

# RS-WC-201 PRODUCT BRIEF



RS-WC-201

## RS-WC-201: ADVANCED WI-FI FOR FOR M2M APPLICATIONS

The RS-WC-201 WiSeConnect™ module is a fully integrated 802.11 b/g/n module with advanced features for M2M, industrial, medical, enterprise and IOT (Internet of Things) applications. Powered with Wi-Fi Direct™, it can directly communicate with smartphones and tablet PCs without any Access Point based infrastructure. Integrated with Enterprise Security as well as TCP/IP and WLAN stacks, it can be designed quickly into any Host platform for secure and standards based Wi-Fi connectivity. The module also supports Access Point mode and can host data from a variety of sources such as sensors etc. in the module's in-built web server. Requiring no external BOM, the module integrates a MAC, Baseband Processor, RF Transceiver with power amplifier, a frequency reference and an antenna. The module comes with a comprehensive API set to make software integration quick and seamless. Based on Redpine Signals' 802.11n SoC RS9110, it is designed to provide wireless connectivity to devices that have a UART, SPI or USB interface.



## Features

- 802.11b/g and single stream 802.11n
- Wi-Fi Direct™, Access Point and Client mode
- Enterprise Security - EAP-TLS, EAP-TTLS, EAP-FAST, PEAP-MSCHAP-V2
- Integrated TCP/IP stack, HTTP Server/Client, DHCP, DNS
- Over the air Firmware Upgrade
- Integrated antenna and option for external antenna
- Ultra low power operation with power save modes
- Single supply 3.1 to 3.6 V operation

## Applications

- Consumer - Wi-Fi Connectivity for home appliances
- Enterprise - Wireless printers, Security cameras, Point of Sale terminals
- Industrial - M2M communication, industrial monitoring and control, data logging and streaming
- Medical - Patient monitoring, medical instrumentation with secure wireless connectivity

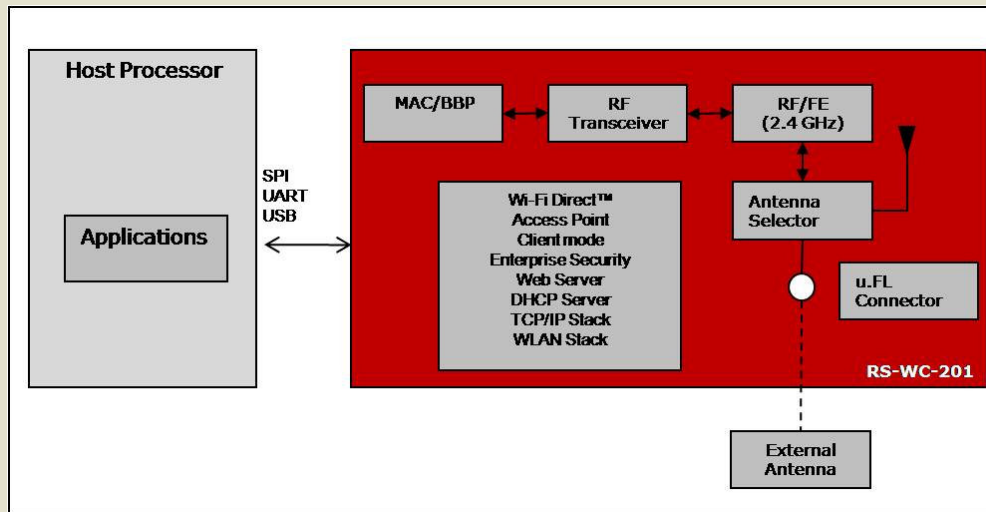
## Specifications

|                          |  |
|--------------------------|--|
| Network Standard Support | IEEE 802.11b/g/n   |
| Frequency band           | 2.400 - 2.500 GHz  |
| Data Rates               | 802.11n: 6.5, 13, 19.5, 26, 39, 52, 58.5 Mbps<br>802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps<br>802.11b: 1, 2, 5.5, 11 Mbps |
| Modulation Techniques    | OFDM with BPSK, QPSK, 16-QAM, and 64-QAM<br>802.11b with CCK and DSSS  |
| Connectivity             | Wi-Fi Direct mode, Access Point mode and Client mode   |
| Wireless Security        | WPA/WPA2-Enterprise, WPA/WPA2-PSK, WPS Provisioning  |
| Networking protocols     | TCP, UDP, DHCP, ARP, IGMP, DNS client  |
| HTTP Server              | Integrated Web Server for browser based connectivity   |
| Host Interfaces          | SPI, USB, UART( AT Commands supported )  |
| Data throughput          | Up to 5.5 Mbps in SPI and USB modes, 90 kbps in UART mode at a benchmark baud rate of 115200 bps                           |
| Operating Temperature    | -40°C to +85°C   |
| Supply Voltage           | 3.1 - 3.6 V  |
| Dimensions               | 35mm x 22mm  |

## Evaluation Package

Redpine Signals provides a comprehensive evaluation package that includes an evaluation board, software, driver source code for the Host interface and documentation.

## RS-WC-201 SYSTEM ARCHITECTURE



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**WiSeConnect™**