Content

1. GPRS uploading data format

<data head><protocol version>,<device IMEI>,<device name>,<GPRS real-time/stored data flag>,<date>,<time>,<GPS fixed flag>,<latitude>,<N/S>,<longitude>,<W/E>,<used satellite number of BDS>,<used satellite number of GPS>,<used satellite number of GLONASS>,<HDOP>,<speed>,<course>,<altitude>,<mileage>,<MCC>,<MNC>,<LAC>,<Cell ID>,<GSM signal strength>,<digital input>,<digital output>,<analog input 1>,<analog input 2>,<analog input 3>,<temperature sensor 1>,<temperature sensor 2>,<RFID>,<external accessories status>,<battery level>,<alert event type>;<checksum><data tail>

2. GPRS uploading data example

$MGV002,860719020193193,DeviceName,R,240214,104742,A,2238.20471,N,11401.97967,E,00,03,00,1.20,0.462,356.23,137.9,1.5,460,07,262C,0F54,25,0000,0000,0,0,0,28.5,28.3,,,100,Timer;!

3. GPRS uploading data analysis

Name	Description	Example
<data head>	Fixed character '$'.	$
<protocol version>	"MG" is fixed character, "V002" is the changeable version.	MGV002
,	Separator.	,
<device IMEI>	IMEI of device, fixed 15 bytes.	860719020193193
<device name>	Device name the user set, range: 0~15 bytes. Note: device name only can use letters or numbers.	DeviceName
<GPRS real-time/stored data flag>	'R' means this GPRS data is a real-time data, 'S' means this GPRS data is a stored data.	R
<date>	System date, format: DDMMYY (day day month month year year).	240214
<time>	System time, format: HHMMSS (hour hour minute minute second second).	104742
<GPS fix flag>	'A' means GPS fixed successfully, 'V' means GPS can not be fixed.	A
<latitude>	Latitude (degrees & minutes), format: DDMM.MMMM.	2238.20471
<N/S>	North/South indicator.	N
<longitude>	Longitude (degrees & minutes), format: DDDMM.MMMMM.	11401.97967
<W/E>	East/West indicator.	E
<used satellite number of BDS>	The number of BDS satellite used to fix, range: 00~99.	00
<used satellite number of GPS>	The number of GPS satellite used to fix, range: 00~99.	03
<used satellite number of GLONASS>	The number of GLONASS satellite used to fix, range: 00~99.	00
<HDOP>	Horizontal dilution of precision (The less HDOP value, the better satellite signal you can get).	1.20
<speed>	Speed over ground, unit: km/h.	0.462
<course>	Course over ground, unit: degree (Angle increased clockwise from true north).	356.23
<altitude>	Altitude, unit: meter.	137.9
<mileage>	Mileage, unit: Km.	1.5
<MCC>	Mobile country code.	460
<MNC>	Mobile network code.	07
<LAC>	Location area code.	262C
<Cell ID>	Cell ID.	0F54
<GSM signal strength>	GSM signal strength, range: 00~99.	25
<digital input>	Status of digital input, example shows four digital inputs ('0' means the low level, '1' means the high level) (0000 → ACC IN2 IN1 reserve).	0000
<digital output>	Status of digital output, example shows four digital outputs ('0' means disable the output, '1' means enable the output) (0000 → OUT1 OUT2 OUT3 reserve).	0000
<analog input 1>	Detected value of analog input 1, range: 0~4096.	0
<analog input 2>	Detected value of analog input 2, range: 0~4096.	0
<analog input 3>	Reserve	0
<temperature sensor 1>	Detected value of temperature sensor 1, unit: degree(-55~125℃).	28.5
<temperature sensor 2>	Detected value of temperature sensor 2, unit: degree(-55~125℃).	28.3
<RFID>	RFID information.	0013642947
<external accessories status>	Status of external accessories (reserve).	
<battery level>	Battery level, range: 000~100.	100
<alert event type>	Alert event type, see alert event type table.	Timer
;	End mark.	;
<checksum>	Checksum (reserved).	
<data tail>	Fixed character '!'.	!

4. Alert event type table

Type name	Describe	Note
PW ON	Device power on by hardware alarm	This alarm will be sent after device restarted every time
SOS	SOS emergency calling alarm	This alarm will be sent after pressed SOS button
Over Speed	Over speed alarm	This alarm will be sent when the speed actual value higher than speed setting value
Normal Speed	Return to normal speed alarm	This alarm will be sent when the speed limit value lower than setting value
Low Battery	Low battery alarm	This alarm will be sent when the battery level is lower than setting value
Low Extern Voltage	Low external voltage alarm	This alarm will be sent when the external voltage lower than setting value
GPS Lost	No GPS signal alarm	This alarm will be sent when device failed to connected GPS
GPS Regained	GPS regained alarm	This alarm will be sent when device regained GPS signal
GPS Cut	GPS antenna cut off alarm	This alarm will be sent when GPS antenna cut off
IN1 ON	IN1 turn to ON alarm	This alarm will be sent when digital input 1 turn to ON
IN1 OFF	IN1 turn to OFF alarm	This alarm will be sent when digital input 1 turn to OFF
IN2 ON	IN2 turn to ON alarm	This alarm will be sent when digital input 2 turn to ON
IN2 OFF	IN2 turn to OFF alarm	This alarm will be sent when digital input 2 turn to OFF
PSR	External voltage connected alarm	This alarm will be sent when external voltage connected
PSD	External voltage disconnected alarm	This alarm will be sent when external voltage disconnected
ACC ON	ACC turn to ONalarm	This alarm will be sent when ACC turn to ON
ACC OFF	ACC turn to OFF alarm	This alarm will be sent when ACC turn to OFF
Corner	Car cornering alarm	This alarm will be sent when the car is cornering
Geo1 In	Moves in the Geo-fence 1 alarm	This alarm will be sent when device moves in Geo-fence 1
Geo2 In	Moves in the Geo-fence 2 alarm	This alarm will be sent when device moves in Geo-fence 2
Geo3 In	Moves in the Geo-fence 3 alarm	This alarm will be sent when device moves in Geo-fence 3
Geo4 In	Moves in the Geo-fence 4 alarm	This alarm will be sent when device moves in Geo-fence 4
Geo5 In	Moves in the Geo-fence 5 alarm	This alarm will be sent when device moves in Geo-fence 5
Geo1 Out	Moves out the Geo-fence 1 alarm	This alarm will be sent when device moves out Geo-fence 1
Geo2 Out	Moves out the Geo-fence 2 alarm	This alarm will be sent when device moves out Geo-fence 2
Geo3 Out	Moves out the Geo-fence 3 alarm	This alarm will be sent when device moves out Geo-fence 3
Geo4 Out	Moves out the Geo-fence 4 alarm	This alarm will be sent when device moves out Geo-fence 4
Geo5 Out	Moves out the Geo-fence 5 alarm	This alarm will be sent when device moves out Geo-fence 5
Shift01	Shifts device out the preset area 1 alarm	This alarm will be sent when device moves out the preset area 1
Shift02	Shifts device out the preset area 2 alarm	This alarm will be sent when device moves out the preset area 2
Shift03	Shifts device out the preset area 3 alarm	This alarm will be sent when device moves out the preset area 3
VS	Stop the car from moving alarm	This alarm will be sent when the car stop from moving
VM	Start the car alarm	This alarm will be sent when start the car
Dist	Tracking by distance alarm	This alarm will be sent when device tracking by distance
Timer	Tracking by regularly	This alarm will be sent when device tracking by every timer
Hit	Hitting alarm	This alarm will be sent when device detected hitting
Fatigue	Fatigue driving alarm	This alarm will be sent when user into fatigue driving
Get RFID	Get RFID alarm	This alarm will be sent when device get RFID
Take photo	Take a photo alarm	This alarm will be sent when device take a photo every time