
Vehicle Information

KM | SOUL(AM) | 2013 | ALL | AIRBAG SYSTEM

Additional Information

User : Richard R. Ruth, P.E.

CaseNumber : NHTSA 6641 MA0505 2010 Kia Soul

CrashDate :

Part No. : 95910 - 2K000

Save on : Saturday, April 20, 2013, at 22:36:20

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.

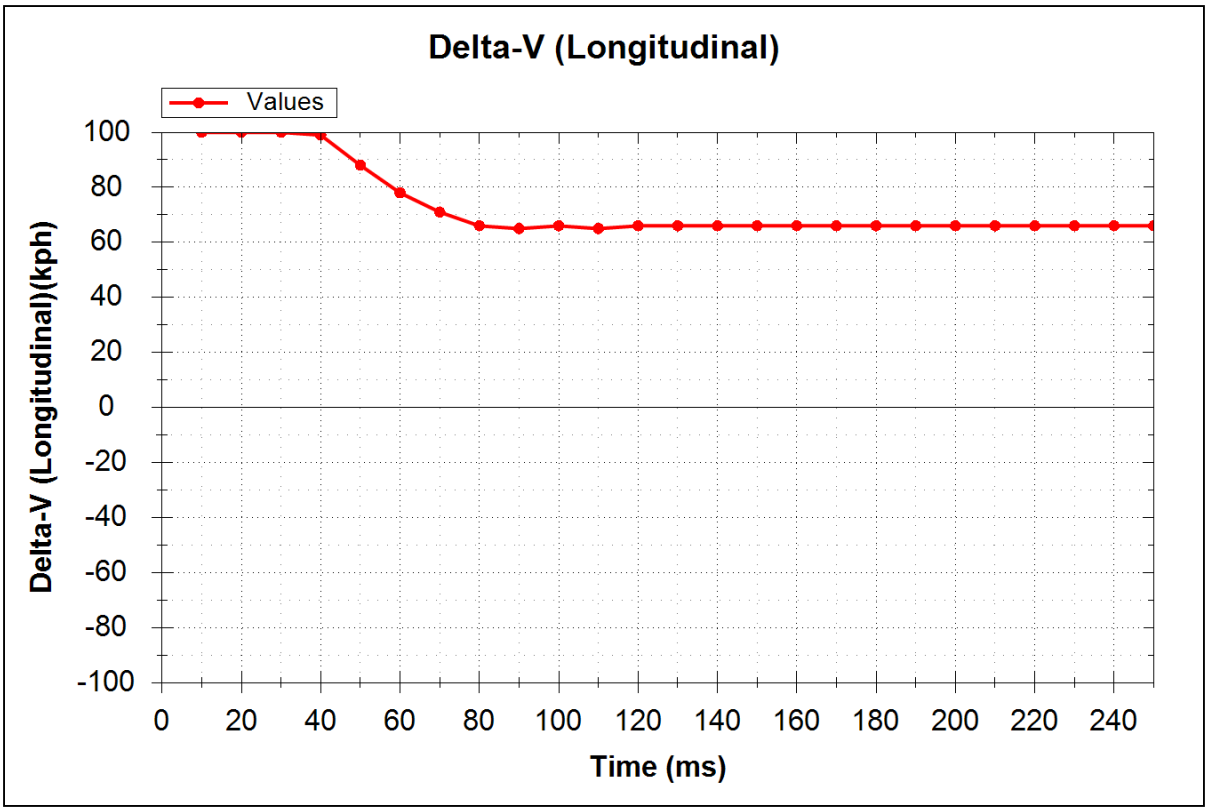
The airbag ECU can store up to two events. Deployment events cannot be overwritten or cleared from airbag ECU. Non-deployment events(which did not qualify as deployable events) can be overwritten by subsequent events.

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	Not supported
2	10.0	100
3	20.0	100
4	30.0	100
5	40.0	99
6	50.0	88
7	60.0	78
8	70.0	71
9	80.0	66
10	90.0	65
11	100.0	66
12	110.0	65
13	120.0	66
14	130.0	66
15	140.0	66
16	150.0	66
17	160.0	66
18	170.0	66
19	180.0	66
20	190.0	66

21	200.0	66
22	210.0	66
23	220.0	66
24	230.0	66
25	240.0	66
26	250.0	66

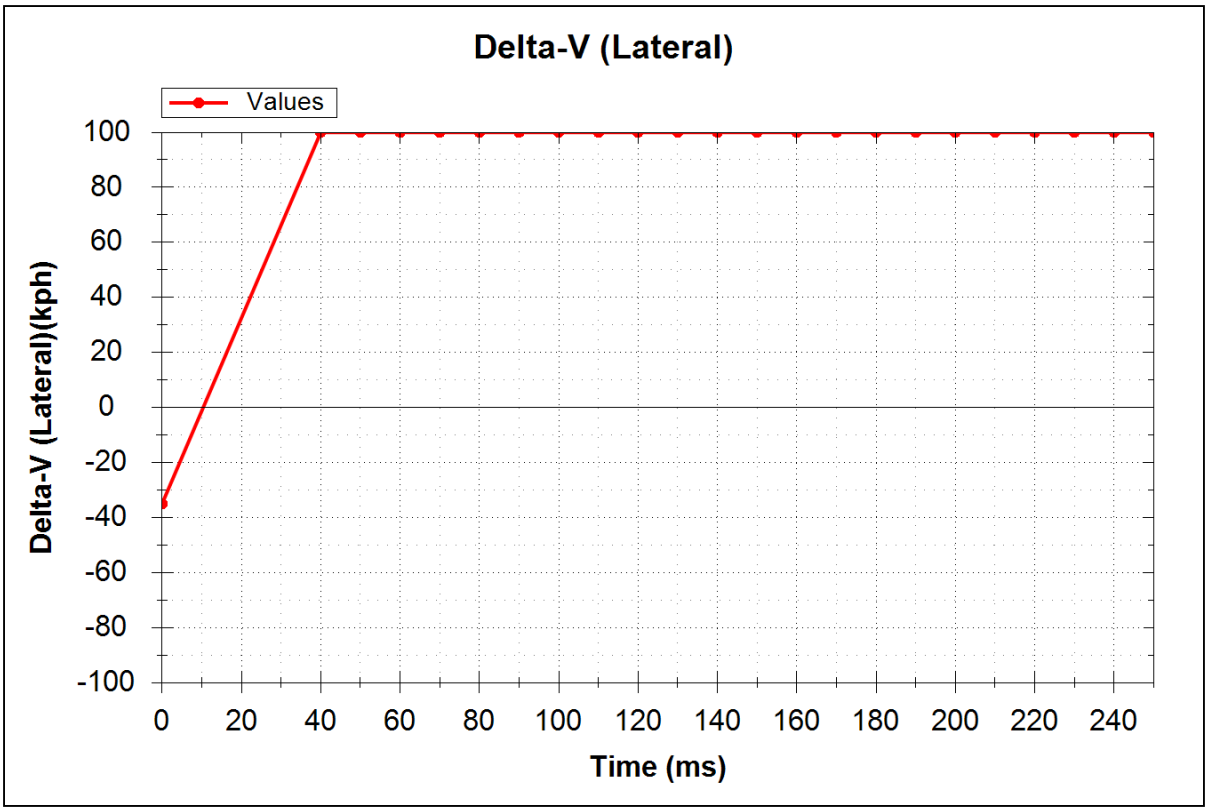
2 [Max. Delta-V (Longitudinal)]

Num	Max. Delta-V (Longitudinal) (kph)
1	65

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

Num	Time_ Max. Delta-V (Longitudinal) (ms)
1	Not supported

4 [Delta-V (Lateral)]



Num	Time (ms)	Delta-V (Lateral) (kph)
1	0.0	-35
2	10.0	Not supported
3	20.0	Not supported
4	30.0	Invalid
5	40.0	100
6	50.0	100
7	60.0	100
8	70.0	100
9	80.0	100
10	90.0	100
11	100.0	100
12	110.0	100
13	120.0	100
14	130.0	100
15	140.0	100
16	150.0	100
17	160.0	100
18	170.0	100
19	180.0	100
20	190.0	100
21	200.0	100
22	210.0	100

23	220.0	100
24	230.0	100
25	240.0	100
26	250.0	100

5 [Max. Delta-V (Lateral)]

Num	Max. Delta-V (Lateral) (kph)
1	100

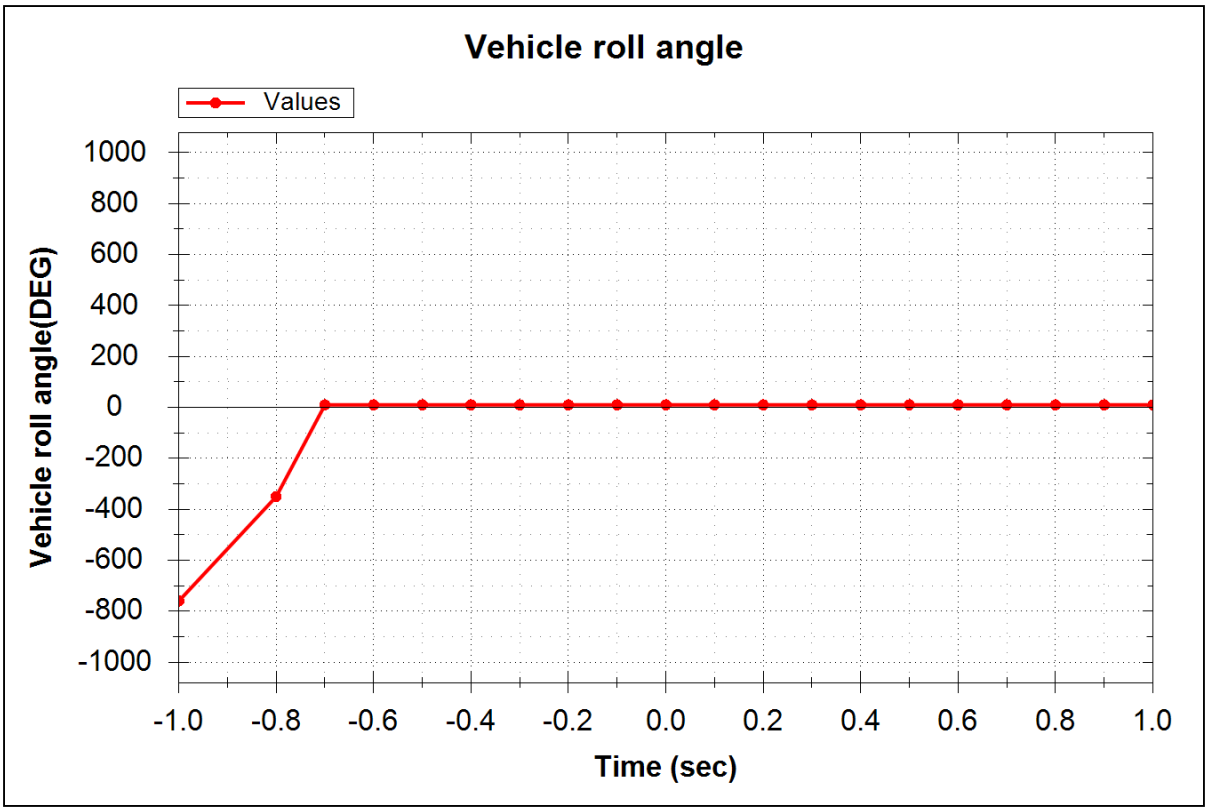
6 [Time_ Max. Delta-V (Lateral)]

Num	Time_ Max. Delta-V (Lateral) (ms)
1	300.0

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

Num	Time_ Max. Delta-V (Resultant) (ms)
1	Not supported

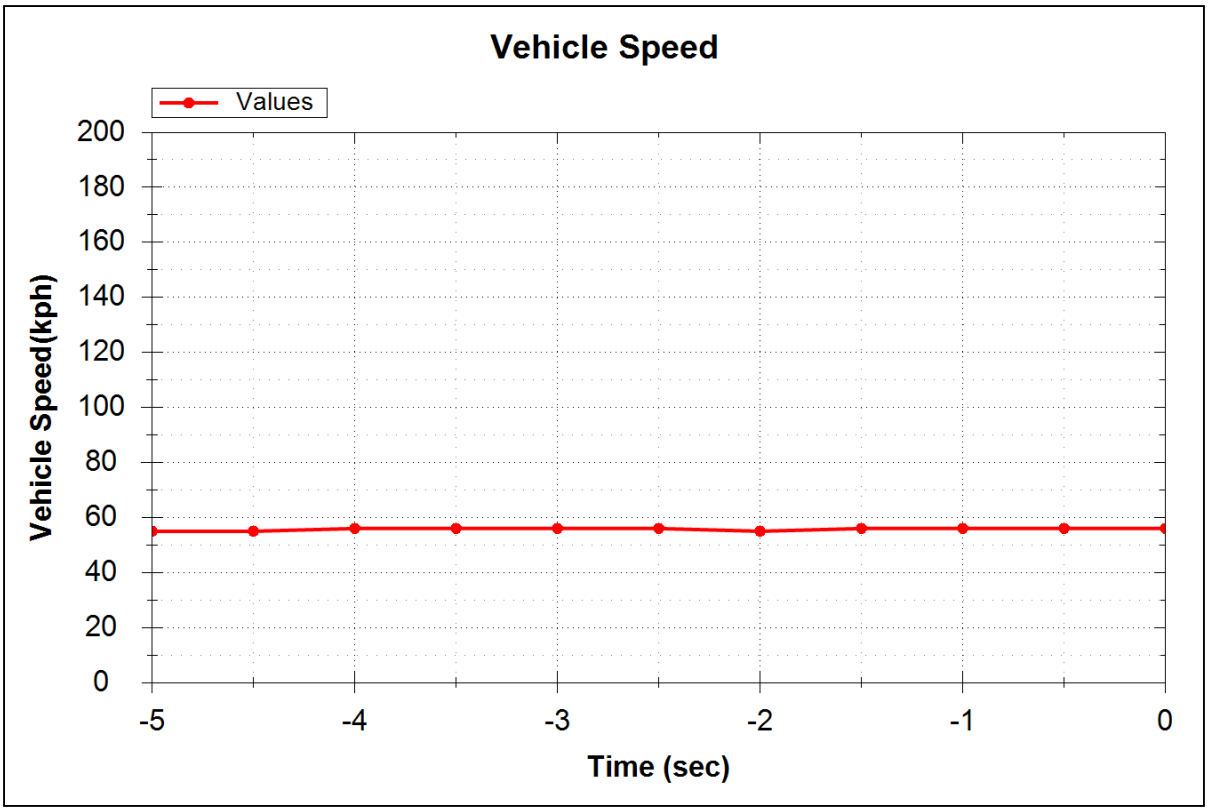
8 [Vehicle roll angle]



Num	Time (sec)	Vehicle roll angle (DEG)
1	-1.0	-760
2	-0.9	Not supported
3	-0.8	-350
4	-0.7	10
5	-0.6	10
6	-0.5	10
7	-0.4	10
8	-0.3	10
9	-0.2	10
10	-0.1	10
11	0.0	10
12	0.1	10
13	0.2	10
14	0.3	10
15	0.4	10
16	0.5	10
17	0.6	10
18	0.7	10
19	0.8	10
20	0.9	10
21	1.0	10

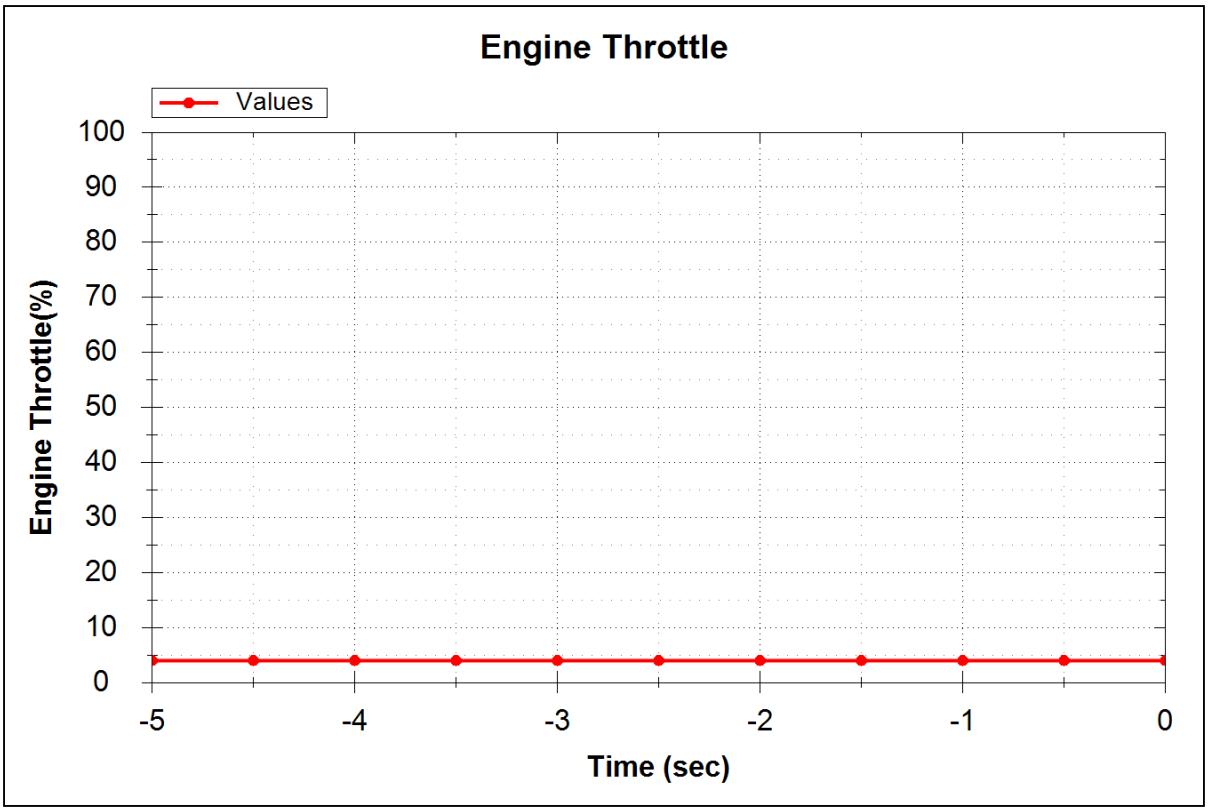
< Event # 1 - 2 >

1 [Vehicle Speed]



Num	Time (sec)	Vehicle Speed (kph)
1	-5.0	55
2	-4.5	55
3	-4.0	56
4	-3.5	56
5	-3.0	56
6	-2.5	56
7	-2.0	55
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	Not Supported
2	-4.5	Not Supported
3	-4.0	Not Supported
4	-3.5	Not Supported

5	-3.0	Not Supported
6	-2.5	Not Supported
7	-2.0	Not Supported
8	-1.5	Not Supported
9	-1.0	Not Supported
10	-0.5	Not Supported
11	0.0	Not Supported

4 [Ignition Cycle_ Crash]

Num	Ignition Cycle_ Crash (Cyc.)
1	Invalid

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	7

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

Num	Time to deploy_ Frontal airbag-1st stage_ passenger (ms)
1	7

9 [Number of event]

Num	Number of event
1	1 event

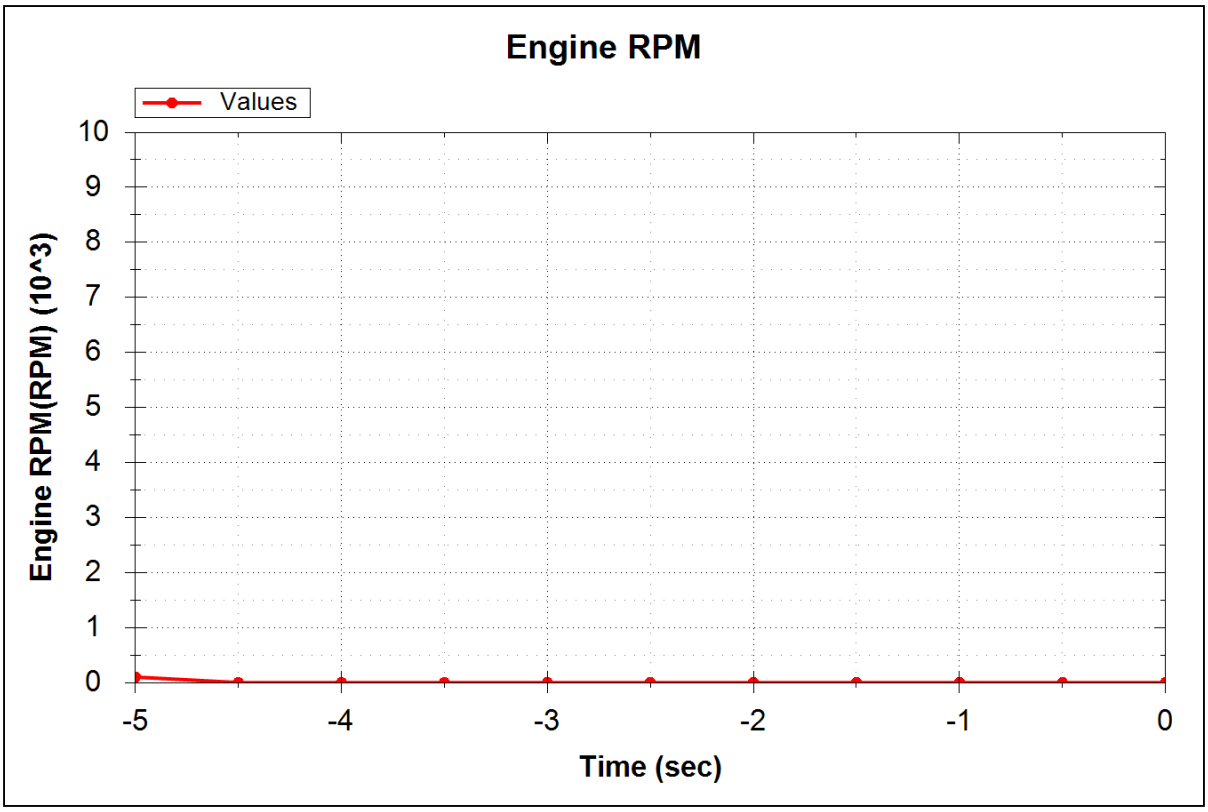
10 [Time from Event 1 to 2]

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

11 [Completed file recorded]

Num	Completed file recorded
1	NO

12 [Engine RPM]



Num	Time (sec)	Engine RPM (RPM)
1	-5.0	100
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]

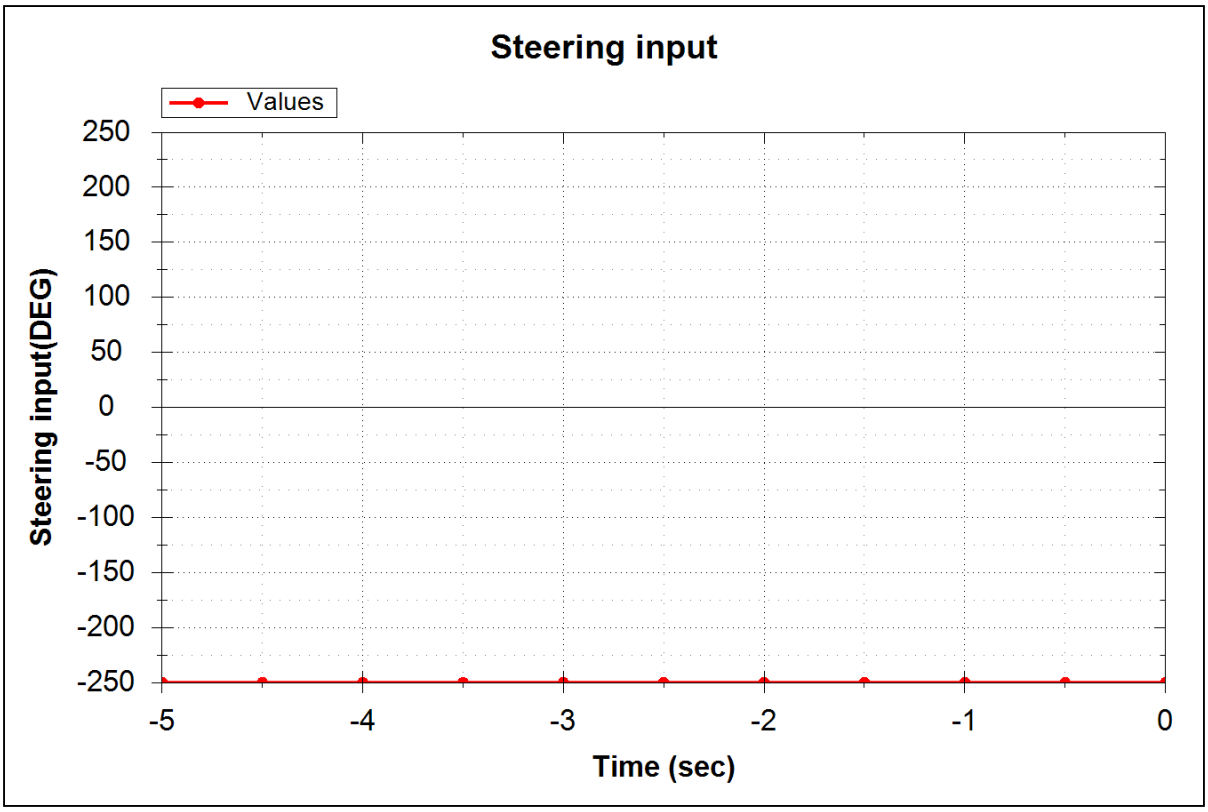
Num	Time (sec)	ABS activity
1	-5.0	OFF
2	-4.5	OFF
3	-4.0	OFF
4	-3.5	OFF

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	OFF
2	-4.5	OFF
3	-4.0	OFF
4	-3.5	OFF
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	-250
2	-4.5	-250
3	-4.0	-250
4	-3.5	-250
5	-3.0	-250
6	-2.5	-250
7	-2.0	-250
8	-1.5	-250
9	-1.0	-250
10	-0.5	-250
11	0.0	-250

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

16 [Safety seat belt_ passenger]

Num	Safety seat belt_ passenger
1	OFF

17 [Seat track position switch_ foremost_ status_ driver]

Num	Seat track position switch_ foremost_ status_ driver
1	NO

18 [Seat track position switch_ foremost_ status_ passenger]

Num	Seat track position switch_ foremost_ status_ passenger
1	NO

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

Num	Occupant size(5th percentile female or larger) classification_ driver
1	No

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	No deployment

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

Num	Time to deploy_ Frontal airbag-2nd stage_ passenger (ms)
1	No deployment

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	No deployment

28 [Time to fire_ pretensioner_ passenger]

Num	Time to fire_ pretensioner_ passenger (ms)
1	1

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	YES

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]

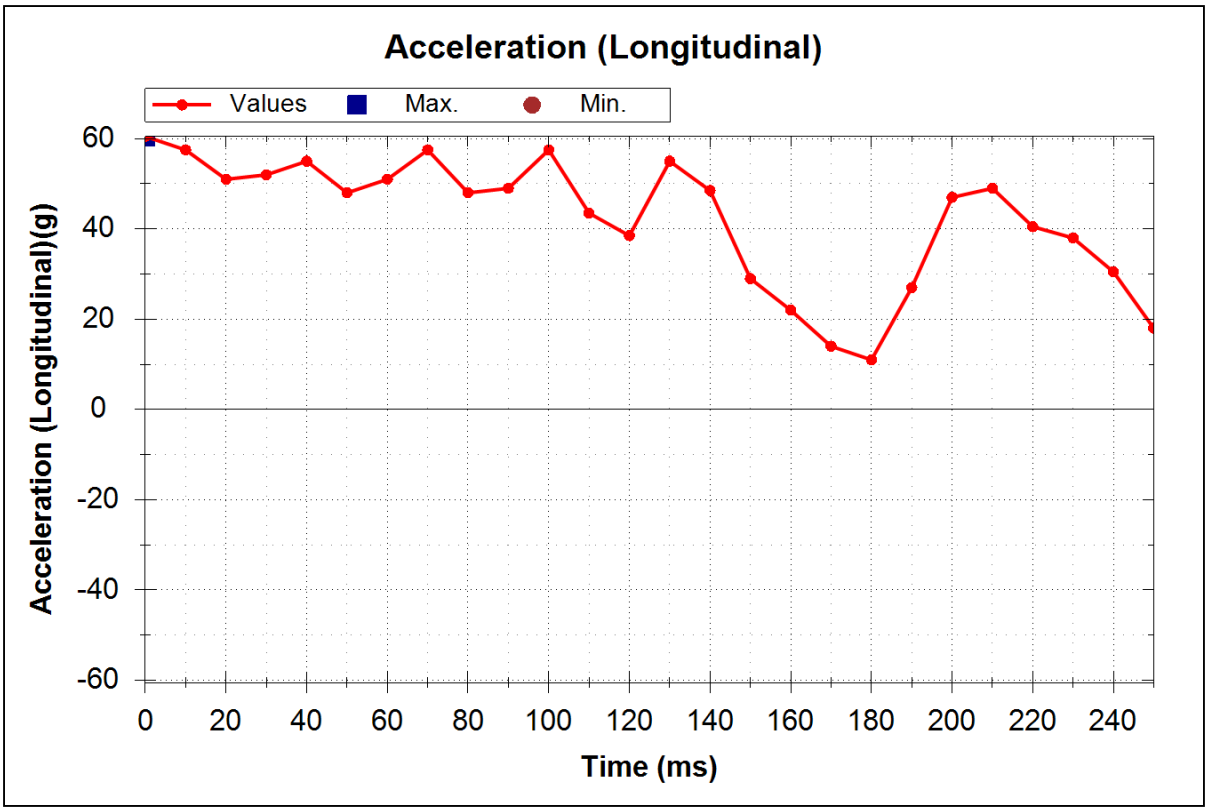
Not Supported...

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

Not Supported...

< Event # 1 - 3 >

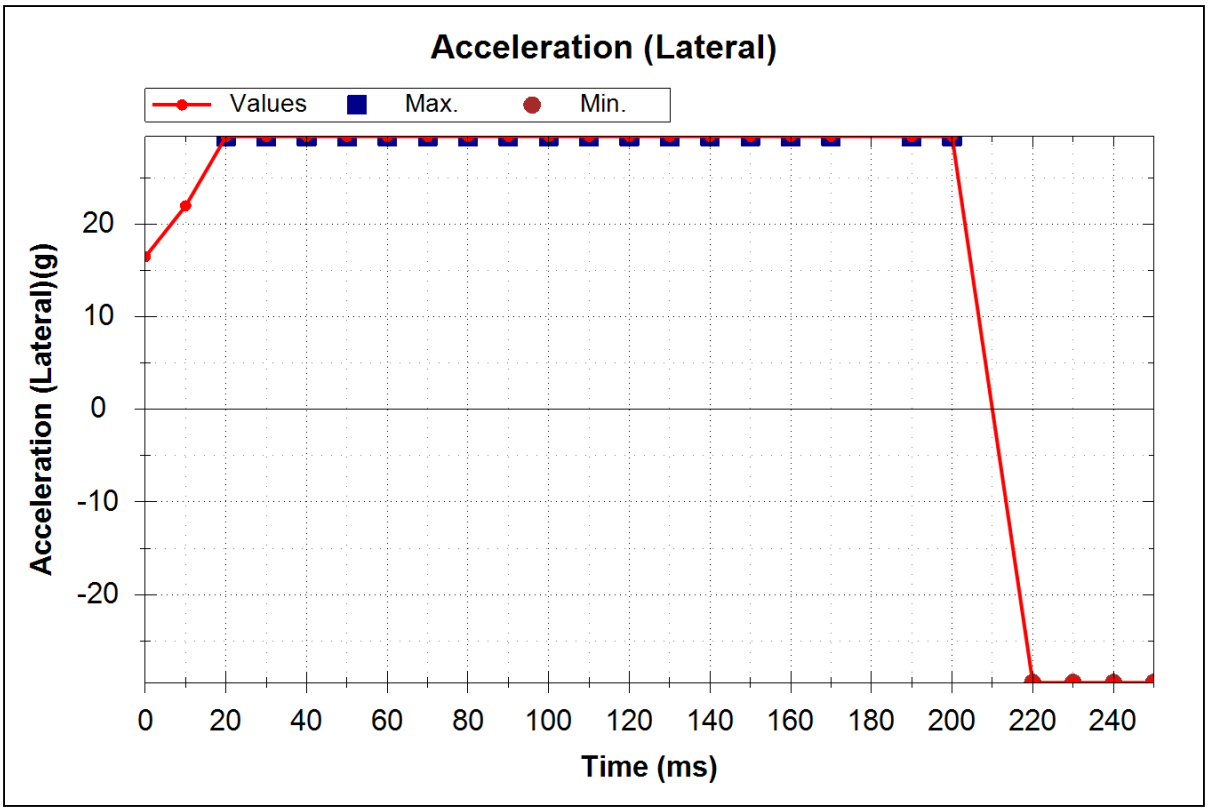
1 [Acceleration (Longitudinal)]



Num	Time (ms)	Acceleration (Longitudinal) (g)
1	0.0	60.5
2	10.0	57.5
3	20.0	51.0
4	30.0	52.0
5	40.0	55.0
6	50.0	48.0
7	60.0	51.0
8	70.0	57.5
9	80.0	48.0
10	90.0	49.0
11	100.0	57.5
12	110.0	43.5
13	120.0	38.5
14	130.0	55.0
15	140.0	48.5
16	150.0	29.0
17	160.0	22.0
18	170.0	14.0
19	180.0	11.0
20	190.0	27.0

21	200.0	47.0
22	210.0	49.0
23	220.0	40.5
24	230.0	38.0
25	240.0	30.5
26	250.0	18.0

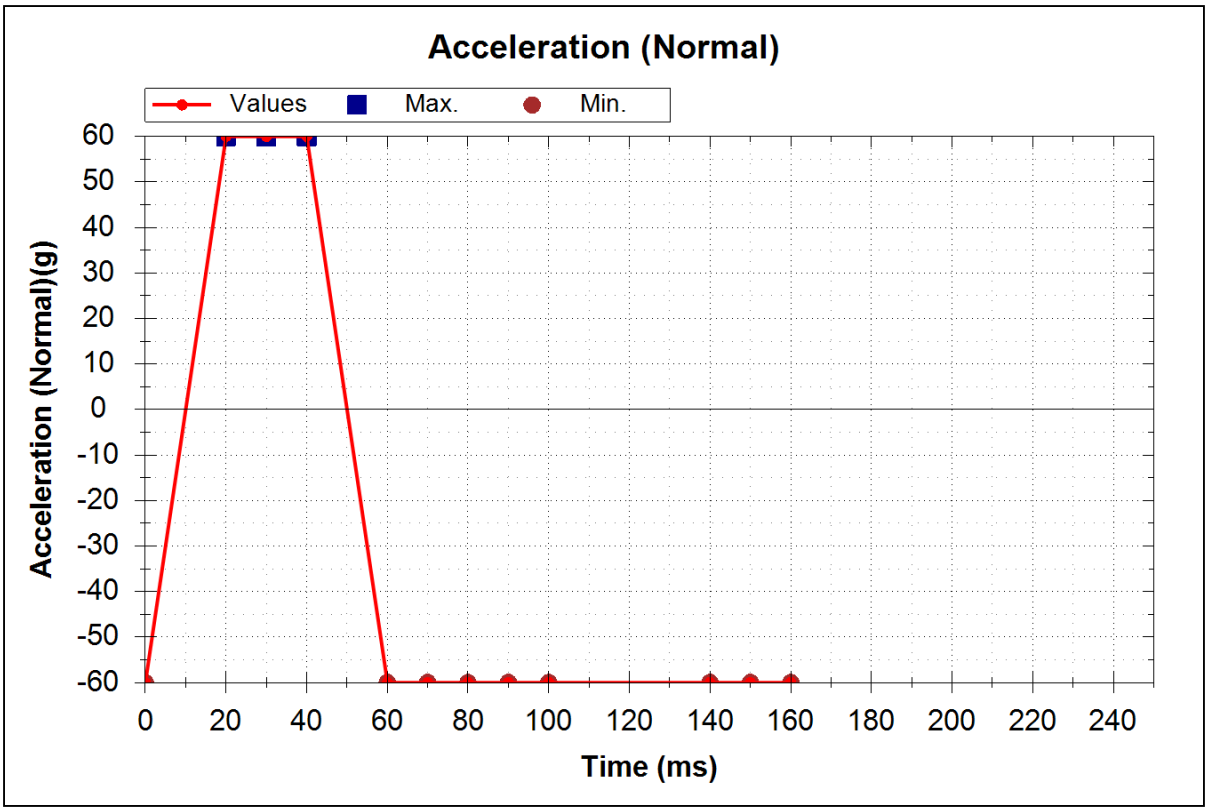
2 [Acceleration (Lateral)]



Num	Time (ms)	Acceleration (Lateral) (g)
1	0.0	16.5
2	10.0	22.0
3	20.0	29.5
4	30.0	29.5
5	40.0	29.5
6	50.0	29.5
7	60.0	29.5
8	70.0	29.5
9	80.0	29.5
10	90.0	29.5
11	100.0	29.5
12	110.0	29.5
13	120.0	29.5
14	130.0	29.5
15	140.0	29.5
16	150.0	29.5
17	160.0	29.5
18	170.0	29.5
19	180.0	Invalid
20	190.0	Exceed the maximum sensor range
21	200.0	29.5
22	210.0	Not supported

23	220.0	-29.5
24	230.0	-29.5
25	240.0	-29.5
26	250.0	-29.5

3 [Acceleration (Normal)]



Num	Time (ms)	Acceleration (Normal) (g)
1	0.0	-60.0
2	10.0	Not supported
3	20.0	Exceed the maximum sensor range
4	30.0	60.0
5	40.0	Exceed the maximum sensor range
6	50.0	Not supported
7	60.0	Exceed the minimum sensor range
8	70.0	-60.0
9	80.0	-60.0
10	90.0	-60.0
11	100.0	Exceed the minimum sensor range
12	110.0	Not supported
13	120.0	Not supported
14	130.0	Not supported
15	140.0	Exceed the minimum sensor range
16	150.0	-60.0
17	160.0	-60.0
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	Invalid
24	230.0	Invalid
25	240.0	Invalid
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 00 00 00 00 FB F7 EF E2 D7 CD C6 C1 C0 C1 C0 C1 C1 C1 C1 C1 C1 C1 C1 C1
C1 C1 C1 C1 C0 00 5C 00 00 FF FE FC FC FD FE FE FE FE FE FE FE FE FE FE FE FE FE FE FE
FE FE FE FC 00 33 00 5C 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80 80

< Event # 1 - 2 >

07 DA 61 51 FF FF FF FC 37 37 38 38 38 38 37 38 38 38 38 04 04 04 04 04 04 04 04 04 04
00 00 00 FF FF 01 00 07 07 00 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00 00 55 55 15
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 01 00 03 07 02 11 11 00
00 00 00 07 07 00 00

< Event # 1 - 3 >

07 DA 61 52 E0 00 00 00 FC F2 E5 E7 ED DF E5 F2 DF E1 F2 D6 CC ED E0 B9 AB 9B 95 B5 DD E1
D0 CB BC A3 A0 AB BF DD EA E4 DA D1 D3 D7 D3 D7 E1 E4 EA F0 F4 FB FF FE FD 00 03 04 05 05
03 00 FE FD FE 00 01 03 03 02 01 00 00 00 01 02 02 00 00 00 00 00 FF FF FF 00 00 00 00 00
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00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 FD FC 0D 03 F0 FC 09 13 DB CA 0E FF F5 11 E9
D4 14 1A CA AF E1 05 02 FF F6 FB 13 0B 01 16 1D 11 0D 0E 11 0F 02 F8 FC FD F2 F2 FD 06 0A
09 08 05 02 00 FC FB FC FD FE FE FC FC FF 00 00 00 00 FF FE 00 03 03 01 00 01 02 00 FF 00
01 01 01 01 00 00 00 00 00 00 00 00 00 FF FF FF 00 01 02 01 00 00 00 00 00 00 00 00 00 00
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< Real-time Data >

07 DA 61 D0 FF FF F0 00 62 CD 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 F0 00 62 CD BA FF FF FF FF FF FF FF FF 00 00 FF FF 00 00 00 00 FF FF