

Wi-Fi + Bluetooth (Realtek RTL8723BS) Combo Module

WFM-280

The WFM280 is a highly integrated Combo Module IEEE 802.11 b/g/n Wireless LAN(WEAN), Bluetooth 2.1/3.0/4.0 and FM receiver. It combines a WLAN MAC, a 1T1R capable WEAN baseband, BT Protocol Stack (LM, LL, and LE), BT Baseband, modem, and WLAN/BT RF in a single Module. The WFM280 provides a complete solution for a high performance integrated wireless LAN, Bluetooth device.

The WFM280 Bluetooth controller complies with Bluetooth core specification v4.0, and supports dual mode (BR/EDR + AMP + Low Energy Controllers). It is compatible with previous versions, including v2.1 + EDR and v3.0 + HS. For BR/EDR, it supports scatternet topology and allows four active links in slave mode, and seven active links in master mode. For Low Energy, it supports multiple states and allows eight active links in master mode. The links in BR/EDR and LE can be active simultaneously.

Features

- Compliant IEEE 802.11 b/g/n standard
- Bluetooth 2.1/3.0/4.0
- Supports Bluetooth 4.0 Low Energy (BLE)
- Built-in FM receiver
- Complies with SDIO 1.1/2.0/3.0 for WLAN with clock rate up to 50MHz (DDR50)
- GSPi interface for configurable endian for WLAN
- HS-UART with configurable baud rate for Bluetooth
- One Transmit and one Receive path (1T1R)
- 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.
- Frequency range:2.4 GHz – 2.485 GHz
- Operating Voltage: DC 3.0 ~ 3.6 V
- Interface: SDIO, PCM, UART, I2S
- Small outline: 12mm * 12mm * 0.8mm
- RoHS Compliant

Outline



Applications

- Wi-Fi IP Webcam
- Wi-Fi Access Point
- Wi-Fi Speaker
- Mobile Phone and Tablet PCs