Content

1. GPRS uploading data format

<data length><data head><protocol version>,<device IMEI>,<device name>,<GPRS real-time/stored data flag>,<date>,<time>,<GPS fix 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>,<photoelectric heart rate>,<step number>,<activity time>,<light sleep time>,<deep sleep time>,<temperature sensor 1>,<temperature sensor 2>,<RFID>,<external accessories status>,<battery percent>,<alert event type>,< WIFI Data>,<Multiple Base Stations>;<checksum><data tail>

2. GPRS uploading data example

0470$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,0F5 4,25, ,,,,, 28.5,28.3,,10,100,Timer, 18339df945d0:53|108c0fb0a2f1:57|e46f133d6f5c:59|108ccf109f21:59|8adc963d752a:82|04c5a48cc6c0:82| 9adc963d752a:83|8800b0b00004:85|90671c80e2fc:85|80c5e68c8d36:86,460:00:262c:0f8e:40|460:00:262c:0f5b:31|460:00:262c:10f7:30|460:00:262c:0f47:2 9|460:00:262c:0f79:28|460:00:262c:1073:27|460:00:27ba:0f5c:25;!

3. GPRS uploading data analysis

Name	Description	Example
<data length>	The length of this GPRS data (not include itself), range: 0001~9999, unit: byte.	0470
<data head>	Fixed character '$'.	$
<protocol version>	"MG" is fixed character string; "V002" is the changeable version.	MGV002
,	Separator.	,
< IMEI>	IMEI of device fixed in 15 bytes.	860719020193193
<device name>	Device name the user set, range: 0~15 bytes. Note: device name only consist of letters and digits.	Device Name
<GPRS real-time/stored data flag>	'R' means this GPRS data is real-time data, 'S' means this GPRS data is stored data.	R
<date>	System date, format: DDMMYY (date month year).	240214
<time>	System time, format: HHMMSS (hour minute second).	104742
<GPS fix flag>	'A' means GPS fix successfully, 'V' means GPS can not fix.	A
<latitude>	Latitude value (format of degrees & minutes), format: DDMM.MMMM.	2238.20471
<N/S>	North/South indicator.	N
<longitude>	Longitude value (format of degrees & minutes), format: DDDMM.MMMMM.	11401.97967
<W/E>	West/East 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.	1.20
<speed>	Speed over ground, unit: knot.	0.462
<course>	Course over ground, unit: degree.	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
<photoelectric heart rate>	Reserved	
<step number>	Reserved	
<activity time>	Reserved	
<light sleep time>	Reserved	
<deep sleep time>	Reserved	

<temperature sensor 1>	Detected value of temperature sensor 1, unit: degree. (only used for vehicle tracker)	28.5
<temperature sensor 2>	Detected value of temperature sensor 2, unit: degree. (only used for vehicle tracker)	28.3
<RFID>	RFID information (reserved). (only used for vehicle tracker)	
<external accessories status>	Charging flag ('0' means not charging, '1' means charging)	10
	Belt status ('0' means no belt is connected, '1' means the first belt is connected, '2' means the second belt is connected, '3' means the first and second belts are all connected)	
<battery percent>	Battery percent, range: 000~100.	100
<alert event type>	Alert event type, see alert event type table.	Timer
< WIFI Data >	WIFI Address:Signal Strength| WIFI Address:Signal Strength | WIFI Address:Signal Strength… : Delimiter，Separate WIFI address from signal strength。 | Delimiter，Separate multiple WIFI data。 Regard：Maximum 10 WIFI data。	18339df945d0:53| 108c0fb0a2f1:57| e46f133d6f5c:59| 108ccf109f21:59| 8adc963d752a:82| 04c5a48cc6c0:82| 9adc963d752a:83| 8800b0b00004:85| 90671c80e2fc:85| 80c5e68c8d36:86
< Multiple Base Stations>	Mobile country code: Mobile network number: Location area code: Cell ID |… : Delimiter。 | Delimiter，Separate multiple Base station data。 Regard：Maximum 07 Base station data。	460:00:262c:0f8e:40| 460:00:262c:0f5b:31| 460:00:262c:10f7:30| 460:00:262c:0f47:29| 460:00:262c:0f79:28| 460:00:262c:1073:27| 460:00:27ba:0f5c:25
;	End mark.	;
<checksum>	Checksum (reserved).	
<data tail>	Fixed character '!'.	!

4. Alert event type table

Type name	Description	Example
Restart	Device restart by hardware.	Restart
PowerOn	Device power on by software.	PowerOn
PowerOff	Device power off by software.	PowerOff
Sos	SOS emergency alert.	Sos
Timer	Sending GPRS data by interval.	Timer
CallForSms	Sending SMS by making a call (only for SMS).	CallForSms
LowBattery	Low battery alert.	LowBattery
GeoX(GeoName) In	Going into the geo-fence, 'X' is the sequence of geo-fence, range: 1~5, "GeoName" is the name user set for geo-fence, range: 0~9 bytes.	Geo1(home) In
GeoX(GeoName) Out	Going out of the geo-fence, 'X' is the sequence of geo-fence, range: 1~5, "GeoName" is the name user set for geo-fence, range: 0~9 bytes.	Geo1(home) Out
BeltOn	Belt is connected.	BeltOn
BeltOff	Belt is disconnected.	BeltOff
LocRequest	Real-time location request.	LocRequest
Home	Device enters home.	Home
Leave	Device leaves home.	Leave
Error	Alert type error.	Error