



# GRP-520

## Quick Start

### Package Checklist

The package includes the following items:

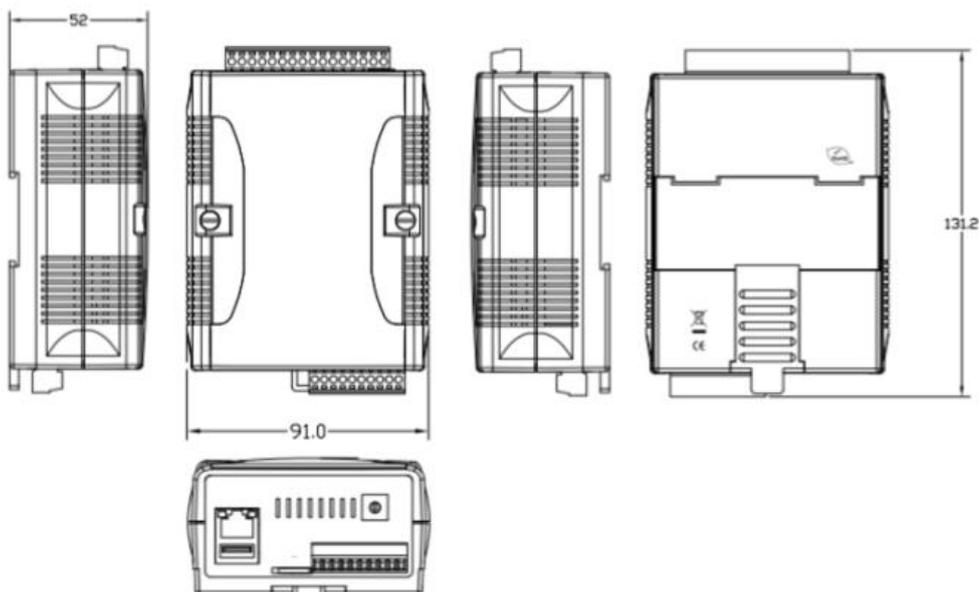
- One GRP-520 hardware module
- One Quick Start
- One companion CD
- One RS-232 cable (CA-0910)
- One 2G/3G antenna (ANT-421-02)
- Screw Driver

### Related Documents and Software Utilities

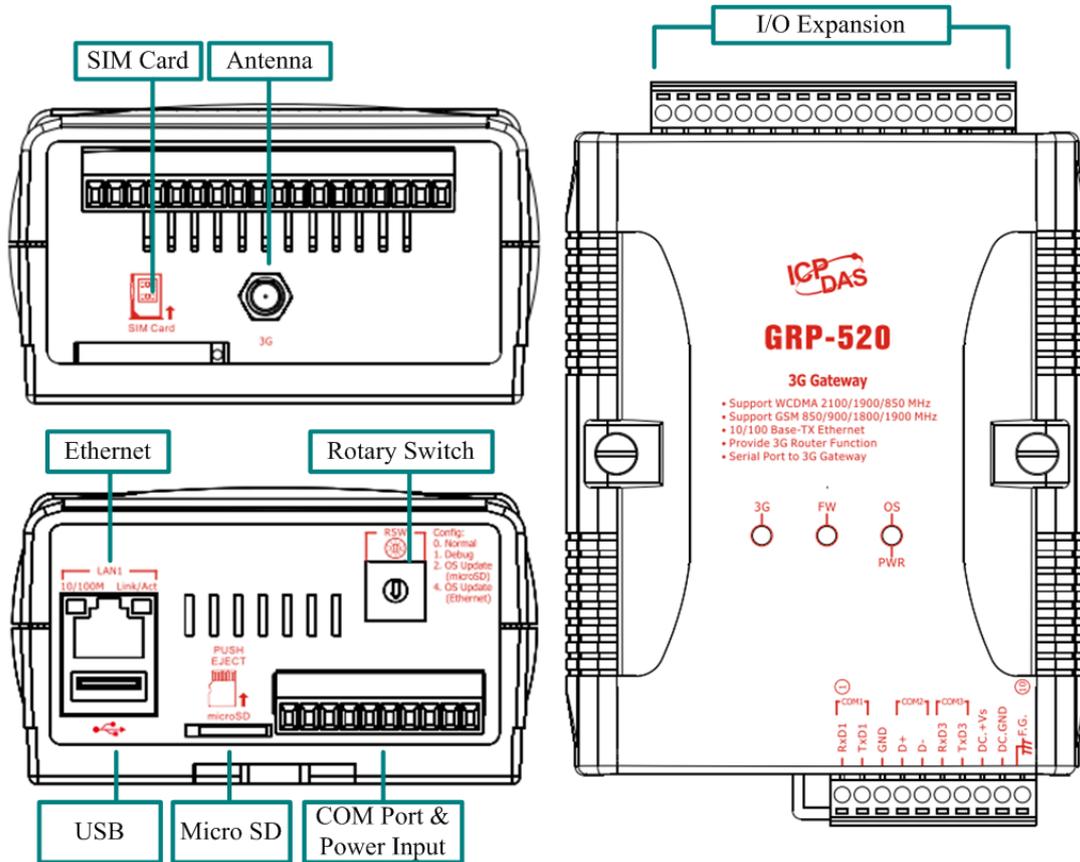
#### Documents

- User Manual: GRP-520\_User\_Manual.pdf
- Quick Start: GRP-520\_QuickStart.pdf
- CD: \napdos\GRP-520\Manual
- <http://ftp.icpdas.com/pub/cd/usbcd/napdos/GRP-520/manual>

### ➤ GRP-520 Dimensions (Unit: mm)



## ➤ Appearance and Pin Assignments



COM Port & Power Input		
Terminal No.		Pin Assignment
COM1	01	RxD1
	02	TxD1
	03	GND
COM2	04	D+
	05	D-
COM3	06	RxD3
	07	TxD3
Power	08	DC.+VS
	09	DC.GND
	10	F.G.

## ➤ 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. OS(Red) : OS LED indicates if the OS is normal or fail.

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

- C. FW(Red) : This LED indicates the status of VxServer firmware (Serial port to 3G).

Connected	Connecting	Fail
500ms ON / 500ms OFF	Blanking(4 sec)	Always ON or OFF

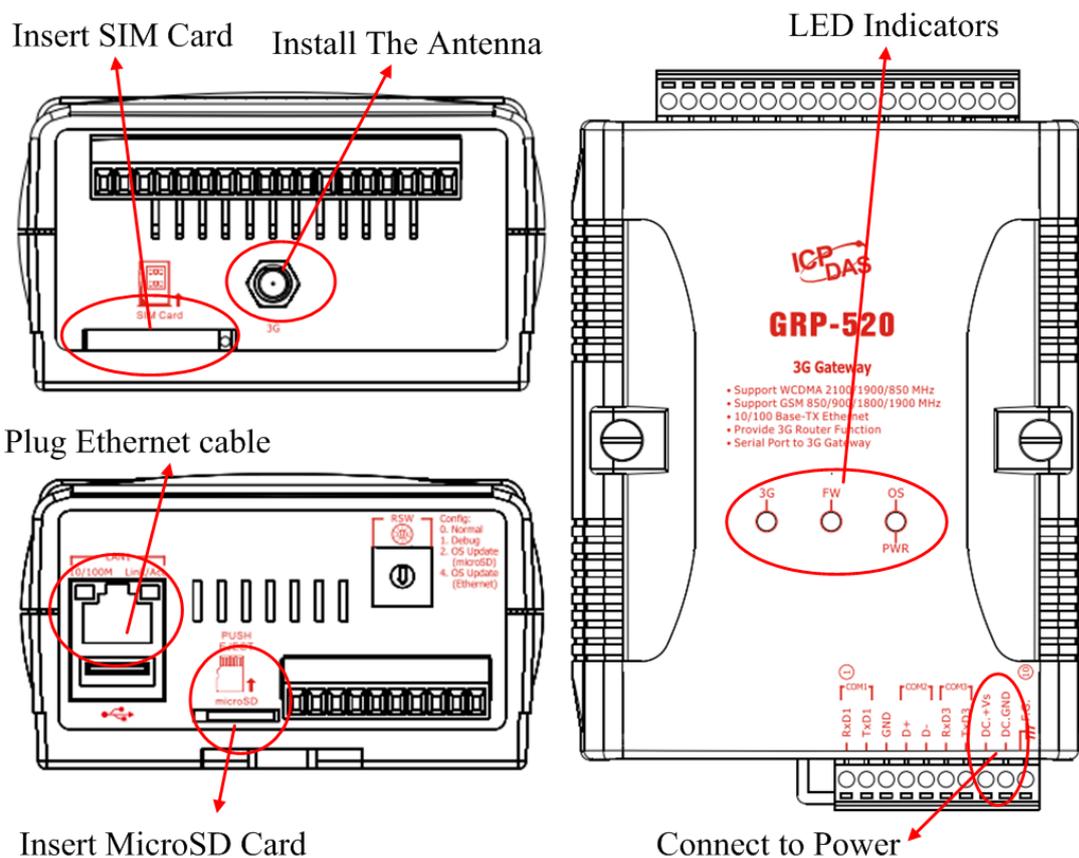
- D. 3G (Red) : The LED indicates the status of 3G module.

Registered	3G/GPRS data transmit	Fail
800ms ON / 800ms OFF	200ms ON, 200ms OFF	Always ON or OFF

## ➤ Installation

If users want to start GRP-520 normally, it needs to follow these steps to install the GRP-520 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-520 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 3G/2G base and register to the ISP. After finishing the process, the 3G LED would blank per 1 sec.



## ➤ Web Utility

### 1. Login

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

Default IP = “192.168.255.1”

Default Mask = “255.255.0.0”

Default Gateway = “192.168.0.1”



After login, the screenshot is showed as below:

**Information**

- [Device Info](#)
- [Network Info](#)
- [Storage Info](#)

**Network**

- [Ethernet](#)
- [2G/3G](#)
- [3G/GPRS](#)
- [Reconnection](#)
- [DNS](#)
- [DDNS](#)
- [DHCP Server](#)
- [Routing](#)
- [Port Mapping](#)
- [Diagnostic](#)

**System**

- [Password](#)
- [Reboot](#)
- [Backup/Restore](#)
- [Restore Factory](#)
- [Time](#)
- [System Service](#)

**VxServer**

- [VxServer](#)

Web Ver: 1.0.0

Ethernet	
Mode	static
MAC address	00.0D:E0:20:00:09
IP Address	192.168.27.52
Mask	255.255.0.0

3G/GPRS Network information	
Status	connected
IP Address	1.200.149.90
P-t-P	10.64.64.64
Mask	255.255.255.255

Modem information	
PIN Code	READY
Register Status	Registered
Signal Quality	46%

## 2. Ethernet

This page provides the basic settings of Ethernet:

Ethernet	
Mode	Static <input type="button" value="v"/>
IP Address	<input type="text" value="192.168.27.51"/>
Mask	<input type="text" value="255.255.0.0"/>
Gateway	<input type="text"/>
<input type="button" value="Modify"/>	

- (1) Mode:
  - “Static”: set as static IP
  - ”DHCP”: set IP via DHCP protocol.
- (2) IP Address: IP of Ethernet.
- (3) Mask: the Mask of the gateway.
- (4) Gateway: IP of the gateway.

## 3. 3G Configure

This page provides basic settings of 3G network.

2G/3G Configure	
PIN Code	<input type="text" value="●●●●"/>
Phone Number	<input type="text" value="*99***1#"/> (1)
APN	<input type="text" value="internet"/> (2)
User Name	<input type="text"/> (2)
Password	<input type="text"/> (2)
Auto-Dialing	<input checked="" type="checkbox"/> Enable
<input type="button" value="Modify"/>	
(1):usually use *99# or *99***1#	
(2):please ask your SIM Card provider	

- (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#”. The number is depended 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) Auto-Dialing: Enable this function to dial-up to 3G network after power on.

## 4. Routing

This page provides routing rule configuration.

ROUTING Rule			
Rule NO.	IP	Mask	Target
0	192.168.27.0	24	ppp0
1	192.168.0.0	28	ppp0
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 192.168.27.0 ~ 192.168.27.255 forward to "ppp0" (3G network).  
 The Rule 1: This rule will push the socket packages from the address 192.168.0.0 ~ 192.168.0.15 forward to "ppp0" (3G 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	192.168.0.10	80
1	TCP	ppp0	10021	192.168.0.10	21
2					
3					
4					
5					
6					
7					
8					
9					

- (1) Type: the protocol type. There are “TCP” and “UDP”
- (2) From: the interface that the socket comes from.  
”ppp0” is 3G 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.  
The Rule 1: This rule will bind the socket from the “ppp0” and Port=”10021” with 192.168.0.10:21.

## 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-520.

## ➤ Technical Support

1. ICP DAS Service : [service@icpdas.com](mailto:service@icpdas.com)
2. GRP-520 software Website:  
<http://m2m.icpdas.com/GRP-520.html>