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# **BLUETOOTH STEREO MODULE**

## **MB-C03**

**Specification**  
**Version 1.0**  
**03-Jan-07**

### **Features:**

- CSR BlueCore03-MM Chip
- Bluetooth v1.2 Compliant.
- Class2, up to 4dBm
- UART, USB or PCM support
- External Antenna support
- Support A2DP, HSP, HFP profile
- Dimension: 23x16.2mm

**Product No. : MB-C03**

**Product Description :**

**Bluetooth v1.2 Class2 Stereo Module**

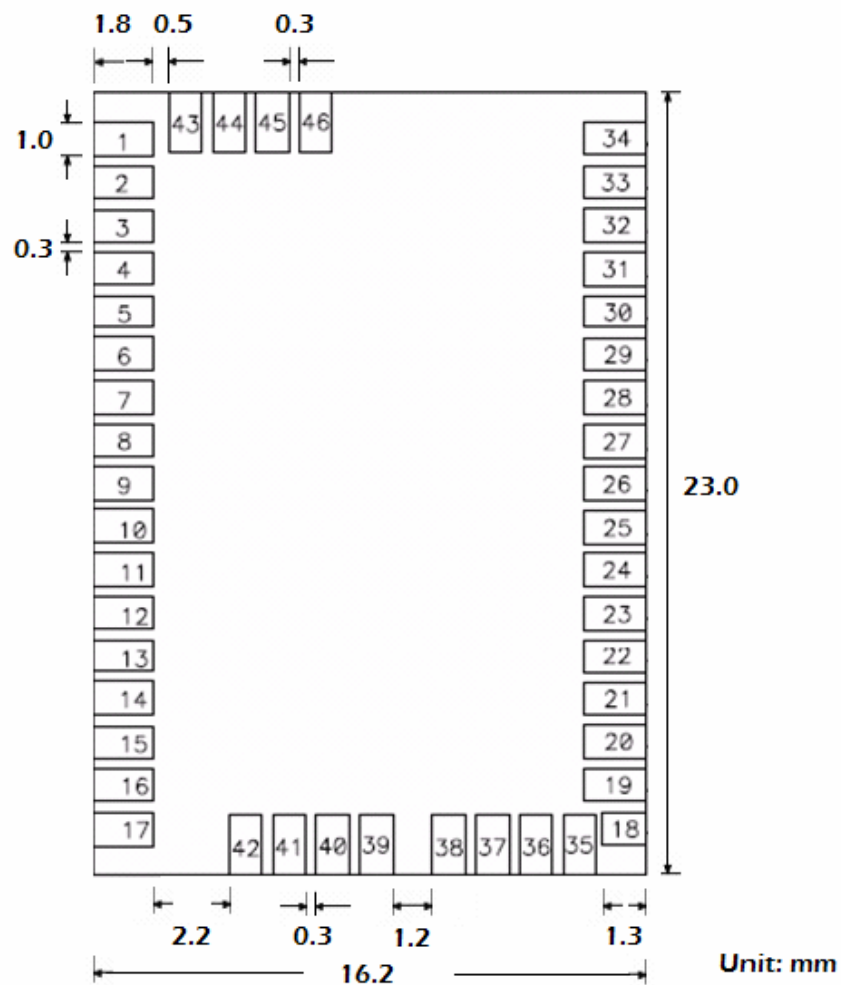
**Issue Date : 2006/10/01**

**Release Version : 1.01**



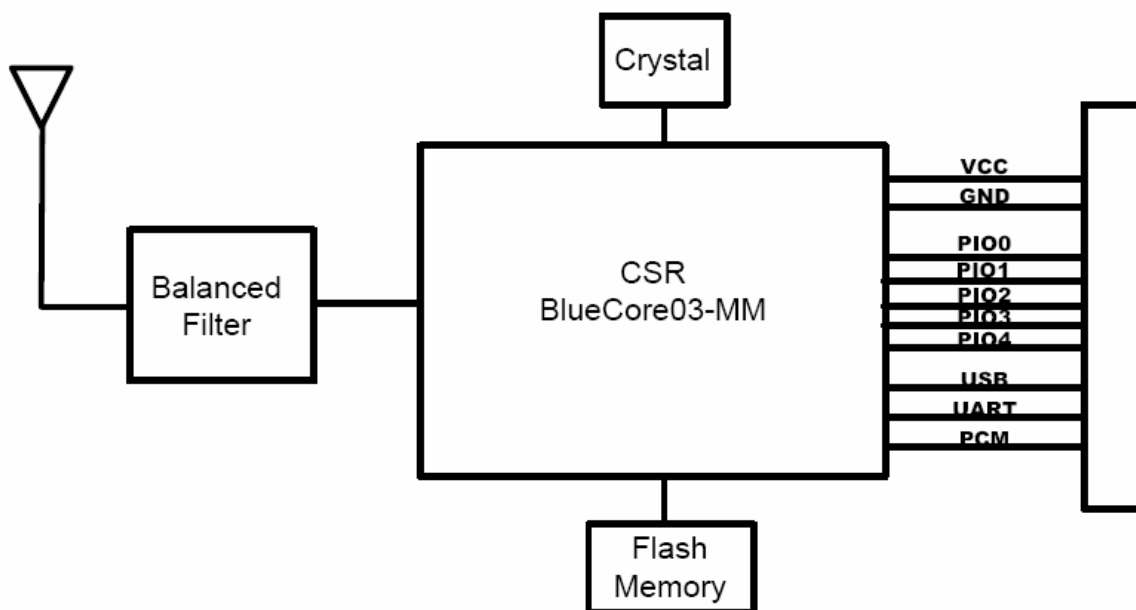
Pin No.	Name	Type	Note	Pin No.	Name	Type	Note
1	GND			24	PIO_7		
2	NC			25	PIO_6		
3	GND			26	PIO_5		
4	TEST			27	PIO_4		
5	NC			28	PIO_3		
6	RESET			29	PIO_2		
7	SPI_MISO			30	PIO_1		
8	SPI_CSB			31	PIO_0		
9	SPI_CLK			32	GND		
10	SPI_MOSI			33	RF_OUT		
11	UART_CTS			34	GND		
12	UART_TX			35	PIO_8		
13	UART_RTS			36	PIO_9		
14	UART_RX			37	AIO_0		
15	VCC_1.8V			38	PIO_11		
16	VCC_3.3V			39	SPK-R_+		
17	GND			40	SPK-R_-		
18	PCM-OUT			41	SPK-L_-		
19	PCM_SYNC			42	SPK-L_+		
20	PCM_IN			43	MIC2_P		
21	PCM_CLK			44	MIC2_N		
22	USB_D+			45	MIC1_N		
23	USB_D-			46	MIC1_P		

## 1.2 Mechanical Specification



**Fig. 1.2.1 Mechanical Specification**

### 1.3 Block Diagram



**Fig 1.3.1 BT- Class2 Module Block Diagram**

## 1.4 Electrical Characteristics

	Min	Typ.	Max.	Unit
Supply Voltage	3.0	3.3	3.6	V
	1.7	1.8	1.9	V

### ■ Power Consumption

Status		Max. Current	Note
Disconnected	Discoverable	15 mA	
Connected	Pairing	13mA	
	Tx	18mA	
	Rx	11 mA	
	Standby Mode	<1 mA	

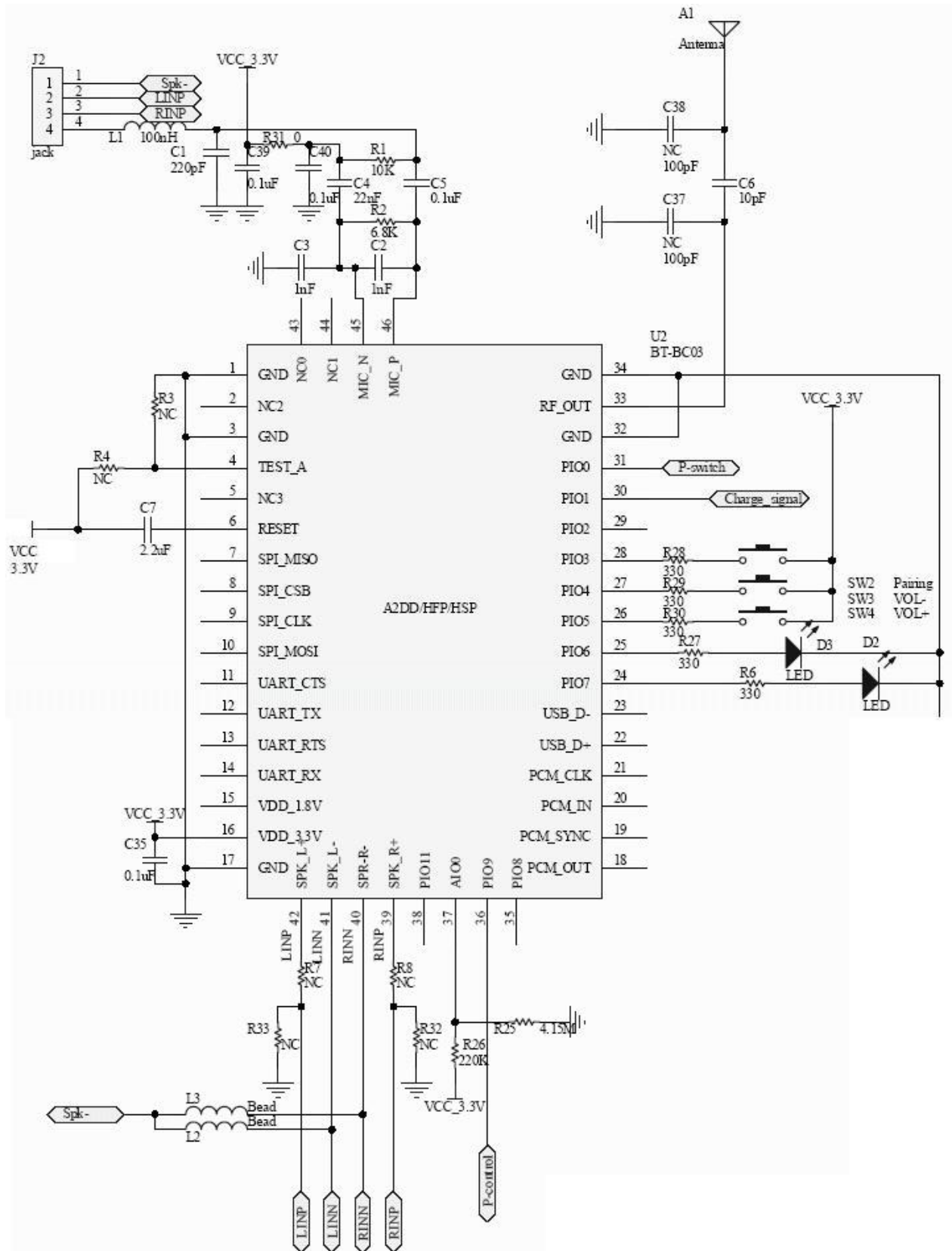
### ■ Operating Conditions

Voltage Range	3.3V±0.3V or 1.8V±0.1V
Operating Temperature Range	-20°C ~ 60°C
Storage Temperature Range	-20°C ~ 80°C
Relative Humidity (Operating)	≤90%
Relative Humidity (Storage)	≤90%

## 1.5 Radio Characteristics

	Frequency (GHz)	Min	Typ	Max	BT Spec.	Unit
Sensitivity at 0.1%BER	2.402	-	-80	-86	$\leq -70$	dBm
	2.441	-	-80	-86		dBm
	2.480	-	-80	-86		dBm
RF Transmit Power	2.402	0	0		$\leq 0$	dBm
	2.441	0	0			dBm
	2.480	0	0			dBm
Initial Carrier Frequency Tolerance	2.402	-	5	75	75	kHz
	2.441	-	5	75		kHz
	2.480	-	5	75		kHz
20dB bandwidth for modulated carrier		-	900	1000	$\leq 1000$	kHz
Drift (Five slots packet)		-	15	-	40	kHz
Drift Rate		-	13	-	20	kHz
$\Delta f_{avg}$ "Maximum Modulation"	2.402GHz	140	165	175	$140 < \Delta f_{avg}$	kHz
	2.441GHz	140	165	175		kHz
	2.480GHz	140	165	175		kHz
$\Delta f_{max}$ "Minimum Modulation"	2.402GHz	115	190	-	115	kHz
	2.441GHz	115	190	-		kHz
	2.480GHz	115	190	-		kHz

## 1.6 Reference Schematics





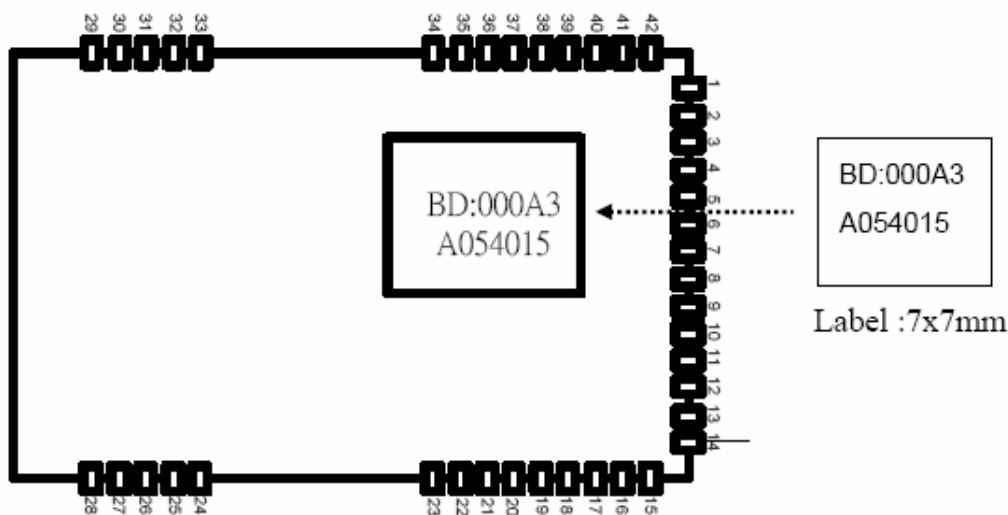
**2. Software / Profile**

Stack / Profile	Class2 BT2.0 Module
A2DP	■
HSP	■
HFP	■

### 3. Packing & Label Information

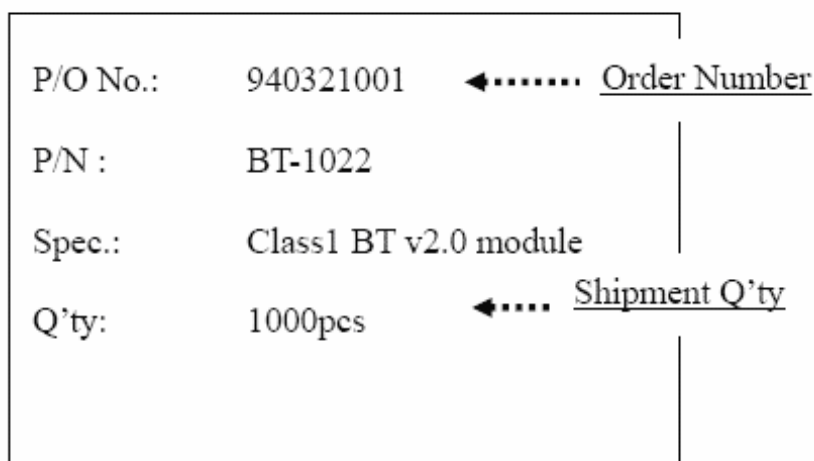
#### 3.1 Label Information

##### ■ PCB Label



**Fig 3.1.1 Class2 BT2.0 Module PCBA Label**

##### ■ Carton Label



Dimension :102x102mm

**Fig 3.1.2 Class2 Carton Label**

### 3.2 Packaging

