

# Dual band WiFi to serial converter & RTLS Gateway

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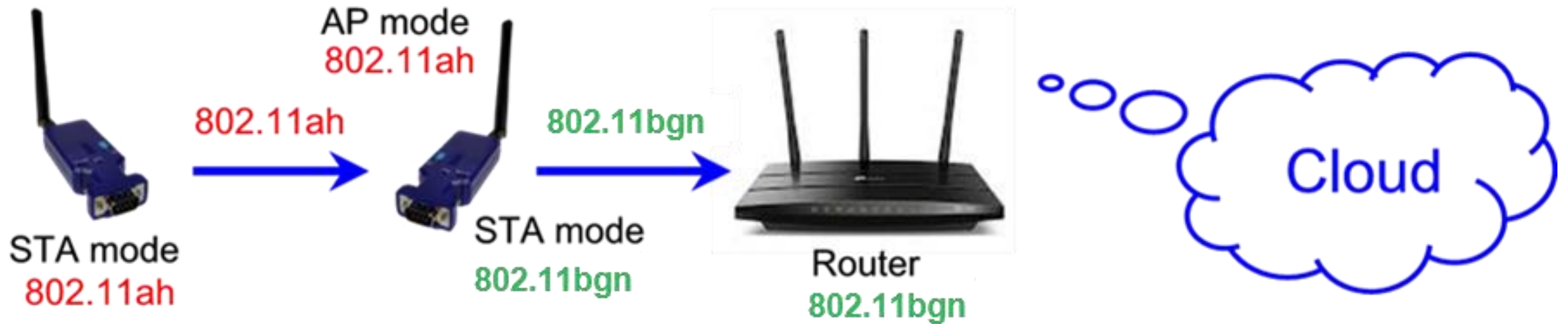
UConnect International Co., Ltd.

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By Jason

# Network

- 2.4GHz: Connect with the AP Router, Smartphone, NB or Internet
- Sub-1G: Extend the range of data communication



# Dual band WiFi to serial converter

RS-232



RS-422/485



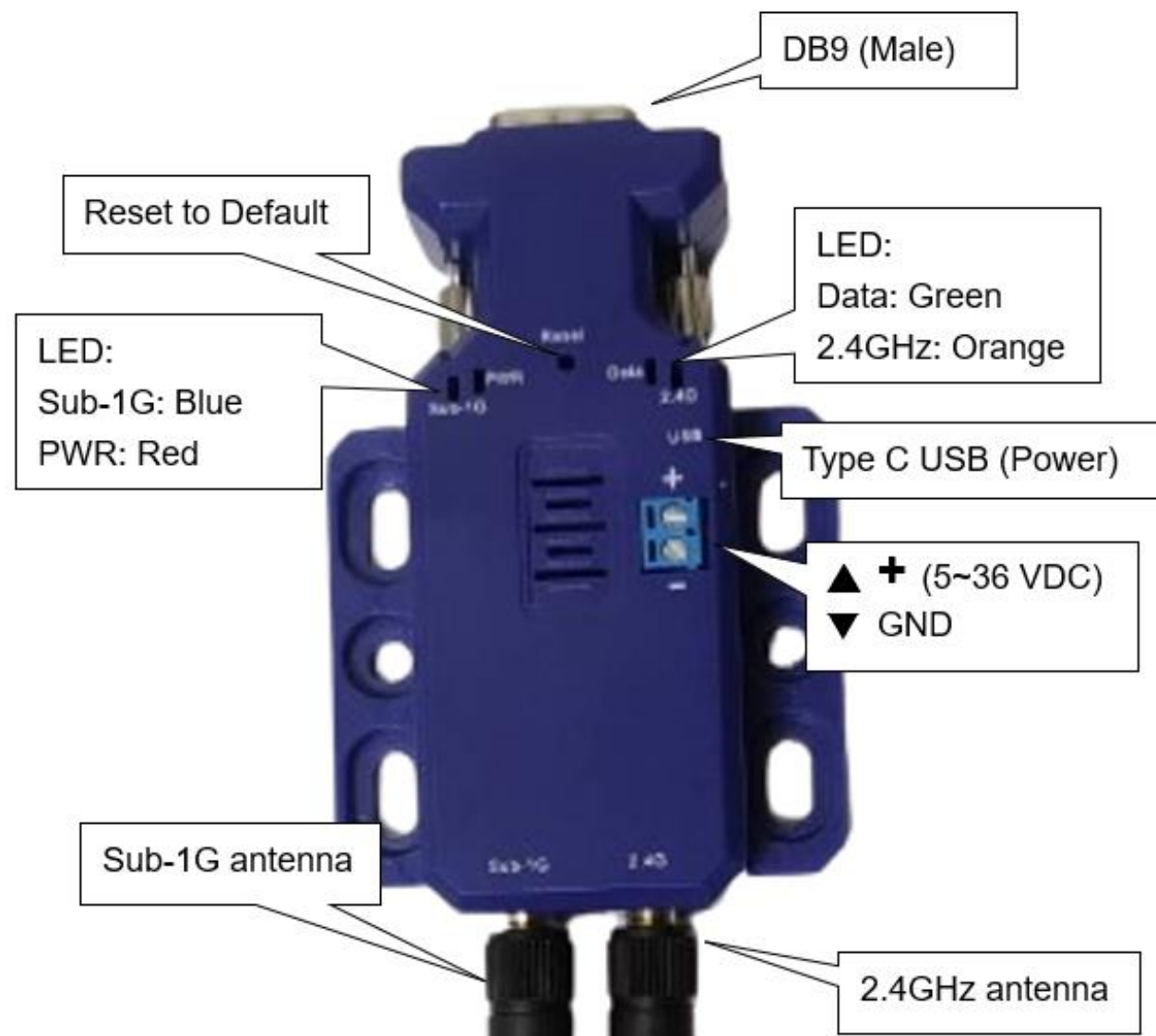
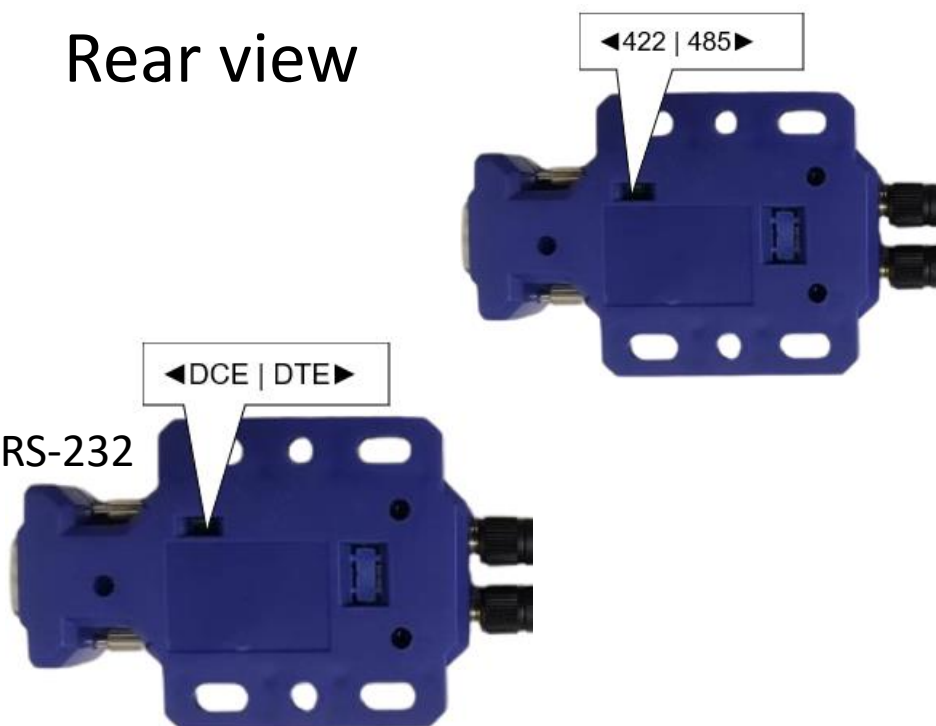
# Specifications

1. 2.4 GHz Wi-Fi IEEE 802.11 bgn
2. Sub-1G (750~950 MHz) Wi-Fi IEEE 802.11 ah (HaLow)
3. Serial Port: RS-232, RS-422/485
4. Web page configuration
5. TCP Server/Client, UDP Server/Client, Http Client, Https Client, Cloud
6. Cloud: MQTT, AWS, Azure, Google, Ali, iCloud, ... (customized)
7. Power input: 5~36 VDC

# Profile

## Rear view

- RS-232



# RTLS Gateway

- Dual band WiFi 802.11 bgn & ah (HaLow)
- Ethernet
- AP & STA mode
- BLE V5.2 for Beacon scanner or GATT P-P connection
- RS-232 or RS-485
- Option: LoRa, 5G, LTE, RFID, RTC, NTP, T/H sensor, G-sensor



# RTLS Tag

- BLE V5.2
- CR2032 x 2
- > 4 years @ 1 beacon/sec
- Support Long range, AOA
- Format: iBeacon, Eddystone, Uconnect or customized
- LED x 1
- Panic button
- Power switch
- 6 uAH @ 6 dbm beacon/sec
- Option: NTC, T/H sensor, G-sensor, buzzer



Dimension: 57x42x10 mm

# Applications

- Asset Tracking
- Personal Tracking
- Physiological monitoring
- Access control
- Environmental monitoring



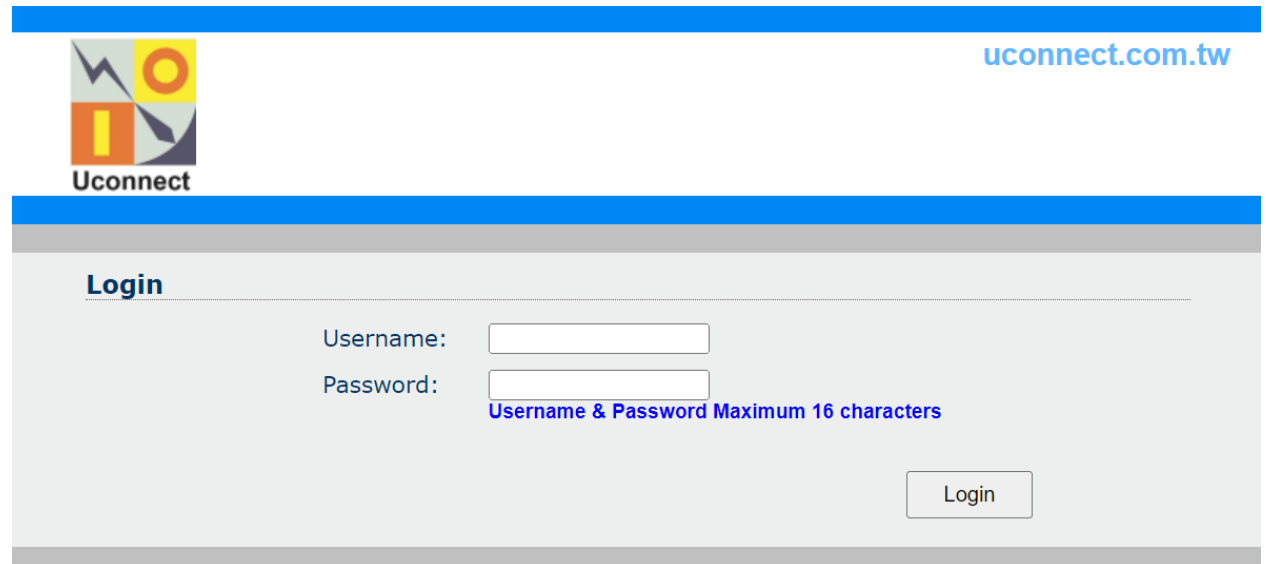
(Cited from Chylyn)



# Log in

- SSID: SDW232-de49
- IP: 192.168.0.3
- Username: admin
- Password: admin

# Web page configuration



The screenshot shows the Uconnect web page configuration interface. At the top, there is a blue header bar. On the left side of the header, there is a logo consisting of a square divided into four quadrants with different colors and symbols (a lightning bolt, a circle, a vertical bar, and a triangle). Below the logo, the word "Uconnect" is written. On the right side of the header, the text "uconnect.com.tw" is displayed. Below the header, there is a blue bar with the word "Login" in white. Underneath this bar, there is a light gray area containing the login form. The form has two input fields: "Username:" and "Password:". Below the "Password:" field, there is a blue link that says "Username & Password Maximum 16 characters". At the bottom right of the form area, there is a button labeled "Login".

uconnect.com.tw

Uconnect

**Login**

Username:

Password:

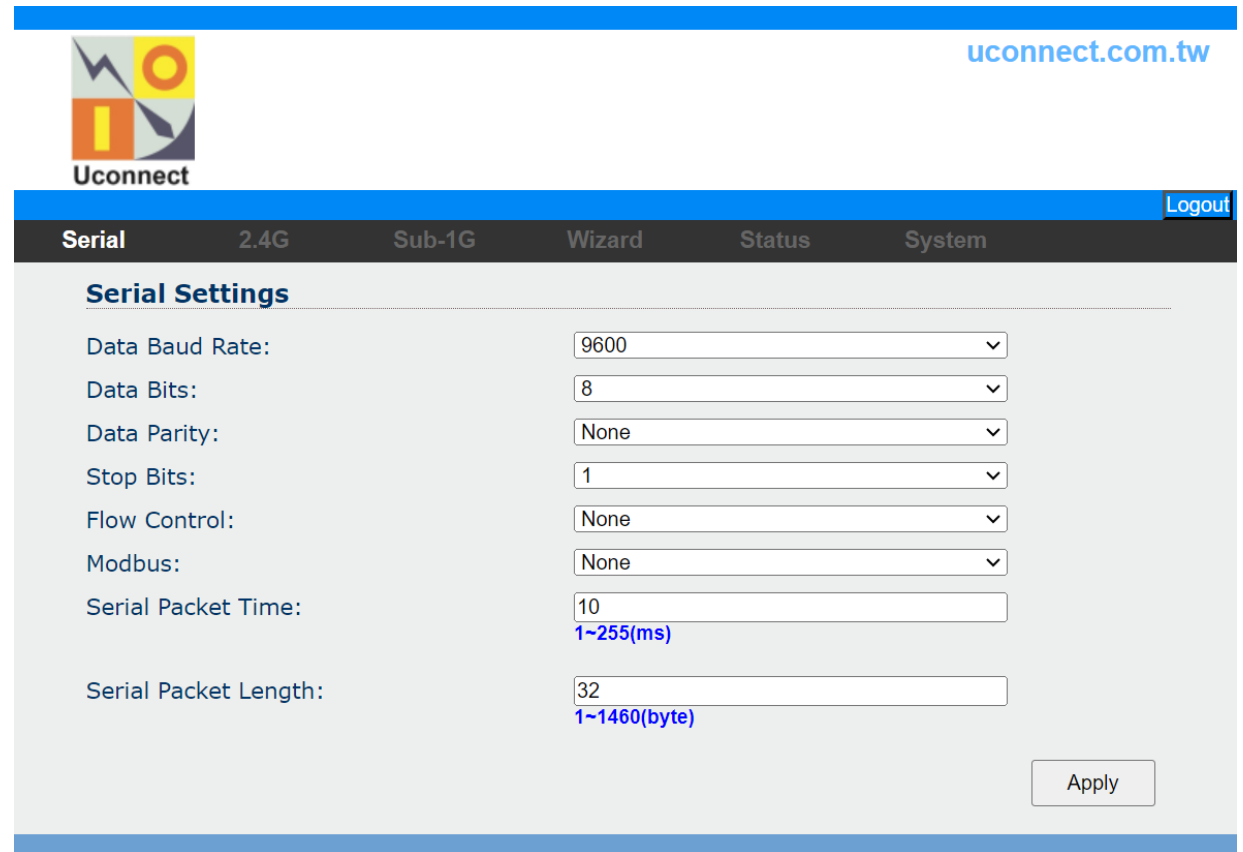
Username & Password Maximum 16 characters

Login

# Serial Port Setting

- Baud rate: 1.2~921.6K bps
- Data bit: 5,6,7,8
- Parity: None, Odd, Even
- Stop bit: 1,1.5,2
- Flow control: CTS/RTS
- Modbus: RTU, ASCII

# Web page configuration



The screenshot displays the Uconnect web interface for configuring serial port settings. The top navigation bar includes the Uconnect logo, the URL [uconnect.com.tw](http://uconnect.com.tw), and a [Logout](#) button. Below the navigation bar, a menu bar contains tabs for **Serial**, **2.4G**, **Sub-1G**, **Wizard**, **Status**, and **System**. The **Serial** tab is active, showing the **Serial Settings** section. The settings are as follows:

Setting	Value
Data Baud Rate:	9600
Data Bits:	8
Data Parity:	None
Stop Bits:	1
Flow Control:	None
Modbus:	None
Serial Packet Time:	10 <small>1~255(ms)</small>
Serial Packet Length:	32 <small>1~1460(byte)</small>

An **Apply** button is located at the bottom right of the settings area.

# Web page configuration - 2.4GHz Setting

Serial	2.4G	Sub-1G	Wizard	Status	System
<b>AP Settings</b>					
Wifi AP mode:	Enable ▼				
Max DHCP clients:	1 ▼				
Wifi Country:	AUTO(CH1~11) ▼				
2.4GHz Channel:	8 ▼				
Service Set Identifie/ SSID:	S2W232-de49		Hide SSID:	<input type="checkbox"/>	
Security Mode:	Open ▼				
Network Security Key:	<div>12345678</div> <div>Please enter a string between 8~63 digits in length.</div>				
AP IP Address:	192.168.0.3				
AP Subnet Mask:	255.255.255.0				
DHCP Server IP Pool Start:	192.168.0.4				
DHCP Server IP Pool End:	<div>192.168.0.20</div> <div>Note that the end pool must be larger than start pool, and their net ID must be equal.</div>				
DHCP Lease Time(minutes):	1440				

## STA Settings:

Wifi STA Mode:	Enable ▼
Connect AP SSID:	
Connect AP Password:	
DHCP Client:	Enable ▼
Wifi STA Roaming:	Disable ▼

## 2.4G Socket Settings

Operation Mode:	Socket ▼
Protocol:	TCP ▼
Server/Client Mode:	Server ▼
TCP Server Connections:	1 ▼
Client Destination Host Port:	<div>5000</div> <div>Please enter an integer between 1024~65535.</div>

# Web page configuration - Sub-1G Setting

Serial 2.4G Sub-1G Wizard Status System

### Sub-1G AP Settings

Sub-1G AP mode:

Sub-1G country code:

Sub-1G frequency:

1M Band Width				1M Band Width				2M Band Width				4M Band Width							
MHz	US	JP	AU	KR	MHz	US	JP	AU	KR	MHz	US	JP	AU	KR	MHz	US	JP	AU	KR
902.5	0				920.5	0				903.0	0				906.0	0			
903.5	0				921.0	0				905.0	0				910.0	0			
904.5	0				921.5	0				907.0	0				914.0	0			
905.5	0				922.5	0				909.0	0				918.0	0			
906.5	0				923.0	0				911.0	0				922.0	0			
907.5	0				923.5	0				913.0	0				924.5	0			
908.5	0				924.0	0				915.0	0				925.5	0			
909.5	0				924.5	0				917.0	0				926.0	0			
910.5	0				925.0	0				919.0	0								
911.5	0				925.5	0				921.0	0								
912.5	0				926.0	0				923.0	0								
913.5	0				926.5	0				923.5	0								
914.5	0				927.0	0				924.5	0								
915.5	0				927.5	0				925.0	0								
916.5	0				928.5	0				925.5	0								
917.5	0				929.5	0				926.5	0								
918.5	0				930.5	0				927.0	0								
919.5	0									929.0	0								

Sub-1G SSID:

Security Mode:

Network Security Key:   
Please enter a string between 8~63 digits in length.

AP IP Address:

AP Subnet Mask:

### Sub-1G STA Settings:

Sub-1G STA Mode:

### Sub-1G Socket Settings:

Protocol:

Server/Client Mode:

Client Destination Host Port:

Please enter an integer between 0~65535.

# Web page configuration - STA link Setting

2.4G

Sub-1G

Wizard

Status

System

Welcome to the WiFi Setup Wizard

Use site survey tool to join a 2.4G or Sub-1G AP.

ID	BSSID	SSID	TYPE	CH	SIGNAL	SECURITY
0	2:eb:d8:29:c0:4b		Infra	8	-32	WPA2_PSK
1	0:eb:d8:e9:c0:4b	Home	Infra	8	-33	WPA2_PSK
2	80:26:89:6:46:56	lee0729	Infra	1	-69	WPA_WPA2_PSK
3	f8:1d:f:3b:53:28	liao	Infra	11	-81	WPA2_PSK
4	c8:7f:54:77:93:b0	8f02	Infra	3	-83	WPA2_PSK
5	ec:41:18:eb:a6:1	3樓房間	Infra	7	-86	WPA_WPA2_PSK
6	a8:4e:3f:a5:82:e8	HITRON-82E0	Infra	1	-90	WPA2_PSK
7	20:76:93:36:a7:94	newifiB01	Infra	8	-90	WPA2_PSK
8	5c:f4:ab:6b:21:38	0932271399	Infra	1	-92	WPA2_PSK
9	22:76:93:61:90:7e	GOCLOUD_4C1486	Infra	1	-93	WPA2_PSK

Status: Scanning...OK

2.4G

2.4G

Sub-1G

Scan

Next

2.4G

Sub-1G

Wizard

Status

System

Enter WiFi Security Key

Please enter a pre-share key between 8~63 digits in length.

Pre-Share Key:

Next

Cancel

2.4G

Sub-1G

Wizard

Status

System

Your WiFi network settings are as below

You can press "Accept" button to take effect.

Service Area Name/SSID: Home

AP Channel: 8

Security Mode: WPA2\_PSK

AP mode: Enable

STA roaming: Disable

DHCP Client: Enable

Static IP Address: 192.168.0.3

Static Default Gateway: 192.168.0.1

Static Subnet Mask: 255.255.255.0

Static DNS Server: 168.95.1.1

Apply

# Web page configuration - Setting status

Serial	2.4G	Sub-1G	Wizard	Status	Sy
<b>System Status</b>					
Firmware Version:		V1.0.1			
<b>2.4G STA mode:</b>					
2.4G STA MAC(Hex):		94:b5:55:c2:de:48			
STA Status:		Enabled			
Connect AP SSID:		Not Connect			
IP Addresss:					
Subnet Mask:					
Default Gateway:					
DNS:					
<b>2.4G AP mode:</b>					
2.4G AP MAC(Hex):		94:b5:55:c2:de:49			
AP Status:		Enabled			
AP SSID:		SDW232-de49			
IP Address:		192.168.0.3			
Subnet Mask:		255.255.255.0			
Default Gateway:		192.168.0.3			
DNS:		168.95.1.1			
Client 1 IP & MAC:		IP:192.168.0.4 MAC:b4:8c:9d:ad:a0:7f			
Client 2 IP & MAC:		-			
Client 3 IP & MAC:		-			
Client 4 IP & MAC:		-			

## Sub-1G STA mode:

Sub1G-MAC(Hex):	94:b5:55:c2:de:4a
STA Status:	Disabled
Connect AP SSID:	-
IP Addresss:	-
Subnet Mask:	-
Default Gateway:	-

## Sub-1G AP mode:

Sub1G-MAC(Hex):	94:b5:55:c2:de:4a
AP Status:	Enabled
AP SSID:	HALOW_de4a
AP Frequency:	927.0 MHz
IP Address:	192.168.200.1
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.200.1
Client 1 IP & MAC:	IP: MAC: ID:
Client 2 IP & MAC:	IP: MAC: ID:
Client 3 IP & MAC:	IP: MAC: ID:
Client 4 IP & MAC:	IP: MAC: ID:

# Web page configuration - System

erial	2.4G	Sub-1G	Wizard	Status	System
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## Firmware Upgrade

Image Bin:  未選擇任何檔案  
Please input the image .bin file for firmware upgrade.

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## Change Username & Password Setting

New Username:

New Password:

Username & Password Maximum 16 characters

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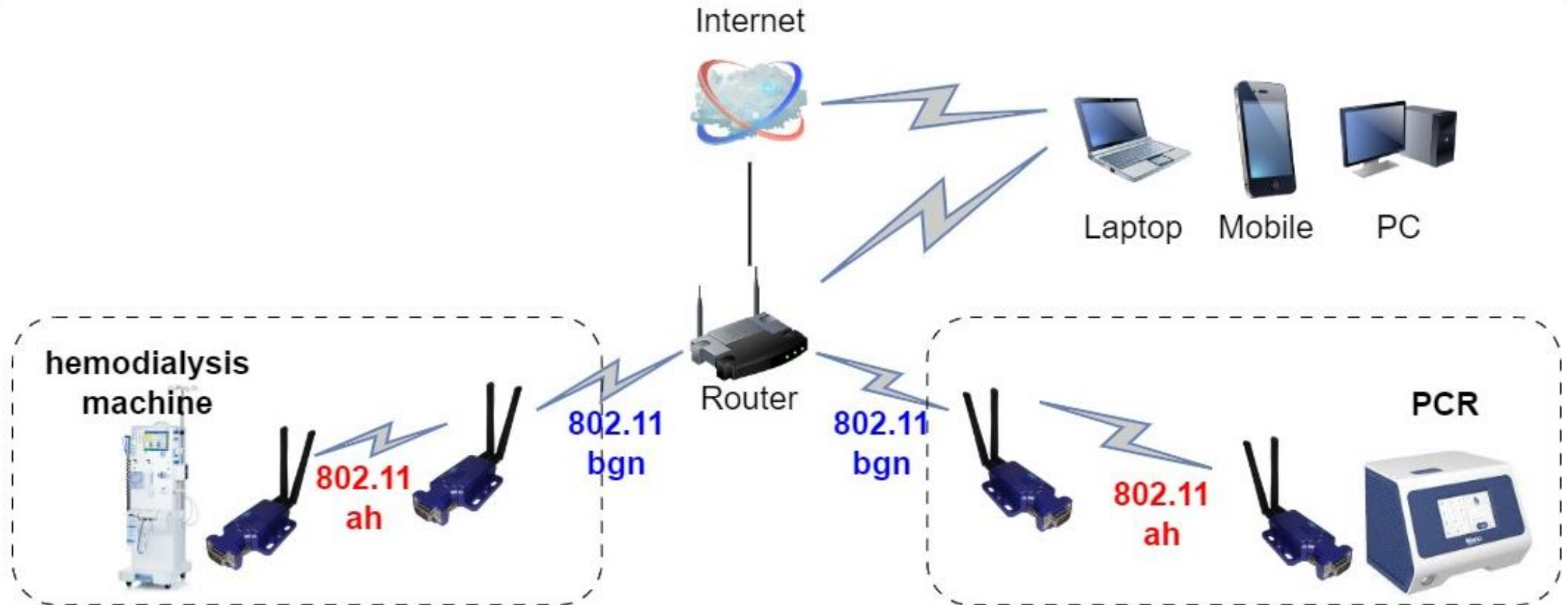
## Reset to Default

# Application-1

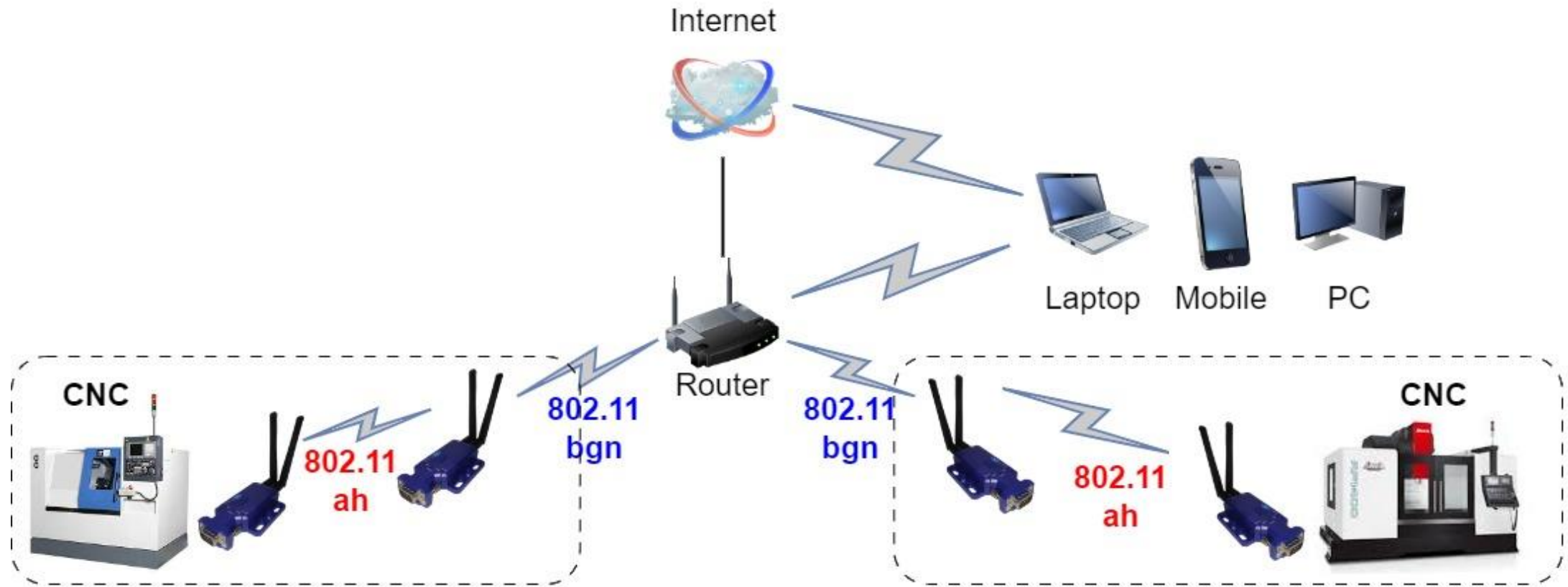




# Application-2



# Application-3



# Thank you!

Contact:

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- Line



Wechat



Skype



WhatsAPP

