Vehicle Information

HY | TUCSON(LM) | 2013 | ALL | AIRBAG SYSTEM

Additional Information

User : Richard R. Ruth, P.E.

CaseNumber : NHTSA 7481, MC0506

CrashDate : 10/17/2011

Part No. : 95910 - 2S600

Save on : Sunday, March 24, 2013, at 13:43:26

G-EDR Software Version : 1.00

EDR Data Limitations

The retrieval of his EDR data has authorized by the vehicle's owner, or other legal authority.

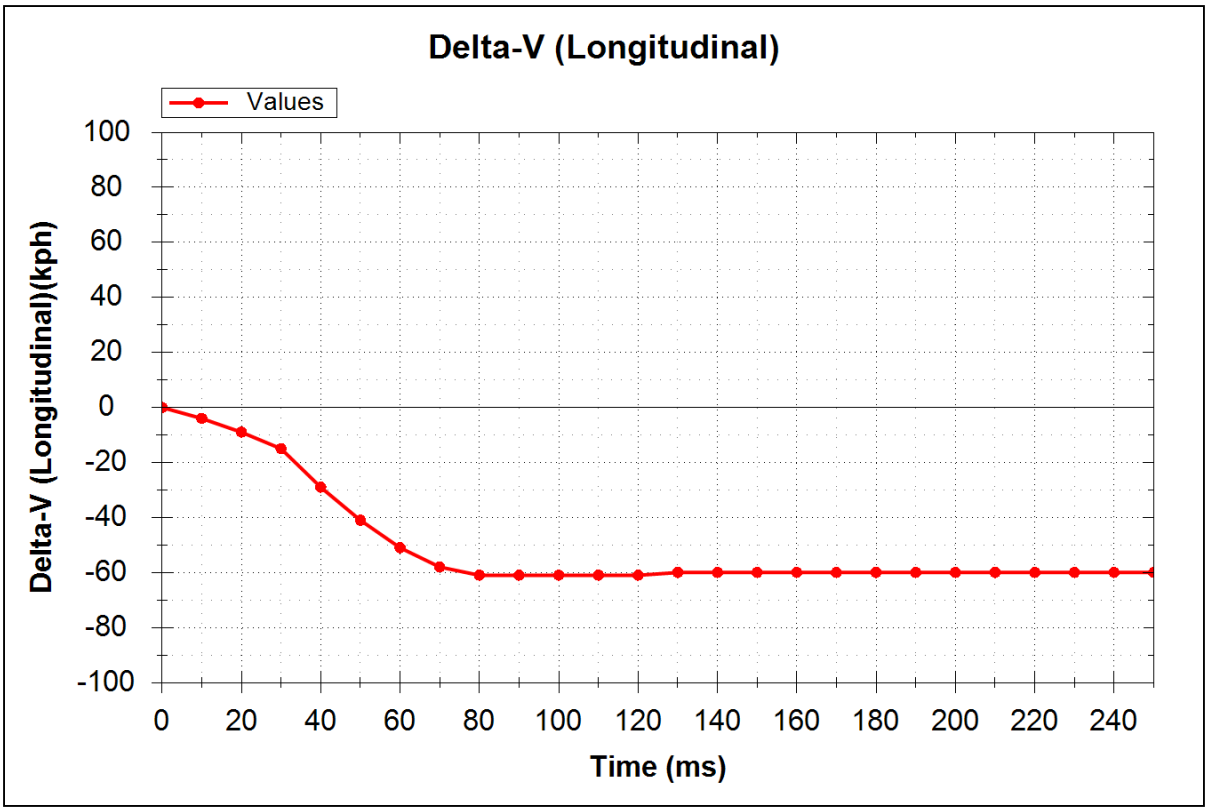
The airbag ECU can store up to two events. Deployment events cannot be overwritten or cleared from airbag ECU. Non-deployment events(which did not qualify as deployable events) can be overwritten by subsequent events.

The specifications for EDR are designed to be compatible with NHTSA 49 CFR Part 563 rule. The EDR data recording specifications of airbag ECU are divided into the following four categories.
- For the Event#1: Event#1-1 Event#1-2 Event#1-3 Real-Time Data.
- For the Event#2: Event#2-1 Event#2-2 Event#2-3 Real-Time Data.
The airbag ECU records data for all or some of the following crash(event)
But, depending on the installed airbag ECU, data for side crash and/or rollover crash(event) may not be recored.

Ignition cycle counter(download) will increment by 1 every time when the power mode cycles is changed from OFF/Accessory to IGN/RUN or EDR data is downloaded by using the retrieval tool.

< Event # 1 - 1 >

1 [Delta-V (Longitudinal)]



Num	Time (ms)	Delta-V (Longitudinal) (kph)
1	0.0	0
2	10.0	-4
3	20.0	-9
4	30.0	-15
5	40.0	-29
6	50.0	-41
7	60.0	-51
8	70.0	-58
9	80.0	-61
10	90.0	-61
11	100.0	-61
12	110.0	-61
13	120.0	-61
14	130.0	-60
15	140.0	-60
16	150.0	-60
17	160.0	-60
18	170.0	-60
19	180.0	-60
20	190.0	-60

21	200.0	-60
22	210.0	-60
23	220.0	-60
24	230.0	-60
25	240.0	-60
26	250.0	-60

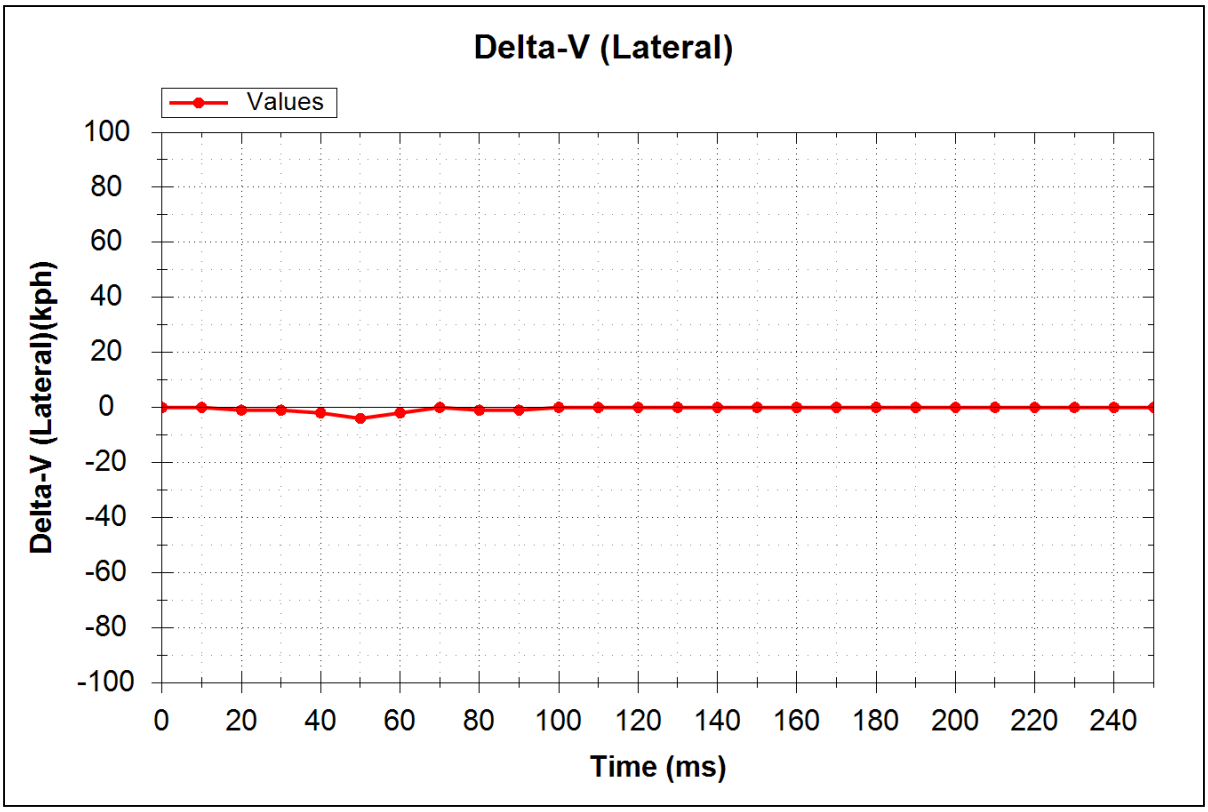
2 [Max. Delta-V (Longitudinal)]

Num	Max. Delta-V (Longitudinal) (kph)
1	-61

3 [Time_ Max. Delta-V (Longitudinal)]

Num	Time_ Max. Delta-V (Longitudinal) (ms)
1	85.0

4 [Delta-V (Lateral)]



Num	Time (ms)	Delta-V (Lateral) (kph)
1	0.0	0
2	10.0	0
3	20.0	-1
4	30.0	-1
5	40.0	-2
6	50.0	-4
7	60.0	-2
8	70.0	0
9	80.0	-1
10	90.0	-1
11	100.0	0
12	110.0	0
13	120.0	0
14	130.0	0
15	140.0	0
16	150.0	0
17	160.0	0
18	170.0	0
19	180.0	0
20	190.0	0
21	200.0	0
22	210.0	0

23	220.0	0
24	230.0	0
25	240.0	0
26	250.0	0

5 [Max. Delta-V (Lateral)]

Num	Max. Delta-V (Lateral) (kph)
1	-3

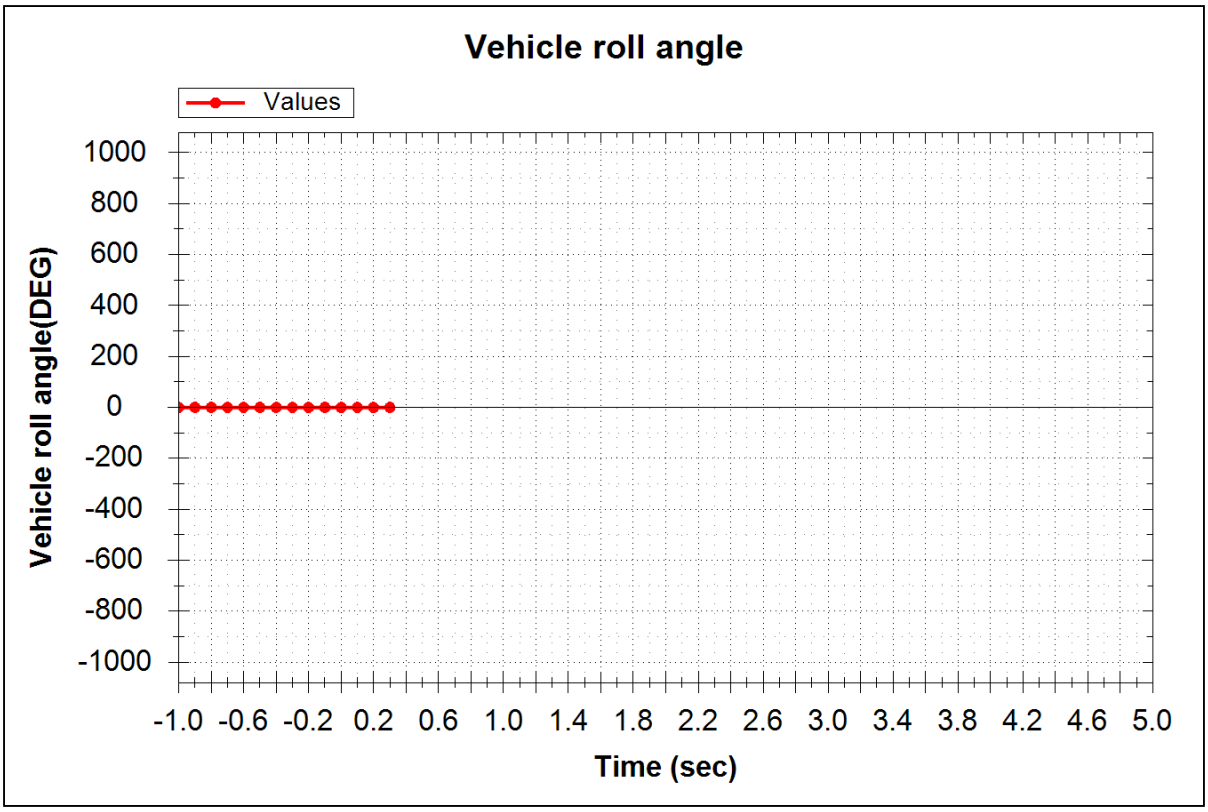
6 [Time_ Max. Delta-V (Lateral)]

Num	Time_ Max. Delta-V (Lateral) (ms)
1	47.5

7 [Time_ Max. Delta-V (Resultant)]

Num	Time_ Max. Delta-V (Resultant) (ms)
1	85.0

8 [Vehicle roll angle]

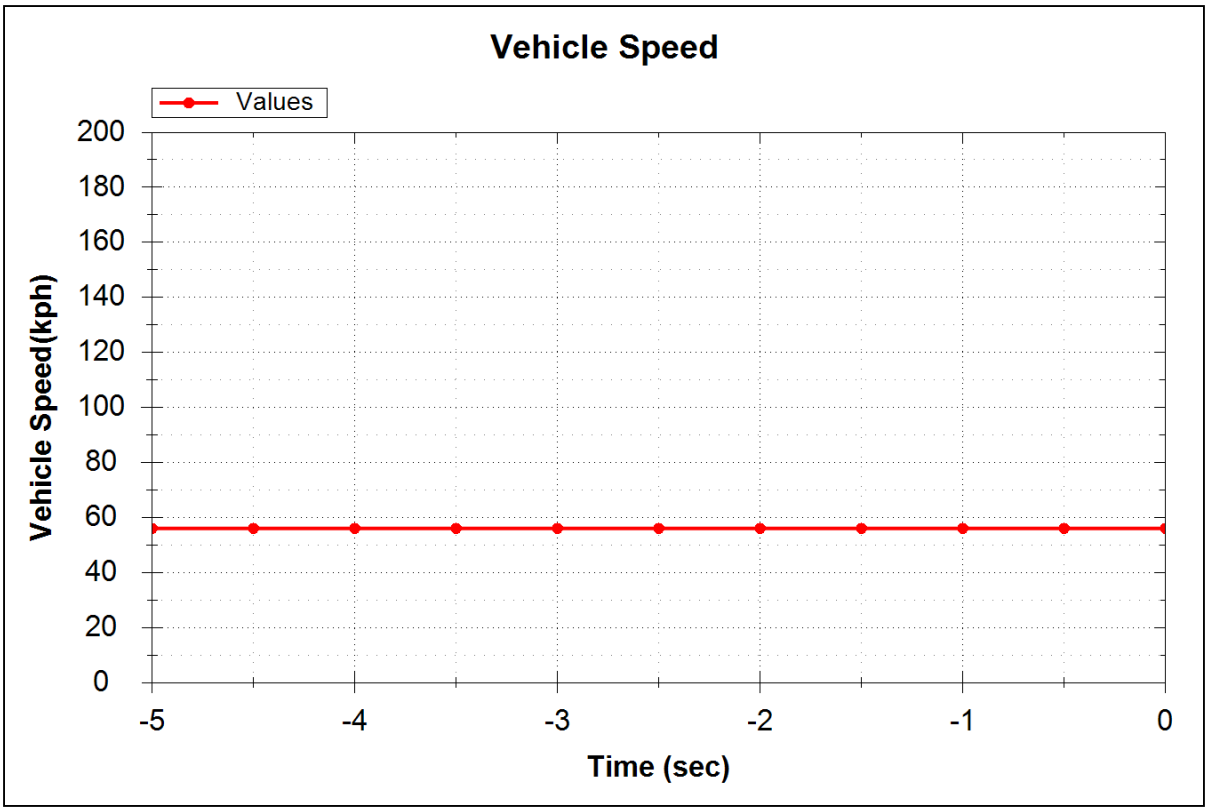


Num	Time (sec)	Vehicle roll angle (DEG)
1	-1.0	0
2	-0.9	0
3	-0.8	0
4	-0.7	0
5	-0.6	0
6	-0.5	0
7	-0.4	0
8	-0.3	0
9	-0.2	0
10	-0.1	0
11	0.0	0
12	0.1	0
13	0.2	0
14	0.3	0
15	0.4	Invalid data
16	0.5	Invalid data
17	0.6	Invalid data
18	0.7	Invalid data
19	0.8	Invalid data
20	0.9	Invalid data
21	1.0	Invalid data
22	1.1	Invalid data

23	1.2	Invalid data
24	1.3	Invalid data
25	1.4	Invalid data
26	1.5	Invalid data
27	1.6	Invalid data
28	1.7	Invalid data
29	1.8	Invalid data
30	1.9	Invalid data
31	2.0	Invalid data
32	2.1	Invalid data
33	2.2	Invalid data
34	2.3	Invalid data
35	2.4	Invalid data
36	2.5	Invalid data
37	2.6	Invalid data
38	2.7	Invalid data
39	2.8	Invalid data
40	2.9	Invalid data
41	3.0	Invalid data
42	3.1	Invalid data
43	3.2	Invalid data
44	3.3	Invalid data
45	3.4	Invalid data
46	3.5	Invalid data
47	3.6	Invalid data
48	3.7	Invalid data
49	3.8	Invalid data
50	3.9	Invalid data
51	4.0	Invalid data
52	4.1	Invalid data
53	4.2	Invalid data
54	4.3	Invalid data
55	4.4	Invalid data
56	4.5	Invalid data
57	4.6	Invalid data
58	4.7	Invalid data
59	4.8	Invalid data
60	4.9	Invalid data
61	5.0	Invalid data

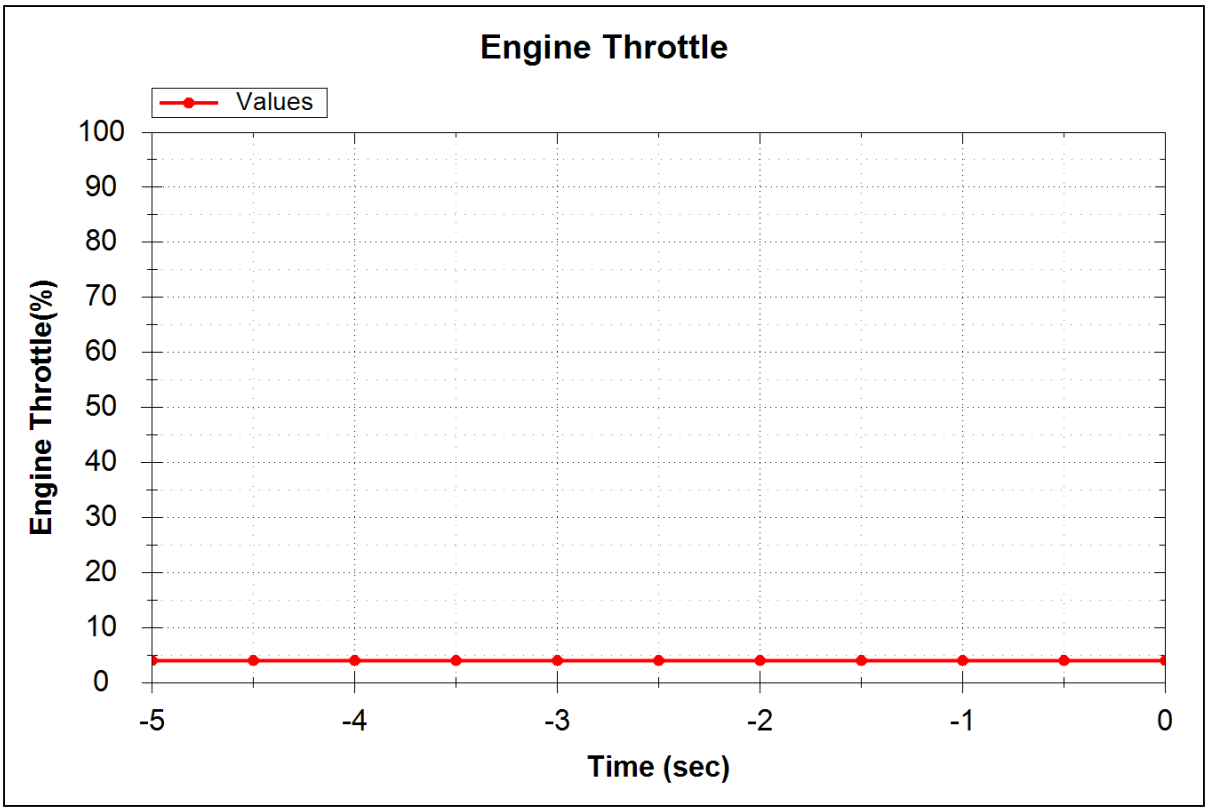
< Event # 1 - 2 >

1 [Vehicle Speed]



Num	Time (sec)	Vehicle Speed (kph)
1	-5.0	56
2	-4.5	56
3	-4.0	56
4	-3.5	56
5	-3.0	56
6	-2.5	56
7	-2.0	56
8	-1.5	56
9	-1.0	56
10	-0.5	56
11	0.0	56

2 [Engine Throttle]



Num	Time (sec)	Engine Throttle (%)
1	-5.0	4
2	-4.5	4
3	-4.0	4
4	-3.5	4
5	-3.0	4
6	-2.5	4
7	-2.0	4
8	-1.5	4
9	-1.0	4
10	-0.5	4
11	0.0	4

3 [Service brake_ on/off]

Num	Time (sec)	Service brake_ on/off
1	-5.0	OFF
2	-4.5	OFF
3	-4.0	OFF
4	-3.5	OFF

5	-3.0	OFF
6	-2.5	OFF
7	-2.0	OFF
8	-1.5	OFF
9	-1.0	OFF
10	-0.5	OFF
11	0.0	OFF

4 [Ignition Cycle_ Crash]

Num	Ignition Cycle_ Crash (Cyc.)
1	89

5 [Safety belt status_ driver]

Num	Safety belt status_ driver
1	ON

6 [Airbag warning lamp on/off]

Num	Airbag warning lamp on/off
1	OFF

7 [Time to deploy_ Frontal airbag-1st stage_ driver]

Num	Time to deploy_ Frontal airbag-1st stage_ driver (ms)
1	8

8 [Time to deploy_ Frontal airbag-1st stage_ passenger]

Num	Time to deploy_ Frontal airbag-1st stage_ passenger (ms)
1	8

9 [Number of event]

Num	Number of event
1	1 event

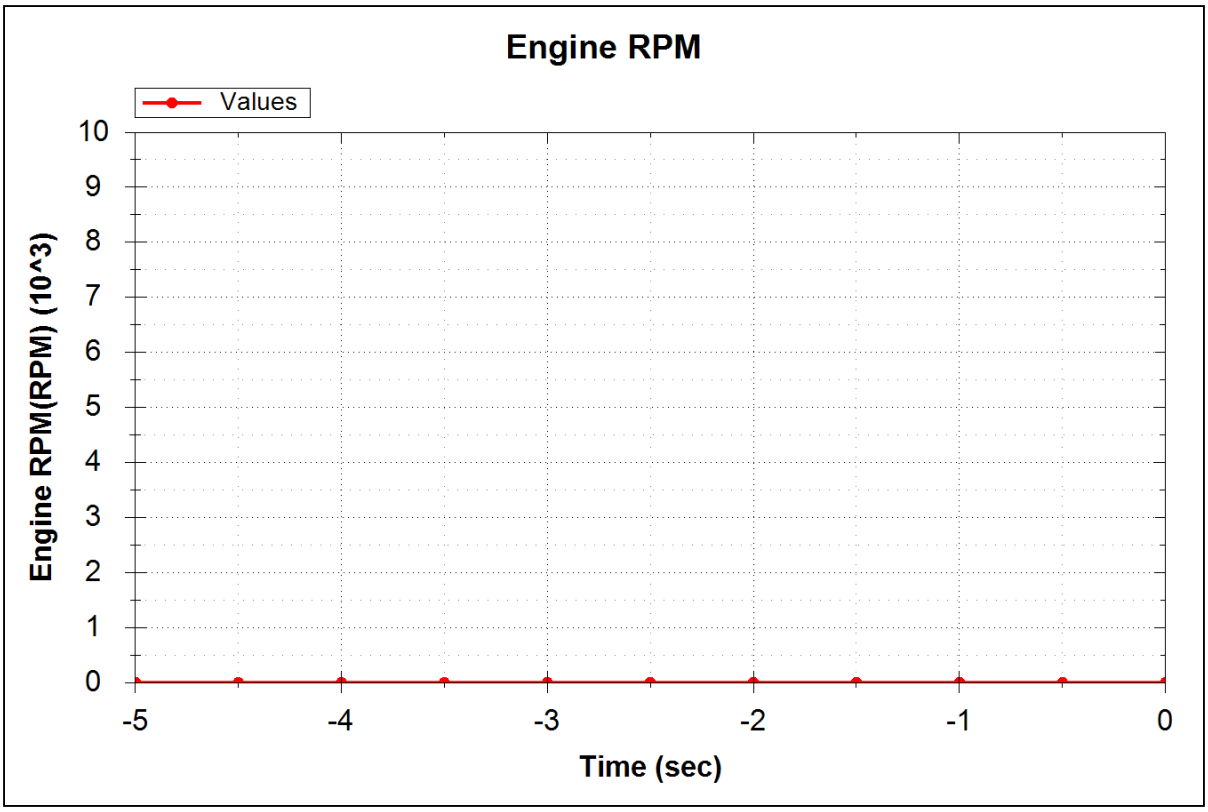
10 [Time from Event 1 to 2]

Num	Time from Event 1 to 2 (ms)
1	0

11 [Completed file recorded]

Num	Completed file recorded
1	YES

12 [Engine RPM]



Num	Time (sec)	Engine RPM (RPM)
1	-5.0	0
2	-4.5	0
3	-4.0	0
4	-3.5	0
5	-3.0	0
6	-2.5	0
7	-2.0	0
8	-1.5	0
9	-1.0	0
10	-0.5	0
11	0.0	0

13 [ABS activity]

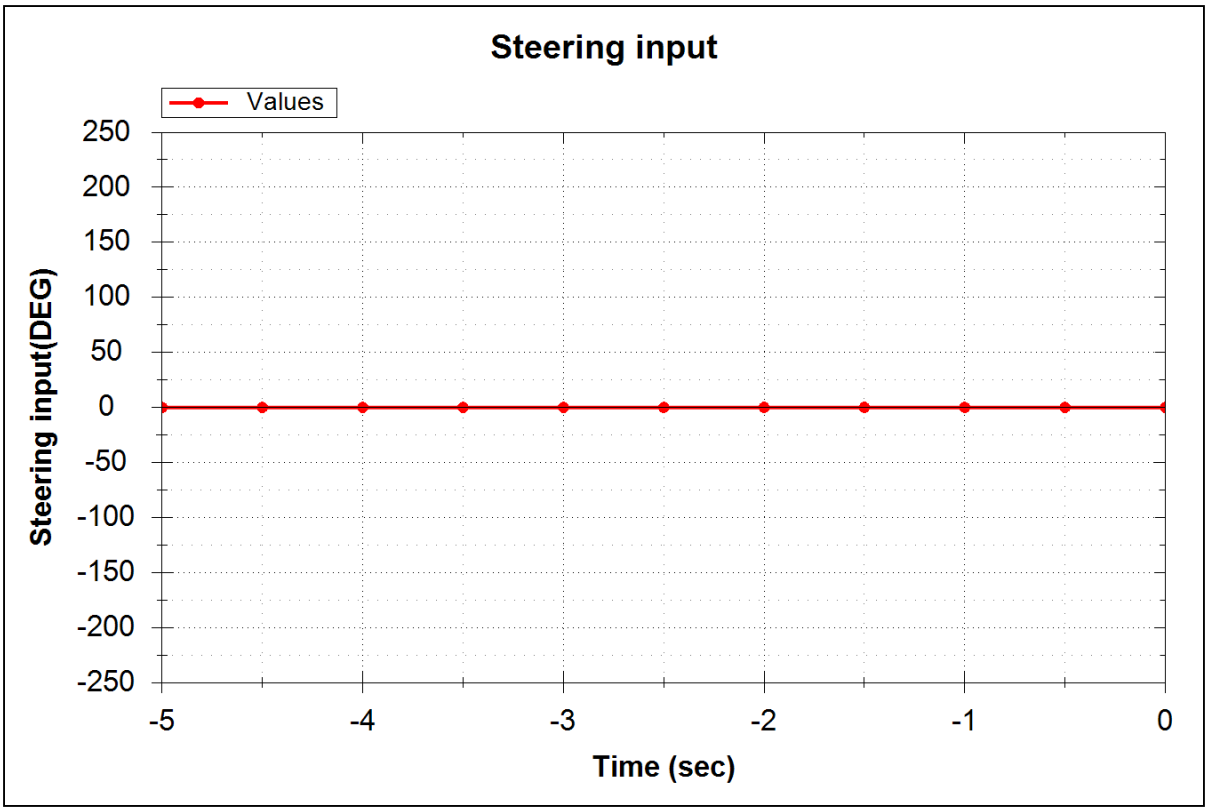
Num	Time (sec)	ABS activity
1	-5.0	OFF
2	-4.5	OFF
3	-4.0	OFF
4	-3.5	OFF

5	-3.0	OFF
6	-2.5	OFF
7	-2.0	OFF
8	-1.5	OFF
9	-1.0	OFF
10	-0.5	OFF
11	0.0	OFF

14 [Stability control]

Num	Time (sec)	Stability control
1	-5.0	ON
2	-4.5	ON
3	-4.0	ON
4	-3.5	ON
5	-3.0	ON
6	-2.5	ON
7	-2.0	ON
8	-1.5	ON
9	-1.0	ON
10	-0.5	ON
11	0.0	ON

15 [Steering input]



Num	Time (sec)	Steering input (DEG)
1	-5.0	0
2	-4.5	0
3	-4.0	0
4	-3.5	0
5	-3.0	0
6	-2.5	0
7	-2.0	0
8	-1.5	0
9	-1.0	0
10	-0.5	0
11	0.0	0

Note) Positive value(CCW), Negative value(CW)

16 [Safety seat belt_ passenger]

Num	Safety seat belt_ passenger
1	ON

17 [Seat track position switch_ foremost_ status_ driver]

Num	Seat track position switch_ foremost_ status_ driver
1	Not Supported

18 [Seat track position switch_ foremost_ status_ passenger]

Num	Seat track position switch_ foremost_ status_ passenger
1	Not Supported

19 [Occupant size(5th percentile female or larger) classification_ driver]

Num	Occupant size(5th percentile female or larger) classification_ driver
1	Not Supported

20 [Occupant size(Child) classification_ passenger]

Num	Occupant size(Child) classification_ passenger
1	No

21 [Time to deploy_ Frontal airbag-2nd stage_ driver]

Num	Time to deploy_ Frontal airbag-2nd stage_ driver (ms)
1	Not supported

22 [Time to deploy_ Frontal airbag-2nd stage_ passenger]

Num	Time to deploy_ Frontal airbag-2nd stage_ passenger (ms)
1	13

23 [Time to deploy_ side airbag_ driver]

Num	Time to deploy_ side airbag_ driver (ms)
1	No deployment

24 [Time to deploy_ side airbag_ passenger]

Num	Time to deploy_ side airbag_ passenger (ms)
1	No deployment

25 [Time to deploy_ curtain airbag_ driver]

Num	Time to deploy_ curtain airbag_ driver (ms)
1	No deployment

26 [Time to deploy_ curtain airbag_ passenger]

Num	Time to deploy_ curtain airbag_ passenger (ms)
1	No deployment

27 [Time to fire_ pretensioner_ driver]

Num	Time to fire_ pretensioner_ driver (ms)
1	8

28 [Time to fire_ pretensioner_ passenger]

Num	Time to fire_ pretensioner_ passenger (ms)
1	8

29 [Frontal airbag deployment_ Second stage disposal_ driver]

Num	Frontal airbag deployment_ Second stage disposal_ driver
1	NO

30 [Frontal airbag deployment_ Third stage disposal_ driver]

Num	Frontal airbag deployment_ Third stage disposal_ driver
1	NO

31 [Frontal airbag deployment_ Second stage disposal_ right front passenger]

Num	Frontal airbag deployment_ Second stage disposal_ right front passenger
1	NO

32 [Frontal airbag deployment_ Third stage disposal_ right front passenger]

Num	Frontal airbag deployment_ Third stage disposal_ right front passenger
1	NO

33 [Time to deploy_ Frontal airbag-3rd stage_ driver]

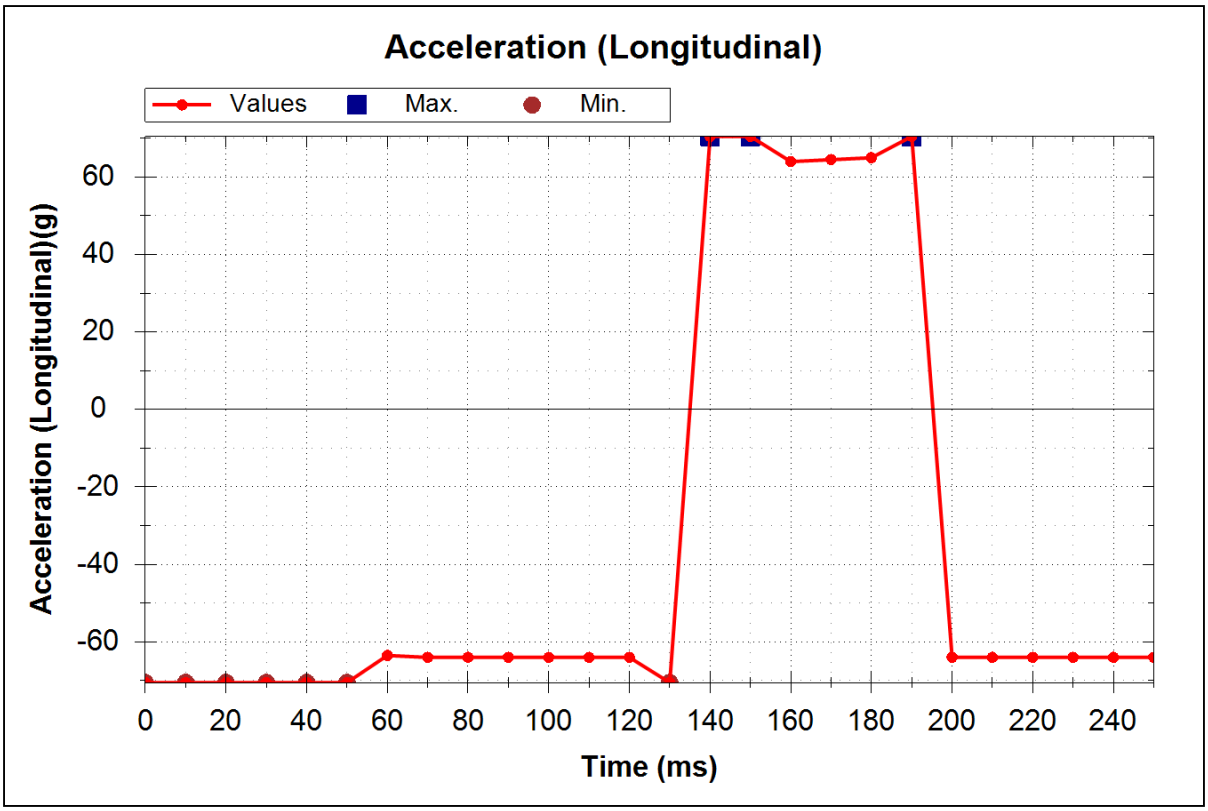
Not Supported...

34 [Time to deploy_ Frontal airbag-3rd stage_ passenger]

Not Supported...

< Event # 1 - 3 >

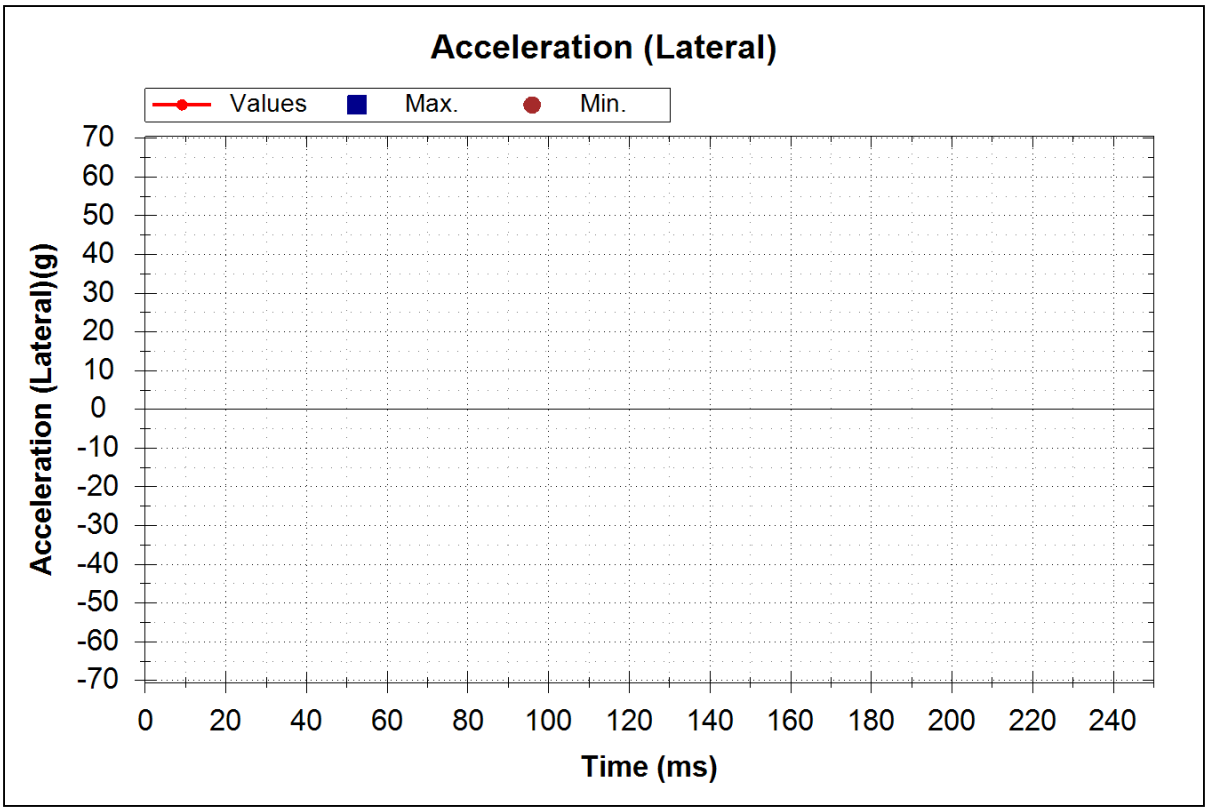
1 [Acceleration (Longitudinal)]



Num	Time (ms)	Acceleration (Longitudinal) (g)
1	0.0	-70.5
2	10.0	-70.5
3	20.0	-70.5
4	30.0	-70.5
5	40.0	-70.5
6	50.0	-70.5
7	60.0	-63.5
8	70.0	-64.0
9	80.0	-64.0
10	90.0	-64.0
11	100.0	-64.0
12	110.0	-64.0
13	120.0	-64.0
14	130.0	-70.5
15	140.0	70.5
16	150.0	70.5
17	160.0	64.0
18	170.0	64.5
19	180.0	65.0
20	190.0	70.5

21	200.0	-64.0
22	210.0	-64.0
23	220.0	-64.0
24	230.0	-64.0
25	240.0	-64.0
26	250.0	-64.0

2 [Acceleration (Lateral)]



Num	Time (ms)	Acceleration (Lateral) (g)
1	0.0	Not supported
2	10.0	Not supported
3	20.0	Not supported
4	30.0	Not supported
5	40.0	Not supported
6	50.0	Not supported
7	60.0	Not supported
8	70.0	Not supported
9	80.0	Not supported
10	90.0	Not supported
11	100.0	Not supported
12	110.0	Not supported
13	120.0	Not supported

3 [Acceleration (Normal)]

Not Supported...

< Real-time Data >

1 [Ignition cycle_download]

Num	Ignition cycle_download (Cyc.)
1	Invalid data

< Event # 2 - 1 >

There is no recorded event.

< Event # 2 - 2 >

There is no recorded event.

< Event # 2 - 3 >

There is no recorded event.

< Real-time Data >

1 [Ignition cycle_download]

Num	Ignition cycle_download (Cyc.)
1	Invalid data

< Event # 1 - 1 >

07 DA 61 50 FF 00 00 00 7F 7B 76 70 62 56 4C 45 42 42 42 42 42 43 43 43 43 43 43 43 43 43
43 43 43 43 42 22 7F 7F 7E 7E 7D 7B 7D 7F 7E 7E 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F
7F 7F 7C 13 22 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F FF FF FF FF FF FF FF FF FF FF FF
FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
FF FF FF FF FF FF 01

< Event # 1 - 2 >

07 DA 61 51 FF FF FF 3F 38 38 38 38 38 38 38 38 38 38 38 04 04 04 04 04 04 04 04 04 04 04
55 55 15 00 59 01 00 08 08 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 55 55 15 7F
7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 01 03 03 07 02 FF 0D 00 00 00 00 00 00 00 00 00 08 00 08 00
00

< Event # 1 - 3 >

07 DA 61 52 03 00 00 00 7D 38 35 51 24 55 48 64 7D 87 7B 81 7F 80 7F 7F 7F 7F 7F 7F 7F 7F
7F 7F 7F 7F 7F 71 B3 AC 99 96 80 7F 80 80 80 81 83 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

< Real-time Data >

07 DA 61 D0 FF FF 0F 00 79 DF FA FF 00 FF FF FF FF FF FF 00 00 FF FF FF FF 00 00 FF FF

< Event # 2 - 1 >

There is no recorded event.

< Event # 2 - 2 >

There is no recorded event.

< Event # 2 - 3 >

There is no recorded event.

< Real-time Data >

07 DA 61 D0 FF FF 0F 00 79 DF FA FF 00 FF FF FF FF FF FF 00 00 FF FF FF FF 00 00 FF FF