



If you need greater range for your Bluetooth® applications, Laird Technologies' Bluetooth® Intelligent Serial Module PA provides the ideal solution. It provides all of the features of Laird Technologies' standard BISM, but incorporates both a power amplifier and a low noise signal amplifier that can provide Bluetooth® connections of up to 1,000 meters. In a module size of just 25mm x 35mm it contains everything you need to interface from a serial data port to a high-performance, integrated Bluetooth antenna. It is fully compatible with our other BISM products, giving current users a drop-in replacement to upgrade the performance of their current Bluetooth products.

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.

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

KEY FEATURES

- Best in class range, providing open field connectivity up to 1,000 meters
- Integrated power amplifier providing 25mW output with power control
- Low noise amplifier to improve receive sensitivity to better than -84.5 dBm
- Low connection hysteresis to allow initial connection close to full range
- Integrated high performance ceramic antenna
- Adaptive frequency hopping to cope with interference from other wireless products
- Wifi coexistence and co-location support
- A full industrial operating temperature range of -10°C to +85°C
- Fully approved product – no further approval costs
- Class 1 version 2.0 Bluetooth
- Support for 128 bit encryption
- Support for audio applications, including eSCO
- 40 way Hirose connector
- 2 x 8 bit ADC's and 9 x GPIO
- Low power operation, even at full range
- Lead free
- 1 year warranty
- Configurable general purpose input outputs
- Two 8 bit analog to digital convertor
- Wide ranging profile support: SPP, DUN, headset, audio gateway, handsfree, and FTP client

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
- Ideal for embedded systems
- Supports encrypted data
- Extensive range

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BLUETOOTH® SERIAL MODULE

BISM2 PA

FEATURE	IMPLEMENTATION
Bluetooth®	Class 1
Frequency	2.400 – 2.485 GHz
Max transmit power	+17dBm
Min transmit power	-27dBm
Low power sniff	2.5mA typical
Receive sensitivity	Better than -84.5dB
Range	Up to 1,000 m (free space)
Serial interface	3.3v UART
GPIO	9 x digital
Serial parameters	Default 9600,n,8,1 From 1,200 to 921,600 bps DTR, DSR, RTS, CTS, DCD, RI DCE or DTE mode
Current consumption	TBC
Physical size	25 x 35 x 10mm, 8g
Supply voltage	3.6 V - BTM402 3.3 V - BTM404
Bluetooth qualified	Bluetooth 2.0
Lead free	RoHS compliant
Temperature range	-10°C to +85°C
Interface levels	3.3 V - BTM402 3.0 V - BTM404
Audio	Supported, including eSCO
Multipoint	Supported
Field upgrades	Over UART
ADC	2 x 8bit
Protocols	UART AT command set Multipoint
Data transfer rate	Up to 300 kbps

ORDERING INFORMATION

BTM402	BISM2 PA module with 3.6V input voltage
BTM404	BISM2 PA module with 3.3V input voltage

The details contained within the document are subject to change. Download the product specification from www.lairdtech.com/wireless for the most current specification.

LWS-DS-BISM2 PA 0909

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