

WT21 Bluetooth® Module Description



WT21 is intended for *Bluetooth* applications where a host processor is capable of running the *Bluetooth* software stack. WT21 only implements the low level *Bluetooth* Host Controller Interface (HCI) but still offers advantages of a module - easy implementation and certifications. As based on CSR's BlueCore-6 chip, WT21 offers the lowest current consumption and the highest integration level in its class. WT21 is also fully ready to support the latest *Bluetooth* 2.1 standard.

WT21 also has CSR's AudiStream technology built in, which significantly improves the quality of voice in audio applications.

WT21 supports any *Bluetooth* software stack that implements the standard *Bluetooth* HCI interface. The software stack can interface to the module either via UART, SDIO or SPI interface.

WT21 offers *Bluetooth* in integrated form factor that is easy to understand, manage and source. It is an ideal product for an OEM who does not want to spend significant amount of time and money to RF regulatory approvals and designing a complex 2,4 GHz radio product.

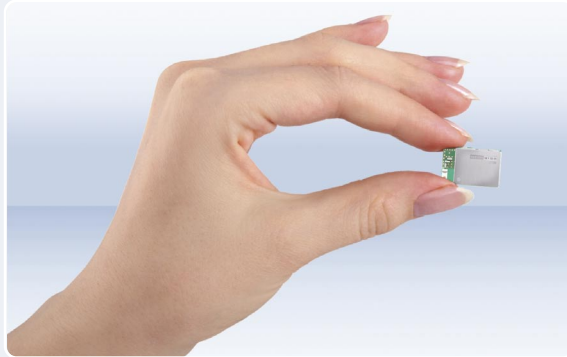
By utilizing Bluegiga's world-class integration services and technical support, OEMs can be assured that their products reach the market quickly and cost efficiently.

Key Features

- ▶ Highly integrated and cost efficient *Bluetooth* HCI module
- ▶ *Bluetooth* Class 1 radio based on CSR's BlueCore-6
- ▶ Integrated antenna
- ▶ *Bluetooth* 2.1 + EDR compliant
- ▶ *Bluetooth* Controller subsystem CE, FCC and IC qualified
- ▶ Industrial temperature range from -40 °C to +85 °C
- ▶ 801.11 co-existence interface
- ▶ AudiStream baseband codec, which provides better audio quality
- ▶ Supports any *Bluetooth* stack with HCI interface



TECHNICAL DATA



Firmware & Software

- Supports any standard *Bluetooth* stack with HCI interface
- 128-bit *Bluetooth* encryption available

Hardware

- *Bluetooth* Class 1 radio (100-150 meters)
 - Nominal output power +10 dBm
 - Nominal sensitivity -87 dBm
 - Uses 2.4 GHz ISM band
 - Based on CSR's BC06 chip
- Host processor interface via UART, SDIO or SPI
- 10xGPIO and 2xAIO
- PCM interface for audio applications
- Supply voltage: regulated 3.3 VDC
- PCB form factor: 17 x 11 x 3 mm
- Operating temperature: -40 °C to +85 °C

Product Codes

- Chip antenna WT21-A-HCI
- No antenna WT21-N-HCI

Development and Evaluation

- WT21 Evaluation Kit EKWT21

Other Products

- WT12 *Bluetooth* Module
- WT11 *Bluetooth* Module
- WT32 *Bluetooth* Audio Module
- Access Servers and Access Points

Certifications

- *Bluetooth* 2.1 + EDR (Controller subsystem)
- CE, FCC and IC

Applications

- PCs and laptops
- PDAs
- Embedded systems

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