

The Embedded Bluetooth® AT Module is designed for applications that demand a robust and reliable Bluetooth connection. This product is designed with solder connections that allow it to be mounted directly onto a main pcb. The integrated high performance, multilayer ceramic antenna is highly resistant to de-tuning, allowing great flexibility in positioning.

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

The Bluetooth surface mount module is shipped with the powerful Laird Technologies Terminal Control Center software that allows simple configuration of the adapter for rapid product development. Combined with the Laird Technologies AT style interface, the development time required to add wireless connectivity is reduced from months to days.

#### KEY FEATURES

- Integrated antenna with up to 300 metre range
- Class 1 with +6dBm transmit power (maximum)
- Current consumption less than 36 mA
- Version 2.0 Bluetooth
- Fully integrated Bluetooth stack
- Audio supported through PCM connection
- Simple AT style command set interface
- -40°C to +85°C operating range
- Data transfer rate up to 300kbps
- Lead free – RoHS compliant
- Multipoint support
- Adaptive frequency hopping
- Field upgradeable
- 2 year warranty
- Supports Wi-Fi co-existence
- Fully approved end product – No approval cost
- Surface mounted design
- Wide ranging profile support: SPP, DUN and FTP
- HCI version available
- Field upgradeable over UART

#### BENEFITS

- Fully integrated Bluetooth stack
- Fastest time to market
- Low power consumption
- Lowest cost of ownership
- Robust design for surface mount applications
- Extensive technical support

**global solutions: local support™**

USA: +1.800.492.2320

Europe: +44.1628.858.940

Asia: +852.2268.6567

wirelessinfo@lairdtech.com

[www.lairdtech.com/wireless](http://www.lairdtech.com/wireless)

# BISMS02BI-01

## Embedded Bluetooth® AT Module

FEATURE	IMPLEMENTATION
Bluetooth®	Class 1
Frequency	2.402 – 2.480 GHz
Max Transmit Power	+6dBm
Min Transmit Power	-27dBm
Low Power Sniff	2.5mA typical
Receive Sensitivity	Better than -84 dB
Range	Up to 300 m (free space)
Serial Interface	3.0v UART
GPIO	6 x digital GPIO
Serial Parameters (UART version only)	Default 9600,n,8,1
	From 1,200 to 921,600 bps
	DTR, DSR, RTS, CTS, DCD, RI
	DCE or DTE mode
Current Consumption	Less than 36mA
Physical Size	18.0 x 46.0 x 5.5mm
Supply Voltage	3.3 V - 7.0 V
Lead Free	RoHS compliant
Temperature Range	-40°C to +85°C
Interface Levels	3.0V
Multipoint	Supported
Field Upgrades	Over UART
ADC	1 x 8bit
Protocols	AT command set (BISMS02BI)
	HCI (TRBLU24-0100)
Audio	Supported through PCM connection

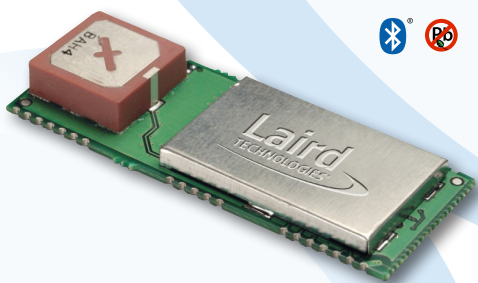
### ORDERING INFORMATION

TRBLU23-00200 Bluetooth Serial Module with integrated antenna

TRBLU23-00300 Bluetooth Serial Module with u.fl connector for external antenna

TRBLU24-0100 Bluetooth USB Module with HCI interface

The details contained within the document are subject to change. Download the product specification from [www.lairdtech.com/wireless](http://www.lairdtech.com/wireless) for the most current specification.



THR-SPEC-BISMS02BI 0109

Any information furnished by Laird Technologies and its agents is believed to be accurate and reliable. Responsibility for the use and application of Laird Technologies materials rests with the end user since Laird Technologies and its agents cannot be aware of all potential uses. Laird Technologies makes no warranties as to the fitness, merchantability, or suitability of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies terms and conditions of sale in effect from time to time, a copy of which will be furnished upon request. For further information please visit our website at [www.lairdtech.com](http://www.lairdtech.com). Alternatively contact: [wirelessinfo@lairdtech.com](mailto:wirelessinfo@lairdtech.com). Bluetooth® is a trademark owned by Bluetooth SIG, Inc., USA and licensed to Laird Technologies.

© 2009 All Rights Reserved. Laird Technologies is a registered trademark of Laird Technologies, Inc.