

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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#### **BT900-US Series Bluetooth v4.0 Dual Dongle**

Intelligent BT / BLE Dongle featuring smartBASIC



#### NO EXTERNAL BLUETOOTH STACK NEEDED!

Laird's BT900-US product expands upon the BT900 series of modules for embedded devices, to leverage Classic BT and Bluetooth Low Energy support to PCs, laptops and mobile computers. BT900-US provides a simple approach for adding into virtually ANY operating system with a USB port. Let Laird's innovative BT900-US and decades of expertise in Bluetooth design speed your end to end wireless application to market.



# **smart BASÎC**



#### FLEXIBLE FOR ANY CHALLENGE: **A COMPLETE SOLUTION**

The BT900-US USB dongle has been developed to take advantage of the BT900-SA module, providing a simple and easy way to add Classic Bluetooth, BLE Central, and BLE Peripheral mode to virtually ANY operating system with a USB interface. Leverage the BT900-US to enable any Bluetooth SPP device or BLE sensor to communicate to any PC, laptop, or mobile computer without any complicated installation or software support requirements.

#### EMBEDDED BLUETOOTH MADE **EASY**

A smart design is one you don't have to rewrite. Laird's *smart* BASIC acts as the bridge between software and hardware, enabling an application written for one *smart* BASIC radio to work on any other. Our event-driven smart BASIC language, unique to the wireless industry, offers built-in functions that replace thousands of lines of C code with a few abstracted lines of smart BASIC. Leverage Laird's years of Bluetooth expertise: write once and deploy anywhere with Laird's line of smart BASIC-ready modules and devices.

#### **GLOBAL APPROVALS** MAKE YOURSELF AT HOME.

Laird's BT900-US carries several modular FCC, IC, CE, and Bluetooth SIG approvals, meaning you don't need costly and time-intensive testing to bring certified Bluetooth to market. Certifications from worldwide regulatory bodies take time, effort, financial cost, and ultimately slow development. Laird's approvals extend to your design with no additional testing, making them a fast and efficient route to production.

#### Features & Benefits RoHS



- Bluetooth v4.0 dual mode (BT and BLE)
- Virtual COM port implementation huge array of supported operating systems
- smartBASIC powers rapid design and deployment
- Supports SPP and any BLE peripheral or central roles
- Supports simultaneous BT and BLE connections
- Standalone operation no need for external Bluetooth stack or power supply

#### **Application Areas**







Point of Sale terminals



Health and **Medical Devices** 

#### global solutions: local support,

USA: +1.800.492.2320 Europe: +44.1628.858.940 Asia: +852.2923.0610

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



## **BT900-US Series Bluetooth v4.0 Dual Dongle**Intelligent BT / BLE Dongle featuring *smart*BASIC

CATEGORIES	FEATURE	IMPLEMENTATION	
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): 1 Mbps (BLE)	
Host Interface	USB 2.0 – UART interface	TX, RX, CTS, RTS	
		DTR, DSR, DCD can be implemented in smartBASIC- using	
		General Purpose I/O	
	Virtual COM port via FTDI232R	Default 115200, N, 8, 1	
Additional I/O	LEDs	One	
Profiles	Bluetooth Low Energy	GATT Client & Peripheral – Any Custom Services	
	Classic Bluetooth	Serial Port Profile (SPP) – Greater than 400kbps	
Maximum Connections	Classic Bluetooth	7 clients	
	Bluetooth Low Energy	5 clients	
Programmability	<i>smart</i> BASIC	On-board programming language similar to BASIC	
	smartBASIC application	Via UART	
Control Protocols		Any that can be implemented over SPP using smartBASIC	
		vSP – Virtual Serial Port for BLE	
FW upgrade	smartBASIC engine FW upgrade	Via UART	
Supply Voltage	Supply	5.0V +/- 10%	
		Powered by standard USB port	
Physical	Dimensions	18.39 mm x 50.74 mm x 11 mm	
Environmental	Operating	-40°C to +85°C	
	Storage	-40°C to +85°C	
Miscellaneous	Lead Free	Lead-free and RoHS compliant	
Support	Operating Systems	Windows	
		Windows Embedded	
		MAC OSx	
		Linux	
		Android	
Software Tools	Utilities	UW Terminal or Any Terminal Emulation program	
		UART firmware upgrade	
Approvals	Bluetooth®	HW Subsystem Declaration ID	
	FCC / IC / CE	Additional countries upon review	
Warranty		<u>Limited Lifetime Warranty</u>	

### **Ordering Information**

BT900-US-0x Intelligent USB BTv4.0 dual mode dongle featuring <i>smart</i> BASIC
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Embedded Wireless Solutions Support Center:
http://ews-support.lairdtech.com
www.lairdtech.com/bluetooth

1.0 18 Mar 15 Initial Release Jonathan Kaye	Version	Date	Changes	Approved By
	1.0	18 Mar 15	Initial Release	Jonathan Kaye