

CYPRESS

CYW43455: WICED™ IEEE 802.11ac Wi-Fi/Bluetooth® 4.2 CONNECTIVITY SOLUTION FOR IOT AND EMBEDDED APPLICATIONS



PRODUCT OVERVIEW

INTRODUCTION:

Cypress's CYW43455 is an advanced multi-radio wireless connectivity solution for Embedded and Internet-of-Things (IoT) applications. The CYW43455 delivers an advanced level of integration for wireless IoT applications by combining a high-performance, single-stream IEEE 802.11ac baseband/radio and a low-power Bluetooth 4.2 baseband/radio, with an advanced coexistence engine for maximum combined performance

KEY WLAN FEATURES

- IEEE 802.11ac compliant WLAN MAC/PHY with 256-QAM
- Single spatial stream (1x1) for up to 433.3 Mbps PHY data rates
- Supports 20/40/80 MHz channels with optional SGI
- Full IEEE 802.11a/b/g/n legacy compatibility with enhanced performance
- On-chip power amplifiers and LNAs for both 2.4 GHz and 5 GHz bands
- Integrated 2.4 GHz transmit/receive switch
- WPA/WPA2 and WPS security with HW-accelerated AES and TKIP support
- SDIO v3.0 interface support, including DDR50 and SDR104 modes
- PCI Express base specification revision 3.0 compliant Gen1 interface
- World-wide regulatory support for global products
- Advanced coexistence engine for optimum performance

BLUETOOTH /KEY FEATURES

- Bluetooth Core Specification Version 4.2 with support for dual-mode classic Bluetooth (Basic Rate + Enhanced Data Rate) and Bluetooth Low Energy operation
- Bluetooth Class 1 or Class 2 transmitter operation
- Supports extended synchronous connections (eSCO) for enhanced voice quality
- Adaptive frequency hopping (AFH) for reducing radio frequency interference
- Host controller interface (HCI) using a high-speed UART interface and PCM for audio data
- Supports multiple simultaneous Advanced Audio Distribution Profile (A2DP) for stereo sound
- Automatic frequency detection for standard crystal and TCXO values

FEATURES

IEEE 802.11ac MAC/PHY/RF

- 256-QAM Modulation
- 20/40/80 MHz channels
- PHY data rates up to 433.3 Mbps
- Dual-band 2.4/5 GHz radio
- Full IEEE 802.11a/b/g/n compatibility
- WPA/WPA2 and WPS support

BLUETOOTH MAC/RADIO

- Bluetooth 4.2 compliant with BLE support
- Class 1/Class 2 transmitter
- PCM, I²S and UART host interface

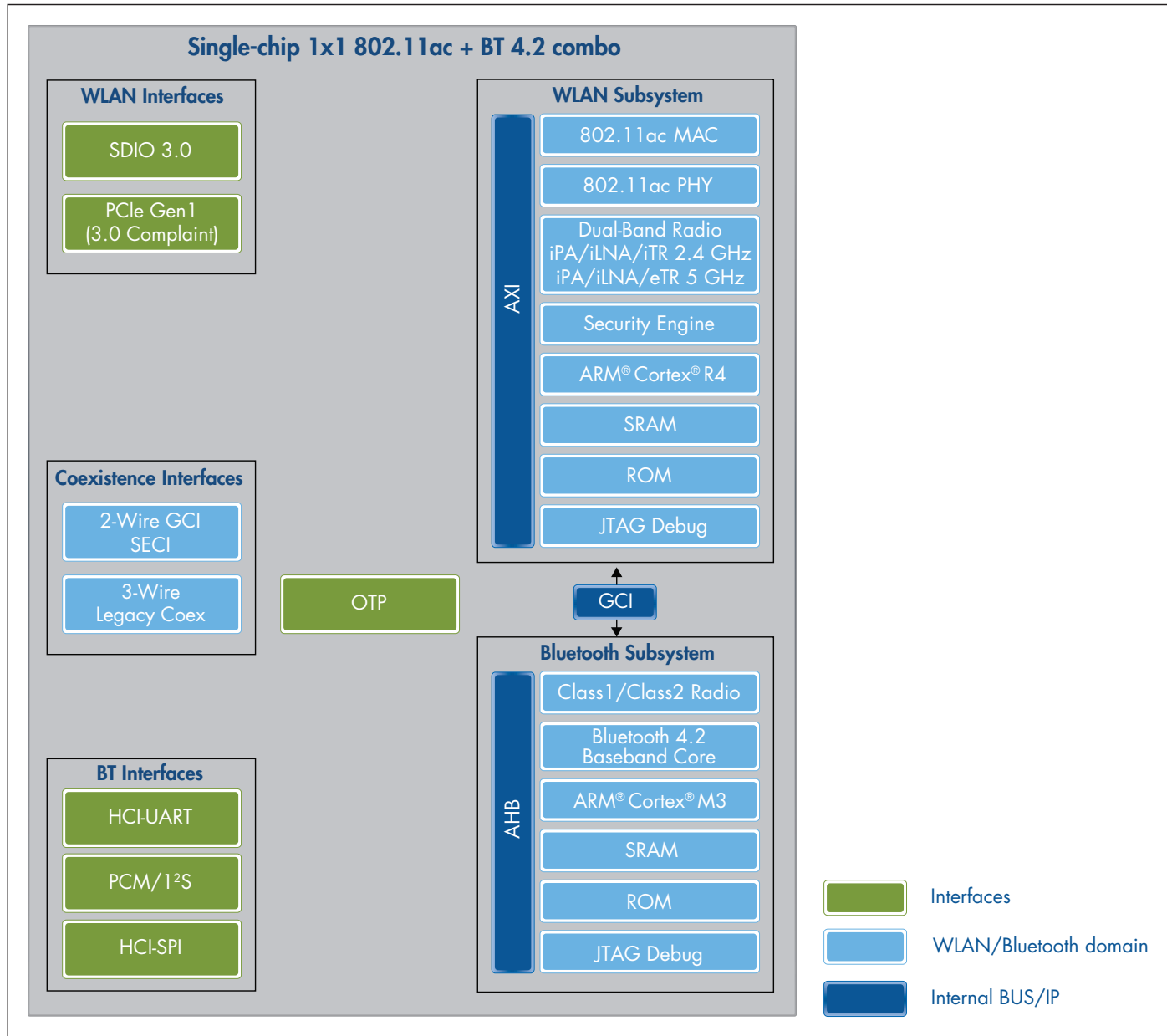
PACKAGE

140-ball WLPGA (4.51 x 5.31 mm, 0.4 mm pitch)



APPLICATIONS

Connected Home | Smart Appliances | Media Streaming | Enterprise IoT



CYW43455 Block Diagram

CYW43455 SUMMARY

Part number	Application	Pin/Package
CYW43455XKUBGT	802.11ac / Bluetooth 4.2 Connectivity	140-ball WLPGA (4.51 x 5.31 mm, 0.4 mm pitch)

GET STARTED NOW

For more information, please visit www.cypress.com/products/wireless-connectivity

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