



RS9110-N-11-24: 802.11BGN SELF-CONTAINED MODULE WITH NETWORKING STACK

The RS9110-N-11-24 module from Redpine's Connect-io-n™ family of products is a complete IEEE 802.11bgn based wireless device server that directly provides a wireless interface to any equipment with a UART or SPI interface for data transfer. It integrates a MAC, baseband processor, RF transceiver with power amplifier; and all WLAN protocol and configuration functionality, TCP/IP stack in embedded firmware to make an 802.11n WLAN solution for a variety of applications. No WLAN, configuration or networking functionality is required on the host system or data source. Based on Redpine Signals' RS9110 SoC that includes an embedded processor, it is designed to provide standards compliant wireless connectivity to devices and systems such as industrial equipment, medical electronic systems, POS equipment, sensor networks and metering equipment, M2M communications, and remote configuration applications. As a wireless serial modem, the RS9110-N-11-24 originates and terminates TCP and UDP connections, enabling a variety of M2M applications at low cost and small footprint. It uniquely provides connectivity in the single stream 802.11n mode, preserving overall network throughput in the emerging enterprise environments.



Features

- Compliant to 802.11b/g and single stream 802.11n
- Fully self-contained serial-to-wireless functionality - does not require any host processor bandwidth
- Includes all the protocol and configuration functions required for
- WLAN connectivity in open, WPA/WPA2-PSK, and WEP modes of operation
- Host interface through UART and SPI
- Terminates TCP and UDP connections, and offers transparent serial modem functionality
- Ultra low power operation with power save modes
- Ad-hoc and infrastructure modes for maximum deployment flexibility.
- Single supply 3.1 to 3.6 V operation

Applications

- Seamless Wi-Fi connectivity for any equipment with a UART or SPI interface
- Industrial M2M communications
- Point of Sale Terminals
- Metering
- Security Cameras & Surveillance Equipment
- Warehousing
- Digital Picture Frames
- Logistics and Freight Management
- Several Medical Applications including Patient Monitoring, Remote Diagnostics etc.

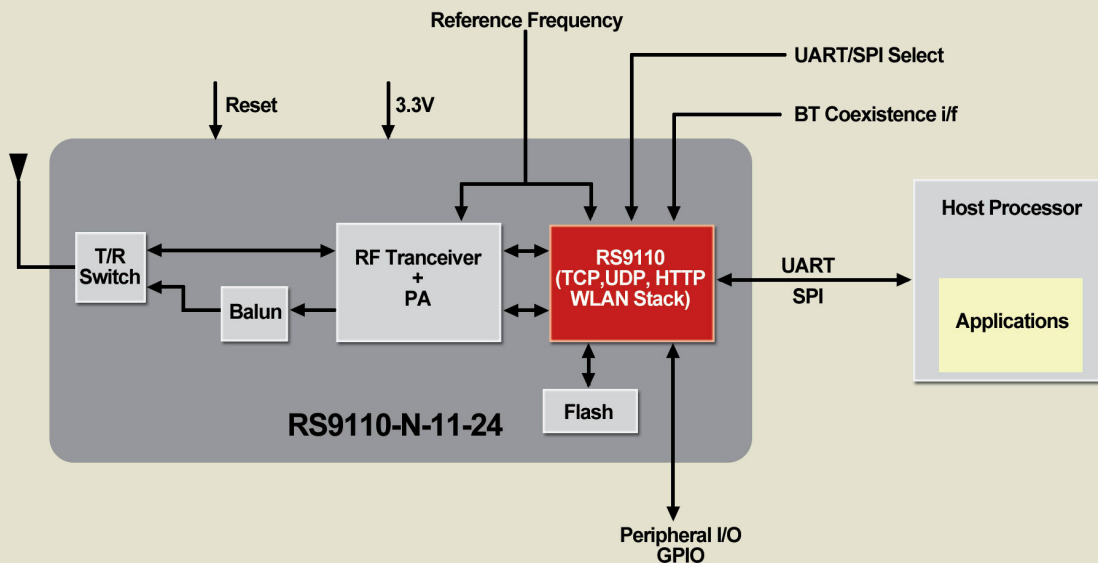
Specifications

Network Standard Support	IEEE 802.11b/g/n
Data Rates	802.11n: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps
Frequency Band	2.412 - 2.484 GHz
Modulation Techniques	OFDM with BPSK, QPSK, 16-QAM, and 64-QAM 802.11b with CCK and DSSS
Throughput	Upto 8 Mbps
Wireless Security	802.11i: TKIP*, WEP, WPA and WPA2
802.11n Features	MCS 0-7, STBC, RIFS, Greenfield Protection, A-MPDU, A-MSDU Aggregation with Block-ack, PSMP, MTBA
Host Interfaces	SPI, UART
NetworkProtocols	TCP, HTTP Client, ARP, UDP, IPv4, DHCP Client
WLAN Functions	Power save modes, Ad-hoc and Infrastructure modes
Supported UART baud rates	Supports standard baud rates from 9600bps to 3.6Mbps
Configuration	AT commands for UART and SPI commands for SPI interface
Operating Temperature	Industrial Grade -40°C to +85°C
Supply Voltage	3.1 - 3.6 V
Dimensions	13.7 mm x 12.9 mm
*TKIP mode of security is not supported in the UART interface module.	

Evaluation Package

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

RS9110-N-11-24 DIAGRAM



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