Actual size (7 mm x 7 mm)

TiWi-uB2™

2.4 GHz Dual-Mode
Bluetooth® Smart Ready Module

PRODUCT DESCRIPTION

The TiWi-uB2 Bluetooth® Smart Ready module is a high performance 2.4 GHz Bluetooth 2.1+EDR and Bluetooth Low Energy radio in a cost effective, pre-certified footprint. This module fully supports the dual mode *Bluetooth* and BLE operation, and the output power can support class 1.5. This ultra-small SiP module provides UART interface/audio PCM interface for Bluetooth through the HCI transport layer.

FEATURES AND BENEFITS

- Bluetooth 2.1+EDR and Low Energy 4.0

- Low Profile: 7mm x 7mm x 1.5mm

- Operating temperature: -30° to +85°C

- FCC (USA), IC (Canada) and ETSI (Europe), Giteki (Japan), Bluetooth® SIG Module Certification

- Based on Texas' Instruments CC2564 Transceiver

- HCI UART host data path interface

- Bluetooth advanced audio interfaces

- Low power operation mode

Practical Applications:

Medical, Heating/Cooling Control, Industrial Sensors, Entertainment / Mobile Accessories

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TIWI-UB2 MODULE PERFORMANCE

SPECIFICATION	VALUE
Footprint	7 mm x 7 mm x 1.5 mm
Operating Temp	-30 to +85° C
Operating Voltage	1.62 V to 4.8 V
Transmit Power	10 dBm
Sensitivity	-93 dBm, GFSK at 0.1% BER -85 dBm, 8DPSK at 0.01% BER

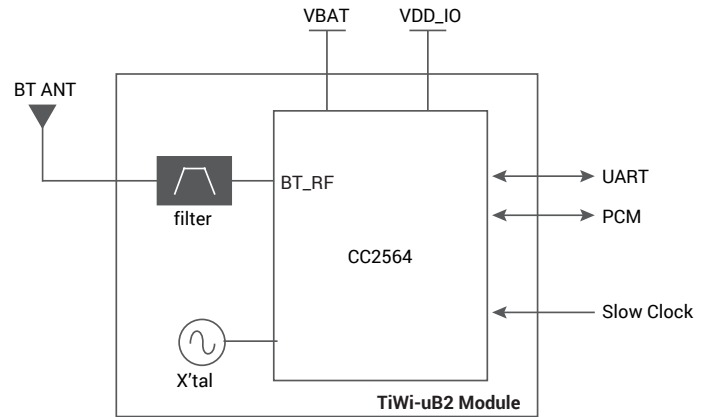For full specifications on TiWi-BLE, please refer to datasheet.

TECHNICAL DETAILS
Support for Class 1.5 (high output power) applications
Power consumption: 47 mA in Tx, 13 mA in Rx
HCI UART and Audio PCM interfaces for Bluetooth

KEY FEATURES
Supports maximum Bluetooth data rates over HCI UART interface
Supports multiple Bluetooth profiles with enhanced QoS, mono and stereo
Bluetopia® Bluetooth Stack Protocols and Profiles

ORDER INFORMATION

PART NUMBER	DESCRIPTION
450-0104	TiWi-uB2 Module, Tray
450-0104R	TiWi-uB2 Module, Tape & Reel
450-0105	TiWi-uB2 EM Board

These LSR products are all REACH and EU ROHS compliant.

LSR is the leader in Wireless Product Development, offering true end-to-end solutions through its array of services and technical expertise.

Design Services

LSR delivers complete system solutions from concept to manufacturing. We are your wireless M2M solutions partner, providing complete turnkey services and solutions.

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

EMC Testing & Certification

At LSR, we understand it is critical for your company to have a compliant product supported by the appropriate documentation, ready for deployment into the market. LSR provides the experience and knowledge to provide quality test services that meet your timeline and budget.

- On-Site FCC / IC /CE EMC Certification
- Wireless & Antenna Testing
- EMC Testing
- International Testing Services

Wireless Products

LSR offers the fastest, lowest cost way to add wireless capabilities to your product concept. LSR's fully-certified modules and antennas accelerate your time-to-market and support the full breadth of communication technologies, including:

- Wi-Fi®
- Bluetooth®
- Bluetooth® Smart
- ZigBee®
- 802.15.4 & proprietary protocols