



UART-to-WiFi Module User Manual (EX1605)

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Chapter 1 Network page setting

Using the module for the first time need to set the module by PC connection module(the default module is AP mode) at the network page.

Default AP module values are as follows:

Parameters	Default Value
SSID	EXID
IP Address	10.10.100.254
Subnet Mask	255.255.255.0

1-1 Open the management page



Fig. 1

As pictured above(Fig. 1),link EXID with PC wireless card first. After successful connection, open web browser and enter URL as <u>http://10.10.100.254</u>.(ID:admin, Password:admin),(As pictrue Fig.2). Then the page will appear EXID management page. Management page is divided into six main pages: "System State ", "WiFi parameters", "UART Parameters", "Additional Functions", "System Management", "About EXCELL "(As pictured Fig.3)



Authentication	Required	×
http://10.10.100.2	4 requires a usernam	e and password.
Your connection t	o this site is not privat	e.
User Name:	admin	
Password:	*****	
	Log In	Concol







1-2 WiFi parameters setting

1-2-1 WiFi operating mode setting

Attention: When setting the module parameters via web pages, please switch work mode to the AP + STA mode (As pictured Fig. 4).Switch back to STA mode after confirming the setting value Completed and working properly.

EXCELL	EXCELL -Weighting Scale Experts-	Be Excellent!
System Status	WiFi Mode Select	Help
WiFi Setting	WiFi Work Mode: AP mode	Network
Trans Setting	STA mode	Name(SSID):
Extra Function	Network Name(SSID): AP+SIA mode Select AP+STA mode	Case sensitive
System Setting	Password(8-63 bytes): NONE	 Password: The AP password is 8-63 bytes (STA
About EXCELL	IP Address: 10.10.100.254	password without this restriction), NONE said no
	Mask: 255.255.255.0	encryption; Case sensitive
	STA Mode	• DHCP: Open this feature,
	Router SSID: EXID Search	will get IP by dhcp; turn off,
	STA Password: NONE	enter the IP
	DHCP: Enable	
	Save	

Fig. 4

- AP mode: Access Point, the center node of wireless net, which other wireless terminals can connect through.
- STA mode: Consists of a AP and many STA.AP is in the center position. STA communicate with each other through AP.
- AP+STA mode: The module can enable AP and STA at the same time. Namely the module can support an AP interface and a STA interface at the same time.

The WiFi operating mode used generally is STA mode.



1-2-2 AP parameters setting

Basically do not need to modify (As pictured Fig. 5).

SSID (Default Network Name is EXID) If more scales will be working, it is necessary to number them to distinguish.

(For example: There are three scales working. And IP of the three scales is 192.168.30.50, 192.168.30.151, and 192.168.30.152 respectively. Therefore we can set the three scales' SSID as EXID050, EXID151, and EXID152 respectively).

Password (Default password: NONE), IP address (Default value is 10.10.100.254), Subnet Mask (255.255.255.0).

EXCELL	EXCELL -Weighting Scale Experts-	Be Excellent!
System Status	WiFi Mode Select	Help
WiFi Setting	WiFi Work Mode: AP+STA mode V	Network
Trans Setting	AP mode	Name(SSID):
Extra Function	Network Name(SSID): EXID	Case sensitive
System Setting	Password(8-63 bytes): NONE	 Password: The AP password is 8-63 bytes (STA)
About EXCELL	IP Address: 10.10.100.254	password without this restriction), NONE said no
	Mask: 255.255.255.0	encryption; Case sensitive
	STA Mode	• DHCP: Open this feature,
	Router SSID: EXID Search	will get IP by dhcp; turn off,
	STA Password: NONE	need to manually enter the IP
	DHCP: Enable	
	Save	
	1	





1-2-3 STA parameters setting

Router (SSID): Press the "Search" button and choose the AP you want to connect.

Choose EXCELL_DEMO for example (As pictured Fig. 6, Fig. 7).

STA password: enter the password of the AP (The password of EXCELL_DEMO is 12345678). DHCP will get IP automatically: choose Disable (As pictured Fig. 8).

Default value is as pictured Fig. 9.

IP address: enter the specified IP address manually (Namely 192.168.30.151).

Other setting (Subnet Mask, Gateway, and DNS) depends on the connected AP Settings.

Take EXCELL_DEMO for instance: Subnet Mask: 255.255.255.0 Gateway: 192.168.30.254 DNS:192.168.30.254

System Status	WiFi Mode Select	Help
WiFi Setting	WiFi Work Mode: AP+STA mode 🔻	Network
Trans Setting	AP mode	Name(SSID):
Extra Function	Network Name(SSID): EXID	Case sensitive
System Setting	Password(8-63 bytes): NONE	 Password: The AP password is 8-63 bytes (ST/
About EXCELL	IP Address: 10.10.100.254	password without this restriction), NONE said no
	Mask: 255.255.255.0	encryption; Case sensitive
	STA Mode	DHCP: Open this feature
	Router SSID: EXID Search	will get IP by dhcp; turn off, paged to manually
	STA Password: NONE Click Sea	arch enter the IP
	DHCP: Enable	
	Save	

6





Fig. 7





Fig. 8



EXCELL	EXCELL -Weighting Scale Experts-	Be Excellent!
System Status	WIFI WORK MODE: AP+STA MODE *	Network
WiFi Setting	AP mode	Name(SSID):
The second	Network Name(SSID): EXID	Case sensitive
Extra Function	Password(8-63 bytes): NONE	 Password: The AP password is 8-63 bytes (STA
System Setting	IP Address: 10.10.100.254	password without this restriction).
About EXCELL	Mask: 255.255.255.0	NONE said no encryption; Case sensitive
	STA Mode	DHCP: Once this feature
	Router SSID: EXCELL_DEMO Search	will get IP by dhcp; turn off, need to manually
	STA Password: 12345678	enter the IP
	DHCP: Disable	
	IP Address: 192.168.30.151	
	Mask: 255.255.0	
	Gateway: 192.168.30.254	
	DNS: 192.168.30.254	
	Save	



Press the "Save" button if entry is complete.

(Do not reboot immediately. Reboot the device after finishing all the settings).

1-3 UART parameters

1-3-1 UART parameters setting

Default values are as follows, which should be set as the same as the scale's UART. Baud Rate(1200-460800 bps): 9600 bps Date bit: 8 bit Check bit: None Stop bit: 1 bit CTSRTS/485:NFC. Take "TCP-Server" and "UDP-Client" as instance for the Protocol socket A and B.

1-3-2 Socket A setting

Socket: TCP-Server (As pictured Fig. 10) Port: 8899 Server IP address: 10.10.100.254

1-3-3 Socket B setting

Socket: UDP-Client (As pictured Fig. 11). Port: 9988.

Server IP address: 192.168.30.255

EXCELL	EXCELL -Weighting Scale Experts-			Be Excellent!
System Status		Serial Port Set		Help
WiFi Setting	Baud Rate (1200-460800 bps):	9600 •	bps	• Baud Rate:
Trans Setting	Data Bit:	8 Viene		1200~460800bps
Extra Function	Stop Bit:	None •	bit	Default is NFC
System Setting	CTSRTS/485	NFC •		 Port: 1~65535
About EXCELL	S	ocketA Connect Set		Server IP Address
	Protocol: Port- Server IP Address:	TCP-Server TCP-Server ICP-Client UDP-Server UDP-Client Screets contract Set		When the module is Client, the remote server address to be connected; When it's TCP server, the parameter is
	Protocol: Port:	OFF •]	invalid; The parameter can be IP or domain name
	Server IP Address:	10.10.254		

Fig. 10



EXCELL	EXCELL -Weighting Scale Experts-			Be Excellent!
System Status		Serial Port Set		Help
WiFi Setting	Baud Rate (1200-460800 bps):	9600 🔻	bps	. Daud Pato
Trans Setting	Data Bit:	8 •	bit	1200~460800bps
Extra Eunction	Check Bit:	None •]	CTSRTS/485: Default is NEC
	Stop Bit:	<u> </u>	bit	Port:
System Setting	CTSRTS/485	NFC •		1~65535
About EXCELL	S	ocketA Connect Set		 Server IP Address:
	Protocol:	TCP-Server •]	When the module
	Port:	8899]	remote server
	Server IP Address:	10.10.100.254]	address to be connected; When
	So	ocketB Connect Set		it's TCP server, the parameter is
	Protocol:	OFF 🔻]	invalid; The
	Port:	OFF TCP Client	1	IP or domain
	Server IP Address:	UDP-Server		name
	<	UDP-Client		

Fig. 11

Press the "Save" button if entry is complete.

(Do not reboot immediately. Reboot the device after finishing all the settings).

Attention: When the settings have been rebooted after modification and storage, it is necessary to run UART_update.exe and restart the device.



1-4 Additional function (No need for modification)

Functions like RFC2117:

RFC2117: Disable

LAN search:

Another PC in the same LAN can operate Command mode to search or set module settings through the protocol (Port:48899, Command word:www.excell.com.tw)which is default value and can not be modified.

Search Port: 48899(Unchangeable)

Search command word: <u>www.excell.com.tw</u> (Unchangeable)

Registration package mechanisms:

Operating the registration package mechanisms enables to transfer data with ID/MAC/Custom registration package in order to realize Server's goal of distinguishing data source.

Registration package content: OFF

Registration package mode(Only for TCPC): FIRST

Registration ID(0-65535): 0

Custom registration package(within 32 bits):USR-C210

Module MID:

MID: EXID.

Press the "Save" button if entry is complete.

(Do not reboot immediately! Reboot the device after finishing all the settings).



1-5 System management

No need for change(Fig. 12)

Username: admin

Password: admin

Press the "Save" button if entry is complete and reboot at last to reset the module.

EXCELL	EXCELL -Weighting Scale Experts-		Be Excellent!
System Status			Help
WiFi Setting			
Trans Setting		Reload	
Extra Function	Username:	admin	
System Setting	Password:	admin	
About EXCELL		Save	

Fig. 12



1-6 Switch back to STA mode

After confirming that the module is in the normal work, Switch WiFi mode back to STA mode.

EXCELL®	EXCELL -Weighting Scale Experts-	Be Excellent!
System Status	WiFi Mode Select	Help
WiFi Setting	WiFi Work Mode: AP mode	• Network
Trans Setting		Name(SSID):
Extra Function	Network Name(SSID):	Case sensitive
System Setting	Password(8-63 bytes): NONE	Password: The AP password is 8-63 bytes (STA
About EXCELL	IP Address: 10.10.100.254	password without this restriction), NONE said no
	Mask: 255.255.255.0	encryption; Case sensitive
	STA Mode	• DHCP: Open this feature,
	Router SSID: EXCELL_DEMO Search	will get IP by dhcp; turn off,
	STA Password: 12345678	enter the IP
	DHCP: Disable	
	IP Address: 192.168.30.151	
	Mask: 255.255.255.0	
	Gateway: 192.168.30.254	
	DNS: 192.168.30.254	

Fig. 13

Press the "Save" button and reboot at last to reset the module.



Chapter 2 Run UART_update.exe

Complete the web settings and wait 30 seconds after reboot, runUART_update.exe to update the module parameters(As pictured Fig. 14)and restart the power supply.

RunUART_update.exe, choose the IP belonged to EXCELL_DEMO (As pictured Fig. 14):



Fig. 14

Press "Update" (As pictured Fig. 15), the update result will appear in the right display window (As pictured Fig. 16).



Select IP to Broadcast	192.168.30.153	,D8B04CB4E088,EXID,2.2.3	~
192.168.30.101	UARTTE setting.		
	+OK=147	Original Setting	
Ping Function	+OK	Modification Succeeded	
	+OK=20 MDCH setting	New Setting	
	+OK=10	Original Setting	
	+OK	Modification Succeeded	
	+OK=OFF	New Setting	
			~
	L.		

Fig. 16

Remarks:

- 1. "192.168.30.153,D8B04CB4E088,EXID,2.2.3" means that WiFi module has been connected.
- 2. "+OK=147" means the current UARTTE parameter settings.
- 3. "+OK" means that the new parameter settings have been completed .
- 4. "+OK=20" means the value after changes.
- 5. "+OK=10"MDCH default value is checking AP's Gateway per 10mins with ping.
- 6. "+OK" means that the new parameter settings have been completed.
- 7. "+OK=OFF" means that Ping Function is off.

If IP is not chosen, warning message will display after pressing "update" key(Fig.17).

🚆 UART Update	
Select IP to Broadcast	Uart_update Please select IP OK
Updating	Clear

Fig. 17

If a wrong IP has been chosen, warning message will display as follows after 3 seconds(Fig. 18).



Fig. 18

After Clicking "Ping Function" and pressing "Update", Ping Function will work again. (Namely checking the AP's Gateway per 10mins with Ping)As pictured Fig.19.

🚆 UART Update		
Select IP to Broadcast 192.168.30.101 Ping Function	192.168.30.153,D8804CB4E088,EXID,2.2.3 UARTTE setting +OK=20 +OK +OK=20 MDCH setting +OK=OFF +OK +OK=10	
Update		Clear

Fig. 19