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
TIWI-UB2 MODULE PERFORMANCE

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>VALUE</th>
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<tbody>
<tr>
<td>Footprint</td>
<td>7 mm x 7 mm x 1.5 mm</td>
</tr>
<tr>
<td>Operating Temp</td>
<td>-30 to +85° C</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>1.62 V to 4.8 V</td>
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<tr>
<td>Transmit Power</td>
<td>10 dBm</td>
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<tr>
<td>Sensitivity</td>
<td>-93 dBm, GFSK at 0.1% BER, -85 dBm, 8DPSK at 0.01% BER</td>
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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

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>450-0104</td>
<td>TiWi-uB2 Module, Tray</td>
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<tr>
<td>450-0104R</td>
<td>TiWi-uB2 Module, Tape &amp; Reel</td>
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<tr>
<td>450-0105</td>
<td>TiWi-uB2 EM Board</td>
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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.

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- Antenna Design
- Industrial Design
- Mechanical Engineering

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- Wireless & Antenna Testing
- EMC Testing
- International Testing Services

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- Bluetooth® Smart
- ZigBee®
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