

EmbeddedBlue™ Series eb500

Bluetooth® RADIO MODULE

Features and Benefits

- Simple serial UART communications and control
- Seamless connectivity with any Bluetooth device
- Open field range of over 100 meters (328 feet)
- 2.4GHz FHSS (Frequency Hopping Spread Spectrum) technology ensures high reliability and is robust to interference
- Compatible with Parallax® AppMod header for simple integration
- Low current consumption for long battery life
- Complete with sample applications and source code

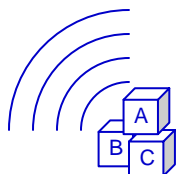
Applications

The EmbeddedBlue Series eb500 Bluetooth Radio Module is ideal for enabling your BASIC Stamp® with a widely supported industry standard wireless protocol. Monitoring and control applications will benefit from an integrated implementation of the serial port profile for seamless connectivity with desktop computers, PDAs, and cellular phones. A focus on low current consumption makes the eb500 ideal for use in standalone battery powered devices common to robotics and remote data capture.

Description

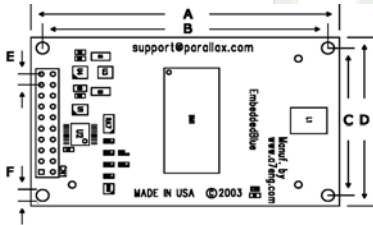
The eb500 implements all components of the Bluetooth stack on board so that additional host processor code is not required. Once a connection to another Bluetooth device has been established, the link has the appearance of a cabled serial connection eliminating the need for special wireless protocol knowledge.

Simple UART communication facilitates the interface between the host processor and the Series eb500 radio. This UART interface may be used to discover, connect, and communicate with other Bluetooth devices. An LED indicator for connection status is provided as a standard feature.



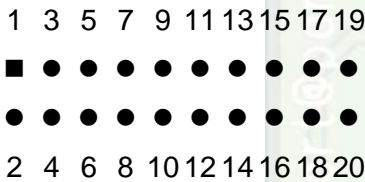
Specifications and Ordering Information

Dimensions



	inches	mm
A	2.75	69.85
B	2.40	60.96
C	1.30	33.02
D	1.60	40.64
E	0.10	2.54
F	0.125	3.20

Pinout



1	VSS	11	NC
2	VSS	12	NC
3	RX	13	NC
4	TX	14	NC
5	RTS	15	NC
6	CTS	16	NC
7	NC	17	NC
8	STATUS	18	NC
9	MODE	19	NC
10	NC	20	VCC

Specifications

Transmit Power	4dBm (max) class 2 operation
Open Field Range	More than 100 meters (328 feet)
Receiver Sensitivity	-85dBm
Operating Temperature	0° to 70°C
Supply Power	5 to 12VDC
Current Consumption	115.2kbps data transfer: 35mA 38.4kbps data transfer: 30mA 9.6kbps data transfer: 25mA idle connection: 8mA no connection: 3mA
Interfaces	5V logic level UART or RS232 serial w/ optional eb600 adapter Baud rate 9.6k – 230.4k Flow control: RTS/CTS or none
Connector	10x2 AppMod compatible 20 pin header with 0.1" spacing
Antenna	Internal surface mount
Bluetooth Support	Version 1.1 compliant with profiles L2CAP, RFCOMM, SDP, SPP
Firmware	Upgradeable with optional eb600 adapter

Ordering Information

Part Number	Description	Price
eb500	AppMod compatible radio	\$99
eb600	RS232 adapter	\$99

A7 Engineering™
wireless building blocks

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