

Version: V1.0.0

Confidential

Markon Electronics Corporation Private Limited

(Wetrack140 / AIS-140)

Revision History

Revision Record

Author	date	version	Check	Approve	
Author	Date	Version	Review	Approve	Description
					Remarks
Sameer	2019-0	1.0.0			Consolidation based on the original
Jameer	6-28	11010			Collated based on original document
					Specification describes supplement login packet and package heartbeat reply
					packet
					After the start delimiter character increases comma, sos warning message header of EMR, delete login packet terminator
					Standardized description, added login packet and response packet of Heartbeat packet
					NRM packet description
					Packet Samples

Content

1. Protocol packet format	5
2. Protocol Specifications	7
21 Login Packet	7
2.2 Positioning/AlertPacket	
2.3 Device Status Info Packet (Heartbeat Packet)	17
2.4 Emergency Alert Packet (Government Server)	19
2.5 Emergency Message Format	20
Packet Samples	

I. Protocol packet format protocol packet format

Device transmits to the server in ASCII string format data packets between each field with a comma "," separated, beginning with "\$", "*" end. format:

\$, [Header], [character content] <word

Character content> <,

character content> <checksum>

* Description:

1, [character content] according to the actual filling;

2, <check> is options, log heartbeat packet and the packet does not include;

3, numerical data packet, only a check value, the base station information CELL ID and LAC represents hexadecimal, the other is a decimal.

The device sends data packets to the server in ASCII string format. The fields are separated by a comma "," and begin with "\$"

and end with "*".

Format:

\$ [Packet heading], [Character Content], <Character Content>

<, Character Content> <, Check> * Description:

1, [character content] is filled according to the actual;

2, <check> is optional, login packet and heartbeat packet are not included;

3. For the value in the data packet, only the check value, the LAC and CELL ID in the base station information are

expressed in hexadecimal notation, and the others are all decimal.

4, Emergency alarm on the package, with "*The end of the check, "the way, the customer is uploaded to the host government monitoring server (analogous to the Ministry of standard protocols), it does not explain this strange format.

4. The emergency alert packet is ended with "* check" and is uploaded to the government monitoring server of the customer's

host country (similar to the Ministry standard protocol), this strange format is not explained.

Second, the protocol specification Protocol Specifications

2.1 Login Packet

\$,LGN,MARK,00000000,358980100422519,V0.0.1,AIS140,26.854004,N,75.766891,E,*

Device uploads packet

Field	Description	Sample Data Example
Start Character start bit	\$	\$
Packet Header	LGN	LGN
Vendor ID Manufacturer ID	Manufacturer's Name Manufacture name	MARK
Vehicle Registration No.	Vehicle number on which the device is installed	DL1PC9821
MEI	IMEI	123456789012345
Firmware Ver. Firmware version (four Bit)	Version of the firmware used in the hardware.	V0.0.1
Protocol Ver. Protocol Version	Version of the frame format protocol.	AIS140
Latitude	The current setpoint value of the latitude	12.976545
Latitude Dir	N / S	N
Longitude	The current setpoint value longitude	77.549759
Longitude Dir	E / W	E
End character	*	ż

Login packet response. (sample response - \$LGN26032021090946*)

Field	Description	Sample Data Example
Start Character	\$	\$
Packet Header	LGN	LGN
Date Time	UTC (format 24 hrs)	Date value as per GPS date time per GPS time (DDMMYYYYhhmmss)
End character	*	*

2.2 Locate/Alarm data packet Positioning / Alert Packet

Sample packet - \$,NRM,MARK,V0.0.1,NR,01,L,358980100422519,000000000,0,23112022,071353,26.854004,N,75.7 66891,E,0.0,170.70,7,376.7,0.0,0.0,Airtel,1,1,0.0,3.8,0,C,31,404,45,6237,988C,6237,4CCD,29,6237,4 CCE,24,6237,C815,21,6237,988D,21,1010,00,0.2,100000,000045,0,0,0,D01B,*

Field	Data Type Data	Valid Range	Sample Data Examples	Description
Start Character	String of characters	\$	\$	\$
Header	String of characters	constant string fixed value	NRM	The header of the packet / identifier
Vendor ID Manufacturer ID	String of characters	constant string fixed value	MARK	Vendor identification header
Firmware Version Firmware version	String of characters	NA	V0.0.1	Version details of the firmware

Packet Type	String of	NR/EA/TA/HP/IN	NR	NR: Normal periodic packet reports the
Packet Type	characters	/ IF / BR / BD / BL /		timing data packet
	onaraoters	BH / HA / HB /RT /		HP: Health packet
		OS / OT/ GI / GO /		heartbeat packetTA:
		FO		Tamper alert dismantle
				alarm EA: Emergeney, elert emergeney, elerm
				IN: Ignition On elect ACC ON
				alarm IF: Ignition OFF alert ACC
				OFF alarm
				BR: Mains reconnected alert reconnect
				main power
				BD: Mains disconnected alert
				disconnected from the mains
				BL: Low battery alert Built-in low
				battery
				BH: Low battery charged alert
				external low voltage level
				OT: Configuration over the air alert
				Alarm settings are modified
				HA: Harsh acceleration alert alarm
				rapid acceleration
				HB: Harsh braking alert alarm brakes
				RT: Harsh / Rash turning alert alarm
				sharp turn
				OS: Over Speed Alert Speed alarm
				modifies EO:
				Emergency off alarm

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				GO: an electronic fence alarm BC: Built-in low battery alert lifted
Alert ID	Uint8 8 bits no break No	1 to 19 0-255	01	Default message coming from each device

02	Location Update (history) Would be sent, if GPRS is not available at the time of sending the message in protocol format Zero, BLANK, NIL,
	etc. make up the historical data transfer
	Alert - Disconnect from main battery If device
02	is disconnected from vehicle battery and
03	running on its internal battery
	Disconnected from the mains
	Alert - Low battery If device internal battery
04	has fallen below a defined threshold
	Built-in battery low
	Alert - Low battery removed
05	Built-in battery low lift
	Alert - Connect back to main battery
06	Indicates that device is connected back to
	main battery
	Main power reconnected
	Alert - Ignition ON Indicates that
07	Vehicle's Ignition is switched ON ACC ON
	alarm
	Alert - Ignition OFF Indicates that
08	Vehicle's Ignition is switched OFF
	ACC OFF
	alarm

		Alert - GPS box opened (Optional) Optional	
	09	message would be generated indicating	
		GPS box opene <mark>d</mark>	

10	Alert - Emergency state ON * When any of the emergency button is pressed Emergency alarm
11	Alert - emergency State OFF When emergency state of vehicle is removed Emergency alert lifted
12	Alert Over the air parameter change When any parameter is changed over the air. Shall include the name of parameter changed and source of command alarm settings are changed server1, - command send by server1 TIMER, - name of command 1 or 0 - 1 means success, 0 means fail
13	Harsh Braking Alert indicating for harsh braking.
14	acceleration. Hard acceleration alarm
15	Rash Turning Alert indicating for Rash turning. Sharp turn alarm
	Alert Indicating Emergency button wire
16	disconnect/wire cut etc. Device Tempered-
17	Overspeed

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			18	Geo-fence Entry
			19	Geo-fence Exit

		20	Overspeed + Geo-fenceEntry	
		twenty one	Overspeed + Geo-fence Exit	

			twenty two	TILT rollover
			twenty three	Wicket state
			twenty four	Into the blind area alarm
			25	NEW YORK low battery alarm
			26	Leaving the dead zone alarm
Packet Status	String	H/L	L	L = Live or H = History
Real-time / fill pass	character	H complement		L = real-time reporting, H = pass up
flag		pass / L real time		history
IMEI	String	String of 15 characters	351,732,050,525,9	Identified of the sending unit. 15 digit
	character	15 strings	17	standard
				unique IMEI no.
Vehicle Reg. No	String	String of 16 characters	AP09BU9365	Mapped vehicle registration number
	character	16 strings		
GPS Fix	Uint8	0/1	1	1 = GPS fix OR 0 = GPS invalid
GPS positioning	8 unsigned			1 = GPS positioning is not 0 = GPS
status	integers			positioning
Date	Day: Uint8	Day: 1-31	15,122,017	Date value as per GPS date time per GPS
date	Month:	Month: 1-12		date time (DDMMYYYY)
	Uint8 Year:	Year: 2018-2999		Date, format DDMMYYYY
	Uint16			
Time	Hour: Uint8	Hour: 0-23	131 304	Time value as per GPS date time in UTC
time	Minute:	Minute: 0-59		format (hhmmss)
	Uint8	Second: 0-59		Time, hhmmss format
	Second: Uint8			

Latitude	Float	00.000000 - 90.000000	12.955446	Latitude value in decimal degrees
Latitude Dir	String	N / S	N	Latitude Direction.
Latitudinal direction	character			N = North, S =South

Longitude	Float	00.000000 - 180.000000	077.637344	Longitude value in decimal degrees
Longitude Dir	String	E/W	E	Longitude Direction.
Longitude direction	character			E = East, W = West
Speed	Float	000.0 to 550.0	000.1	Speed of Vehicle as Calculated by GPS module
speed	Float			in VLT.(in km / hrs.) unit KM / H
Heading	float	000.00 to 359.99	000.00	Course over ground in degrees
course	Float			
No of Satellites	Uint8	0-24	10	Number of satellites available for fix
Satellites	8 unsigned			
	integers			
Altitude	float	-1000.0 to18000	00,913.2	Altitude of the device in meters
altitude	Float	meters		
		-1000.0 to 18,000 meters		
PDOP	float	000.0 to 099.9	001.6	Positional dilution of precision
HDOP	float	000.0 to 099.9	000.8	Horizontal dilution of precision
Operator Name	String	String of maximum 11	VODAFONE IN	Name of the operator
Carrier Name	character	characters		Carrier Name
		String, maximum 11		
Ignition	Uint8 8 bits	0/1	1	1 = Ignition On, 0 = Ignition Off
ACC status	no break			1 = ACC ON 0 = ACC OFF
	No plastic			
	surgery			

Main Power Status	Bool	0/1	1	0 = Vehicle Battery disconnected
Main power state	Boolean value			0 = disconnected from the mains
				1 = Vehicle Battery reconnected
				Reconnect main power source 1 =
Main Input Voltage	float	7.0-40.0	11.9	Indicator showing source voltage in Volts.
Mains voltage	Float			Mains voltage in V

Internal Battery	float	0.0-5.8	05.5	Indicator for level of battery charge remaining.
Voltage				Built-in battery voltage, in V
Built-in battery				
voltage				
Emergency Status	Uint8 8 bits	0/1	0	1 = On, 0 = Off
Emergency sign	no break			
	No plastic			
	surgery			
Tamper Alert	String	0 / C	С	C = Cover Closed, Closing the lid
Dismantle alarm	character			O = Cover Open the cover open
(optional)				
GSM Signal	Uint8 8 bits	0-31	twenty one	Value Ranging from 0 - 31
Strength	no break			The signal strength, range 0-31
GSM signal	No plastic			
strength	surgery			
MCC	String of	000-999	404	Mobile Country Code
	characters			
MNC	String of	000-999	86	Mobile Network Code
	characters			
LAC	String of	0000-FFFF	797F	Cell 0 LAC Location Area Code
	characters			
Cell ID	String of	0000-FFFF	4508	GSM Cell ID cell 0 Cell ID
	characters			
NMR1 LAC	String of	0000-FFFF	797F	Neighboring Location Area Code 1 LAC
	characters			cell
NMR1 Cell Id	String of	0000-FFFF	4509	Neighboring GSM Cell ID cell 1 Cell ID
	characters			
NMR1 Signal strength	String of	0-31	twenty two	Neighboring Signal strength the signal

	characters			strength of a cell
NMR2 LAC	String of characters	0000-FFFF	C363	Neighboring Location Area Code cell 2 LAC
NMR2 Cell Id	String of characters	0000-FFFF	1287	Neighboring GSM Cell ID cell 2 Cell ID
NMR2 Signal strength	String of characters	0-31	11	Neighboring Signalstrengthcellsignal strength 2
NMR3 LAC	String of characters	0000-FFFF	797F	Neighboring Location Area Code 3 LAC cell
NMR3 Cell Id	String of characters	0000-FFFF	4507	Neighboring GSM Cell ID cell 3 Cell ID
NMR3 Signal strength	String of characters	0-31	10	Neighboring Signal strength signal strength of the cell 3
NMR4 LAC	String of characters	0000-FFFF	797F	Neighboring Location Area Code cell 4LAC
NMR4 Cell Id	String of characters	0000-FFFF	4507	Neighboring GSM Cell ID cell 4 Cell ID
NMR4 Signal strength	String of characters	0-31	05	Neighboring Signalstrengthcellsignal strength 4

Digital Input Status	DIN1:	DIN1:	0000	4 external digital input status (Status of Input
Digital input status	bool	0/1		1 to Input 3 (0 = Off; 1 = On))
	DIN2:	DIN2:		Digital input status
	bool	0/1		0 0 = Off, 1 = On
	DIN3:	DIN3:		Remark – i) for acc
	bool	0/1		ii) for sos
	DIN4:	DIN4:		iii) for ac or door
	bool	0/1		
	Boolean value			
Digital Output Status	D01: bool	D01: 0/1	00	2 external digital output status (0 =
Digital output state	Boolean	D02: 0/1		Off; 1 = On)
	Value			Digital output state
				0 = Off, 1 = On
	Boolean value			i) Relay
				ii) TTL(ex- rfid)
Analog Input Analog Input Voltage	Float	0-30.0 V	12.9V	External voltage input
Delta Distance	Int integer	0-4294967295	1000000	Unit: m
Mileage statistics	-	(0xFFFFFFF)		
Frame Number	Uint32 32 bit	0000019999999	000 580	Sequence Number of the messages (000001
serial number	no break			to
	No plastic			999999) Serial number range000001-999999
	surgery			

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OTA Response format	string	*	*	Server1 – command send by server1 TIMER - name of command 1 – status of command O-failed, 1- success	
OTA Response Modify settings command source	String	:(instruction format source, referring to Order ID, status) E.g (USB/SMS/SERVER1/ SERVER2, CFG_HBT, 0 = F ail 1 = Success)		(SERVER1, timer, 1)	
Checksum Check Digit	String of characters	0000 - FFFF	EDEA	Insures No error in transmission Parity bits, CRC from the header to the serial number range	
End character Terminator	String character	*	*	*	

Description:

1. For the other packet type is added, can be added on their own, but can not duplicate existing packet type.

2, For other alarm ID is added, can be added on their own, but can not duplicate existing alarm ID.

3, the base station 0 to populate the missing information fields.

Description:

1. You can add other packet types, but the packet added should be different from existing packets.

2. You can add other alert ID, but the ID added should be different from existing ID ..

3. When the base station information is missing, the corresponding field is filled with 0.

2.3 Device status information packet (heartbeat packets)

Device Status Info Packet (Heartbeat Packet)

Uploading data packet

Data packet uploaded by device.

Sample packet - \$,HBT,MARK,V0.0.1,358980100422519,31,20,0,10,10,1010,0.0,0.2*

Field	Description	Sample Data
Start Character	Start character	\$
Start character		
Packet Header	НВТ	НВТ
Vendor ID name of the		MARK
manufacturer		
Firmware Version Firmware	Firmware version of the device currently	V1.0.0
version	being used	
IMEI	Device IMEI number	351,732,050,525,917
Internal Battery Percentage	Built-in battery percentage	65
Built-in battery percentage		
Low battery threshold Percentage	Low battery alarm threshold percentage	20
Low battery alarm threshold		
percentage		
Memory percentage	0.33	Indicates flash memory used in percentage
Data Memory usage percentage		
Data update rate when ignition	ACC ON data upload interval (s)	10
ON		
ACC ON data upload interval		
Data update rate when ignition OFF	ACC OFF data upload interval (s)	60
ACC OFF data upload		
interval		
Digital Input status	Digital input status	0001 (DIN1 = 0, DIN2 = 0, DIN3 = 0, DIN4 =
Digital input status		1)
Analog Input 1	Analog input status (in V)	0.0

	Analog input status (in V)	0.0
End Character terminator	End character	*

The server returns the packet

Server Response

Field	Description	Sample Data Example
Start Character start bit	\$	\$
Packet Header	НВТ	НВТ
End character	*	*

Field	Sample Data	Description
Start Character start	\$	Start character
symbol		
Packet Header	EDR	EPB, The unique identifier for all messages from VLT
		EPB, a fixed value
Vendor ID name of	MARK	
the manufacturer		
Message Type		Message Types supported. Emergency Message (EMR) or Stop Message (SEM)
Information Type	EMR	EMR, SEM =
IMEI	123456789012345	Identified of the sending unit. 15 digit standard unique IMEI no.
Packet Type		NM - Normal Packet, real-time upload
Real-time / fill pass		SP - Stored Packet, fill biography
flag		
Date Time		Date value as per GPS date time per GPS time (DDMMYYYYhhmmss)
Date Time	18122017124850	Date and time, format DDMMYYYYhhmmss
GPS Fix		A = GPS fix OR V = GPS invalid
GPS	A	A = GPS positioning has V = GPS positioning is not

2.4 Emergency alarm package (government server) Emergency Alert Packet (Government Server)

Date Time	18122017124850	Date value as per GPS date time per GPS time (DDMMYYYYhhmmss)	
Date Time		Date and time, format DDMMYYYYhhmmss	
GPS Fix		A = GPS fix OR V = GPS invalid	
GPS	A	A = GPS positioning has V = GPS positioning is not	
positioning			
status			
Latitude	12.955451	Latitude value in decimal degrees	

Latitude Dir		Latitude Direction.	
Latitudinal direction	N	$N = North_{-}S = South$	
Longitude	077.637313	Longitude value in decimal degrees	
Longitude Dir	E	Longitude Direction.	
Altitude above sea level	00,908.0	Altitude of the device in meters unit of M	
Speed	000.0	Speed of Vehicle as Calculated by GPS module in VLT. (In km/hrs.) Units KM/H	
Distance		Distance calculated from previous GPS data. Calculation of distance starts once SOS is	
distance	0000.0	pressed and cleared once SOS is cleared	
		The current anchor point a distance from the anchor point on	
Provider		G - Fine GPS	
Positioning Type	G	N - Coarse GPS or data from the network	
5 71		N = G = GPS positioning base station location	
Vehicle Reg. No number plate	AP09BU9365	Mapped vehicle registration number	
Reply Number		The mobile number to which Test response needs to be sent	
Receiving alarm SMS	NA	Here to receive alarm SMS mobile phone number if no number is null	
numbers			
End Character	_		
Terminator		End character	
Checksum		The 32 bit checksum of all the characters from the header up to the CRC field	
Check Digit	FFFFF96	32bit CRC, CRC ranging from the header to the terminator	

2.5 Emergency alarm SMS format Emergency Message Format

Field	Description	Sample Data	
Alert No		EMR	

IMEI	Identified of the sending unit. 15 digit standard unique IMEI no.	123456789012345
Latitude	Latitude value in decimal degrees	12.955451
Latitude Dir	Latitude Direction.	N
Latitudinal direction	N = North, S = South	
Longitude	Longitude value in decimal degrees	077.637313
Longitude		
Longitude	Longitude Direction.	E
	E = East, W = West	
GPS Fix	A = GPS fix OR V = GPS invalid	A
GPS positioning	A = GPS positioning has V = GPS positioning is not	
status		
Speed	Speed of Vehicle as Calculated by GPS module in VLT.(In km/hrs.) UnitsKM /H	000.0
MCC	Mobile Country Code	404
MNC	Mobile Network Code	86
LAC	Cell 0 LAC Location AreaCode	797F
Cell ID	GSM Cell ID cell 0 Cell ID	4508
Date Time		DD / MM / YYYY HH: MM:
		SS

(ignition on alert packet) \$,NRM,MARK,V0.0.1,IN,07,L,358980100675496,DL17S4979,1,21032023,095811,28.360064,N,76.927567,E,1.1,144.87,10,260.2,1.5,1. 3,Airtel,1,1,17.2,4.0,0,C,19,404,10,209,B2F8,209,6D17,24,209,C176,18,0,0,0,0,0,1110,00,0.1,2023,000118,0,0,063F0,*

(Battery reconnect alert packet) \$,NRM,MARK,V0.0.1,BR,06,L,358980100675496,DL17S4979,1,21032023,095758,28.360096,N,76.927513,E,0.8,97.56,10,259.5,1.5,1. 3,Airtel,0,1,0.0,4.0,0,C,17,404,10,209,B2F8,209,C176,19,0,0,0,0,0,0,0,0,0,0110,00,0.1,2023,000116,0,0,0,D6D3,*

\$,NRM,MARK,V0.0.1,BC,05,L,358980100675496,DL17S4979,0,21032023,103049,28.360083,N,76.927666,E,0.0,230.91,9,290.6,0.0,0 0,Airtel,1,1,8.9,3.9,0,C,12,404,10,209,B2F8,209,6D17,16,209,754,14,209,C176,13,209,C343,12,1110,00,0.1,24,000008,0,0,0,2F7C,*

(Battery low alert packet) \$,NRM,MARK,V0.0.1,BL,04,L,358980100675496,DL17S4979,0,21032023,101800,28.360083,N,76.927666,E,0.0,230.91,9,290.6,0.0,0 0,Airtel,0,0,8.9,3.5,0,C,12,404,10,209,B2F8,209,6D17,16,209,754,14,209,C176,13,209,C343,12,1110,00,0.1,24,000008,0,0,0,2F7C,*

\$,NRM,MARK,V0.0.1,BD,03,L,358980100675496,DL17S4979,1,21032023,095749,28.360096,N,76.927513,E,0.6,97.56,10,259.7,1.5,1. 3,Airtel,0,0,0.0,4.0,0,C,17,404,10,209,D2FC,209,6D17,26,209,B2F8,20,209,C176,19,0,0,0,0110,00,0.1,2023,000113,0,0,0,6F49,*

(History packet) \$,NRM,MARK,V0.0.1,NR,02,H,358980100675496,DL16P5555,1,21032023,142106,28.360180,N,76.927727,E,0.3,273.23,13,276.3,1.8, 1.1,Airtel,1,1,17.4,4.0,0,C,18,404,10,209,6D18,209,6D17,21,209,4333,20,209,B2F8,19,0,0,0,1110,00,0.1,2023,000569,0,0,0,CB0C,*

Packet Sample -

(Live packet) \$,NRM,MARK,V0.0.1,NR,01,L,358980100675496,DL17S4979,1,21032023,100451,28.360100,N,76.927536,E,0.4,68.02,10,258.2,1.5,1. 3,Airtel,1,1,17.2,4.0,1,C,18,404,10,209,3185,209,6D17,23,209,7510,17,209,C176,17,209,6D18,17,1110,00,0.1,2023,000160,0,0,0,4D1 7,*

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(Battery Disconnect alert packet)

(Low battery remove alert packet)

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(ignition off alert packet)

(emergency on alert packet)

\$,NRM,MARK,V0.0.1,EA,10,L,358980100675496,DL17S4979,1,21032023,100422,28.360107,N,76.927521,E,0.8,68.02,11,258.1,1.5,1. 3,Airtel,1,1,17.3,4.0,1,C,19,404,10,209,3185,209,6D17,21,209,7510,18,209,C176,17,209,B2F8,17,1110,00,0.1,2023,000157,0,0,0,044 0,*

(emergency off alert packet)

\$,NRM,MARK,V0.0.1,E0,11,L,358980100675496,DL17S4979,1,21032023,095433,28.360119,N,76.927521,E,1.1,40.08,9,260.2,1.8,1.5, Airtel,1,1,17.3,4.0,0,C,17,404,10,209,38B5,0,0,0,0,0,0,0,0,0,0,0,1110,00,0.1,2023,000083,0,0,0,D602,*

(Over the air parameter change alert packet)

\$,NRM,MARK,V0.0.1,OT,12,L,358980100675496,DL17S4979,1,21032023,101659,28.360104,N,76.927467,E,0.4,355.41,11,258.6,1.6,1 .3,Airtel,1,1,17.3,4.0,1,C,19,404,10,209,3185,0,0,0,0,0,0,0,0,0,0,0,0,1110,00,0.1,2023,000233,SMS,917011440510,SOESERVER,1,11 AA,*

(Harsh break alert packet)

\$,NRM,MARK,V0.0.1,HB,13,L,358980100675496,DL17S4979,1,21032023,100441,28.360104,N,76.927528,E,0.2,68.02,11,258.1,1.5,1. 3,Airtel,1,1,17.3,4.0,1,C,19,404,10,209,3185,209,6D17,22,209,6D18,17,209,7510,17,209,B2F8,17,1110,00,0.1,2023,000159,0,0,0,F40 6,*

(Harsh acceleration alert packet)

\$,NRM,MARK,V0.0.1,HA,14,L,358980100675496,DL17S4979,1,21032023,100431,28.360104,N,76.927528,E,1.8,68.02,11,258.1,1.5,1. 3,Airtel,1,1,17.3,4.0,1,C,19,404,10,209,3185,209,6D17,22,209,7510,17,209,B2F8,17,209,C176,17,1110,00,0.1,2023,000158,0,0,0,A9 B9,* Markon Electronics Corporation private limited

(Rash Turn alert packet)

\$,NRM,MARK,V0.0.1,RT,15,L,358980100675496,DL17S4979,1,21032023,100501,28.360100,N,76.927536,E,1.5,68.02,11,258.3,1.5,1. 3,Airtel,1,1,17.3,4.0,1,C,20,404,10,209,3185,209,6D17,22,209,6D18,17,209,C176,17,209,7510,17,1110,00,0.1,2023,000161,0,0,0,E04 9,*

(Device Tampered alert packet)

\$,NRM,MARK,V0.0.1,DT,16,L,358980100675496,DL17S4979,1,21032023,101710,28.360104,N,76.927460,E,0.0,355.41,11,258.6,1.6,1 .3,Airtel,1,1,17.3,4.0,0,C,19,404,10,209,3185,209,6D17,18,209,7510,17,0,0,0,0,0,0,1010,00,0.1,2023,000235,0,0,0,6CA0,*

(Login packet sample)

\$,LGN,MARK,00000000,358980100422519,V0.0.1,AIS140,26.854004,N,75.766891,E,*

(Heartbeat packet sample) \$,HBT,MARK,V0.0.1,358980100422519,31,20,0,10,10,1010,0.0,0.2*