H002 H003 H003C H006

Terminal and Interface Design

1.Interface description

The interfaces defined in this article follow the following rules：

1. The delimiter between fields is "|" and the delimiter of multiple objects in fields is "&". Therefore, such keywords cannot be included in the downstream and downstream data.
2. The upstream defined in each scenario refers to the process from the terminal to the platform, while the downstream refers to the process from the platform to the terminal..
3. In the scenario, if there is a definition of upstream and downstream, which is initiated by the terminal (i.e., upstream and downstream first), then the terminal needs to implement a timeout automatic re-transmission mechanism to ensure that the data is received by the server.
4. If there are only upstream and no downstream in the scenario, then in principle, the terminal does not need to wait for the server response and returns directly. However, if there are corresponding special requirements, special requirements shall be followed.
5. For the case that the data status field of the downlink data packet of the server reply terminal is 1, the terminal can not close the connection immediately and must wait for the next downlink data of the server, but at the same time, it must set up a timeout waiting mechanism, which will automatically shut down if the downlink data of the server has not been received in a specific period of time. Closed connection。
6. For all downlink setting interfaces (including: 5.6.8.9.10.11.12.14.20.22.23), if the downlink setting data is empty, the set data of the terminal will not be covered.
7. 7.Encryption Rules for Server Short Message
   Triggering Terminal Requesting Short Message
   Conten： The fields to be encrypted are divided into
   three parts (key + imei + time)
   key : Key values specified by terminals and servers

Example: milink2016121604

imei: terminal IMEI Example: 354855021748748

Time: Year, Month, Day, Example: 20160816

The data to be encrypted is：

7baecbaac27b408e3548550217487482016081 6

The 64-bit ciphertext generated by SHA256 encryption is:
31107ecf9e29415a0fa3cec976fa71cb639c209b51652576164dde5d11f50a37

The judgment logic of the terminal after receiving the short message: Because the short message is not a pure key form (the content will be prefixed with the short message flag), it is necessary to search the full text of the short message to find whether it contains the agreed key fields of both parties before subsequent processing.

8 For all messages carrying location data, when the "geographic location type" is "base station location", the latitude and longitude values are filled by base station information in the following format：

cellid,lac,mnc,mcc,rssi | cellid,lac,mnc,mcc,rssi| cellid,lac,mnc,mcc,rssi| cellid,lac,mnc,mcc,rssi

Examples are as follows：

@B#@|01|003|111112222233333|8888888888888888|1.0.1|1|55|20160715150323|49835,209
45,000,460,69|49835,20945,000,460,69|49835,20945,000,460,69|49835,20945,000,460,69|2|
@E#@

When the number of reported base stations is less than 4, it is filled with 0,0,0,0,0,0.

9 For messages with location data, when the "geographic location type" is "WIFI location", the latitude and longitude values are filled by WiFi and base station information in the following format.：

@B#@|01|001|111112222233333|8888888888888888|1|55|20160715150323|1c:fa:68:1
3:a5:b4,-87&1c:fa:68:13:a5:b5,-61|49835,209
45,000,460,69&49835,20945,000,460,69&49835,20945,000,460,69|3|@E#@

Wifi and base station data are separated by | symbols, and multi-group WiFi data and multi-group base station data are separated by | symbols.

2.GPS Data Upload Scene：

2.1. [001]Uplink Current Location Packet

Uplink Current Location Packet		data type	Explain
Data at the beginning of this article		char[4]	@B#@ This is a fixed format to confirm the package.
Protocol Version Number		char[2]	01
Class code		char[3]	001
IMEI		char[15]	A total of 15-bit characters， “111112222233333”
IMSI		char[16]	A total of 16-bit characters， “1111122222333334”
state		char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level		char[3]	remain power level %（range:1-100）
time		char[14]	Terminal current time (year, month, day, hour, second)
Choose one of the three kinds of positioning data to report according to the situation			
GPS positioning data	Latitude value	char[n]	Negative number is South latitude, positive number is North latitude; the last two byte units are degrees, with values ranging from 0 to 90, with points in the middle and points in the middle; the remaining byte units are points.。
	Longitude value	char[n]	The negative number represents the West meridian, the positive number is the East meridian, and the last three byte units are degrees, with values ranging from 0 to 180. In the middle, the points are divided and the remaining byte units are divided.
Base Station Location Number	Base station data 1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	Base station data 2	char[n]	
	……	……	
WIFILocation data	Wifi data 1	char[n]	Each set of WiFi data contains the following information, separated by commas:
	Wifidata 2	char[n]	
	……	……	
	LBS data 1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	LBS Data 2	char[n]	
	……	……	
Geographical location type		Char[1]	Obtain Geographical location type 1:GPS Location 2:LBS Location 3:WIFI Location

Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|001|111112222233333|888888888888888|1|55|20160715150323|125.48276|37.615124|1|@E#@	

2.2. [002] Downlink Confirmation Location Packet

Downlink Current Location Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	002
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Data state	char[1]	Is it the last data flag to distinguish whether the connection is closed or succeeded? (0: Last item, 1: Follow-up data)
position	char[300]	Unicode Code (Unicode-UTF8)
Time	char[14]	Current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|002|111112222233333|0|\u5317\u4eac\u5e02\u6d77\u6dc0\u533a\u4e2d\u5173\u6751\u5927\u8857\u0032\u0037\u53f7\u0031\u0031\u0030\u0031\u002d\u0030\u0038\u5ba4|20160729173850|@E#@	

3.Boot scenario

3.1. [003]Uplink Boot Packet

Uplink Boot Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm the package.
Protocol Version Number	char[2]	01

Class code	char[3]	003
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
Terminal firmware version	char[n]	Firmware version number of course

state		char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level		char[3]	remain power level %（range:1-100）
time		char[14]	Terminal current time (year, month, day, hour, second)
Choose one of the three kinds of positioning data to report according to the situation.			
GPS positioning number	Latitude value	char[n]	Negative number is South latitude, positive number is North latitude; the last two byte units are degrees, with values ranging from 0 to 90, with points in the middle and points in the middle; the remaining byte units are points.。
	Longitude value	char[n]	The negative number represents the West meridian, the positive number is the East meridian, and the last three byte units are degrees, with values ranging from 0 to 180. In the middle, the points are divided and the remaining byte units are divided.
Base Station Location data	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
WIFILocation data	Wifi data 1	char[n]	Each set of WiFi data contains the following information, separated by commas:
	Wifi data 2	char[n]	
	……	……	
	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
Geographical location type		Char[1]	Obtain Geographical location type 1:GPS Location data 2:LBS Location data 3:WIFI Location data
Data at the end of this article		char[4]	@E#@ This is a fixed format to confirm the closing package
Example		@B#@|01|003|111112222233333|8888888888888888|1.0.1|1|55|20160715150323|125.48276|37.615124|1|@E#@	

3.2. [004]Downlink Boot Confirmation Packet

Downlink Boot Confirmation Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	004
IMEI	char[15]	A total of 15-bit characters， “111112222233333”

Data state	char[1]	Is it the last data flag to distinguish whether the connection is closed or succeeded?((0: Last item, 1: Follow-up data)
Time	char[14]	Current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|004|111112222233333|0|20160729174051|@E#@	

4.Shutdown scenario

4.1.[005]Uplink shutdown packet

Uplink shutdown packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm the package.
Protocol Version Number	char[2]	01
Class code	char[3]	005
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
power level	char[3]	remain power level %（range:1-100）
time	char[14]	Terminal current time (year, month, day, hour, second)
Choose one of the three kinds of positioning data to report according to the situation.		

GPS positioning number	Latitude value	char[n]	Negative number is South latitude, positive number is North latitude; the last two byte units are degrees, with values ranging from 0 to 90, with points in the middle and points in the middle; the remaining byte units are points.。
	Longitude value	char[n]	The negative number represents the West meridian, the positive number is the East meridian, and the last three byte units are degrees, with values ranging from 0 to 180. In the middle, the points are divided and the remaining byte units are divided.
Base Station Location Number	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
WIFILocation data	Wifi data 1	char[n]	Each set of WiFi data contains the following information, separated by commas:
	Wifi data 2	char[n]	
	……	……	
	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
Geographical location type		Char[1]	Obtain Geographical location type 1:GPS Location data 2:LBS Location data 3:WIFI Location data
Data at the end of this article		char[4]	@E#@ This is a fixed format to confirm the closing package
Example		@B#@|01|005|111112222233333|8888888888888888|55|20160715150323|125.48276|37.615124|1|@E#@	

5.Press Key Alarm Scene

5.1. [006] Uplink alarm data

Uplink Red key Number package	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version	char[2]	01

Number			
Class code		char[3]	006
IMEI		char[15]	A total of 15-bit characters， “111112222233333”
IMSI		char[16]	A total of 16-bit characters， “8888888888888888”
time		char[14]	Special alarm time point - year, month, day, hour and second
Choose one of the three kinds of positioning data to report according to the situation.			
GPS positioning number	Latitude value	char[n]	Negative number is South latitude, positive number is North latitude; the last two byte units are degrees, with values ranging from 0 to 90, with points in the middle and points in the middle; the remaining byte units are points.。
	Longitude value	char[n]	The negative number represents the West meridian, the positive number is the East meridian, and the last three byte units are degrees, with values ranging from 0 to 180. In the middle, the points are divided and the remaining byte units are divided.
Base Station Location Number	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
WIFILocation data	Wifidata 1	char[n]	Each set of WiFi data contains the following information, separated by commas:
	Wifidata 2	char[n]	
	……	……	
	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas： Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
Geographical location type		Char[1]	Obtain Geographical location type 1:GPS Location data 2:LBS Location data 3:WIFI Location data
Alarm Type		char[1]	1 red key alarm 2 yellow key alarm 3 green key alarm 4 SOS alarm
Data at the end of this article		char[4]	@E#@ This is a fixed format to confirm the closing package
Example		@B#@|01|006|111112222233333|8888888888888888|20160715153805|116.322987|39.983424|1|1|@E#@	

5.2. [007]Downlink key alarm confirmation data

Downlink Red key data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	007
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Data state	char[1]	Is it the last data flag to distinguish whether a connection is closed or not? Or continue to receive((0: Last item, 1: Follow-up data)
position	char[300]	Unicode code(Unicode-UTF8)
full name	char[n]	Terminal wearer full name(Unicode-UTF8)
time	char[14]	Current time (year, month, day, hour, second)

Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|007|111112222233333|0|\u5317\u4eac\u5e02\u6d77\u6dc0\u533a\u4e2d\u5173\u6751\u5927\u8857\u0032\u0037\u53f7\u0031\u0031\u0030\u0031\u002d\u0030\u0038\u5ba4|张三|20160805172500|@E#@	

6.Kinship Number Setting and Modification Scenarios

6.1. [008]Downlink Kinship Number Settings data

Downlink Kinship Number Settings data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking

Protocol Version Number	char[2]	01
Class code	char[3]	008
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
number	char[n]	Number length is not limited, there are three, separated by & the first is the red key number. The second is the yellow key number and the third is the green key number. If there is an empty space between & it means that the original number will not be changed。
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|008|111112222233333|13425155855&12345678901&13412345678|20160715155852|0255BB90395C475E9D6155AF98B38387|@E#@	

6.2. [009]Uplink Kinship Number Setting Confirmation data

Uplink Kinship Number Setting Confirmation data	data type	Explain

Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	009
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package

Example	@B#@|01|009|111112222233333|888888888888888|2016071515380 5|0255BB90395C475E9D6155AF98B38387|@E#@

7.Upload Blood Pressure data Scene

7.1. [010]Upload blood pressure data

Upload blood pressure data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	010
IMEI	char[15]	A total of 15-bit characters，“111112222233333”
IMSI	char[16]	A total of 16-bit characters，“8888888888888888”
state	char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level	char[3]	remain power level %（range:1-100）
Diastolic blood pressure	char[n]	Diastolic blood pressure data。
Systolic blood pressure	char[n]	Systolic blood pressure data
time	char[14]	Terminal current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|010|111112222233333|888888888888888|1|75|86|120|201 60715162252|@E#@	

7.2. [011]Download blood pressure data

Download blood pressure data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01

Class code	char[3]	011
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Data state	char[1]	Is it the last data flag to distinguish whether the connection is closed or succeeded?((0: Last item, 1: Follow-up data)
time	char[14]	Current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|011|111112222233333|0|20160729190919|@E#@	

8.Upload Heart Rate data Scene

8.1. [012]Upload Heart Rate/Step/Sleep Packet

Upload Heart Rate Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	012
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
state	char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level	char[3]	remain power level %（range:1-100）
Heart rate value	char[n]	Heart rate value。
Step number	char[5]	Current Step number
Sleep data	char[n]	Sleep Beginning Time-Sleep Ending Time-Deep Sleep Time-Shallow Sleep Time Between. This d-data is sent once a day, after waking up, and when there is no data, it is empty.
time	char[14]	Terminal current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package

Example	@B#@|01|012|111112222233333|8888888888888888|1|32|89|980|201612162330&201612170730&0210&0550|20160715162252|@E#@

8.2. [013]download heart rate/Step number/sleep data

Down load heart rate data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	013
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Data state	char[1]	Is it the last data flag to distinguish whether the connection is closed or succeeded?((0: Last item, 1: Follow-up data)
time	char[14]	Current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|013|111112222233333|0|20160729190919|@E#@	

9.Heart rate and GPS Interval changes and settings

9.1. [014]download heart rate|GPS data period setting data

Download heart rate /|GPS period data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	014
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
period type	char[1]	1: Heart Rate period 2: GPS period **3.Body Temperature Period**

period	char[3]	Unit: 0-300 minutes
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|014|111112222233333|1|10|20160715162720|0255BB90395C475E9D6155AF98B38387|@E#@	

9.2. [015]upload heart rate|GPS data period setting data

Upload heart rate |GPS data period setting data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	015
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
confirm type	char[1]	1: Heart Rate period 2: GPS period
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|015|111112222233333|8888888888888888|1|20160715153805|0255BB90395C475E9D6155AF98B38387|@E#@	

10 Time Period Settings（ GPS Silence · Low power reminder,Measuring Heart Rate and Blood Pressure)

10.1.[016]Downlink GPS Silence |LOW power level reminder|Measuring Heart Rate and Blood Pressure data

Downlink GPS Silence| Voice Announcements|low power level reminder|Setting Data Packet for Measuring Heart Rate and Blood Pressure Time Period	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	016
IMEI	char[15]	A total of 15-bit characters，“111112222233333”
Set type	Char[1]	1: GPS Silence 2: put aside for later use; 3: low power level reminder 4:Measuring Heart Rate and Blood Pressure Time Period （4Customized for customers, terminals can be reserved）
Initial period	char[4]	In time division, the inadequate position is filled with 0 (range: 0000-2359), if there are multiple time segments separated by &
End time interval	char[4]	In time division, the inadequate position is filled with 0 (range: 0000-2359), if there are multiple time segments separated by &
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|016|111112222233333|3|2100&1200|0600&1400|20160715162720|0255BB90395C475E9D6155AF98B38387|@E#@	

10.2. [017]upload GPS Silence|Low power level reminder|Setting Confirmation Packet for Measuring Heart Rate and Blood Pressure Time Period

upload GPS silience/Unbalanced voice broadcasting|Low power level reminder time period setting	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	017
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
confirm type	char[1]	1: GPS Silence 2: p u t aside for later use 3: Low power level reminder 4:Measuring Heart Rate and Blood Pressure Time Period
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|017|111112222233333|8888888888888888|3|20160715153 80|0255BB90395C475E9D6155AF98B383875|@E#@	

11.Logical Switch Configuration Function Scenario

11.1. [018]Downlink Logic Switch Configuration Switch Packet

download GPS| White List Switch data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version	char[2]	01

Number		
Class code	char[3]	018
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
switch type	char[2]	1:GPS Switch 2: White List Switch 3: Yellow Key Short Message Switch 4: Red Key Short Message Switch
Switch mark	char[1]	0:Close 1:Open
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|018|111112222233333|1|0|20160715165125|0255BB90395C475E9D6155AF98B383875|@E#@	

11.2. [019]Uplink Logic Switch Configuration Confirmation Data Packet

uplink GPS|White List Switch Confirmation Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	019
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
confirm type	char[1]	1:GPS Switch 2:White List Switch
time	char[14]	Current time (year, month, day, hour, second)

Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|019|111112222233333|8888888888888888|1|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

12. White List Settings and Changes

12.1. [020]Downlink Setup White List Packet

Downlink Setup White List Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	020
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
White list data	char[n]	Connect'&'between each phone number
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|020|111112222233333|13255644458&15233652145|20160715165125|0255BB90395C475E9D6155AF98B383875|@E#@	

12.2. [021]Uplink White List Data Confirmation Pack

Uplink White List Data Confirmation Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	021

IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|021|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

13. Volume Adjustment Scene

13.1. [026]Downlink Volume Adjustment Packet

Downlink Volume Adjustment Packet	data type	Explain

Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	026
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Volume size	char[2]	0-7， The maximum is 7.
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|026|111112222233333|9|20160715162720|0255BB90395C475E9D6155AF98B38387|@E#@	

13.2. [027]Uplink Volume Adjustment Confirmation Packet

Uplink Volume Adjustment Confirmation Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	027
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package

Example	@B#@|01|027|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B38387|@E#@

14. Low-power alarm scenario

14.1. [028]Uplink low power level alarm data package

Uplink low power level alarm data package	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	028
IMEI	char[15]	A total of 15-bit characters，“111112222233333”
IMSI	char[16]	A total of 16-bit characters，“8888888888888888”
power level %	char[3]	Percentage, maximum 100(range:1-100)
state	char[1]	Terminal wearing status (0: not wearing 1: already wearing)
time	char[14]	Terminal current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|028|111112222233333|8888888888888888|15|1|20160715162720|@E#@	

15. Heart Rate/Behavior Abnormality Automatic Alarm Scene

15.1. [029]Upload Heart Rate Abnormality Warning Packet

Upload Heart Rate Abnormality Warning data	data type	Explain
Data at the beginning of this	char[4]	@B#@ This is a fixed format to confirm unpacking

article			
Protocol Version Number		char[2]	01
Class code		char[3]	029
IMEI		char[15]	A total of 15-bit characters，“111112222233333”
IMSI		char[16]	A total of 16-bit characters，“8888888888888888”
state		char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level		char[3]	remain power level %（range:1-100）
Alarm type		char[1]	1 Heart Rate Alarm 2 No Action Alarm 3 Fall Alarm (Fall Alarm Customized for Customers, Predictable)
Heart rate value		char[n]	The average of all Heart rate values measured within 60 seconds.
Choose one of the three kinds of positioning data to report according to the situation.			
GPS positioning number	Latitude value	char[n]	Negative number is South latitude, positive number is North latitude; the last two byte units are degrees, with values ranging from 0 to 90, with points in the middle and points in the middle; the remaining byte units are points.。
	Longitude value	char[n]	The negative number represents the West meridian, the positive number is the East meridian, and the last three byte units are degrees, with values ranging from 0 to 180. In the middle, the points are divided and the remaining byte units are divided.
Base Station Location Number	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas：Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
WIFI Location data	Wifi data 1	char[n]	Each set of WiFi data contains the following information, separated by commas:
	Wifi data 2	char[n]	
	……	……	
	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas：Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	

Geographical location type	Char[1]	Obtain Geographical location type 1:GPS Location data 2:LBS Location data 3:WIFI Location data
time	char[14]	Terminal current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|029|111112222233333|8888888888888888|1|32|1|103|113.960415|22.574777|1|20160716103002|@E#@	

15.2. [030]Download Heart Rate/Behavior Abnormality Warning Confirmation Data Pack

Downward Heart Rate Abnormality Warning Confirmation Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	030
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Data state	char[1]	Is it the last data flag to distinguish whether the connection is closed or succeeded?((0: Last item, 1: Follow-up data)
position	char[300]	Unicode code(Unicode-UTF8)
full name	char[n]	Terminal wearer full name(Unicode-UTF8)
time	char[14]	Current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|030|111112222233333|0|\u6df1\u5733\u5e02\u9f99\u5c97\u533a\u534e\u4e3a\u767e\u8349\u56ed|张三|20160729192103|@E#@	

16. Terminal Wearing State Change Scenario

16.1. [033]Uplink Terminal Data Packet

Uplink Terminal Data Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	033
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”

state	char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level	char[3]	remain power level %（range:1-100）
time	char[14]	Terminal current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|033|111112222233333|8888888888888888|1|52|20160715162720|@E#@	

16.2. [034]Downlink Terminal Confirmation Packet

Downlink Terminal Confirmation Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	034
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Data state	char[1]	Is it the last data flag to distinguish whether the connection is closed or succeeded?((0: Last item, 1: Follow-up data)
time	char[14]	Terminal current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package

Example	@B#@|01|034|111112222233333|0|20160729192431|@E#@

17.Upload blood oxygen data scenario (all models)

17.1. [031] Uplink blood oxygen data packet

Uplink blood oxygen data packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm the start of the packet
version number	char[2]	01
Category code	char[3]	031
IMEI	char[15]	15 characters in total，“111112222233333”
IMSI	char[16]	16 characters in total，“8888888888888888”
state	char[1]	Terminal wearing status (0: not worn 1: worn)
power	char[3]	Percentage of remaining power（range:1-100）
Blood oxygen value	char[n]	Blood oxygen value
time	char[14]	Current time of terminal(Month, year, day, hour, minute and second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the end packet
Examples	@B#@|01|031|111112222233333|8888888888888888|1|75|98|20160715162252|@E#@	

17.2. [032]Downlink blood oxygen confirmation packet

Downlink blood oxygen confirmation packet	data type	Explain

Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm the start of the packet
version number	char[2]	01
Category code	char[3]	032
IMEI	char[15]	15 characters in total， “111112222233333”
Data status	char[1]	Whether it is the last data flag, which is used to distinguish whether the connection is closed or not ,Continue to receive (0: the last one, 1: there is data in the future)
time	char[14]	Current time of terminal(Month, year, day, hour, minute and second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the start of the packet
Examples	@B#@|01|032|111112222233333|0|20160729190919|@E#@	

18.Short message trigger request scenario

18.1[039]Uplink Short Message Triggers Request Data Packet

Uplink Short Message Triggers Request Data Packet	data type	Explain

Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	039
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
state	char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level	char[3]	remain power level %（range:1-100）
Data at the end of	char[4]	@E#@ This is a fixed format to confirm the closing

this article		package
Example	@B#@|01|039|111112222233333|8888888888888888|2016071515380 5|1|54|@E#@	

a. This request should keep the 60S network link waiting for the server to send down the response data 。

b. The downlink response data interface of the server is any downlink interface in this paper. The terminal should process according to the corresponding interface requirements.。

c. Since the short message service is not a pure key form (the content will be prefixed with the short message flag), it is necessary to search the full text of the short message for whether it contains the agreed key field between the two parties for subsequent processing after receiving the short message。

19. Obtain Service Center Configuration Scenario

19.1 [042]Downlink Service Center Configuration Data Group Package

Downlink Boot Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	042
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Heart rate data period	char[3]	Unit: 0-300 minutes
GPS data period	char[3]	Unit: 0-300 minutes
GPS Silence time period	char[8]	In time division, the inadequate position is filled with 0 (range: 0000-2359), if there are multiple time segments separated by(range:0000-2359)---Thefirstfourbitsarethebeginning Time,thelast fourbitsendtime
Shortage of balance reminder period	char[8]	In time division, the inadequate position is filled with 0 (range: 0000-2359), if there are multiple time segments separated by(range:0000-2359)---Thefirstfourbitsarethebeginning Time,thelast fourbitsendtime

Low power reminder time period	char[8]	In time division, the inadequate position is filled with 0 (range: 0000-2359), if there are multiple time segments separated by(range:0000-2359)---The first four bits are the beginning Time, the last four bits end time
GPS switch	char[1]	Switch sign (0:close 1:open)
White List Switch	char[1]	Switch sign (0:close 1:open)
etting up a White List	char[n]	White List Data - Connect'&'between each phone number
Short Message Balance Inquirer type	char[n]	Short Message Receive Number & Edit Short Message (Send Short Message to this Object Number & Send Short Message) Data delivered
volume adjusting	char[2]	Volume size (0-11, max. 11)
Heart rate threshold	char[n]	Threshold range, separated by'&'in the middle (example: 50-150)
Red Key Kinship Number	char[n]	
Yellow Key Kinship Number	char[n]	
Green Key Kinship Number	char[n]	
Upgrade logo	char[1]	Need to upgrade logo (0: no, 1: need)
time	char[14]	Current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|042|111112222233333|5|10|00002359|00002300|01001800|1|1|132 45225552&15223636632|10086&\u0031\u0030\u0032|7|45&150|1362215222 2|15962225212|17052225452|0|20160729174051|@E#@	

19.2[043]Uplink Service Center Configuration Data Confirmation Package

Uplink Service Center Modify Emergency Number Data	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking

Protocol Version Number	char[2]	01
Class code	char[3]	043
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
time	char[14]	Current time (year, month, day, hour, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|043|111112222233333|20160715153805|@E#@	

20.Voice file download configuration scenario

20.1[044]Downlink Voice File Configuration Pack

Downlink Boot Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	044
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Speech usage types	char[1]	0: Drug Reminder 1: Drinking water reminder 2: Exercise Reminder 3: Customize 1
file format	char[1]	0：mp3
Total file size	char[n]	10 Binary representation File size is 2040 bytes, then fill in "2040"
Total number of file subcontracts	char[2]	If voice files are distributed in two packages, fill in 02 here.
File Sub package Index	char[2]	If voice files are distributed in two packages, the first packages are filled with 01, the second packages are filled with 02.
		When the "total number of sub packages" is equal to the "index of sub packages", the file transfer ends.

File sub package size	char[n]	10 Binary representation If voice files are distributed in two packages, then： The first package can be filled with "1024" The second package can be filled with "1016" The total "sub package size" of two packages should be equal to "Total file size"
Voice data	byte[n]	[Binary Data Stream]
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	If split into two packages: package 1： @B#@|01|044|111112222233333|0|0|2040|2|1|1024|[Data]| 20160715153805|0255BB90395C475E9D6155AF98B38387|@E#@ package 2： @B#@|01|044|111112222233333|0|0|2040|2|2|1016|[Data]| 20160715153805|0255BB90395C475E9D6155AF98B38387|@E#@ The task IDs of the two subcontracts should be the same.	

20.2[045]Uplink Voice File Configuration Confirmation Pack

Uplink Voice File Configuration Confirmation Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	045
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”

Total number of file subcontracts	char[2]	
File Sub package Index	char[2]	Index of received packets
Receiving Completion Mark	char[1]	0: Unreceived Completion 1: Receive completed
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|045|111112222233333|8888888888888888|1|20160715153805|025 5BB90395C475E9D6155AF98B383875|@E#@	

21.Alarm Clock Setting Scene

21.1[046]Downlink alarm clock configuration package

Downlink alarm clock configuration package	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	046
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
alarm data	char[n]	**Alarm Clock Type [0: Drug Reminder 1: Drinking Reminder 2: Motion Reminder 3: Custom Reminder 1] & Alarm Clock Switch [0 is off, 1 is on] & Alarm Clock Time & Repetition Rule [1111100, meaning working from Monday to Friday, not working on Saturdays/Sundays] Multiple sets of alarm clocks are separated by%**
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package

Example	@B#@|01|046|111112222233333|0&1&0830&1111111%1&1&1630&1111100|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@

21.2[047]Uplink alarm clock configuration confirmation package

Uplink alarm clock configuration confirmation package	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	047
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|047|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

22.Location request

22.1[048]Downlink Location Request Pack

Downlink Location Request Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version	char[2]	01

Number		
Class code	char[3]	048
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|048|111112222233333|0255BB90395C475E9D6155AF98B38387|@E#@	

22.2[001]Uplink Location Request Confirmation Pack

Uplink Current Location Packet		data type	Explain
Data at the beginning of this article		char[4]	@B#@ This is a fixed format to confirm the package.
Protocol Version Number		char[2]	01
Class code		char[3]	001
IMEI		char[15]	A total of 15-bit characters， “111112222233333”
IMSI		char[16]	A total of 16-bit characters， “1111122222333334”
state		char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level		char[3]	remain power level %（range:1-100）
time		char[14]	Terminal current time (year, month, day, hour, second)
Choose one of the three kinds of positioning data to report according to the situation.			
GPS positioning data	Latitude value	char[n]	Negative number is South latitude, positive number is North latitude; the last two byte units are degrees, with values ranging from 0 to 90, with points in the middle and points in the middle; the remaining byte units are points.。
	Longitude value	char[n]	The negative number represents the West meridian, the positive number is the East meridian, and the last three byte units are degrees, with values ranging from 0 to 180. In the middle, the points are divided and the remaining byte units are divided.
Base Station Location	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas：Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	

data	……	……	
WIFI Location data	Wifi data 1	char[n]	Each set of WiFi data contains the following information, separated by commas:
	Wifi data 2	char[n]	
	……	……	
	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas：Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
Geographical location type		Char[1]	Obtain Geographical location type 1:GPS Location data 2:LBS Location data 3:WIFI Location data
Data at the end of this article		char[4]	@E#@ This is a fixed format to confirm the closing package
Example		@B#@|01|001|111112222233333|888888888888888|1|55|20160715150323|125.48276|37.615124|1|@E#@	

23.Time zone settings

23.1[049]Downlink time zone setup package

Downlink time zone setup package	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	049
IMEI	char[15]	A total of 15-bit characters，“111112222233333”
Time zone code	char[3]	+08，Beijing time
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|049|111112222233333|+08|0255BB90395C475E9D6155AF98B38387|@E#@	

23.2[050]Uplink Time Zone Setting Confirmation Packet

Uplink Time Zone Setup Configuration Confirmation Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	050
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|047|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

24.Remote shutdown (customized, predictable)

24.1[051]Downlink remote shutdown package

Downlink remote shutdown package	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	051
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Data state	char[1]	Is it the last data flag to distinguish whether the connection is closed or succeeded?((0: Last item, 1: Follow-up data)
time	char[14]	Terminal current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package

Example	@B#@|01|051|111112222233333|0|20160729192431|0255BB90395C475E9D6155AF98B38387|@E#@

24.2[052]uplink Remote Shutdown Confirmation Pack

Uplink Volume Adjustment Confirmation Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	052
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|052|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B38387|@E#@	

25.Setting the upper and lower limits of heart rate alarm

25.1[053] Downward heart rate alarm upper and lower limit setting package

Downlink Time Zone Setup Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01

Class code	char[3]	053
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Upper and lower alarm limits	char[n]	Lower-upper limit, separated by-between two values, such as 45-150
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|053|111112222233333|45-150|0255BB90395C475E9D6155AF98B383875|@E#@	

25.2[054]Uplink Heart Rate Alarm Upper and Lower Limit Confirmation Pack

Uplink Time Zone Setup Configuration Confirmation Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	054
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|054|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

26.Unbinding settings (customized, predictable)

26.1[055]Downlink Unbinding Settings Package

Downlink Time Zone Setup Packet	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	055
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|055|111112222233333|0255BB90395C475E9D6155AF98B38387|@E#@	

26.2[056]Uplink Unbinding Settings Confirmation Pack

Uplink alarm clock configuration confirmation package	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	056
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|056|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

27.Instant health testing data

27.1[057]Downlink health data package

Downward Heart Rate and Blood Pressure Data Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	057
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|057|111112222233333|0255BB90395C475E9D6155AF98B38387|@E#@	

27.2[058]Uplink Health Data Confirmation Pack

Upward Heart Rate and Blood Pressure Confirmation Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	058
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Task ID	Char[32]	The unique ID of the task server (without processing, return as it is when confirmation is made)）
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package

Example	@B#@|01|058|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@

28.Weather data

28.1[059]Weather Request Data Package

Uplink Current Position Packet		data type	Explain
Data at the beginning of this article		char[4]	@B#@ This is a fixed format to confirm the package.
Protocol Version Number		char[2]	01
Class code		char[3]	059
IMEI		char[15]	A total of 15-bit characters， “111112222233333”
IMSI		char[16]	A total of 16-bit characters， “1111122222333334”
state		char[1]	Terminal wearing status (0: not wearing 1: already wearing)
power level		char[3]	remain power level %（range:1-100）
time		char[14]	Terminal current time (year, month, day, hour, second)
Choose one of the three kinds of positioning data to report according to the situation.			
GPS positioning data	Latitude value	char[n]	Negative number is South latitude, positive number is North latitude; the last two byte units are degrees, with values ranging from 0 to 90, with points in the middle and points in the middle; the remaining byte units are points.。
	Longitude value	char[n]	The negative number represents the West meridian, the positive number is the East meridian, and the last three byte units are degrees, with values ranging from 0 to 180. In the middle, the points are divided and the remaining byte units are divided.
Base Station Location data	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas：Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	
	……	……	
WIFI Location data	Wifi data 1	char[n]	Each set of WiFi data contains the following information, separated by commas:
	Wifi data 2	char[n]	
	……	……	
	LBS DATA1	char[n]	Each group of base station data contains the following information, separated by commas：Cell_id,lac,mnc,mcc,rssi
	LBS DATA2	char[n]	

……	……	
Geographical location type	Char[1]	Obtain Geographical location type 1:GPS Location data 2:LBS Location data 3:WIFI Location data
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|059|111112222233333|8888888888888888|1|55|20160715150323|125.48276|37.615124|1|@E#@	

28.2[060]Downlink Weather Data Pack

Upward Heart Rate and Blood Pressure Confirmation Pack	data type	Explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm unpacking
Protocol Version Number	char[2]	01
Class code	char[3]	060
IMEI	char[15]	A total of 15-bit characters， “111112222233333”
IMSI	char[16]	A total of 16-bit characters， “8888888888888888”
time	char[14]	Current time (year, month, day, hour, second)
Current temperature	char[n]	The unit is Celsius.
Minimum temperature	char[n]	The unit is Celsius.
Maximum temperature	char[n]	The unit is Celsius.
Weather type	char[1]	Weather type: 0-sunny 1-cloudy 2-rain 3-snow
Weather description	char[n]	Weather descriptions are coded using utf8 (items without screens can be downloaded by 00)
City name	char[n]	City names are coded using utf8 (projects without screens can be downloaded by 00)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the closing package
Example	@B#@|01|060|111112222233333|8888888888888888|20160715153805|15|10|19|1|b6e0d4c6|316df15733|@E#@	

29.Upload temperature data scenario

29.1[061]Uplink temperature data package

Uplink temperature data packet	data type	Explain
Beginning of data article	char[4]	@B#@This is a fixed format to confirm the start and start of the package
Agreement version No	char[2]	01
Category code	char[3]	061
IMEI	char[15]	15 characters in total，“111112222233333”
IMSI	char[16]	16 characters in totall，“8888888888888888”
state	char[1]	Terminal wearstate（0:Not worn 1:Worn）
Battery	char[3]	% battery remaining（range:1-100）
body temperature	char[n]	body temperature value。
time	char[14]	Terminal current time(year/month/day/hour/minute/second)
End of data article	char[4]	@E#@ This is a fixed format to confirm the end packet
Example	@B#@|01|061|111112222233333|8888888888888888|1|75|36.5|20160715162252|@E#@	

29.2[062] Downward body temperature confirmation data package

Downward body temperature confirmation data package	data type	Explain
Beginning of data article	char[4]	@B#@ This is a fixed format to confirm the start and start of the package
Agreement version No	char[2]	01
Category code	char[3]	062
IMEI	char[15]	15 characters in total，“111112222233333”

Data state	char[1]	Whether it is the last data flag to distinguish whether to close the connection or continue (0:Last one ,1:And then there's data)
time	char[14]	Current time(year/month/day/hour/minute/second)
End of data article	char[4]	@E#@ This is a fixed format to confirm the end packet
Example	@B#@|01|062|111112222233333|0|20160729190919|@E#@	

30.Real time temperature data

30.1[063] Downward real-time temperature detection data package

Downward real-time temperature detection data package	data type	Explain
Beginning of data article	char[4]	@B#@ This is a fixed format to confirm the start and start of the package
Agreement version No	char[2]	01
Category code	char[3]	063
IMEI	char[15]	15 characters in total，“111112222233333”
task id	Char[32]	This task server is unique ID（Do not process, return as is when confirming）
End of data article	char[4]	@E#@ This is a fixed format to confirm the end packet
Example	@B#@|01|063|111112222233333|0255BB90395C475E9D6155AF98B38387|@E#@	

30.2[064]Uplink real-time temperature detection data confirmation package

Uplink real-time temperature detection data confirmation package	data type	Explain
Beginning of data article	char[4]	@B#@This is a fixed format to confirm the start and start of the package
Agreement version No	char[2]	01

Category code	char[3]	064
IMEI	char[15]	15 characters in total，“111112222233333”
IMSI	char[16]	16 characters in totall，“8888888888888888”
time	char[14]	Current time(year/month/day/hour/minute/second)
Task id	Char[32]	This task server is unique ID（Do not process, return as is when confirming）
End of data article	char[4]	@E#@ This is a fixed format to confirm the end packet
Example	@B#@|01|064|111112222233333|8888888888888888|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

31.Issue update server address instruction

31.1[065]Downlink update server address packet

Downlink update server address packet	data type	Explain
Beginning of data article	char[4]	@B#@ This is a fixed format to confirm the start and start of the package
Agreement version No	char[2]	01
Category code	char[3]	065
IMEI	char[15]	15 characters in total，“111112222233333”
New server address	Char[n]	Use the IP: port method, separated by English colons, or set the domain name: port
Task id	Char[32]	This task server is unique ID（Do not process, return as is when confirming）
End of data article	char[4]	@E#@ This is a fixed format to confirm the end packet
Example	@B#@|01|065|111112222233333|202.36.254.89:3625|0255BB90395C475E9D6155AF98B38387|@E#@	

31.2[066] Uplink update f confirmation package

Uplink update server confirmation package	data type	Explain
Beginning of data article	char[4]	@B#@This is a fixed format to confirm the start and start of the package

Agreement version No	char[2]	01
Category code	char[3]	066
IMEI	char[15]	15 characters in total，“111112222233333”
IMSI	char[16]	16 characters in totall，“8888888888888888”
Address update results	char[1]	Result: 1 update succeeded, 0 update failed
time	char[14]	Current time(year/month/day/hour/minute/second)
Task id	Char[32]	This task server is unique ID（Do not process, return as is when confirming）
End of data article	char[4]	@E#@ This is a fixed format to confirm the end packet
Example	@B#@|01|066|111112222233333|8888888888888888|1|20160715153805|0255BB90395C475E9D6155AF98B383875|@E#@	

32.Bluetooth beacon search packet

32.1[067]Uplink beacon search result packet

Uplink beacon search results packet		data type	explain
Data at the beginning of this article		char[4]	@B#@ This is a fixed format to confirm the start of the packet
Agreement version number		char[2]	01
Category code		char[3]	067
IMEI		char[15]	15 characters in total，“111112222233333”
IMSI		char[16]	16 characters in total，“1111122222333334”
state		char[1]	Terminal wearing state (0: not wearing, 1: wearing)
power capacity		char[3]	Remaining power capacity percentage（ range:1-100）
time		char[14]	Current time (month, month, day, hour, minute, second)
Beacon search data	Beacon data 1	char[n]	Each set of beacon data contains the following information, separated by commas:
	Wifi data 2	char[n]	
	……	……	

Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the end packet
Examples	@B#@|01|067|111112222233333|888888888888888|0|078|20200731024809|125,63,-87&369,2,-77&30,77,-69|@E#@	

32.2[068]Downlink beacon confirmation packet

Downlink current position packet	data type	explain
Data at the beginning of this article	char[4]	@B#@ This is a fixed format to confirm the start of the packet
Agreement version number	char[2]	01
Category code	char[3]	068
IMEI	char[15]	15 characters in total，“111112222233333”
Data state	char[1]	Is the last data flag used to distinguish whether the connection is closed or not(0:最后一条,1:后续还有数据)
time	char[14]	Current time (month, month, day, hour, minute, second)
Data at the end of this article	char[4]	@E#@ This is a fixed format to confirm the end packet
Examples	@B#@|01|068|111112222233333|0|20160729173850|@E#@	