Serial to IP Gateway (RS-232/485)

Model: IP-S2

1. Features:

- RS-232/485 interface
- IEEE 802.11 bgn Wifi, 10/100 Mbps Ethernet port
- Supports RS485 Modbus TCP RTU
- Terminal block for RS-485 connection
- Web page configuration: http://10.10.1.1

2. Applications:

- Factory, Building, Home Automation
- Internet gateway
- Internet of Things (IOT)

3. Specifications:

3.1 Serial Port

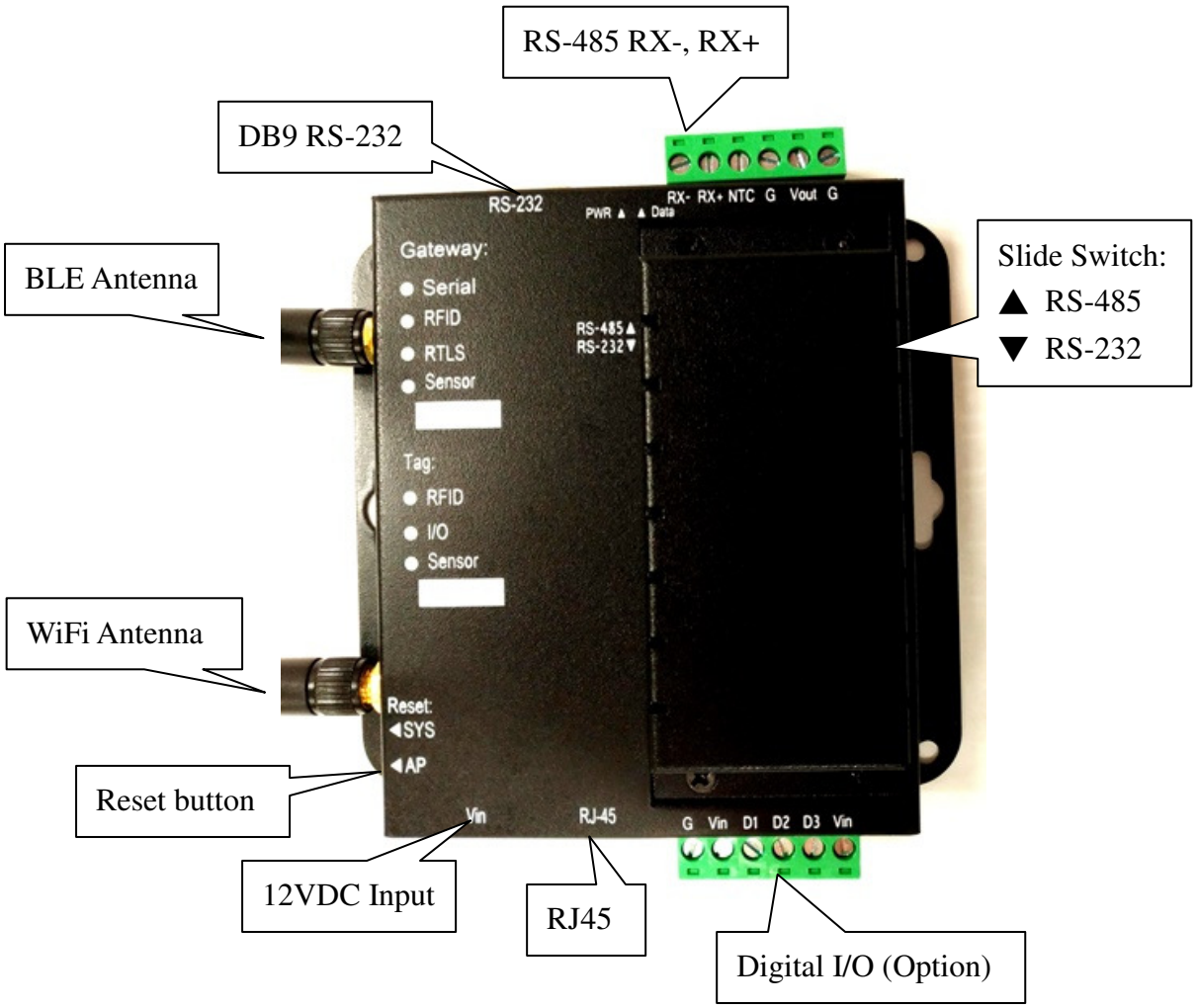
- Operation voltage: 5~27 VDC.
- Baud Rate: 1200 bps up to 921600 bps
- Data bit: 7, 8
- Parity: None, Even, Odd
- Stop Bits : 1, 1.5, 2
- CTS/RTS Flow Control

3.2 Ethernet/Wifi

- IEEE 802.11 b/g/n standards compliant
- Frequency Range: 2.400 ~ 2.4835GHz
- Transmit Power(EIRP): 11n HT40 MCS7(+13 dBm +/- 1 dBm), 11g OFDM (+15 dBm +/- 1 dBm), 11b CCK (+18 dBm +/- 1 dBm)

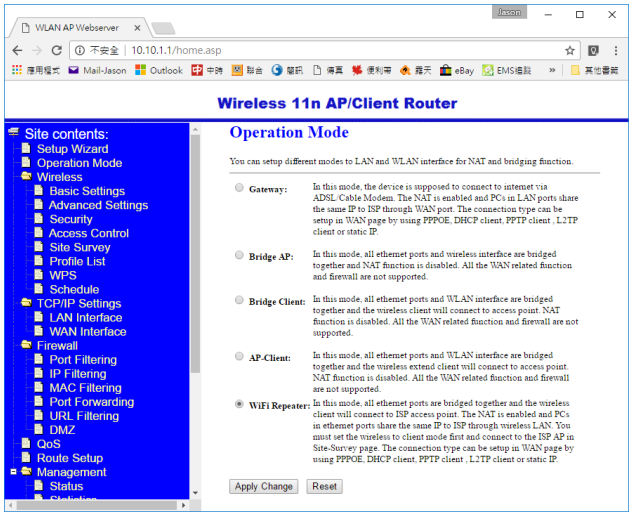
- Security: 64/128-bits WEP, TKIP,WPA, WPA2, AES
- Receiver Sensitivity: -66dBm at HT40 MCS7, -73dBm at 54Mpbs, -86dBm at 11Mpbs
- Multi-modes: AP/router/gateway/bridge/client
- Support WiFi repeater (AP-Client)
- Built-in web server configuration
- Operation Current: 200mA (Stand-by), 350mA (Normal)
- Networking (AP/router): DHCP Client/Relay/Server, Dynamic DNS, NTP Client, DNS Cache/Proxy, Firewall
- WiFi: 1T1R, 20MHz/40MHz bandwidth, Spport multiple SSID & WPS
- CPU clock rate up to 400MHz
- 10/100 MHz RJ-45
- Support Virtual Serial Port (VSP) driver (3rd party software, not included)

3.3 Profiles:

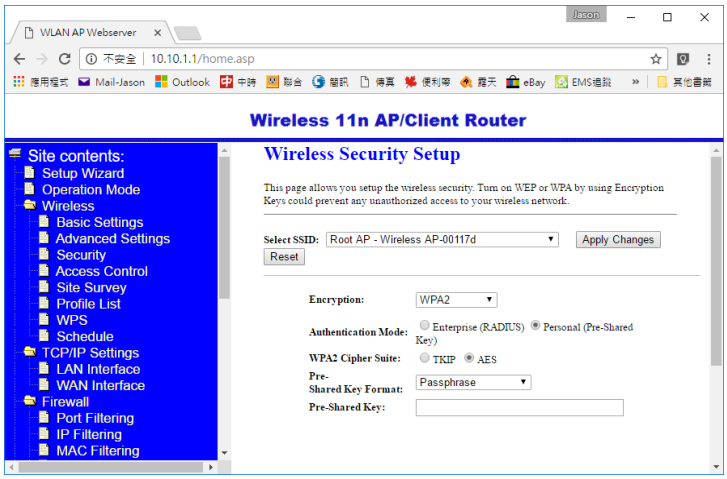


4. Configuration:

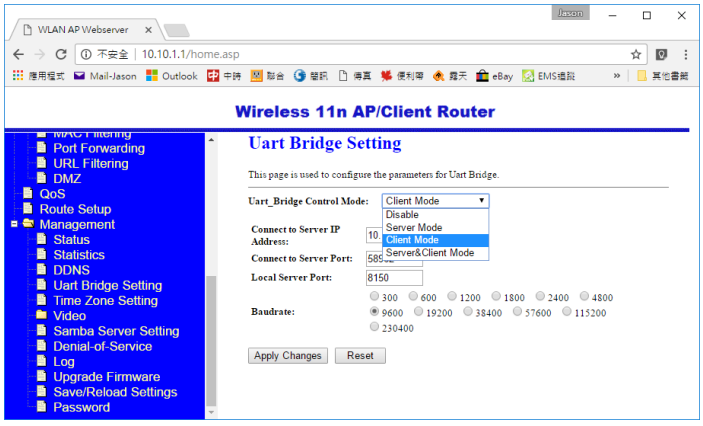
4.1 Webpage for Ethernet or Wifi configuration : AP mode, IP: 10.10.1.1 (Default)



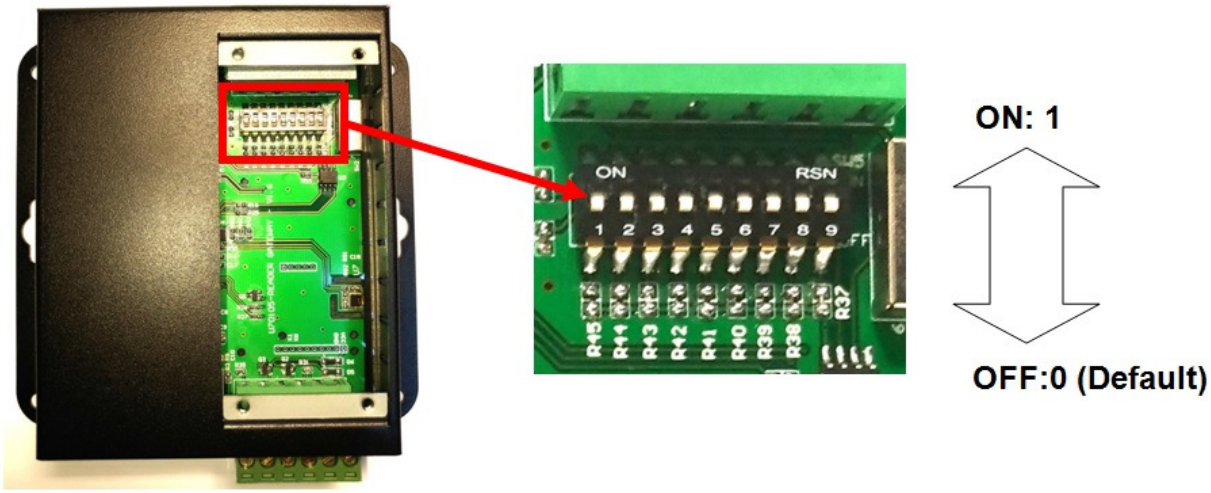
Security: Support Enterprise (RADIUS) WPA(2) encryption



Support TCP Server & Client



4.2 DIP switch for serial port setting: remove the 4 screws tp open the upper cover.



Setup	RS-485	Stop Bit	Parity	Role	Baud Rate
DIP9	DIP8	DIP7	DIP6-DIP5	DIP4	DIP3-DIP2-DIP1
0:DIP Switch 1:Command	0:Normal 1:Modbus RTU	0:1 stop bit 1:2 stop bits	00: None 10:Odd 01:Odd 11:Even	0:Slave 1:Master	110:2400 111:4800 000:9600 (Default) 001:19200 010:38400 011:57600 100:115200 101:230400

4.3 AT command for serial port setting: (via RS-232 only)

Command	Value	Description
AT		Check the connection status between control terminal and the RS-232 adapter. Response: “OK” when the connection is ok. Response: “ERROR” when the connection is not ok.
AT		Test the RS-232 status when first connect the adapter with the controller.
BAUD=		This command is used to specify the baud rate of COM port. The command will need 200 ms delay.
	1200	1200 bps
	2400	2400 bps
	4800	4800 bps
	9600	9600 bps
(Default)	19200	19200 bps
	38400	38400 bps
	57600	57600 bps
	115200	115200 bps
	230400	230400 bps
	460800	460800 bps
	921600	921600 bps

	R	Restore the default settings. (Baud rate =19200 bps)
	?	Inquire the current baud rate.
DFU=		Device Firmware Upgrade
	Y	
DIP=		Set the DIP switch function.
	?	Inquire the setting status of the DIP switch function.
	Y	Turn on the function of the DIP switch. The “ROLE” and “AUTO” command are not available to set the “Master” or “Slave”.
(Default)	N	Turn off the function of the DIP switch. The “ROLE” and “AUTO” command are available when the DIP=N.
ECHO=		This command is used to specify whether the adaptor echoes characters received from the UART back to the DTE/DCE.
	N	Command characters received from the UART are not echoed back to the DTE/DCE.
(Default)	Y	Command characters received from the UART are echoed back to the DTE/DCE.
	?	Inquire the current setting.
FLOW=		This command enable or disable flow control signals (CTS/RTS) of the UART port. Note, the setting is not affected by DEFAULT. The command will need 1 second delay.
(Default)	N	Disable flow control.
	Y	Enable flow control.
	?	Inquire the current setting
PARITY=		This command is used to specify parity bit setting of COM port. The command will need 200 ms delay.
(Default)	N	None parity bit
	O	Odd parity
	E	Even parity
	?	Inquire the current setting.
PROMPT=		The command is used to decide whether result messages are prompted when Setup commands are executed. The result messages are: OK/ERROR for command execution, or CONNECT/DISCONNECT/Try Connect Device for connection status.
(Default)	Y	Prompt result messages.
	N	Not prompt result messages.
	?	Inquire the current setting.
STATUS=		Inquire all the current setting of the adapter.
	T	Inquire the inner temperature of the IC in centigrade
	?	Display the current setting of the adapter
STOP=		This command is used to specify one or two stop bits of COM port. The command will need 200ms delay.
(Default)	1	One stop bit.
	2	Two stop bits.
	?	Inquire the current setting.
VERSION=		This command is used to inquiry the firmware version.
	?	Inquire the version codes.

4.4 APP: The APP will configure the serial port setting via BLE, please download the APP.

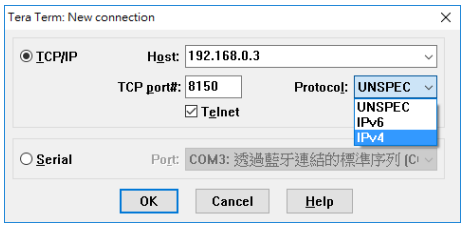
Android: iOS:

Remark: Please contact the supplier for the APP download or the sample code.

5. Test software:

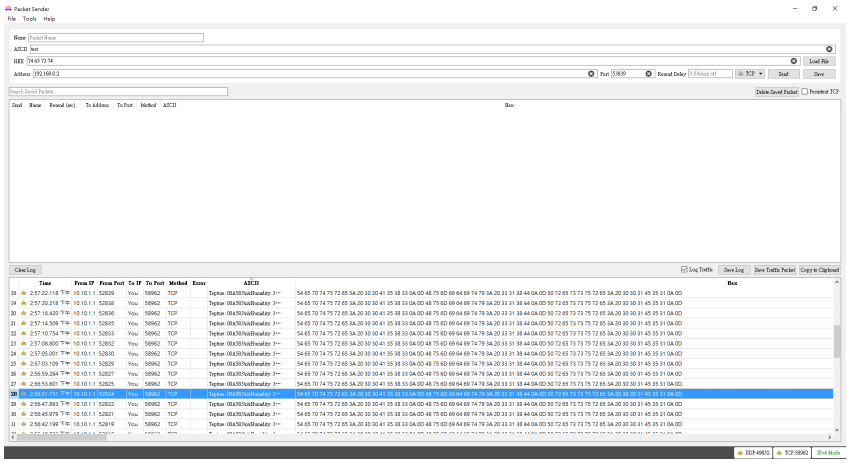
5.1 PC Terminal software: TCP client

Download: https://ttssh2.osdn.jp/



5.2 PC Terminal software: TCP server

Download: https://packetsender.com/



5.3 Tesp APP: TCP client

iOS Android

Remark: Please contact the supplier for the APP download or the sample code.

6. Cloud: The cloud of the MQTT, Amazon, Google, IBM, Microsoft or etc. will be customized by the project, please contact the supplier.

Remark: All contents are subject to change without notice.

Ubiquitous Connect

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