CYPRESS

CYW20702: Single-Chip Bluetooth Transceiver and Baseband Processor

PRODUCT OVERVIEW

OVERVIEW

The Cypress CYW20702 is a monolithic, single-chip, Bluetooth 4.0 compliant, stand-alone baseband processor with an integrated 2.4 GHz transceiver.

Manufactured using the industry's most advanced 65 nm CMOS low-power process, the CYW20702 employs the highest level of integration, eliminating all critical external components, and there by minimizing the device's footprint and costs associated with the implementation of Bluetooth solutions.

The CYW20702 is the optimal solution for voice and data applications that require a Bluetooth SIG standard Host Controller Interface (HCI) via USB, UART H4 or H5, and PCM audio interface support.

The CYW20702 radio transceiver's enhanced radio performance meets the most stringent industrial temperature application requirements
for compact integration into mobile handset and portable devices.

The CYW20702 is fully compatible with all standard TCXO frequencies and provides full radio compatibility, enabling it to operate simultaneously with GPS and cellular radios.

KEY FEATURES

- HCI solution with Bluetooth Low Energy (BLE) support.
- Fast and convenient micro-USB adapter.
- Packet Loss Concealment (PLC) technology.

CYW20702	
✓	Mobile handset
✓	Portable devices
✓	Routers
✓	Cellular radios
✓	GPS

FEATURES

- Bluetooth 4.0 + EDR and Low Energy compliant.
- Class 1 capable with built-in power amplifier (PA).
- Programmable output power control meets Class 1, Class 2, or Class 3 requirements.
- Uses supply voltages of up to 5.5V.
- Supports Cypress SmartAudio™, wide-band speech, SBC codecs, and packet loss concealment.
- Fractional-N synthesizer supports frequency references from 12 MHz to 52 MHz.
- Automatic frequency detection for standard crystal and TCXO values when an external 32.768 kHz reference clock is provided.
- Ultra-low power consumption.
- ARM7TDMI-S™–based microprocessor with integrated ROM and RAM.
- Supports mobile and PC applications without external memory.
- Superior integrated RF design enables much higher output power and lower input sensitivity.
- Built-in Class 1 power amplifier (capable of transmitting +10 dBm output power). Able to support a 2.5V power supply.
- USB hub.
- 50-ball WFBGA, 4.5 mm x 4.0 mm x 0.8 mm.

WICED™ by CYPRESS®

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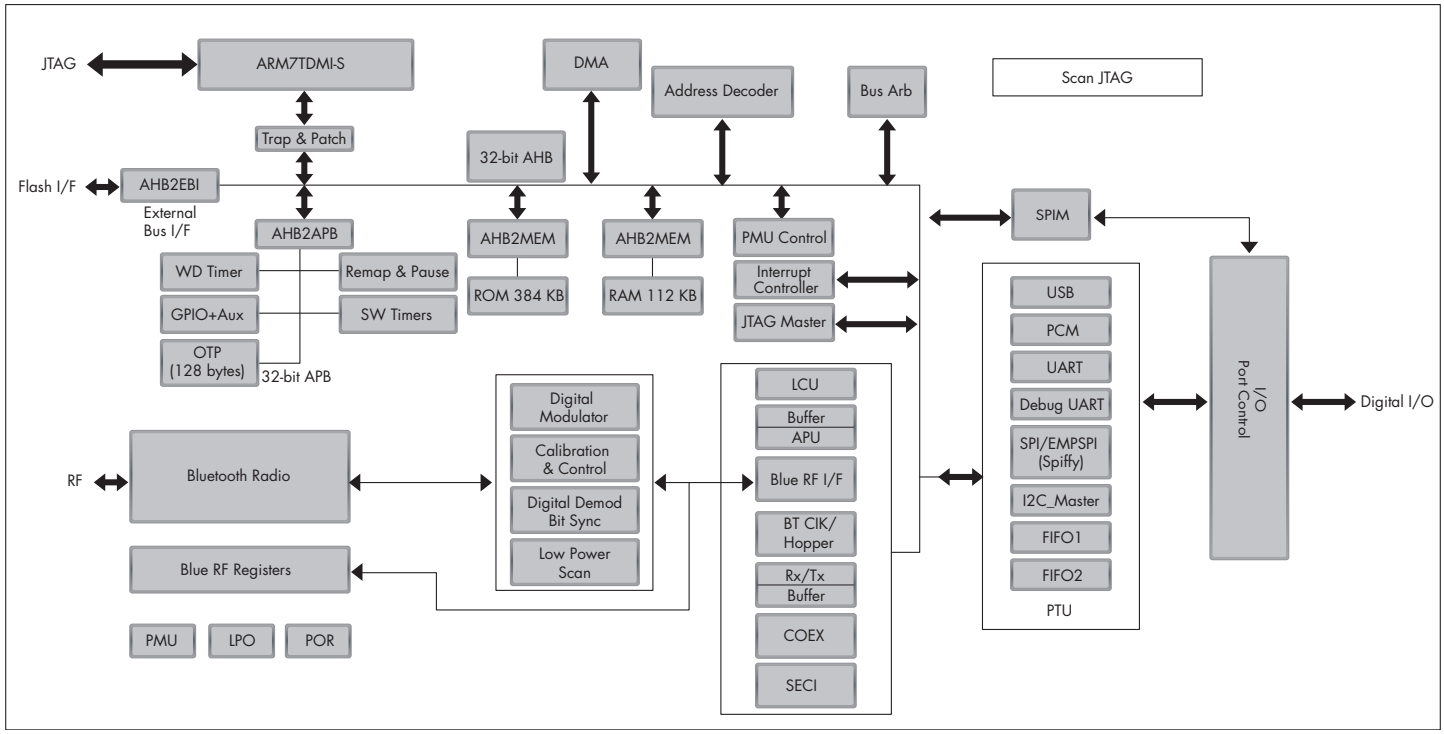
IOT APPLICATIONS

- Connected home:
  - Security
  - Energy monitoring
  - Resource intelligence
- USB dongles
- Wearables
- Industrial IoT
- Smart metering
- Remotes:
  - TV/Entertainment



CYW20702 Functional Block Diagram

ORDERING INFORMATION

Contact your local Cypress Representative

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

http://community.cypress.com/community/wicedwifi

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