

User Manual

GAO RFID 217002Y



Ver. 2.0





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Components



GAO RFID 217002Y



Power Cable



Product CD



RFID Antenna



WiFi Antenna



Notice

All components are subject to variation.

Network Setup

- ❑ Prior to setting up the configuration, make sure you have a Reader, a power cable, an Ethernet crossover type RJ45 communication cable and a computer.

1. Make sure the computer's network has to be set as DHCP enabled.
2. Use a crossover RJ45 Ethernet cable to directly connect the PC with the 217002Y device.
3. Power on 217002Y WIFI reader with its default 12VDC power supply.
4. After about 8 seconds, the computer will automatically obtain the Ethernet connection between the PC and the reader.
5. On the PC side, enable the Internet Explorer, then enter the URL:
<http://10.10.100.254>

Then enter the user name and password, the default both are “admin”

6. Once log in, hit the button of “Mode Selection” which is on the left side of the window, the following screen should be like this:

The screenshot shows a web interface for 'Working Mode Configuration'. On the left is a sidebar menu with five items: 'Mode Selection' (highlighted with a blue arrow), 'AP Interface Setting', 'STA Interface Setting', 'Application Setting', and 'Device Management'. The main content area has a title 'Working Mode Configuration' and a subtitle 'You may configure the Uart-WIFI module wifi mode and data transfer mode.' Below this, there are two radio button options: 'AP Mode: Access Point' and 'STA Mode: Station Mode', with 'STA Mode' being selected. Underneath is a 'Data Transfer Mode' dropdown menu currently set to 'Transparent Mode'. At the bottom are 'Apply' and 'Cancel' buttons.

Network Setup

7. Make sure the “STA Mode” is being selected, then hit the button of “Apply”
8. Hit the button of “STA Interface Setting” on the left, the following windows will show up like this:

STA Interface Setting

You could configure STA interface parameters here.

STA Interface Parameters	
AP's SSID	GAORFID Search...
MAC Address (Optional)	
Security Mode	OPEN
Encryption Type	None

WAN Connection Type: STATIC (fixed IP)

Static Mode	
IP Address	192.168.1.142
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1

9. Users are able to select which specific wireless router around that is going to be used with the 217002Y wireless reader. To realize that, just hit the button of “Search”, then select the proper wireless router.
10. There are couple of parameters in this setting panel that require users to input manually -

SSID	BSSID	RSSI	Channel	Encryption	Authentication	Network Type
<input checked="" type="radio"/> GAORFID	20:aa:4b:7a:66:64	100%	11	NONE	OPEN	Infrastructure
<input type="radio"/> hpsetup	8e:a9:05:0e:ed:c9	0%	6	NONE	OPEN	Ad Hoc
<input type="radio"/> linksys	00:1e:e5:78:2f:7c	70%	6	NONE	OPEN	Infrastructure
<input type="radio"/> 44:e4:d9:3f:f7:50	WPA2/AES	11b/g/n%	6	AES	WPA2PSK	Ad Hoc



Network Setup

A: SSID

SSID is the unique identification for the 217002Y WiFi reader that is used for connecting with a WiFi router. Users need to confirm both WiFi router and 217002Y reader have the **SAME SSID**.

B: Security Mode

If the security setting on the router's side being set, please make sure that on the reader side, the same security setting is set accordingly.

C: Make sure the “Static (Fixed IP)” option is selected and users need to assign a new IP address for the RFID reader based on the current WiFi network. Users may consult with the IT department for more information regarding this setting.

11. Hit the button of “Apply” to make the new settings effective.

12. Then hit the button of “Application Setting” on the left panel and go into the next setting panel, see below:

Wifi-Uart Setting

You could configure the Uart parameters and network parameters of the wifi-uart application.

Uart Setting	
Baudrate	115200
Data Bits	8
Parity	None
Stop	1
CTSRTS	Disable

Apply **Cancel**

UART AutoFrame Setting	
UART AutoFrame	Disable

Apply **Cancel**

Network Setup

Network Setting	
Mode	Server
Protocol	TCP
Port	8899
Server Address	192.168.1.102
MAX TCP Num. (1~32)	32
TCP Time out (MAX 600 s)	300

Apply

Cancel

13. Make sure settings such as “Baudrate”, “Data bits”, etc. exactly match those ones shown on the UART setting above. Then hit the button of “Apply” to make them effective.
14. On the “Network Setting” part, please select “Server” in the dropdown list for the “Mode”; input the TCP/IP port number (i.e. “8899”) and the server address. The server address stands for your computer’s IP address. Then hit the button of “Apply”.
15. On the left panel, hit the button of “Device Management”, then hit the button of “Restart” to reboot your 217002Y WiFi reader, see below:

[Mode Selection](#)
[AP Interface Setting](#)
[STA Interface Setting](#)
[Application Setting](#)
[Device Management](#)

Device Management

Ver: 3.29.11H

You may configure administrator account and password, load default setting or update firmware.

Administrator Settings

Account

admin

Password

Apply

Cancel

Restart Module

Restart Module

Restart

Load Factory Defaults

Load Default Button

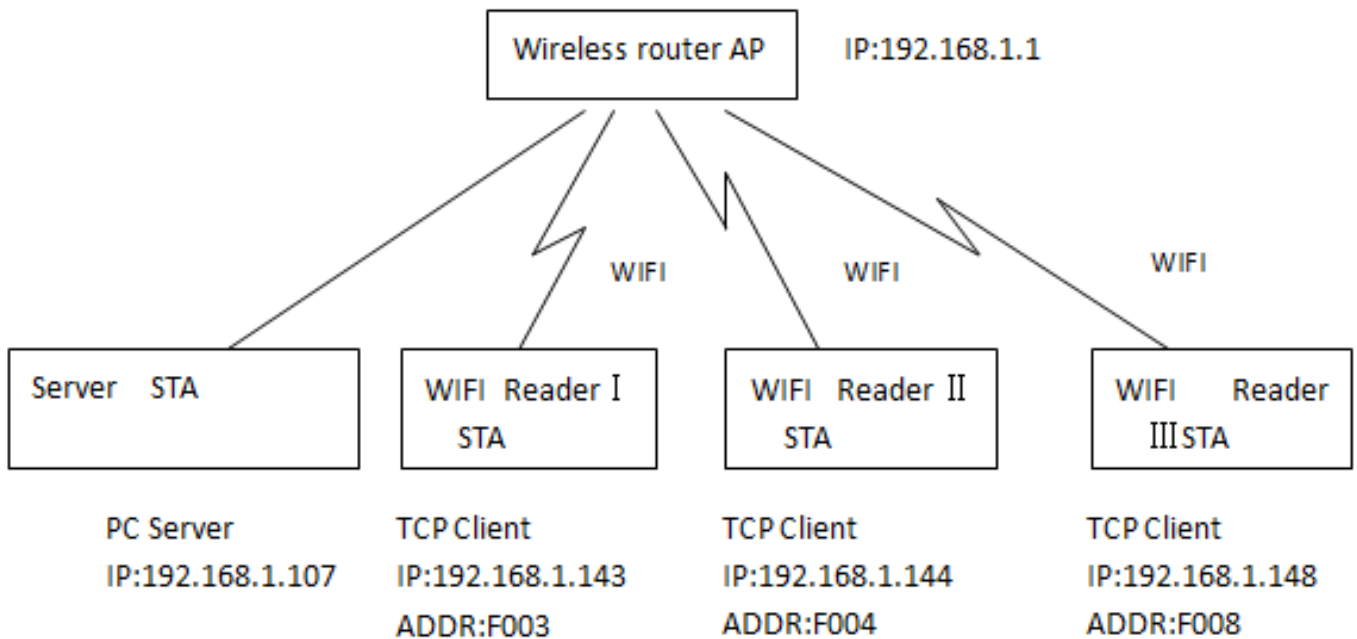
Load Default



Network Setup

After the 217002Y reboots, the network parameters being set on the reader side will take effective.

Notice: User might need to set your Wireless router and the PC as well based on the current WiFi network. For more information about it, please work with your WiFi router provider or the IT department for details.



Notice

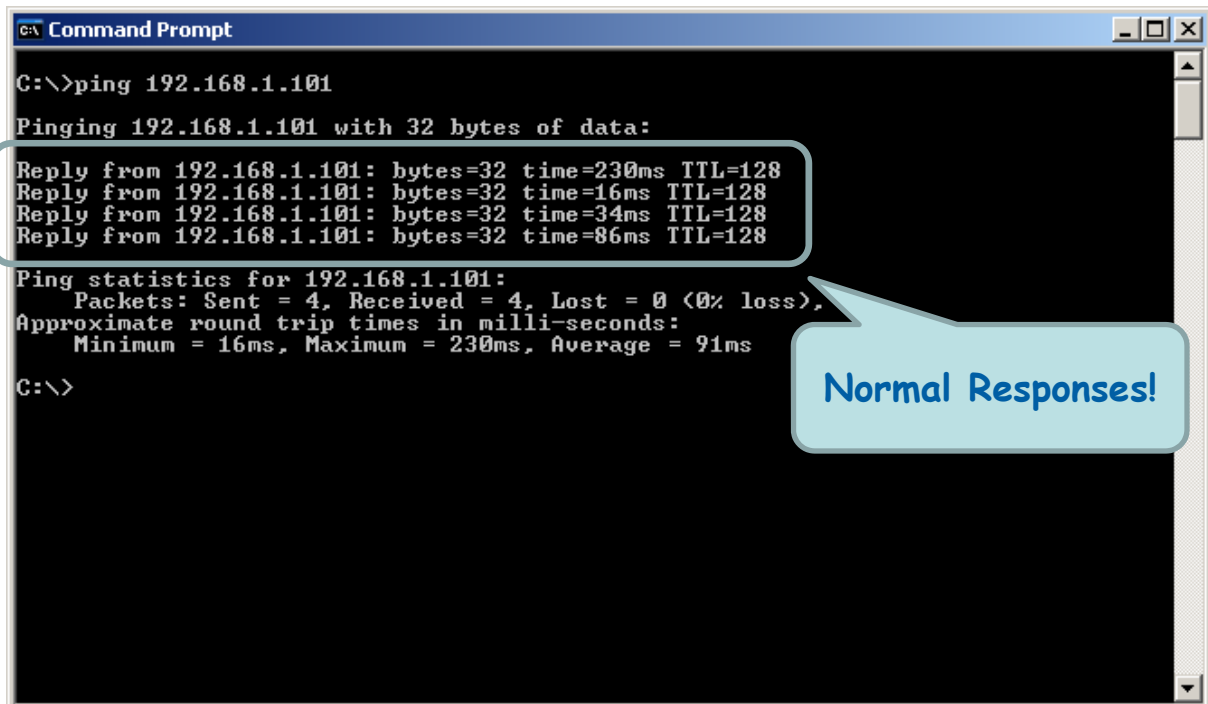
- ✓ Before you run the demo software, we recommend ***Pinging test*** to check the connection status between the Reader and your computer.
- ✓ You can learn how to do ***Pinging Test*** on next page. You may skip the next page if you are already aware of the ***Pinging Test***.

Pinging Test

Pinging Test

*Pinging is a command which tells you if the connection between your computer and a particular domain is working correctly. You can perform **Ping Test** to verify the condition of the connection between the reader and your computer.*

1. In Windows, select Start > Programs > Accessories > Command Prompt.
This will give you a window like the one below.
2. Enter the word ping, followed by a space, then the domain name, which means the target IP address; in this case, it is the IP address of the Reader.
3. If the results show a series of replies, the connection is working. The time shows you how fast the connection is. If you see a "timed out" error message instead of a reply, there is a breakdown somewhere between your computer and the domain.



```
C:\ Command Prompt

C:\>ping 192.168.1.101

Pinging 192.168.1.101 with 32 bytes of data:

Reply from 192.168.1.101: bytes=32 time=230ms TTL=128
Reply from 192.168.1.101: bytes=32 time=16ms TTL=128
Reply from 192.168.1.101: bytes=32 time=34ms TTL=128
Reply from 192.168.1.101: bytes=32 time=86ms TTL=128

Ping statistics for 192.168.1.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 16ms, Maximum = 230ms, Average = 91ms

C:\>
```

Running Demo Software

1. Insert the product CD and double click on the CD icon from 'My Computer'. Then, double-click on the installer file of "GAO217002Y_Demo_Setup.msi".
2. After the installation finishes , the shortcut should be created on the desktop.

GAORFD 217002Y Wi-Fi Version 2.45GHz Active Reader

GAO217002Y Reader's IP Address: 100.100.100.242 TCP Port Number: 8900 **Stop**

	Tag Type	Tag ID	Count	Time Stamp	Temperature	Battery	Buckle On Off	Vibrating?	Panic Button	Mounted?
1	127001	4300000000015079	1006	2016-11-09 3:43:09 PM		High				
2	127012	4600000000000659	1005	2016-11-09 3:43:09 PM		High				
3	127012	4600000000000654	1004	2016-11-09 3:43:09 PM		High				
4	127012	4600000000000657	1002	2016-11-09 3:43:09 PM		High				
5	127001	46100000000005F0	1001	2016-11-09 3:43:09 PM		High				
6	127001	4300000000015329	999	2016-11-09 3:43:09 PM		High				
7	127012	4600000000000641	995	2016-11-09 3:43:09 PM		High				
8	127012	4650000000000198	991	2016-11-09 3:43:09 PM		High				
9	127006	5569000000000797	982	2016-11-09 3:43:09 PM		High	Buckle Opened			
10	127012	4650000000000034	978	2016-11-09 3:43:09 PM		High				
11	127004	CC00000000000390	959	2016-11-09 3:43:09 PM		High		No		
12	127001	43000000000008850	958	2016-11-09 3:43:09 PM		High				
13	127004	CC00000000000389	957	2016-11-09 3:43:09 PM		High		No		
14	127006	55690000000001500	927	2016-11-09 3:43:09 PM		High	Buckle Opened			
15	127004	CC00000000000388	920	2016-11-09 3:43:09 PM		High		No		
16	127002	53000000000005169	872	2016-11-09 3:43:09 PM		High				
17	127004	CC00000000000387	832	2016-11-09 3:43:09 PM		High		No		
18	127004	CC00000000000391	796	2016-11-09 3:43:09 PM		High		No		
19	127003	8888FF0000006	647	2016-11-09 3:43:09 PM	22.3 °C	Low				
20	127004	CC00000000000394	621	2016-11-09 3:43:09 PM		High		No		
21	127004	CC00000000000396	308	2016-11-09 3:43:09 PM		High		No		
22	127003	888800001181	307	2016-11-09 3:43:09 PM	21.5 °C	High				
23	127004	CC00000000000392	247	2016-11-09 3:43:09 PM		High		No		



Running Demo Software



Notice

- ✓ Before you run the demo software, Please make sure the WiFi readers have been configured correctly.
 - ✓ Please make sure the WiFi readers, the router and your computer have been connected correctly.
3. Please input the reader's IP and port number according to your configuration, then press the "Start" button. If the reader is connected, the tag reading process should start.

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