
Vehicle Information

HY | GENESIS(BH) | 2013 | ALL | AIRBAG SYSTEM

Additional Information

User : Richard R. Ruth, P.E.

CaseNumber : NHTSA 7572 MC0513 2012 Hyundai Santa Fe

CrashDate :

Part No. : 95910 - 0W100

Save on : Sunday, April 21, 2013, at 07:48:03

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.

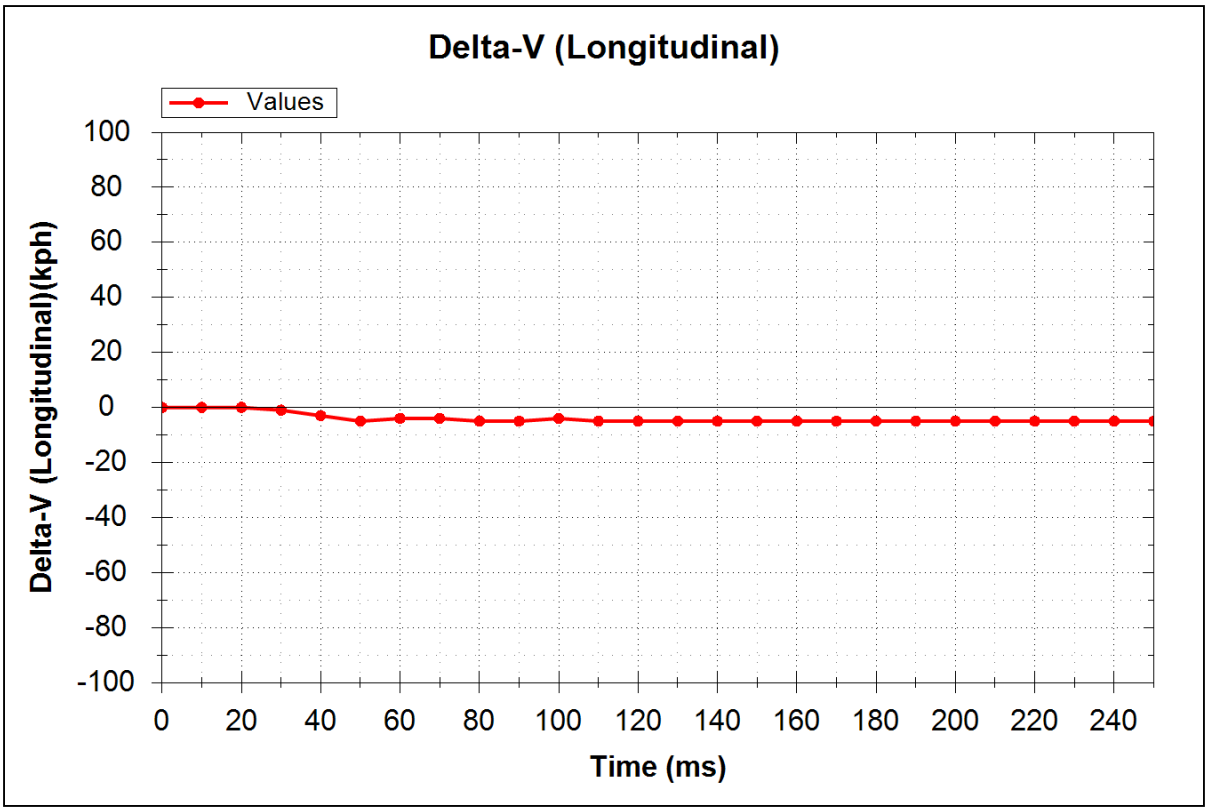
The airbag ECU can store up to two events. Deployment events cannot be overwritten or cleared from airbag ECU. Non-deployment events(which did not qualify as deployable events) can be overwritten by subsequent events.

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	0
3	20.0	0
4	30.0	-1
5	40.0	-3
6	50.0	-5
7	60.0	-4
8	70.0	-4
9	80.0	-5
10	90.0	-5
11	100.0	-4
12	110.0	-5
13	120.0	-5
14	130.0	-5
15	140.0	-5
16	150.0	-5
17	160.0	-5
18	170.0	-5
19	180.0	-5
20	190.0	-5

21	200.0	-5
22	210.0	-5
23	220.0	-5
24	230.0	-5
25	240.0	-5
26	250.0	-5

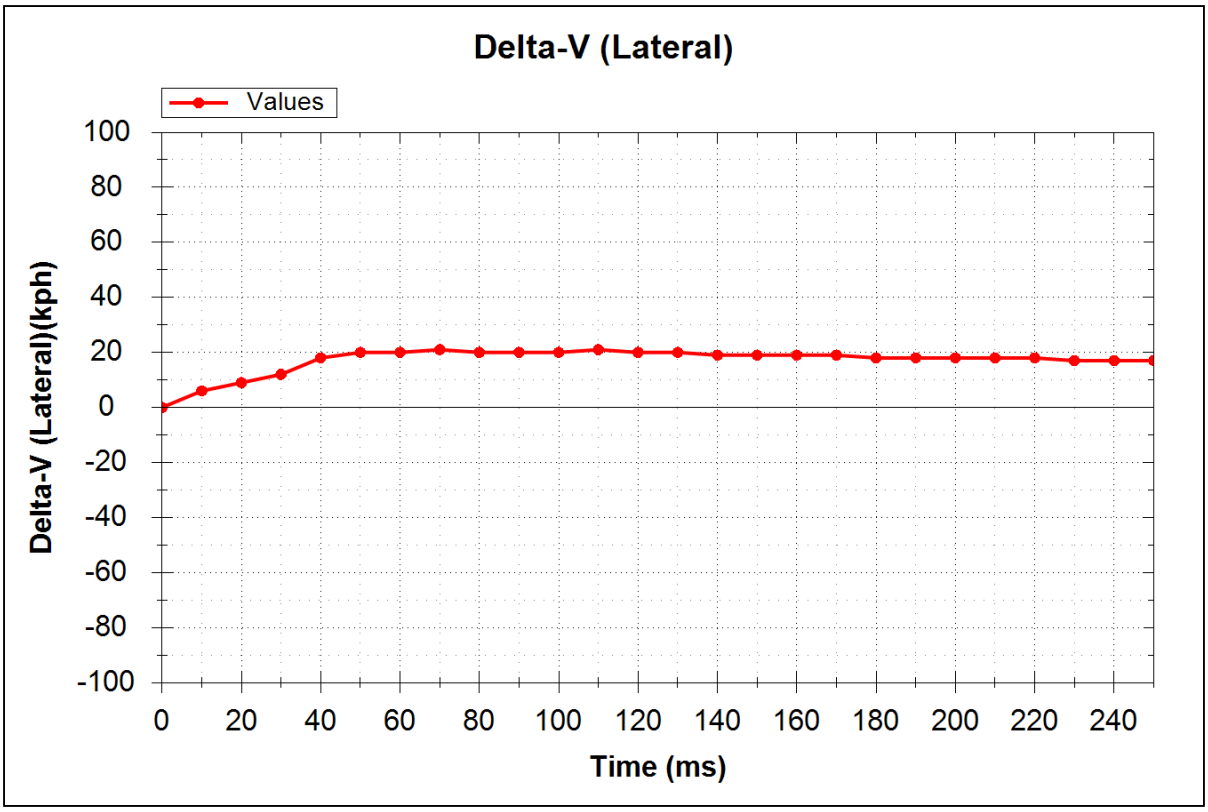
2 [Max. Delta-V (Longitudinal)]

Num	Max. Delta-V (Longitudinal) (kph)
1	-5

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

Num	Time_ Max. Delta-V (Longitudinal) (ms)
1	260.0

4 [Delta-V (Lateral)]



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

23	220.0	18
24	230.0	17
25	240.0	17
26	250.0	17

5 [Max. Delta-V (Lateral)]

Num	Max. Delta-V (Lateral) (kph)
1	21

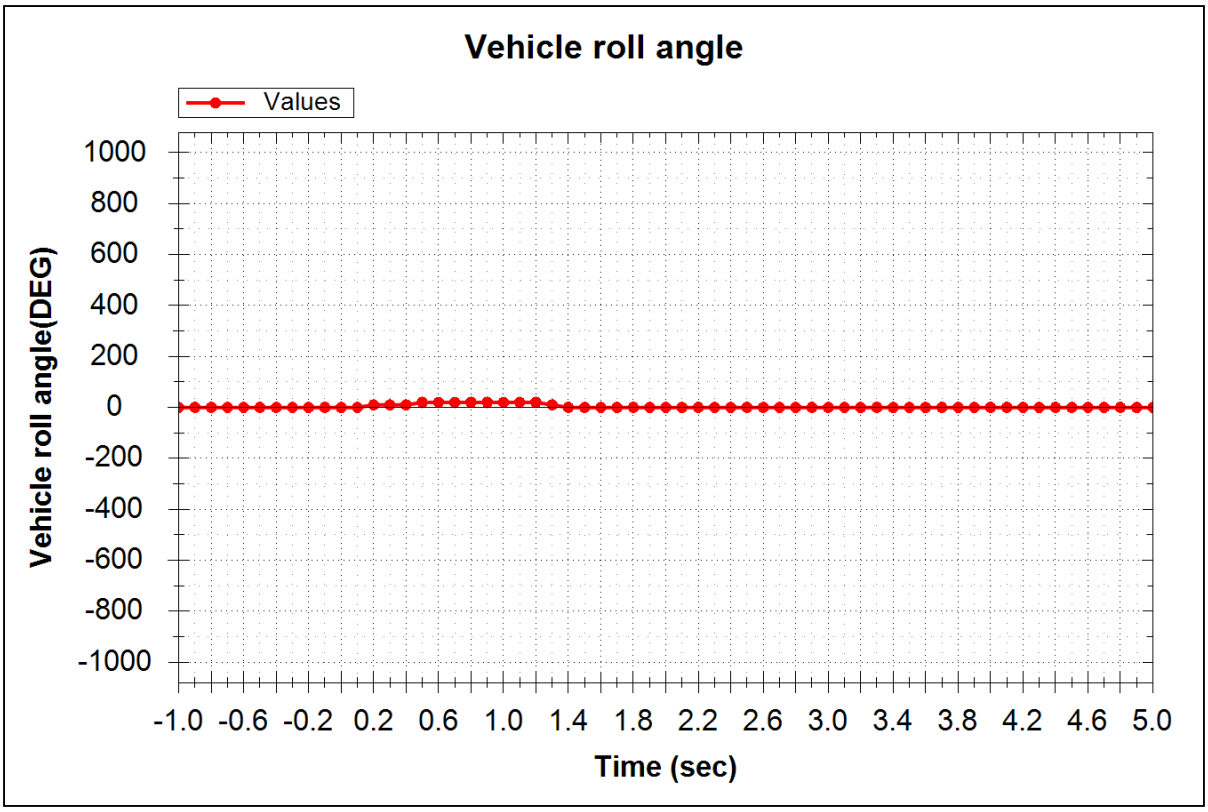
6 [Time_ Max. Delta-V (Lateral)]

Num	Time_ Max. Delta-V (Lateral) (ms)
1	110.0

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

Num	Time_ Max. Delta-V (Resultant) (ms)
1	110.0

8 [Vehicle roll angle]

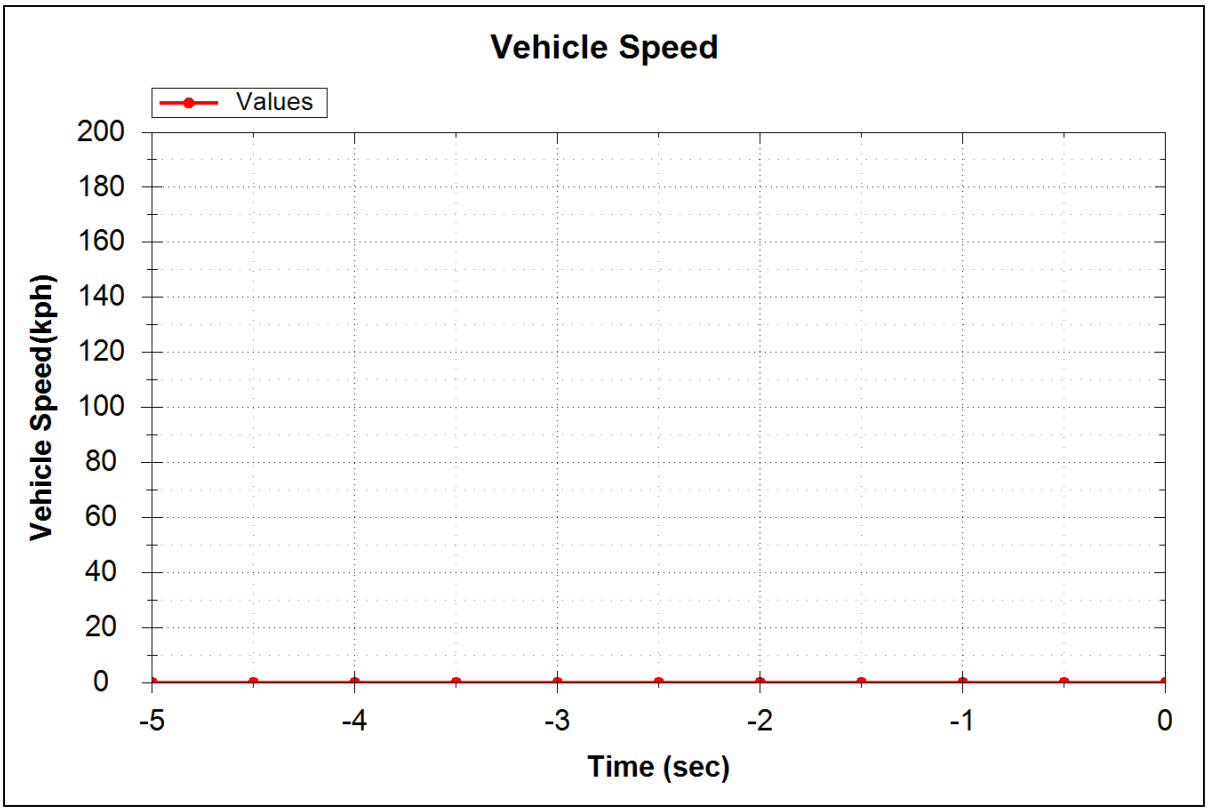


Num	Time (sec)	Vehicle roll angle (DEG)
1	-1.0	0
2	-0.9	0
3	-0.8	0
4	-0.7	0
5	-0.6	0
6	-0.5	0
7	-0.4	0
8	-0.3	0
9	-0.2	0
10	-0.1	0
11	0.0	0
12	0.1	0
13	0.2	10
14	0.3	10
15	0.4	10
16	0.5	20
17	0.6	20
18	0.7	20
19	0.8	20
20	0.9	20
21	1.0	20
22	1.1	20

23	1.2	20
24	1.3	10
25	1.4	0
26	1.5	0
27	1.6	0
28	1.7	0
29	1.8	0
30	1.9	0
31	2.0	0
32	2.1	0
33	2.2	0
34	2.3	0
35	2.4	0
36	2.5	0
37	2.6	0
38	2.7	0
39	2.8	0
40	2.9	0
41	3.0	0
42	3.1	0
43	3.2	0
44	3.3	0
45	3.4	0
46	3.5	0
47	3.6	0
48	3.7	0
49	3.8	0
50	3.9	0
51	4.0	0
52	4.1	0
53	4.2	0
54	4.3	0
55	4.4	0
56	4.5	0
57	4.6	0
58	4.7	0
59	4.8	0
60	4.9	0
61	5.0	0

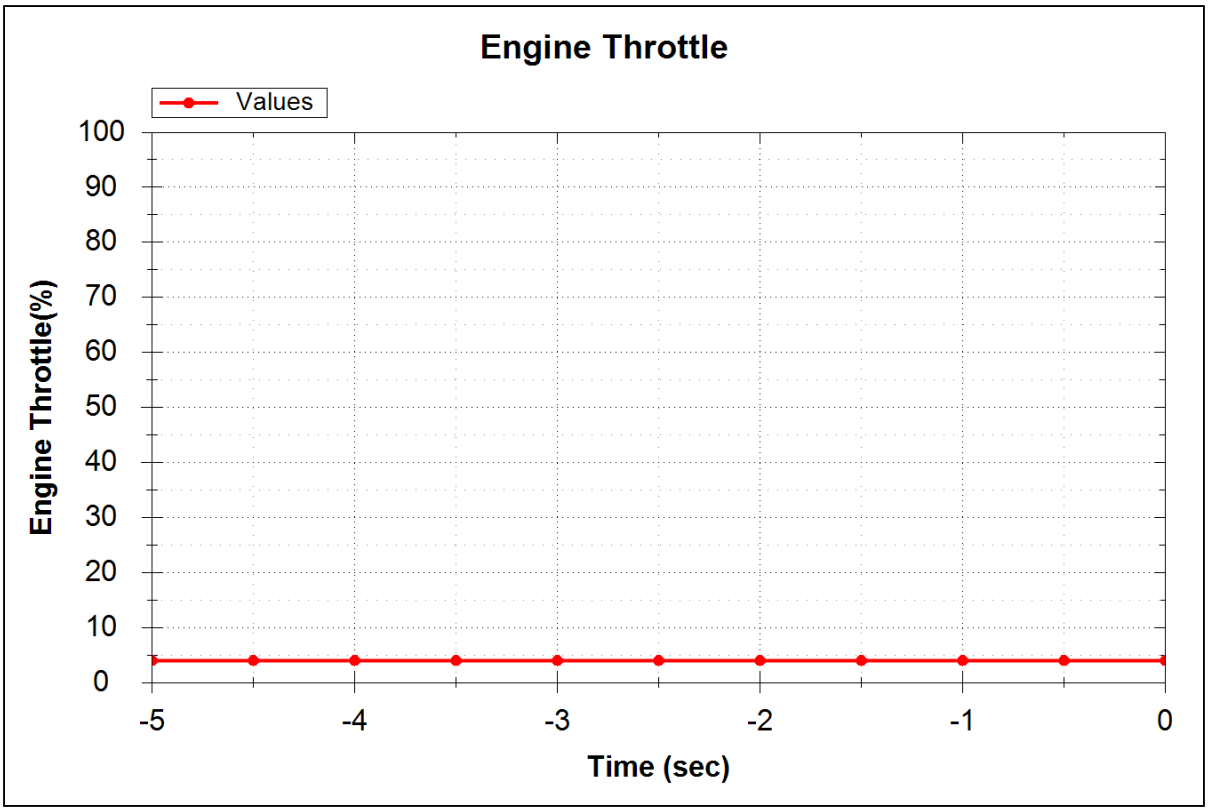
< Event # 1 - 2 >

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	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	Not Supported

6 [Airbag warning lamp on/off]

Num	Airbag warning lamp on/off
1	ON

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

Num	Time to deploy_ Frontal airbag-1st stage_ driver (ms)
1	0

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

Num	Time to deploy_ Frontal airbag-1st stage_ passenger (ms)
1	0

9 [Number of event]

Num	Number of event
1	1 event

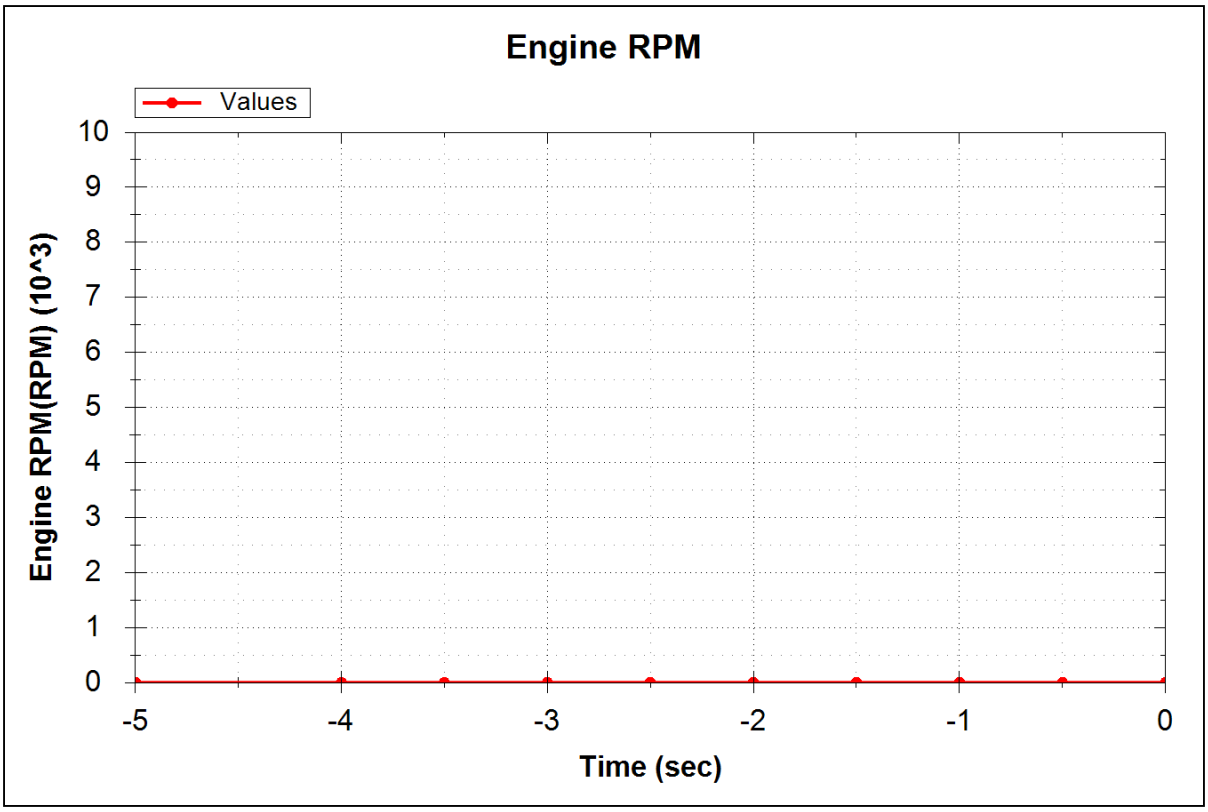
10 [Time from Event 1 to 2]

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	Not supported
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]

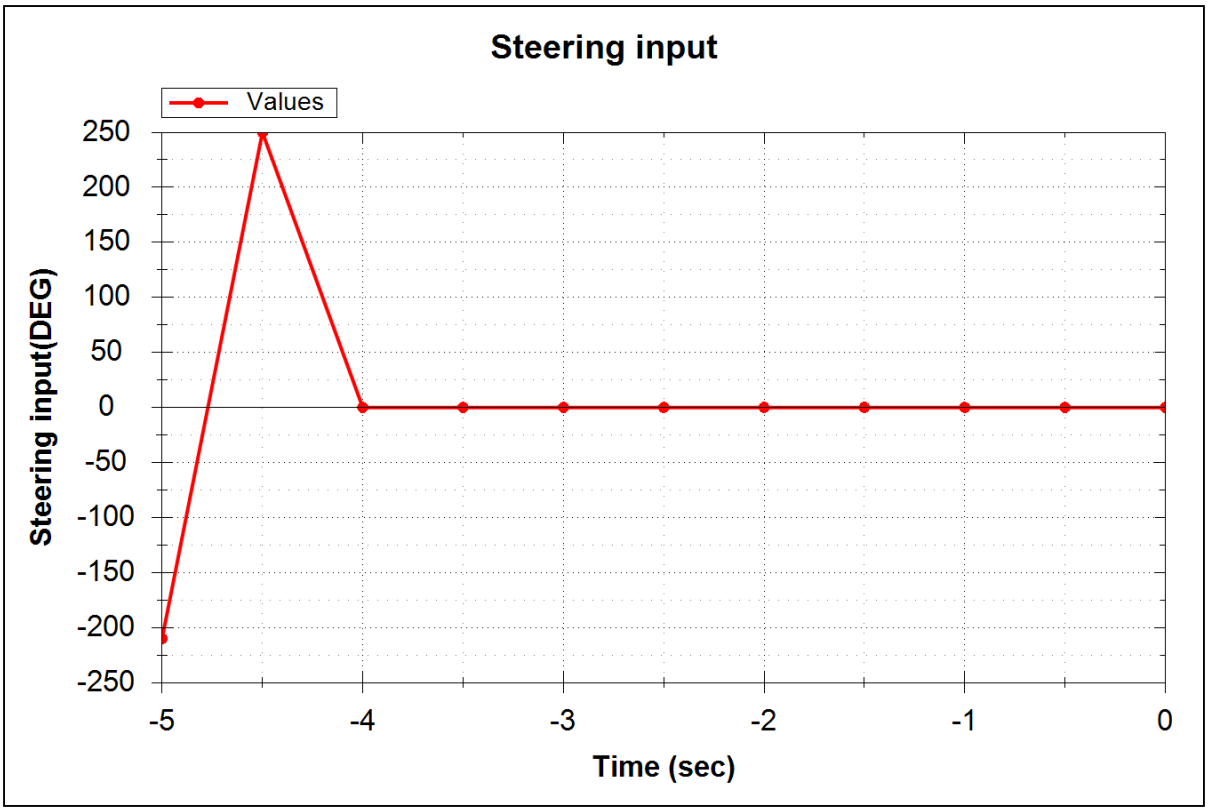
Num	Time (sec)	ABS activity
1	-5.0	OFF
2	-4.5	OFF
3	-4.0	OFF
4	-3.5	OFF

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	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	Invalid Data or Not Supported
9	-1.0	ON
10	-0.5	ON
11	0.0	ON

15 [Steering input]



Num	Time (sec)	Steering input (DEG)
1	-5.0	-210
2	-4.5	250
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	Not Supported

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	Not Supported

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	248

23 [Time to deploy_ side airbag_ driver]

Num	Time to deploy_ side airbag_ driver (ms)
1	0

24 [Time to deploy_ side airbag_ passenger]

Num	Time to deploy_ side airbag_ passenger (ms)
1	0

25 [Time to deploy_ curtain airbag_ driver]

Num	Time to deploy_ curtain airbag_ driver (ms)
1	0

26 [Time to deploy_ curtain airbag_ passenger]

Num	Time to deploy_ curtain airbag_ passenger (ms)
1	0

27 [Time to fire_ pretensioner_ driver]

Num	Time to fire_ pretensioner_ driver (ms)
1	0

28 [Time to fire_ pretensioner_ passenger]

Num	Time to fire_ pretensioner_ passenger (ms)
1	2

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	YES

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

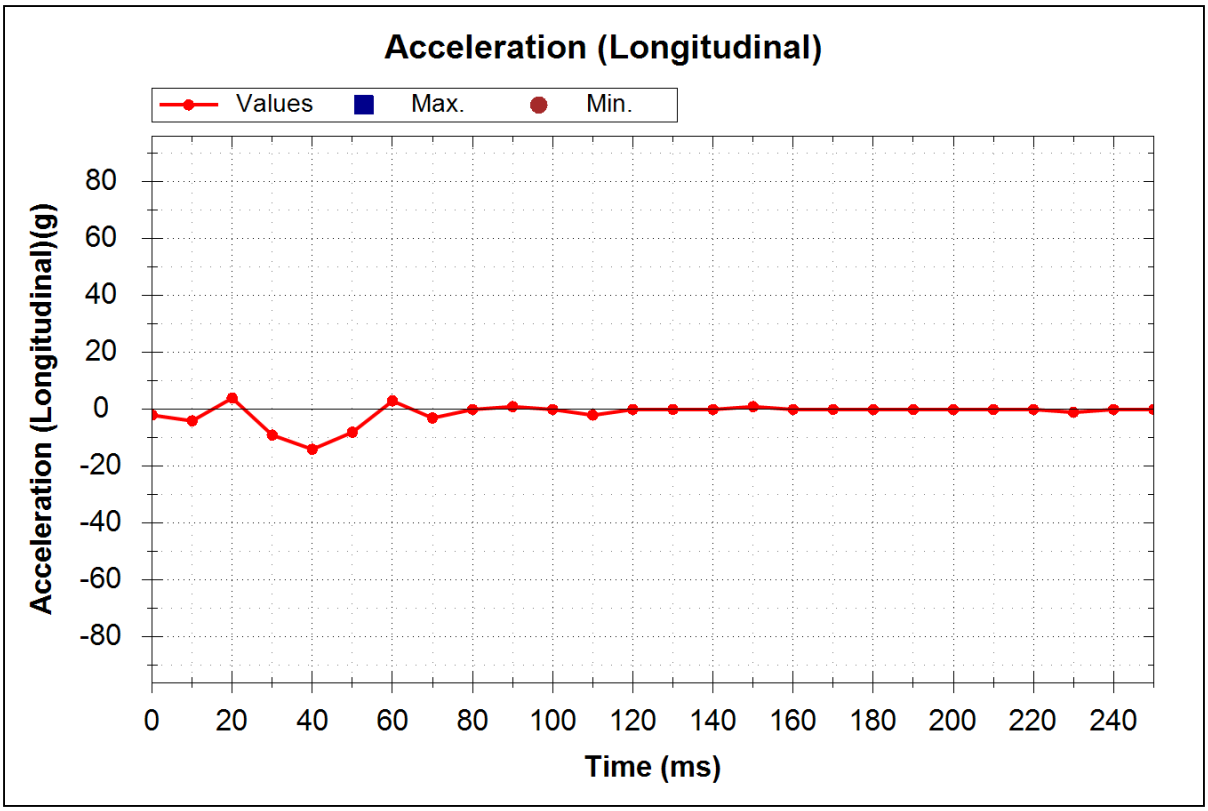
Not Supported...

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

Not Supported...

< Event # 1 - 3 >

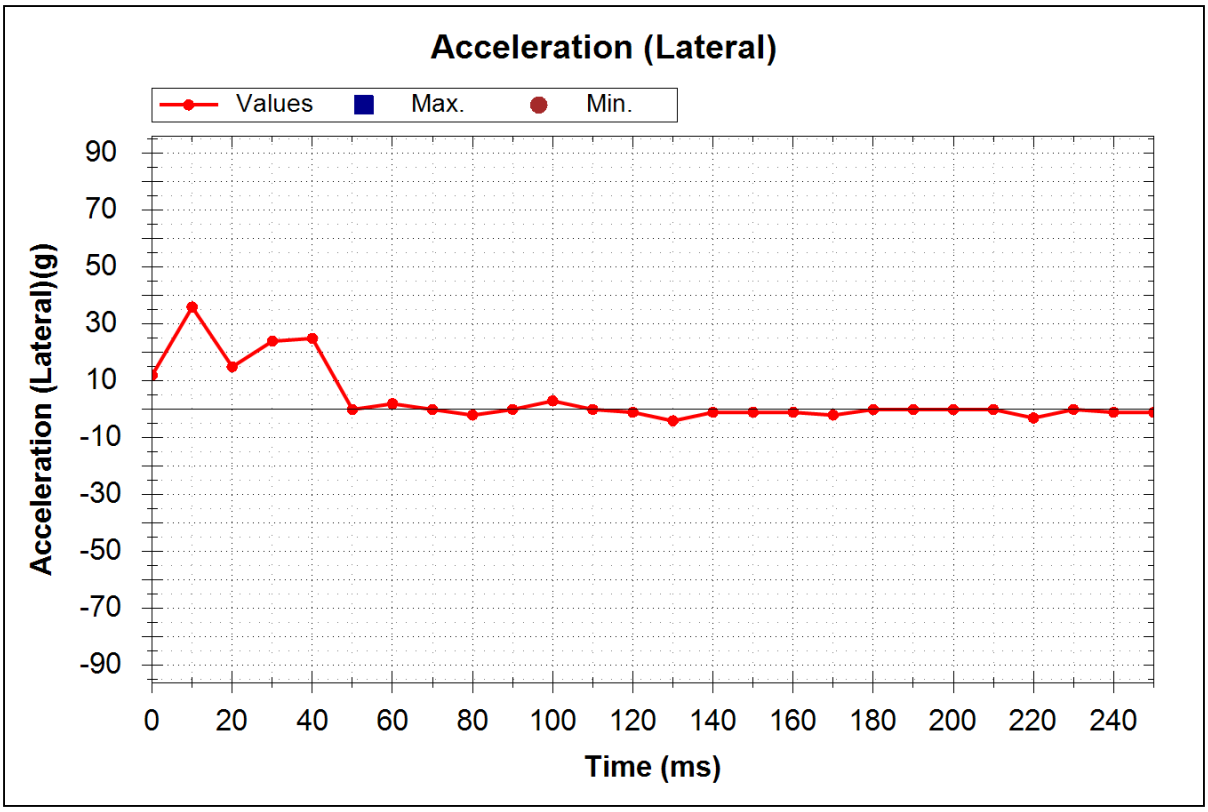
1 [Acceleration (Longitudinal)]



Num	Time (ms)	Acceleration (Longitudinal) (g)
1	0.0	-2.0
2	10.0	-4.0
3	20.0	4.0
4	30.0	-9.0
5	40.0	-14.0
6	50.0	-8.0
7	60.0	3.0
8	70.0	-3.0
9	80.0	0.0
10	90.0	1.0
11	100.0	0.0
12	110.0	-2.0
13	120.0	0.0
14	130.0	0.0
15	140.0	0.0
16	150.0	1.0
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	-1.0
25	240.0	0.0
26	250.0	0.0

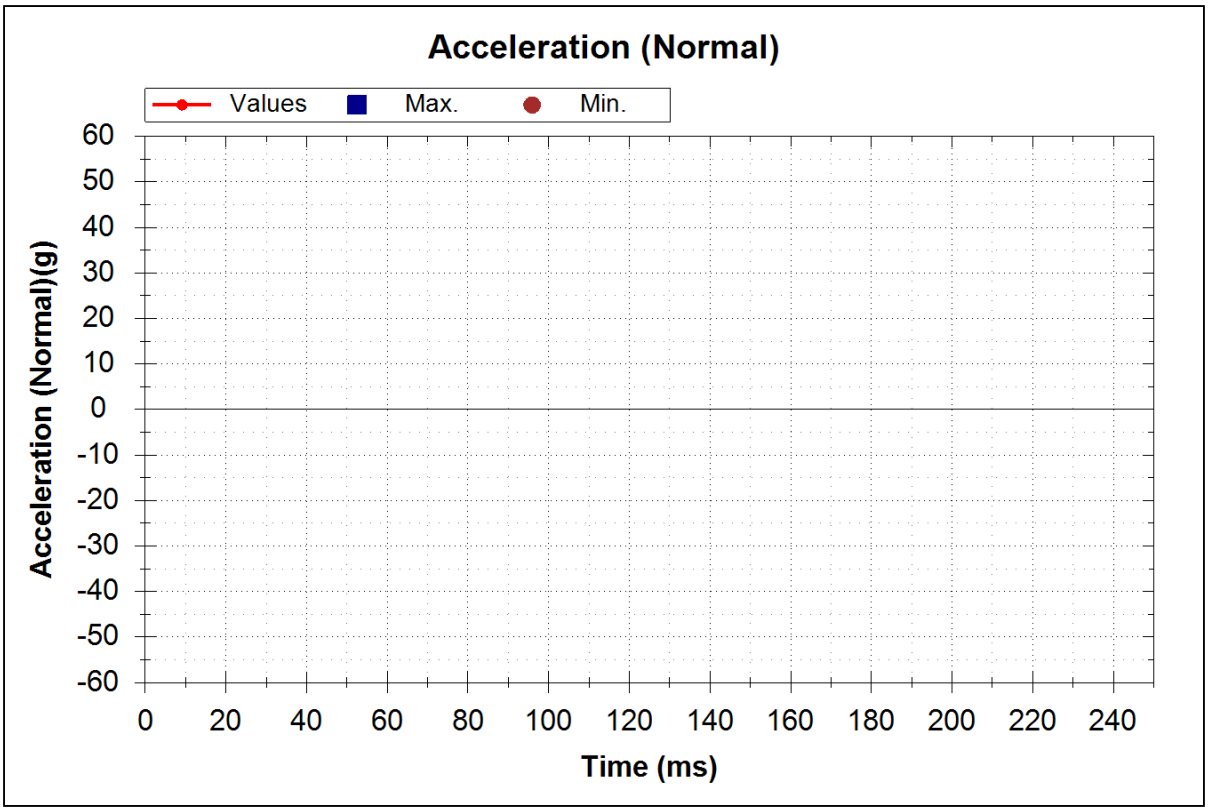
2 [Acceleration (Lateral)]



Num	Time (ms)	Acceleration (Lateral) (g)
1	0.0	12.0
2	10.0	36.0
3	20.0	15.0
4	30.0	24.0
5	40.0	25.0
6	50.0	0.0
7	60.0	2.0
8	70.0	0.0
9	80.0	-2.0
10	90.0	0.0
11	100.0	3.0
12	110.0	0.0
13	120.0	-1.0
14	130.0	-4.0
15	140.0	-1.0
16	150.0	-1.0
17	160.0	-1.0
18	170.0	-2.0
19	180.0	0.0
20	190.0	0.0
21	200.0	0.0
22	210.0	0.0

23	220.0	-3.0
24	230.0	0.0
25	240.0	-1.0
26	250.0	-1.0

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 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 01 00 00 7F 7F 7F 7E 7C 7A 7B 7B 7A 7A 7B 7A 7A 7A 7A 7A 7A 7A 7A 7A 7A 7A
7A 7A 7A 7A 7A 68 7F 85 88 8B 91 93 93 94 93 93 93 94 93 93 92 92 92 92 91 91 91 91 91 90
90 90 94 2C 2C 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 80 80 80 81 81 81 81 81 81 81 81 80 7F
7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F
7F 7F 7F 7F 7F 7F FD

< Event # 1 - 2 >

07 DA 61 51 FF FF FF 3F 00 00 00 00 00 00 00 00 00 00 00 04 04 04 04 04 04 04 04 04 04 04
55 55 D5 00 59 FD FE 00 00 00 00 FE 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 C0 55 55
D5 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F 7F FC FC FF FF F8 00 00 00 00 00 02 00 02 00 02 00 02 00
02 00 00 FE FE

< Event # 1 - 3 >

07 DA 61 52 07 00 00 00 7D 7B 83 76 71 77 82 7C 7F 80 7F 7D 7F 7F 7F 80 7F 7F 7F 7F 7F 7F
7F 7E 7F 7F 8B A3 8E 97 98 7F 81 7F 7D 7F 82 7F 7E 7B 7E 7E 7E 7D 7F 7F 7F 7F 7C 7F 7E 7E
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 78 8B BA FF FF FF FF FF FF FF FF 00 00 FF FF 00 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 78 8B BA FF FF FF FF FF FF FF FF 00 00 FF FF 00 00 00 00 FF FF