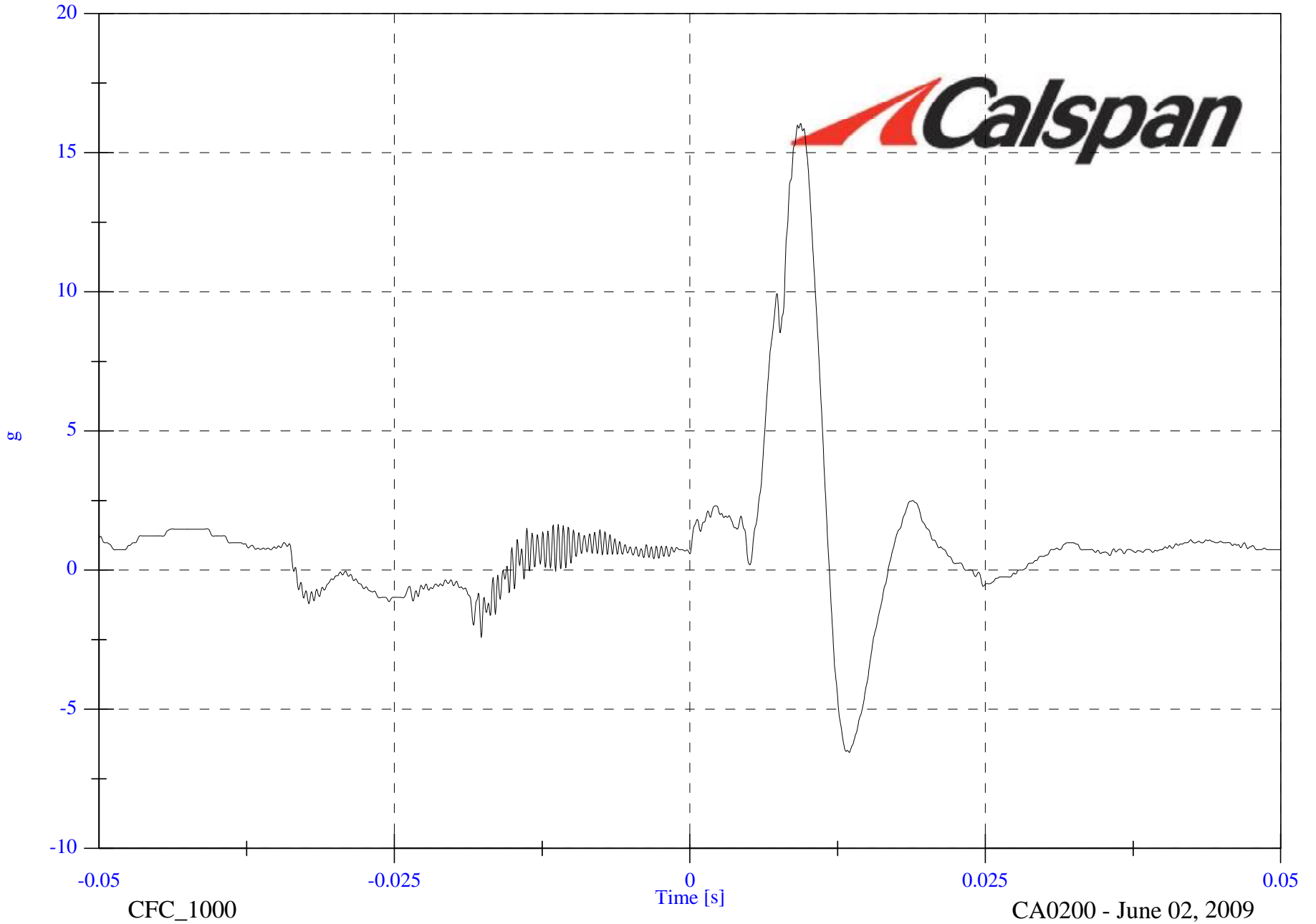
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 16.0 [g] at 0.009 [s]

Min: -6.6 [g] at 0.013 [s]

CA0200 PASSENGER SIDE AP3 IMPACT PLOT #3





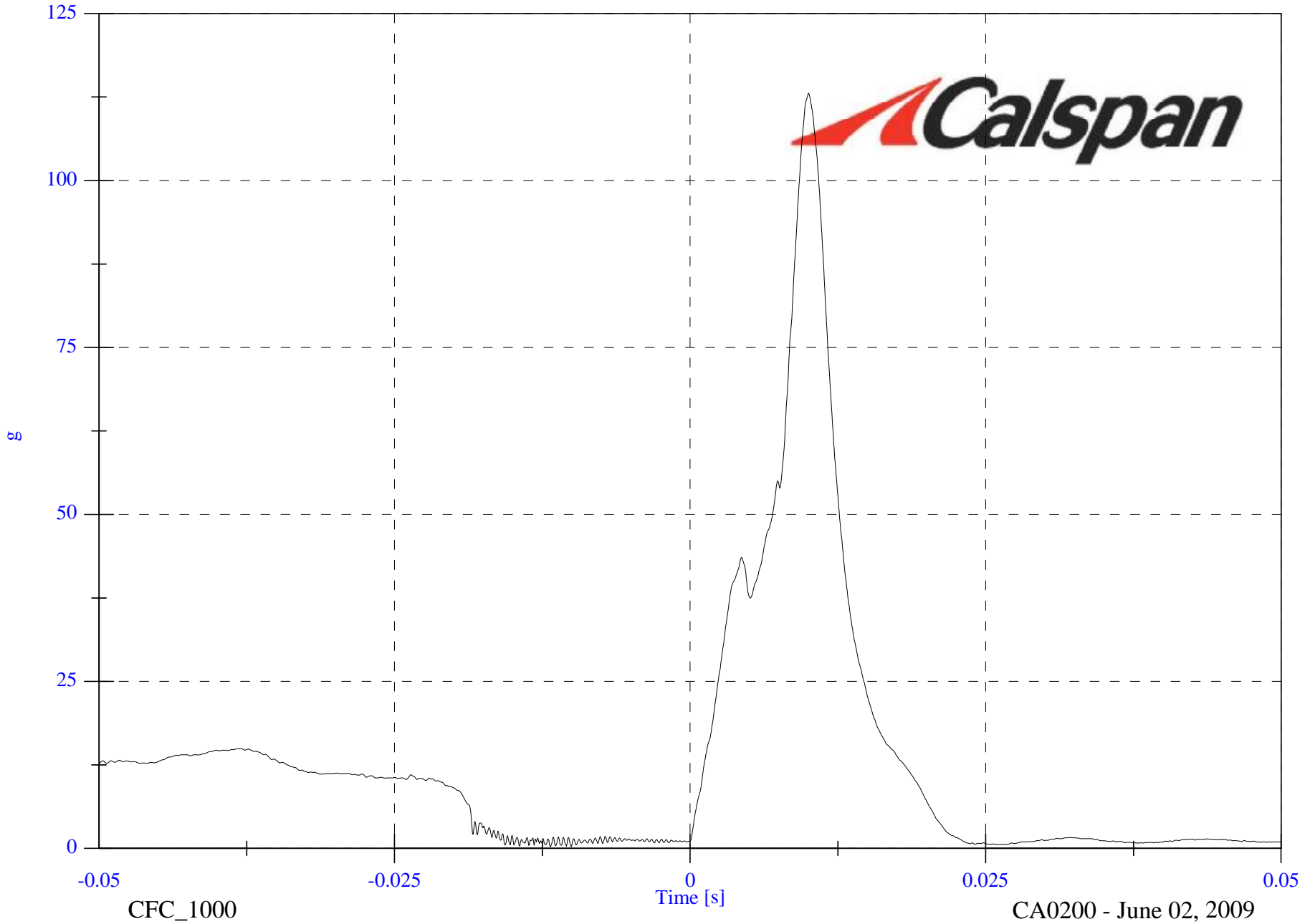
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 113.0 [g] at 0.010 [s]

Min: 0.3 [g] at -0.010 [s]

CA0200 PASSENGER SIDE AP3 IMPACT PLOT #4



CFC\_1000

CA0200 - June 02, 2009

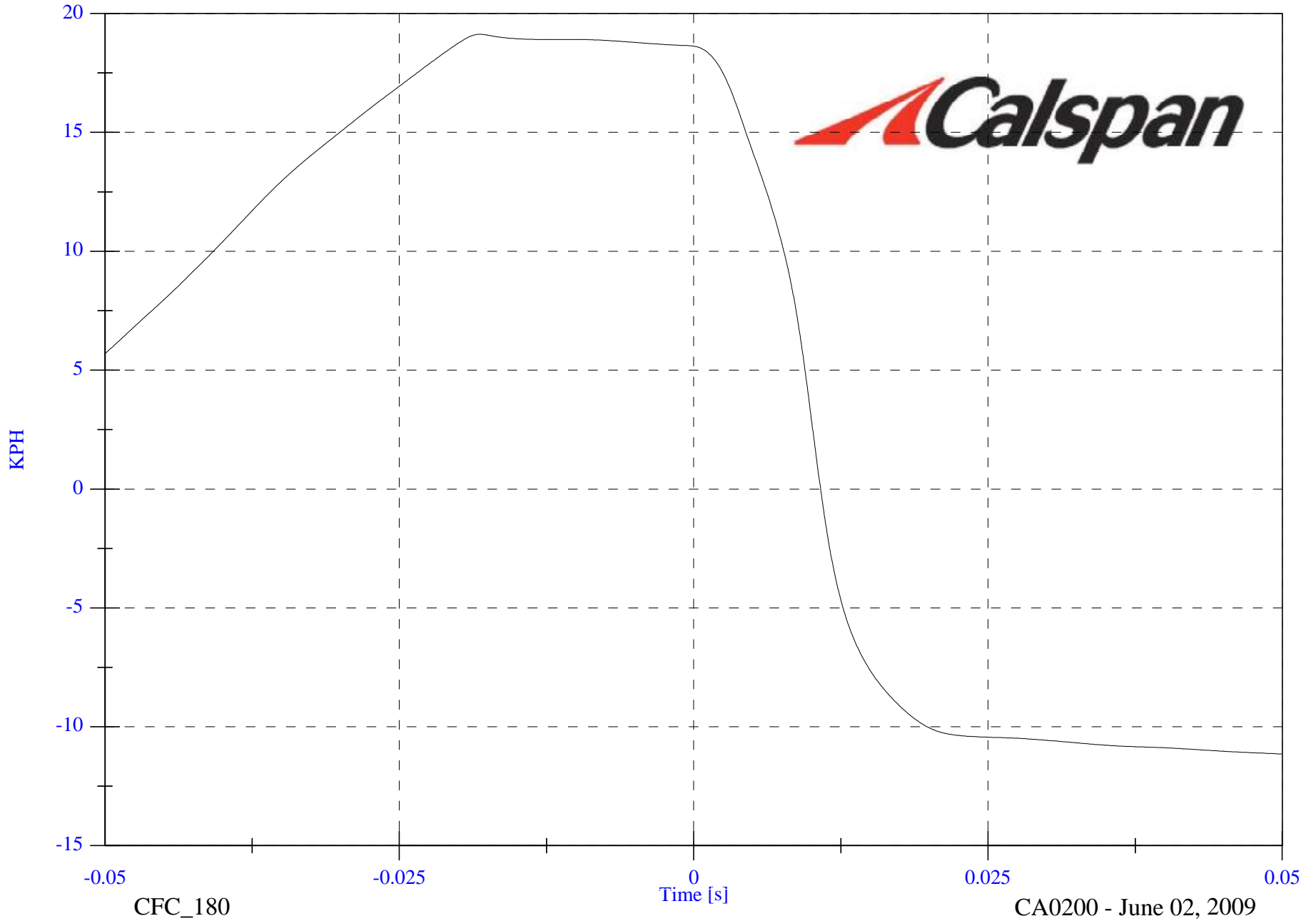
FMVSS 201U 2010 FORD FUSION

Max: 19.1 [KPH] at -0.018 [s]

Min: -11.1 [KPH] at 0.050 [s]

Headform Velocity

CA0200 PASSENGER SIDE AP3 IMPACT PLOT #5



CFC\_180

CA0200 - June 02, 2009



PRE-IMPACT AP3



POST-IMPACT AP3

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	08
Test Date:	06/02/09
Target Location:	A-PILLAR
Target Code:	AP1
Horizontal Impact Angle:	117°
Vertical Impact Angle:	25°
Ambient Temperature:	23°C
Relative Humidity:	42
Time of Impact:	14:55
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)				
On Centerline	33	X	mm right	mm left
On Centerline	13		mm up	



POST-IMPACT AP1 HEADFORM

Free Motion HIC	179.5
HIC(d)	301.8
Impact Velocity (kph)	18.59
HIC T1 (msec)	5.0
HIC T2 (msec)	17.0

# FMVSS 201U 2010 FORD FUSION CA0200 - AP1

FMH Headform 0805

Location: AP1

Test Date: June 02, 2009

Work File: AP1

## -----TEST RESULTS-----

Lab Temperature: 23 C

HICd: 301.8

Lab Humidity: 42 %

HIC (36ms): 179.5

Velocity at Impact: 18.59 KPH

t1: 5.0 msec

t2: 17.0 msec

Free Flight Distance: 221.50 mm

Duration: 12.0 msec

Average Acceleration: 7.3 g

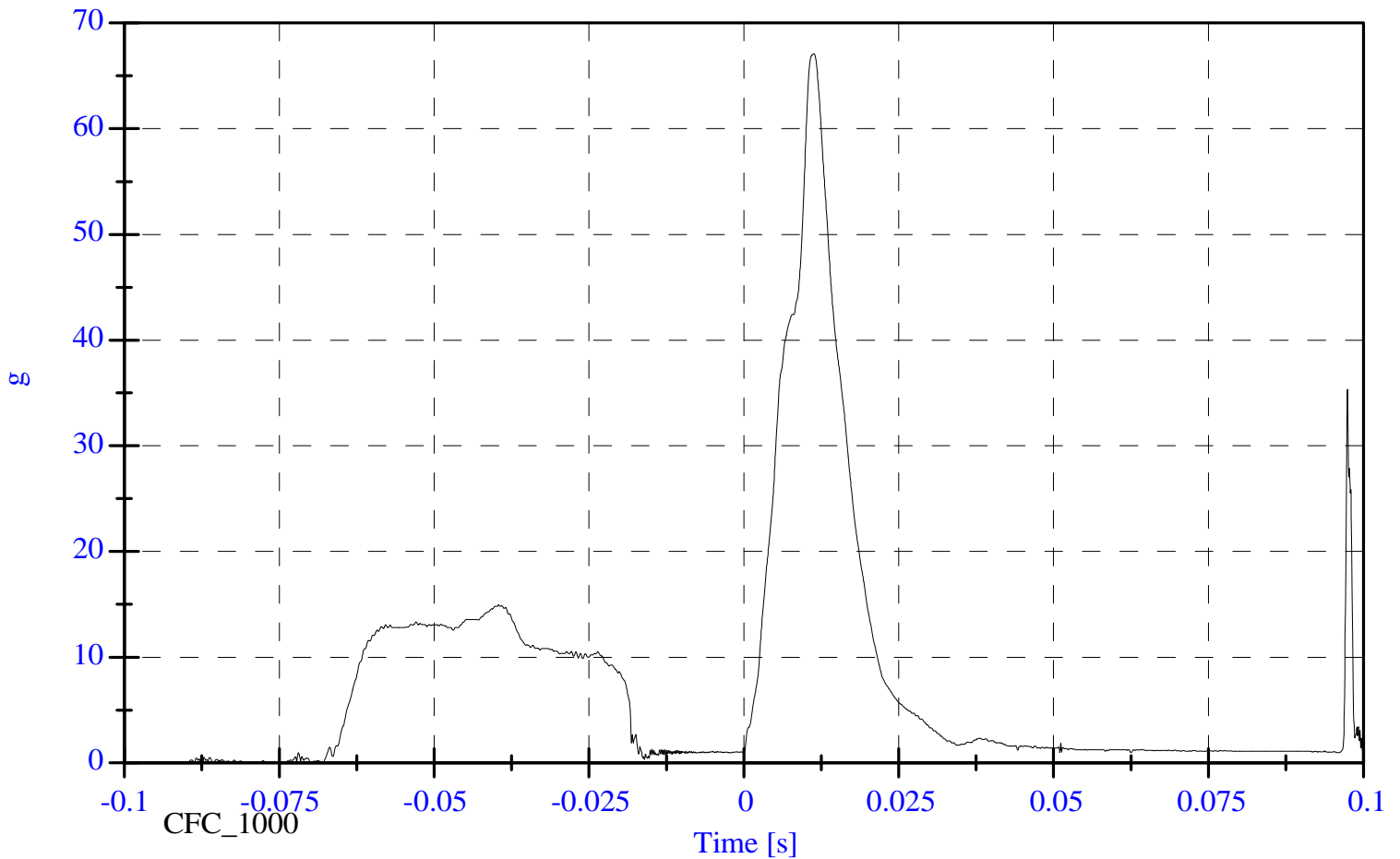
Maximum: 67.1 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 67.1 [g] at 0.011 [s]

Min: 0.0 [g] at -0.096 [s]



FMVSS 201U 2010 FORD FUSION

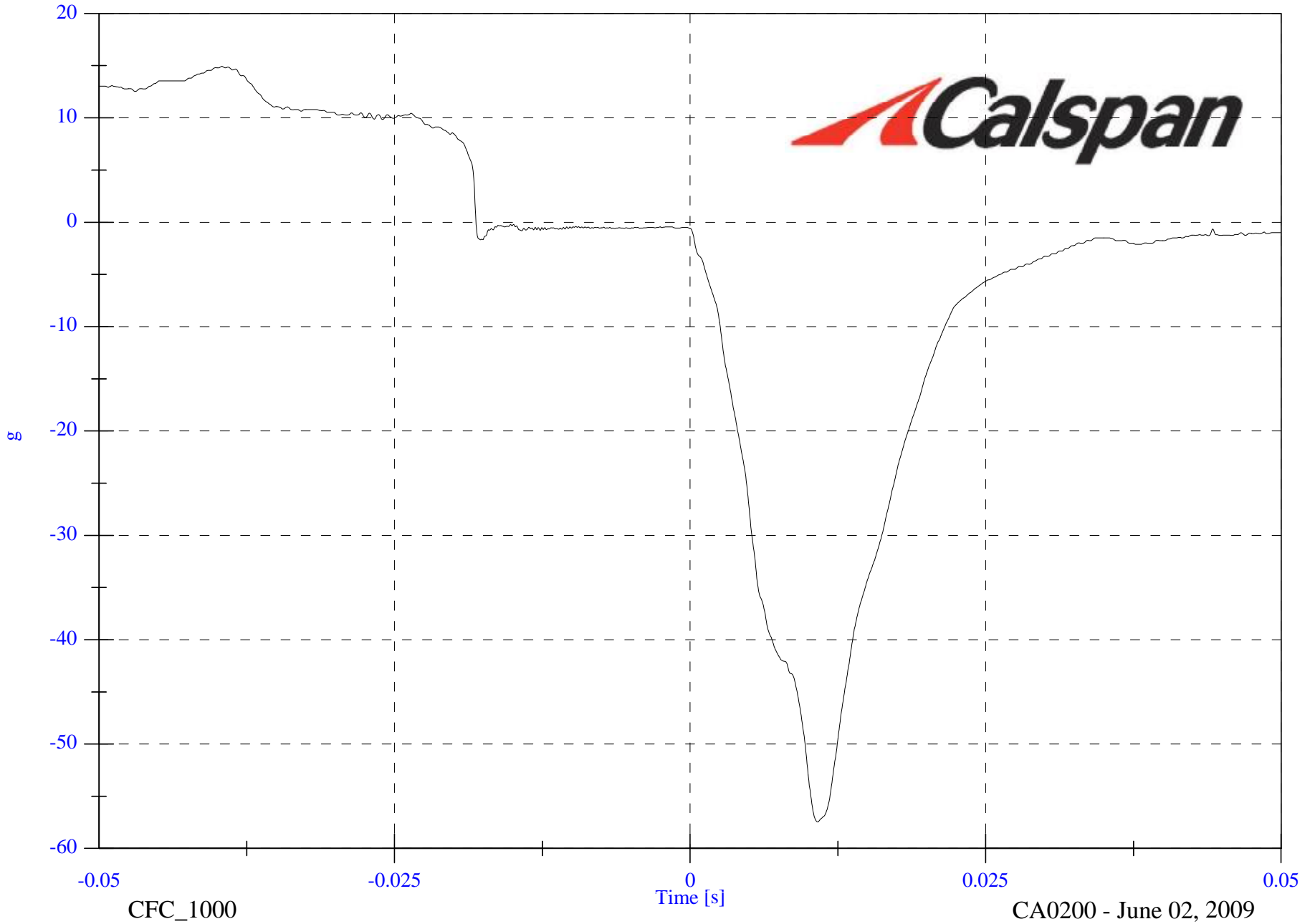
Headform X Acceleration

Max: 14.9 [g] at -0.040 [s]

Min: -57.5 [g] at 0.011 [s]



CA0200 PASSENGER SIDE AP1 IMPACT PLOT #1



CFC\_1000

CA0200 - June 02, 2009

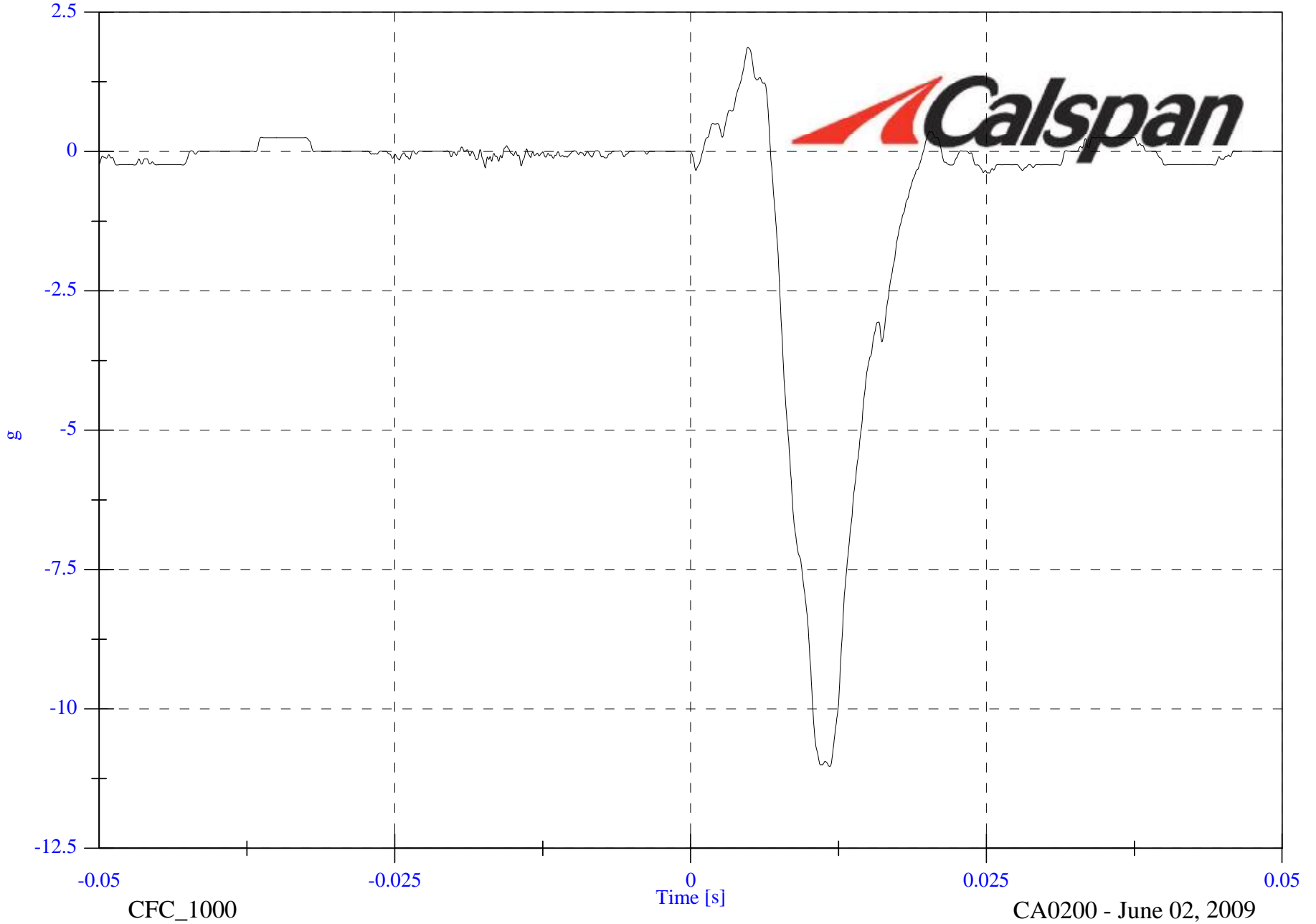
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 1.9 [g] at 0.005 [s]

Min: -11.0 [g] at 0.012 [s]

CA0200 PASSENGER SIDE AP1 IMPACT PLOT #2





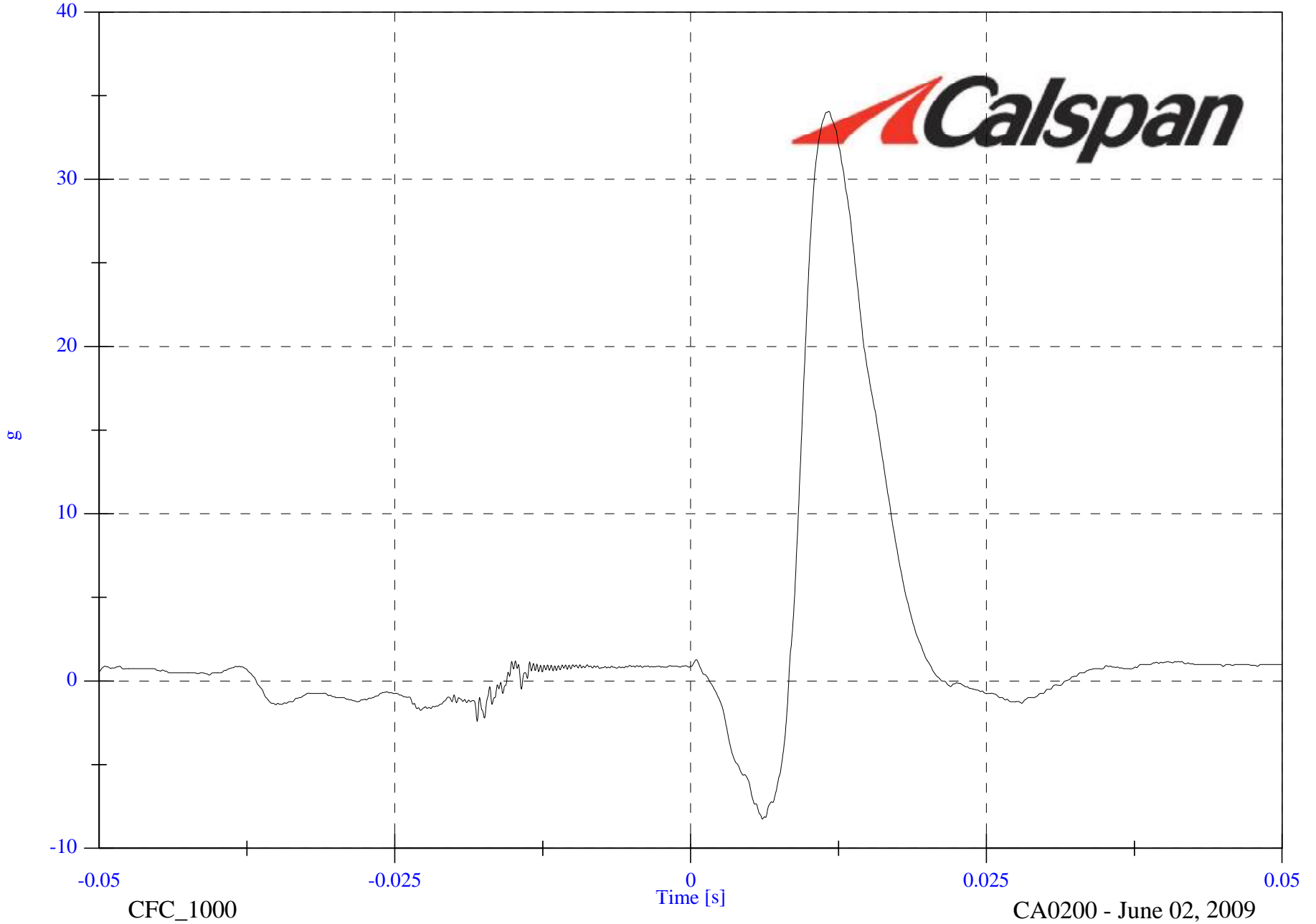
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 34.1 [g] at 0.012 [s]

Min: -8.3 [g] at 0.006 [s]

CA0200 PASSENGER SIDE AP1 IMPACT PLOT #3



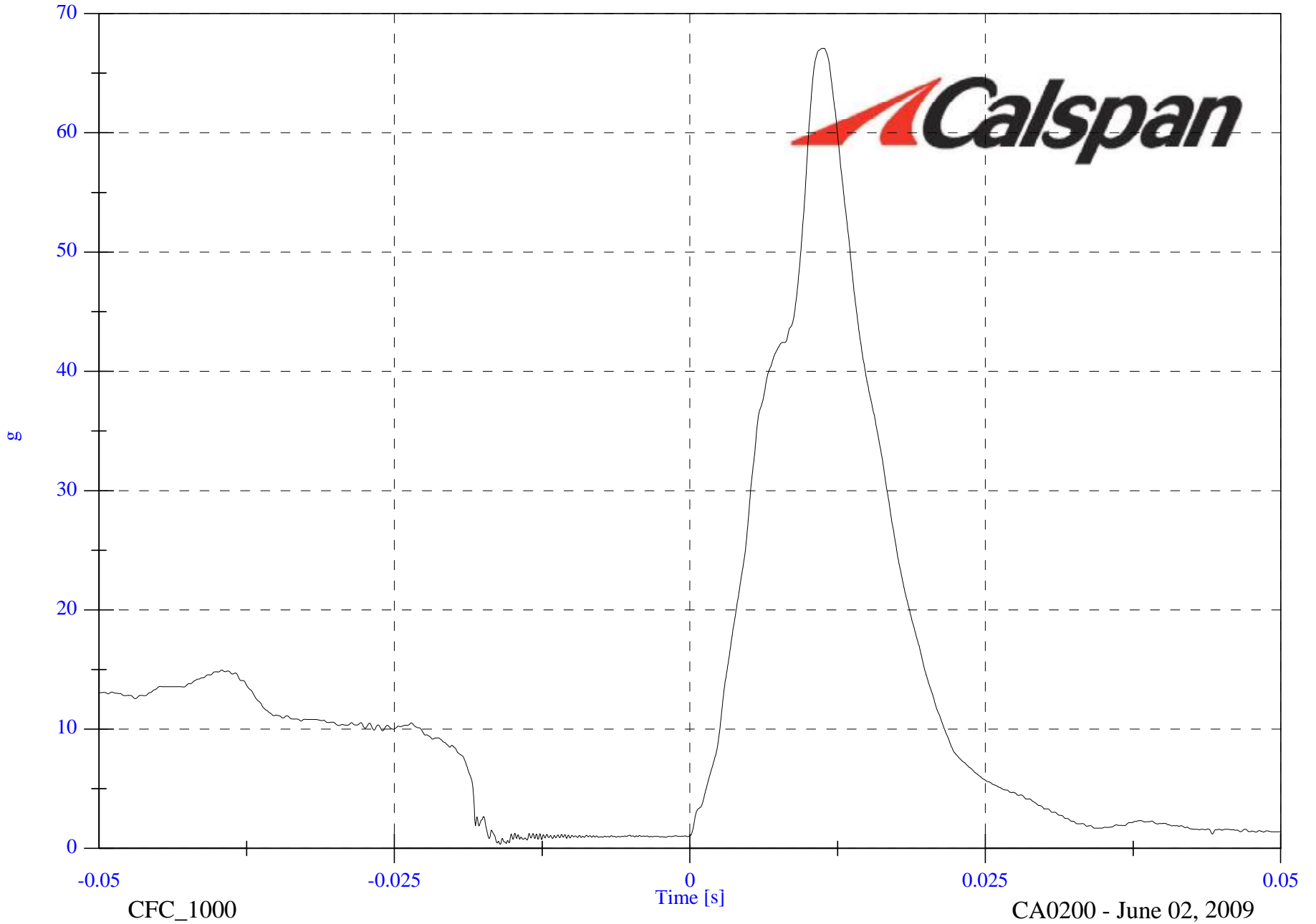
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 67.1 [g] at 0.011 [s]

Min: 0.3 [g] at -0.016 [s]

CA0200 PASSENGER SIDE AP1 IMPACT PLOT #4



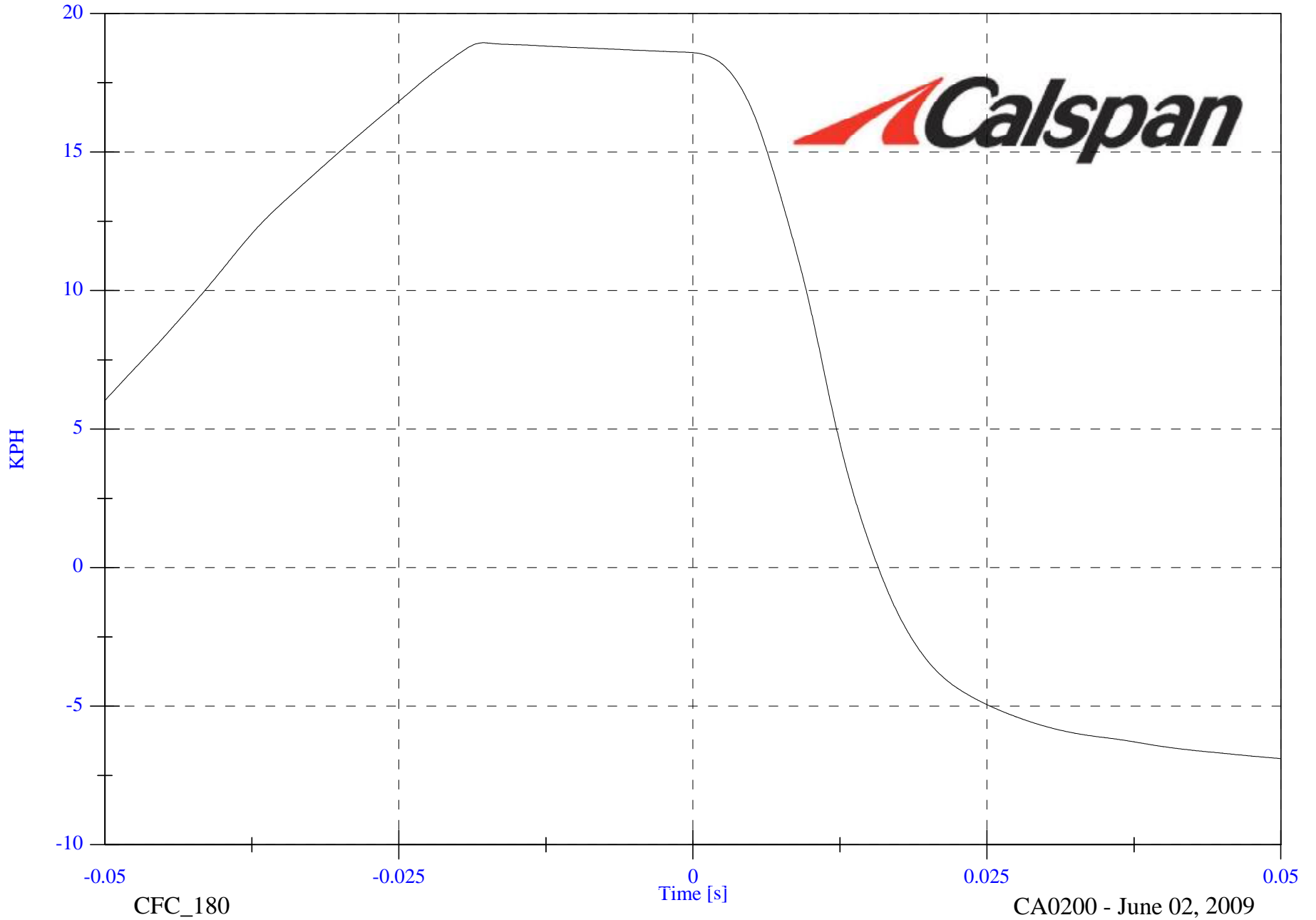
FMVSS 201U 2010 FORD FUSION

Headform Velocity

Max: 18.9 [KPH] at -0.018 [s]

Min: -6.9 [KPH] at 0.050 [s]

CA0200 PASSENGER SIDE AP1 IMPACT PLOT #5



CFC\_180

CA0200 - June 02, 2009



PRE-IMPACT API

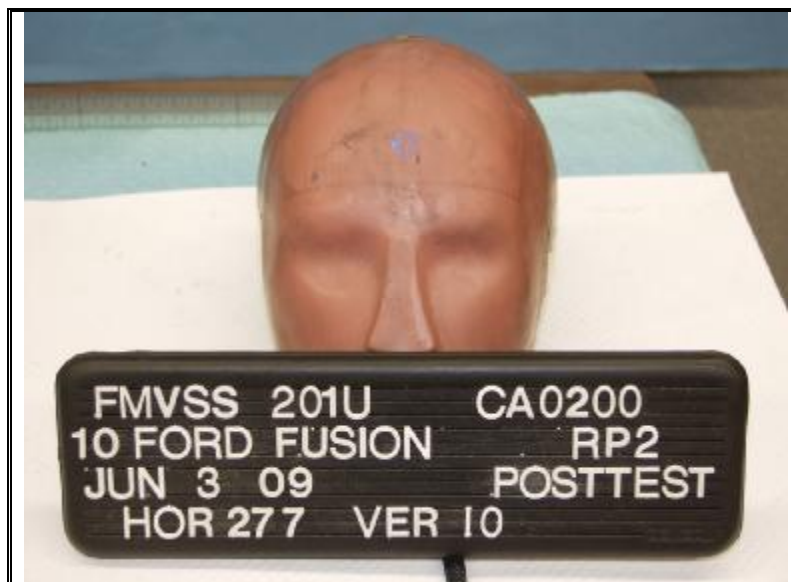


POST-IMPACT API

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	09
Test Date:	06/03/09
Target Location:	REAR PILLAR
Target Code:	RP2
Horizontal Impact Angle:	277°
Vertical Impact Angle:	10°
Ambient Temperature:	20°C
Relative Humidity:	41
Time of Impact:	9:00
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	0	<input type="checkbox"/>	mm right <input type="checkbox"/> mm left
On Centerline	19		mm up



POST-IMPACT RP2 HEADFORM

Free Motion HIC	187.6
HIC(d)	308.0
Impact Velocity (kph)	18.85
HIC T1 (msec)	2.4
HIC T2 (msec)	11.0

# FMVSS 201U 2010 FORD FUSION CA0200 - RP2

FMH Headform 0805

Location: RP2

Test Date: June 03, 2009

Work File: RP2

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 308.0

Lab Humidity: 41 %

HIC (36ms): 187.6

Velocity at Impact: 18.85 KPH

t1: 2.4 msec

t2: 11.0 msec

Free Flight Distance: 222.10 mm

Duration: 8.5 msec

Average Acceleration: 7.6 g

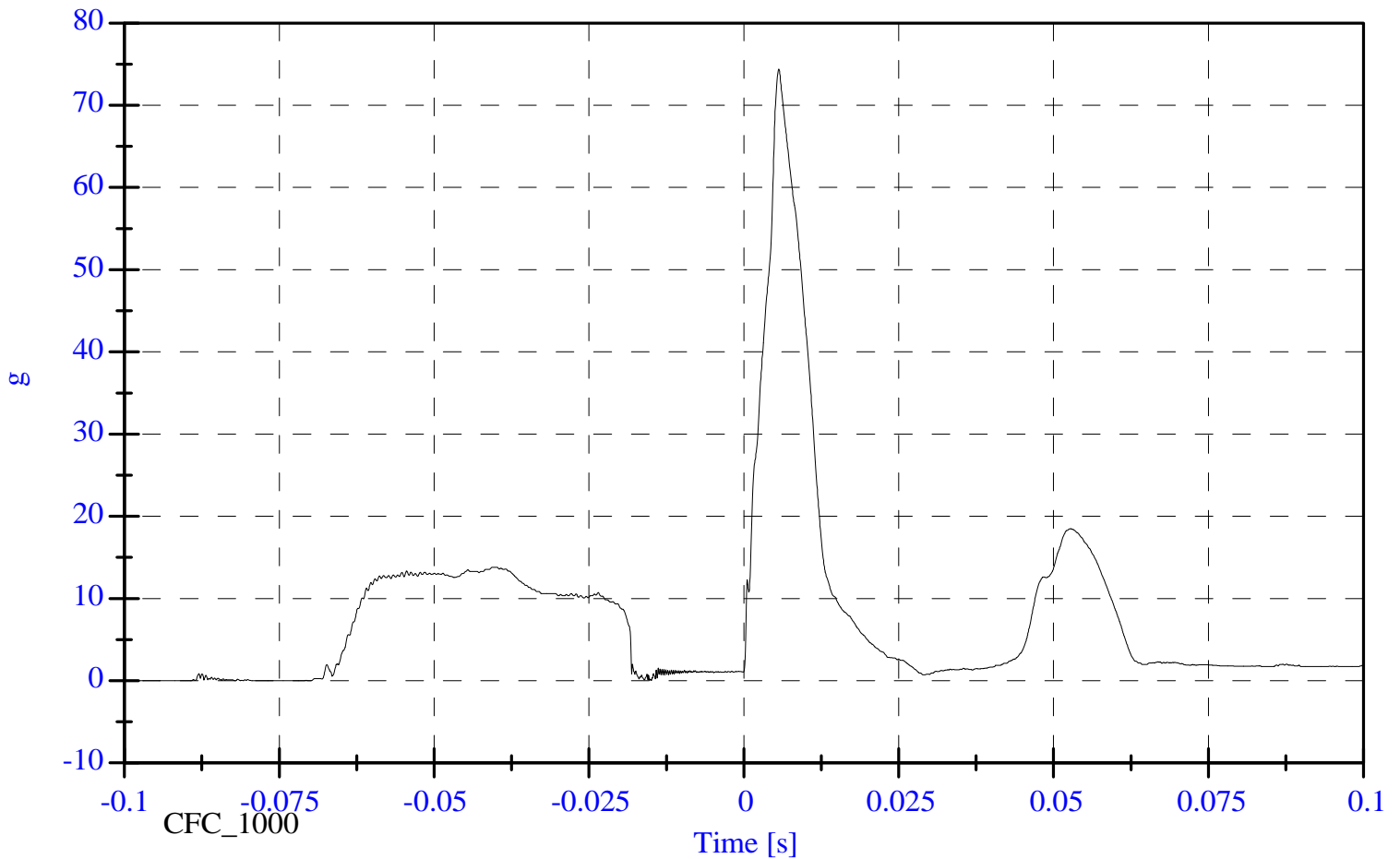
Maximum: 74.4 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 74.4 [g] at 0.006 [s]

Min: -0.0 [g] at -0.099 [s]



FMVSS 201U 2010 FORD FUSION

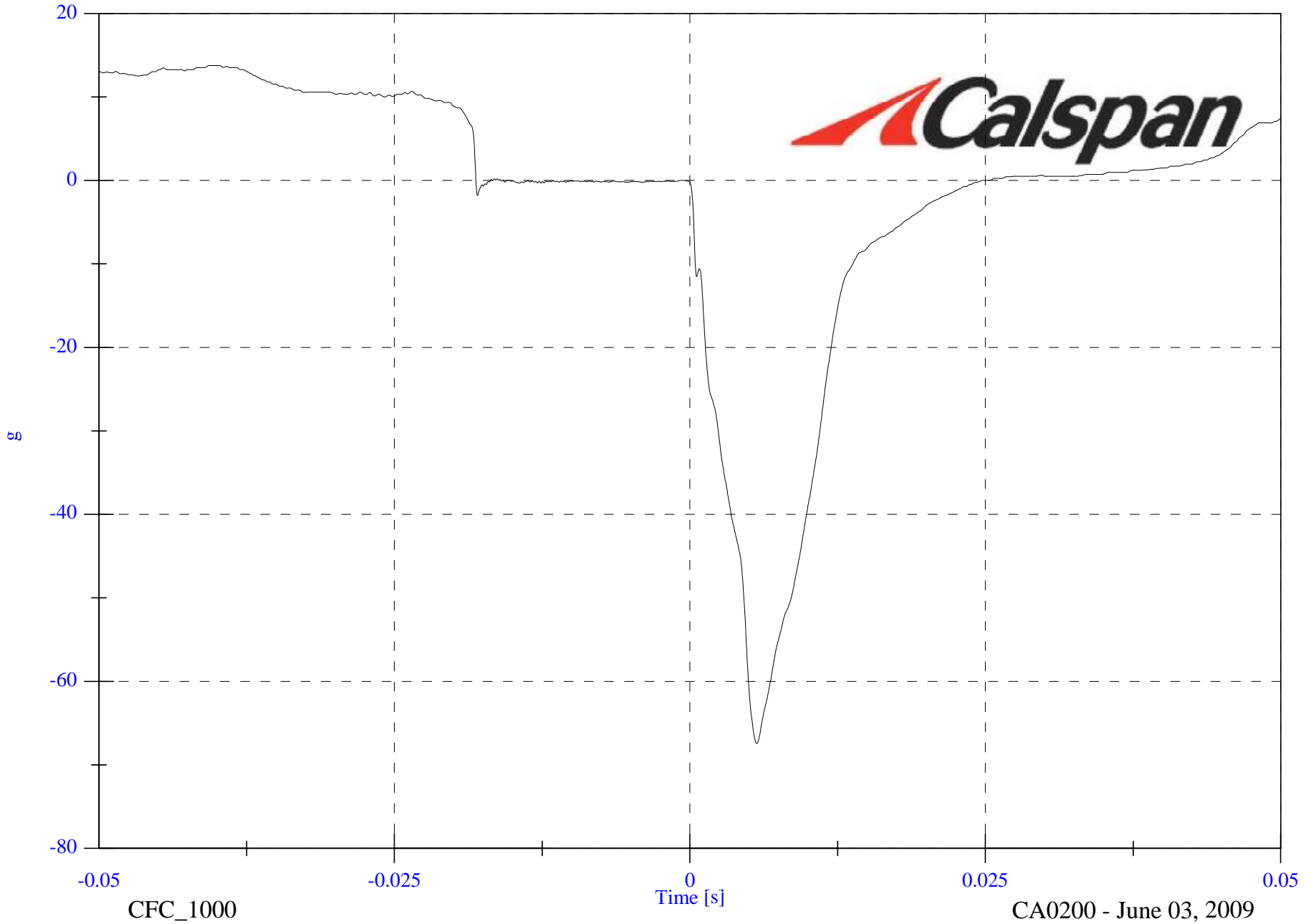
Headform X Acceleration

Max: 13.8 [g] at -0.040 [s]

Min: -67.4 [g] at 0.006 [s]



CA0200 DRIVER SIDE RP2 IMPACT PLOT #1



CFC\_1000

CA0200 - June 03, 2009



FMVSS 201U 2010 FORD FUSION

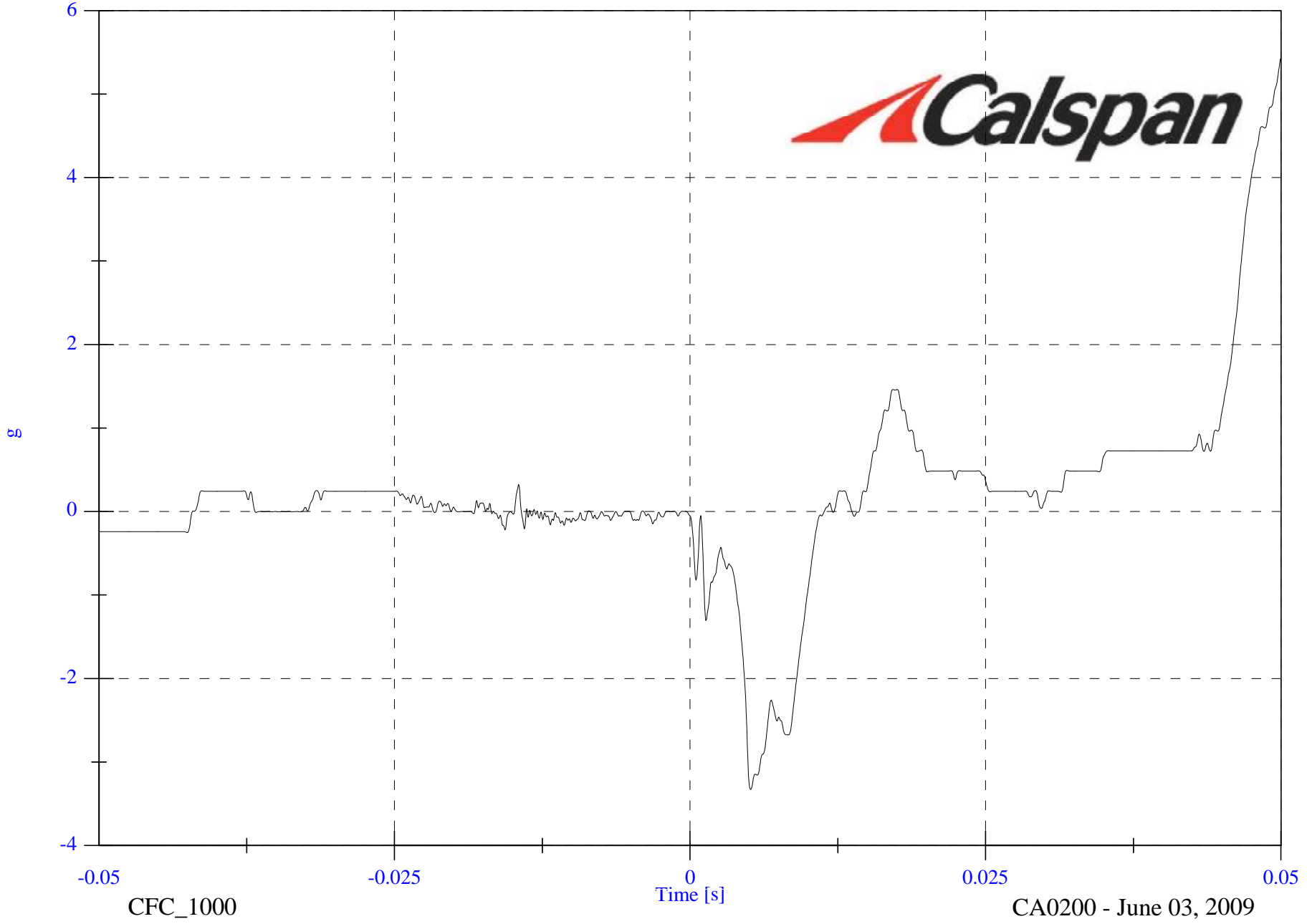
Headform Y Acceleration

Max: 5.4 [g] at 0.050 [s]

Min: -3.3 [g] at 0.005 [s]



CA0200 DRIVER SIDE RP2 IMPACT PLOT #2



CFC\_1000

CA0200 - June 03, 2009

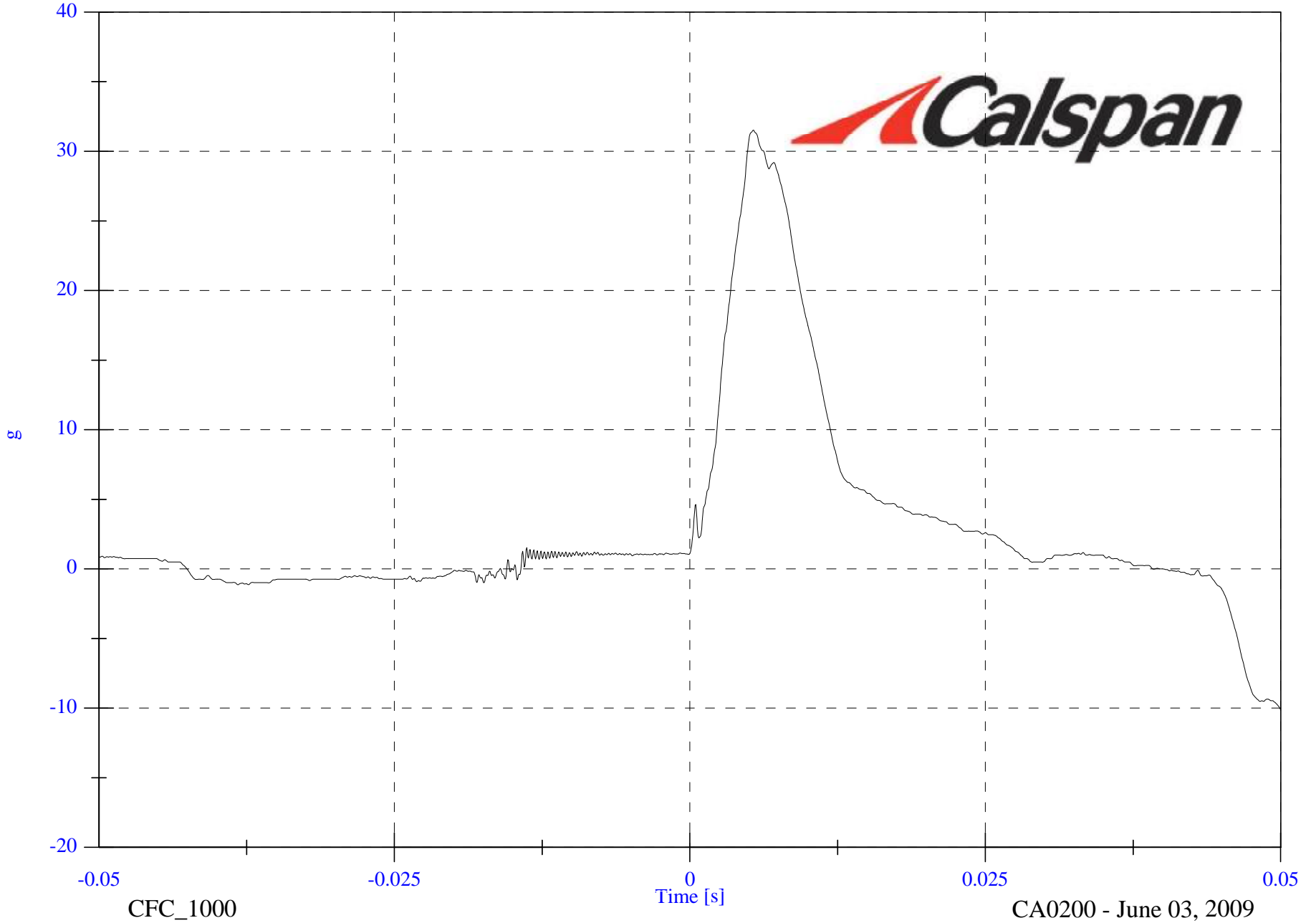
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 31.5 [g] at 0.005 [s]

Min: -10.1 [g] at 0.050 [s]

CA0200 DRIVER SIDE RP2 IMPACT PLOT #3



CFC\_1000

CA0200 - June 03, 2009

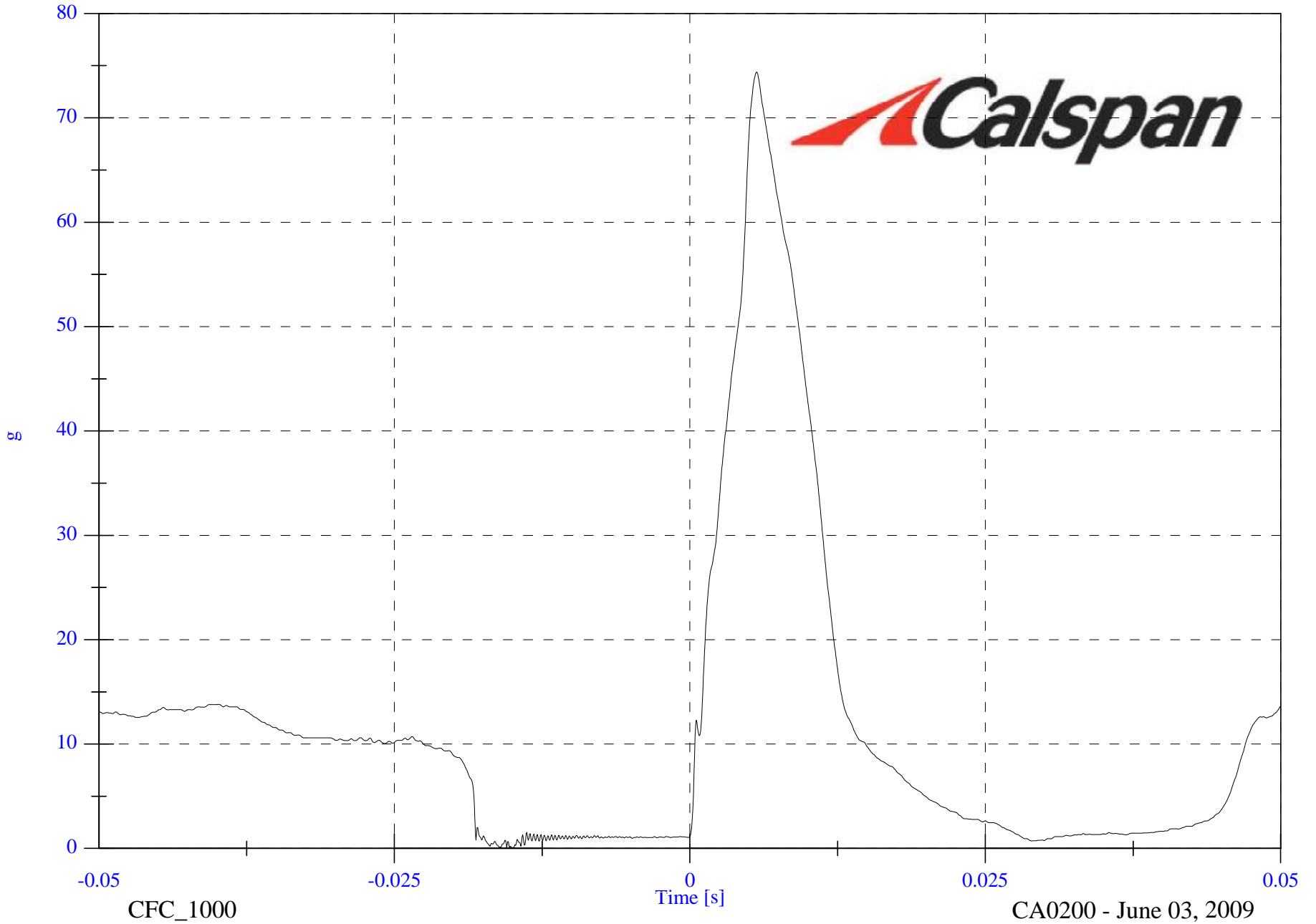
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 74.4 [g] at 0.006 [s]

Min: 0.0 [g] at -0.015 [s]

CA0200 DRIVER SIDE RP2 IMPACT PLOT #4



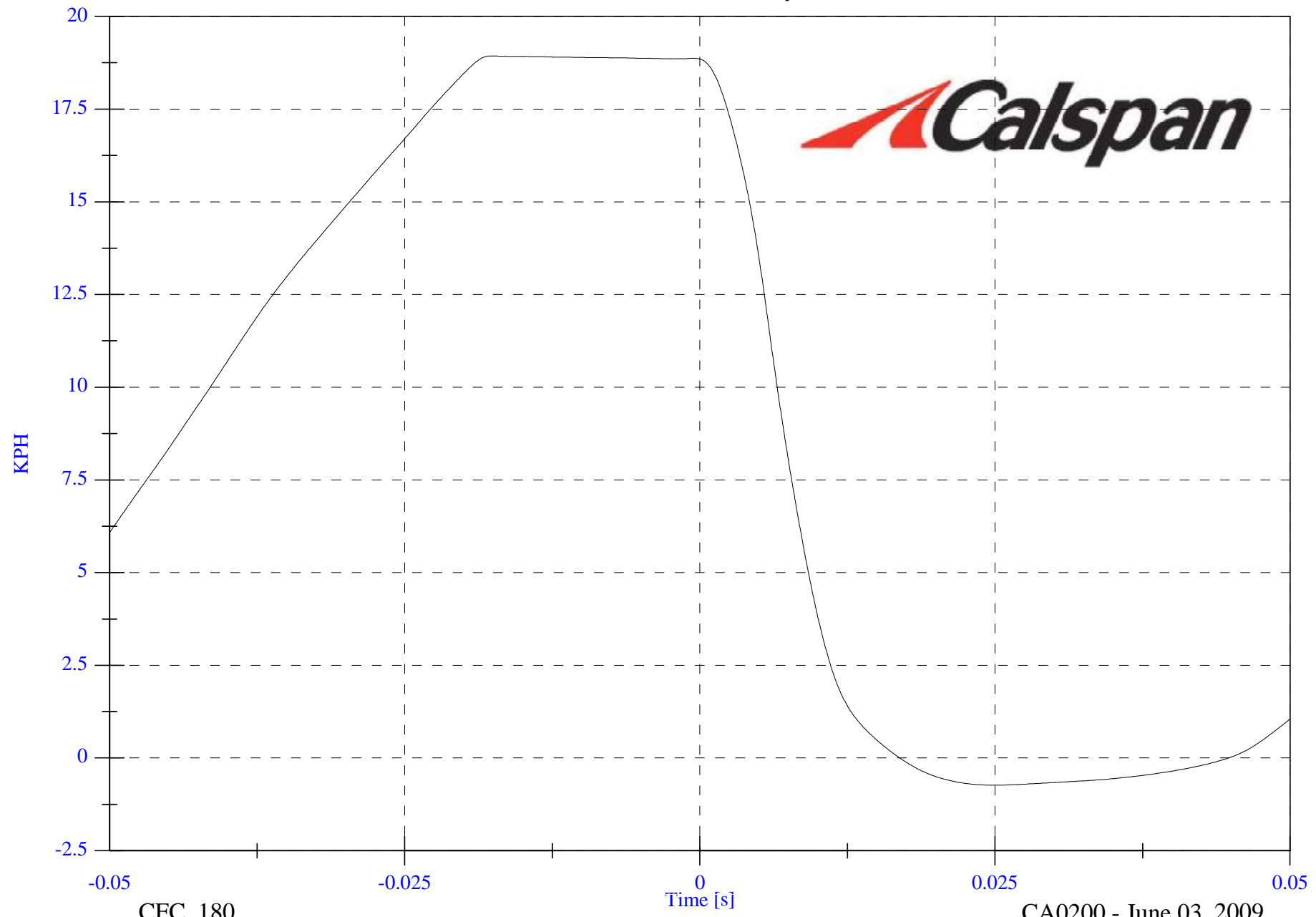
FMVSS 201U 2010 FORD FUSION

Headform Velocity

Max: 18.9 [KPH] at -0.018 [s]

Min: -0.7 [KPH] at 0.025 [s]

CA0200 DRIVER SIDE RP2 IMPACT PLOT #5



CFC\_180

CA0200 - June 03, 2009



PRE-IMPACT RP2



POST-IMPACT RP2

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	10
Test Date:	06/03/09
Target Location:	B-PILLAR
Target Code:	BP2
Horizontal Impact Angle:	270°
Vertical Impact Angle:	0°
Ambient Temperature:	20°C
Relative Humidity:	41
Time of Impact:	10:16
Headform Number:	0355

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	4	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	19		mm up



POST-IMPACT BP2 HEADFORM

Free Motion HIC	581.2
HIC(d)	604.9
Impact Velocity (kph)	23.41
HIC T1 (msec)	3.1
HIC T2 (msec)	8.6

# FMVSS 201U 2010 FORD FUSION CA0200 - BP2

FMH Headform 0355

Location: BP2

Test Date: June 03, 2009

Work File: BP2

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 604.9

Lab Humidity: 41 %

HIC (36ms): 581.2

Velocity at Impact: 23.41 KPH

t1: 3.1 msec

t2: 8.6 msec

Free Flight Distance: 224.34 mm

Duration: 5.5 msec

Average Acceleration: 8.3 g

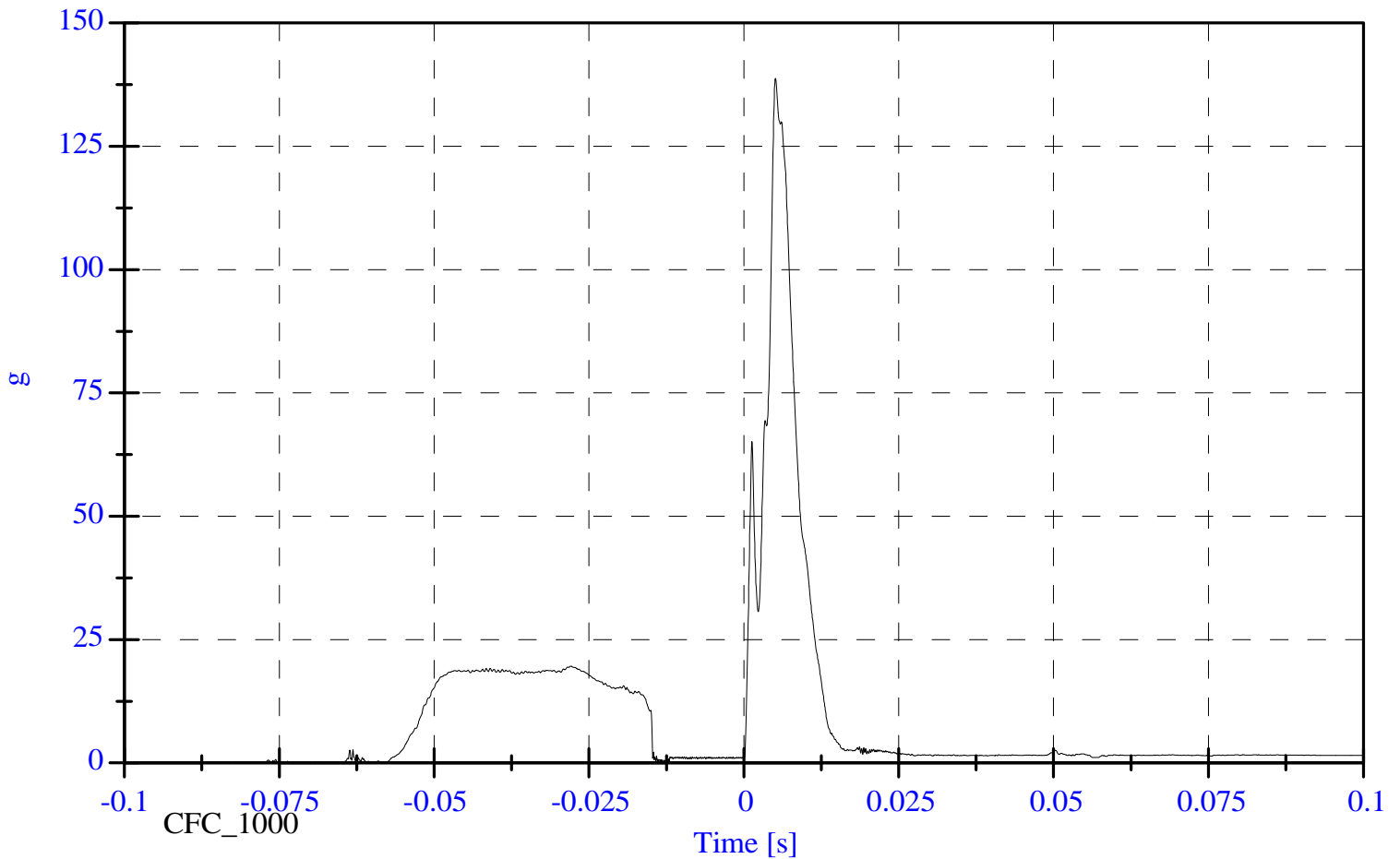
Maximum: 138.8 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 138.8 [g] at 0.005 [s]

Min: 0.0 [g] at -0.087 [s]





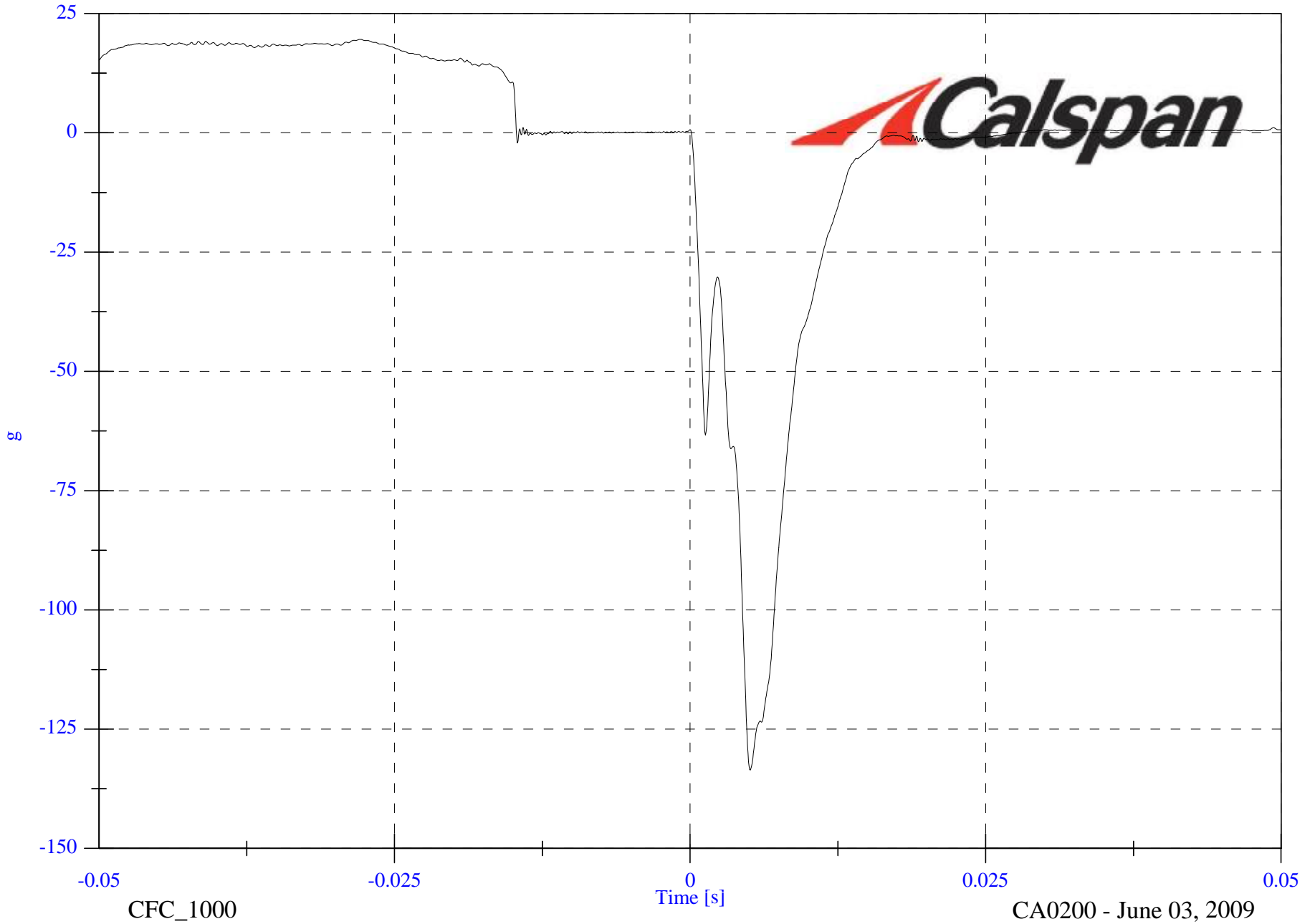
FMVSS 201U 2010 FORD FUSION

Headform X Acceleration

Max: 19.6 [g] at -0.028 [s]

Min: -133.6 [g] at 0.005 [s]

CA0200 DRIVER SIDE BP2 IMPACT PLOT #1



CA0200 - June 03, 2009

FMVSS 201U 2010 FORD FUSION

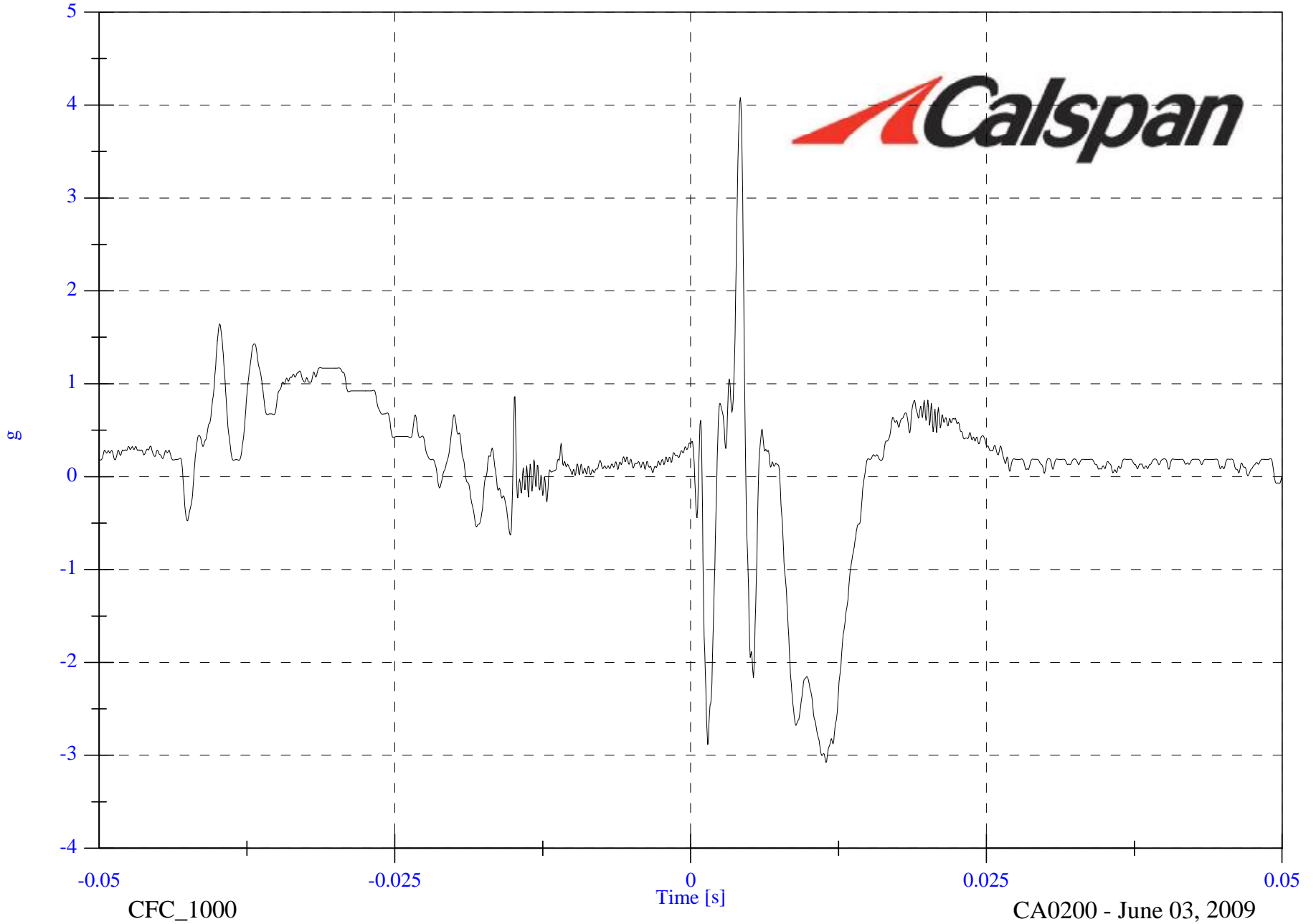
Headform Y Acceleration

Max: 4.1 [g] at 0.004 [s]

Min: -3.1 [g] at 0.011 [s]



CA0200 DRIVER SIDE BP2 IMPACT PLOT #2



CFC\_1000

CA0200 - June 03, 2009

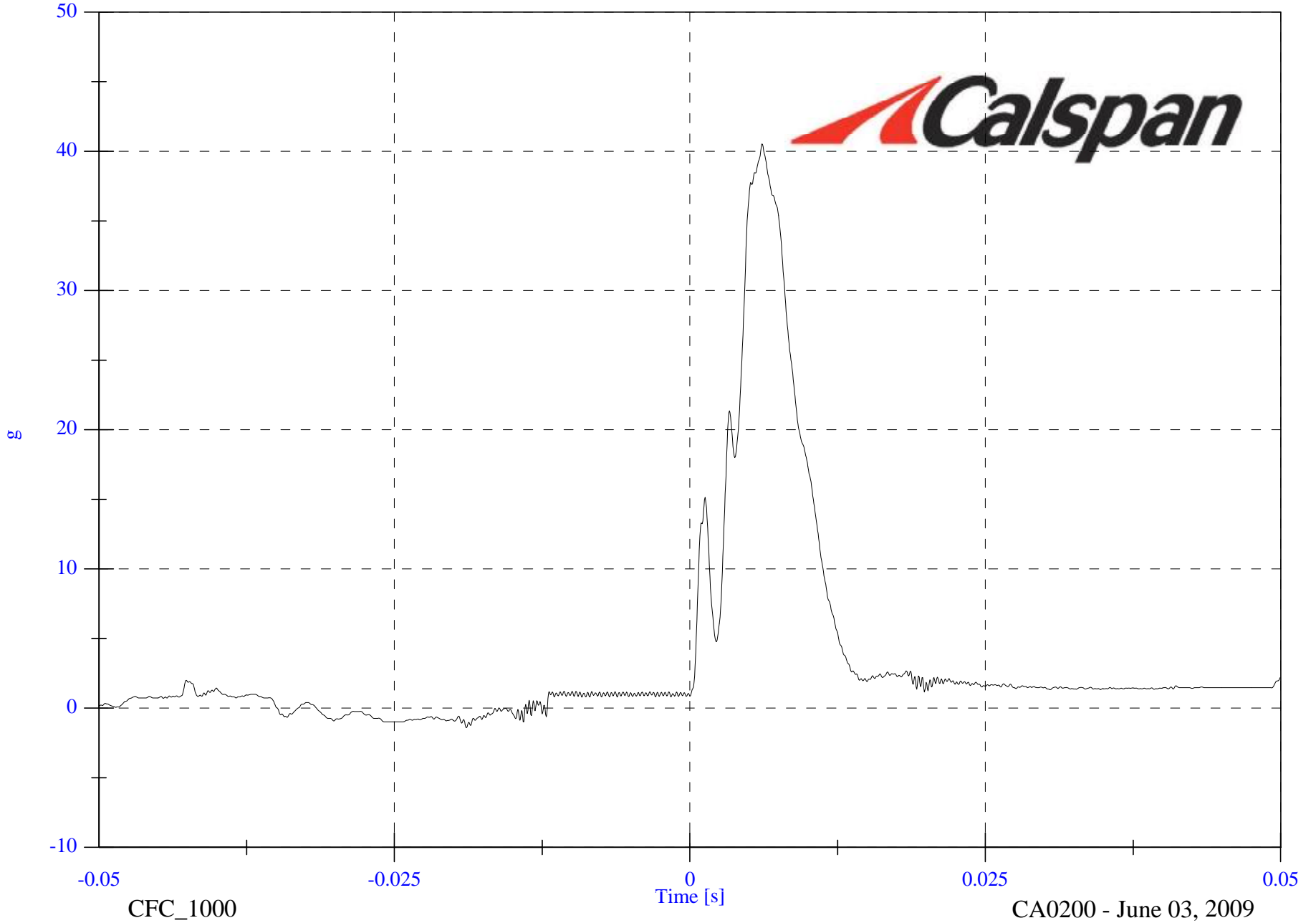
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 40.5 [g] at 0.006 [s]

Min: -1.4 [g] at -0.019 [s]

CA0200 DRIVER SIDE BP2 IMPACT PLOT #3



CFC\_1000

CA0200 - June 03, 2009

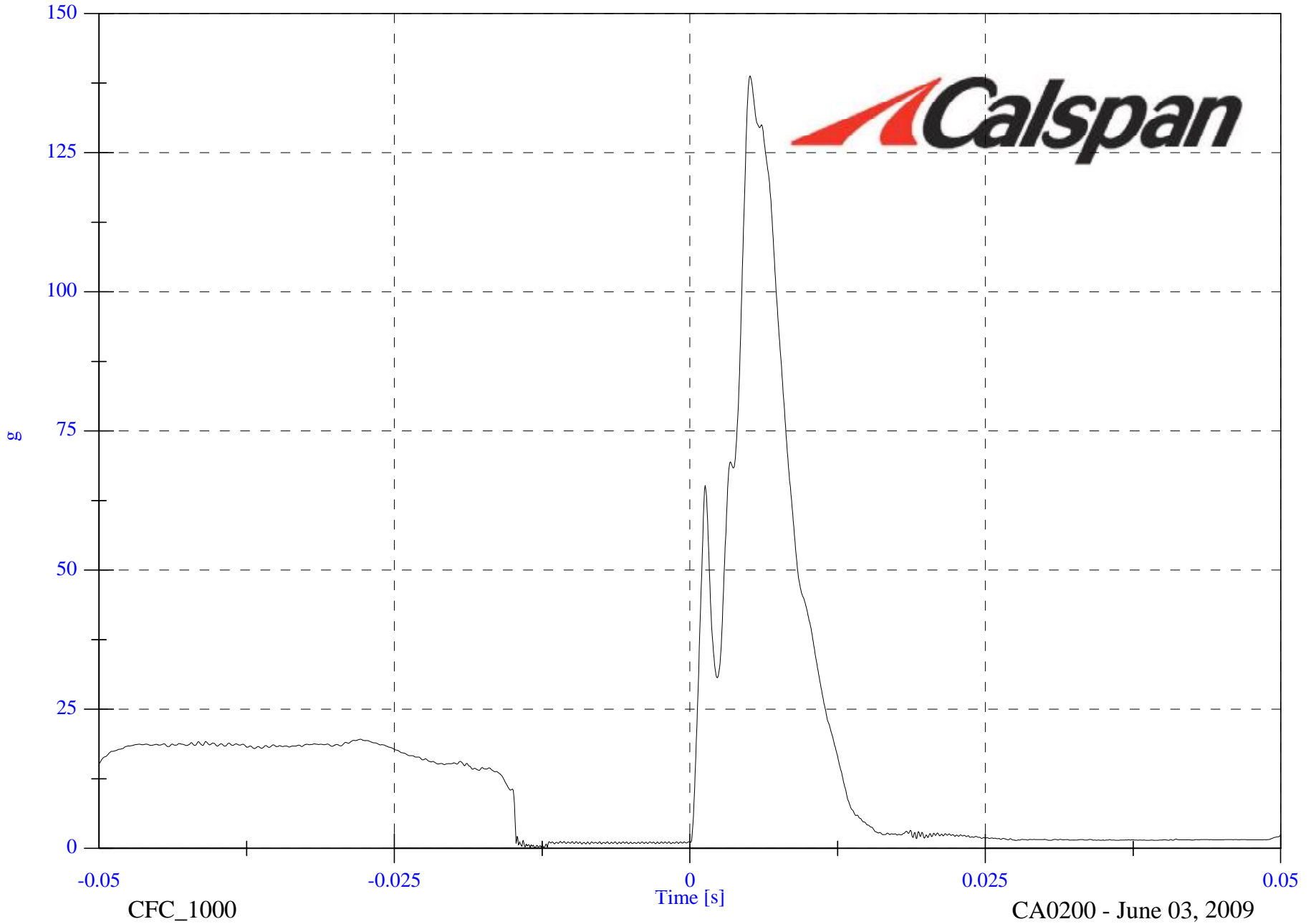
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 138.8 [g] at 0.005 [s]

Min: 0.0 [g] at -0.013 [s]

CA0200 DRIVER SIDE BP2 IMPACT PLOT #4



CA0200 - June 03, 2009

FMVSS 201U 2010 FORD FUSION

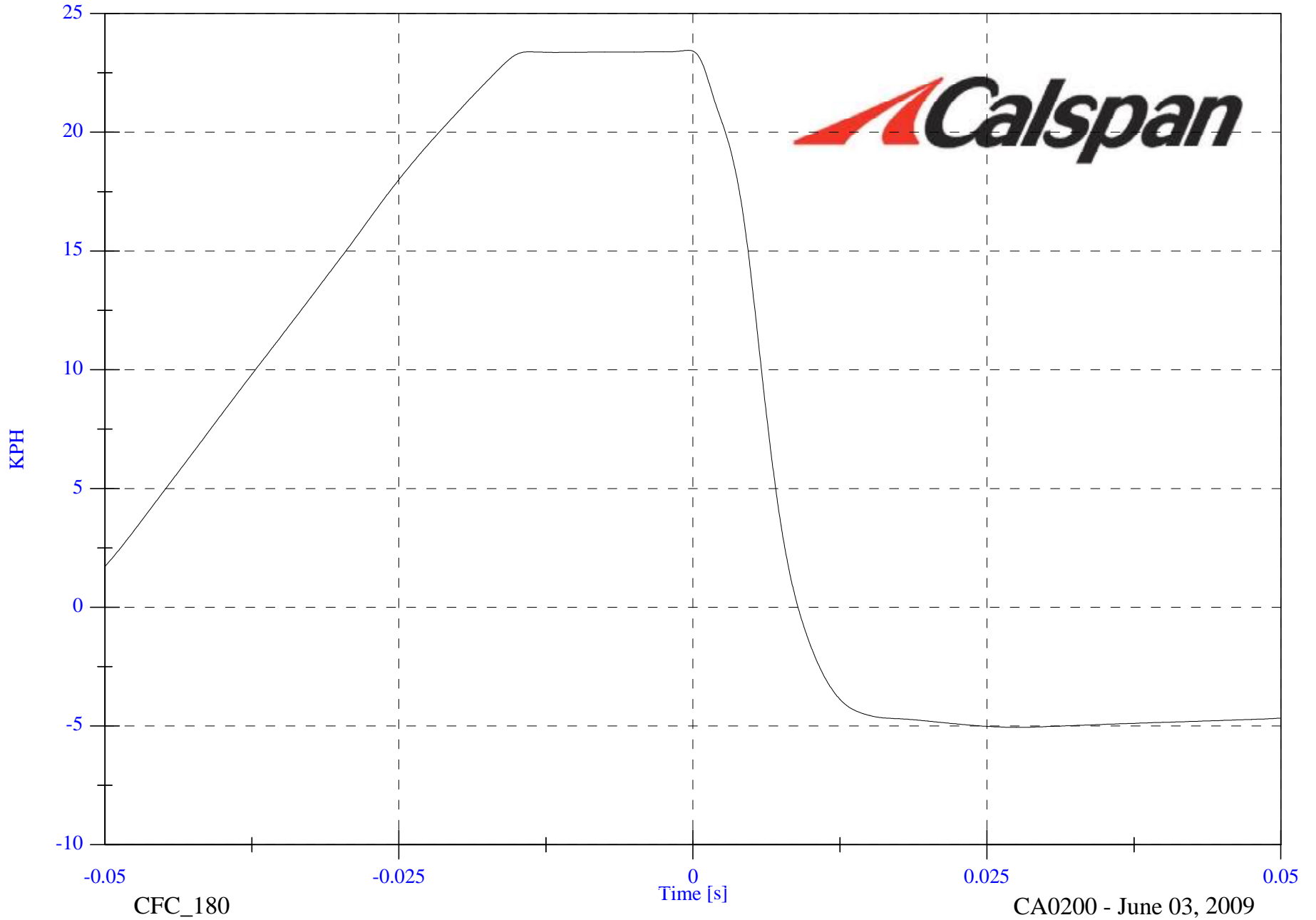
Max: 23.4 [KPH] at -0.000 [s]

Min: -5.1 [KPH] at 0.028 [s]

Headform Velocity



CA0200 DRIVER SIDE BP2 IMPACT PLOT #5



CFC\_180

CA0200 - June 03, 2009



PRE-IMPACT BP2

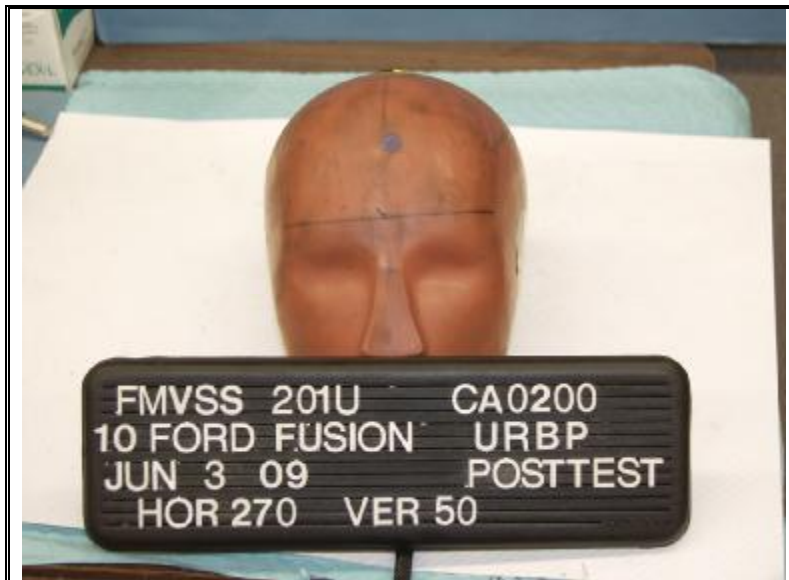


POST-IMPACT BP2

VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	11
Test Date:	06/03/09
Target Location:	UPPER ROOF
Target Code:	URBP
Horizontal Impact Angle:	270°
Vertical Impact Angle:	50°
Ambient Temperature:	20°C
Relative Humidity:	41
Time of Impact:	11:00
Headform Number:	0062

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	4	<input type="checkbox"/>	mm right	<input checked="" type="checkbox"/>	mm left
On Centerline	37				mm up



POST-IMPACT URBP HEADFORM

Free Motion HIC	664.2
HIC(d)	667.5
Impact Velocity (kph)	23.81
HIC T1 (msec)	4.4
HIC T2 (msec)	12.6



# FMVSS 201U 2010 FORD FUSION CA0200 - URBP

FMH Headform 0062

Location: URBP

Test Date: June 03, 2009

Work File: URBP

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 667.5

Lab Humidity: 41 %

HIC (36ms): 664.2

Velocity at Impact: 23.81 KPH

t1: 4.4 msec

t2: 12.6 msec

Free Flight Distance: 221.94 mm

Duration: 8.2 msec

Average Acceleration: 8.9 g

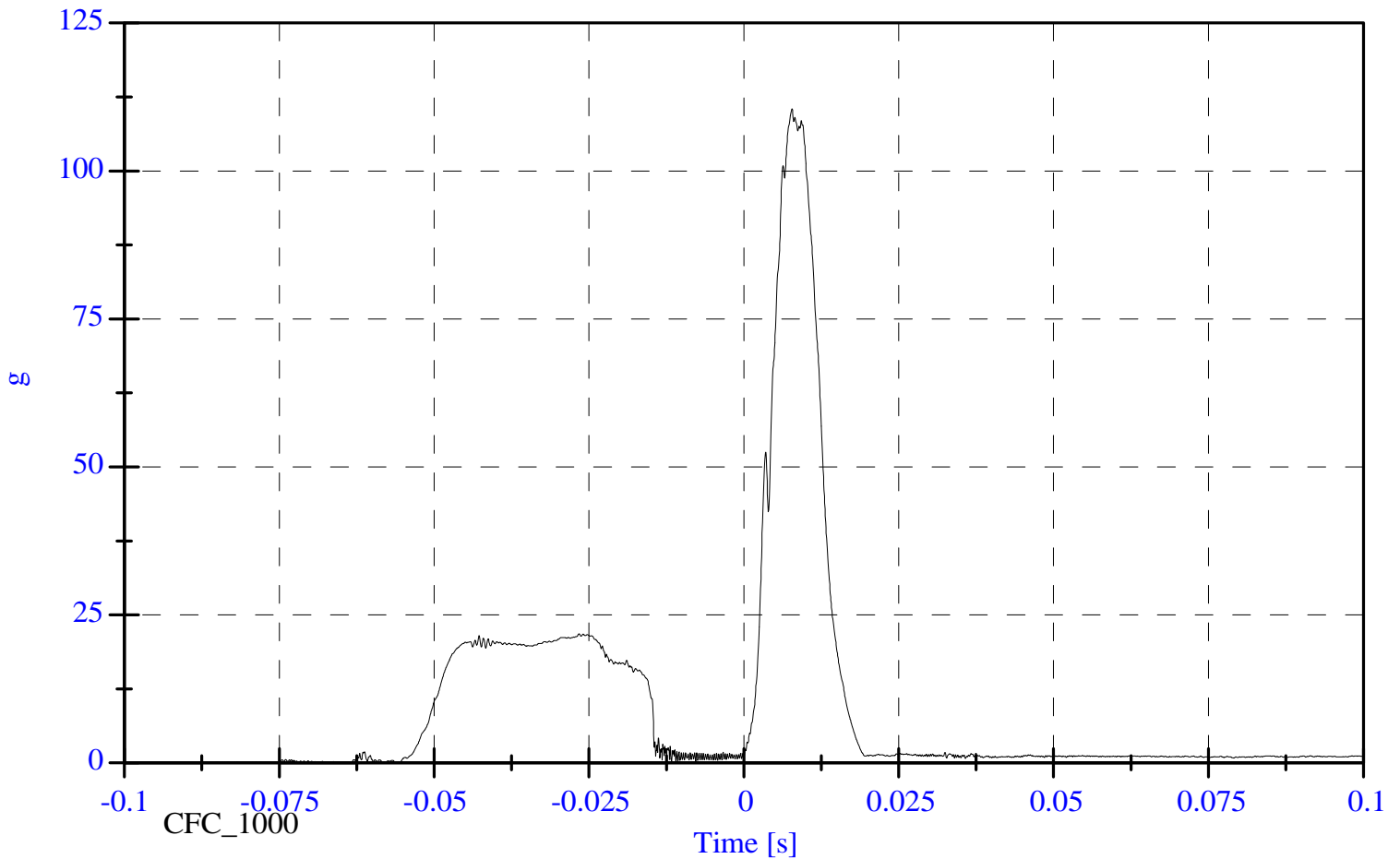
Maximum: 110.5 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 110.5 [g] at 0.008 [s]

Min: 0.0 [g] at -0.098 [s]



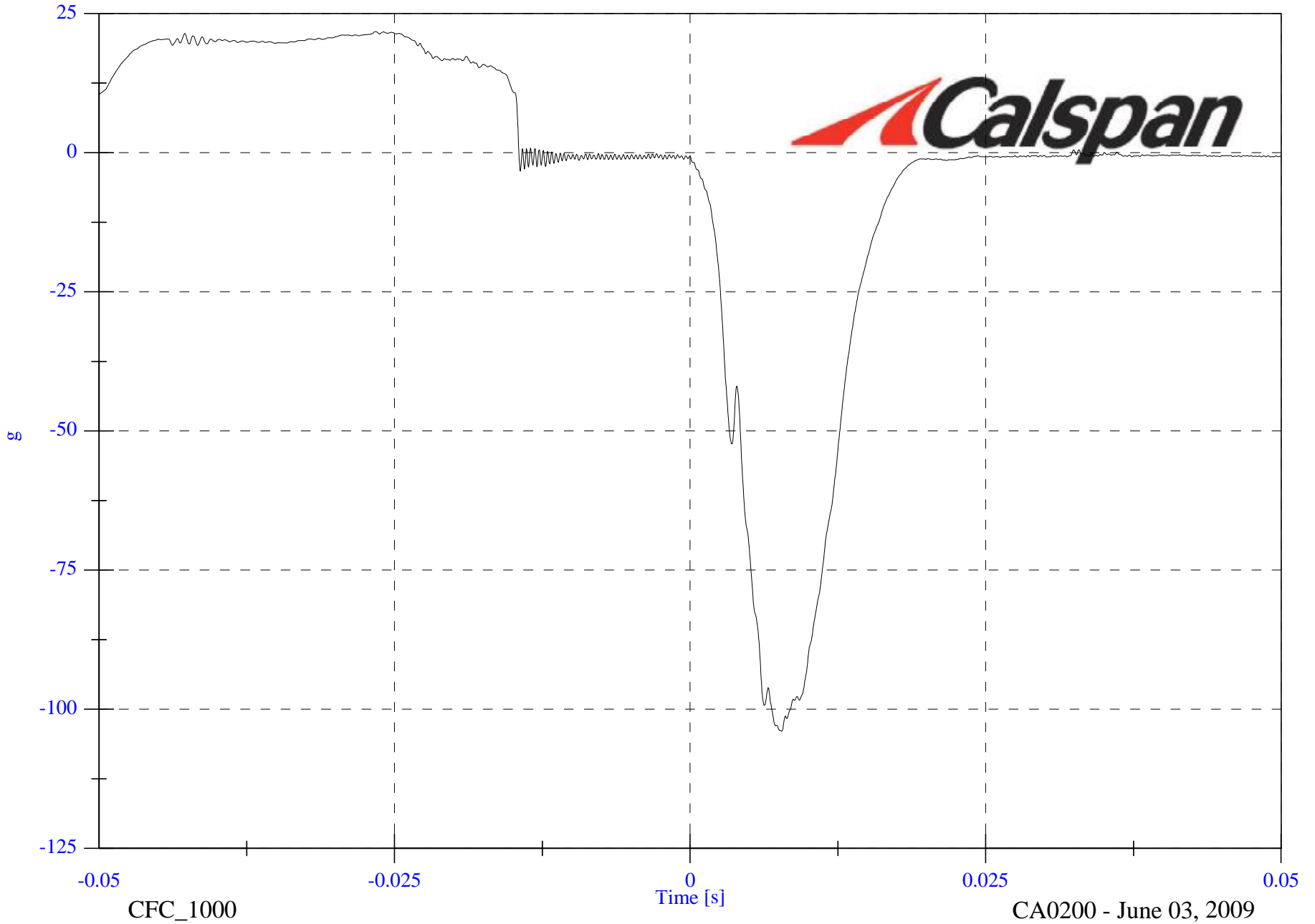
FMVSS 201U 2010 FORD FUSION

Headform X Acceleration

Max: 21.8 [g] at -0.027 [s]

Min: -103.9 [g] at 0.008 [s]

CA0200 DRIVER SIDE URBP IMPACT PLOT #1



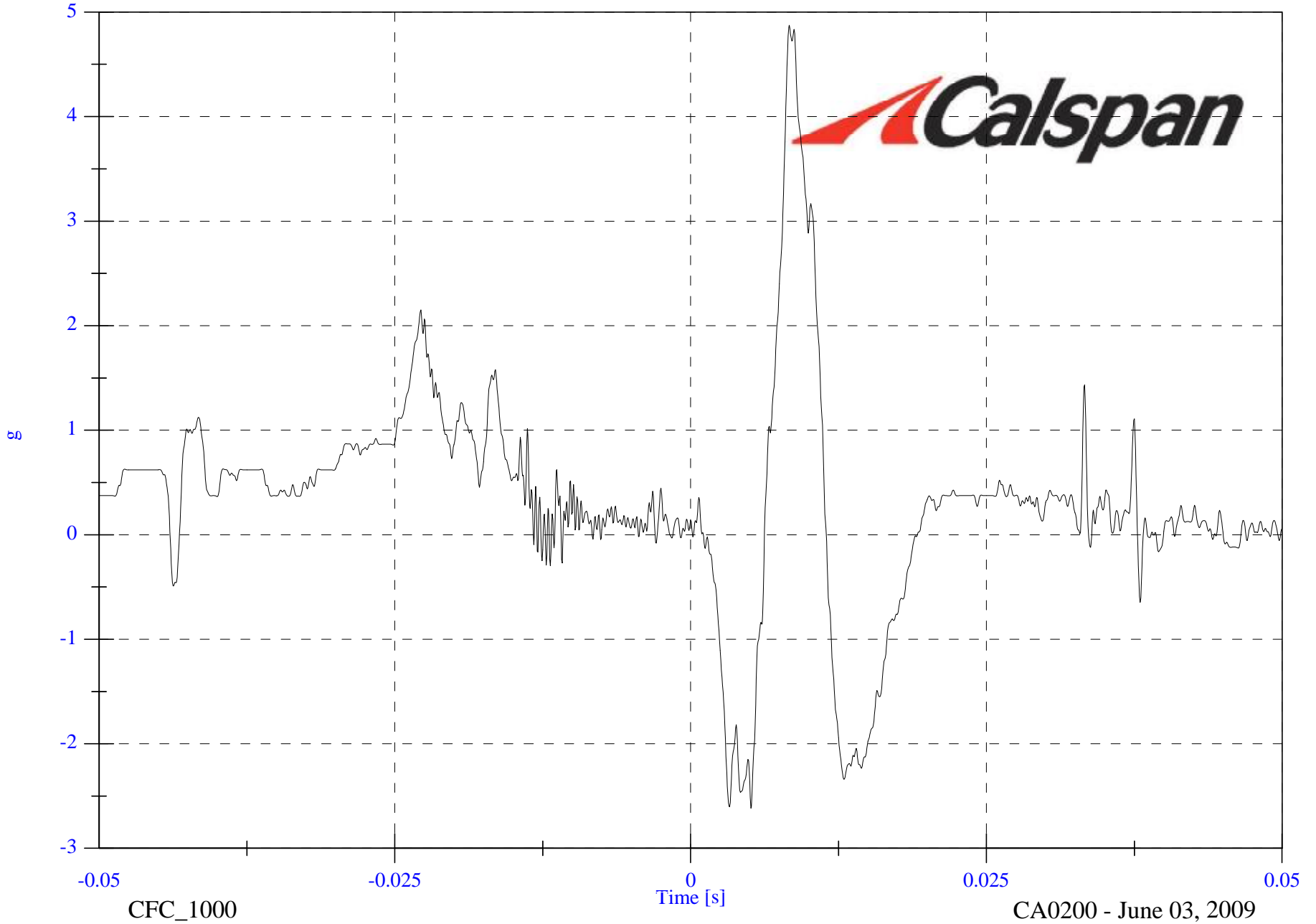
FMVSS 201U 2010 FORD FUSION

Headform Y Acceleration

Max: 4.9 [g] at 0.008 [s]

Min: -2.6 [g] at 0.005 [s]

CA0200 DRIVER SIDE URBP IMPACT PLOT #2



CFC\_1000

CA0200 - June 03, 2009

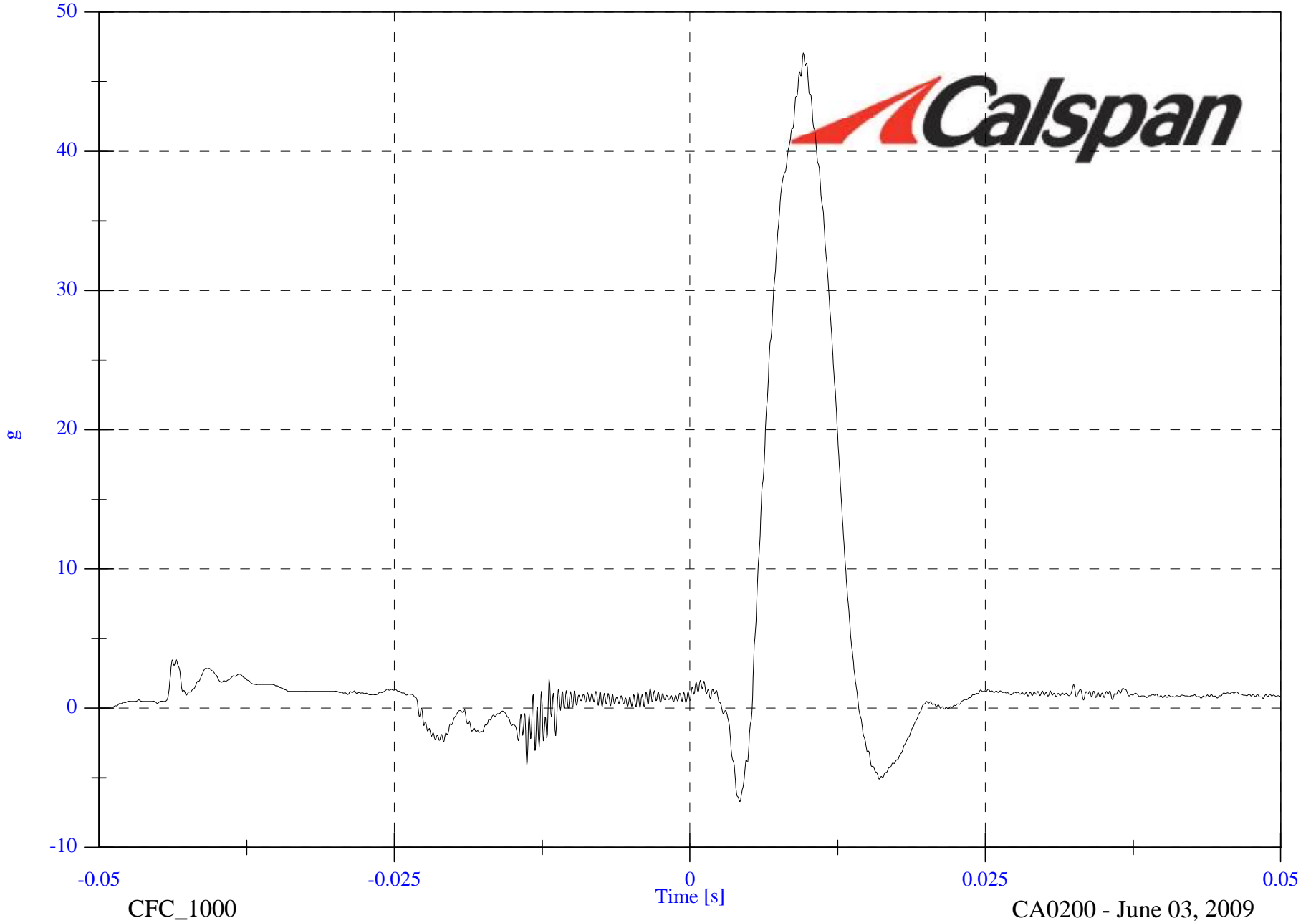
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 47.1 [g] at 0.010 [s]

Min: -6.7 [g] at 0.004 [s]

CA0200 DRIVER SIDE URBP IMPACT PLOT #3



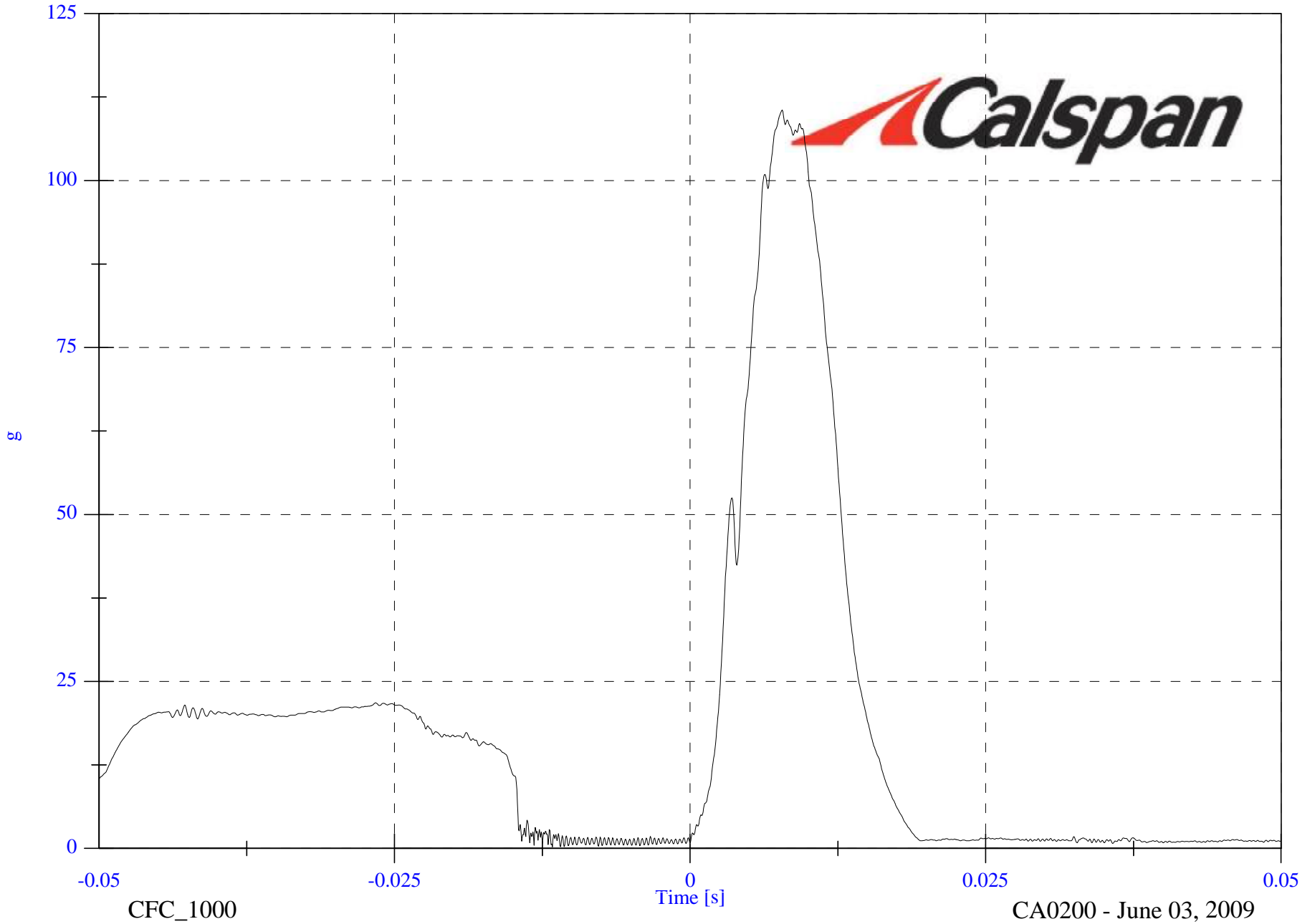
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 110.5 [g] at 0.008 [s]

Min: 0.2 [g] at -0.012 [s]

CA0200 DRIVER SIDE URBP IMPACT PLOT #4



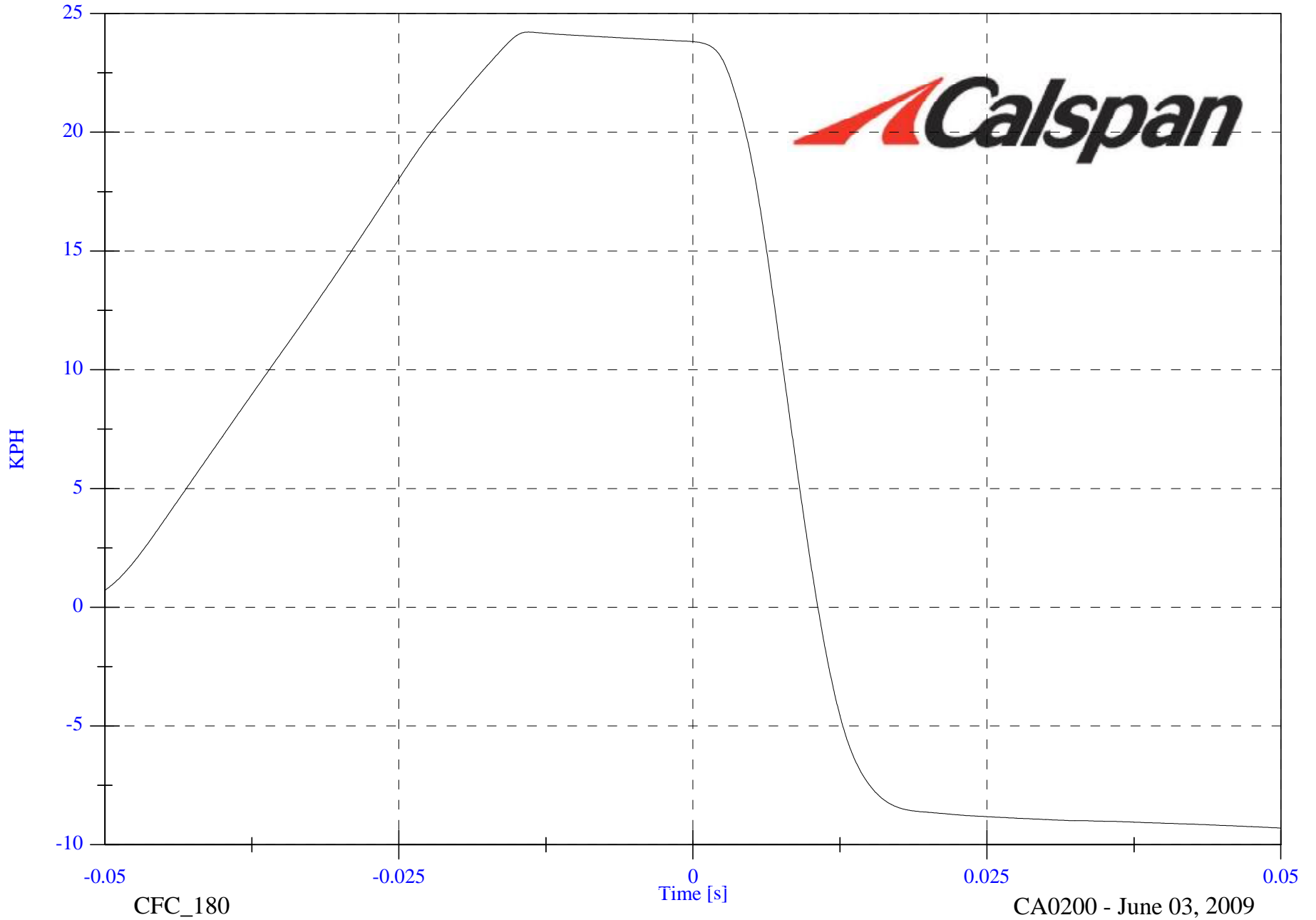
FMVSS 201U 2010 FORD FUSION

Max: 24.2 [KPH] at -0.014 [s]

Min: -9.3 [KPH] at 0.050 [s]

Headform Velocity

CA0200 DRIVER SIDE URBP IMPACT PLOT #5



CFC\_180

CA0200 - June 03, 2009



PRE-IMPACT URBP



POST-IMPACT URBP



VEHICLE YEAR/MAKE/MODEL/STYLE:	2010 Ford Fusion Hybrid
VIN:	3FADP0L38AR132742
DATE OF MANUFACTURE:	04/09(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	12
Test Date:	06/03/09
Target Location:	A-PILLAR
Target Code:	AP2
Horizontal Impact Angle:	223°
Vertical Impact Angle:	50°
Ambient Temperature:	20°C
Relative Humidity:	41
Time of Impact:	11:40
Headform Number:	1142

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	1	X	mm right - mm left
On Centerline	16		mm up



POST-IMPACT AP2 HEADFORM

Free Motion HIC	384.4
HIC(d)	456.4
Impact Velocity (kph)	18.76
HIC T1 (msec)	5.8
HIC T2 (msec)	11.9

# FMVSS 201U 2010 FORD FUSION CA0200 - AP2

FMH Headform 1142

Location: AP2

Test Date: June 03, 2009

Work File: AP2

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 456.4

Lab Humidity: 41 %

HIC (36ms): 384.4

Velocity at Impact: 18.76 KPH

t1: 5.8 msec

t2: 11.9 msec

Free Flight Distance: 219.82 mm

Duration: 6.1 msec

Average Acceleration: 7.4 g

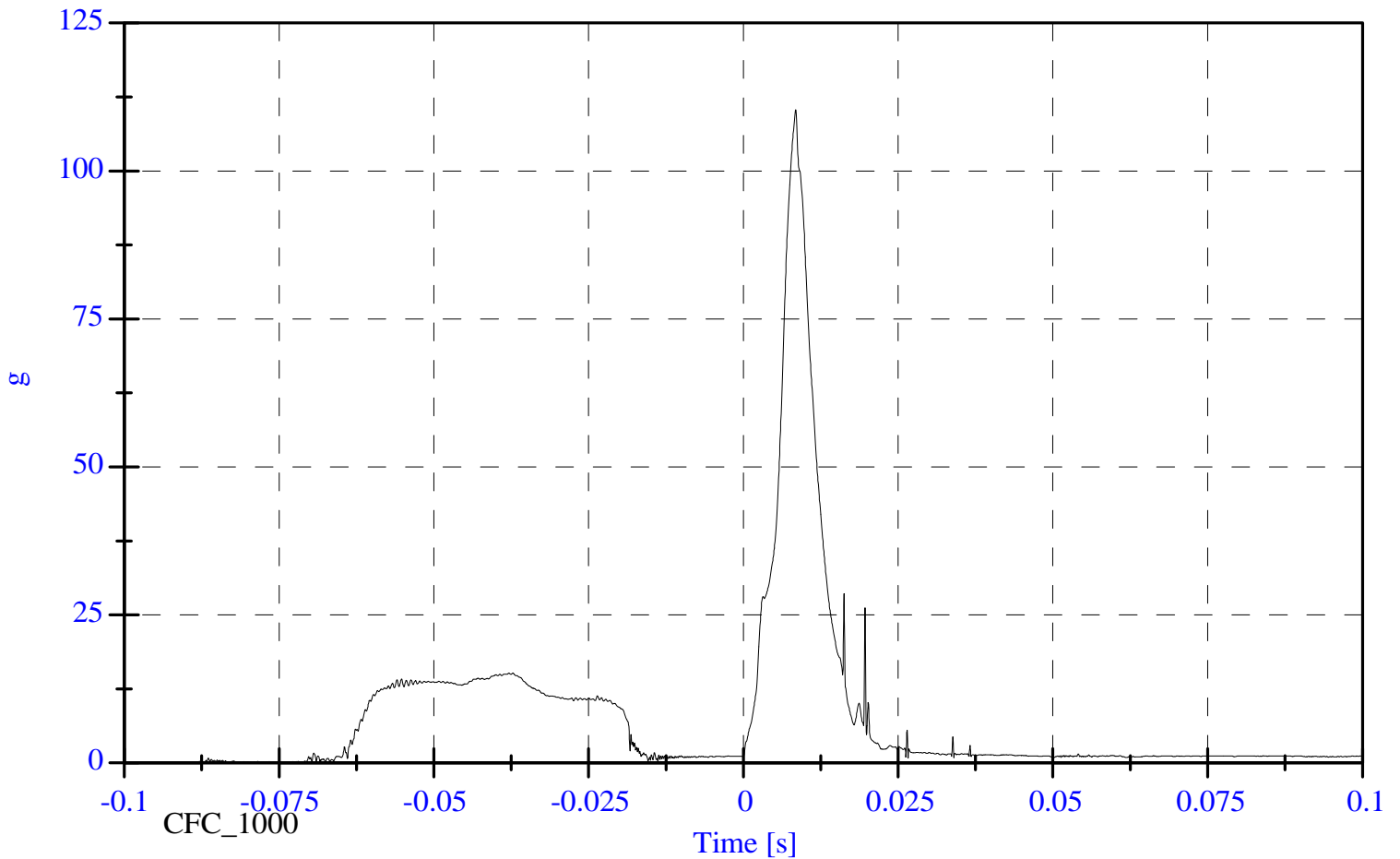
Maximum: 110.3 g

FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 110.3 [g] at 0.008 [s]

Min: 0.0 [g] at -0.096 [s]



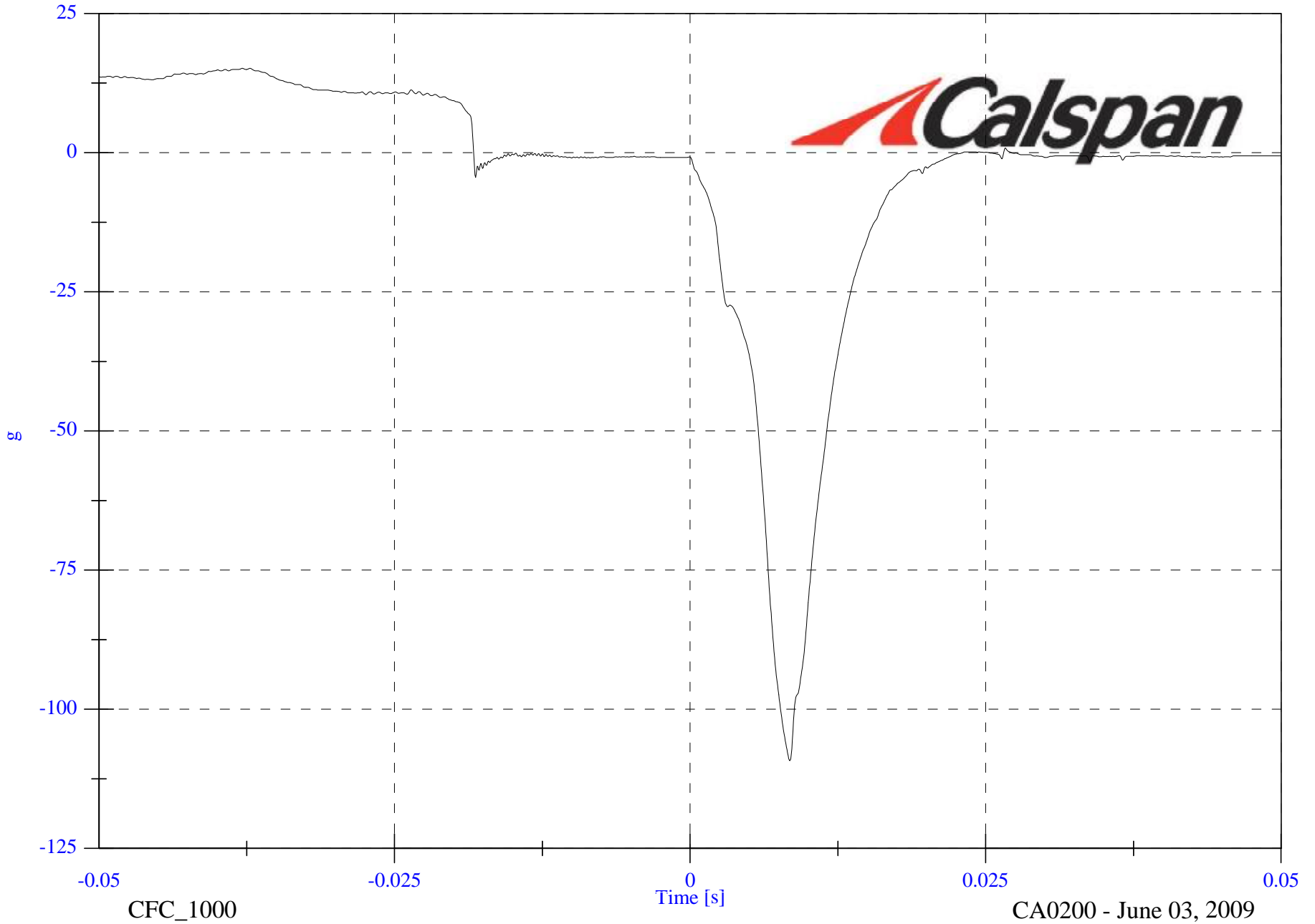
FMVSS 201U 2010 FORD FUSION

Headform X Acceleration

Max: 15.1 [g] at -0.037 [s]

Min: -109.3 [g] at 0.008 [s]

CA0200 DRIVER SIDE AP2 IMPACT PLOT #1



CFC\_1000

CA0200 - June 03, 2009

FMVSS 201U 2010 FORD FUSION

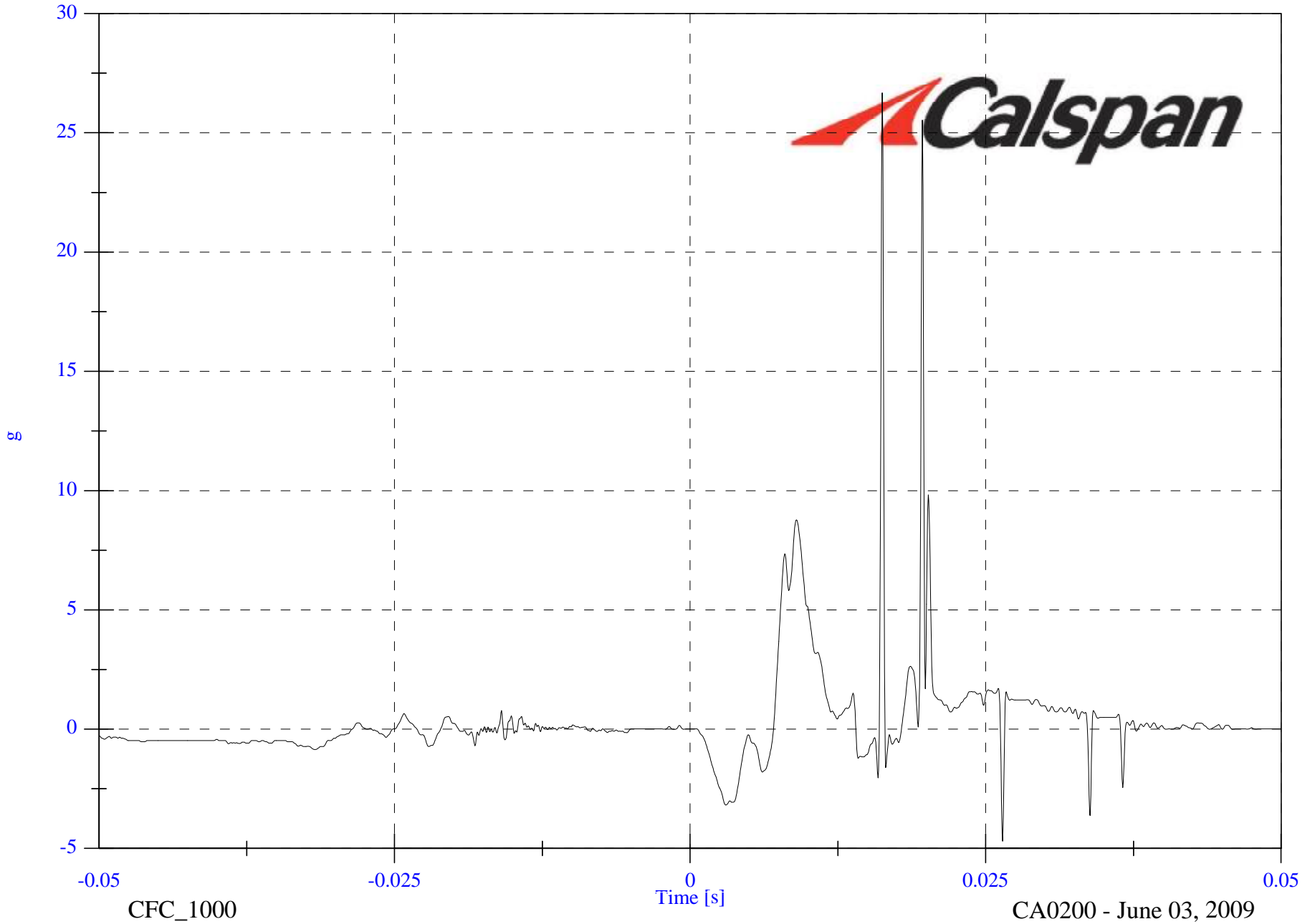
Headform Y Acceleration

Max: 26.7 [g] at 0.016 [s]

Min: -4.7 [g] at 0.026 [s]



CA0200 DRIVER SIDE AP2 IMPACT PLOT #2



CFC\_1000

CA0200 - June 03, 2009

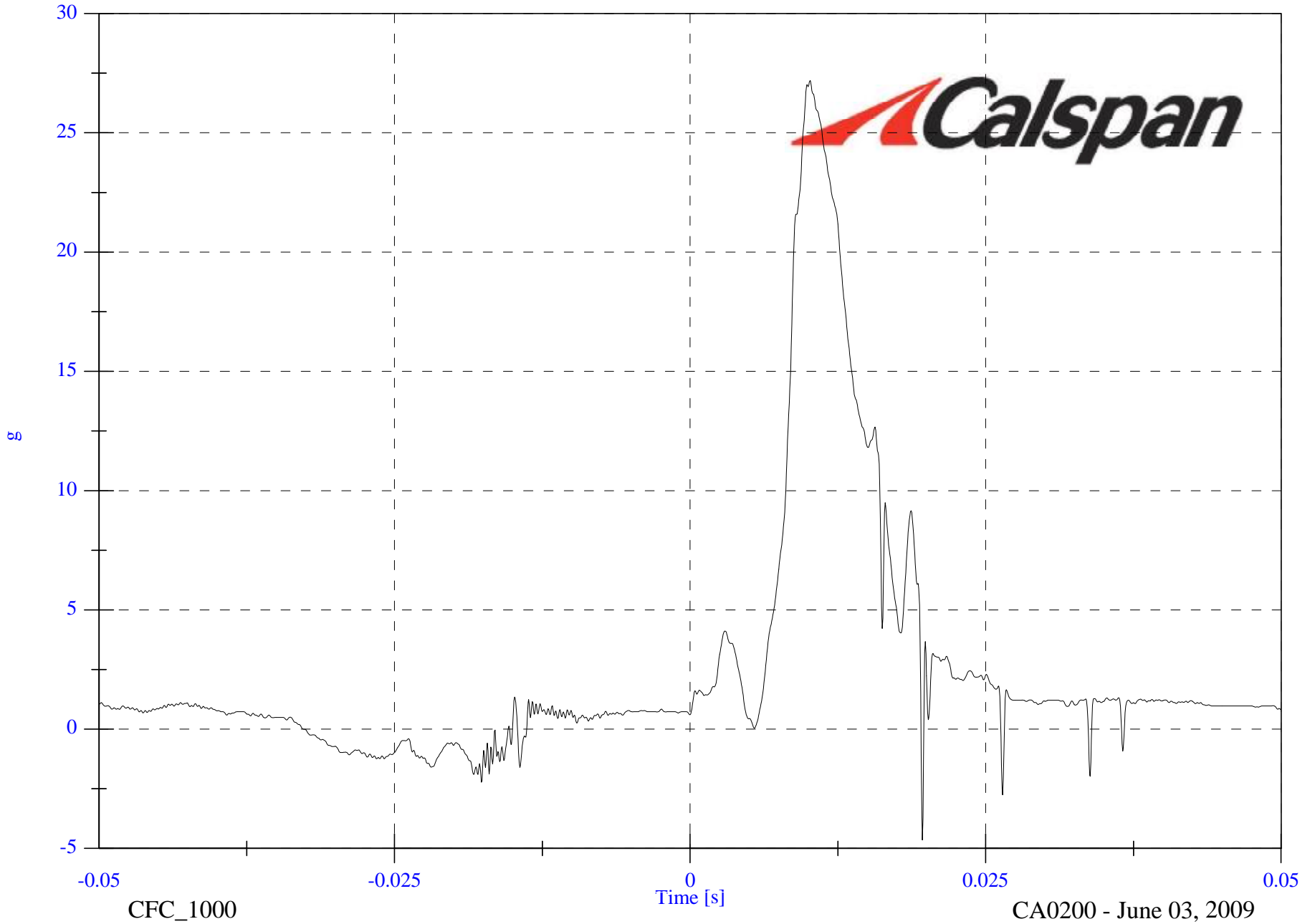
FMVSS 201U 2010 FORD FUSION

Headform Z Acceleration

Max: 27.2 [g] at 0.010 [s]

Min: -4.6 [g] at 0.020 [s]

CA0200 DRIVER SIDE AP2 IMPACT PLOT #3



CFC\_1000

CA0200 - June 03, 2009

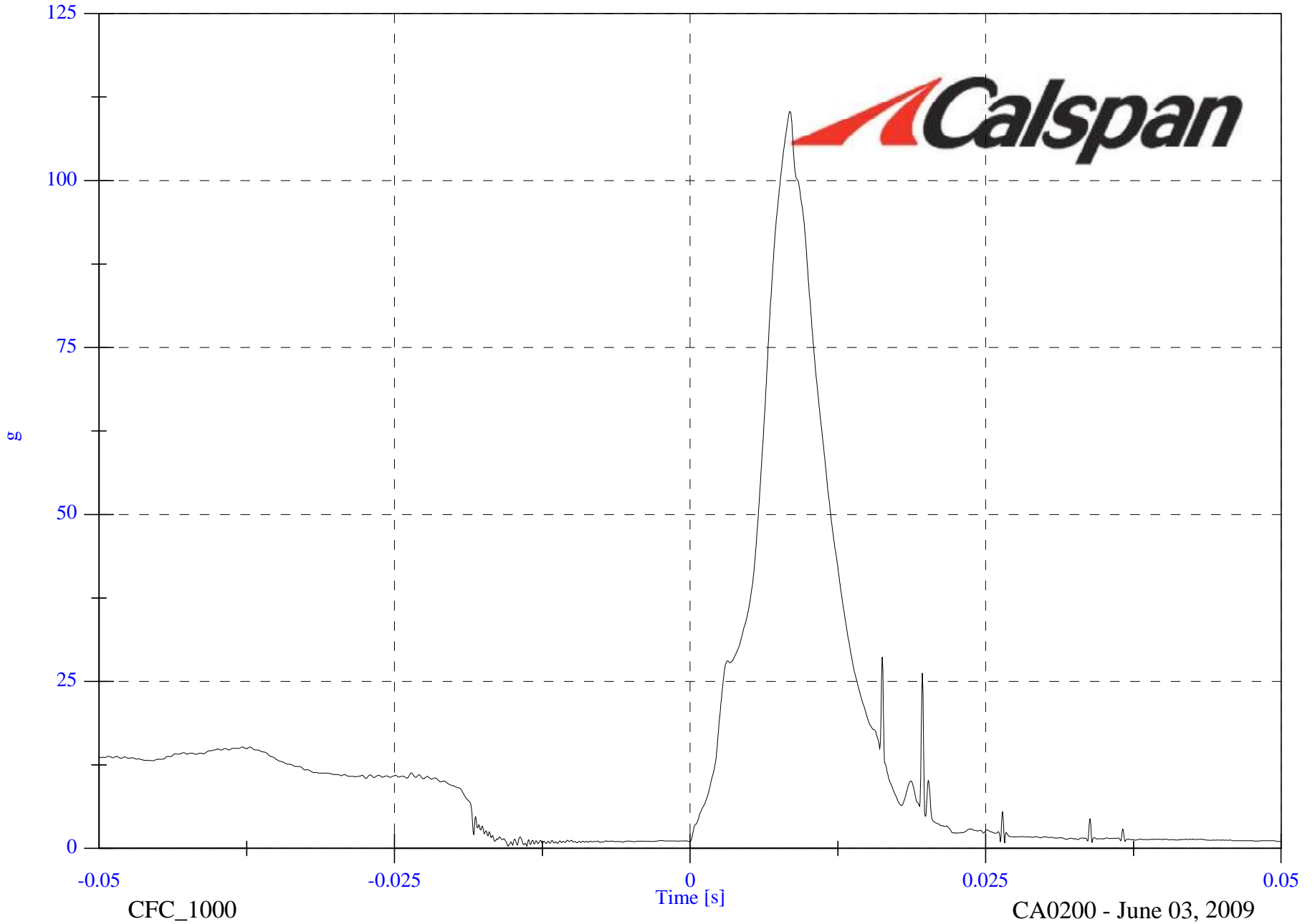
FMVSS 201U 2010 FORD FUSION

Headform Resultant

Max: 110.3 [g] at 0.008 [s]

Min: 0.3 [g] at -0.014 [s]

CA0200 DRIVER SIDE AP2 IMPACT PLOT #4



CFC\_1000

CA0200 - June 03, 2009

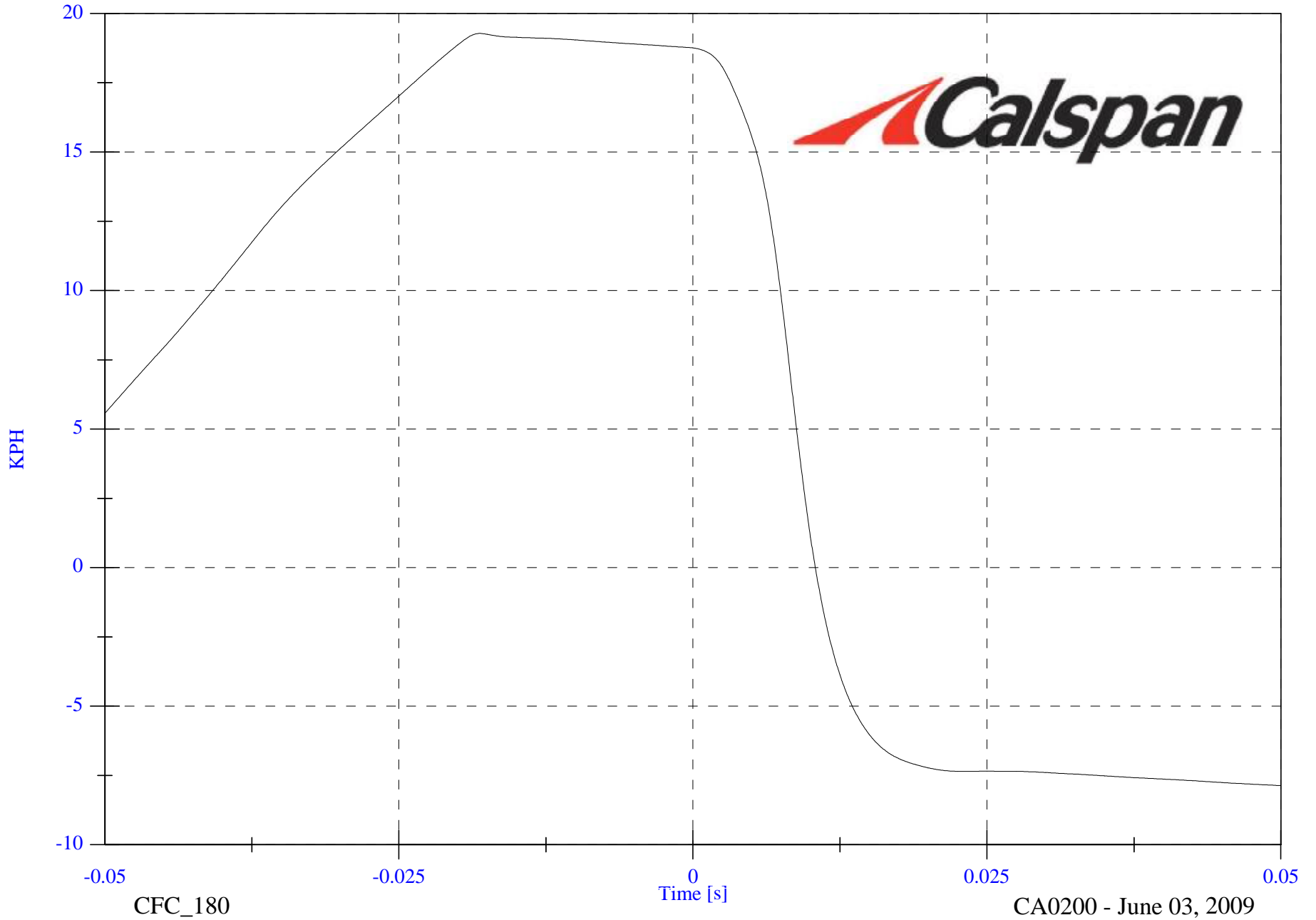
FMVSS 201U 2010 FORD FUSION

Headform Velocity

Max: 19.3 [KPH] at -0.018 [s]

Min: -7.9 [KPH] at 0.050 [s]

CA0200 DRIVER SIDE AP2 IMPACT PLOT #5



CFC\_180

CA0200 - June 03, 2009



PRE-IMPACT AP2





POST-IMPACT AP2

**APPENDIX A**

**PHOTOGRAPHS**

## PHOTOGRAPHS

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A-19	POST-TEST DRIVER SIDE SIDE RAIL	A-21
A-20	POST-TEST DRIVER SIDE B-PILLAR	A-22
A-21	POST-TEST DRIVER SIDE REAR PILLAR	A-23
A-22	POST-TEST PASSENGER SIDE A-PILLAR	A-24
A-23	POST-TEST PASSENGER SIDE FRONT HEADER	A-25
A-24	POST-TEST PASSENGER SIDE SIDE RAIL	A-26
A-25	POST-TEST PASSENGER SIDE B-PILLAR	A-27
A-26	POST-TEST PASSENGER SIDE REAR PILLAR	A-28



Figure A-1 : LEFT SIDE VIEW OF VEHICLE



Figure A-2 : RIGHT SIDE VIEW OF VEHICLE





Figure A-3 : 3/4 FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



Figure A-4 : 3/4 REAR VIEW FROM RIGHT SIDE OF VEHICLE



MFD. BY FORD MOTOR CO.

DATE: 04/09 GVWR: 2132KG/4701LB  
 FRONT GAWR: 1130KG/2492LB REAR GAWR: 1002KG/2209LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR  
 VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS  
 IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 3FADPOL38AR132742 TYPE: Passenger Car  
 MAXIMUM LOAD = OCCUPANTS + LUGGAGE = 385KG/ 850LB  
 OCCUPANTS = 5 TOTAL; 2 FRONT, 3 REAR

TIRE (FR): P225/50R17 RIMS (FR): 17X7.5J  
 (RR): P225/50R17 (RR): 17X7.5J  
 PRESSURE (FR): 230 kPa/ 33 PSI COLD (RR): 230 kPa/ 33 PSI COLD

**3FADPOL38AR132742**

TRAILER TOWING - SEE OWNER GUIDE  
 EXT PNT: UH RC: 44 DSO: F0056 R0048

INT TR	TP/PS	R	AXLE	TR	SPR	ADE1H
TW		B	25	H	DD44	V05

CMC ▽SU5A-5420472-AA

**TIRE**

SEATING CA

The combined weight and cargo should not exceed:

TIRE	SIZE
FRONT	P225/50R17
REAR	P225/50R17
SPARE	T145/80R12

▽SU5A-1532-AA (TLU)

A-7

8877-08

Figure A-5 : VEHICLE'S CERTIFICATION LABEL



LB

PSI COLD

56  
48

2-AA



# TIRE AND LOADING INFORMATION

SEATING CAPACITY TOTAL : 5 FRONT: 2 REAR: 3

The combined weight of occupants and cargo should never exceed : **385 kg or 850 lbs.**

5SUSA-1532-AA (TLU)

TIRE	SIZE	COLD TIRE PRESSURE
FRONT	P225/50R17	230 KPA, 33 PSI
REAR	P225/50R17	230 KPA, 33 PSI
SPARE	T145/80D16	415 KPA, 60 PSI

**SEE OWNERS  
MANUAL FOR  
ADDITIONAL  
INFORMATION**

3FADPOL38AR132742



Figure A-6 : VEHICLE'S TIRE INFORMATION LABEL



Figure A-7 : PRE-TEST DRIVER SIDE A-PILLAR



Figure A-8 : PRE-TEST DRIVER SIDE FRONT HEADER





Figure A-9 : PRE-TEST DRIVER SIDE SIDE RAIL



Figure A-10 : PRE-TEST DRIVER SIDE B-PILLAR



Figure A-11 : PRE-TEST DRIVER SIDE REAR PILLAR





Figure A-12 : PRE-TEST PASSENGER SIDE A-PILLAR



Figure A-13 : PRE-TEST PASSENGER SIDE FRONT HEADER





Figure A-14 : PRE-TEST PASSENGER SIDE SIDE RAIL



Figure A-15 : PRE-TEST PASSENGER SIDE B-PILLAR



Figure A-16 : PRE-TEST PASSENGER SIDE REAR PILLAR





Figure A-17 : POST-TEST DRIVER SIDE A-PILLAR



Figure A-18 : POST-TEST DRIVER SIDE FRONT HEADER



Figure A-19 : POST-TEST DRIVER SIDE SIDE RAIL



Figure A-20 : POST-TEST DRIVER SIDE B-PILLAR





Figure A-21 : POST-TEST DRIVER SIDE REAR PILLAR





Figure A-22 : POST-TEST PASSENGER SIDE A-PILLAR



Figure A-23 : POST-TEST PASSENGER SIDE FRONT HEADER



Figure A-24 : POST-TEST PASSENGER SIDE SIDE RAIL





Figure A-25 : POST-TEST PASSENGER SIDE B-PILLAR



Figure A-26 : POST-TEST PASSENGER SIDE REAR PILLAR

## **APPENDIX B**

### **PART 572L PERFORMANCE CALIBRATION IN SUPPORT OF VEHICLE SAFETY COMPLIANCE TESTING FOR OCCUPANT PROTECTION IN INTERIOR IMPACT**

Appendix B contains the results from certification tests performed on the Free Motion Headforms utilized in this test program. The results indicate that the headforms meet all of the performance specifications given in 49 CFR Part 572 Subpart L.

The tests were conducted at the Dummy Certification Test Facility of Calspan Corporation. A summary of the test results are included in this Appendix.

**PART 572L  
HEAD DROP PRE-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>0642</b>	
<b>CALIBRATION DATE:</b>		<b>March 31,2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>22</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>251.2</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>12.1</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

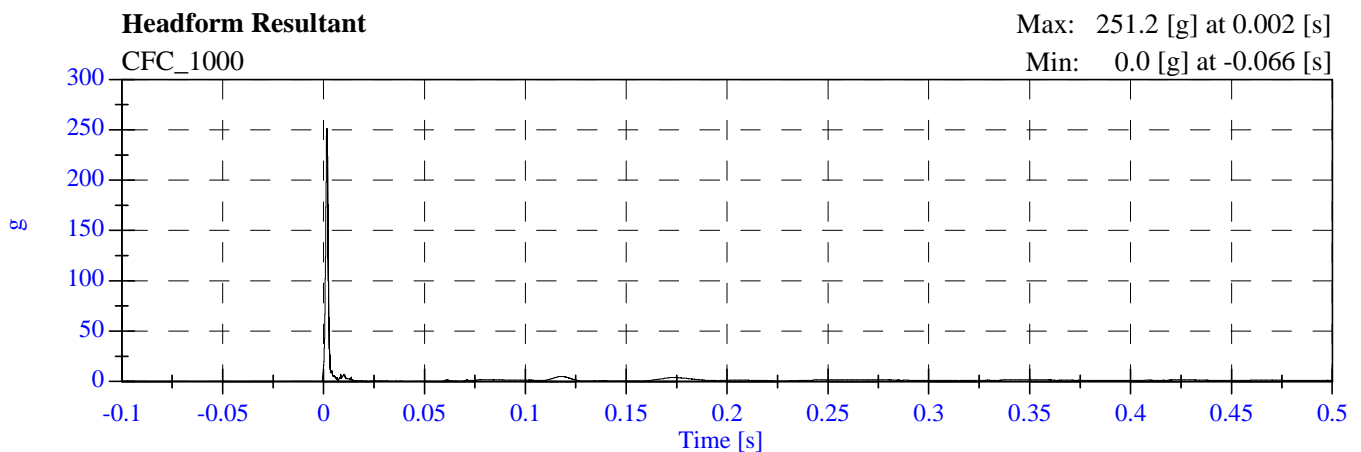
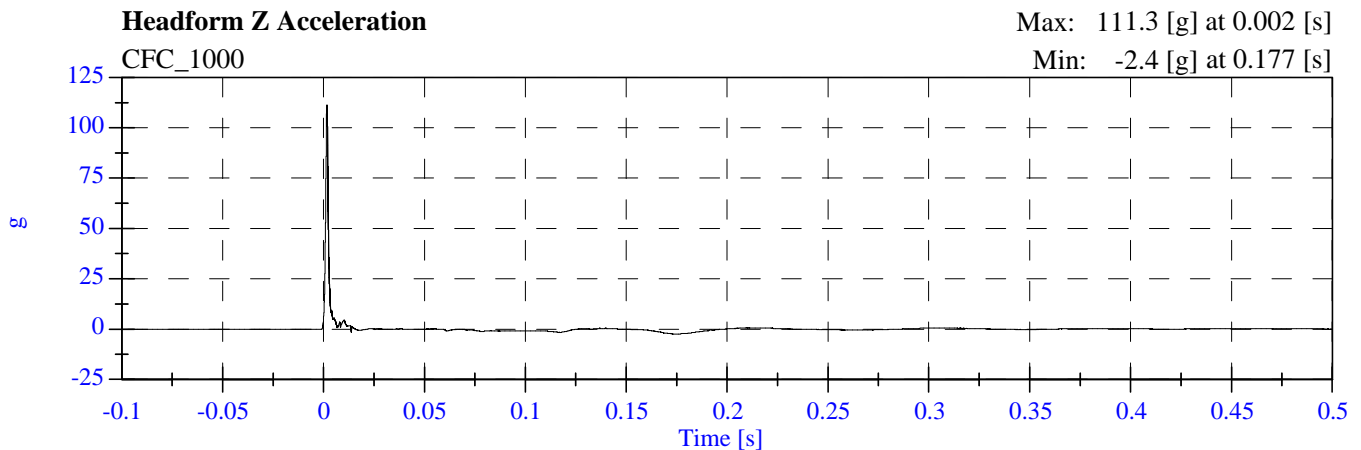
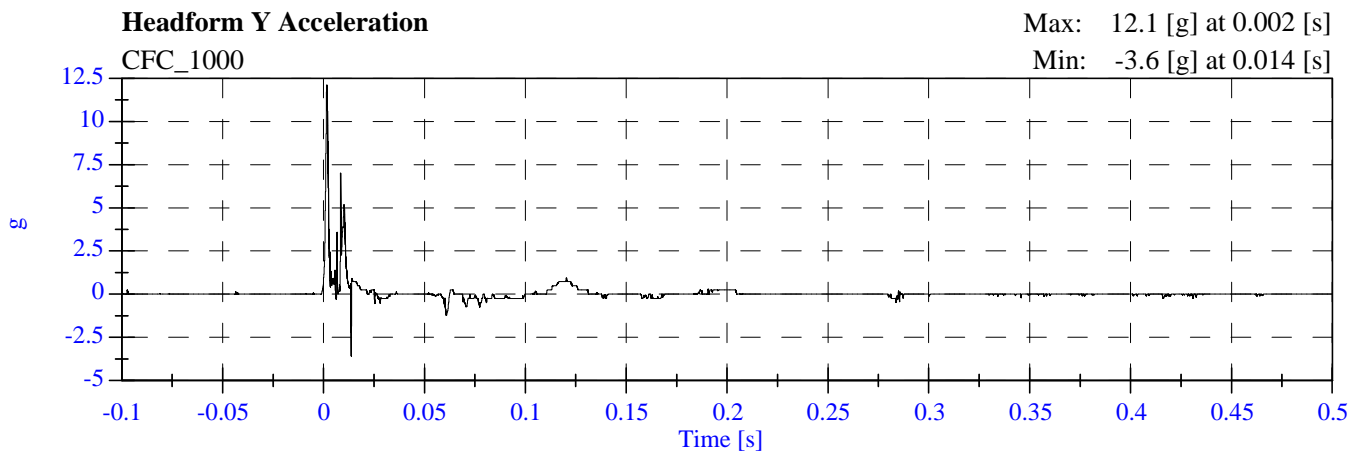
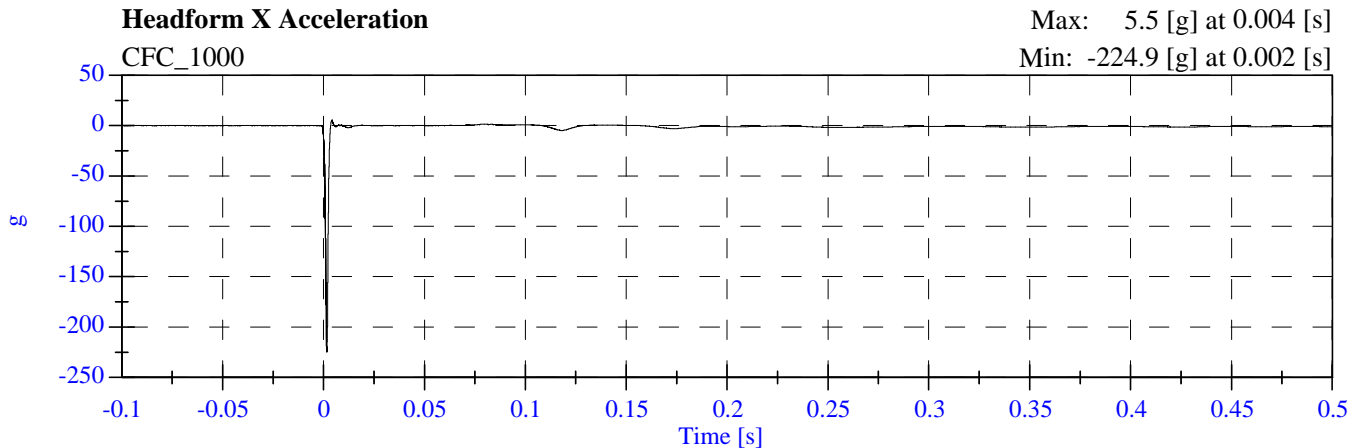
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J24876</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33030</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J31009</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## CA0200 - March 31, 2009





**PART 572L  
HEAD DROP PRE-TEST**

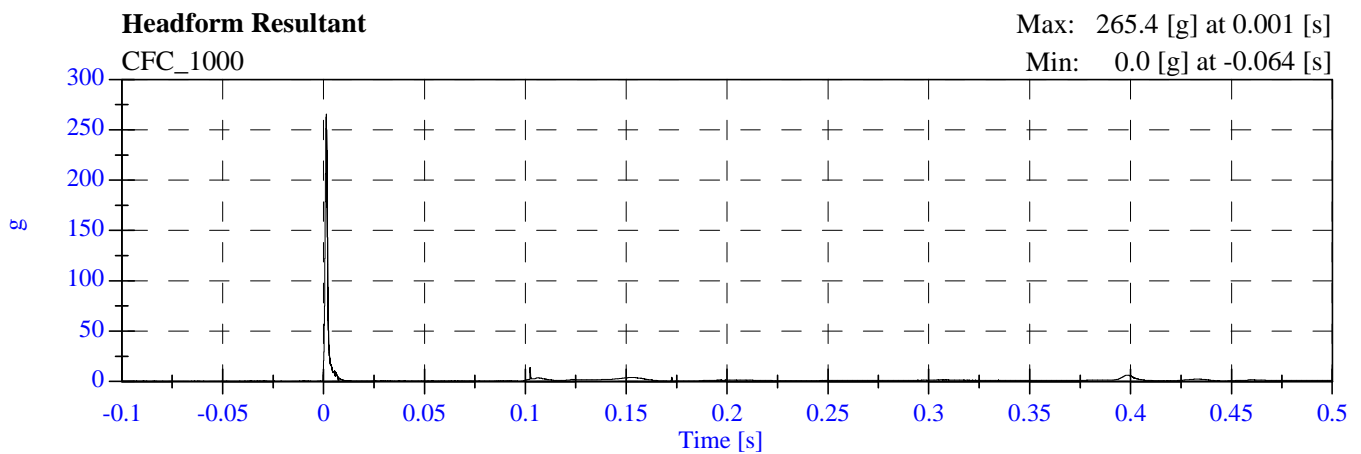
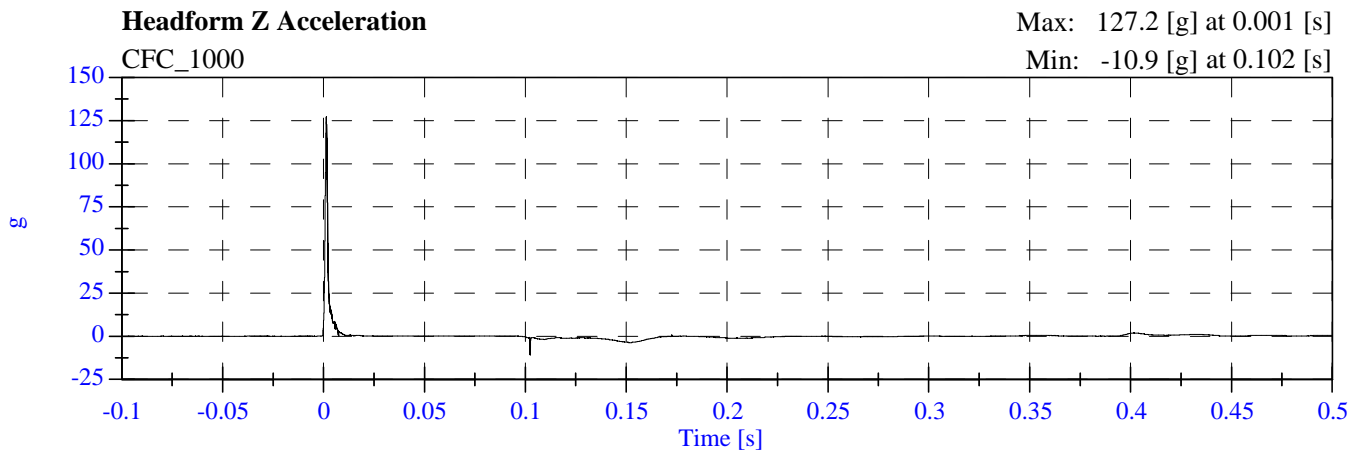
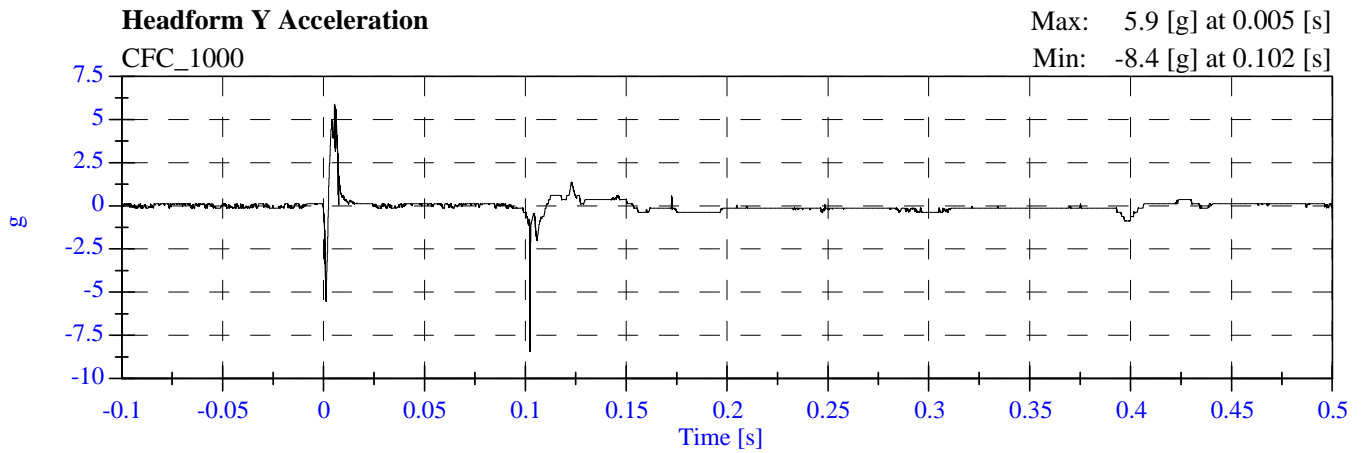
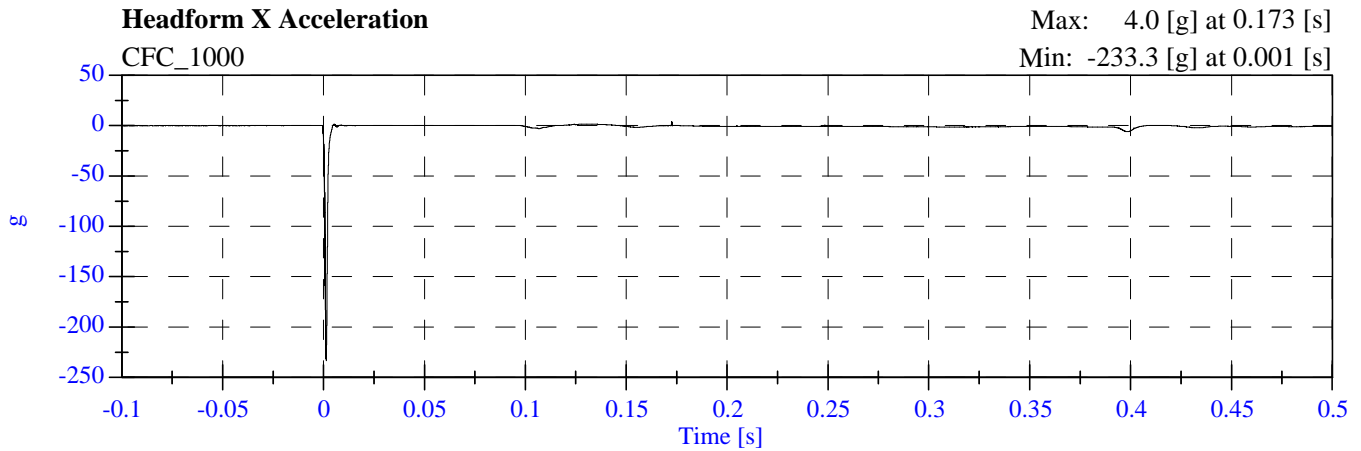
<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0062</b>	
<b>CALIBRATION DATE:</b>		<b>March 31,2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>22</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>265.4</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>8.5</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33127</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33019</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32782</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops CA0200 - March 31, 2009



**PART 572L  
HEAD DROP PRE-TEST**

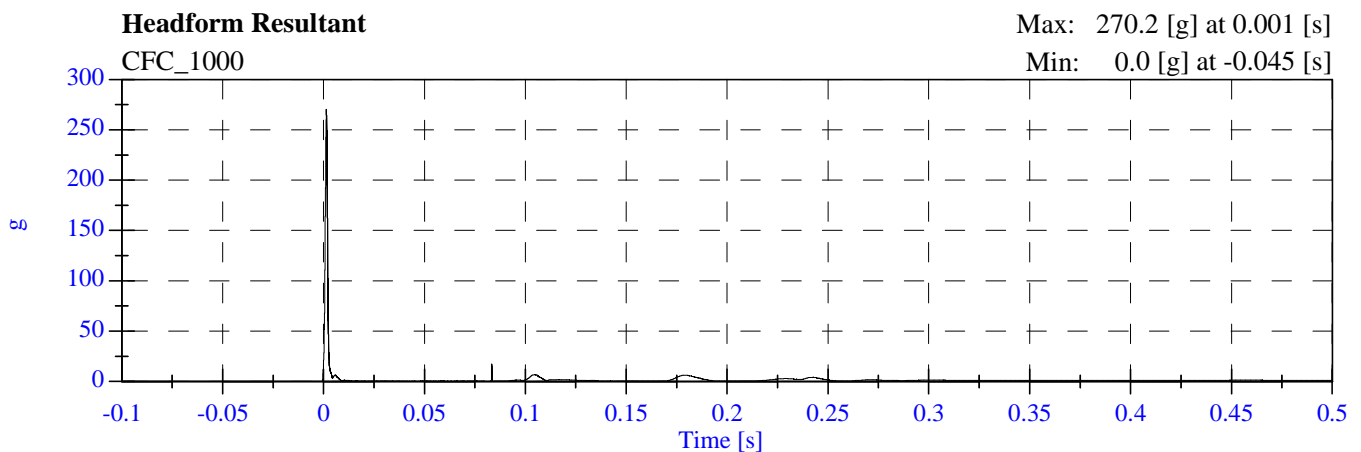
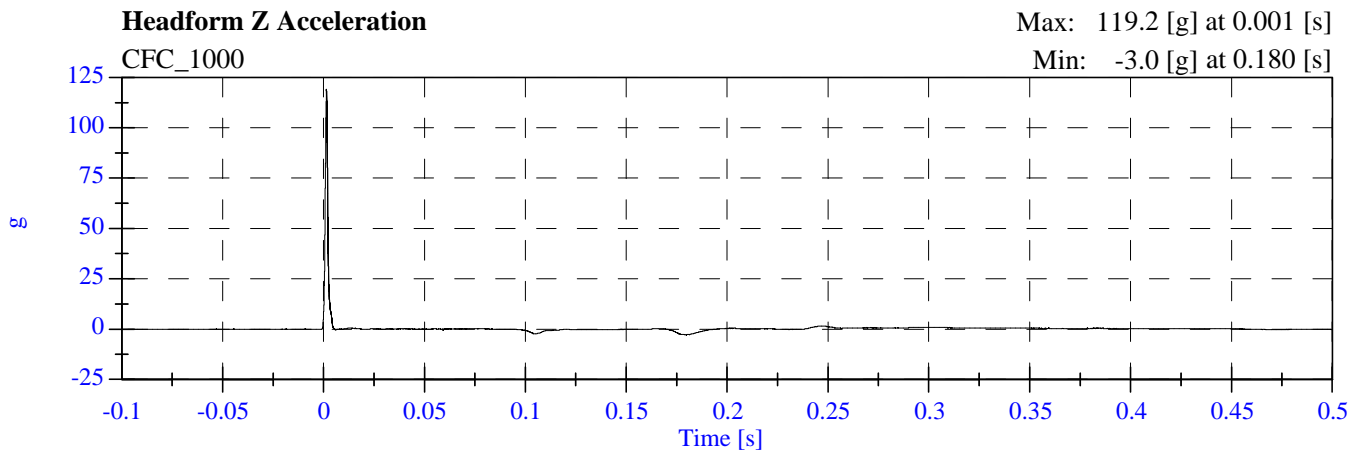
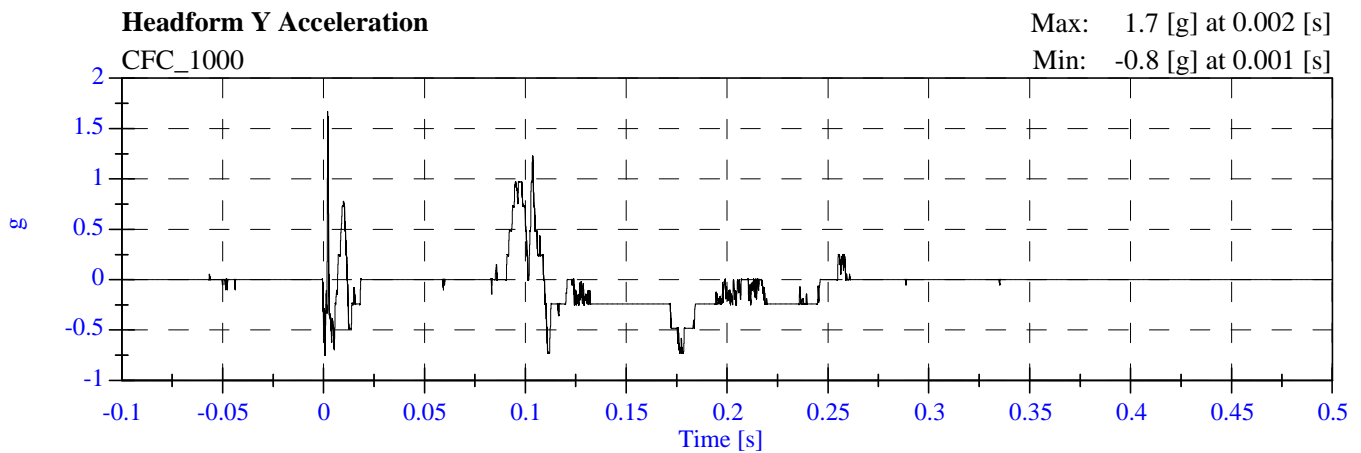
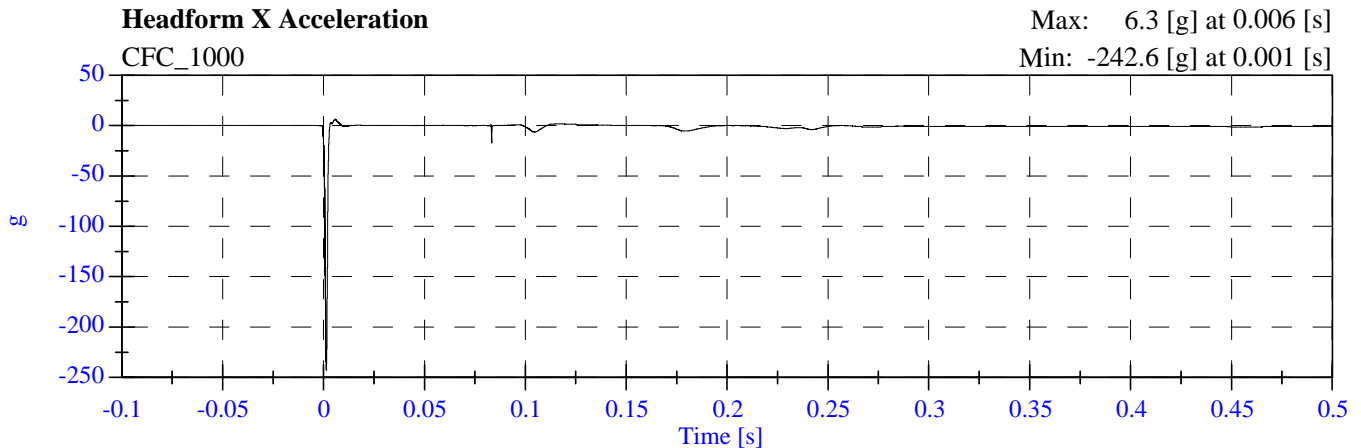
<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>805</b>	
<b>CALIBRATION DATE:</b>		<b>March 31,2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>22</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>270.3</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>1.7</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41004</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37496</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41016</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops CA0200 - March 31, 2009



**PART 572L  
HEAD DROP PRE-TEST**

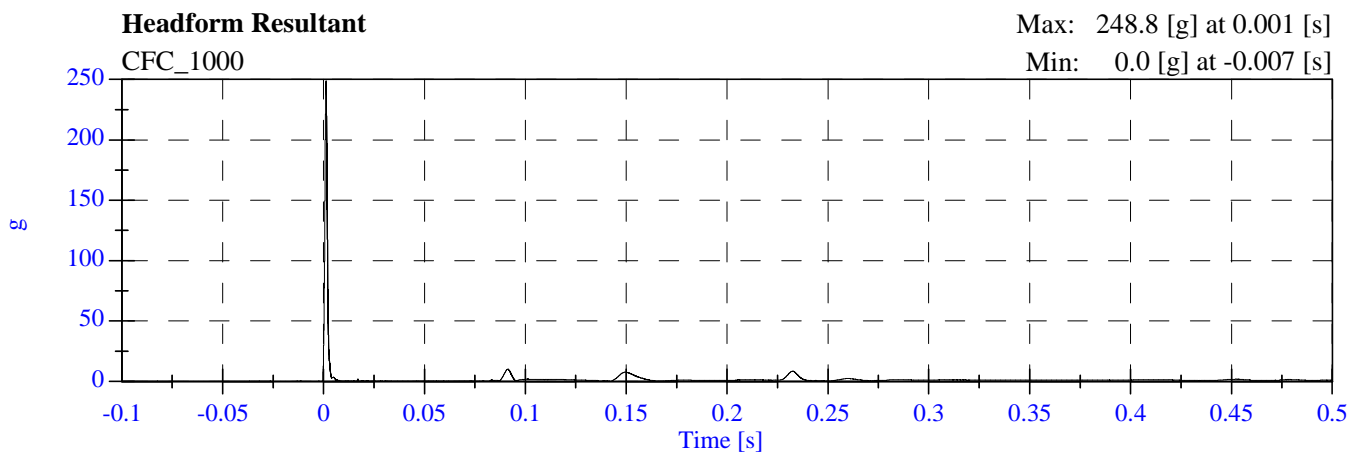
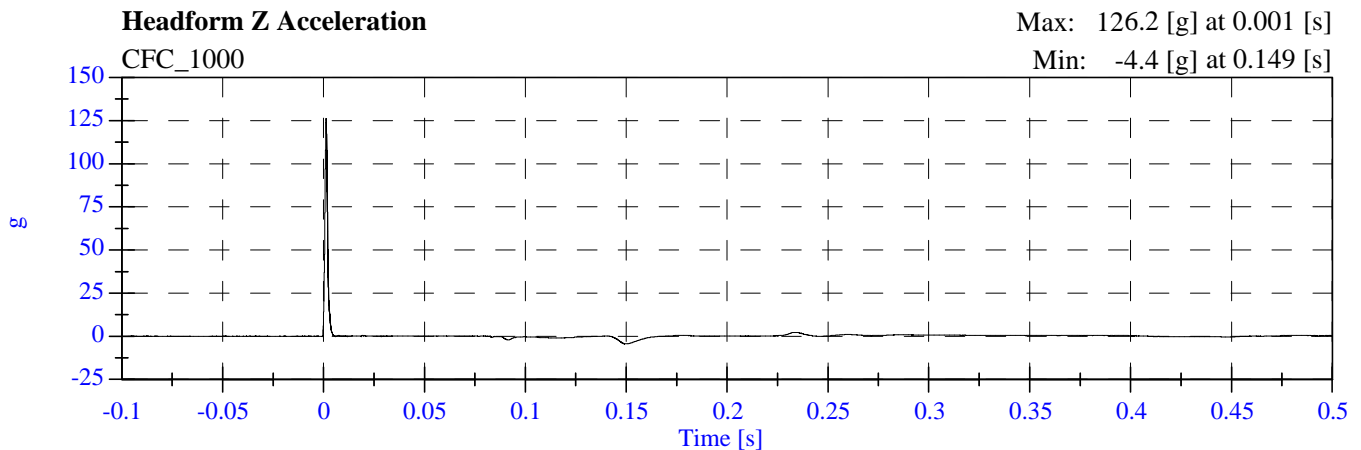
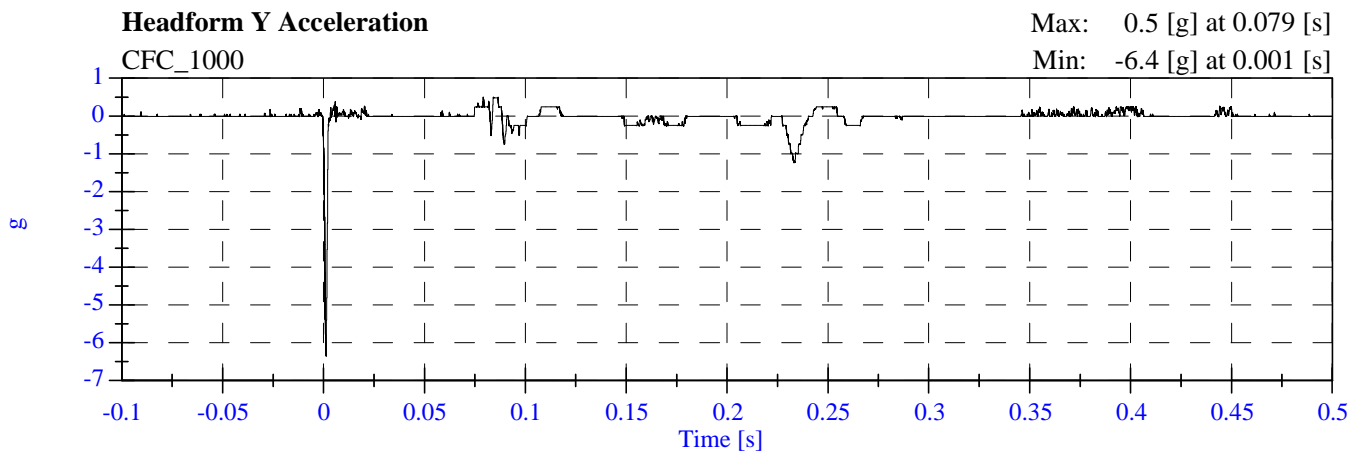
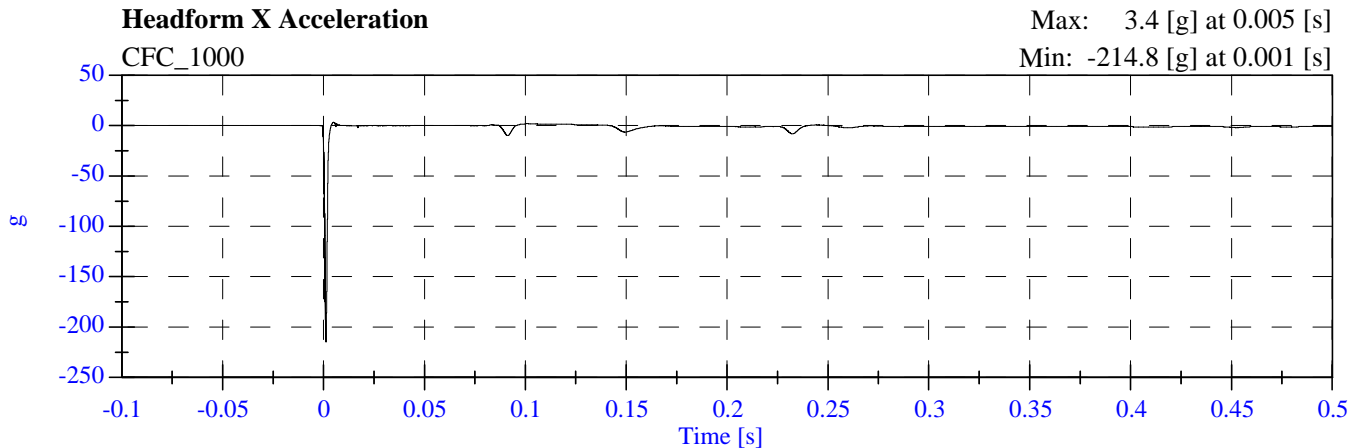
<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0355</b>	
<b>CALIBRATION DATE:</b>		<b>March 31,2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>22</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>248.8</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>6.4</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J28671</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32779</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J25854</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops CA0200 - March 31, 2009



**PART 572L  
HEAD DROP PRE-TEST**

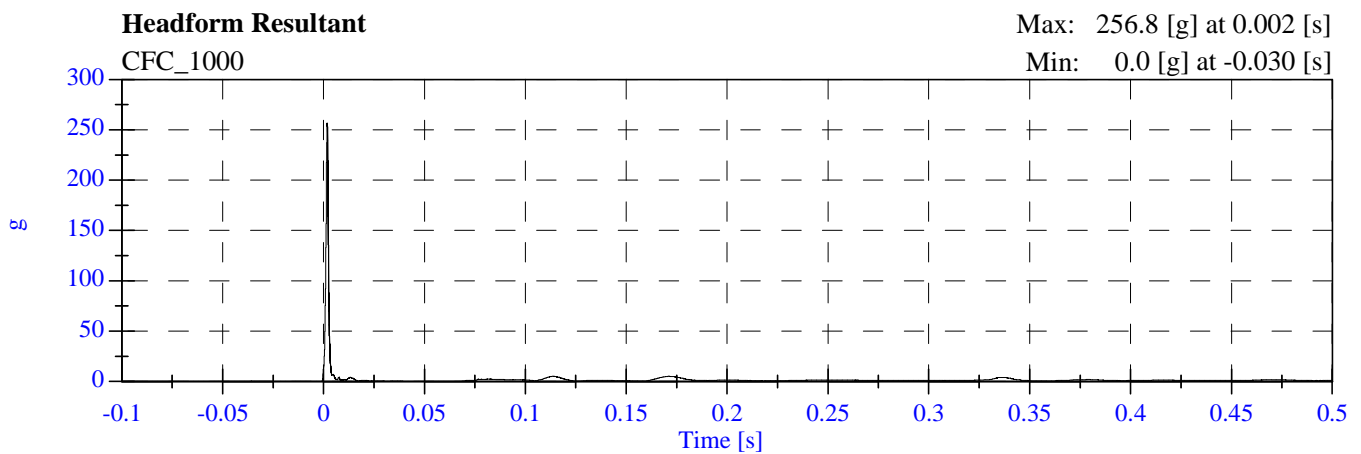
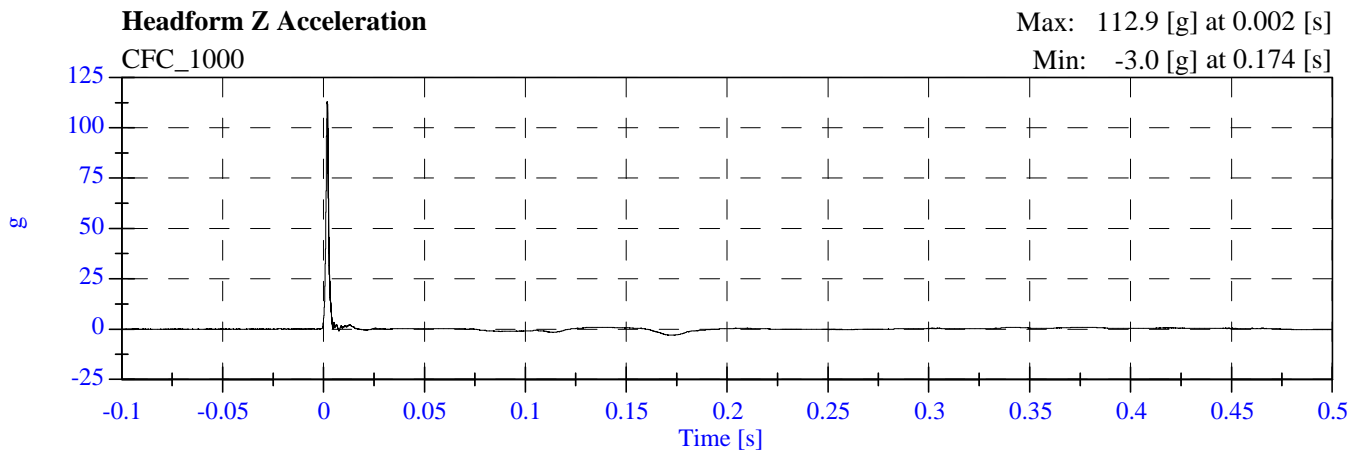
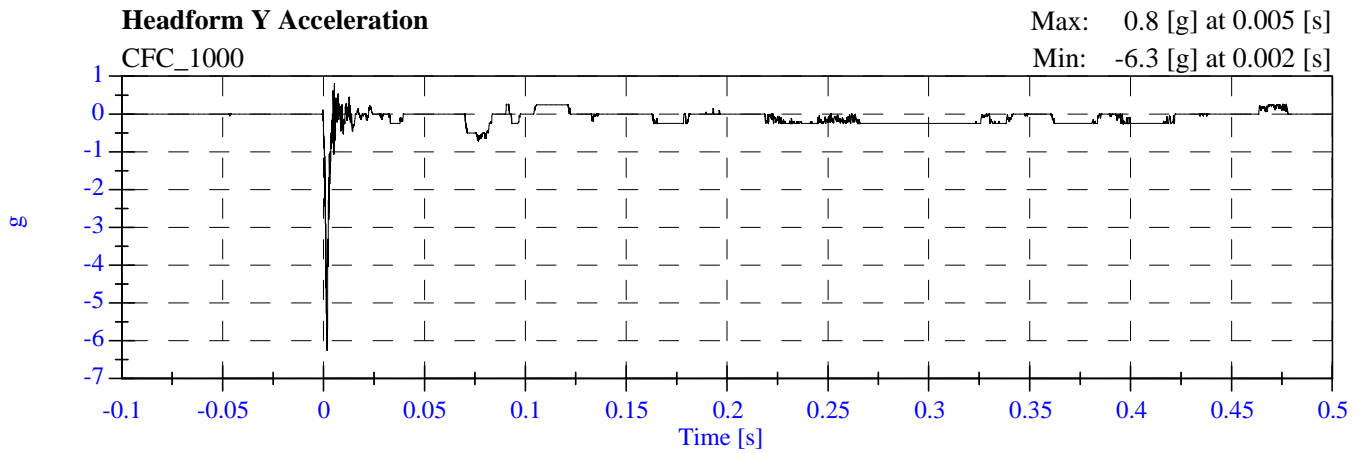
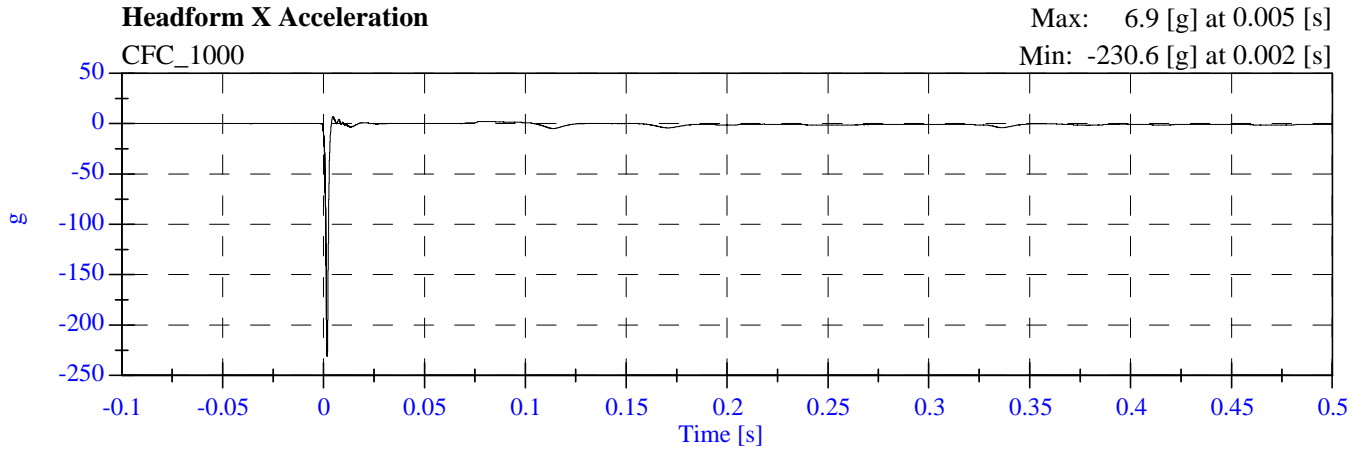
<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		1255	
<b>CALIBRATION DATE:</b>		MARCH 31, 2009	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
TEMPERATURE	19°C to 26°C	22	
RELATIVE HUMIDITY	10% to 70%	24	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	256.8	
PEAK LATERAL ACCELERATION	15 Gs Maximum	6.3	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J41006	3/2/2009	9/2/2009
2 - LATERAL	ENDEVCO	7264-2000T	J40994	3/2/2009	9/2/2009
3 - VERTICAL	ENDEVCO	7264-2000T	J41007	3/2/2009	9/2/2009

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops CA0200 - March 31, 2009





**PART 572L  
HEAD DROP POST-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		1142	
<b>CALIBRATION DATE:</b>		JUNE 5, 2009	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
TEMPERATURE	19°C to 26°C	21	
RELATIVE HUMIDITY	10% to 70%	37	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	250.5	
PEAK LATERAL ACCELERATION	15 Gs Maximum	9.2	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

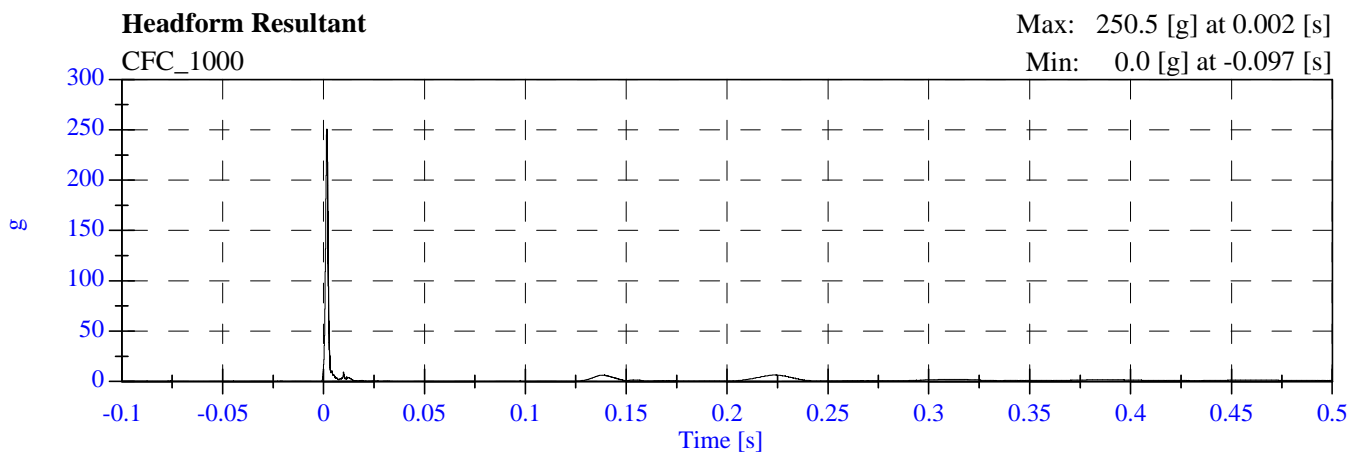
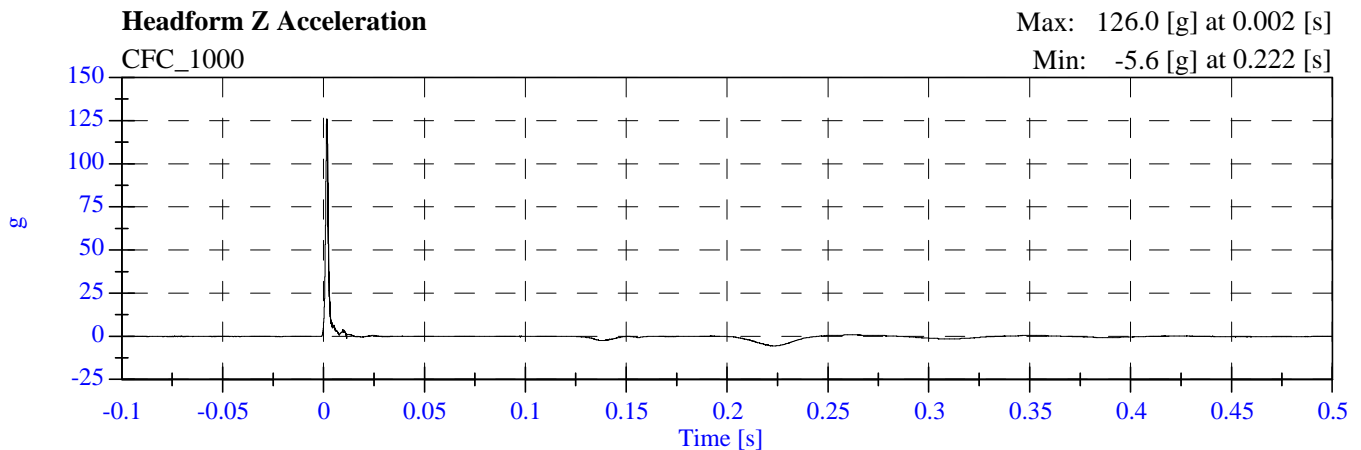
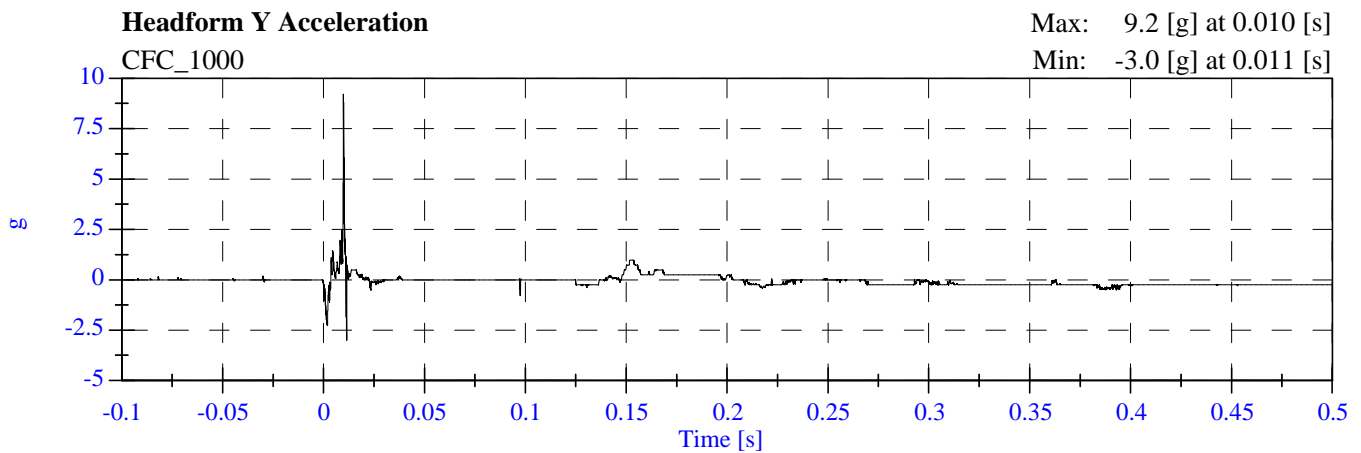
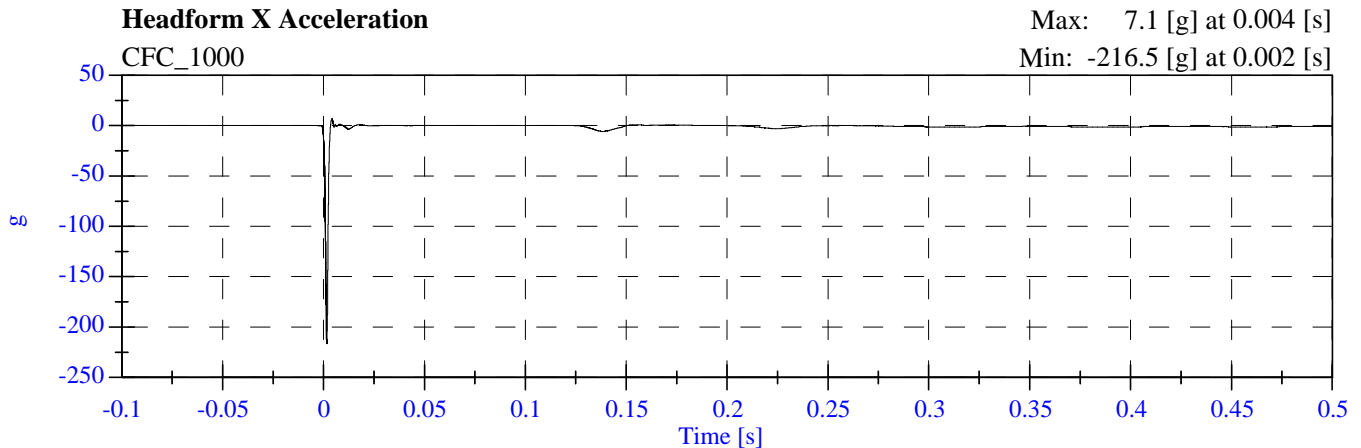
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J24876	3/2/2009	9/2/2009
2 - LATERAL	ENDEVCO	7264-2000T	J33030	3/2/2009	9/2/2009
3 - VERTICAL	ENDEVCO	7264-2000T	J31009	3/2/2009	9/2/2009

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## CA0200 - June 05, 2009



**PART 572L  
HEAD DROP POST-TEST**

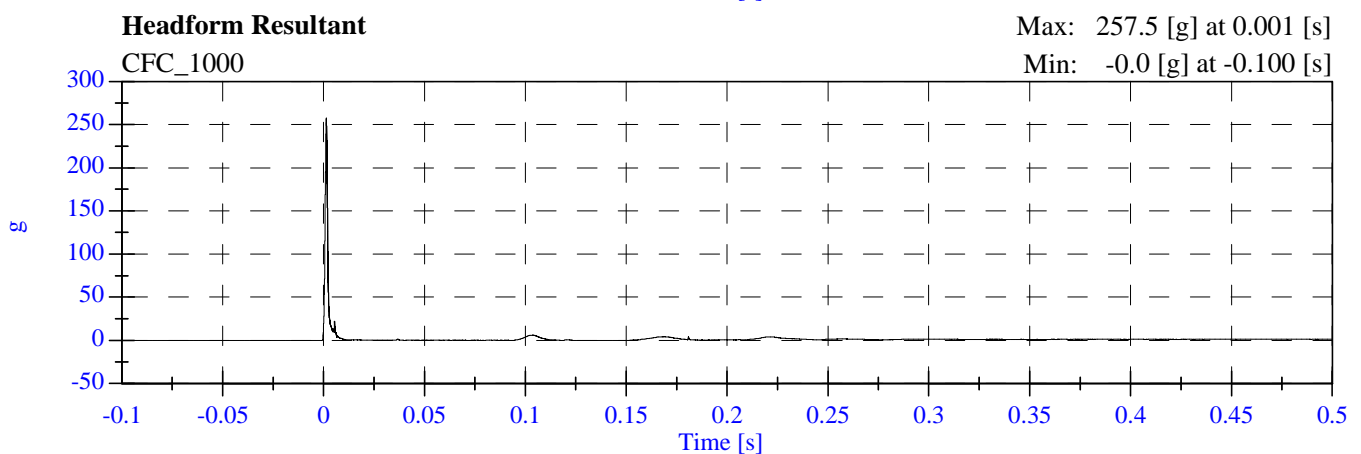
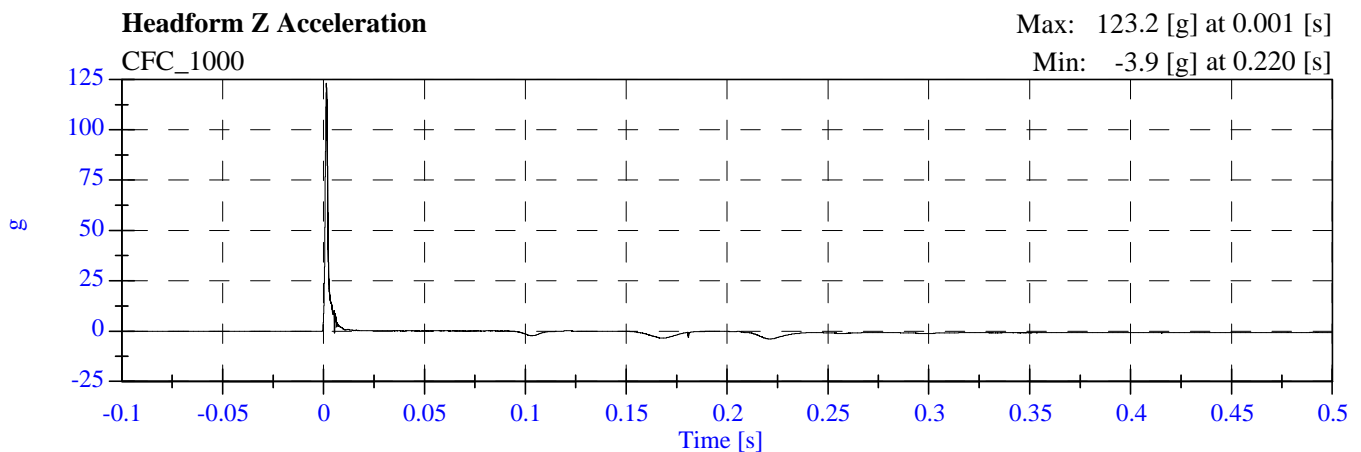
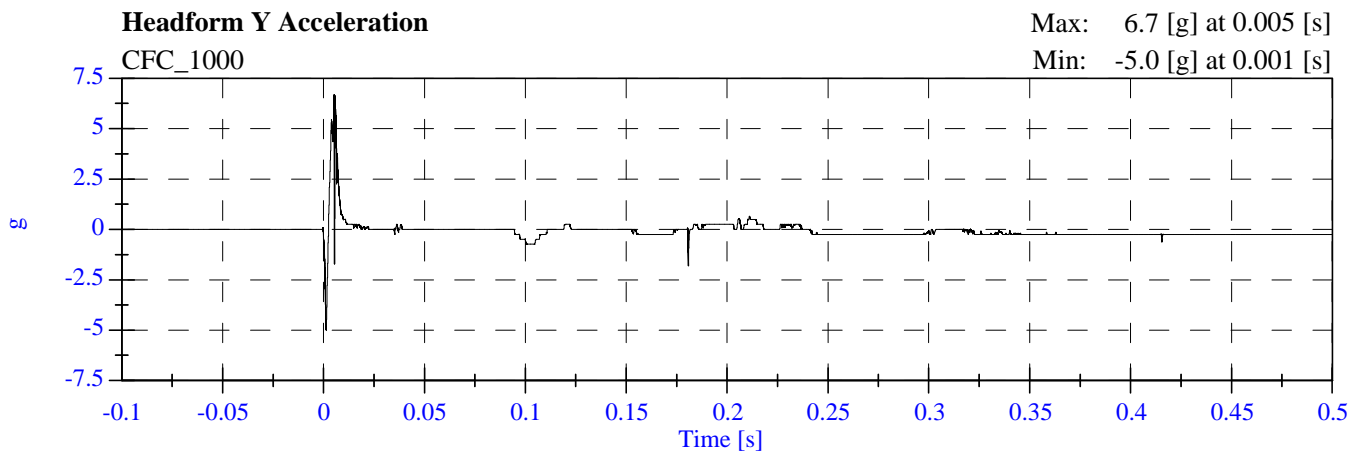
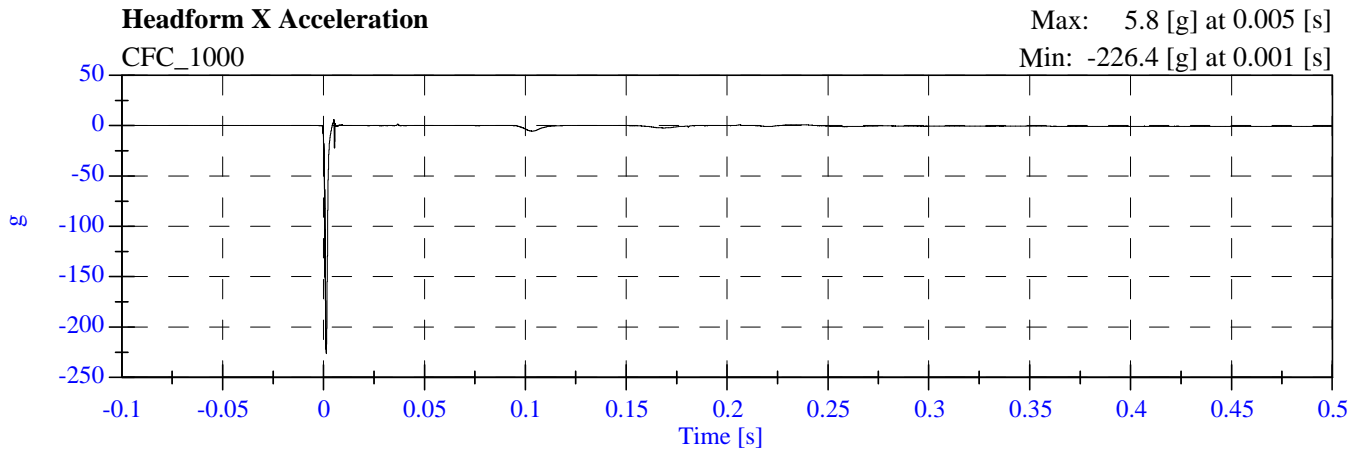
<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0062</b>	
<b>CALIBRATION DATE:</b>		<b>JUNE 5, 2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>21</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>37</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>257.5</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>6.7</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33127</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33019</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32782</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops CA0200 - June 05, 2009



**PART 572L  
HEAD DROP POST-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>805</b>	
<b>CALIBRATION DATE:</b>		<b>JUNE 5, 2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>21</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>37</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>254.2</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>3.5</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

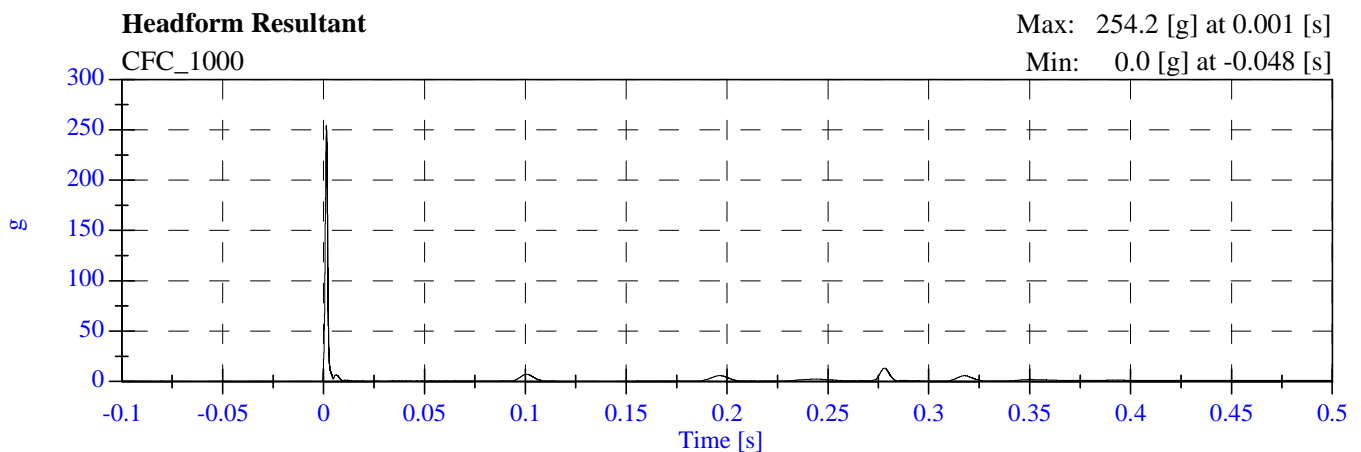
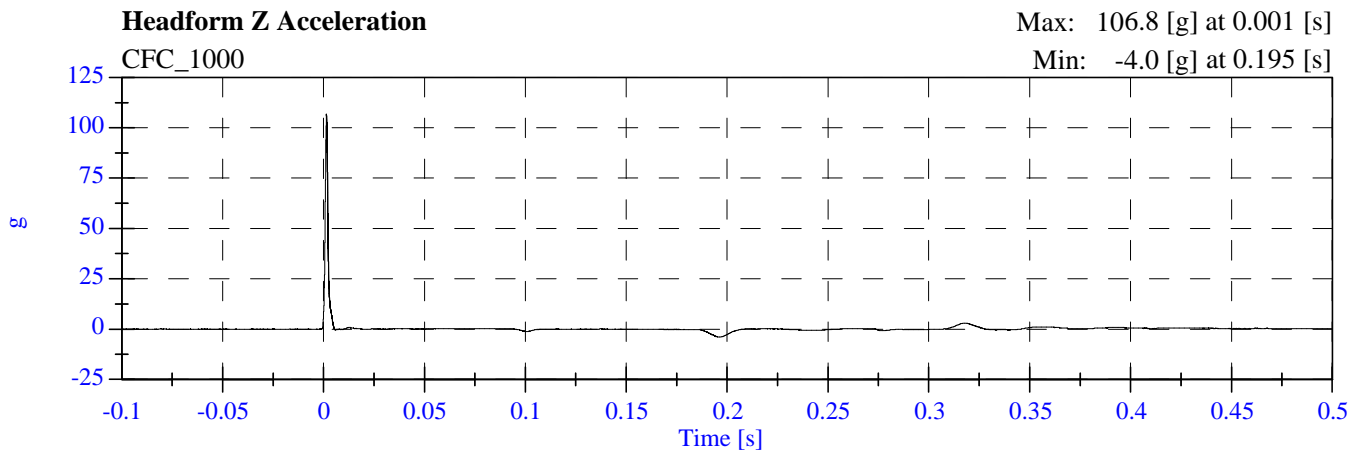
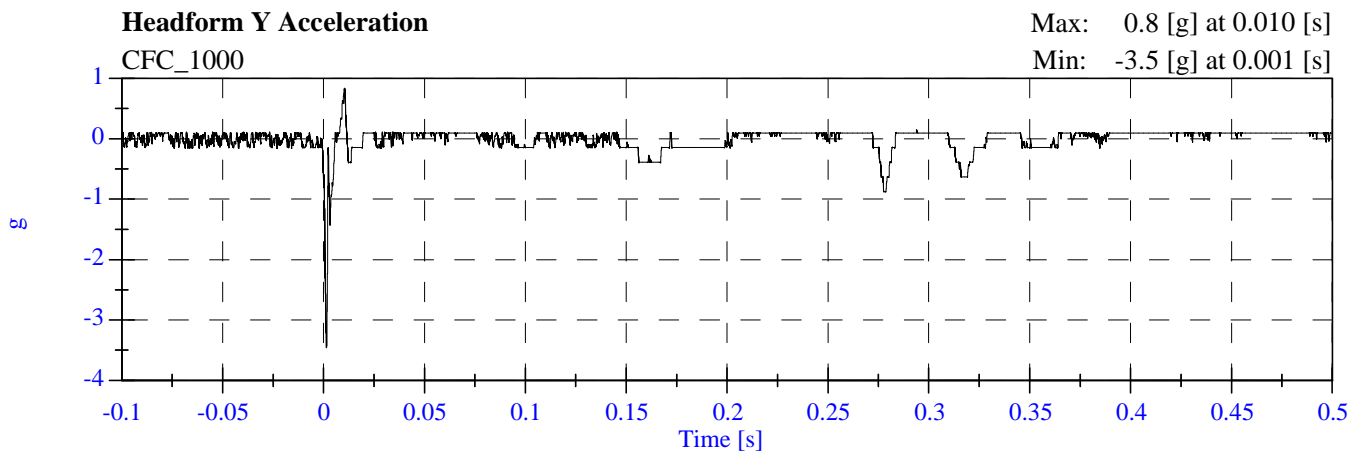
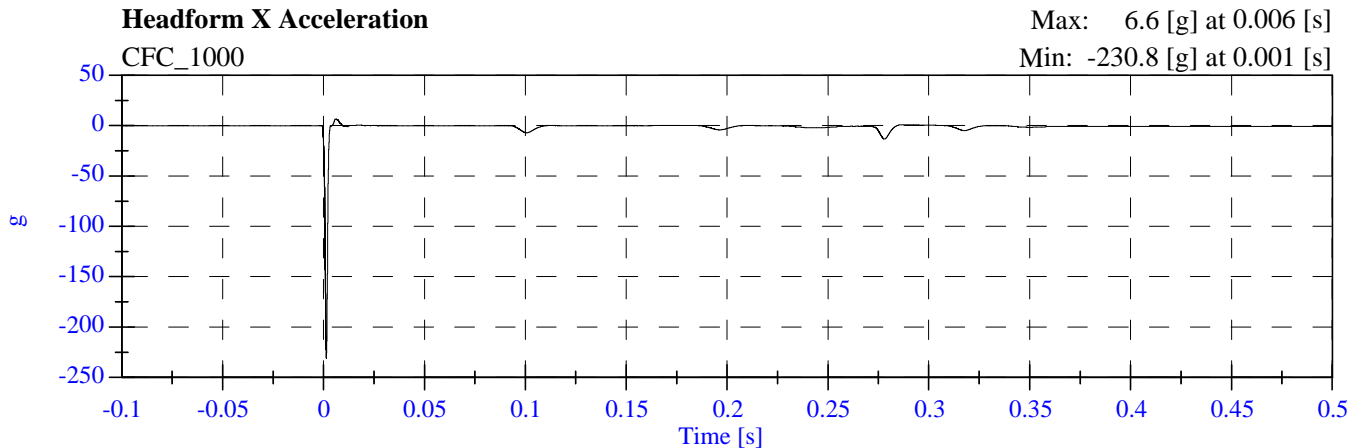
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41004</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37496</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41016</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## CA0200 - June 05, 2009



**PART 572L  
HEAD DROP POST-TEST**

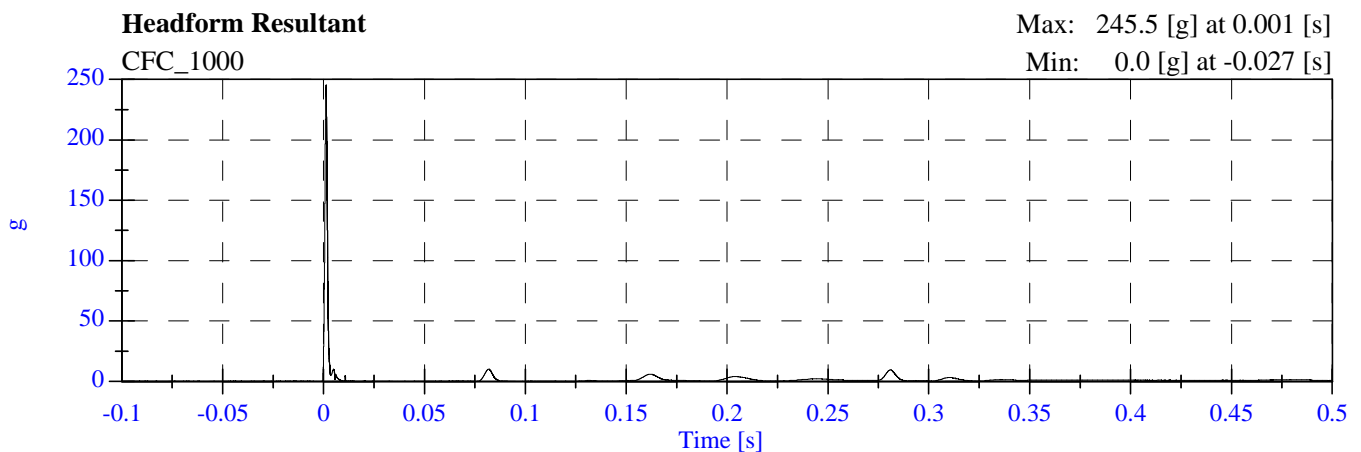
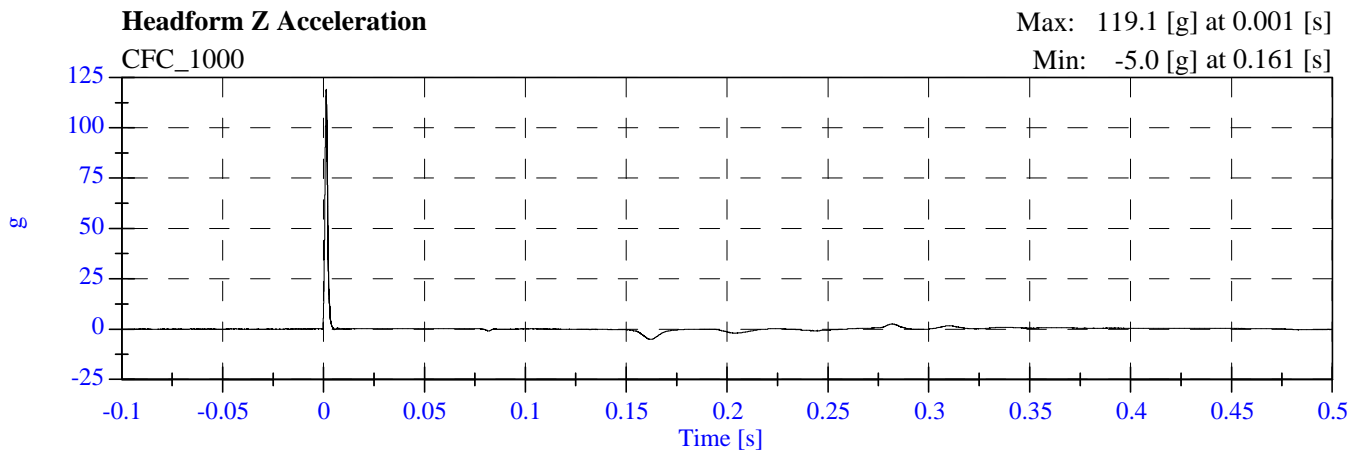
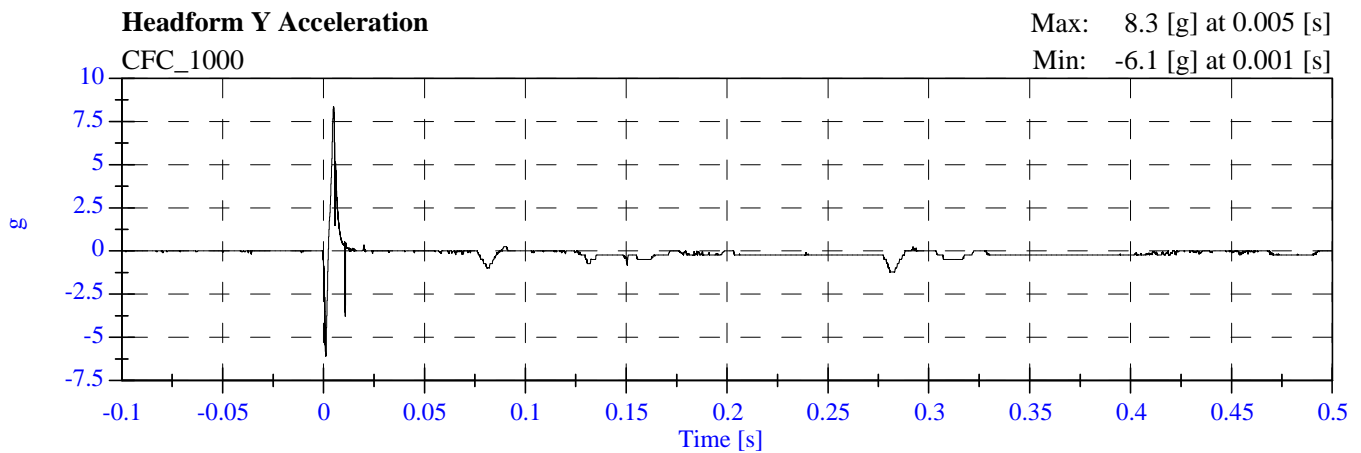
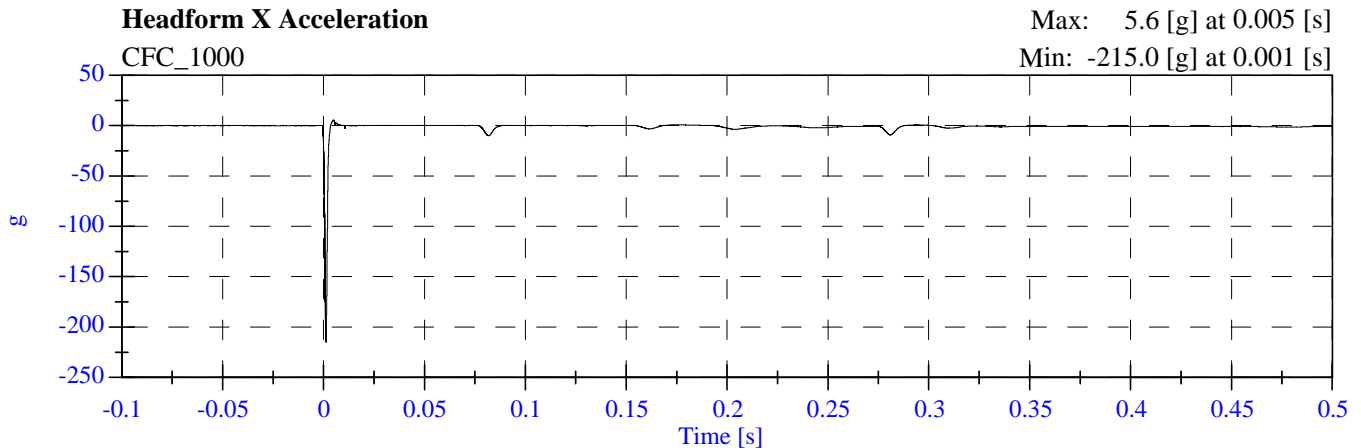
<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0355</b>	
<b>CALIBRATION DATE:</b>		<b>JUNE 5, 2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>21</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>37</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>245.5</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>8.3</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J28671</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32779</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J25854</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops CA0200 - June 05, 2009





**PART 572L  
HEAD DROP POST-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>
<b>SERIAL NUMBER:</b>		<b>1140</b>
<b>CALIBRATION DATE:</b>		<b>JUNE 5, 2009</b>
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>21</b>
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>37</b>
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>243.9</b>
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>5.6</b>
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41006</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J40994</b>	<b>3/2/2009</b>	<b>9/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41007</b>	<b>3/2/2009</b>	<b>9/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

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