

WP-30L PROTOCOL



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SL#	Version	Prepared by	Date
1	VTS_GPS_L100_OR SAC_V1.1	Vijith V.Nair	15/08/2016

Protocol

Various fields in the protocol message from VTU to server is as follows

TABLE-1

Field#	Value	Description
1	Start Character	\$
2	Header	VTU
3	Vendor ID	ATL
4	Firmware Version	Firmware version of device
5	Packet type	See Table-2 for details
6	Packet Type	L=Live packet, H=History packet
7	IMEI	Device IMEI
8	VRN	Vehicle registration number
9	FID	Fence ID, 0= if outside all fence
10	GPS	Fix 1= available, 0= Void (GPS signal availability)
11	Date	Date as per GPS in ddmmyy format
12	Time	Time as per GPS in UTC format(hhmmss)
13	Latitude	Latitude in decimal degrees
14	Latitude Dir.	Latitude Direction N/S(North/South)
15	Longitude	Longitude in decimal degrees
16	Longitude Dir.	Longitude Direction E/W (East/West)
17	Speed	Speed in kmph
18	Heading	True course over ground in degrees
19	No. Of satellites	No. of visible satellite for fix
20	Altitude	Altitude in meters
21	PDOP	HDOP values
22	ODO	Odometer reading in KM
23	Operator name	GSM network Operator Name
24	Ignition	Status 1=ON, 0=OFF
25	Main Power status	1=ON, 0=OFF
26	Emergency status(Panic)	1=ON, 0=OFF

27	Temper Alert	C= cover closed, O =Cover open
28	Internal Battery	Voltage Voltage in Volts
29	GSM signal strength	Value from 0-31
30	MCC	Mobile country code
31	MNC	Mobile network code
32	LAC	Local area code
33	Cell ID	GSM Cell ID
34	NMR	Neighboring cell IDs(4 Neighboring cellIDs separate by coma)
35	Digital input status	Digital inputs I1I2I3I4 (1=pressed ,0=open)
36	Digital output	Digital output status O1O2 (0=OFF, 1=ON)
37	ADC data	ADC values in Volts
38	Frame Number	Message sequence 000001 to 999999
39	Check sum	Check Sum of packet
40	End character	END of packet *

Protocol

START CHARACTERHEADER, Vendor ID, Firmware Version, Packet type, Packet status, IMEI, VRN, Fence ID, GPS Fix, Date, Time, Latitude, Latitude Dir, Longitude, Longitude Dir, Speed, Heading, No. Of satellite, Altitude, PDOP, ODO, Network operator, IGNITION, MAin Power, Emergency, Temper alert, Internal Battery Voltage, GSM signal strength (2digit), MCC(3 digit), MNC(3 digit), LAC(6 char), CellID(5Digits), NCellID1, NCellID2, NCellID3, NCellID4, I1I2I3I4, O1O2, ADC, Frame number*

Example :-

- Live data

```
$VTU,ATL,L100_OR SAC_V1.0,NR,L,356895037533745,DL01H4455,C,1,120814,111719,28.380045,N,77.133707,E,0.00,102,7,120,1.1,23456,Airtel,1,1,0,C,3.8,20,MCC,MNC,LAC,CellID,NCellID1,NCellID2,NCellID3, NCellID4,1010,00,0.5,000555*
```

- Memory data

```
$VTU,ATL,L100_OR SAC_V1.0,NR,H,356895037533745,DL01H4455,C,1,120814,111719,28.380045,N,77.133707,E,0.00,102,7,120,1.1,23456,Airtel,1,1,0,C,3.8,20,MCC,MNC,LAC,CellID,NCellID1,NCellID2,NCellID3, NCellID4,1010,00,0.5,000558*
```

- Emergency data

```
$VTU,ATL,L100_OR SAC_V1.0,EA,H,356895037533745,DL01H4455,D,1,120814,111719,28.380045,N,77.133707,E,0.00,102,7,120,1.1,23456,Airtel,0,1,1,C,3.8,20,MCC,MNC,LAC,CellID,NCellID1,NCellID2,NCellID3, NCellID4,1010,00,0.5,000552*
```

- Event packet for IGN on

```
$VTU,ATL,L100_OR SAC_V1.0,IN,L,356895037533745,DL01H4455,D,1,120814,111719,28.380045,N,77.133707,E,0.00,102,7,120,1.1,23456,Airtel,1,1,1,C,3.8,20,MCC,MNC,LAC,CellID,NCellID1,NCellID2,NCellID3, NCellID4,1010,00,0.5,000568*
```

TABLE-2

Packet Type

Sl.No.	Value	Description
1	NR	Normal Data
2	EA	Emergency Alert
3	TA	Tamper Alert
4	HP	Health Packet
5	IN	IGNITION ON
6	IF	IGNITION OFF
7	BD	Battery Disconnected
8	BR	Battery Reconnected
9	BL	Battery Low
10	TS	Trip Start
11	TE	Trip End
12	FO	Fence Exit
13	FE	Fence Entry

TABLE-2

Packet Type

Sl.No.	I/o	Description
1	I1	Input 9
2	I2	Input 5
3	I3	A/C sense Input-6
4	I4	Door sense Input-2