

BT-MD02A specification

■ Device Features

- Bluetooth V1.1 Compliant
- 3.3V Operation
- Class 1:Output Power 20dBm(max)
- Support Auto power control
- Support RSSI function
- Full Bluetooth data rate over UART and USB
- Support Device Firmware Upgrade
- Four low power modes: Park, Sniff, Hold and Deep Sleep
- Pico-net Capability
- Support for up to seven slaves
- Operating Temperature Range: 0~+65
- Storage Temperature Range: -40~+85
- OS platform: Windows 98/SE/ME, 2000 and XP

■ General Description

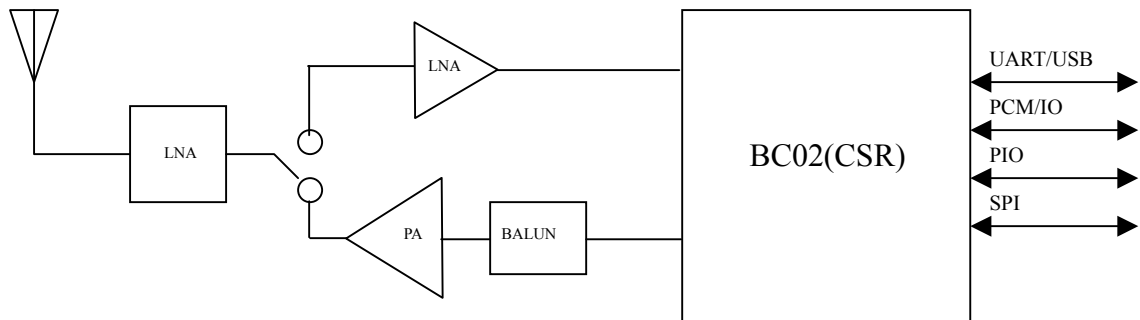
BT-MD02A is a class 1 surface mountable Bluetooth Module. It provides a full compliant system for data and voice communications. The physical interfaces to a host (UART and USB) can support full Bluetooth data rate of 723.2k/57.6kbps

. 13 bit PCM, 8k sample/sec; synchronous bi-directional audio interface is also available.

■ Applications

- Notebook and Desktop PCs
- Mobile Phones
- Cordless Headsets
- Personal Digital Assistants (PDA)
- Keyboard and Mouse
- FAX
- Printers

■ Block Diagram



■ Radio Characteristics

Receiver	Typ	Bluetooth Spec.	Unit
Sensitivity @0.1% BER	-85	-70	dBm
Maximum received signal	-20	-20	dBm

Transmitter	Typ	Bluetooth Spec	Unit
Average RF transmit power	+10	-6~+20	dBm

Power Consumption

Power supply 5V @ 25°C

□ Stand by: 8.2mA @ USB interface

□ Working in max power (Average): 80mA @ USB interface

■ Pin Description

Pin No.	Pin Name	Description
1	GND	Ground of system
2	VDD_PA	Positive supply of power amplifier (output)
3	GND_PA	Ground of power amplifier
4	AIO [0]	Programmable Input/Output line
5	AIO [1]	Programmable Input/Output line
6	RESET	Reset if high. Input de-bounced so must be high for >5 ms to cause a reset
7	PIO [8]	Programmable input/output line

8	PIO [9]	Programmable input/output line
9	PIO [10]	Programmable input/output line
10	PIO [11]	Programmable input/output line
11	UART_CTS	UART clear to send active low
12	UART_TX	UART data output active high
13	UART_RTS	UART ready to send active low
14	UART_RX	UART data input active high
15	1V8	Positive supply of system (output)
16	3V3	Positive supply of system (input)
17	GND	Ground of system
18	PCM_OUT	Synchronous data output
19	PCM_SYNC	Synchronous data SYNC
20	PCM_IN	Synchronous data input
21	PCM_CLK	Synchronous data clock
22	USB_DP	USB data plus
23	USB_DN	USB data minus
24	PIO [7]	Programmable input/output line
25	PIO [6]	PIO line or clock request output to enable external clock for external clock line
26	PIO [5]	PIO line or chip detaches from USB when this line is high
27	PIO [4]	PIO or USB on (input senses when VBUS is high, wakes BlueCore2-External)
28	PIO [3]	PIO or Output goes high to wake up PC when in USB mode or external RAM chip select
29	PIO [2]	PIO or USB pull-up (via 1.5K ohm resistor to USB_DP)
30	PIO [1]	Control output for external PA Class 1 applications only
31	PIO [0]	Control output for external LNA (if fitted)
32	GND	Ground of system for RF output
33	RF	RF signal Input/Output
34	GND	Ground of system for RF output

Pin Configuration

Viewed From Component Side
(SPI interface in bottom layer)

