EmbeddedBlue™ eb500-SER
OEM Bluetooth® Serial Adapter

Features and Benefits

- Simple serial UART communications and control
- Seamless connectivity with other Bluetooth device
- Fully embedded solution with no Bluetooth host stack required
- 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

Description

The eb500-SER 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 eb500-SER. 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.

Applications

The EmbeddedBlue eb500-SER Bluetooth serial adapter 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-SER ideal for use in standalone battery powered devices common to robotics and remote data capture.

Wireless Technology
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Dimensions
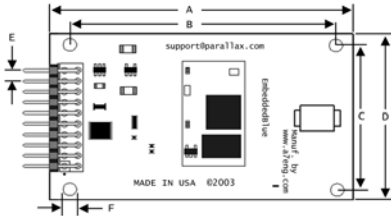
Note: controlling measurement is inches

	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 3 5 7 9 11 13 15 17 19

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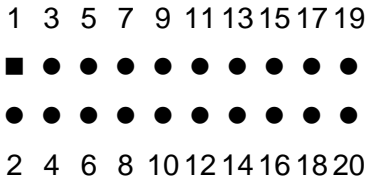
1	VSS	2	VSS
3	TX	4	RX
5	NC	6	NC
7	NC	8	STATUS
9	MODE	10	NC
11	NC	12	NC
13	NC	14	NC
15	NC	16	NC
17	NC	18	NC
19	NC	20	VCC

Specifications

Transmit Power	+6dBm (max)
Receiver Sensitivity	-85dBm
Operating Temperature	-15° to 70°C
Supply Power	5 to 12VDC
Current Consumption	115.2kbps data transfer: 35mA 9.6kbps data transfer: 25mA idle connection: 8mA no connection: 3mA
Interfaces	5V TTL UART or RS232 serial with optional eb600 adapter Baud rates of 9.6k – 230.4k
Connectors	10x2 AppMod compatible 20 pin header with 0.1" spacing
Antenna	Internal surface mount
Bluetooth Support	Version 1.2 compliant with profiles GAP, SDP and SPP
Firmware	Upgradeable with A7 Engineering utility software
Size	75.85mm x 40.64mm x 8.9mm

Ordering Information

Part Number	Description
eb500-SER	eb500-SER adapter

Manufactured by:
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