WM-BAC-CYW-50

802.11a/b/g/n/ac + BT5.0 SiP Module

Module Brief

The WM-BAC-CYW-50 WiFi-BT SiP module which refers as "module" is a small size module and consists of PSoC6 and CYW43012, authorization chips from Cypress. The WM-BAC-CYW-50 provides the highest-level integration for electronic accessories, featuring integrated full function of IEEE 802.11a/b/g/n, 11ac friendliness and Bluetooth 5.0 in a tiny module via 129 pins LGA Footprint.

The small size & low-profile physical design make it easier for system design to enable high performance wireless connectivity without space constrain. The low power consumption and excellent radio performance make it the best solution for OEM customers who require embedded 802.11a/ac/b/g/n single-band Wi-Fi + Bluetooth features.

For the software and driver development, USI provides extensive technical document and reference software code for the system integration under the agreement of Cypress International Ltd.

Hardware evaluation kit and development utilities will be released base on listed OS and processors to OEM customers.
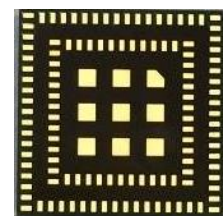
Applications

- Smart Home Appliance
- Wearable
- Smart Handheld
- Low Power Device
- Security
- IoT Product

Features

- ARM 32-bit Cortex-M4F CPU, frequency up to 150MHz and 100Mhz Cortex-M0+ CPU
- Embedded 288KB SRAM, 1MB+32KB Flash and 128KB ROM
- Full IEEE 802.11a/b/g/n compatibility
- Provide 802.11ac friendliness by supporting 256 QAM for 20 MHz channels
- Complies with Bluetooth core specification version 5.0 with LE 2 Mbps
- CapSense touch key
- Low power operation supporting sleep and standby modes
- Up to 38 GPIO interfaces multiplexed with other interfaces
- Small size suitable for system integration into smart IoT device with flexible system configuration.
- Lead free design which supporting green design requirement, RoHS compliance, and halogen-free.

Module Outline

129 Pins LGA package with conformal shielding
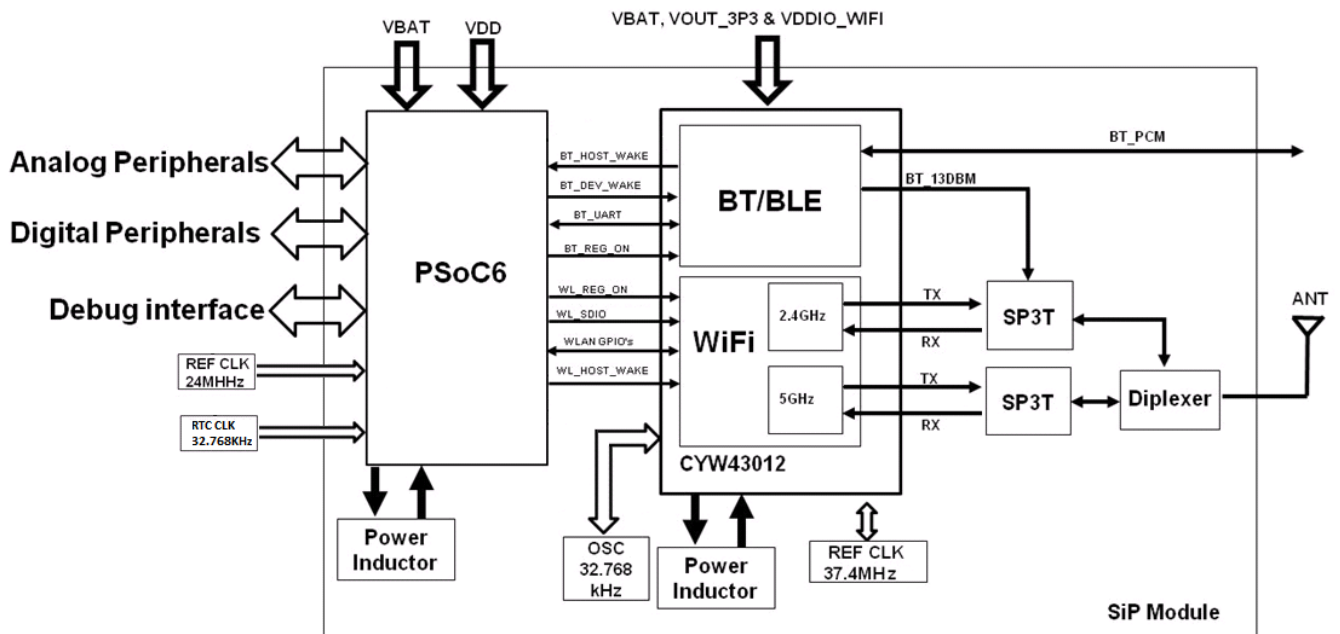Dimension: 10.9mm (L) x 10.9mm (W) x 1.1mm (H) max.

Block Diagram