WISEN-2 2T2R, 2.4G&5G, Wi-Fi 6 + BT 5
高性能 Wi-Fi & BT 芯片

WISEN-2 是高度集成的片上系统（SoC），在单芯片中集成了2收2发 双频段的 Wi-Fi 6 和 蓝牙 5

集成的Wi-Fi MAC/PHY/RF 支持最新的IEEE802.11ax标准和Wi-Fi联盟Wi-Fi CERTIFIED 6 版本，以较低的功耗提供高达1.2Gbps的数据吞吐率，提高了网络效率，同时保持与之前IEEE802.11a/b/g/n/ac标准的兼容性

蓝牙子系统符合Bluetooth 5标准，包括BT/BLE链路控制器、基带和射频，支持BT/BLE双模工作，内置Wi-Fi/蓝牙共存解决方案会统筹协调Wi-Fi和蓝牙的通讯流量，以最大限度地优化两个无线制式同时工作时的信号干扰

支持多种高速接口（包括PCIe 2、USB 3.0/2.0和SDIO 3.0）以及集成RF前端组件（如PA、LNA和Balun），WISEN-2可以为消费类产品和应用（如电脑、数字电视、机顶盒、高清IP摄像机、无线存储等）提供经济高效紧凑的高性能无线连接解决方案

功能描述

WLAN

- Integrated with RF, PHY and MAC that are compliant with IEEE 802.11a/b/g/n/ac/ax standards
- 2x2 MIMO, 80MHz channel width and 1024-QAM support achieving max. data rate of 1.2Gbps
- DL/UL MU-MIMO and OFDMA
- LDPC and BCC
- STBC
- DCM
- Beamforming
- Digital Pre-distortion (DPD)
- Radar detection and DFS
- A-MPDU/A-MSDU
- BSS Color
- TWT
- Multi-BSSID
- Simultaneous dual-band dual-concurrent support (DBDC) in 2.4GHz and 5GHz bands
- Concurrent mode (STA and soft-AP)
- Supports Wake-on-WLAN via magic packet and wake-up frame

系统

- Support multiple configurable GPIO pins
- UART/JTAG//I2C/SPI/PCM
- Multiplexed ADC
- Integrate eFuse to store device specific information and RF calibration data
- Advanced FDD/TDD mode Wi-Fi/Bluetooth coexistence scheme

Bluetooth

- Support Bluetooth 5, Bluetooth low energy and backward compatible with Bluetooth v2.1+EDR
- Supports all packet types in basic rate and enhanced data rate
- Dual mode support: simultaneous LE and BR/EDR
- Integrated Balun and PA
- Up to 7 BT link + 12 BLE link
- Support secure simple pairing
- Support SCO and eSCO link with re-transmission
- Support wide-band speech and hardware
- Channel quality driven data rate adaptation
- Channel assessment and WB RSSI for AFH

安全

- WPA2 and WPA3 personal
- Hardware cryptographic engine supporting WEP-40/104, TKIP, AES-CCMP-128/256, AES-GCMP-128/256

接口

- PCI Express base specification v2.1 for WLAN
- USB3.0/2.0 for WLAN and BT
- SDIO 1.1/2.0/3.0 for WLAN with clock rate up to 208 MHz
- HS-UART with configurable baud rate for Bluetooth

封装

- FCCSP 7.8mm x 7.0mm