



PRODUCT SPECIFICATION

Version 2.0

Bluetooth 4.0 Module

Model Number: BT03B110

(Broadcom BCM20705)

客户认可 Custom Approval Section		
Custom Name	Xiamen Prima Technology Inc	
Department		
Approval		Date: 2016-05-06

1. General Description

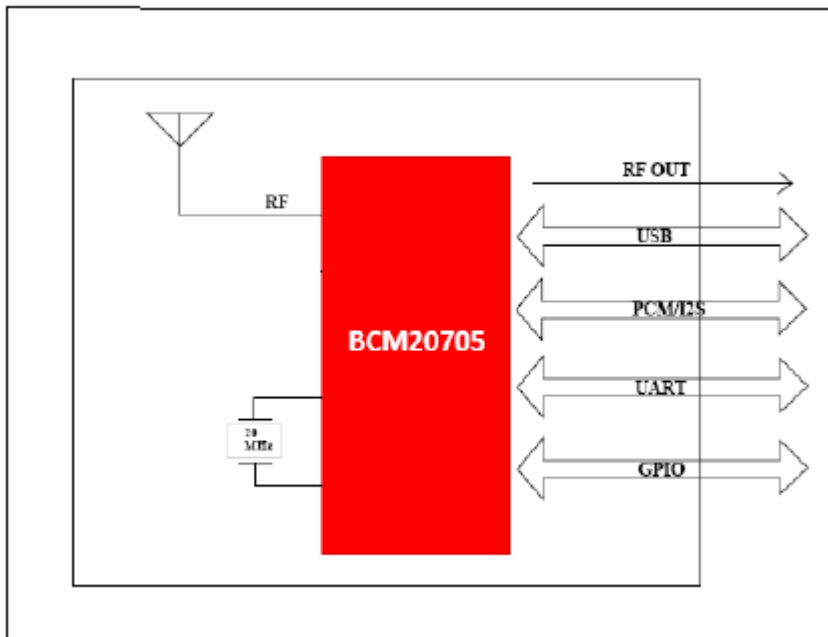
This document is to specify the product requirements for Bluetooth 4.0 Module. This Card is based on Broadcom BCM20705 chipset that can support BT2.1+EDR/BT3.0+HS and BT4.0+EDR.

2. Features

- Bluetooth 4.0+EDR compliant
- Programmable output power control meets Class1,Class2,or Class3 requirements.
- Use supply voltages up to 5.5V.
- Supports Broadcom SmartAudio™,wide-band speech,SBC codec,and packet lose concealments.
- Ultra-low power consumption.
- ARMTDMI-S™-based microprocessor with integrated ROM and RAM
- Supports mobile and PC applications without external memory.
- ROHS compliant

3. Application Diagrams

3.1 Functional Block Diagram



3.2 General Requirements

3.2.1 Electrical Characteristics

	Feature	Detailed Description
3.2.1.1	Radio and Modulation Schemes	<ul style="list-style-type: none"> GFSK,8DPSK,pi/4DQPSK
3.2.1.2	Operating Frequency	<ul style="list-style-type: none"> 2402 ~ 2480 MHz in the ISM band
3.2.1.3	Channel Numbers	<ul style="list-style-type: none"> 79 channels or 40 channels
3.2.1.4	Symbol Rate	<ul style="list-style-type: none"> 1Mbps
3.2.1.5	Carrier Spacing	<ul style="list-style-type: none"> 1.0MHZ
3.2.1.6	Transmitter Output Power at Antenna Connector	<ul style="list-style-type: none"> -4~+6dBm
3.2.1.7	Receiver Sensitivity at Antenna Connector	<ul style="list-style-type: none"> ≤-80dBm
3.2.1.8	Carrier Frequency Stability	<ul style="list-style-type: none"> ±24kHz
3.2.1.9	Supply voltage	<ul style="list-style-type: none"> DC 3.3~5.5V
3.2.1.10	Receive current(1Mbps):	<ul style="list-style-type: none"> 31mA (Average current).
3.2.1.11	Transmit current(1Mbps):	<ul style="list-style-type: none"> 44mA (Average current)
3.2.1.12	Receive current(EDR):	<ul style="list-style-type: none"> 32mA (Average current).
3.2.1.13	Transmit current(EDR):	<ul style="list-style-type: none"> 41mA (Average current).
3.2.1.14	Sleep current	<ul style="list-style-type: none"> 55uA (Average current)
3.2.1.15	RF impedance input	<ul style="list-style-type: none"> 50 ohm

4. Thermal Characteristics

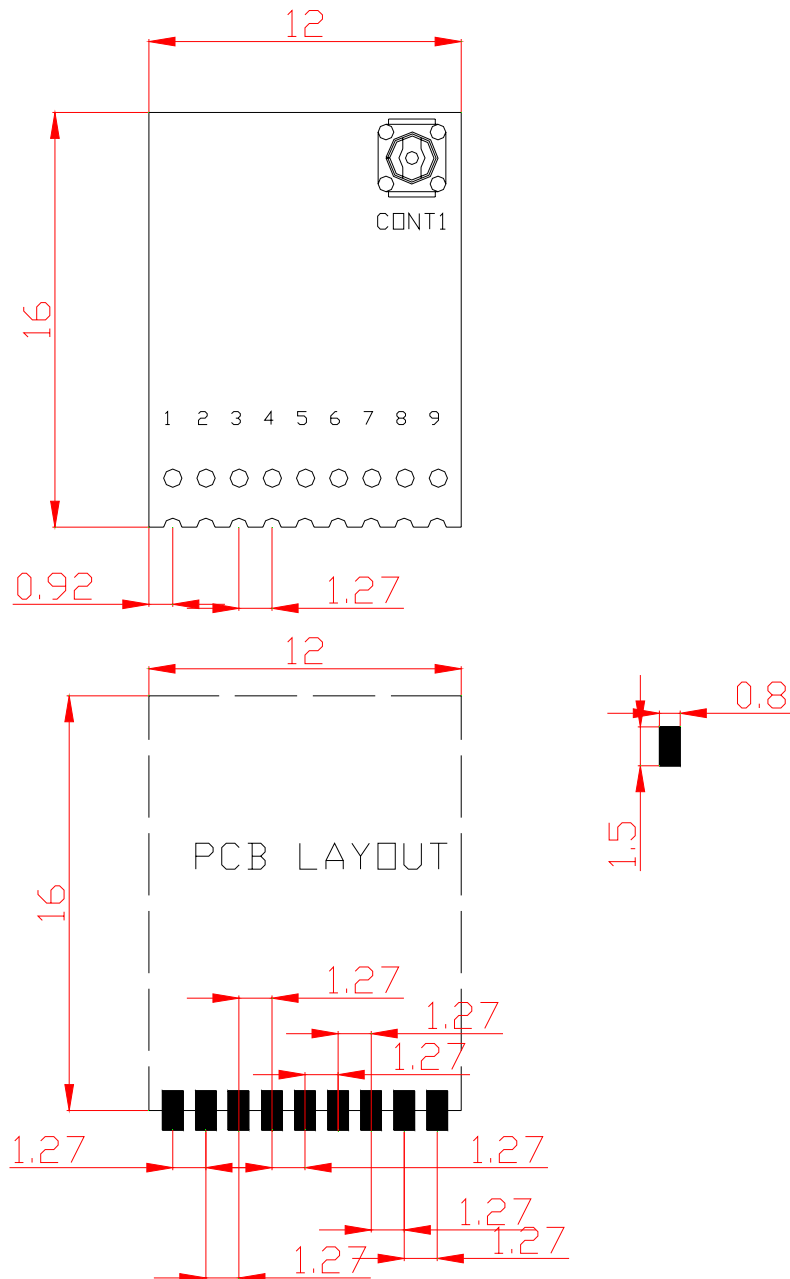
4.1 Temperature Limit Ratings

Parameter	Minimum	Maximum	Units
Storage Temperature	-25	+85	°C
Ambient Operating Temperature	-10	50	°C
Junction Temperature	0	125	°C

4.2 Mechanical Requirements

	Feature	Detailed Description
4.4.1	Length	• 16mm
4.4.2	Width	• 12mm
4.4.3	Height	• 1.0mm(PCB)

4.3 Mechanical Dimensions



4.4 Pin Description

Pin No	1	2	3	4	5	6	7	8	9
Name	GND	NC	NC	NC	GND	D+	D-	Vcc	RST

5. Name rule

BT03B110

Model name

X

T

Memory: F—FLASH; R—ROM; Empty—No Memory

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

FCC Statement:

This equipment complies with FCC radiation limits set forth for an uncontrolled environment.

This equipment must not be co-located or operating with any other antenna or transmitter.

This module is designed to comply with FCC statement FCC ID is: 2ADID-BT03B110

The host system using this module should have label in a visible area indicated the following text "Contains FCC ID: 2ADID-BT03B110".

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

In order to avoid the possibility of exceeding the FCC radio frequency exposure limits,

Human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

When OEG purchase the module, they can only buy this antenna to match the modules
The max antenna gain of antenna is 2dBi.

The following is a example of the module and antenna:

