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Device Features

- Bluetooth™ V1.1 Compliant
- 2.7V to 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
- Piconet and Scatternet Capability
- Support for up to seven slaves
- Antenna Included

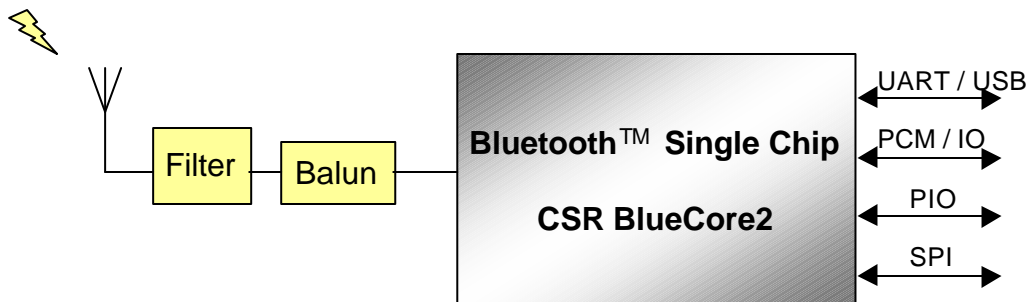
General Description

UB1-1112 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.

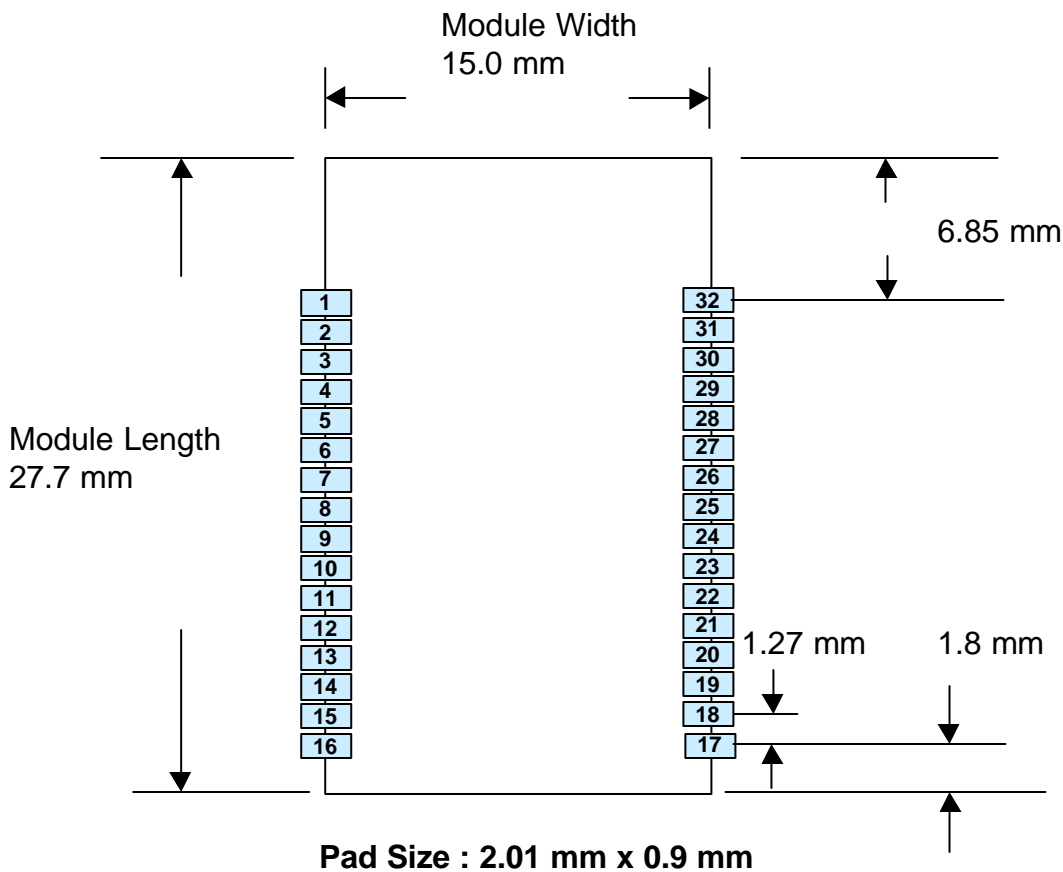
Applications

- Laptop and Desktop PCs
- Mobile Phones
- Cordless Headsets
- Personal Digital Assistants (PDAs)
- Domestic and Industrial Appliances
- FAX
- Printers

Block Diagram



Module Footprint



Module Thickness : 2.0 mm

Pin Description

Pin No.	Pin Name	Description
1	GND	Common ground
2	GND	Common ground
3	AIO[0]	Programmable Input / Output line
4	AIO[1]	Programmable Input / Output line
5	RESET	Reset if high
6	SPI_MISO	Synchronous Serial Interface data output
7	SPI_CSB	Chip select for Synchronous Serial Interface
8	SPI_CLK	Synchronous Serial Interface Clock
9	SPI_MOSI	Synchronous Serial Interface data input
10	UART_CTS	UART clear to send
11	UART_TX	UART data output
12	UART_RTS	UART ready to send
13	UART_RX	UART data input
14	+1.8V	DC voltage monitor
15	+3.3V	Power Supply
16	GND	Common ground
17	PCM_OUT	Synchronous data output
18	PCM_SYNC	Synchronous data strobe
19	PCM_IN	Synchronous data input
20	PCM_CLK	Synchronous data clock
21	USB_D+	USB data plus
22	USB_D-	USB data minus
23	PIO[7]/RAM_CSB	Programmable input / Output line
24	PIO[6]/CLK_REQ	PIO line or clock request for external clock line
25	PIO[5]/USB_DETACH	PIO line or chip detaches from USB when this line is high
26	PIO[4]/USB_ON	PIO or USB on(input senses when VBUS is high)
27	PIO[3]/USB_WAKE_UP	PIO or Output goes high to wake up PC when in USB mode
28	PIO[2]/USB_PULL_UP	PIO or USB pull-up(via 1.5k ohm resistor to USB_D+)
29	PIO[1]/TXEN	TX LED display if high
30	PIO[0]/RXEN	RX LED display if high
31	GND	Common ground
32	GND	Common ground

RF Characteristics

Transmitter	Typ	Bluetooth Specification	Unit
RF Transmit power	+2	-6 to 4	dBm

Receiver	Typ	Bluetooth Specification	Unit
Sensitivity @ 0.1% BER	-80	-70	dBm
Maximum received signal @ 0.1% BER	-5	-20	dBm

Antenna	Typ	Max	Unit
Peak Gain @ 2.45GHz	+0.5	+1	dBi

Power Consumption

Mode	Avg	Peak	Unit
SCO connection HV3 (1s interval Sniff Mode) (Slave)	32	-	mA
SCO connection HV1 (Slave)	61	-	mA
ACL Data transfer 115.2kbps UART (Master)	37	-	mA
ACL Data transfer 720kbps USB (Slave)	70	-	mA
Deep Sleep	35	-	uA