

Wi-Fi Module

Wi-Fi Module(Realtek RTL8188ETV)

WUM-100

This is a single chip wireless audio module integrates multiple audio formats such as MP3, WMA, RA, AAC, WAV. The WUM-100 is a Module 802.11n Wireless LAN (WLAN) network USB interface (USB 1.0/1.1/2.0 compliant) controller. It combines a WLAN MAC, a 1T1R capable WLAN baseband, and WLAN RF in a single chip. The WUM-100 provides a complete solution for a high throughput performance integrated wireless LAN device.

The WUM-100 WLAN baseband implements Orthogonal Frequency Division Multiplexing (OFDM) with 1 transmit and 1 receive path and is compatible with the IEEE 802.11n specification. Features include one spatial stream transmission, short guard interval (GI) of 400ns, spatial spreading, and transmission over 20MHz and 40MHz bandwidth.

For legacy compatibility, Direct Sequence Spread Spectrum (DSSS), Complementary Code Keying (CCK) and OFDM baseband processing are included to support all IEEE 802.11b and 802.11g data rates. Differential phase shift keying modulation schemes, DBPSK and DQPSK with data scrambling capability, are available, and CCK provides support for legacy data rates, with long or short preamble. The high-speed FFT/IFFT paths, combined with BPSK, QPSK, 16QAM, and 64QAM modulation of the individual subcarriers and rate compatible punctured convolutional coding with coding rate of 1/2, 2/3, 3/4, and 5/6, provide higher data rates of 54Mbps and 150Mbps for IEEE 802.11g and 802.11n OFDM respectively.

Features

- Support IEEE 802.11 b/g/n Standard
- One Transmit and one Receive path (1T1R)
- Short Guard Interval (400ns)
- 20MHz and 40MHz bandwidth transmission
- DSSS with DBPSK and DQPSK, CCK modulation with long and short preamble
- OFDM with BPSK, QPSK, 16QAM, and 64QAM modulation. Convolutional Coding Rate: 1/2, 2/3, 3/4, and 5/6
- Maximum data rate 54Mbps in 802.11g and 150Mbps in 802.11n
- Built in IPEX compatible antenna or PCB antenna
- Frequency range: 2.412GHz – 2.484GHz
- Operating Voltage: DC 3.3V
- Interfaces: USB
- RoHS Compliant
- Dimension: 38 mm x 17 mm x 1 mm

Outline



Applications

- Wireless Network Interface Controller