iStartek PT81 Tracker Protocol

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All the data in accordance with the protocol

[Device Manufacturer*ID*Content-Length*Content]

Format,which is fixed to two bytes vendor identification,content] of fixed length of four bytes ASCII code,in the upper front position,e.g. FFFF represents a length of 65,535.

[--- Packet header

] --- Packet tail

Device Manufacturer: Default is 3G

Content -- Command(Some protocols have parameters)

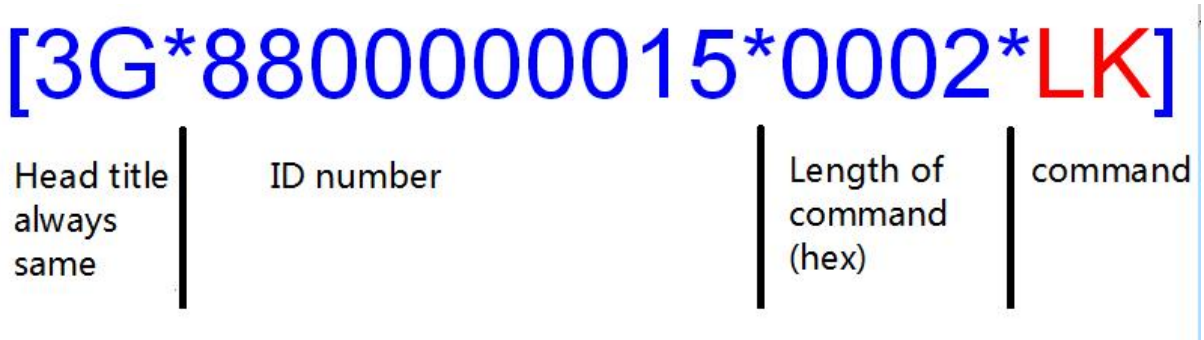
ID:

IMEI --- left 4 + ID + tail 1 digits,

For example: IMEI=866930045401610

ID=3004540161

Protocol format



The protocol is TCP/TP.

Should not be any space character between letters in command

NOTE: After the device is powered on after inserting the SIM card, the device will actively upload data. Please wait around 10-15 mins for upload transfering. Some protocols need to be answered. If you are not sure whether you need to answer, please contact customer service.

I. terminal sends

1.1 Link maintenance

(1)
Sending terminal:
[3G*YYYYYYYYYY*LEN*LK]
Example:[3G*8800000015*0002*LK]
Platform reply:
[3G*YYYYYYYYYY*LEN*LK]
Example:[3G*8800000015*0002*LK]
Description:data link remains hair once every 5 minutes,if the terminal does not receive a reply from the server,a reconnection occurs one minute,5 times reconnection is not on the server has been connected,the terminal will restart.
(2)
Sending terminal:
[3G*YYYYYYYYYY*LEN*LK,step number,roll number,the percentage of electricity]
Example:[3G*8800000015*000D*LK,50,100,100]
Platform reply:
[3G*YYYYYYYYYY*LEN*LK]
Example:[3G*8800000015*0002*LK]
Description:The heartbeat packet is sent every 10 minutes. If the terminal does not receive a reply from the server, it will be sent every half a minute. If it fails to connect to the server three times, the terminal will disconnect and re-establish the connection.

2. Location data reporting

2.1 2g network

Sending terminal:
[3G*YYYYYYYYYY*LEN*UD,position data (see Appendix I)]
Example:
[3G*8800000015*00F6*UD,180916,025723,A,22.570733,N,113.8626083,E,0.00,249.5,0.0,6,100,60,0,0,00000010,7,255,460,1,9529,21809,158,9529,63555,133,9529,63554 ,129,9529,21405,126,9529,21242,124,9529,21151,120,9529,63556,119,0,40.7]
Description:
Data Content:
UD3,command No.
180 916,Date
025 723 Time
A,gps positioning effective

22.570733 latitude
N,Latitude represented
113.8626083,longitude
E,Longitude represented
0.00,speed
249.5,direction
0.0,elevation
6,the number of satellites
100,gsm signal strength
60,power
0,count the number of steps
0,number of turns
00000010 terminal state,hexadecimal data,to parse a binary 0000 0000 0000 0000
0,000,000,000,010,000
4 shows a state preceding bytes,4 bytes behind the alarm,data bit 1 to 4,and finally against the document data analysis,the watch indicates a stationary state. Details can be found in the final section of the document.
7,the number of the base station
255,460,1,9529,21809,158,9529,63555,133,9529,63554,129,9529,21405,126,9529,21242,124,9529,21151,120,9529,63556,119,base station information
0,the number of WiFi
40.7,positioning accuracy,in meters
Platform does not require Reply
Description:Reporting interval is set according to the terminal location and status information,the platform need not reply.

2.2 3g/4g or a non-CDMA network:

Sending terminal:
[3G*YYYYYYYYYY*LEN*UD_ type,position data (see Appendix I)]
UD_ type:UD_WCDMA,UD_TDSCDMA,UD_LTE,
WCDMA and TDSCDMA is 3G,such as China Unicom
UD_LTE is 4G,such as China Mobile
Example:
[3G*8800000015*0130*UD_LTE,300519,100618,V,22.566833,N,113.867482,E,22.0,1.585,-36.285,19,100,80,0,0,00000000,1,1,460,00,9360,225048919,100,5,LEKEMI,dc:fe:18:57:a5:ef,-47,ChinaNet-ifqN,dc:c6:4b:14:28:84,-48,ChinaNet-VMxi,d0:0f:6d:7f:bf:6b,-54 ,ChinaNet-sghp,8c:14:b4:3d:fd:10,-65,ChinaNet-F2EW,40:f4:20:e3:9d:5a,-66,7.3593774]

2.3 CDMA network:

[3G*YYYYYYYYYY*LEN*UD_ type,position data (see appendix II)]
UD_CDMA is CDMA standard,such as:China Telecom
CDMA base station information includes:SID,NID,BID

Cdma code determination by the base station latitude and longitude of the base station must know Sid,Nid,Bid data of the three base stations,it is indispensable.
SID is the system identifier,each prefecture-level city has only one sid,is unique.
It is a network identifier NID,by the local network management,which is assigned to the branch level. Each prefecture-level cities may have 1-3 nid.
BID is represented by one cell in the network can be understood as a base station.

3. The alarm data reported

3.1 2g network

Sending terminal:
[3G*YYYYYYYYYY*LEN*AL,position data (see Appendix I)]
Example:
[3G*8800000015*00CD*AL,180916,064153,A,22.570512,N,113.8623267,E,0.00,154.8,0.0,11,100,100,0,0,00100018,7,0,460,1,9529,21809,155,9529,21242,132,9529,21405 ,131,9529,63554,131,9529,63555,130,9529,63556,118,9529,21869,116,0,12.4]
Platform reply:
[3G*YYYYYYYYYY*LEN*AL]
Example:[3G*8800000015*0002*AL]
Description:alarm information transmitting terminal generates an alarm to the platform,if the terminal does not receive a reply,the timing of alarm reports until acknowledgment is received.

3.2 3g non-CDMA network or 4g

Sending terminal:
[3G*YYYYYYYYYY*LEN*AL_ type,position data (see Appendix I)]
AL_ type:AL_WCDMA,AL_TDSCDMA,AL_LTE,
WCDMA and TDSCDMA is 3G,such as China Unicom
AL_LTE is 4G,such as China Mobile
Example:
[3G*8800000015*0130*AL_LTE,300519,095537,V,22.567022,N,113.866446,E,22.0,318.579,81.264,0,100,80,0,0,00010000,1,1,460,00,9360,225048919,100,5,ChinaNet-ifqN,dc :c6:4b:14:28:84,-48,LEKEMI,dc:fe:18:57:a5:ef,-56,ChinaNet-VMxi,d0:0f:6d:7f:bf:6b,-49,ChinaNet-sghp,8c:14:b4:3d:fd:10,-62,ChinaNet-vyC4,48:a7:4e:88:5c:10,-75,2.6328564]

3.3 CDMA network

[3G*YYYYYYYYYY*LEN*AL_ type,position data (see appendix II)]
AL_CDMA is CDMA standard,such as:China Telecom
CDMA base station information includes:SID,NID,BID
Cdma code determination by the base station latitude and longitude of the base station must know Sid,Nid,Bid data of the three base stations,it is indispensable.

SID is the system identifier,each prefecture-level city has only one sid,is unique.
It is a network identifier NID,by the local network management,which is assigned to the branch level. Each prefecture-level cities may have 1-3 nid.
BID is represented by one cell in the network can be understood as a base station.

4. CONFIG instruction

The terminal sends:
Example:[3G*9516810529*LEN*CONFIG, data]
Platform reply:
Example:[3G*9516810529*0008*CONFIG,1]
Note:The server does not need to parse the data uploaded by the terminal.

5.appcontacttel instruction

No reply

6. DEVICEFUNCCOUNT instruction

No reply

7.The terminal detects offline voice (watch)

The terminal requests the recording to be issued:
[3G*YYYYYYYYYY*LEN*TKQ]
Server reply:
[3G*YYYYYYYYYY*LEN*TKQ]
Note: When the client requests voice, server will send voice if there is voice, must send TKQ if there is no voice.

The terminal requests the friend to record and deliver:
[3G*YYYYYYYYYY*LEN*TKQ2]
Server reply:
[3G*YYYYYYYYYY*LEN*TKQ2]
Note: When the client requests voice, server will send voice if there is voice, must send TKQ if there is no voice.

8.RYIMEI

The terminal sends:

[3G*9516810529*LEN*RYIMEI,data]

Server reply:

[3G*9516810529*0008*RYIMEI,1]

II. Platform sends command

1.dataUpload interval

Platform send:

[3G*YYYYYYYYYY*LEN*UPLOAD,time interval]

Example:[3G*8800000015*0009*UPLOAD,600] -- Unit: second

Terminal reply:

[3G*YYYYYYYYYY*LEN*UPLOAD]

Example:[3G*8800000015*0006*UPLOAD]

Description:Sets the terminals regularly report time interval for the watch for this upload interval when a state of shock,the watch does not pass the position data stationary.

[3G*2503210496*000c*UPLOAD,60000] Sleep mode,the device does not take the initiative to upload location

2. Center number

Platform send:

[3G*YYYYYYYYYY*LEN*CENTER,center number]

Example:[3G*8800000015*LEN*CENTER,phone]

Terminal reply:

[3G*YYYYYYYYYY*LEN*CENTER]

Example:[3G*8800000015*0006*CENTER]

Description:Sets the center number,SMS commands can be sent by the phone number. While various alarm message will be sent to a mobile phone terminal number of the above

3. Call

Platform send:

[3G*YYYYYYYYYY*LEN*CALL,phone number]

Example:[3G*8800000015*0010*CALL,00000000000]

Terminal reply:

[3G*YYYYYYYYYY*LEN*CALL]

Example:[3G*8800000015*0004*CALL]

Description:The terminal receives the instruction and dials the phone number inside the corresponding instruction set.

4.SOS number setting

(1) a first set SOS numbers
Platform send:
[3G*YYYYYYYYYY*LEN*SOS1,phone number]
Example:[3G*8800000015*0010*SOS1,00000000000]
Terminal reply:
[3G*YYYYYYYYYY*LEN*SOS1]
Example:[3G*8800000015*0004*SOS1]
(2) when the second number is provided SOS
Platform send:
[3G*YYYYYYYYYY*LEN*SOS2,phone number]
Example:[3G*8800000015*0010*SOS2,00000000000]
Terminal reply:
[3G*YYYYYYYYYY*LEN*SOS2]
Example:[3G*8800000015*0004*SOS2]
(3) the third set SOS numbers
Platform send:
[3G*YYYYYYYYYY*LEN*SOS3,phone number]
Example:[3G*8800000015*0010*SOS3,00000000000]
Terminal reply:
[3G*YYYYYYYYYY*LEN*SOS3]
Example:[3G*8800000015*0004*SOS3]
(4) 3 SOS number and set
Platform send:
[3G*YYYYYYYYYY*LEN*SOS,phone number,telephone number,telephone number]
Example:[3G*8800000015*0027*SOS,00000000000,00000000000,00000000000]
Terminal reply:
[3G*YYYYYYYYYY*LEN*SOS3]
Example:[3G*8800000015*0003*SOS]
Description:Set SOS numbers,sos alarm is triggered,the terminal is set to a few number of calls has been no answer,call the cycle two,after answering no longer continue to make calls,and send text messages to three alarm sos number.

5.IP port settings

Platform send:
[3G*YYYYYYYYYY*LEN*IP,IP or domain name,port]
Example:[3G*8800000015*0014*IP,113.81.229.9,5900]
Terminal reply:

The command terminal non-response,a direct current connection,the new server is connected.
Description:Set the IP and port platforms.

6. Restore factory settings

Platform send:
[3G*YYYYYYYYYY*LEN*FACTORY]
Example:[3G*8800000015*0007*FACTORY]
Terminal reply:
[3G*YYYYYYYYYY*LEN*FACTORY]
Example:[3G*8800000015*0007*FACTORY]
Description:The terminal restore factory settings,which set of numbers will be cleared

7. Set language and time zone

Platform send:
[3G*YYYYYYYYYY*LEN*LZ,language,time zone]
Example:[3G*8800000015*0006*LZ,1,8]
Terminal reply:
[3G*YYYYYYYYYY*LEN*LZ]
Example:[3G*8800000015*0002*LZ]
Description:Sets the terminal language and time zone.
The following is the parameter value for the language supported by the terminal:
0:English √
1:Simplified Chinese
4:Spanish √
5:German
9.Russian language √
10.French
27. Czech
34. Hungarian
35. Slovak

8. **Alarm SMS** (The center number must be set first,see 2.)

8.1 SOS sms

Platform send:
[3G*YYYYYYYYYY*LEN*SOSSMS,0 or 1]
Example:[3G*8800000015*0008*SOSSMS,0]

Terminal reply:
[3G*YYYYYYYYYY*LEN*SOSSMS]
Example:[3G*8800000015*0006*SOSSMS]
Description:Sets the generating whether to send an alarm to the SOS SOS message number (0:off,1:on).

8.2 low power sms

Platform send:
[3G*YYYYYYYYYY*LEN*LOWBAT,0 or 1]
Example:[3G*8800000015*0008*LOWBAT,1]
Terminal reply:
[3G*YYYYYYYYYY*LEN*LOWBAT]
Example:[3G*8800000015*0006*LOWBAT]
Description:Sets the low alarm generating whether to send the message to the center number (0:off,1:on).

9. Versions Query

Platform send:
[3G*YYYYYYYYYY*LEN*VERNO]
Example:[3G*8800000015*0005*VERNO]
Terminal reply:
[3G*YYYYYYYYYY*LEN*VERNO,version number]
Example:[3G*8800000015*0028*VERNO,G29_BASE_V1.00_2014.04.23_17.46.49]
Description:inquiry terminal software version.

10. Restart

Platform send:
[3G*YYYYYYYYYY*LEN*RESET]
Example:[3G*8800000015*0005*RESET]
Terminal reply:
[3G*YYYYYYYYYY*LEN*RESET]
Example:[3G*8800000015*0005*RESET]
Description:After receiving the instruction to restart the terminal,the terminal restart in the background,not shown.

11. Positioning command

Platform send:

[3G*YYYYYYYYYY*LEN*CR]

Example:[3G*8800000015*0002*CR]

Terminal reply:

[3G*YYYYYYYYYY*LEN*CR]

Example:[3G*8800000015*0002*CR]

Description:Terminal immediately wake up the GPS positioning function,the continuous positioning for 3 minutes,20 seconds in accordance with a positioning data upload,gps positioning off after three minutes.

12. The shutdown command

Platform send:

[3G*YYYYYYYYYY*LEN*POWEROFF]

Example:[3G*8800000015*0008*POWEROFF]

Terminal reply:

[3G*YYYYYYYYYY*LEN*RESET]

Example:[3G*8800000015*0008*POWEROFF]

Description:After the terminal receives the shutdown instruction.

13. The time period setting step count

Platform send:

[3G*YYYYYYYYYY*LEN*WALKTIME,period,period,period]

Example:[3G*8800000015*002C*WALKTIME,08:10-09:30,10:10-11:30,12:10-13:30]

Terminal reply:

[3G*YYYYYYYYYY*LEN*WALKTIME]

Example:[3G*000*8800000015*0008*WALKTIME]

Description:Sets the step counting open time ranges,a pedometer step counter start period,the time period of 00:00-00:00 closed.

14. The rollover detection period setting

Platform send:

[3G*YYYYYYYYYY*LEN*SLEEPTIME,the time period]

Example:[3G*8800000015*0015*SLEEPTIME,21:10-07:30]

Terminal reply:

[3G*YYYYYYYYYY*LEN*ANY]

Example:[3G*8800000015*0009*SLEEPTIME]

Description:Sets the rollover period of the detection range,the time period of 00:00-00:00 closed.

15. Set period of No disturb time

Platform send:
[3G*YYYYYYYYYY*LEN*SILENCETIME,period,period,period,period]
Example:[3G*8800000015*0037*SILENCETIME21:10-7:30,21:10-7:30,21:10-7:30,21:10-7:30]
Terminal reply:
[3G*YYYYYYYYYY*LEN*SILENCETIME]
Example:[3G*8800000015*000B*SILENCETIME]
Description:Sets Do Not Disturb period range,only for the period from Monday to Friday,any call blocking terminal,invalid weekend.

16. Watch to find instructions

Platform send:
[3G*YYYYYYYYYY*LEN*FIND]
Example:[3G*8800000015*0004*FIND]
Terminal reply:
[3G*YYYYYYYYYY*LEN*FIND]
Example:[3G*8800000015*0004*FIND]
Description:This instruction transmitting terminal ring 1 minute button to confirm.

17. Time alarm setting command

Platform send:
[3G*YYYYYYYYYY*LEN*REMIND,Alarm 1,Alarm 2,Alarm 3]
Example:[3G*8800000015*0018*REMIND,08:10-1-1,08:10-1-2,08:10-1-3-0111110]
Terminal reply:
[3G*YYYYYYYYYY*LEN*REMIND]
Example:[3G*000*8800000015*0006*REMIND]
Description:Alarm format:time - switch - Frequency (1:primary; 2:per day; 3:Custom)
08:10-1-1:8:10 alarm time,open,ring once
08:10-1-2:8:10 alarm time,open,ringing every day
08:10-1-3-0111110:the alarm time is 8:10,open,custom open Monday to Friday

18. Voice chat

(1) device or a server receives a voice message:
[3G*YYYYYYYYYY*LEN*TK,AMR format audio data]
Reply:
[3G*YYYYYYYYYY*LEN*TK,reception result]
Reception result:1-success

0-failure

ARM format audio data to be translated as follows encountered data left on the translated data to the right of the server or receiving voice:

0X7D 0X01 -> 0X7D

0X7D 0X02 -> 0X5B

0X7D 0X03 -> 0X5D

0X7D 0X04 -> 0X2C

0X7D 0X05 -> 0X2A

(2) device or a server transmits voice:

[3G*YYYYYYYYYY*LEN*TK,AMR format audio data]

Reply:

[3G*YYYYYYYYYY*LEN*TK,reception result]

Reception result:1-success

0- failure

ARM format audio data to be translated as,device or server sending voice data to encounter left translates data on the right(send data):

0X7D -> 0X7D 0X01

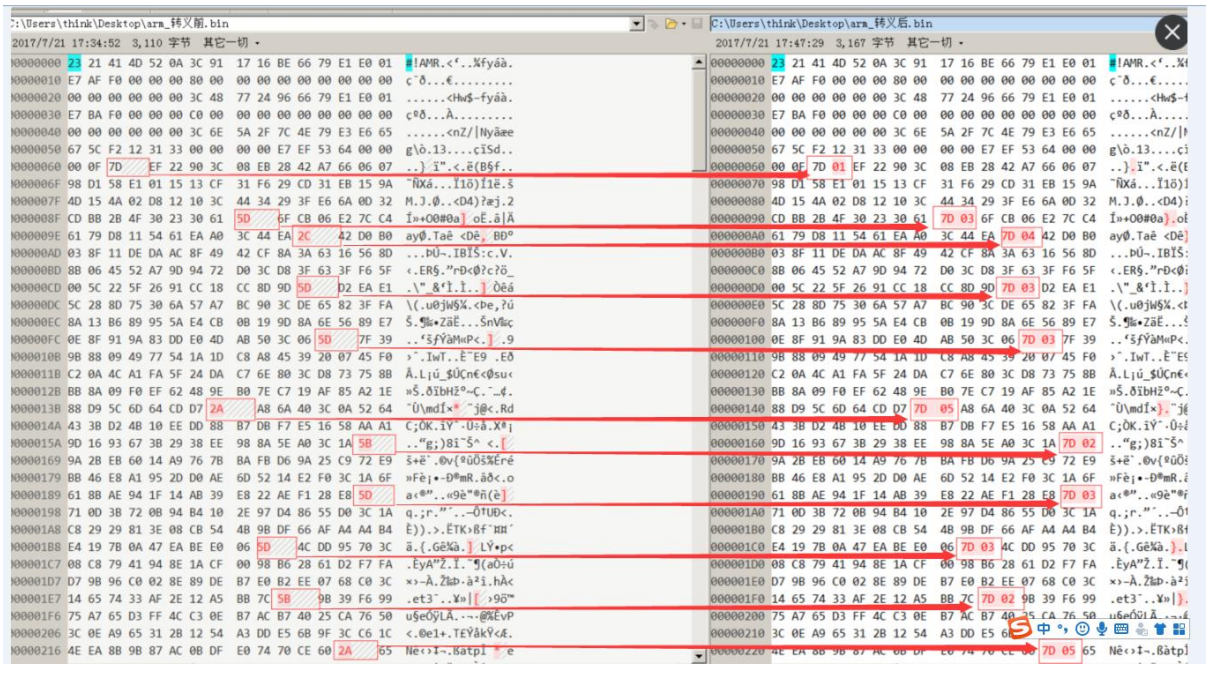
0X5B -> 0X7D 0X02

0X5D -> 0X7D 0X03

0X2C -> 0X7D 0X04

0X2A -> 0X7D 0X05

Description:The voice sent from the server to control the length in time within 15 seconds (including 15 seconds)



19. Send the text message to the GPS watch

Platform send:
[3G*YYYYYYYYYY*LEN*MESSAGE,text content]
Example:[3G*8800000015*0018*MESSAGE,597D003100320033]
Terminal reply:
[3G*YYYYYYYYYY*LEN*MESSAGE]
Example:[3G*000*88000000157*MESSAGE]
The push to the terminal display instruction to the terminal using the phrase Unicode encoding the phrase.

20. Set the phone book

20.1 Without Head

Platform sends (1):
[3G*8800000015*len*PHB,number,name,number,name,number,name,number,name,number,name,number,name]
len:transmit length hexadecimal 2 bytes
Number:ascii characters
Name:Unicode encoding
Up to 5 numbers and the corresponding names,numbers are not more than 20 ascii characters,names no more than 10 Unicode characters
Example:
[3G*8800000015*0010*PHB,110,5F204E09]
Terminal Reply:[3G*8800000015*0003*PHB].

Platform sends (2):
[3G*8800000015*len*PHB2,number,name,number,name,number,name,number,name,number,name,number,name]
len:transmit length hexadecimal 2 bytes
Number:ascii characters
Name:Unicode encoding
Up to 5 numbers and the corresponding names,numbers are not more than 20 ascii characters,names no more than 10 Unicode characters
Example:
[3G*8800000015*0010*PHB2,110,5F204E09]
Terminal Reply:[3G*8800000015*0004*PHB2]

Platform sends (3):
[3G*8800000015*len*PHB3,number,name,number,name,number,name,number,name,number,name,number,name]
len:transmit length hexadecimal 2 bytes

Number:ascii characters
Name:Unicode encoding
Up to 5 numbers and the corresponding names,numbers are not more than 20 ascii characters,names no more than 10 Unicode characters
Example:
[3G*8800000015*0010*PHB3,110,5F204E09]
Terminal Reply:[3G*8800000015*0004*PHB2]
Description:PHB numbers 1-5,phb2 numbers 6-10,phb3 numbers 11-15
Note:Watch the phone book,there are two supports 10 and 15. To make a judgment according to the actual situation wristwatch

20.2 with Avatar (not support)

Under platform issue:[3G*7893267563*len*PHBX,number,name,phone,photo data]

Note:1,30 phone

2,No. 1--30

3,Photo data can be empty (ie not set the photo),but the protocol parameter format unchanged (ie,there will be a comma ",")

Terminal Reply:[3G*7893267563*0002*PHBX,status code]

Status Code:1-- success 0-- failure

20.3 with a picture phone book Delete
Under platform issue:[3G*7893267563*0002*DPHBX,number]

Terminal Reply:[3G*7893267563*0002*PHBX,status code]

Status Code:1-- success 0-- failure

Note:The photo data like voice need to escape. Picture format is jpg,15k or less in size. Resolution 96*96DPI,a width of 132 pixels height.

21. Scene mode

Platform send:
[3G*YYYYYYYYYY*LEN*profile,x]
The value of X can be 2,4,respectively,
0 closed
1 rings and vibration

2 rings
3 vibration
4 Silence

Terminal reply:
[3G*YYYYYYYYYY*LEN*frofile]
Some device not has vibration (only 2, 4)

22. Listen in/ Monitor

Platform send:

[CS*YYYYYYYYYY*LEN*MONITOR]
Example:[3G*8800000015*0007*MONITOR]

Device Response:[CS*YYYYYYYYYY*LEN*MONITOR]
Example:[3G*8800000015*0007*MONITOR]

Note:device automatic callback the center number.

Platform send:
[CS*YYYYYYYYYY*LEN*MONITOR,00000000000]
Example:[3G*8800000015*0013*MONITOR,13100010002]
Device Response:
[CS*YYYYYYYYYY*LEN*MONITOR]
Example:[3G*8800000015*0007*MONITOR]

Note:device automatic callback the phone number in the command.

The above 2 commands are valid

23. Extra features

[3G*9403043989*len*APPLOCK,WX-1,PH-1,QQ-1,DL-1,HT-1]

Remark:1 - enable, 0-disable
Eg. [3G*0304927626*000C*APPLOCK,PH-1]

24.The remote camera instruction

Platform send:
[3G*YYYYYYYYYY*LEN*rcapture]
E.g:
[3G*8800000015*0008*rcapture]
Terminal reply:
Picture upload instructions
[3G*8800000015*len*img,x,y,z]

Parameter X 5:Remote camera
Y represents parameters:time (year,month,day,hour:160 429 110 950)
Z parameter for the photo content
Note:upload pictures and special characters need to be escaped as voice

25.Reject calls from strangers

Platform send:
[3G*9512718580*0016*DEVREFUSEPHONESWITCH,1]
Terminal reply:
[3G*9512718580*0014*DEVREFUSEPHONESWITCH]
Then,terminanl will upsend:
[3G*9514722798*0025*DEVREFUSEPHONE,Unfamiliar number,Timestamp]
[3G*9514722798*0025*DEVREFUSEPHONE,15986671218,1586332261]

26. A rate-pressure terminal uploads(Elderly function)

①The watch pressure,auto upload measured value
Rate pressure Upload (Blood pressure and heart rate)

Terminal Upload:
[3G*8800000015*len*bphrt,Hight-blood,Low-blood,heart rate]

The first parameter represents a high voltage is 0 for invalid
The second parameter is 0 for the low-pressure inactive
The third parameter represents the heart rate of 0 means invalid

Example:[3G*8800000015*0013*bphrt,110,71,65]
Platform reply:
[3G*8800000015*len*bphrt]

②Remote measurement by server
Platform request :
[3G*8800000015*000A*hrtstart,1]
Terminal reply：
[3G*8800000015*len*hrtstart]
Wait less than 1 minute ,the watch upload measured value
[3G*8800000015*000F*bphrt,Hight-blood,Low-blood,heart rate]

26. III. Appendix

Appendix I:2g / 3g / 4g_ non-CDMA location data demonstrate

name	Examples (the ASII code)	Explanation
date	120 414	(Day month year) April 12,2014
time	101 930	(Minutes and seconds) 10:19:30
Whether positioning	A	A:Targets V:non-targeted
latitude	22.564025	DD.DDDDDD defined according to format this value Lat:22.564025.
Latitude logo	N	N represents latitude,S denotes south latitude.
longitude	113.242329	DDD.DDDDDD according to define the format,this is Longitude:113.242329.
Longitude logo	E	E represents longitude,W indicate a westerly
speed	5.21	5.21 km / h.
direction	152	Direction 152 degrees.
altitude	100	In meters
The number of satellites	9	Show that the number of GPS satellites
GSM signal strength	100	Indicates the current GSM signal strength (0-100)
Power	90	It represents the percentage of the current charge level
Count the number of steps	1000	Count the number of steps 1000
Roll number	50	Roll 50 times
Terminal state	00000000 (hexadecimal)	It is represented by binary string 0000 0000 0000 0000 0000 0000 0000 0000 following meanings: 16bit expressed alarm left high right low 16bit indicates the state. Bit bit (zero) Meaning (1 active) 0 low power state 3 bracelet worn state is removed 4 watches running standstill 16 SOS Alarm 17 low battery alarm 20 wristband alarm removal 21 fall alarm 22 abnormal heart rate alarm
The number of base stations	4	The number of reported base stations,base station information does not report indicates 0

The base station is connected ta	1	GSM delay
MCC Country Code	460	460 on behalf of China
MNC network number	02	02 on behalf of China Mobile
Connecting the base station location area code	10133	Area code
Connecting the base station number	5173	Base station number
Connecting the base station signal strength	100	Signal Strength
1 nearby base stations a location area code	10133	Area code
No. 1 near the base station	5173	Base station number
1 near the base station signal strength	100	Signal Strength
2 nearby base stations a location area code	10133	Area code
No. nearby base stations 2	5173	Base station number
2 the signal strength of nearby base stations	100	Signal Strength
3 nearby base stations a location area code	10133	Area code
No. 3 nearby base stations	5173	Base station number
3 nearby base stations the signal strength	100	Signal Strength
...	...	...
Wifi amount of information	5	Wifi number (up to 5),sorted by signal strength.
Wifi 1 name	rrr	The first one wifi name information
Wifi 1 MAC address	1c:fa:68:13:a5:b4	1st wifi MAC address
Signal strength Wifi 1	-61	A first signal strength wifi
Wifi 1 name	abc	The first two names wifi
Wifi 1 MAC address	1c:fa:68:13:a5:b	The second wifi MAC address

	5	
Signal strength Wifi 1	-87	Second signal strength wifi
...	...	...

Appendix II:4g_CDMA position data described

name	Examples (the ASII code)	Explanation
date	120 414	(Day month year) April 12,2014
time	101 930	(Minutes and seconds) 10:19:30
Whether positioning	A	A:Targets V:non-targeted
latitude	22.564025	DD.DDDDDD defined according to format this value Lat:22.564025.
Latitude logo	N	N represents latitude,S denotes south latitude.
longitude	113.242329	DDD.DDDDDD according to define the format,this is Longitude:113.242329.
Longitude logo	E	E represents longitude,W indicate a westerly
speed	5.21	5.21 km / h.
direction	152	Direction 152 degrees.
altitude	100	In meters
The number of satellites	9	Show that the number of GPS satellites
GSM signal strength	100	Indicates the current GSM signal strength (0-100)
Power	90	It represents the percentage of the current charge level
Count the number of steps	1000	Count the number of steps 1000
Roll number	50	Roll 50 times
Terminal state	00000000 (hexadecimal)	It is represented by binary string 0000 0000 0000 0000 0000 0000 0000 0000 following meanings: 16bit expressed alarm left high right low 16bit indicates the state. Bit bit (zero) Meaning (1 active) 0 low power state 3 bracelet worn state is removed 4 watches running standstill 16 SOS Alarm 17 low battery alarm 20 wristband alarm removal

		21 fall alarm 22 abnormal heart rate alarm
The number of base stations	1	The number of reported base stations,base station information does not report indicates 0
The base station is connected ta	1	GSM delay
MCC Country Code	460	460 on behalf of China
MNC network number	02	02 on behalf of China Mobile
SID	10133	Area code
NID	5173	Base station number
BID	100	Signal Strength
Wifi amount of information	5	Wifi number (up to 5),sorted by signal strength.
Wifi 1 name	rrr	The first one wifi name information
Wifi 1 MAC address	1c:fa:68:13:a5:b4	1st wifi MAC address
Signal strength Wifi 1	-61	A first signal strength wifi
Wifi 1 name	abc	The first two names wifi
Wifi 1 MAC address	1c:fa:68:13:a5:b5	The second wifi MAC address
Signal strength Wifi 1	-87	Second signal strength wifi
...	...	...

27. Fall alarm

Platform sends:
[CS*YYYYYYYYYY*LEN*FALLDOWN,X]
The value of X can be 0,1 respectively
0: means off
1: means open
Terminal reply:
[CS*YYYYYYYYYY*LEN*FALLDOWN]

2. Function setting of fall alarm sensitivity setting (function configuration item: LS=3+6)
Remarks: LS——Fall alarm sensitivity setting function (current value + maximum value) by default no (0+0) Note: Use "+" splicing (the larger the value, the lower the sensitivity)

1 <= current value of sensitivity <= maximum value

The server sends:
[3G*YYYYYYYYYY*LEN*LSSET,ls]
ls : Sensitivity setting format: current value + maximum value, such as: 3+6

Terminal reply:
[3G*YYYYYYYYYY*LEN*LSSET]

Note: If the APP side has issued a modification, every time the function configuration is reported, the modified value must be reported instead of the default value when the software is produced.

28 Voice version of taking medicine reminder (requires the terminal to reply)

Platform issued:
[3G*8800000015*len*TAKEPILLS, reminder settings, number, reminder text, voice data]
Notice:
1. Reminder setting: the data format is the same as the alarm clock (time-switch-frequency-custom)
2. Number 1 - 3 (up to 3 reminders)
3. The reminder text adopts unicode encoding
4. The voice data can be empty (that is, no voice is set), but the format of the protocol parameters remains unchanged (that is, there will be a comma ","), such as
[3G*1452833459*0022*TAKEPILLS,11:30-1-2,2, 4f6059b97684]

Terminal reply: [3G*7893267563*0002*TAKEPILLS, status code]
Example: [3G*1452833459*000B*TAKEPILLS,1]
Status code: 1 - success 0 - failure

29 Receipt SMS Reporting Agreement

Terminal sends:
[3G*YYYYYYYYYY*LEN*DEVMESSAGE,message,tel,timep]
Message: SMS content, unicode code string representation
Tel: the number from which the SMS is to be sent
Timep: The timestamp when the SMS was received

Server reply: none

30 Refusal to Stranger Phone Reporting Agreement

Terminal sends:
[3G*YYYYYYYYYY*LEN*DEVREFUSEPHONE,tel,timep]
Tel: the calling number
Timep: The timestamp when the call was received

31. SMS reporting agreement

Terminal sends:
[3G*YYYYYYYYYY*LEN*DEVMESSAGE,message,tel,timep]
Message: SMS content, unicode code string representation
Tel: the number from which the SMS is to be sent
Timep: The timestamp when the SMS was received

Server reply: none

32 Language monitoring:

[3G*9517757030*0013*MONITOR,telephone] //Whoever wants to monitor, just enter the number
[3G*9517757030*0007*MONITOR]

33. Remote Heart Rate Measurement Protocol

Platform sends:
[3G*8800000015*000A*hrtstart,1]

terminal reply
[3G*8800000015*len*hrtstart]
The measured value will return in about a minute
[3G*8800000015*000F*bphrt, hypertension, hypotension, heart rate]