A7 EmbeddedBlue™ eb301

OEM Bluetooth® Serial Adapter

Features and Benefits

- Based on the eb101 serial Bluetooth module from A7
- Available with onboard antenna module or U.FL connector module
- Seamless connectivity with other Bluetooth devices
- Up to 250kbps of continuous data throughput
- Low current consumption for long battery life
- 0.1" 2x6 header for easy integration

- Easy to use command set for communications and control
- Available with 3.3V/5V interface or RS232 voltage level interface
- EasyConnect™ enabled for simple cable replacement
- Full design documentation available at no cost
- Four screw holes for solid mounting
- Directly connectable to standard USB serial cable for PC testing

Description

The eb301 adapter is a highly integrated Bluetooth solution designed for ease of use and reliability. With options that allow for flexibility, this device is the ultimate solution for both prototyping and new designs. Low volume embedded systems will benefit from the simple integration, antenna options, and low pricing. For higher volume applications, this adapter makes migration to the low cost eb101 module simple with availability of complete design documentation.

Applications

- Medical Equipment
- POS Systems
- Telemetry Systems
- Industrial Automation

- Prototyping
- Lighting Control
- Robotics

Specifications and Ordering Information

Transmit Power	+6dBm (max)
Receiver Sensitivity	-85dBm
Operating Temperature	-15° to 70°C
Supply Power	logic level (3.3V/5V version) 5.5VDC (RS232 version)
Current Consumption	125uA - 60mA
Antenna Connection	UFL (for UFL versions only)
Bluetooth Support	Version 2.0 + EDR compliant with profiles GAP, SDP, SPP, and DUN

Nominal Dimensions

Maximum height is 0.3" (7.62mm).

0.75" (19.05mm)

1.83" (46.48mm)
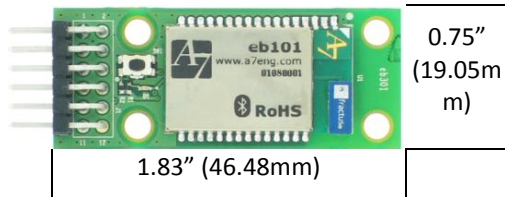
Connector

2 x 6 – 0.1" (2.54mm) centers – Male header

Pin 2 → ← Pin 12
Pin 1 → ← Pin 11

Pin out

Pin	Direction	Name	Description
1	Input	GROUND	
2	Input	SWITCH	Active low; duplicating functionality of onboard switch.
3	Output	RTS	Serial ready to send.
4	Output	LED	Active low; duplicating functionality of onboard LED.
5	Input	VCC	3.3V (using 3.3V logic); 5V (using 5V logic); 5.5V (RS232 version)
6	Input	BREAK	Active low; enter command mode and return to data mode.
7	Input	RXD	Serial receive data.
8	Input	WAKEUP*	Active low; wakeup eb301 before transmitting data from host.
9	Output	TXD	Serial transmit data.
10	Output	STATUS	Active low indicates active connection.
11	Input	CTS	Serial clear to send.
12	Output	H_WAKEUP*	Active low indicates data in FIFO will be transmitted to host.

*Future implementation.

Ordering Information

Part #	Description
1000154	eb301 OEM Bluetooth Serial Adapter with Onboard Antenna and RS232 Interface
1000155	eb301 OEM Bluetooth Serial Adapter with Onboard Antenna and 3.3V/5V Interface
1000156	eb301 OEM Bluetooth Serial Adapter with UFL Connector and RS232 Interface
1000157	eb301 OEM Bluetooth Serial Adapter with UFL Connector and 3.3V/5V Interface

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