Table of contents

1.GPRS upload data format GPRS

<data length><data header><protocol version>,<device IMEI>,<device name>,<GPRS real-time/historical data flag>,<date>,<time>,<GPS positioning status>,<latitude value>,<N/ S>,<longitude value>,<W/E>,<number of Beidou satellites>,<number of GPS satellites>,<number of GLONASS satellites>,<horizontal positioning accuracy>,<speed>,<heading >,<altitude>,<mileage>,<MCC>,<MNC>,<LAC>,<Cell ID>,<GSM signal strength>,< digital input >,<digital output>,<analog input1>,<analog input 2>,<analog input 3>,<temperature sensor 1>,<temperature sensor 2>,<RFID>,<external device status>,<battery percent>,<alarm event type>,<WIFI data>,< Bluetooth signal strength >,<home mode>,<HBU_IMEI>,;<checksum><data tail>

2.GPRS upload data example GPRS

0325$MGV002,867255079755544,,S,200624,073339,A,2238.22307,N,11401.97573,E,11,08,00,0.8,0.00,257.04,103.3,,,,24A4,18057678,28,0000,0000,0,,,,,,10,061,Beacon Move,485f08194f99:65|4a5f08194f99:66|9289179f1d46:69|8289179f1d46:69|0071cc32f67f:70|fc372b6f40d1:75|a41a3a6ab665:78|a61a3a5ab665:78|687724d3a181:79|6a772473a181:82,74,0,,;!

3.GPRS upload data analysis GPRS

digit	project	describe	example
	<data length>	The length of this GPRS data (not include itself), range: 0001~9999, unit:byte	0325
	< data header >	Fixed to the character $.	$
1st place	< Protocol version >	MG is a fixed character, and V002 is the version number.	MGV002
	,	delimiter.	,
2nd place	< Device IMEI >	The IMEI number of the device's GSM module, fixed at 15 bytes.	867255079755544
3rd place	< device name >	The device name set by the user, the range: 0~15 bytes. Note: Names can only use letters or numbers.	
4th place	< GPRS real-time/historical data flag >	R represents real-time data and S represents historical data.	S
5th place	< date >	The system date of the device, in the format: DDMMYY (DDMMYY).	200624
6th place	< time >	The system time of the device, in the format: HHMMSS (hours, minutes, seconds, seconds).	073339
7th place	< GPS fix status >	A means GPS positioning is successful, V means GPS positioning fails.	A
8th place	< Latitude value >	Latitude value, format: DDMM.MMMM (degree-minute format).	2238.22307
9th place	<N/S>	N means north latitude and S means south latitude.	N
10th place	< longitude value >	Longitude value, format: DDDMM.MMMMM (degree-minute format).	11401.97573
11th place	<W/E>	W means west longitude and E means east longitude.	E
12th place	< The number of Beidou satellites used >	The number of Beidou satellites used for positioning, range: 00~99.	11
13th place	< Number of GPS satellites used >	Number of GPS satellites used for positioning, range: 00~99.	08
14th place	< Number of GLONASS satellites used >	Number of GLONASS satellites used for positioning, range: 00~99.	00
15th place	< Horizontal positioning accuracy >	Horizontal positioning accuracy	0.8
16th place	< speed >	Speed, unit: nautical miles.	0.00
17th place	< course >	Heading, unit: degrees.	257.04
18th place	< altitude >	Altitude, unit: meters.	103.3
19th place	< mileage >	Mileage, unit: kilometers.	
20th place	<MCC>	Mobile country code.	
21st place	<MNC>	Mobile network number.	
22nd place	<LAC>	Location area code.	24A4
23rd place	<Cell ID>	Cell ID.	18057678
24th place	< GSM signal strength >	GSM signal strength, range: 00~31.	28
25th place	< digital input >	Digital output state, in this example the state of the four digital outputs (0 means off, 1 means on).	0000
26th place	< digital output >	Digital output state, in this example the state of the four digital outputs (0 means off, 1 means on).	0000
27th place	<analog input 1>	Analog input 1 detection value, range: 0~4096.	0
28th place	<analog input 2>	< Analog input 2> (reserve)	
29th place	<analog input 3>	< Analog input 3> (reserve)	
30th place	<temperature sensor 1>	< temperature sensor 1> (reserve)	
31st place	<temperature sensor 2>	temperature sensor 2> (reserve)	
32nd place	<RFID>	RFID information (Reserved)	Reserved

33rd place	< External device status >	Charge status (0 means not charging, 1 means charging). The wristband status (0 means not connected, 1 means connected).	10
34th place	< Electricity >	Battery level, range: 000~100.	061
35th place	< Alarm event type >	For the alarm event type, see the alarm event type table.	Beacon Move
36th place	< WIFI data >	WIFI Address: Signal Strength | WIFI Address: Signal Strength | WIFI Address: Signal Strength… : is the separator, which separates the WIFI address from the signal strength. | is the separator, which separates multiple WIFI data. Note: There is a maximum of 10 WIFI data.	485f08194f99:65|4a5f08194f99:66|9289179f1d46:69|8289179f1d46:69|0071cc32f67f:70|fc372b6f40d1:75|a41a3a6ab665:78|a61a3a5ab665:78|687724d3a181:79|6a772473a181:82
37th place	< Bluetooth signal strength >	Bluetooth signal strength, the higher the value, the weaker the signal	74
38th place	<home mode>	0:normal mode, 1: home mode (default:0)	0
39th place	<HBU_IMEI>	The IMMEI information of the currently connected WIFI	
	;	terminator.	;
	< checksum >	Checksum (reserved).	
	< data tail >	Fixed to character !	!

4.Alarm event type table

type name	describe	example
Restart	Device hardware restart	Restart
PowerOn	The device software starts.	PowerOn
PowerOff	The device software shuts down.	PowerOff
Sos	SOS emergency alarm	Sos
Timer	timed upload	Timer
CallForSms	Dial a phone call back to a text message (for text messages only)	CallForSms
LowBattery	Low battery alarm	LowBattery
GeoX(GeoName) In	Enter the Geo-fence, X is the serial number of the Geo-fence, range: 1~5, Geo-Name is the name of the Geo-fence set by the user, range: 0~9 bytes.	Geo1(home) In
GeoX(GeoName) Out	When you exit the Geo-fence, X is the serial number of the Geo-fence, range: 1~5, Geo-Name is the name of the Geo-fence set by the user, range: 0~9 bytes.	Geo1(home) Out
BeltOn	wristband connection	BeltOn
BeltOff	wristband disconnected	BeltOff
LocRequest	Instant location query	LocRequest
Error	wrong alarm type	Error
simcard_cover_open	Open the SIM card cover to alarm	simcard_cover_open
physical lock	Physical lock alarm	physical lock
physical unlock	Physical unlock alarm	physical unlock
Beacon Move	Bluetooth beacon mobile alarm	Beacon Move
Beacon Out	Bluetooth beacon not found alarm	Beacon Out
Beacon In	Bluetooth beacon found alarm	Beacon In
Hitting Alarm	Hitting device alert	Hitting Alarm
Case Break Alarm	Shell damage alert	Case Break Alarm