



The Embedded Bluetooth® AT Module is designed for applications that demand a robust and reliable Bluetooth connection. This product is designed with solder connections for mounting 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 application development time 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. This, in combination with the Laird Technologies' AT style interface, reduces wireless connectivity development time from months to days.

### Key Features

- Integrated antenna - up to 300m 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



# BISMS02BI

## Embedded Bluetooth® AT Module

FEATURE	IMPLEMENTATION
Bluetooth®	Class 1
Frequency	2.402 – 2.480 GHz
Max Transmit Power	+6dBm
Min Transmit Power	-27dBm
Receive Sensitivity	Better than -84dB
Range	Up to 300m (free space)
Serial Interface	3.0V UART
GPIO	6 x digital GPIO
Serial Parameters (UART Version only)	Default: 9600,n,8,1 From 1200 bps to 921.6 kbps DTR, DRS, RTS, CTS, DCD, RI DCE or DTE mode
Current Consumption	<36mA
Physical Size	18.0 x 46.0 x 5.5 mm
Supply Voltage	3.3V – 7.0V
Lead Free	RoHS Compliant
Temperature Range	-40°C to +85°C
Interface Levels	3.0 V
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



BISMS02BI	Class I Embedded Bluetooth Module
BISMS02BI-NA	Class I Embedded Bluetooth Module with uFL connector
TRBLU24-00100	Class I Embedded USB HCI Module
TRBLU24-00100-NA	Class I Embedded USB HCI Module with uFL connector

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.

### CONN-DS-BISMS02Bi

Any information furnished by Laird Technologies, Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Technologies materials rests with the end user. Laird Technologies makes no warranties as to the fitness, merchantability, suitability or non-infringement 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. © Copyright 2013 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Technologies or any third party intellectual property rights.

### Revision History

Ver.	Date	Changes	Approved By
1.0	16 Oct 2013	Initial	J. Kaye
1.1	06 May 2014	Added Rev History	Sue White