
Vehicle Information

KM | SORENTO(XM) | 2013 | ALL | AIRBAG SYSTEM

Additional Information

User : Richard R. Ruth, P. E.

CaseNumber : NHTSA test 7440, KC0500

CrashDate :

Part No. : 95910 - 1U100

Save on : Monday, April 01, 2013, at 23:48:31

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.

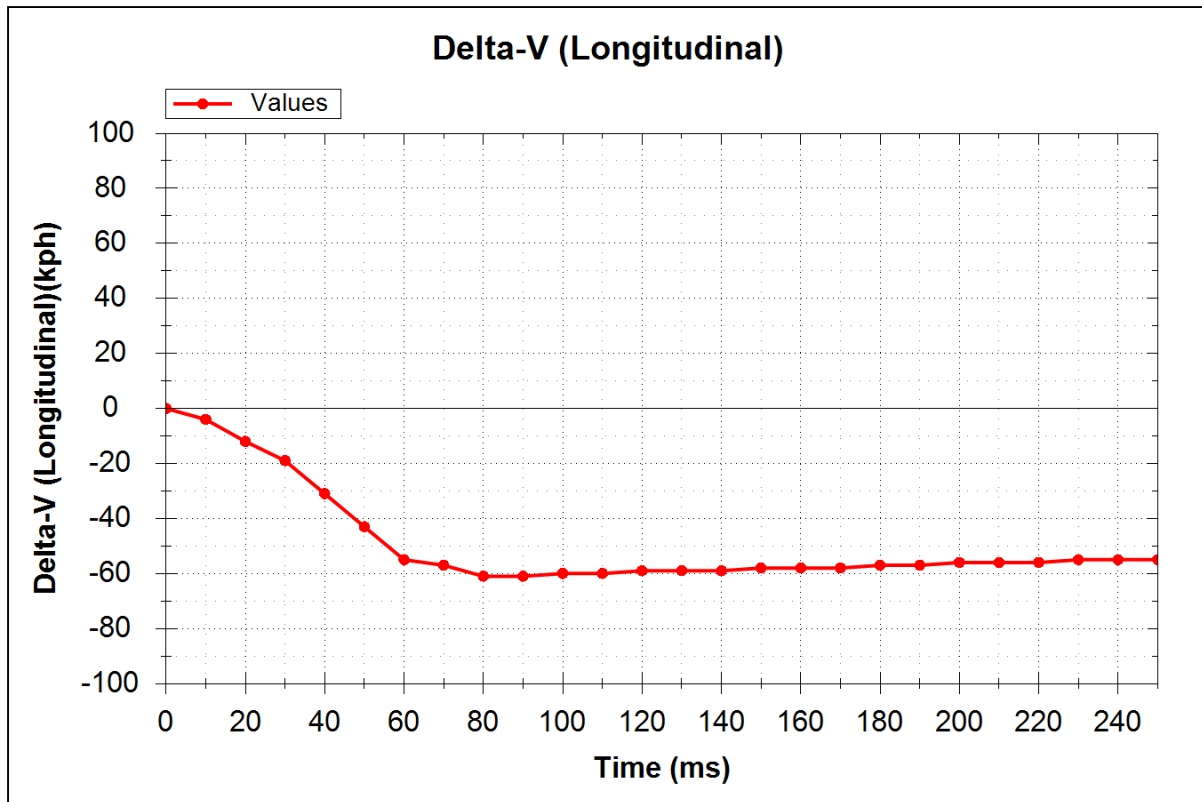
The airbag ECU records data for all or some of the following crash(event)

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	-12
4	30.0	-19
5	40.0	-31
6	50.0	-43
7	60.0	-55
8	70.0	-57
9	80.0	-61
10	90.0	-61
11	100.0	-60
12	110.0	-60
13	120.0	-59
14	130.0	-59
15	140.0	-59
16	150.0	-58
17	160.0	-58
18	170.0	-58
19	180.0	-57
20	190.0	-57

21	200.0	-56
22	210.0	-56
23	220.0	-56
24	230.0	-55
25	240.0	-55
26	250.0	-55

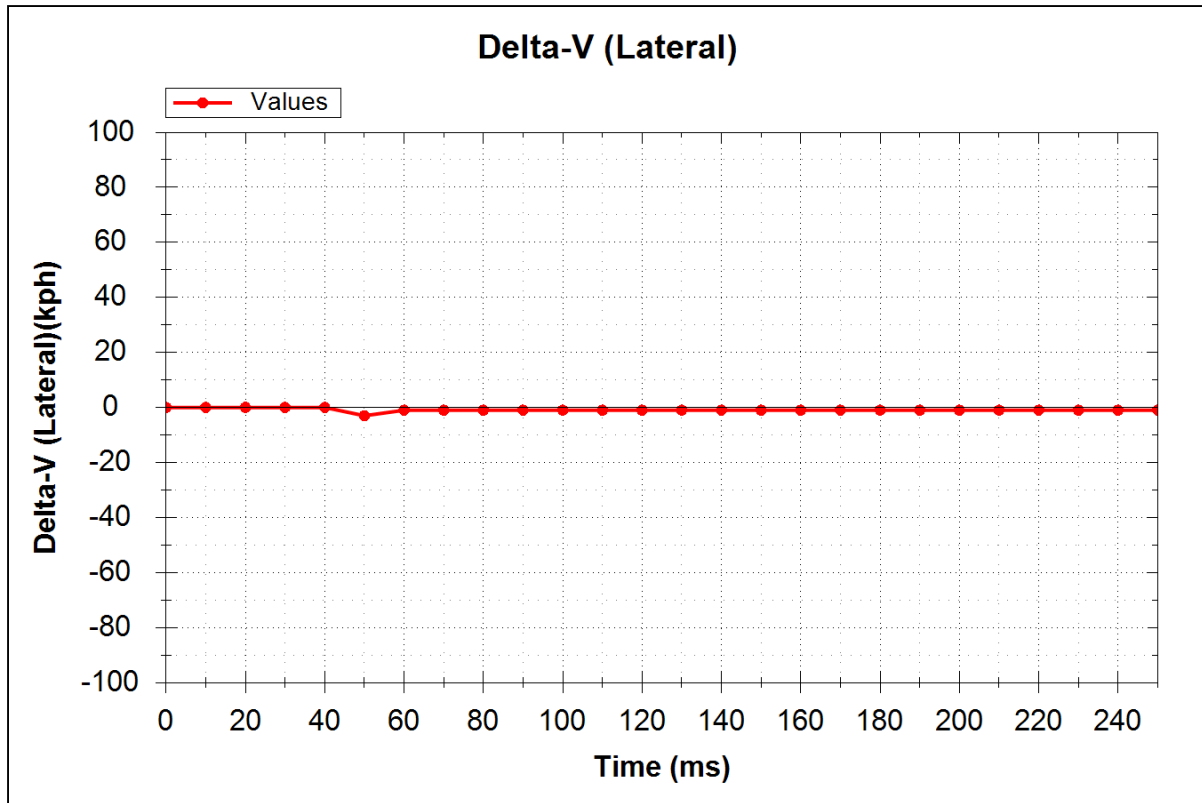
2 [Max. Delta-V (Longitudinal)]

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

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

Num	Time_ Max. Delta-V (Longitudinal) (ms)
1	87.5

4 [Delta-V (Lateral)]



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

23	220.0	-1
24	230.0	-1
25	240.0	-1
26	250.0	-1

5 [Max. Delta-V (Lateral)]

Num	Max. Delta-V (Lateral) (kph)
1	-4

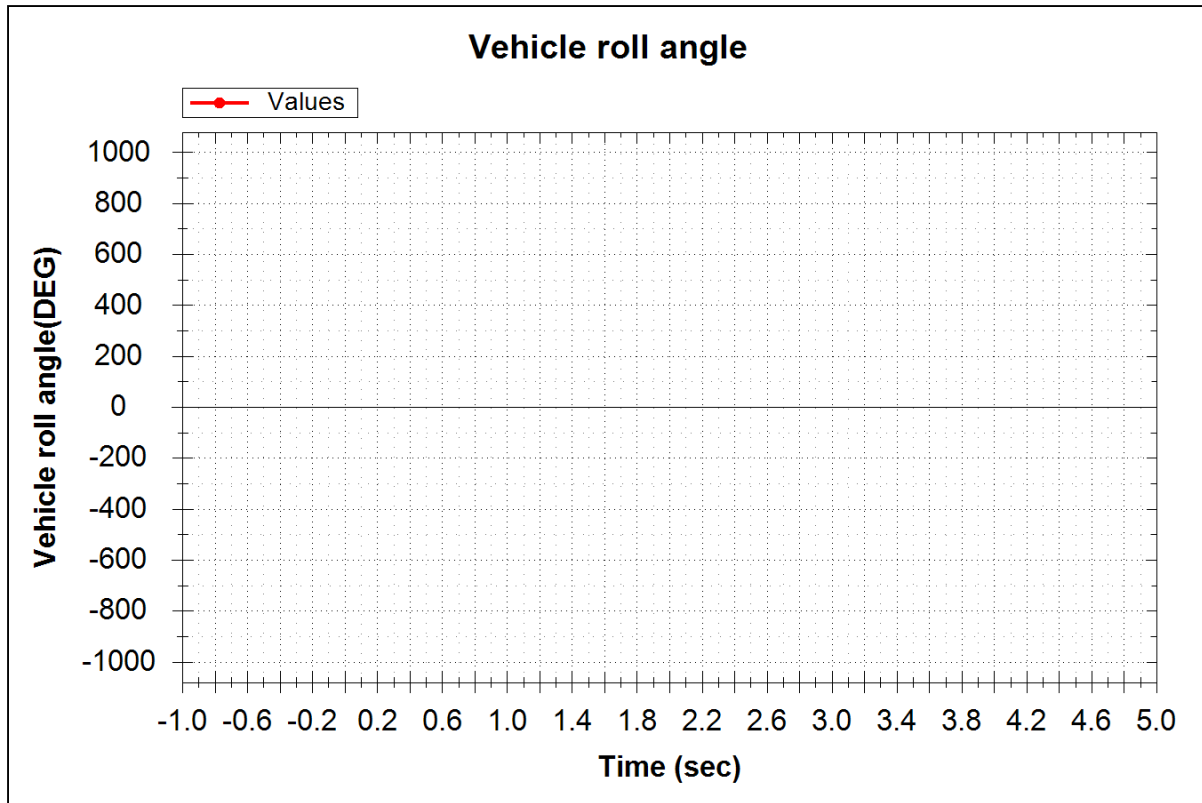
6 [Time_ Max. Delta-V (Lateral)]

Num	Time_ Max. Delta-V (Lateral) (ms)
1	52.5

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

Num	Time_ Max. Delta-V (Resultant) (ms)
1	87.5

8 [Vehicle roll angle]

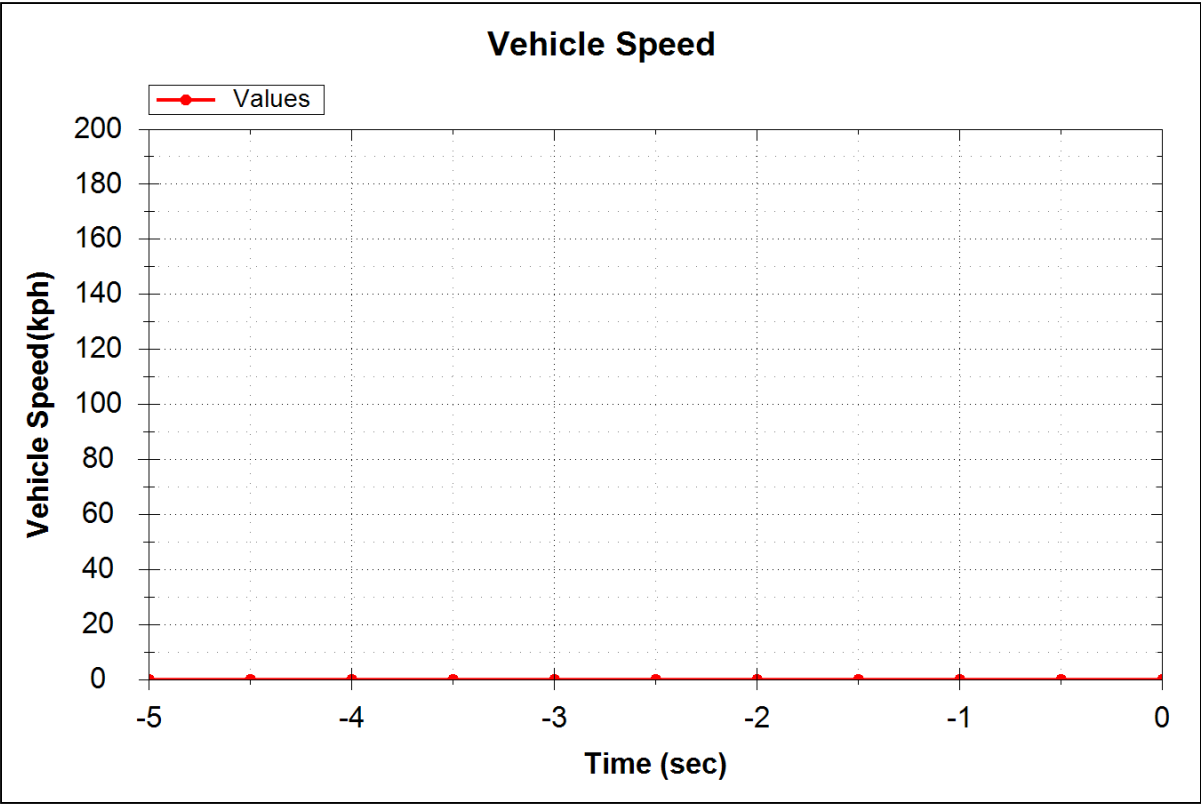


Num	Time (sec)	Vehicle roll angle (DEG)
1	-1.0	Not supported
2	-0.9	Not supported
3	-0.8	Not supported
4	-0.7	Not supported
5	-0.6	Not supported
6	-0.5	Not supported
7	-0.4	Not supported
8	-0.3	Not supported
9	-0.2	Not supported
10	-0.1	Not supported
11	0.0	Not supported
12	0.1	Not supported
13	0.2	Not supported
14	0.3	Not supported
15	0.4	Not supported
16	0.5	Not supported
17	0.6	Not supported
18	0.7	Not supported
19	0.8	Not supported
20	0.9	Not supported
21	1.0	Not supported
22	1.1	Not supported

23	1.2	Not supported
24	1.3	Not supported
25	1.4	Not supported
26	1.5	Not supported
27	1.6	Not supported
28	1.7	Not supported
29	1.8	Not supported
30	1.9	Not supported
31	2.0	Not supported
32	2.1	Not supported
33	2.2	Not supported
34	2.3	Not supported
35	2.4	Not supported
36	2.5	Not supported
37	2.6	Not supported
38	2.7	Not supported
39	2.8	Not supported
40	2.9	Not supported
41	3.0	Not supported
42	3.1	Not supported
43	3.2	Not supported
44	3.3	Not supported
45	3.4	Not supported
46	3.5	Not supported
47	3.6	Not supported
48	3.7	Not supported
49	3.8	Not supported
50	3.9	Not supported
51	4.0	Not supported
52	4.1	Not supported
53	4.2	Not supported
54	4.3	Not supported
55	4.4	Not supported
56	4.5	Not supported
57	4.6	Not supported
58	4.7	Not supported
59	4.8	Not supported
60	4.9	Not supported
61	5.0	Not supported

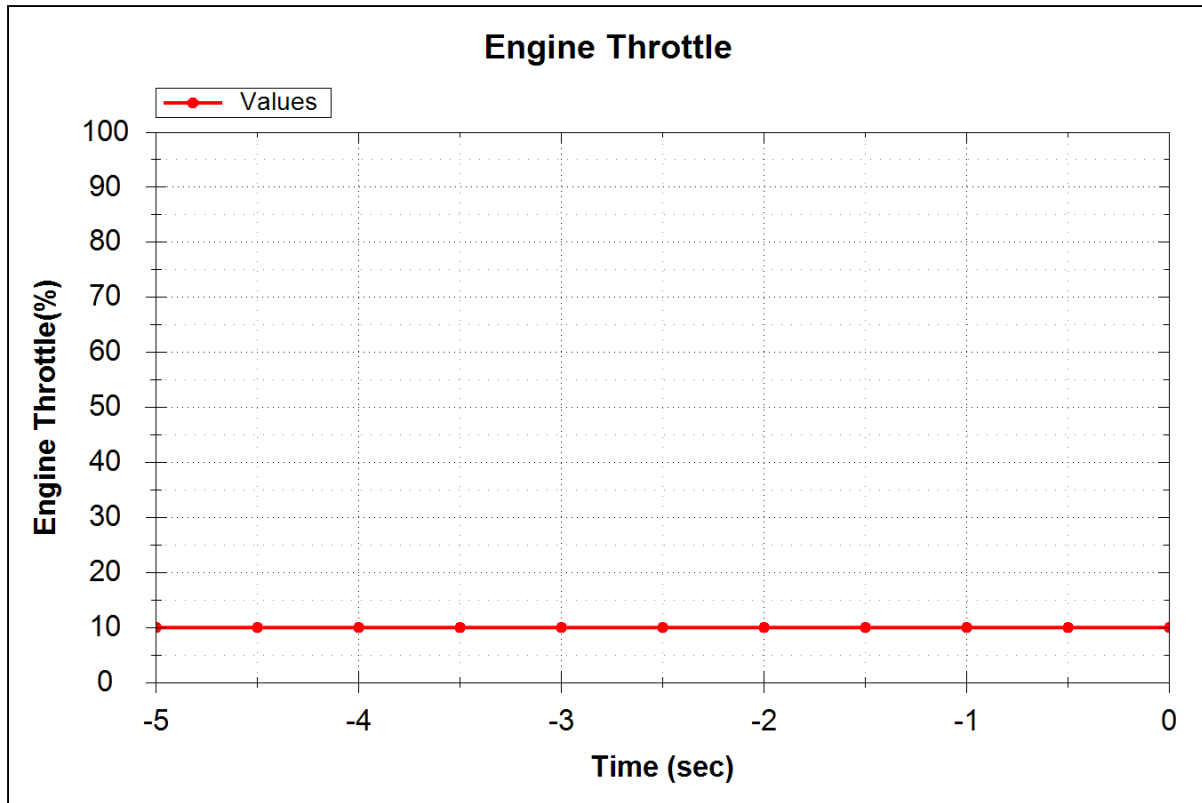
< Event # 1 - 2 >

1 [Vehicle Speed]



Num	Time (sec)	Vehicle Speed (kph)
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

2 [Engine Throttle]



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

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	0

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	4

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

Num	Time to deploy_ Frontal airbag-1st stage_ passenger (ms)
1	4

9 [Number of event]

Num	Number of event
1	1 event

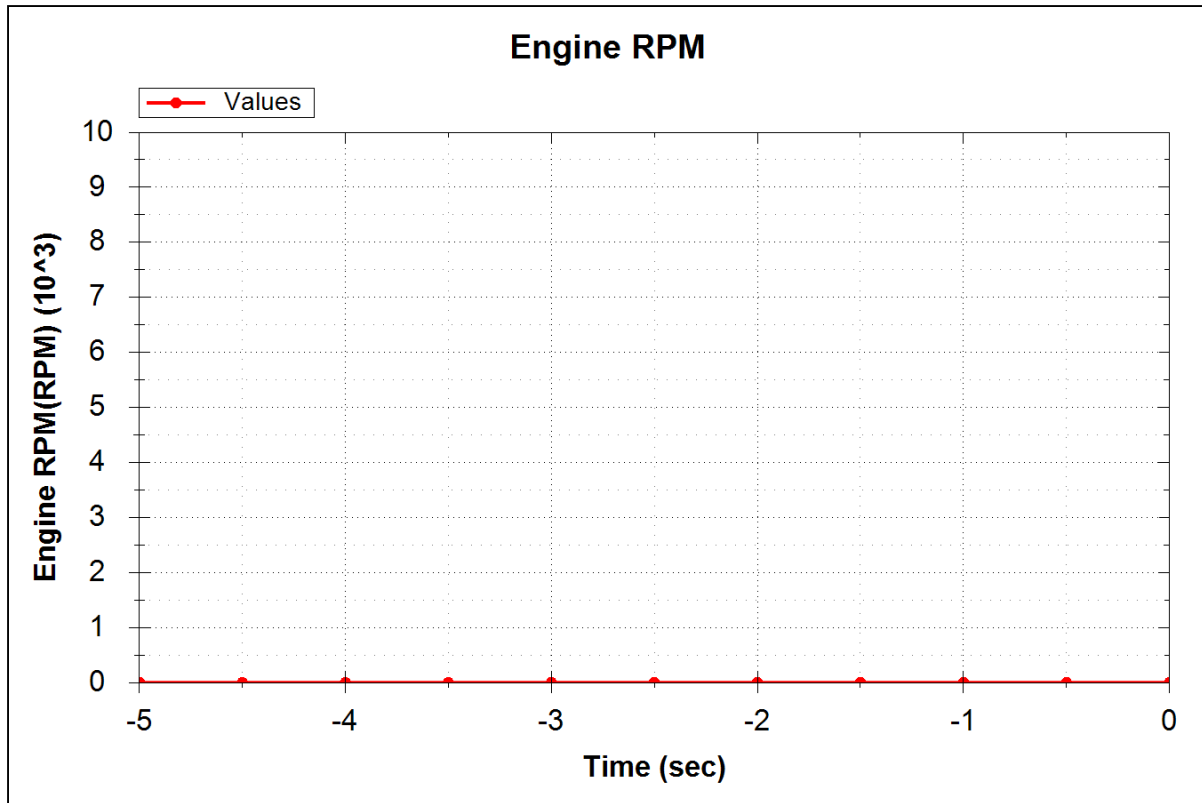
10 [Time from Event 1 to 2]

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]

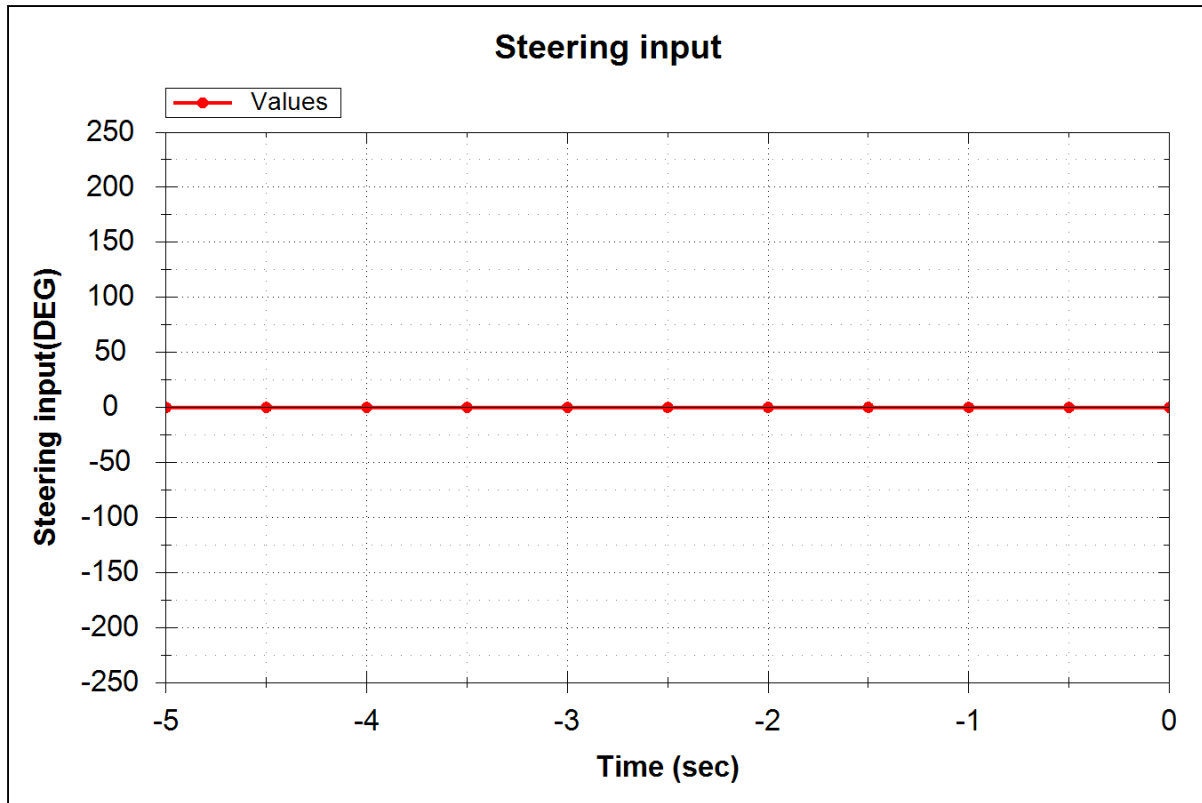
Num	Time (sec)	ABS activity
1	-5.0	OFF
2	-4.5	OFF
3	-4.0	OFF
4	-3.5	OFF

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	8

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

Num	Time to deploy_ Frontal airbag-2nd stage_ passenger (ms)
1	8

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	4

28 [Time to fire_ pretensioner_ passenger]

Num	Time to fire_ pretensioner_ passenger (ms)
1	4

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]

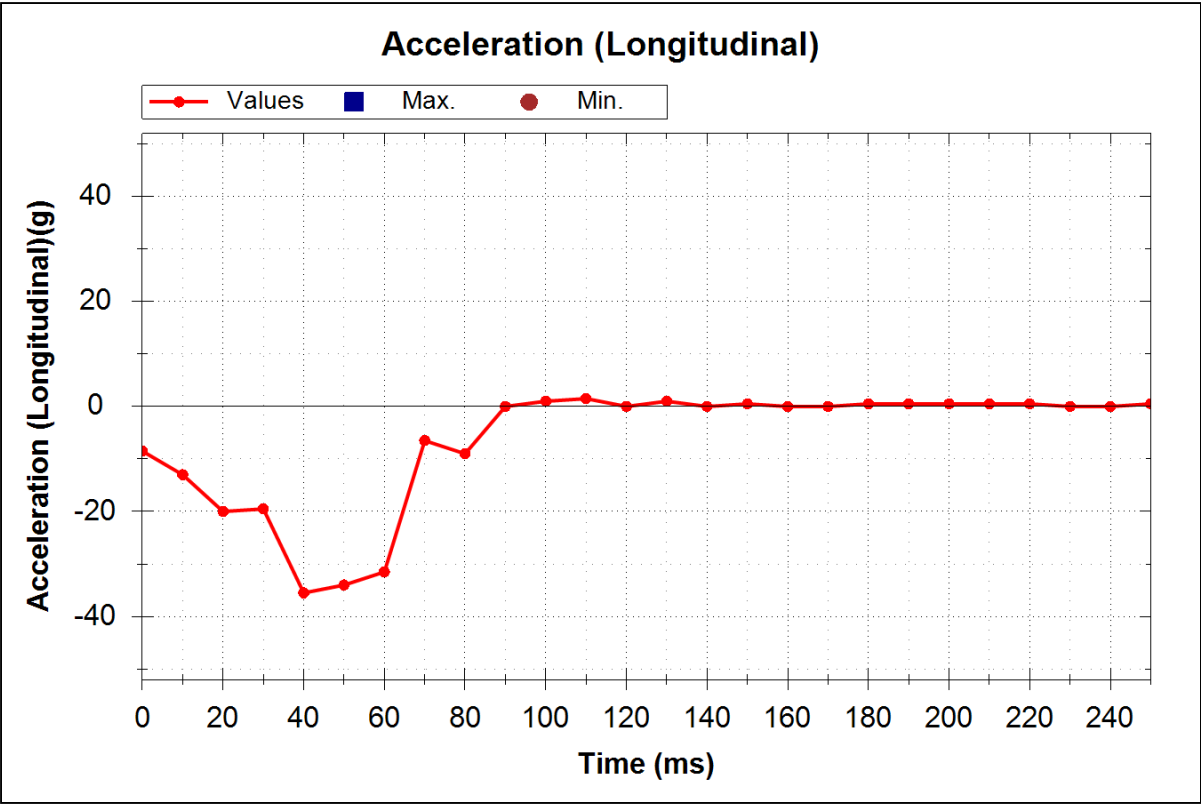
Not Supported...

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

Not Supported...

< Event # 1 - 3 >

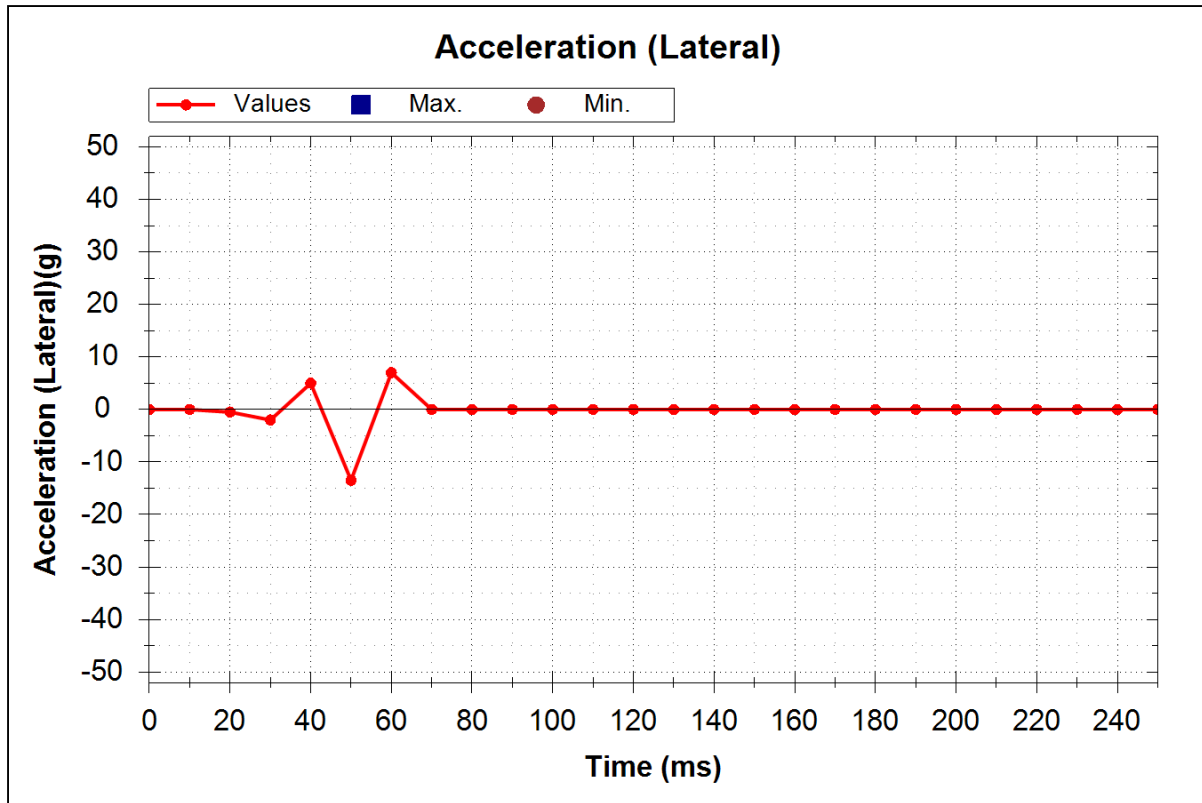
1 [Acceleration (Longitudinal)]



Num	Time (ms)	Acceleration (Longitudinal) (g)
1	0.0	-8.5
2	10.0	-13.0
3	20.0	-20.0
4	30.0	-19.5
5	40.0	-35.5
6	50.0	-34.0
7	60.0	-31.5
8	70.0	-6.5
9	80.0	-9.0
10	90.0	0.0
11	100.0	1.0
12	110.0	1.5
13	120.0	0.0
14	130.0	1.0
15	140.0	0.0
16	150.0	0.5
17	160.0	0.0
18	170.0	0.0
19	180.0	0.5
20	190.0	0.5

21	200.0	0.5
22	210.0	0.5
23	220.0	0.5
24	230.0	0.0
25	240.0	0.0
26	250.0	0.5

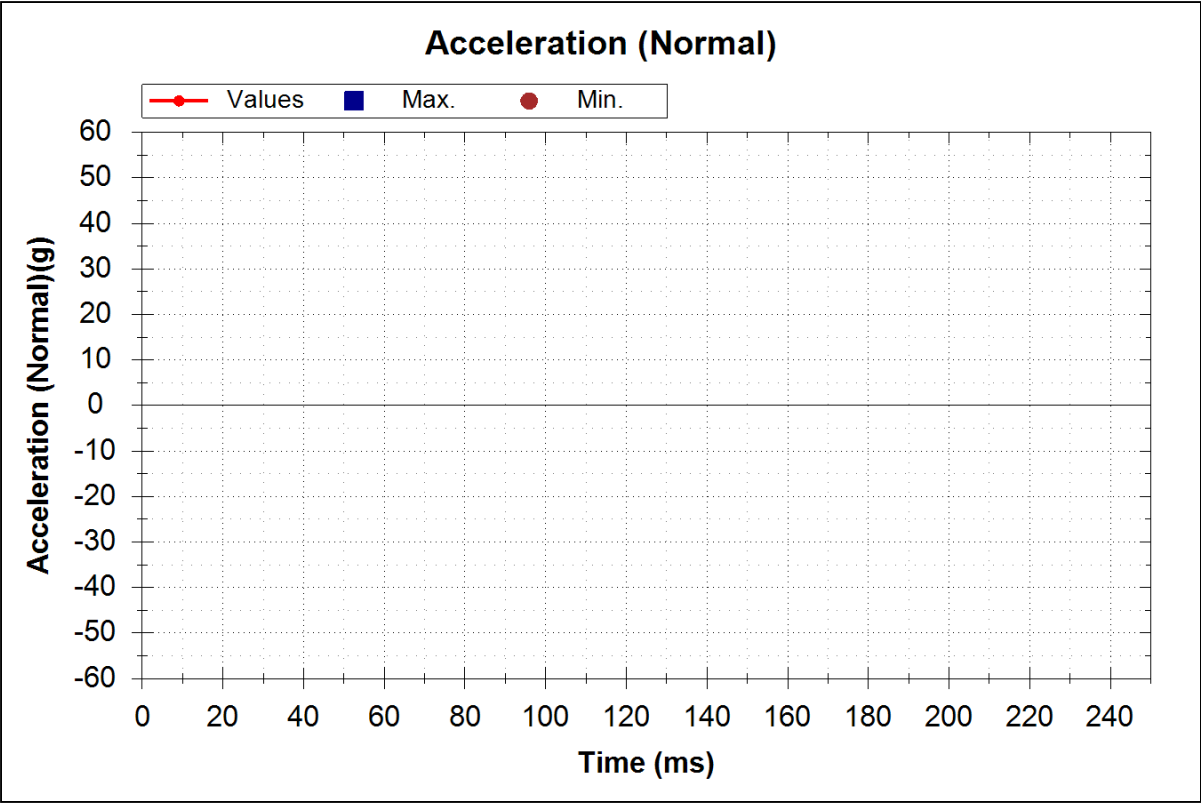
2 [Acceleration (Lateral)]



Num	Time (ms)	Acceleration (Lateral) (g)
1	0.0	0.0
2	10.0	0.0
3	20.0	-0.5
4	30.0	-2.0
5	40.0	5.0
6	50.0	-13.5
7	60.0	7.0
8	70.0	0.0
9	80.0	0.0
10	90.0	0.0
11	100.0	0.0
12	110.0	0.0
13	120.0	0.0
14	130.0	0.0
15	140.0	0.0
16	150.0	0.0
17	160.0	0.0
18	170.0	0.0
19	180.0	0.0
20	190.0	0.0
21	200.0	0.0
22	210.0	0.0

23	220.0	0.0
24	230.0	0.0
25	240.0	0.0
26	250.0	0.0

3 [Acceleration (Normal)]



Num	Time (ms)	Acceleration (Normal) (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
14	130.0	Not supported
15	140.0	Not supported
16	150.0	Not supported
17	160.0	Not supported
18	170.0	Not supported
19	180.0	Not supported
20	190.0	Not supported
21	200.0	Not supported
22	210.0	Not supported

23	220.0	Not supported
24	230.0	Not supported
25	240.0	Not supported
26	250.0	Not supported

< Real-time Data >

1 [Ignition cycle_download]

Num	Ignition cycle_download (Cyc.)
1	Invalid

< 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

< Event # 1 - 1 >

07 DA 61 50 FF 01 00 00 7F 7B 73 6C 60 54 48 46 42 42 43 43 44 44 44 45 45 45 46 46 47 47
47 48 48 48 42 23 7F 7F 7F 7F 7F 7C 7E 7E 7E 7E 7E 7E 7E 7E 7E 7E 7E 7E 7E 7E 7E 7E
7E 7E 7B 15 23 00
00
00 00 00 00 00 00

< Event # 1 - 2 >

07 DA 61 51 FF FF FF 3F 00 00 00 00 00 00 00 00 00 00 0A 0A 0A 0A 0A 0A 0A 0A 0A 0A
55 55 15 00 00 01 00 04 04 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 01 03 03 07 02 08 08 FF FF FF FF FF FF FF FF 00 04 00 04 00
00

< Event # 1 - 3 >

07 DA 61 52 07 00 00 00 6E 65 57 58 38 3B 40 72 6D 7F 81 82 7F 81 7F 80 7F 7F 80 80 80 80
80 7F 7F 80 7F 7F 7E 7B 89 64 8D 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F
00 00

< Real-time Data >

07 DA 61 D0 FF FF 0F 00 98 D0 FA FF FF FF FF FF FF FF FF 00 00 FF FF FF 00 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 98 D1 FA FF FF FF FF FF FF FF FF 00 00 FF FF FF 00 00 00 FF FF