



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 Connectivity Terminal Control Center software that allows simple configuration of the adapter for rapid product development. This, in combination with the Laird Connectivity's AT style interface, reduces wireless connectivity development time from months to days.

## Key Features

- Integrated antenna – Up to 300-meter range
- Class 1 with +6 dBm 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 300 kbps
- 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

## SPECIFICATIONS

FEATURE	IMPLEMENTATION
Bluetooth®	Class 1
Frequency	2.402 – 2.480 GHz
Max Transmit Power	+6 dBm
Min Transmit Power	-27 dBm
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 1200 bps to 921.6 kbps
	DTR, DRS, RTS, CTS, DCD, RI
	DCE or DTE mode
Current Consumption	<36 mA
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 8 bit
Protocols	AT command set (BISMS02BI)
	HCI (TRBLU24-0100)
Audio	Supported through PCM connection

## ORDERING INFORMATION

Part	Description
<b>BISMS02BI</b>	Class I Embedded Bluetooth Module
<b>BISMS02BI-NA</b>	Class I Embedded Bluetooth Module with uFL connector
<b>TRBLU24-00100</b>	Class I Embedded USB HCI Module
<b>TRBLU24-00100-NA</b>	Class I Embedded USB HCI Module with uFL connector