

Introduction

BLUEMORE200 is a professional, slim and powerful wireless module ready for integration in brand new or existing electronic products.

Based on CSR BC04 chipset it's fully configurable by serial interface (thanks to EikonAT firmware that is on the module by default). You can set Bluetooth parameters by the setup utility designed for Windows or through the command line interface.

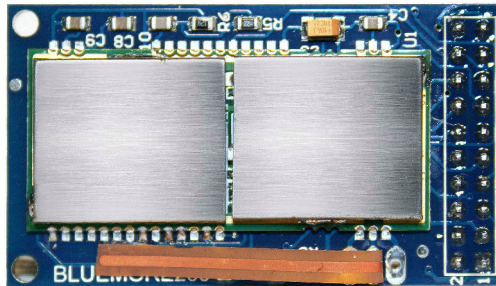
Antenna options are :

- Kapton antenna strip : Default
- SMA connector for external antenna: available on request

Dimensions: 28 x 50 x 7 mm.

Connector: 20 pins, pitch 2.54mm. Male pinstrip (ask us if you need it female or w/out connector)

Power supply: 3.3V or 5V DC



Applications

BLUEMORE200 allows you to cut the cables using wireless communication with PC, Pda, Mobile phone, etc... BLUEMORE200 may be set up for :

- Pure serial cable replacement (2 BLUEMORE200 wireless connected to each other)
- Mixed serial cable replacement (1 BLUEMORE200 connected to a Bluetooth PC or a PDA)

It's suitable for integration in microprocessor systems without operative system since it does not need drivers to work. It can be used as simple cable replacement for serial communications.

- Industrial CNC
- Medical devices
- Fitness Machines Professional GPS systems
- Telemetry systems
- Your application

Benefits

- Easy to setup
- Easy to manage and use
- Low power
- Zero Time for development
- Plug and Play

Applications

- Sensors Network
- Active RFID
- Home automation
- Industrial automation
- Telemetry
- Automatic Meter Reading (AMR)

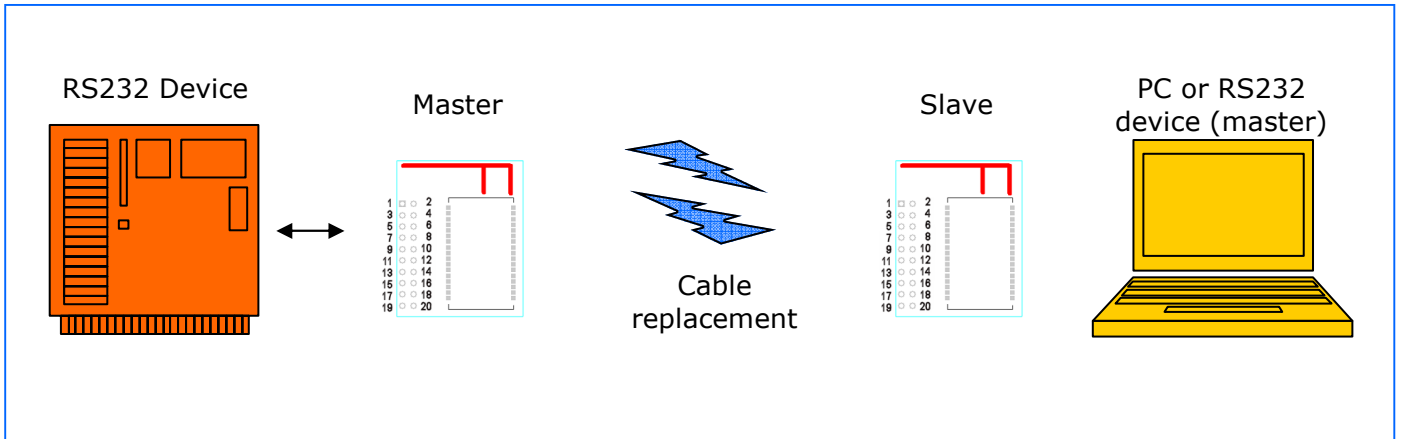
Features

- Bluetooth v1.2 compliant High Power Class1 100 meters range
- SPP serial port profile
- Based on CSR BC04 core
- 3.3V or 5V power supply
- Data Communication
- RS232 (from 1200 to 230400 baud)
- Serial 3.3V UART
- Serial 5V UART
- N° 3 I/O signals
- Standard or custom Firmware
- Based on bluesmall101 SMT module
- OEM version on request

Applications

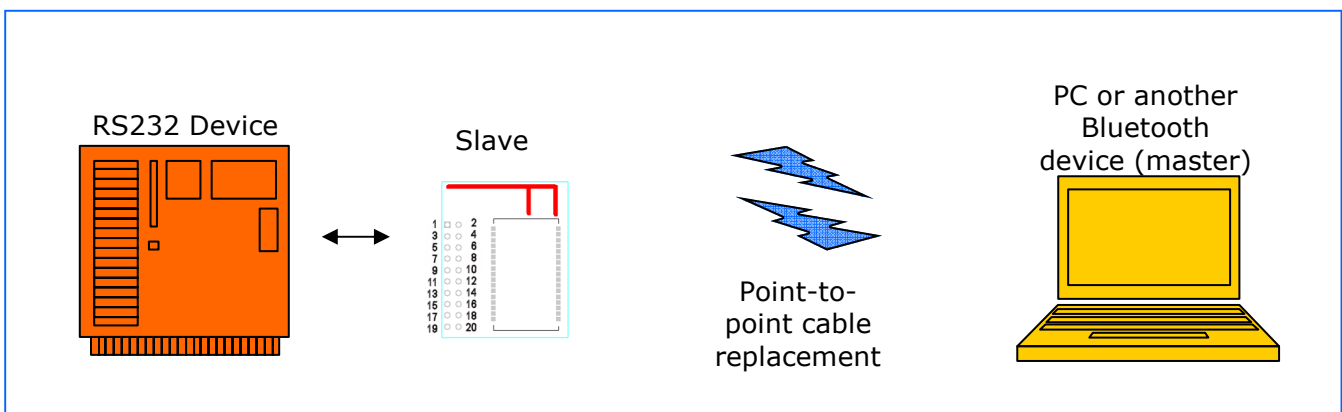
Pure serial cable replacement solution

Replace your serial cable with a wireless connection

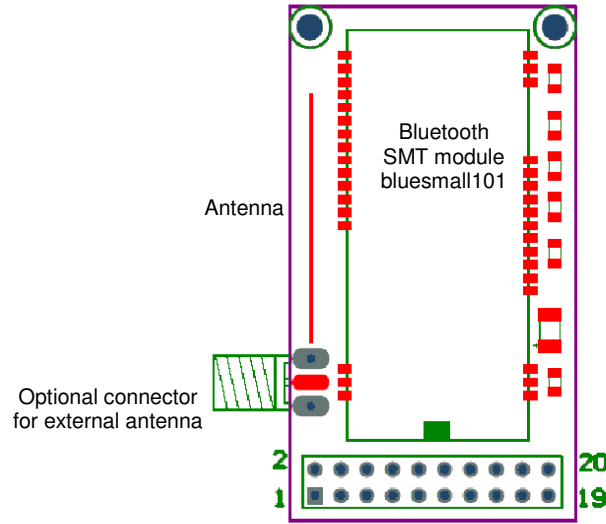


Mixed serial cable replacement

Wireless connection between a Bluetooth and RS232 device.



Pin Assignment and Description



Pin	Name	In Out	Description
1	GND	In	Ground
2	UART_CTS	In	UART CTS +3.3V or +5V TTL
3	+5V	In	+5V (do not use if powered by Pin 5)
4	UART_TX	Out	Output UART TX +3.3V
5	+3.3V	In	+3.3V (or regulated output if there's power supply on Pin 3)
6	UART_RTS	Out	Output UART RTS +3.3V
7	MISO	Out	SPI programming MISO signal
8	UART_RX	In	Input UART RX +3.3V or 5V TTL
9	CSB	In	SPI programming CSB signal
10	UART_RTS_5	Out	Output UART RTS 5V TTL
11	CLK	In	SPI programming CLK signal
12	UART_TX_5	Out	Output UART TX 5V TTL
13	MOSI	In	SPI programming MOSI signal
14	PIO 0	Out	Low: No wireless connection High: Bluetooth Connection active
15	PIO 5	In/Out	Not used on standard eikonAT firmware
16	PIO 7	Out	Blink: Module is on in running mode High fix: Module is connected
17	RS232_RTS	Out	Output RS232 RTS
18	RS232_TX	Out	Output RS232 TX
19	RS232_CTS	In	Input RS232 CTS
20	RS232_RX	In	Input RS232 RX

Please read carefully the eikonAT firmware user manual in order to understand Command/ Setup Mode and Running mode (transparent UART)

Serial

Baud rate: from 1200 to 230400 bps
Data bits: 8
Stop bit(s): 1, 2
Parity: None, Even, Odd
Handshake: RTS-CTS (if not used, these pins must be connected together)

UART +5V systems:

- connect output signals UART_RTS_5 (if needed) and UART_TX_5
- connect input signals UART_CTS (if needed) and UART_RX (these pins are 5V tolerant)

UART +3.3V systems:

- connect output signals UART_RTS (if needed) and UART_TX
- connect input signals UART_CTS (if needed) and UART_RX

RS232 systems:

- connect RS232_XX signals (take care about the signals directions input-output)

I/O (on eikonAT default firmware)

You can use output pins to connect an external Led or to connect a microcontroller.

PIO0 is the Link status

Low: No connection
High: Bluetooth connection is active

PIO7 is the Module status

Blink: Module is on

SPI

These 4 signals are used for firmware upgrade and module settings change.

POWER

Power

Voltage required:
+3.3V or +5V DC

Average current consumptions for Master firmware (v2.1) :

No connection:	90 mA
Active connection (data on UART):	65 mA
Idle connection (no data on UART):	20 mA
Max RF burst (peak):	up to 120 mA

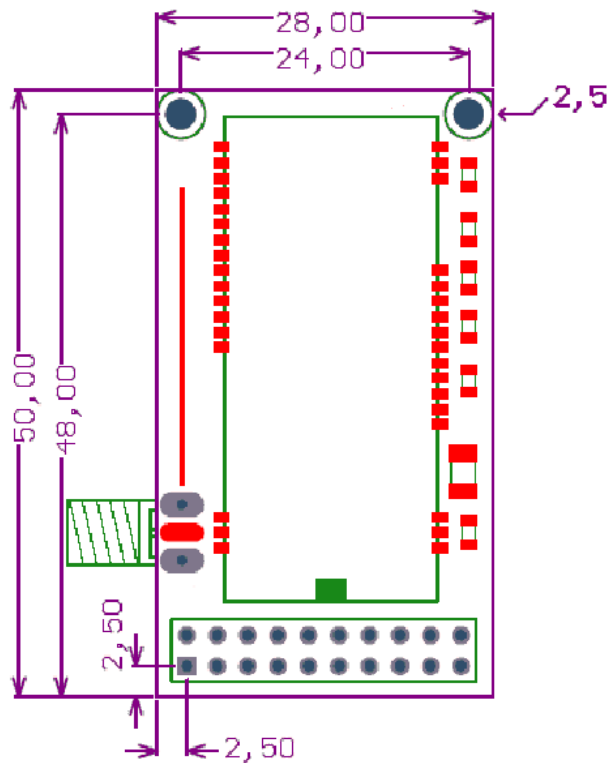
Average current consumptions for Slave firmware (v2.1) :

No connection (inquiry):	20 mA
Active connection (data on UART):	60 mA
Idle connection (no data on UART):	20 mA
Max RF burst (peak):	up to 120 mA

TEMPERATURE RANGE

Operation: 0°C +70°C
Storage: -40°C +85°C

MECHANICAL DRAWING (millimeters)



ORDERING INFORMATION

BLUEMORE200 is shipped with EikonAT firmware by default. This firmware allows you to setup the module (Serial port profile) by AT commands or by a simple PC software

By default the antenna is our flaxible Kapton antenna, but we can also supply this module with SMA connector for an external high gain antenna. We can also supply very compact SMA antennas.

For special needs please send us a description of your system and we'll suggest you the best firmware solution (we develop custom firmware)

Firmware on BLUEMORE200 can be flashed using our evaluation boards (With SPI)

Buy online from our website www.eikonsite.it or contact your local reseller.

Applications and firmware options

- Serial port cable replacement with AT commands for setup (**default firmware : EikonAT onboard**)

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