

Actual size (11.6 mm x 17.9 mm)

TiWi-uB1™ 2.4 GHz Bluetooth® Smart Module

PRODUCT DESCRIPTION

The TiWi-uB1 Bluetooth® Smart module is a low-power 2.4 GHz Bluetooth 4.0 (BLE) System-on-Chip in a cost effective, pre-certified footprint. Applications can be developed and loaded into the integrated microcontroller, and function without the need for an external processor. Modules can also act as a network processor for applications with an existing MCU in place.

FEATURES AND BENEFITS

- Bluetooth Low Energy 4.0
- Power-optimized BLE stack, including Controller and Host
- Low Profile: 11.6mm x 17.9mm x 2.3mm
- Industrial operating temperature: -40° to +85°C
- On-module trace antenna or external antenna options available
- FCC (USA), IC (Canada) and ETSI (Europe), Giteki (Japan), Bluetooth® SIG Module Certification
- Based on Texas' Instruments CC2541 Transceiver
- Multiple configuration options include:
 - Network processor interface for applications running on an external MCU
 - Single-Chip configuration, allowing applications running on internal MCU

Practical Applications:

Sports and Leisure Equipment, Mobile Phone Accessories, Consumer Electronics

TIWI-UB1 MODULE PERFORMANCE

SPECIFICATION	VALUE
Footprint	11.6 mm x 17.9 mm x 2.3 mm
Operating Temp	-40 to +85° C
Operating Voltage	2.0 V to 3.6 V
Transmit Power	0 dBm (Class 3)
Sensitivity	-94 dBm

For full specifications on TiWi-BLE, please refer to datasheet.

TECHNICAL DETAILS

Support for Class 3 applications
Power consumption: 12.6 mA in Tx, 15.7 mA in Rx
Integrated 8051 microcontroller

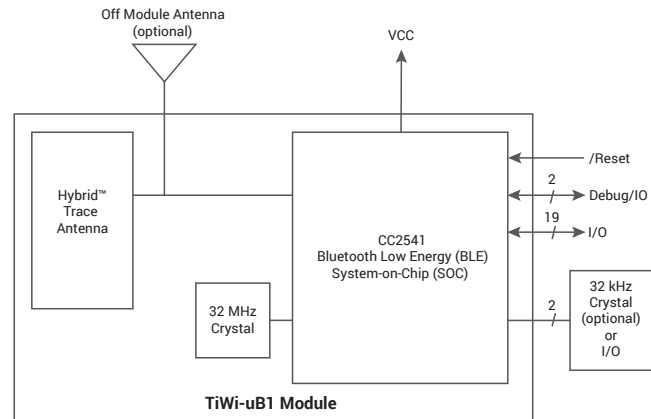
KEY FEATURES

Certified with on module PCB trace and off module dipole antennas
Comprehensive, robust TI <i>Bluetooth</i> stack
Certifications: FCC, IC, ETSI, Giteki, <i>Bluetooth</i> SIG

ORDER INFORMATION

PART NUMBER	DESCRIPTION
450-0103C	TiWi-uB1 with PCB Trace Antenna, CT
450-0103R	TiWi-uB1 with PCB Trace Antenna, TR
450-0106C	TiWi-uB1 with RF Castellation, CT
450-0106R	TiWi-uB1 with RF Castellation, TR
450-0120	TiWi-uB1 EM Board, PCB Trace Antenna

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- Software/Firmware Design
- Antenna Design
- Industrial Design
- Mechanical Engineering



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- Wireless & Antenna Testing
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- Bluetooth®
- Bluetooth® Smart
- ZigBee®
- 802.15.4 & proprietary protocols