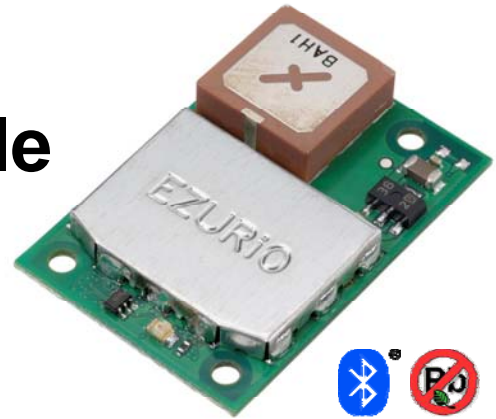


Bluetooth[®] Serial Module BISM II



Part No: TRBLU23 – 00200

The *Bluetooth* Intelligent Serial Module is specifically designed for applications where robust short range connectivity is required. This particular module provides a reliable *Bluetooth* connection that exceeds all requirements in terms of performance. Having an excellent range of up to 300 metres with very low power consumption of less than 36 mA makes this module a true class leader.

Key Features

- Best in class range, providing open field connectivity in excess of 300 metres
- Integrated high performance ceramic antenna
- Adaptive Frequency hopping to cope with interference from other wireless products
- Optimised receive sensitivity to provide long range initial connections that largely eliminate connection Hysterisis
- A full industrial operating temperature range of -40°C to +85°C
- Data transfer rate up to 300 kbps
- Fully approved product – no further approval costs
- Class 1 version 2.0 *Bluetooth*
- Receive sensitivity better than -84 dBm
- Support for 128 bit encryption
- Non-discoverable modes
- 40 way Hirose connector
- 2 X 8 bit ADC's
- 9 X GPIO
- Low power modes
- Lead free
- 2 year warranty

As well as incorporating a fully approved embedded *Bluetooth* protocol stack, the module includes a comprehensive AT style interface, which dramatically reduces the development time of applications from months to days.

Key Benefits

- Fastest time to market
- Range and reliability
- Low power
- Low cost of ownership

This module provides the very best package for embedding into your applications and is contained within a compact profile.

Dimensions

- 25 X 35 X 10 mm
- 8 grams in weight

Bluetooth Serial Module – BISM II

Features

| Features |
|--|
| Version 2.0 <i>Bluetooth</i> |
| Adaptive Frequency Hopping |
| Supports Wi-Fi co-existence |
| Fully approved end product – No approval cost |
| Embedded <i>Bluetooth</i> stack |
| Integrated antenna with up to 300m range |
| Simple AT style command set interface |
| Configurable General Purpose Input Outputs |
| 8bit Analogue to Digital Converter |
| Industrial Temperature range |
| Wide ranging profile support: SPP, DUN, headset, audio gateway, handsfree and FTP client |



Key benefits

| | |
|--------------------------|----------------------------|
| Fastest time to market | Ideal for embedded systems |
| Lowest cost of ownership | No host stack required |

| | |
|-------------------------|-----------------------------|
| Supports encrypted data | Low power |
| Robust design | Extensive technical support |

Overview of the technical specification

| Feature | Implementation |
|---------------------|--|
| <i>Bluetooth</i> | Class 1 |
| Frequency | 2.400 – 2.485 GHz |
| Max Transmit Power | + 6dBm |
| Min Transmit Power | - 27dBm |
| Low Power Sniff | 2.5mA typical |
| Receive Sensitivity | Better than -84dB |
| Range | 300m (free space) |
| Serial Interface | 3.3v UART |
| GPIO | 9 X Digital |
| Serial Parameters | Default 9600,n,8,1 From 1200 to 921600bps DTR, DSR, RTS, CTS, DCD, RI DCE or DTE mode |
| Current Consumption | Idle mode = 13mA Connected as master = 20mA Connected as slave= 30mA |

| Feature | Implementation |
|----------------------------|--------------------------------------|
| Physical Size | 25 X 35 X 10mm, 8g |
| <i>Bluetooth</i> Qualified | <i>Bluetooth</i> 2.0 |
| Lead Free | RoHS compliant |
| Temperature Range | -40°C to +85° |
| Interface Levels | 3.3V |
| Audio | Supported |
| Multipoint | Supported |
| Field Upgrades | Over UART |
| ADC | 2 X 8bit |
| Protocols | UART AT command set Multipoint |
| Data Transfer Rate | Up to 300 kbps |

Environmental tests

| | |
|---|---|
| IEC 60068-2-1:1990 | IEC 60068-2-2:1974 |
| IEC 60068-2-14:1984 | IEC 60068-2-56:1988 |
| IEC 60068-2-30:1980 | IEC 60068-2-29:1987 |
| SAE 1455:REVAug94 Paragraph 4.9.4.2 (random) | SAE 1455:REVAug94 Paragraph 4.10.4 (shock) |

The details contained within the document are subject to change; please download the product specification available from www.ezurio.com for the most up to date specification