

Product Name : BlueSEM-CII Bluetooth V1.1 Module

Product ID : BTMZ5012A0

1. Features

- Bluetooth Spec. v1.1 Complaint
- Class 2 Level Output Power Available (Max. 4dBm)
- Firmware Upgrade Support
- Piconet Support : Up to 7 Slaves
- Wide Supply Voltage Range 2.7V to 3.6V
- UART, USB, PCM Interface Available
- Low Power Consumption
- Built-in Flash Memory : 4Mbit or 8Mbit
- Competitive Size : 18*14*2.0(mm)



2. Applications

PCs, Mobile Phones, PDAs, Digital Camera, Printers, FAX, Headset, Other Peripheral Devices

3. Major Specifications

3.1 Radio

Features	Unit	Bluetooth Specification	SEM Module Characteristics
Operating frequency range	MHz	2402 ~ 2480	2402 ~ 2480
Channel Bandwidth	MHz	1	1
Transmit power level	dBm	+4(Max)	+4(Max)
Frequency accuracy	KHz	+/- 75	+/- 25
Receiver sensitivity	dBm	-70	-84(typ.)

3.2 Baseband

I/O Interface	UART/PCM/USB/SPI
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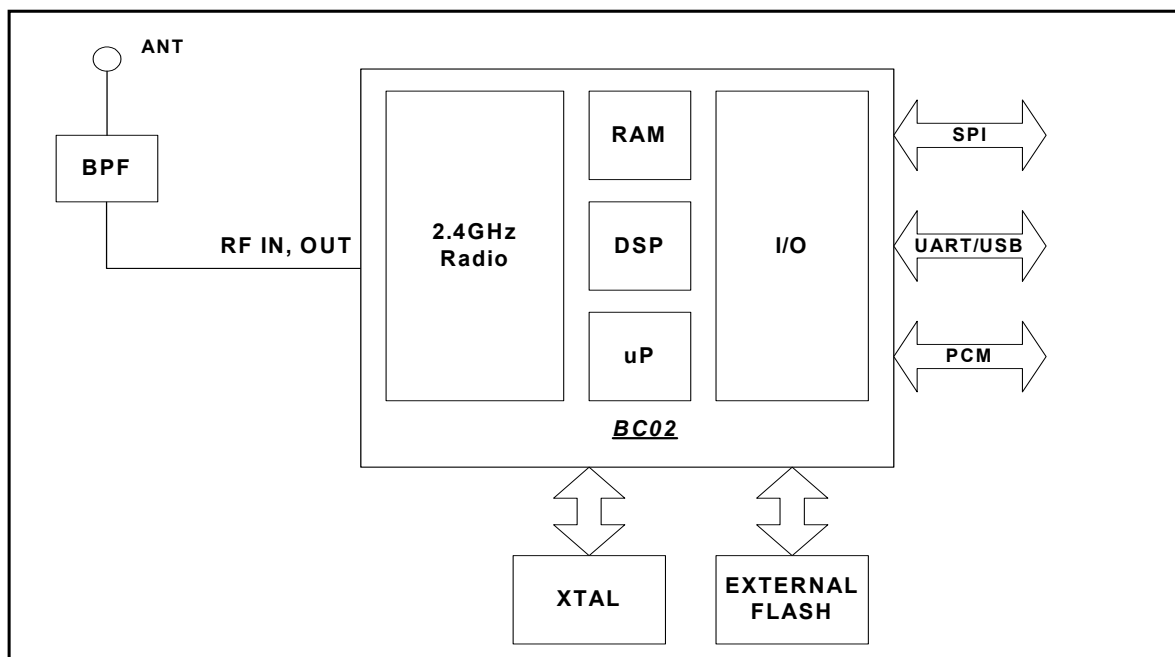
3.3 Surrounding

Temperature	-20 to 85 (in operating) / -40 to 85 (in storage)
Humidity	95% Non-condensing

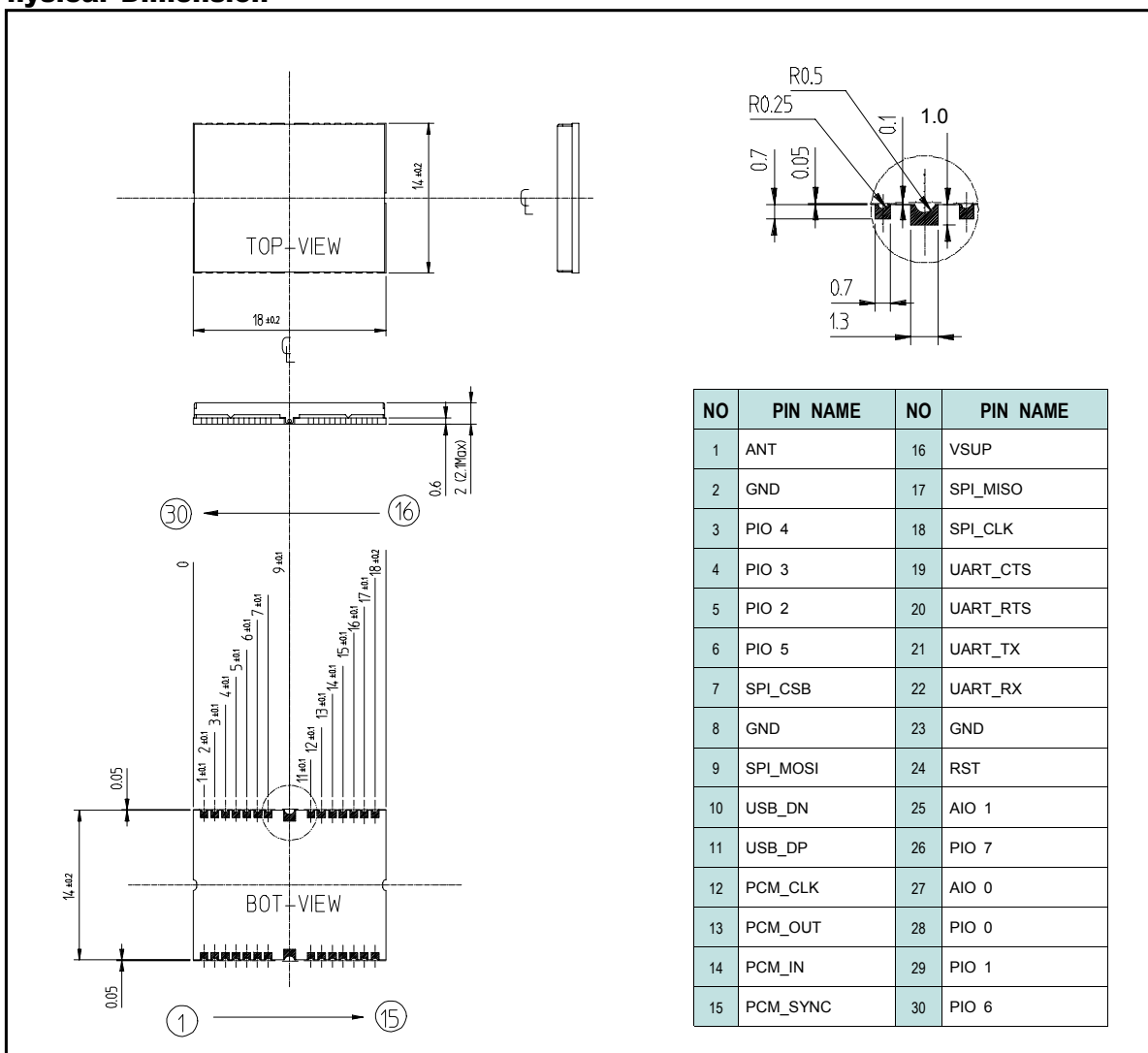
3.4 Physical Dimension

Size	18*14*2.0 (mm)
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4. Block Diagram



5. Physical Dimension



6. Pin Description

Pin No	Pin Name	Direction	Description
1	ANT		Antenna RF port
2	GND		Ground
3	PIO[4]	I/O	PIO or USB_ON(input senses when VBUS is high, wakes BC02-Ext)
4	PIO[3]	I/O	PIO or USB_WAKE_UP(Output goes high to wake up PC when is USB mode)
5	PIO[2]	I/O	PIO or USB_PULL_UP
6	PIO[5]	I/O	PIO or USB_DETACH(input high to disconnect from USB)
7	SPI_CSB	I	SPI select
8	GND		Ground
9	SPI_MOSI	I	SPI data input
10	USB_DN	I/O	USB data minus
11	USB_DP	I/O	USB data plus
12	PCM_CLK	I/O	Synchronous data clock
13	PCM_OUT	O	Synchronous data output
14	PCM_IN	I	Synchronous data input
15	PCM_SYNC	I/O	Synchronous data strobe
16	VSUP		Power supply for bluetooth module
17	SPI_MISO	O	SPI data output
18	SPI_CLK	I	SPI clock
19	UART_CTS	I	UART clear to send
20	UART_RTS	O	UART ready to send
21	UART_TX	O	UART data output
22	UART_RX	I	UART data input
23	GND		Ground
24	RST	I	Reset for bluetooth module
25	AIO[1]	I/O	I/O port
26	PIO[7]	I/O	I/O port
27	AIO[0]	I/O	I/O port
28	PIO[0]	I/O	RXEN
29	PIO[1]	I/O	TXEN(Control output for external PA Class1 only)
30	PIO[6]	I/O	I/O port