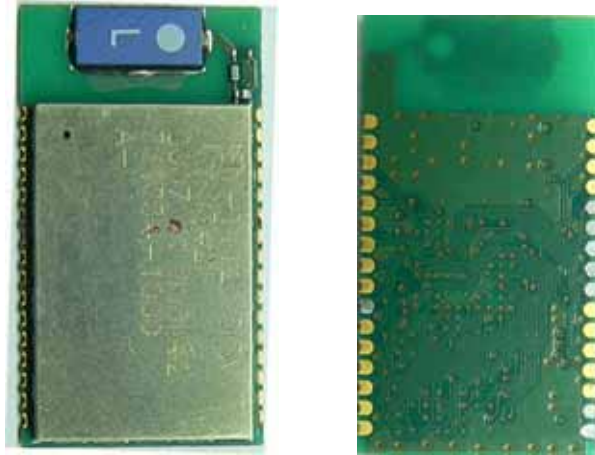


BTM-002

Bluetooth Module Data Sheet



BTM-002

Features

- Complete 2.4GHz radio transceiver and baseband
- Bluetooth™ version 1.1 compliant
- Small footprint (27.5mm x 15mm x 3mm)
- Bluetooth™ Class 2 operation (up to 10 meter range)
- Basic module as SMD type
- Built in ceramic antenna
- Surface mountable
- CSR BlueCore2, single chip Bluetooth™ system
- On-board flash memory (8Mbits)
- SPI interface can upgrade firmware
- Built-in ROM installed with Widcomm Bluetooth window base protocol stacks
- Park, Sniff, Hold and Sleep low power modes
- Built in a +1.8V regulator.

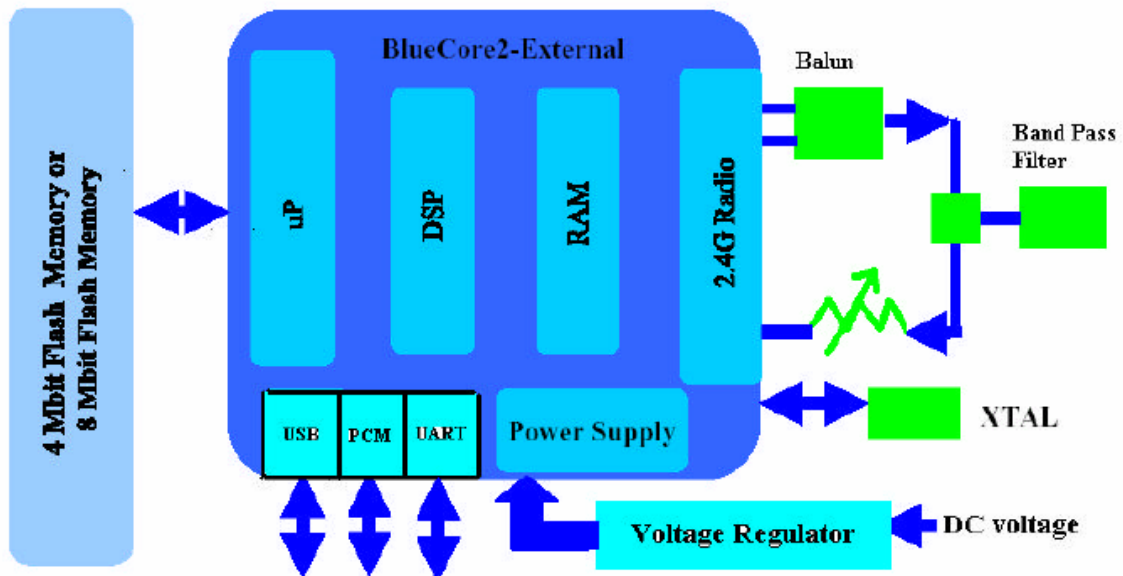
Applications

- Headset, Handset, Hands-Free Car Kit
- Mice, Keyboards and Joysticks
- Digital Cameras and Camcorders
- PDA, Computer & peripheral
- Hand-held devices
- Transportation systems
- Cable replacement
- Other Bluetooth production

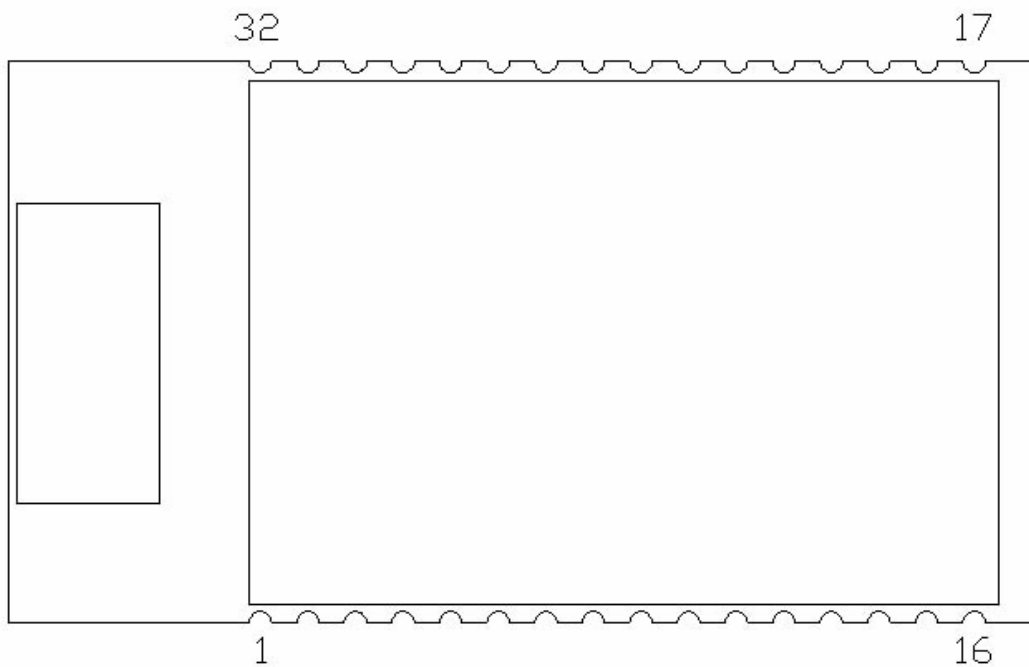
Specification

General	
Data Transmission Rate	723 kbps (asynchronous)
Supply Voltage	DC +3.3V
Power Consumption	100mA max. operational; 10mA max. standby; Active power-saving mode
Link Distance	Better than 10 meters (33 feet) in free space
Certifications	FCC Part 15, UL 1950, ETSI 300 328, ETSI 300 826, EN 60950 (Europe), Radio/Baseband Bluetooth BQB
Operating Temperature	0°C to + 55°C
Radio	
Modulation	Frequency Hopping Spread Spectrum (FHSS) with Gaussian Frequency Shift Keying (GFSK)
Frequency Range	2.40GHz– 2.4835GHz (ISM Band)
RF Channels	79 channels for USA, Japan, and Europe (except France)
RF Output Power	+4 dBm max., Class 2 (upgradeable to 20dBm)
Sensitivity	Better than –80dBm@0.1% BER
Max. Input Level	-20dBm
Antenna interface	50 ohm input and output impedance
Baseband	
Link Mode	ACL , SCO Link support
Network Capabilities	Piconet : point –to- point & point-to-multipoint and Scatternet support.
Security	Initialization: 4-digit PIN code Authentication: Security Mode 2 support Encryption: 128-bit Data Encryption support
Data Packets	DM1/DH1, DM3/DH3, DM5/DH5

Function Diagram



Pin Assignment



Pin Name	Pin	Type	Description
GND	1,2, 31,32	GND	Module supply ground
AIO(0)	3	Bi_Dir	Programmable I/O line
AIO(1)	4	Bi_Dir	Programmable I/O line
RESET	5	CMOS input	Reset active high
SPI_MISO	6	CMOS output	Synchronous Serial Interface data output
SPI_CSB	7	CMOS input	Chip select for Synchronous Serial Interface
SPI_CLK	8	CMOS input	Synchronous clock
SPI_MOSI	9	CMOS input	Synchronous Serial Interface data input
UART_CTS	10	CMOS input	UART Clear to Send
UART_TX	11	CMOS output	UART data output
UART_RTS	12	CMOS output	UART Ready to Send
UART_RX	13	CMOS input	UART data input
1V8	14	VDD	Module supply positive 1.8V
3V3	15	VDD	Module supply positive 3.3V
PCM_OUT	17	CMOS output	Synchronous data output
PCM_SYNC	18	Bi_Dir	Synchronous data strobe
PCM_IN	19	CMOS input	Synchronous data input
PCM_CLK	20	Bi_Dir	Synchronous data clock
USB_DP	21	Bi_Dir	USB D+
USB_DN	22	Bi_Dir	USB D-
PIO(6),PIO(7) PIO(0)-PIO(1)	24,23 30,29	Bi_Dir	Programmable I/O port

PIO(3) /USB_PULL_UP	27	Bi_Dir	Programmable I/O port or goes High to wake up PC in USB mode
PIO(2) /USB_WAKE_UP	28	Bi_Dir	Programmable I/O port or USB Pull-up
PIO(4) /USB_ON	26	Bi_Dir	Programmable I/O port or USB on
PIO(5) /USB_DECATH	25	Bi_Dir	Programmable I/O port or chip detached from USB when this input is high

Dimension:

