

BT-MD05B



CLASS 2 MODULE



General Description

BT-MD05B is a class 2 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. A 13 bit PCM, 8k sample/sec, synchronous bidirectional audio interface is also available.

DIMENSION(LxWxH): 39.5x15.5x3
(Unit:mm)

Applications

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

Key Features

- Bluetooth V1.1 Compliant
- 3.3V Operation
- 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, XP

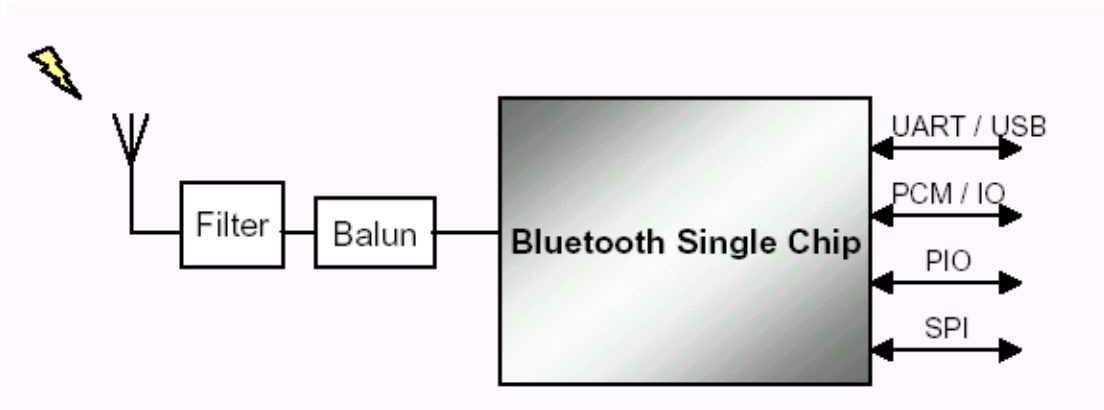
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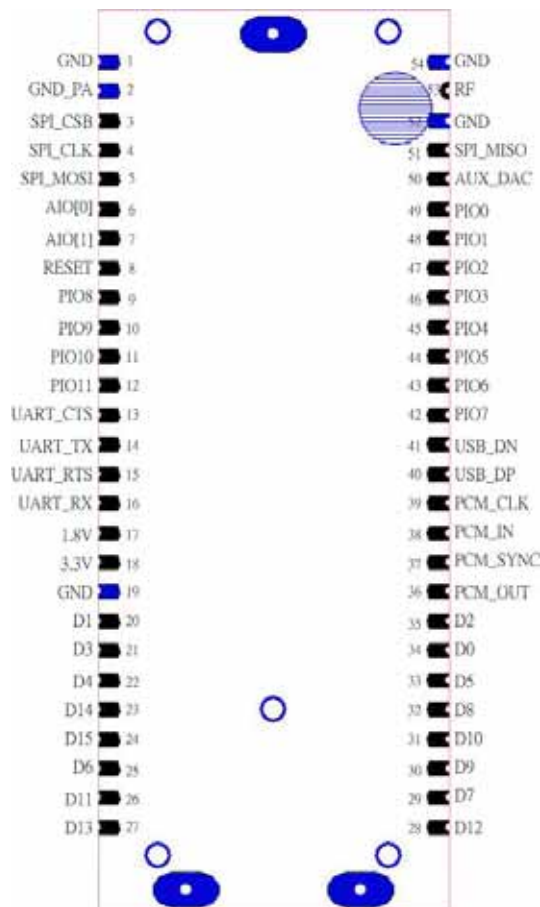
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Block Diagram



Pin Configuration



Viewed From Component Side

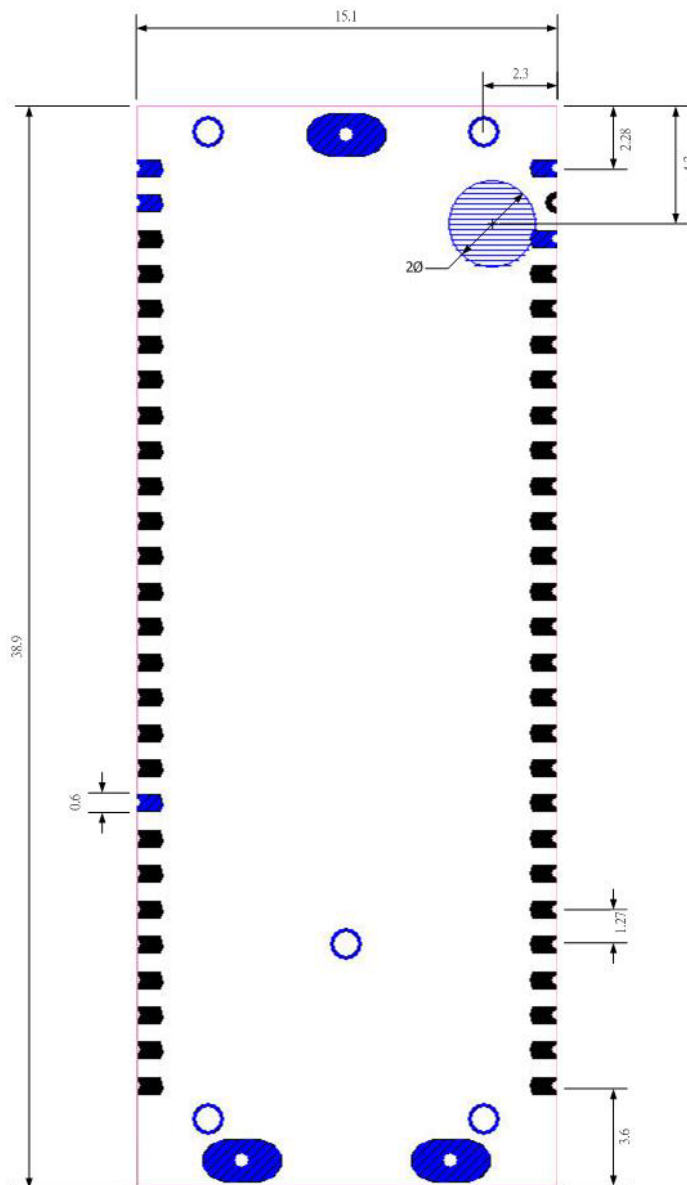
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Module Size



Unit: mm

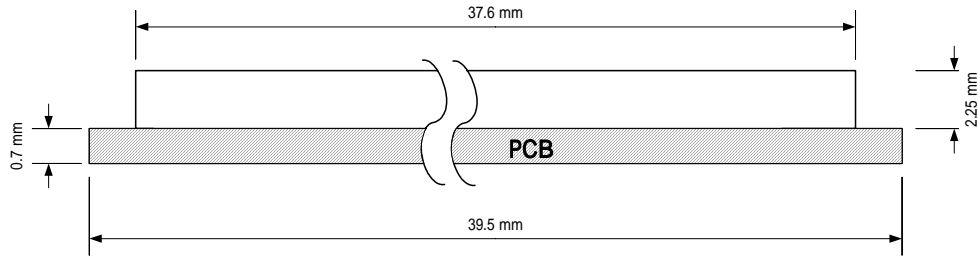
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Side View



Radio Characteristics

Receiver	Typ	Bluetooth Spec.	Unit
Sensitivity @0.1% BER	-80	-70	dBm
Maximum received signal	TBD	-20	dBm

Transmitter	Typ	Bluetooth Spec	Unit
Average RF transmit power	+4	-6~+4	dBm

Power Consumption

Power supply 5V @ 25

Stand by: 8.2mA @ USB interface

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

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Pin Description

PIN No.	PIN Name	Description
1	GND	Ground of system
2	GND_PA	Ground of power amplifier
3	SPI_CSB	Chip Select for serial peripheral Interface, Active low
4	SPI_CLK	Serial Peripheral Interface Clock
5	SPI_MOSI	Serial Peripheral Data input
6	AIO[0]	Programmable Input/Output line
7	AIO[1]	Programmable Input/Output line
8	RESET	Reset if high. Input debounced so must be high for >5 ms to cause a reset
9	PIO[8]	Programmable input/output line
10	PIO[9]	Programmable input/output line
11	PIO[10]	Programmable input/output line
12	PIO[11]	Programmable input/output line
13	UART_CTS	UART clear to send active low
14	UART_TX	UART data output active high
15	UART_RTS	UART ready to send active low
16	UART_RX	UART data input active high
17	1.8V	Positive supply of system (output)
18	3.3V	Positive supply of system (input)
19	GND	Ground of system
20	D1	DATA BUS
21	D3	DATA BUS
22	D4	DATA BUS
23	D14	DATA BUS
24	D15	DATA BUS
25	D6	DATA BUS
26	D11	DATA BUS
27	D13	DATA BUS
28	D12	DATA BUS

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29	D7	DATA BUS
30	D9	DATA BUS
31	D10	DATA BUS
32	D8	DATA BUS
33	D5	DATA BUS
34	D0	DATA BUS
35	D2	DATA BUS
36	PCM_OUT	Synchronous data output
37	PCM_SYNC	Synchronous data SYNC
38	PCM_IN	Synchronous data input
39	PCM_CLK	Synchronous data clock
40	USB_DP	USB data +
41	USB_DN	USB data -
42	PIO7	Programmable input/output line
43	PIO6	PIO line or clock request output to enable external clock for external clock line
44	PIO5	PIO line or chip detaches from USB when this line is high
45	PIO4	PIO or USB on (input senses when VBUS is high, wakes BlueCore2-External)
46	PIO3	PIO or Output goes high to wake up PC when in USB mode or external RAM chip select
47	PIO2	PIO or USB pull-up (via 1.5K ohm resistor to USB_DP)
48	PIO1	Control output for external PA Class 1 applications only
49	PIO0	Control output for external LNA (if fitted)
50	AUX_DAC	Voltage DAC Output
51	SPI_MISO	Serial Peripheral Data output
52	GND	Ground of system for RF output
53	RF	RF signal Input/Output

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54	GND	Ground of system for RF output
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