



GRP-540M/GRP-541M Quick Start

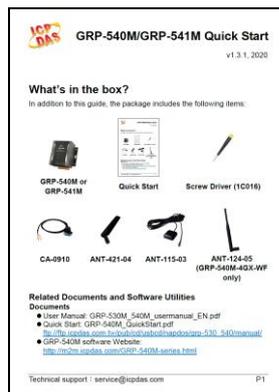
v1.3.1, 2020

What's in the box?

In addition to this guide, the package includes the following items:



**GRP-540M or
GRP-541M**



Quick Start



Screw Driver (1C016)



CA-0910



ANT-421-04



ANT-115-03



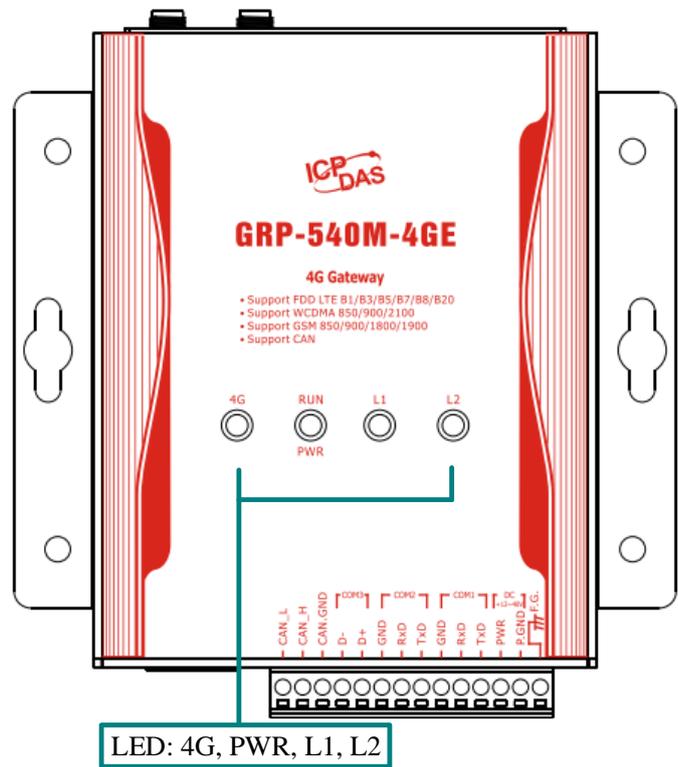
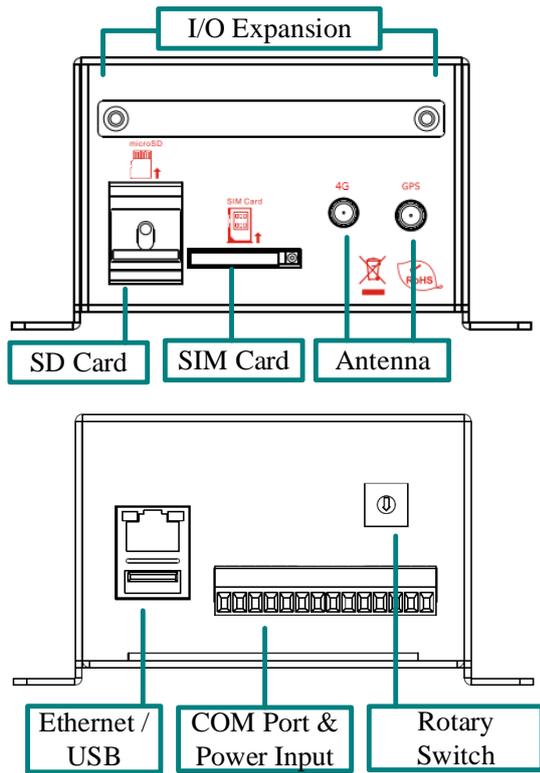
**ANT-124-05
(GRP-540M-4GX-WF
only)**

Related Documents and Software Utilities

Documents

- User Manual: GRP-530M_540M_usermanual_EN.pdf
- Quick Start: GRP-540M_QuickStart.pdf
ftp://ftp.icpdas.com.tw/pub/cd/usbcd/napdos/grp-530_540/manual/
- GRP-540M software Website:
<http://m2m.icpdas.com/GRP-540M-series.html>

1 Appearance and Pin Assignments



COM Port & Power Input		
Terminal No.		Pin Assignment
Power	14	F.G.
	13	P.GND
	12	PWR
COM1	11	TxD1
	10	RxD1
	09	GND
COM2	08	TxD2
	07	RxD2
	06	GND
COM3	05	D+
	04	D-
CAN	03	CAN.GND
	02	CAN_H
	01	CAN_L

2 LED indicators

A. **PWR(Green)** : Power LED to indicate whether the external power is input or not. The description is as follows:

The external power is active	The external power is not active
on	off

B. **RUN(Red)** : RUN LED indicates if the OS is normal or fail.

Normal	Fail
Heart beat (1 sec.)	Always ON or OFF

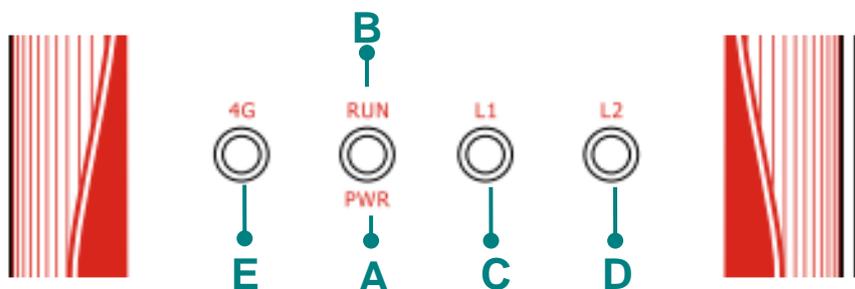
C. **L1(Green/Red)** : this Led indicates the status of RTU Client.

Normal	Fail
500ms ON / 500ms OFF	Always ON or OFF

D. **L2(Green/Red)** : reserve.

E. **4G (Red)** : The LED indicates the status of 4G module.
(the 4G module need about 60 seconds to register network usually)

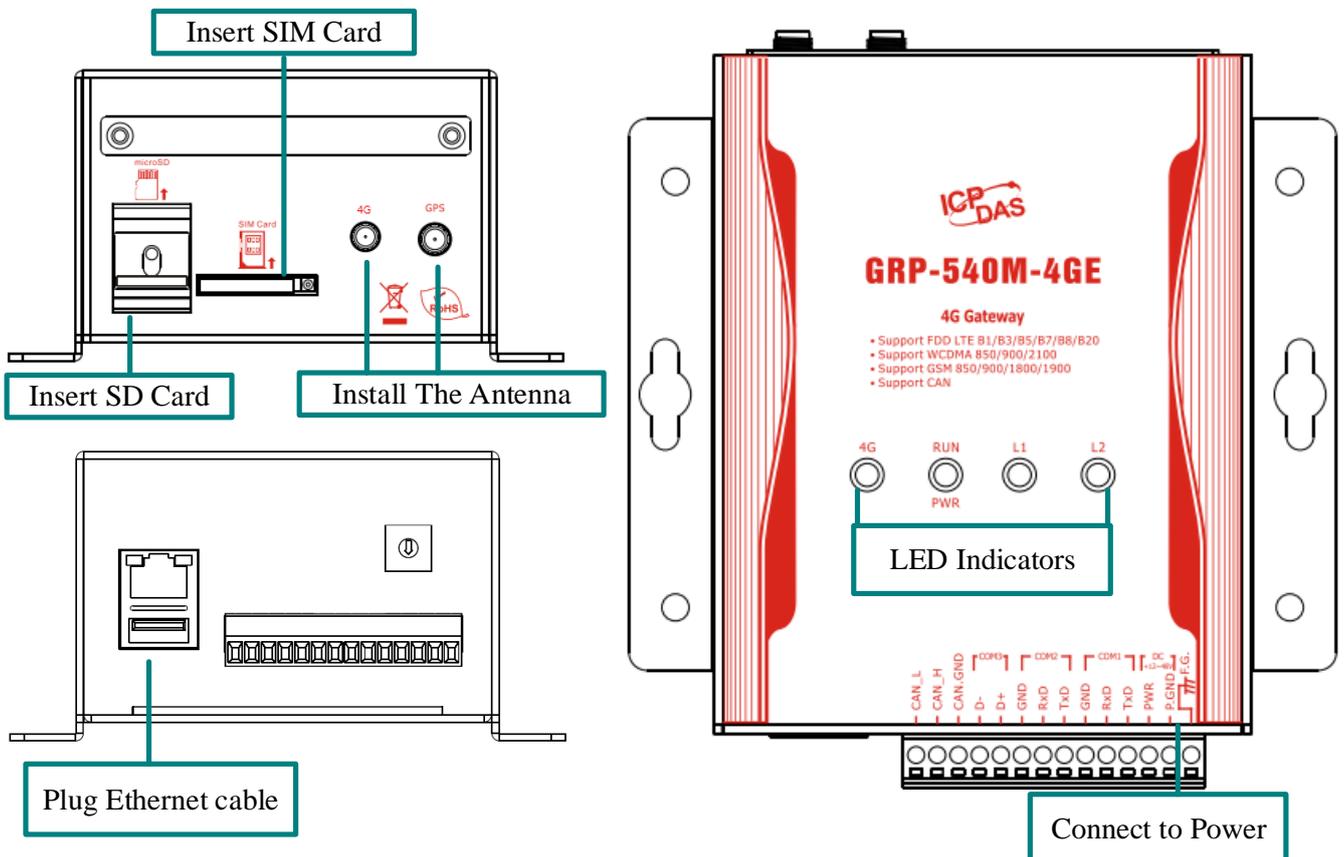
Registered	4G/GPRS data transmit	Not Register
800ms ON / 200ms OFF	200ms ON, 200ms OFF	200ms ON / 800ms OFF



3 Installation

If users want to start GRP-540M normally, it needs to follow these steps to install the GRP-540M below:

- A. Install the antenna
- B. Plug in the normal SIM card (Before apply the SIM card, confirm it is OK by mobile phone.)
- C. Plug the Ethernet cable if you need it.
- D. If you want to use the Micro SD card, please insert it into the slot.
- E. Turn the rotary switch to 0 (normal mode). The COM1 will be the console in position 1 (debug mode), and the default username is “root”, default password is “root”.
- F. Connect the DC.+VS and DC.GND to the power supply.
- G. It is needed to wait about 20 ~ 30 seconds for OS booting. After finishing the process, GRP-540M would be in normal operation mode and the OS LED would blank as heart beat per 1 sec.
- H. It is needed to wait about 30 ~ 60 seconds to search the 4G base and register to the ISP. After finishing the process, the 4G LED would blank per 1 sec.



4 Web Utility

1. Login

Default username = “admin”, and default password = “admin”

Default IP = “192.168.255.1”

Default Mask = “255.255.0.0”



After login, the screenshot is showed as below:

Information
--Device Info
--Network Info
--Storage Info
Network
--Ethernet
--WLAN
--PIN / APN
--Network Reconnection
--DNS
--DDNS Client
--VPN
--DHCP Server
--Routing
--Diagnostic
--Reset Network
System
--Password
--Reboot
--Reboot Timer
--Backup/Restore
--Update
--Restore Factory
--Time
VxServer
--VxServer
RTU Client
--RTU Client
--FTP Test
--Email Test
--Modbus Test
RTU CAN Client
--Basic config
--CAN config
--FTP/Email

Ethernet	
Mode	static
MAC address	d0:ff:50:c6:c9:3e
IP Address	192.168.255.1
Mask	255.255.0.0

WLAN information	
Mode	Closed

Mobile Network information	
Status	connected
IP Address	10.210.6.227
P-r-P	10.64.64.64

Modem information	
IMEI	868323022416462
PIN Code	+CPIN: READY
Register Status	Registered
Signal Quality	37%

GPS information	
GPS Status	GPS is not ready
GPS Data	\$GPRMC,,V,,,,,,,,,N*53

2. Ethernet

This page provides the basic settings of Ethernet:

Ethernet	
1	IP Address <input type="text" value="192.168.255.1"/>
2	Mask <input type="text" value="255.255.0.0"/>
3	Gateway <input type="text"/>
<input type="button" value="Modify"/>	

- (1) IP Address: IP of Ethernet.
- (2) Mask: the Mask of the gateway.
- (3) Gateway: IP of the gateway.

3. PIN / APN Configure

This page provides basic settings of 4G network. This page of GRP-541M will show up two SIM cards' settings.

PIN / APN Configure	
1	PIN Code <input type="text" value="0000"/>
2	Phone Number <input type="text" value="*99***1#"/> (1)
3	APN <input type="text" value="internet"/> (2)
4	User Name <input type="text"/> (2)
5	Password <input type="text"/> (2)
<input type="button" value="Modify"/>	
<p>(1): usually use *99# or *99***1#</p> <p>(2): please ask your SIM Card provider</p>	

- (1) PIN Code: PIN Code are 4 character number provided by SIM Card provider
- (2) Phone Number: usually fill it as “*99***1#” or “*99#”. It depends on SIM Card provider
- (3) APN: Access Point Name, please ask your SIM Card provider.
- (4) User Name: the username for dial-up. Please ask your SIM Card provider.
- (5) Password: the password for dial-up. Please ask your SIM Card provider.
- (6) Enable Dual SIM: Default is using SIM1. If enable this function, the SIM card will be auto changed to another when the network is reconnecting. (Only show up in GRP-541M).

4. Routing

This page provides routing rule configuration.

ROUTING Rule			
Rule NO.	IP	Mask	Target
0	192.168.27.1	24	ppp0
1			
2			
3			
4			
5			
6			
7			
8			
9			

- (1) IP: IP address.
- (2) Mask: the mask will effect how many IP this rule manages.
" 24" = 255 IPs, "28" = 16 IPs, "32" = 1 IPs.
- (3) Target: the target interface of the rule.
- (4) For example:
The Rule 0: This rule will push the socket packages from the address 192.168.27.1 ~ 192.168.27.255 forward to "ppp0" (4G network).

5. Port Mapping (Port Forward)

This page provides Port Mapping rule configuration.

Port Mapping Rule					
Rule NO.	Type	From	Port	Target IP	Target Port
0	TCP	ppp0	10080	192.168.27.140	80
1					
2					
3					
4					
5					
6					
7					
8					
9					

Modify

- (1) Type: the protocol type. There are “TCP” and “UDP”
- (2) From: the interface that the socket comes from.
” ppp0” is 4G interface.
- (3) Port: the port that the socket comes from.
- (4) Target IP: the IP that the socket goes forward.
- (5) Target Port: the Port of the “Target IP”.
- (6) For example:
The Rule 0: This rule will bind the socket from the “ppp0” and Port=“10080” with 192.168.0.10:80.

6. Password

The user can change the password of the web utility here.

Change Password	
New Password	<input type="text"/>
Confirm	<input type="text"/>
<input type="button" value="Modify"/>	
The length of password must be more then 4 characters that limited in a~z, A~Z, 0~9.	

- (1) Password: new password.
- (2) Confirm: confirm the password again.

7. The advance settings of web utility

Please refer the user manual of GRP-540M.