

GTP-500M FAQ

Tables of Content

Q01: How to confirm my SIM card can support GTP-500M?	3
Q02: Why GTP-500M can not register?	3
Q03: Do I need to buy an I/O expansion board?	3
Q04: Do I need to buy a battery box?	4
Q05: How to switch between different functions (ex. RTU -> RMV)?	4
Q06: Precautions of RTU function	4
Q07: How many maximum capacity of micro SD does the GTP-500M support?	5
Q08: If the counter function of GTP-500M is always error. How does user do?	5
Q09: How to convert 2 bytes Hex value into a decimal reading for either a more meaningful 4 ~ 20mA?	5
Q10: SMS Function - What is DTMF?	5
Q11: SMS Function - Abnormal condition of SMS/Time content.	6
Q12: SMS Function - Forgot password.	6
Q13: SMS Function - I wrote in the Hyperterminal +++hello and pressed enter many times, but the phone could not receive the same number of SMS. why it doesn't work and why sometimes it does work?	7
Q14: RTU Function - The Peripheral Device Status Error Code.	7
Q15: RTU Function - How do I change the Timeout parameter of Modbus Devices?..	7

Q01: How to confirm my SIM card can support GTP-500M?

A01:

GTP-500M Frequency Band:

GSM/GPRS(2G System) 850/900/1800/1900 MHz

WCDMA(3G System) 850/900/1900/2100 MHz

Please ask the ISP of your SIM card:

1. Is the SIM card can support above frequency band?
2. The area where the GTP-500M is placed can receive the signal of this band?

Q: Can I use 4G SIM card?

Ans: Yes. Normally, GTP-500M automatically drops to 3G or 2G mode when using a 4G SIM card, but you need to make sure that the device can receive 3G / 2G signal in that area.

Q02: Why GTP-500M can not register?

A02:

3G (Green)	Blinking pre 3 sec	3G modem normal(2G network)
	Twinkling twice per 3 sec	3G modem normal(3G network)
	OFF	3G modem fail

- Please confirm the antenna and SIM card are installed correctly.
- Please confirm whether the SIM card can register by phone.
- Please confirm the SIM card by referring to step Q01.
- Please confirm PIN Code setting is correct ([Manual](#): Page.31 - Chapter 4.4.5), or use the phone to unlock PIN Code.
- Use Utility to confirm whether the signal strength is too low (<30%)
 - RMV function: Page.29 - Chapter 4.5.1([Manual](#))
 - RTU function: Page.66 - Chapter 5.3.10([Manual](#))
 - SMS funciton: Page.98 - Chapter 6.11([Manual](#))

Q03: Do I need to buy an I/O expansion board?

A03:

RMV function: Not supported.

SMS function: Need I/O expansion board.

RTU function: Optional. GTP-500M will send I/O expansion boaed data to server if it has I/O expansion board. If you only need to receive Modbus data, you do not need to buy it.

Please refer to the bottom of the [Website](#)(Accessories).

Q04: Do I need to buy a battery box?

A04:

If you need to have a backup power supply in the event of an unexpected power outage, you can buy the battery box and battery.

Battery Box: [BX-ENEL5-1 CR](#)

※ICPDAS do not provide batteries, please buy batteries other places(Nikon battery ENEL5).

With Nikon battery ENEL5 (3.7V / 1100mAh), the battery is available for about 8.5 hours with I / O information returned and GPS on every 5 seconds.

Q05: How to switch between different functions (ex. RTU -> RMV)?

A05:

GTP-500M need to update the firmware to switch between different functions. After updating the firmware, all the settings will be restored to the factory default settings.

We need to prepare:

1. CA-0910 cable



2. [Firmware](#) (*.fw)
3. [Tool](#) (Firmware_Update_Tool.exe)

Please refer to [manual](#)(Page.115 - Appendix A.) to update firmware.

Q06: Precautions of RTU function.

A06:

The RTU function has two operation modes and can not be operated at the same time. Please use Utility to change the operation mode.

1. RTU Mode:

I/O data (including the GTP-500M's I/O, Modbus device I/O and GPS) is regularly sent back to M2M RTU Center through GPRS / WCDMA.

- Max 3 Modbus Devices.
- Choose one of Server IP or Server Domain Name.
- Machine ID can not be duplicated with other RTU devices

2. E-mail Mode:

I/O data (including the GTP-500M's I/O, Modbus device I/O and GPS) to E-mail attachment regularly back to the mail box.

- Max 3 Modbus Devices.
- Not support SSL(ex. Gmail、Hotmail、Yahoo).
- Support 10 mail address to receive.

Q07: How many maximum capacity of micro SD does the GTP-500M support?

A07:

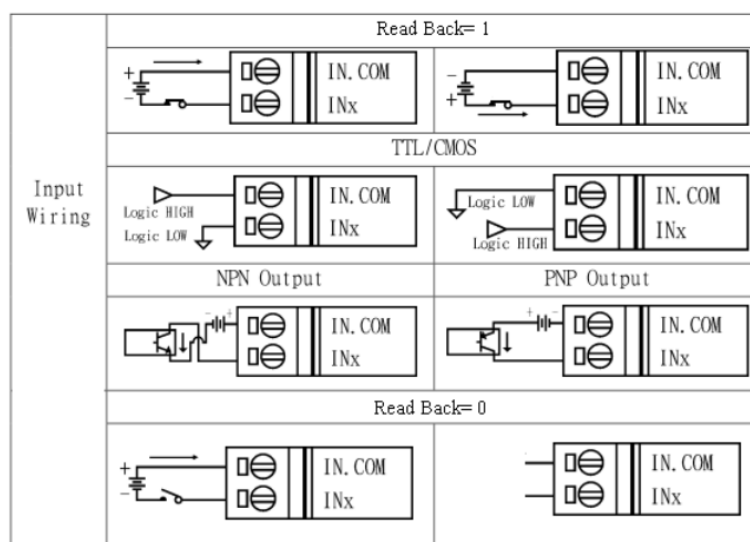
The GTP-500M supports maximum capacity of micro SD as 8 GB.

(Data format: FAT16 or FAT32)

Q08: If the counter function of GTP-500M is always error. How does user do?

A08:

- Please confirm the DI wiring.



- Setting the Counter parameters in Utility.
- Make sure the counter frequency is 5 ~ 40 Hz.

Q09: How to convert 2 bytes Hex value into a decimal reading for either a more meaningful 4 ~ 20mA?

A09:

The AI value displayed by the RTU Center is a HEX value that needs to be converted to obtain the actual AI value.

1. Convert the Hex value to Dec value.
B56(HEX) = 2902(DEC)
2. The AI channel of GTP-500M is 12-bit resolution.
 $2902(\text{DEC})/4096 = 0.7085$
3. The Input range of GTP-500M is 0~20mA.
 $0.7085 * 20 = 14.17 \text{ mA}$

Q10: SMS Function - What is DTMF?

A10:

DO can be controlled via Dual Tone Multi Frequency (DTMF) signals in the GTP-500M SMS function



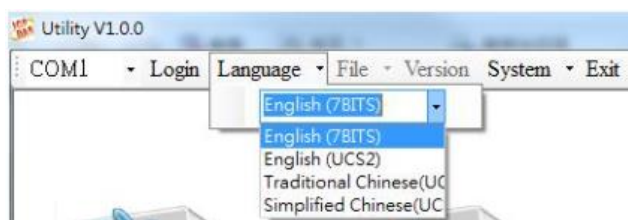
Please refer to the following step:

1. Click the DTMF in Utility.
2. Call the GTP-500M with the specified phone number.
3. Press the keyboard to control DO(Format: [Manual](#) Page.114 - Chapter 6.17).

Q11: SMS Function - Abnormal condition of SMS/Time content.

A11:

SMS content abnormal:

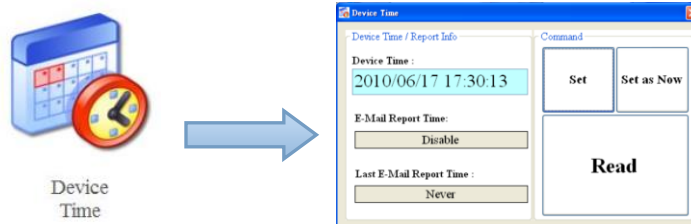


The transmission method of SMS will be determined according to the Utility interface. Please select the suitable language interface.

- English SMS: 7-bits, Max 140 char.
- English SMS: UCS2, Max 70 unicode char.
- Chinese SMS: UCS2, Max 70 unicode char.

SMS Time content abnormal:

- Use Utility to set time.



- If it still wrong after setting with Utility, please contact us.

Q12: SMS Function - Forgot password.

A12:

The GTP-500M SMS function need to a password to login (default password is: 111111).

If you forget the password, you can take the following method:

- Send the SMS to GTP-500M to ask the password(Command: @PASS).
- Refer to Q5 to update SMS firmware(return to factory setting).

Q13: SMS Function - I wrote in the Hyperterminal +++hello and pressed enter many times, but the phone could not receive the same number of SMS. why it doesn't work and why sometimes it does work?

A13:

The GTP-500M will ignore COM Port commands when sending SMS messages. Please wait for 3 ~ 5 seconds between each command interval.

Q14: RTU Function - The Peripheral Device Status Error Code.

A14:

Device	Discription	Status
SD Card :	Status	OK
	Free Size(Byte)	1898676224
GPRS :	Status	Connected
	Error Code	8
GPS :	Status	Enable
	Data	\$GPRMC,003547.027,V,8960.0000,N,000000.0000,E,0.00,0.00,060180,,,N*7E
M-7016	Address	5
	Status	OK
	Status Code	4
M-7060	Address	10
	Status	OK
	Status Code	4
M-7080B	Address	1
	Status	OK
	Status Code	4



GPRS Error Code

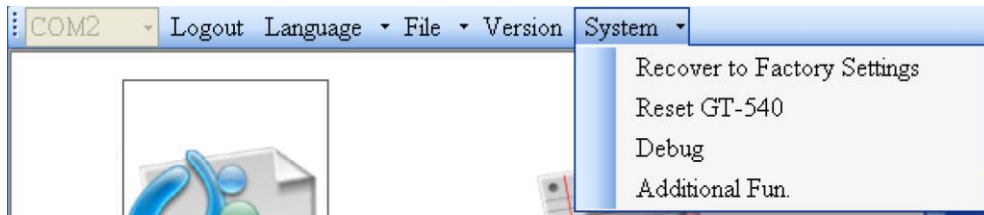
- 0 : Connect OK
- 2 : Module Error
- 3 : PIN Code Error
- 4 : PUK Code Error
- 5 : SIM Card Error
- 6 : Dialup Internet Error
- 7 : Connect Server Error

Devices Status Code

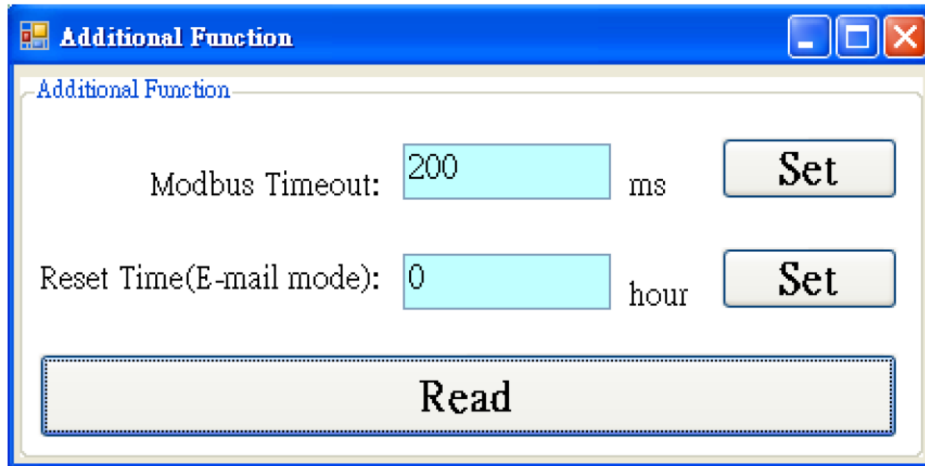
- 248、251、254、1 : Devices Timeout(Try to incese Modbus Devices Timeout Parameters)

Q15: RTU Function - How do I change the Timeout parameter of Modbus Devices?

A15:



Open Utility -> System -> Additional Fun.



※If you increase the Modbus Timeout, it will increase the the transmission time of each packet