SMALL. SMART. SIMPLE

Laird's BT900 modules reduce engineering burden and design risk when integrating Bluetooth and Bluetooth Low Energy into any OEM device. A small form factor, optimized power schemes and *smart*BASIC language provide a secure, stable BT environment for any embedded design. Let Laird's innovative BT900 series and decades of expertise in Bluetooth module design speed your product to market.

- **Bluetooth v4.0 dual mode** (BT and BLE)
- Supports **SPP** + any **BLE Peripheral or Central roles**
- Supports **simultaneous BT and BLE** connections
- **Hostless operation** – No need for external MCU reducing overall BOM
- **Broad range of hardware interfaces**: UART, I2C, SPI, ADC, GPIO
- **Small footprint** (19mm x 12.5mm x 2.5 mm)
- *smart*BASIC powers rapid design and deployment

Features at a Glance

FLEXIBLE FOR ANY CHALLENGE: A COMPLETE SOLUTION
Cortex M3 microcontroller and *smart*BASIC create truly hostless operation and enable power/throughput flexibility and sleep mode control.

SPEED TO MARKET WITH *smart*BASIC
Easily write event-driven apps for any use case and run in the module. No toolchain required.

FULL, COMPREHENSIVE BLUETOOTH SOLUTION
The best of Bluetooth: Dual Mode, Simultaneous BT + BLE, and SPP + BLE Peripheral / Central Roles.

GLOBAL APPROVALS – MAKE YOURSELF AT HOME
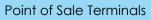Carries several modular FCC, IC, CE, MIC and Bluetooth SIG approvals

PERSONAL SUPPORT FROM DESIGN TO MANUFACTURE
Support works onsite with Laird engineering to speed your design to market.

Application Areas

Logistics and Barcode Scanners

Point of Sale Terminals

Health and Medical Devices

Key Specifications

Category	Feature	Specification
Wireless Specification	Bluetooth®	V4.0 – Dual-Mode
	Frequency	2.402 - 2.480 GHz
	Transmit Power	+ 8 dBm (maximum) Configurable down to -20 dBm
	Receive Sensitivity	-90 dBm (typical)
	Link Budget	98 dB
	Raw Data Rates (Air)	3 Mbps (Classic BT – BR/EDR)
Host Interface and Peripherals	UART Interface	TX, RX, CTS, RTS. DTR, DSR, DCD, RI can be implemented in *smart*BASIC-using General Purpose I/O Default 115200, N, 8, 1. From 1200 bps to 921,600 bps
	Other	GPIO (18 maximum – configurable), I2C (1 configurable from GPIO) SPI (1 from GPIO), ADC (2 from GPIO), Wi-Fi / BT Coexistence (3 dedicated pins)
Profiles	Bluetooth Low Energy	GATT Client & Peripheral – Any Custom Services
	Classic Bluetooth	Serial Port Profile (SPP) – Up to 600 kbps
Programmability	*smart*BASIC	On-board programming language similar to BASIC
	*smart*BASIC application	Via UART or Over the Air
Control Protocols		Any that can be implemented using *smart*BASIC vSP – Virtual Serial Port for BLE
Maximum Connections	Classic Bluetooth	7 clients
	Bluetooth Low Energy	5 clients
FW upgrade	*smart*BASIC engine FW upgrade	Via UART
Coexistence	802.11 (Wi-Fi)	3 wire CSR schemes supported (Unity-3;Unity-3e)
Supply Voltage	Supply	1.8V – 3.6V
Power Consumption	Current	Max Peak Current (@ +8dBm TX) – 85 mA
		Standby Doze (@ 4MHz) – 2.7 mA
		Deep Sleep – 233 uA (external signal wake up)
Physical	Dimensions	19 mm x 12.5 mm x 2.5 mm Pad Pitch 0.8 mm
Environmental	Operating	-40°C to +85°C
	Storage	-40°C to +85°C
Miscellaneous	Lead Free	Lead-free and RoHS compliant
	Development Kit	Development board and free software tools
Development Tools	Utilities	Windows, Android, and iOS applications
Software Tools	Bluetooth®	Complete Declaration ID
Approvals	FCC / IC / CE / MIC	All BT900 Series
Warranty		1-Year Warranty

For full specifications on BT900 modules, please see the BT900 Datasheet (Hardware Integration Guide).

Did You Know?

LSR, a Laird Business, is a leader in Wireless Product Development, offering true end-to-end solutions through its array of services & technical expertise

LSR a Laird Business

Design Services
- RF Hardware & Antenna Design
- Software/Firmware Development
- Mobile App / Cloud Development
- Industrial Design
- Mechanical Engineering

EMC Testing & Certification
- On-Site FCC/IC/CE/Giteki/RCM EMC Certification
- Wireless & Antenna Testing
- EMC Emissions Testing
- International Testing Services

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For documentation, software, sample apps and more visit:
http://www.lairdtech.com/products/BT900-Series