Configure instruction:

1.The TT18-4G-M can work on LTE and GSM networks. Please confirm with your SIM card supplier to choose the SIM card can support at least one of the three networks. And some SIM card have to set APN, please confirm with your SIM card supplier to get the APN information. You also can contact with Tzone to get help.

2. The TT18-4G-M can be set via two ways, one way is to use the configure software, the other way is to set via server downward command. Please follow the guide below.

3. Please note to do the RTC time and ACK setting function on your server, if you set the TT18-4G-M send data to your cloud.

RTC time setting

Format of the server set TT18-4G-M RTC time：@UTC,yyyy-MM-dd HH:mm:ss#
For example：@UTC,2021-11-24 02:56:43#
*please note the time setting should be UTC +0 time, and we suggest to set the RTC time every time when the server received data from TT18-4G-M

ACK setting

Format of the sever set ACK：@ACK,Packet index(Hex converted into decimal)#

For example：@ACK,35#
*The ACK function is to make sure your server received the TT18-4G-M data. Only after received the ACK from server, then the TT18-4G-M will send the next data.

4.Please note when connect the TT18-4G-M USB to configure or charge, the TT18-4G-M will not storage or send data.
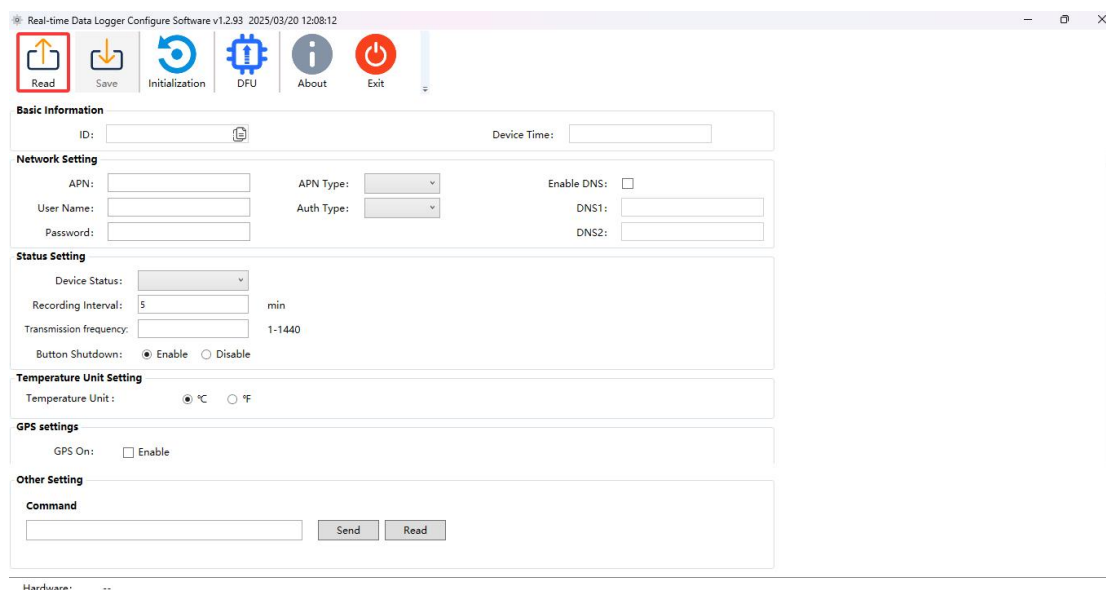
Note: Support for Windows 10 or newer.

Ⅰ.Configure the TT18-4G-M via configure software

1. please use the USB cable(which along with the TT18-4G-M),to connect the TT18-4G-M with windows computer to configure.
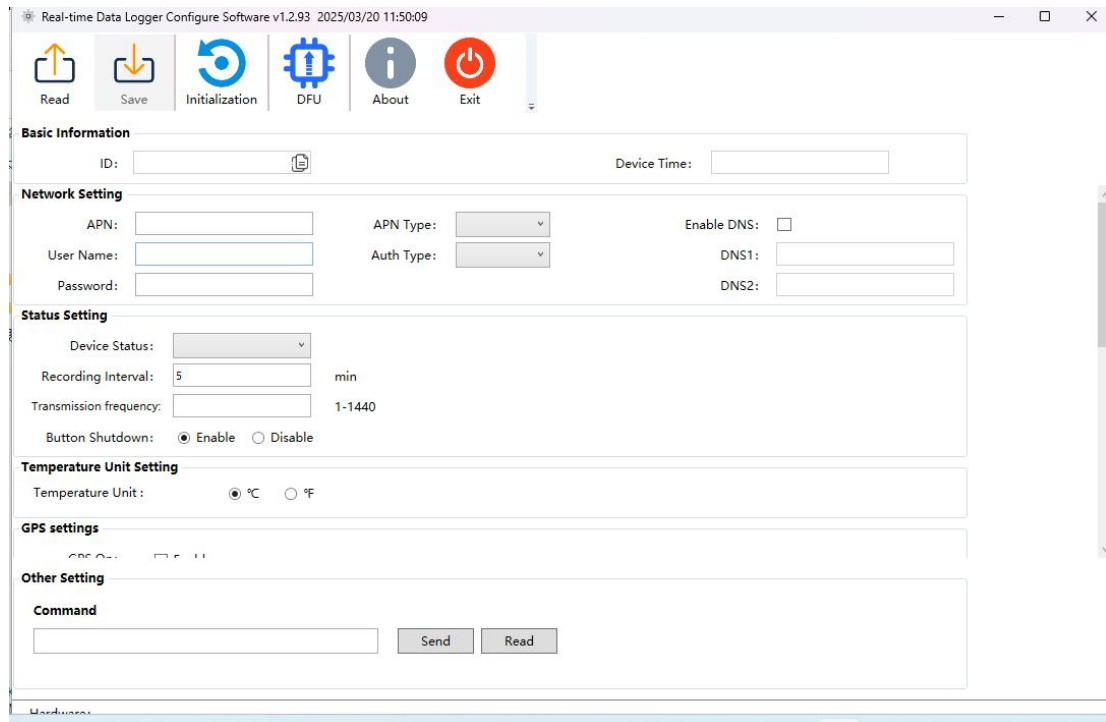
2. click "Read" to read all of the configuration information of   TT18-4G-M.

3. After finished configuring, please click "Save" to save the setting：

4. If you need to copy the ID of the machine, you can click the copy ID in the picture below：

5. Configuration parameters：

（1）Basic information：
ID：Unique ID of device
Device time：the computer time

（2）Network Setting：
APN/User name/Password/APN Type/Auth Type：

Some SIM card need set the APN/User name/Password/APN Type/Auth Type to work. Please confirm with your SIM card supplier about it, or you can contact with Tzone for help.

DNS： Domain name resolution

（3）Status setting

Device Status： Can set turn on or turn off the device

Flight Mode： Can set the TT18-4G-M into or quit flight mode.

Please note only when the device status is turn on, then can set the flight mode.

Data upload/storage interval： can be set from 1 to 60 mins, the default is 30 mins

Button Shutdown： to set the TT18-4G-M enable/disable to be turned off via physical button.

（4）Server connection setting：

IP/Domain： you can set your server Ip or domain

The Tzone server domain is: g.cloud.tzonedigital.cn

port： you can set your server port，the port range is from 1 to 65535

The Tzone server domian is : 18801

TCP/UDP: can choose the data transmission as TCP or UDP

（5）Calibration setting：

Temperature： temperature calibration, range from -5 to 5℃,

Humidity： humidity calibration, range from-10 to 10%;

（6）Other settings：

command： can follow the command list below to set

For example：*000000,018,10#

Clear data flash： clear all of the data stored in TT18-4G-M

initialization： recovery the device to factory setting

Ⅱ. Server downward commands setting

Format of server downward commands：

Start bits（1byte）+ Type of data（X1）+ Delimiter（1byte）+ Command（X2）+ Delimiter（1byte） + Stop bits（1byte）+ End mark（2byte）

1. **Start bits：@；**
2. **Type of data：CMD；**
3. **Delimiter：, ；**
4. **Command：refer the commands list below；**
5. **Delimiter：, ；**
6. **Stop bits：#；**
7. **End：\r\n(0x0D,0x0A)；**

For example：@CMD,*000000,018,10#,#
Set the data upload/ storage interval

Format of TT18-4G-M reply：

Start bits（2byte）+ Packet length（2byte）+ Protocols number（2byte）+ Hardware type（2byte）+ Firmware version（4byte）+ IMEI（8byte）+ RTC time date（6byte）+ Type of downward command（1byte）+ downward command（2byte）+ Result（1byte）+ Command information（X byte）+ Packet index（2byte）+ CRC（2byte）+ Stop bits（2byte）

1. **Start bits：**（TZ：545A）
2. **Packet length：The bytes length from the start at protocol number to the end at the CRC.**
3. **Protocol number：$D**
5. **Hardware type：04H 07H**
6. **Firmware version：4byte，for example 01H 06H 00H 00H means the firmware is 1.06**
7. **IMEI:8byte，ignore the upper four bits of the first byte. For the rest, every 4bit means a number. For example 08H 66H 10H 40H 26H 49H 19H 96H means the IMEI is 866104026491996**
8. **RTC time date：6byte，the data upload/storage RTC time and date，each byte means year/month/day/hour/min/sec**
9. **Type of downward command：00H means write command，01H means read command**
10. **Downward command：command information**
11. **Result：the result of read or write command，1bit,00H means read or write successful ，05H means do not support this command，08H means read or write failed**
12. **Command information：If it is write command， the command information will be null. If it is read command，it will show different commands, the format is ASCII, different command is separated by "," . For details, please refer the command list**
For example. If its is read command of IP/Domain, the command information will be
1,t-gateway.tzonedigital.cn,54929
13. **Packet index：Accumulate from 1 to 9999**
14. **CRC：The checked content is from the "protocol number" to the end at "CRC"，including "protocol number"，excluding "CRC"，MSB first；**
15. **Stop bits：0DH 0AH；**

Ⅲ. Command list

NO.	Instruction	Format	Note
005	Set working model	*000000,005,X#	X=0, Turn off (default); X=1, Turn on;
	Set RTC time	*000000,006,year,month,day,hour, minute,second#	Set the device RTC time . For example： *000000,006,16,01,11,10,46,30# Year:16

			Month:1 Day:11 Hour:10 Minute:46 Second:3 Note:Must be set to UTC time
008	Extend setting	*000000,008,ABCDEFG#	C=0,disable button power off function C=1,button power off function (default) **Note:** The device send data to the server every time, the server must respond @ACK,Packet index (Hex converted into decimal)# to the device, then the device will continue to send next data to the serve, please refer to the data protocol for packet index. A/C/D/E/FG=0，B=1
011	Set APN,Username,Password	*000000,011,Apntype, Authtype, APN,Username,Password#	Apntype: 0-IP(default), 1-IPV6, 2-IPV4V6, 3-Non-IP, Authtype: 0-NONE(default), 1-PAP, 2-CHAP APN : APN string (must < 28 chars) User name: Your username (must < 28 chars) Password: Your password (must < 28 chars) * If there is no username or password, please left it blank. For example: *000000,011,CMNET,,# (There is no username or password)
014	Set DNS	*000000,014,X,DNS1,DNS2#	X=0, disable DNS function (default), X=1, enable DNS function, DNS:Domain Server; xxx.xxx.xxx.xxx

015	Set IP Address & port number	*000000,015,X,IP,PORT#	X=0 Using IP to connect the server X=1 Using DN to connect the server IP : xxx.xxx.xxx.xxx DN: (domain name) www.xxx.com PORT : [1,65535] Default IP port： g.cloud.tzonedigital.cn,18801
018	Set the data reporting intervals in turn on or flight mode	*000000,018,X#	X:[5,1440] The data reporting interval (Unit: min,default:30)
019	Set the GPRS mode	*000000,019,X#	X=0, Use the UDP mode X=1, Use the TCP mode(default)
050	Temperature and humidity calibration	*000000,050,X ,A,B#	X=0,disable this function(default); X=1,enable A:Temperature calibration value, B:Humidity calibration value positive number means plus the calibration value; negative number means minus the calibration value; the temperature unit is ℃ , the humidity unit is %
060	Set Flight mode	*000000,060,X,Y,Z#	X=0,Disable this function; X=1, Enable this function Y:into flight mode time, Unit:min,[0,65535]; The device will turn to flight mode after this setting time； Z:Out of flight mode time, Unit:min,[0,65535]; The device will turn out from flight mode after this setting time Note:When the device turn to flight mode, it will unable the network connection, but still recording the temperature,humidity and light information
500	Clear data flash	*000000,500#	Clear history in the flash memory
990	Initialization	*000000,990,099#	Turn the device to be factory default settings
991	Reboot	*000000,991#	The device will reboot