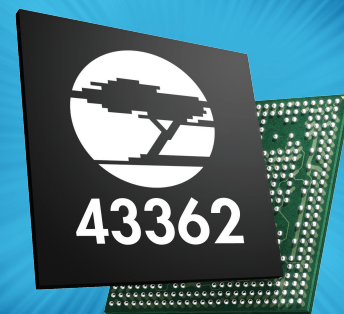CYPRESS

CYW43362: Single-Chip IEEE 802.11 b/g/n MAC/ Baseband/Radio + Sdio

OVERVIEW

The Cypress CYW43362 single-chip device provides the highest level of integration for mobile and handheld wireless systems, featuring integrated IEEE 802.11™ b/g and handheld device class IEEE 802.11n. It includes a 2.4 GHz WLAN CMOS power amplifier (PA) that meets the output power requirements of most handheld systems. An optional external low-noise amplifier (LNA) and external PA are also supported.

Along with the integrated power amplifier, the CYW43362 also includes integrated transmit and receive baluns, further reducing the overall solution cost.

Host interface options include SDIO v2.0 that can operate in 4b or 1b modes, and a generic gSPI mode.

Utilizing advanced design techniques and process technology to reduce active and idle power, the CYW43362 is designed to address the needs of highly mobile devices that require minimal power consumption and compact size. It includes a power management unit that simplifies the system power topology and allows for operation directly from a rechargeable mobile platform battery while maximizing battery life.

KEY FEATURES

- WICED Wi-Fi® SDK v3.5.2 ready
- Wi-Fi 1x1 for IEEE 802.11n
- The CYW 43362 is the core part of the CYW 94662WCD4_EVB SiP Modules.
- Fully compatible with WICED Wi-Fi Software Development Kit (SDK).

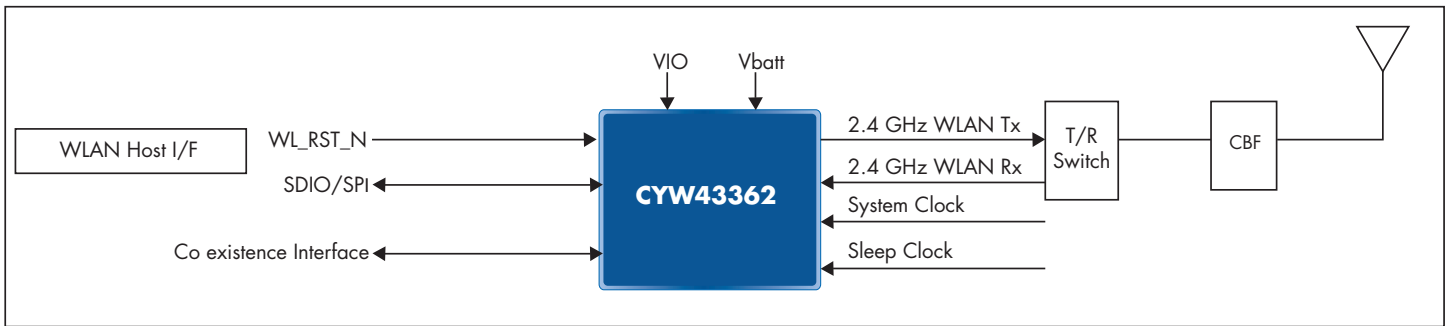| CYW43362	
✓	Handheld Devices
✓	Sensor and Control Applications

BENEFITS

- Programmable dynamic power management
- Supports battery voltage range from 2.3V to 4.8V supplies with internal switching regulator
- 1 kbit One-Time Programmable (OTP) memory for storing board parameters
  Supports IEEE 802.15.2 external three-wire and four-wire coexistence schemes to optimize bandwidth utilization with other co-located wireless technologies such as Bluetooth, ZigBee® or Bluetooth Low Energy (BLE).

FEATURES

- Integrated WLAN CMOS power amplifier with internal power detector and closed-loop power control.

- Internal frac-N PLL enables the use of a wide range of reference clock frequencies.

- Integrated ARM® Cortex®-M3 CPU with on-chip memory enables running IEEE firmware that can be field-upgraded.

- Supports Wi-Fi Multimedia (WMM) Power Save, WMM-PS and Wi-Fi voice Personal.

- Supports standard interfaces SDIO v2.0 (50 MHz, 4-bit, and 1-bit) and generic SPI (up to 50 MHz).

- Security: AES and TKIP in hardware for faster data encryption and IEEE 802.11i compatibility.

- Package:
  – 69-ball WLBGA (4.52 mm x 2.92 mm, 0.4 mm pitch)

WICED™ by CYPRESS®

CYPRESS
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CYW43362 System Block Diagram

Part number	ORDERING INFORMATION
CYW43362KUBG	69-ball WLBGA halogen-free package (4.52 mm x 2.92 mm, 0.40 pitch)

ORDERING INFORMATION

Contact your local Cypress Representative

For additional information on WICED modules currently in production, go to:

https://community.cypress.com/community/wiced-wifi

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