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## Key Features

- \* **Bluetooth Spec v2.0+EDR Compliant**
- \* **Enhanced Data Rate (EDR) compliant with V2.0.E.2 of specification for both 2Mbps and 3Mbps modulation modes**
- \* **Class 2 type Output Power**
- \* **Full Speed Bluetooth Operation with Full Piconet Support**
- \* **Scatternet Support**
- \* **3.3V operation**
- \* **Minimum External Components**
- \* **USB,UART,SPI,PCM interface**
- \* **Support for 8Mbit External Flash Onboard**
- \* **Support for 802.11Co-Existence**
- \* **RoHS Compliant**

CSR,BC417143 B-IRN-E4  
Rev.2.0  
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## Product Description

BTM400\_6B module is a Class 2 Bluetooth module using BlueCore4-Extean1 chipset from leading Bluetooth chipset supplier Cambridge Silicon Radio.

BTM400\_6B module interfaces up to 8Mbit of 16-bit external Flash memory. When used with the CSR Bluetooth software stack, it provides a Bluetooth specification V2.0+EDR fully compliant system for data and voice communications .

## Applications

- \* Bluetooth carkit
  - \* PCs
  - \* Personal Digital Assistants (PDAs)
  - \* Computer Accessories (compact Flash Cards, PCMCIA Cards, SD Cards and USB Dongles)
  - \* Access Points
  - \* Digital Cameras
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## Specifications

Operating Frequency Band	2.4GHz -2.48GHz unlicensed ISM band
Bluetooth Specification	V2.0+EDR
Output Power Class	Class 2
Operating Voltage	3.3V
Host Interface	USB 1.1/2.0 or UART
Audio Interface	PCM and Analog interface
Flash Memory Size	8Mbit
Dimension	26.9mm (L) x 13 (W) mm x 2.2mm (H)

\* Specifications are subject to change without prior notice

## Electrical Characteristics

Absolute Maximum Ratings		
Rating	Min	Max
Storage temperature	-40°C	+150°C
Supply voltage: VBAT	-0.4V	5.6V
Other terminal voltages	VSS-0.4V	VDD+0.4V

Recommended Operating Conditions		
Operating Condition	Min	Max
Operating temperature range	-40°C	+150°C
Guaranteed RF performance range <sup>(a)</sup>	-40°C	+150°C
Supply voltage: VBAT	2.2V	4.2V <sup>(b)</sup>

\* Typical figures are given for RF performance between -40°C and +105°C.

## Power Consumption

Operation Mode	Connection Type	UART Rate (kbps)	Average	Unit
Page scan	-	115.2	0.42	mA
ACL No traffic	Master	115.2	4.60	mA
ACL With file transfer	Master	2	10.3	mA
ACL 1.28s sniff	Master	38.4	0.37	mA
ACL 1.28s sniff	Slave	38.4	0.42	mA
SCO HV3 30ms sniff	Master	38.4	19.8	mA
SCO HV3 30ms sniff	Slave	38.4	19.0	mA
Standby Host connection <sup>(a)</sup>	-	38.4	40	μA

\* Low power mode on the linear regulator is entered and exited automatically when the chip enters/leaves Deep Sleep mode. For more information about the electrical characteristics of the linear regulator, see section 4 in this document.

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## EXHIBIT 5 - USERS MANUAL

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### Information to Users

According to the FCC Part 15.19, 15.21, and 15.105 rule, for this EUT, the instructions or operation manual furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

This device complies with the following radio frequency and safety standards.

### **Important to OEM Manufacturer:**

**This following FCC Warning must be included in the HOST User Manual.**

### **FCC Warning**

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.

NOTE 1: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

**Note 1:** This module certified that complies with RF exposure requirement under portable or mobile or fixed condition, this module is to be installed only in portable or mobile or fixed applications.

A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

A fixed device is defined as a device is physically secured at one location and is not able to be easily moved to another location.

**Note 2:** Any modifications made to the module will void the Grant of Certification, this module is limited to OEM installation only and must not be sold to end-users, end-user has no manual instructions to remove or install the device, only software or operating procedure shall be placed in the end-user operating manual of final products.

**Note 3:** The device must not transmit simultaneously with any other antenna or transmitter.

**Note 4:** To ensure compliance with all non-transmitter functions the host manufacturer is responsible for ensuring compliance with the module(s) installed and fully operational. For example, if a host was previously authorized as an unintentional radiator under the Declaration of Conformity procedure without a transmitter certified module and a module is added, the host manufacturer is responsible for ensuring that the after the module is installed and operational the host continues to be compliant with the Part 15B unintentional radiator requirements. Since this may depend on the details of how the module is integrated with the host, ASK PROXIMA CO., LIMITED shall provide guidance to the host manufacturer for compliance with the Part 15B requirements.

**Note 5:** FCC ID label on the final system must be labeled with “Contains FCC ID: 2AALLDCF” or “Contains transmitter module FCC ID: 2AALLDCF”.

The transmitter module must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the host product. ASK PROXIMA CO., LIMITED is responsible for the compliance of the module in all final hosts.