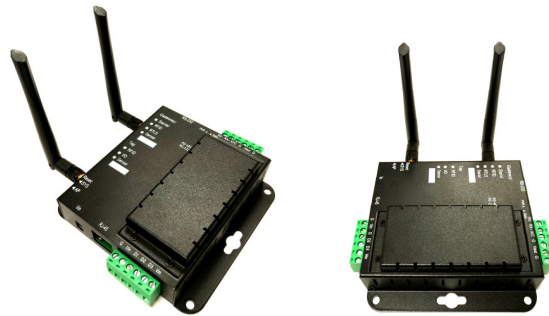


Active RFID Reader Gateway

Model: RTLS-R-G



1. Features:

- Scan all BLE beacon or filter the specific packet, ex. iBeacon (trade mark of Apple). The packet will be bridge to the Internet or cloud.
- Integrate with Active RFID reader
- Internet or Cloud link via Wifi or Ethernet
- Support external I/O control interface, ex. PIR or Relay
- TCP server or Client
- AP or Station network
- RS-485 communication interface

2. Applications:

- Location system: Asset, Passenger, Patient, Trailer
- Access control: Garage, Enterprises, Bank, Vehicle, Factory, Hospital,
- Superstore, School, Warehouse
- Logistic management, Cargo tracking, Airport baggage management
- Local Area Real Time Location Systems (RTLS)
- Asset Management, Internet of Things (IOT) applications

3. Tag Format: (customized design is available)

\$<msg type>,<reader id>,<tag type>,<tag id>,<battery>,<button>,<G-sensor>,<sensor>,<RSSI>#

Field	Description
\$	start of report
msg type	Type of message ex. 0: general scanner, 1: tag scanner
reader id	6 bytes ID of reader in hex => 12 chars
tag type	type of tag ex. 1: tag w/o g-sensor, 2: tag w/ g-sensor ..
tag id	6 bytes ID of tag in hex => 12 chars
tag batt	batt voltage of tag in 1/10 volt unit
tag button status	button status ex. 0: released, 1: pushed
tag motion status	motion status ex. 0: non-moving, 1: moving
sensor	Various sensor data (11 bytes)
tag rssi	tag read rssi

#	end of report
---	---------------

example:

```
$1,E2C69918FD94,1,FFC98B7FC1A9,32,0,0,, -55#
$1,E2C69918FD94,1,FFC98B7FC1A9,32,1,1,, -55#
$1,E2C69918FD94,1,FFC98B7FC1A9,32,1,1,, -54#
$1,E2C69918FD94,1,FFC98B7FC1A9,32,1,1,, -63#
$1,E2C69918FD94,1,FFC98B7FC1A9,32,0,0,, -56#
```

4. Active RFID Reader Specifications:

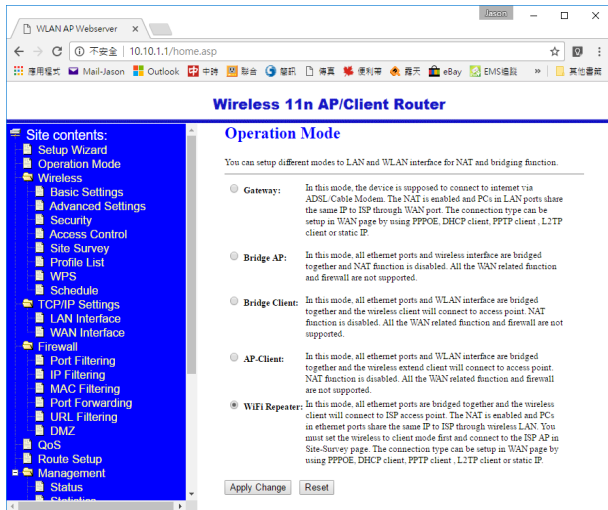
- Frequency band: 2.4GHz ISM (2.40000 – 2.4835GHz)
- Microcontroller: 32-bit ARM Cortex M0
- Range: max. 50 m in open space
- TX Power: Max. 3 dBm
- TX current consumption of 15.6 mA (radio only, 0 dbm)
- Operation Temperature: –40 °C to +70 °C
- Dimensions: 5.5 × 4 × 0.8 cm
- Antenna Gain: max. 2 dB

5. Wifi/Ethernet

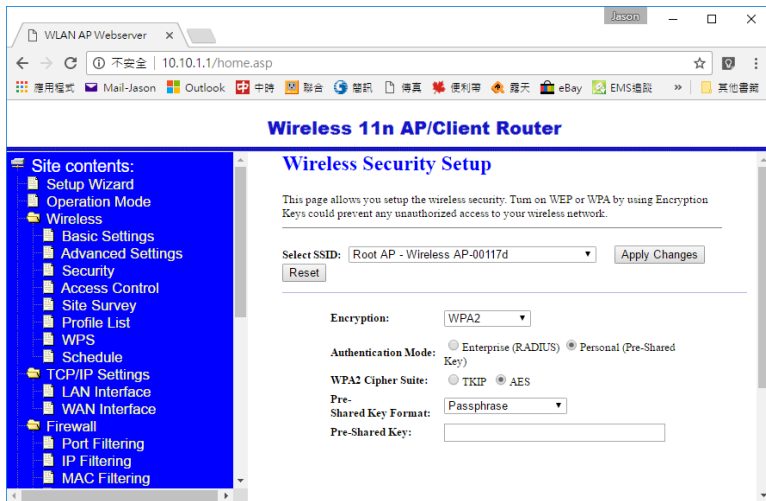
5.1 Specifications:

- 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 54Mbps, -86dBm at 11Mbps
- 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, Support multiple SSID & WPS
- CPU clock rate up to 400MHz
- 10/100 MHz RJ-45

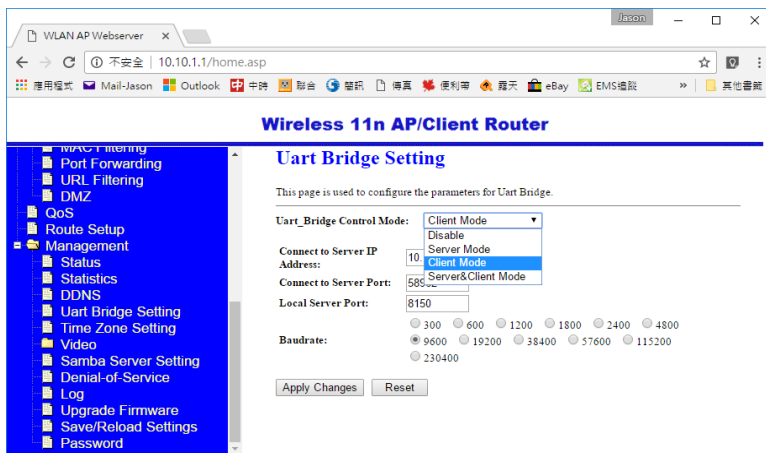
5.2 Configuration: Webpage, AP mode, IP: 10.10.1.1 (Default)



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



5.4 Support TCP Server & Client

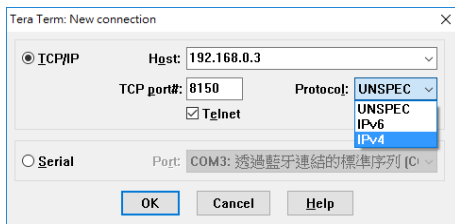


6. RS-485 Communication interface: RX+ & RX- 2P terminal block

7. Test software:

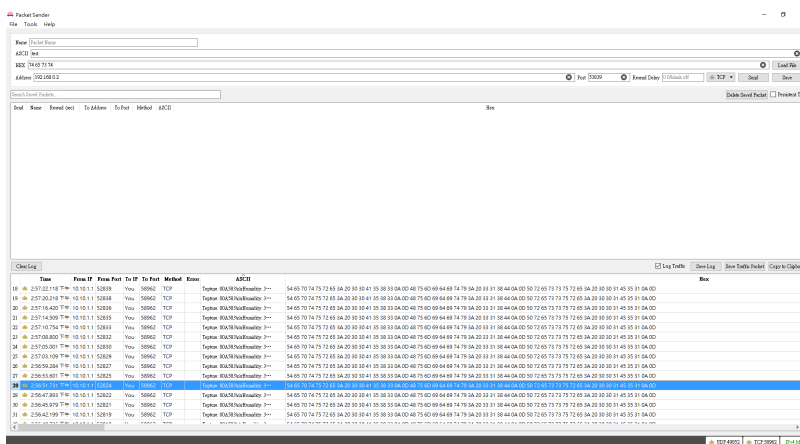
7.1 PC Terminal software: TCP client

Download: <https://tssh2.osdn.jp/>



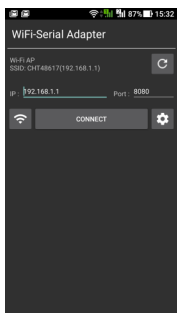
7.2 PC Terminal software: TCP server

Download: <https://packetsender.com/>



7.3 Android APP: TCP client

Download: https://play.google.com/store/apps/details?id=com.uconnect.uctcpipadapter_hex



8. 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.



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