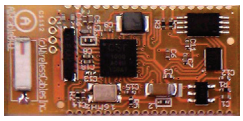
The AIRcable BLE

Extremely Low Power Bluetooth 4.0 Low Energy Single Mode Module with the AIRcable Universal GATT Profile



Actual Size

31mm x 14.5mm x 3.5mm

The AIRcable BLE

Powerful Characteristics for IO

- Read and write 8 digital input and output
- Configure notifications for digital inputs
- Read and write 3 analog input and output
- Configure notifications for analog input voltage
- Battery monitor characteristics with notifications

Serial Communication

- SPI input and output characteristic
- I2C input and output characteristic
- 3 PWM output for servo control and other

Single Module Solution

- Very low hardware cost
- Ultra low power consumption (up to 4 years on a 2032 coin cell)
- Ideal solution for wireless sensors
- Configureable RF output power: up to 8dBm max.

The **AIRcable BLE** is a very simple and generic Wireless-to-Hardware interface that can be controlled by all Bluetooth Low Energy devices.

The **AIRcable BLE** can be accessed and configured wirelessly via standard Bluetooth 4.0 Characteristics applications.

Please visit our web site for details about writing applications for the **AIRcable BLE**.

http://www.aircable.net/ble

Benefits of the AIRcable SMD

- No programming required
- Single module solution
- Connects to various sensors
- Very low hardware costs
- Ideal solution for sensors and control
- Compatible with all Bluetooth 4.0 devices
- Easy software development and deployment
- Universal GATT profile, based on the Automation IO standard

AIR CABLE
Wireless Cables Inc.

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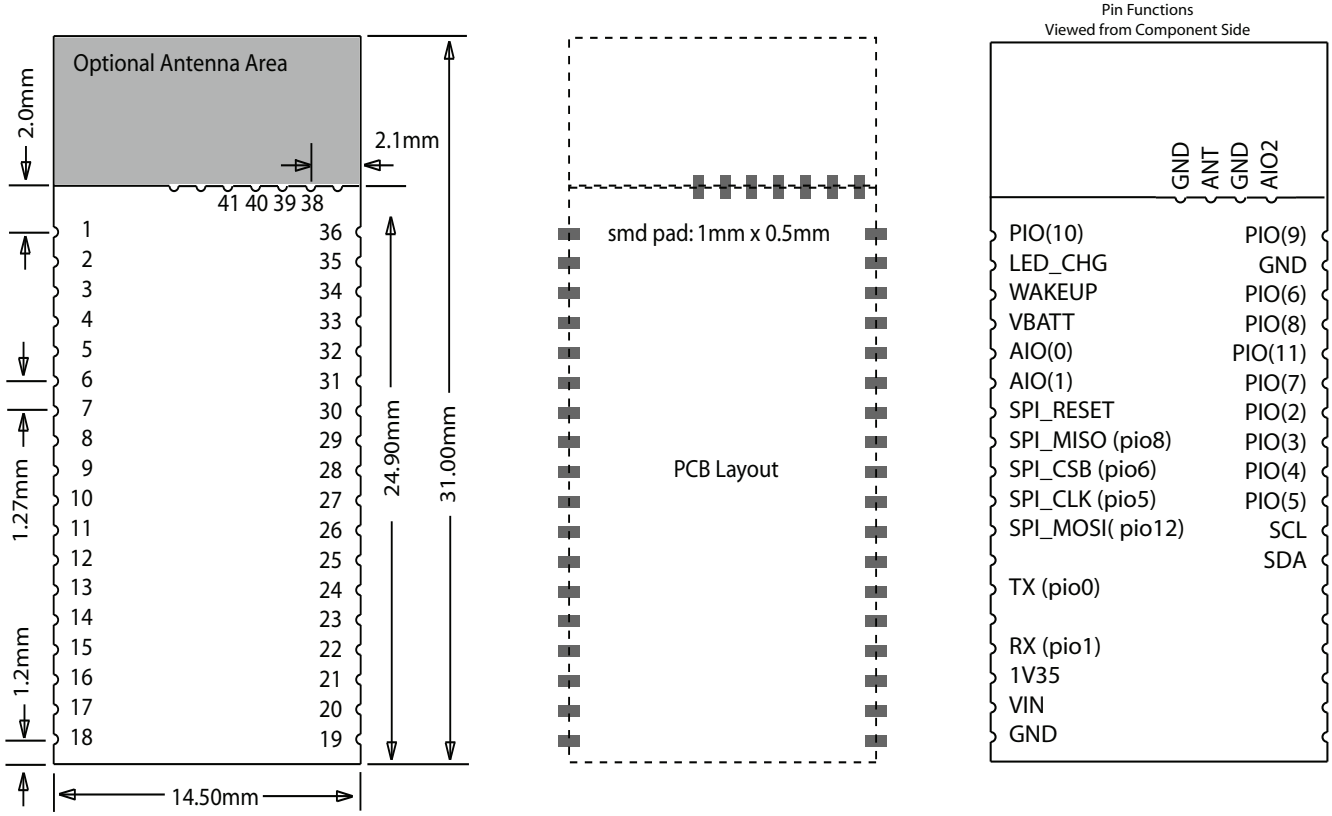
Terminal Description



1	PIO(10)	I/O	3.3V TTL	PIO(10), used for button input, weak pull-down resistor
2	LED(0)	O	Supply	connected to PIO(2), used for EEPROM power control
3	WAKEUP	I	Supply	Wakeup from deep sleep, connected to PIO(10)
4	VBATT	I/O	Supply	3V Coin cell, 3.3V supply or battery, positive terminal
5	AIO(0)	I	Analog	Analog input or output 0-1.3V
6	AIO(1)	I	Analog	Analog input or output 0-1.3V
7	SPI_RESET	I	3.3V TTL	High enables SPI interface for programming and debugging
8	SPI_MISO	I	3.3V TTL	SPI firmware programming, same as PIO(8)
9	SPI_CSB	I	3.3V TTL	SPI firmware programming, same as PIO(6)
10	SPI_CLK	I	3.3V TTL	SPI firmware programming, same as PIO(5)
11	SPI_MOSI	O	3.3V TTL	SPI firmware programming, same as PIO(7)
12	CTS			connected to RTS for compatib ility
13	TX	O	3.3V TTL	Uart async serial output, same as PIO(0)
14	RTS			shorted with CTS for compatibility
15	RX	I	3.3V TTL	Uart async serial input, same as PIO(1)
16	NC			not connected
17	VIN	I	Supply	Regulator input, 3V – 12V
18	GND		Supply	Ground

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Terminal Description (cont.)

19				
20				
21				
22				
23				
24				
25	SDA	I/O	3.3V TTL	I2C master data
26	SCL	O	3.3V TTL	I2C master clock
27	PIO(5)	I/O	3.3V TTL	general purpose input or output pin
28	PIO(4)	I/O	3.3V TTL	general purpose input or output pin
29	PIO(3)	I/O	3.3V TTL	general purpose input or output pin
30	PIO(2)	I/O	3.3V TTL	general purpose input or output pin
31	PIO(7)	I/O	3.3V TTL	general purpose input or output pin
32	PIO(11)	I/O	3.3V TTL	general purpose input or output pin
33	PIO(8)	I/O	3.3V TTL	general purpose input or output pin
34	PIO(6)	I/O	3.3V TTL	general purpose input or output pin
35	GND		Supply	Ground
36	PIO(9)	I/O	3.3V TTL	general purpose input or output pin

RF Port Description

For versions of the AIRcable BLE without antenna, only use the antenna port with a 50 Ohm trace to an external antenna. Impedance matching will be required. Pleaes contact Wireless Cables Inc. for these versions.

39	GND		Supply	Ground
40	ANT	I/O	Analog	RF antenna connector
41	GND		Supply	Ground
42	AIO(2)	I/O	Analog	analog input or output
43	GND		Supply	Ground

FCC Requirements

1. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

2. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3. When the module is installed inside of an end product, OEM customer will be instructed on how to apply the exterior label. Relevant to the OEM labeling requirements are present in the product's user manual.

Wireless Cables Inc.
Model: AIRcable BLE

This device complies with part 15 of the FCC Rules and is Bluetooth 4.0 certified.