



Bluetooth® Module – LM-072 Class 1 BC04

Features

- The module is a Max 18dBm (Class1) module
- Bluetooth standard v2.0 + EDR specification
- Low current consumption :
Hold, Sniff, Park, Deep Sleep Mode
- 3.0V to 3.6V operation
- Support for up to 7 ACL links and 3 SCO links (HCI mode firmware)
- Interface: USB, UART & PCM (for VOICE CODEC)
- SPP,HSP/HFP,HID,DUN firmware are available
- Support for 802.11 Co -Existence
- RoHS compliant
- Full Bluetooth data rate over UART and USB
- Small outline 28.2 x 15 x 2.8 mm

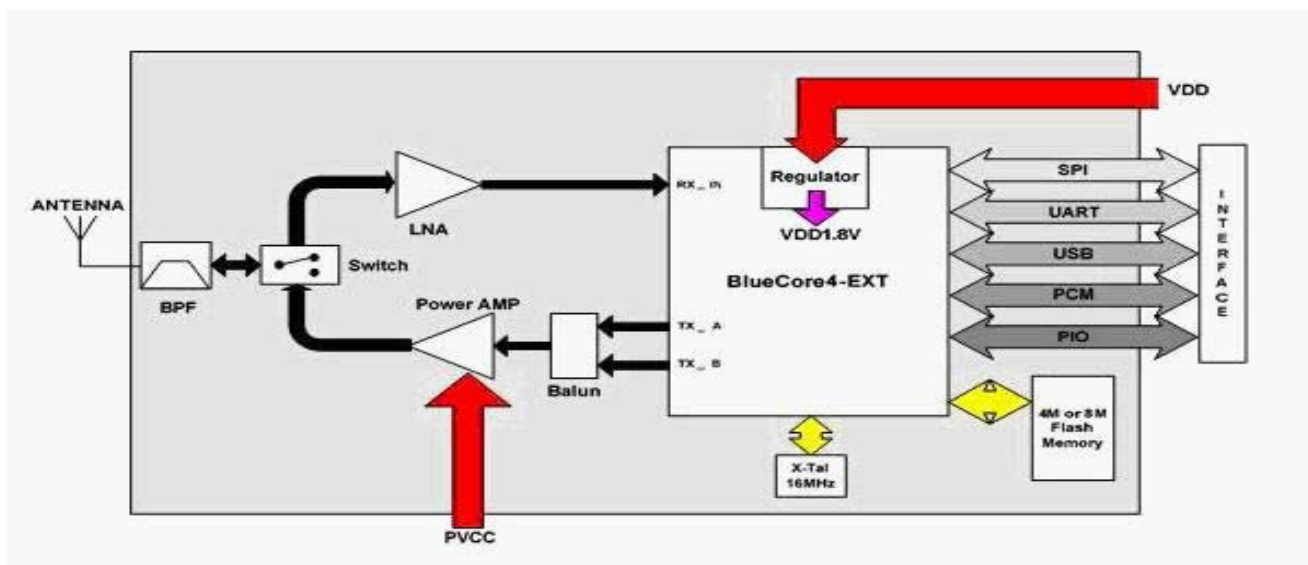


Applications

- Cordless handset
- Digital camera & printer
- Access Points
- GPS, POS, Barcode Reader
- Domestic and industrial applications
- Serial Adapter



Block Diagram





Electrical Characteristics

Absolute Maximum Ratings

Parameter	Min.	Max.	Unit
Storage Temperature	-40	+150	°C
Supply Voltage(VDD)	2.7	3.6	DCV
Supply Voltage(P VCC)	3.0	3.3	DCV
Other Pin Voltage	Vss -0.4	VDD+ 0.4	DCV

Recommended Operating Conditions

Parameter	Min.	Max.	Unit
Temperature	-20	+75	°C
Supply Voltage for UART	3.0	3.6	DCV
Supply Voltage for USB	3.0	3.6	DCV

General Electrical Specification

Parameter	Description	Min.	Typ.	Max.	Unit
Carrier Frequency		2.402		2.480	GHz
RF Output Power	Measured in 50ohm	15	16.5	18	dBm
RX sensitivity		-	-88	-86	dBm
Load Impedance	No abnormal Oscillation			5:1	
Input Low Voltage	RESET,UART,G PIO ,PCM	-0.30	-	0.80	DCV
Input High Voltage	RESET,UART,G PIO ,PCM	0.7VDD	-	VDD+ 0.3	DCV
Output Low Voltage	UART,G PIO ,PCM	-	-	0.40	DCV
Output High Voltage	UART,G PIO ,PCM	VDD -0.4	-	-	DCV
Average Current Consumption	Receive DM1		114		mA



LM072 Pin Functions

Pin No.	Pin Name	Pin Type	Description
1	GND	GND	Common ground
2	PVCC	Power	Power Amp. Power Supply(3.3V)
3	AIO (0)	Bi -directional	Programmable I/O terminal , 32KHz sleep clock input
4	AIO (1)	Bi -directional	Programmable I/O terminal
5	PIO (0)	Bi -directional	Programmable I/O terminal , RX Enable
6	PIO (1)	Bi -directional	Programmable I/O terminal , TX Enable
7	PIO (2)	Bi -directional	Programmable I/O terminal , USB_PULL_UP , CLK_REQ_OUT
8	PIO (3)	Bi -directional	Programmable I/O terminal , USB_WAKE_UP , CLK_REQ_IN
9	PIO (4)	Bi -directional	Programmable I/O terminal , USB_ON , BT_Priority/Ch_Clk output for co-existence signalling
10	GND	GND	Common ground
11	PIO (5)	Bi -directional	Programmable I/O terminal , USB_DETACH , BT_Active output for co-existence signalling
12	PIO (6)	Bi -directional	Programmable I/O terminal , CLK_REQ , WLAN_Active/Ch_Data input for for co-existence signalling
13	PIO (7)	Bi -directional	Programmable I/O terminal
14	PIO (8)	Bi -directional	Programmable I/O terminal
15	PIO (9)	Bi -directional	Programmable I/O terminal
16	RESET	CMOS input	Reset input of module, Active low reset
17	VCC	Power	Module power supply input
18	GND	GND	Common ground
19	GND	GND	Common ground
20	USB_DP	Bi -directional	USB data plus
21	USB_DN	Bi -directional	USB data minus
22	PCM_SYNC	Bi -directional	Synchronous data sync
23	PCM_IN	CMOS input	Synchronous data input
24	PCM_OUT	CMOS output	Synchronous data output
25	PCM_CLK	Bi -directional	Synchronous data clock
26	UART_RX	CMOS input	UART data input
27	UART_TX	CMOS output	UART data output
28	UART_RTS	CMOS output	UART request to send(active low)
29	GND	GND	Common ground
30	UART_CTS	CMOS input	UART clear to send(active low)
31	SPI_MOSI	CMOS input	Serial Peripheral Interface data input
32	SPI_CSB	CMOS input	Chip select for Synchronous Serial Interface(active low)
33	SPI_CLK	CMOS input	Serial Peripheral Interface clock
34	SPI_MISO	CMOS output	Serial Peripheral Interface data output
35	PIO (11)	Bi -directional	Programmable I/O terminal
36	PIO (10)	Bi -directional	Programmable I/O terminal
37	RF_IO	Analogue	Antenna interface
38	GND	GND	Common ground



Dimensions (Unit mm)

