BeagleBone BLE/WiFi Cape

Arrow’s new BeagleBone BLE/WiFi Cape showcases two of Texas Instruments’ (TI) latest wireless connectivity solutions, the SimpleLink™ Bluetooth® Smart CC2650 ultra-low power wireless microcontroller (MCU) device and the SimpleLink™ Wi-Fi® CC3100 Internet-on-a-chip™ solution. The CC2650 Bluetooth® Smart ultra-low power device offers a dedicated chip antenna and a CJTAG programming adapter for custom application development. The SimpleLink™ Wi-Fi® CC3100 also has a dedicated chip antenna and can be configured via its data interface with no external programming header required. Pair with Arrow’s DECA board and/or the BeagleBone Black to evaluate your next Internet of Things (IoT) design.

Board Highlights

- BeagleBone Cape Platform
- Compatible with Arrow’s DECA Evaluation Board
- Features Texas Instruments’ new Bluetooth® Smart and Wi-Fi connectivity
- Implements antenna module to minimize PCB-based antenna design requirements
- Dual antenna for Bluetooth and Wi-Fi devices
- RF switch

Applications

- Home and Building Automation
- IoT and Sensor Networks
- Lighting and Industrial Control
- Alarm and Security Systems
- Medical

For more information and to purchase, please visit: arw.ae/beagleboneblewificape
SimpleLink™ Ultra-Low Power CC2650 Product Features

- 32-bit, 48 MHz. ARM® Cortex®-M3 microcontroller
- Supports key peripherals I2C, UART, GPIO, Timer, WDC, RTC
- Separate Cortex®-M0 processor for radio processing
- Integrated temperature sensor and battery monitor
- Ultra-Low Power Sensor Controller optimized for sensor applications
- 12-Bit ADC, 200-ksamples/s, 8-Channel Analog MUX
- AES-128 Security Module
- Bluetooth Low Energy stack supported on Arrow’s DECA board
- Hardware has capability to support Bluetooth Smart, Zigbee®, 6LowPAN or Zigbee RF4CE™

SimpleLink™ Wi-Fi® CC3100 Product Features

- 802.11 b/g/n Station and Access Point, roles with fully integrated radio, baseband, and Media Access Control (MAC)
- Embedded Wi-Fi network processor including RF reference design
- Embedded TCP/IP stack and Wi-Fi driver transparent to the user
- Internet protocols including mDNS, DNS, SSL/TLS + web server (HTTP)
- Embedded hardware crypto engine for TLS/SSL internet security
- Low-power radio and advanced low-power modes
- Small 9mm x 9mm QFN package