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## Summary

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Part Description	Bluetooth Radio Module 34 x 15 mm SMT
Xtreme Part Number	X-BT-01
FCC ID #	Y3TE05

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## Proprietary Notice

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These documents, and the contained information herein, are proprietary and are not to be reproduced, used or disclosed to others for manufacture or for any other purpose, except as specifically authorized, in writing, by Xtreme Technologies Corp.

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## FCC Statement

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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. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Notice: Any changes or modification not expressly approved by the party responsible could void the user's authority to operate the device. This device complies with part 15 of the FCC Rules. Operation is subject to the following three 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.

This device operates at a transmission rate of 1Mbps, and only use the GFSK modulation.

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## Device Features

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- Fully qualified Bluetooth 2.1/2.0/1.2/1.1 module
- Bluetooth v2.1 support
- UART (SPP or HCI) and USB (HCI only) data connection interfaces.
- Embedded Bluetooth stack profiles included GAP, SDP, RFCOMM and L2CAP protocols, with SPP and DUN profile support.
- Bluetooth SIG certified
- Castellated SMT pads for easy and reliable PCB mounting
- Internal daughter card with track antenna
- Certifications: FCC, IC, CE
- Environmentally friendly, RoHS compliant

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## Applications

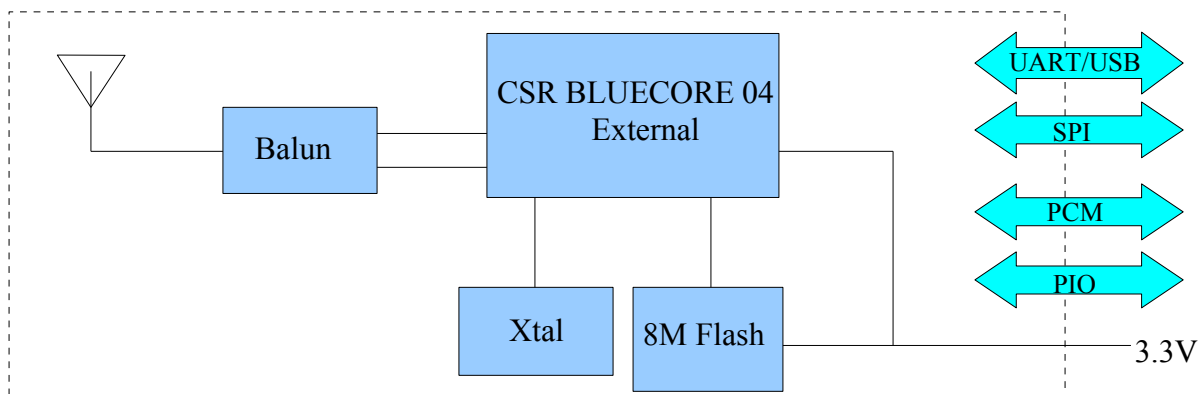
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- Cable replacement
- Barcode scanners
- Measurement and monitoring systems
- Industrial sensors and controls
- Medical devices
- Handsfree/handset devices
- Computer accessories
- PCs, PDAs, Printers

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## Block Diagram

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## Description

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The X-BT-01 Bluetooth module is a complete Bluetooth system. It utilizes the CSR BC04 chip-set with external programmable flash memory. It is a cost effective, short range, certified Bluetooth radio designed to be embedded into any electronic devices requiring Bluetooth communications.

The module features 8Mbit of programmable flash memory allowing custom bluetooth applications to be programmed to the device. The module contains all other required radio elements: antenna and supporting circuitry. Embedding the X-BT-01 module into a product is a simple process.

This is a Class 2 Bluetooth Power Device.

Bluetooth Specification	Version 2.0
Frequency Band	2.4Ghz ISM
Form Factor	Internal Daughter Card With PCB Antenna
Interface	UART/USB, PCM, PIO, SPI
Receive Sensitivity	<= -82dBm
Maximum Output Power	+4dBm (Class 2)
Operating Voltage	3.3 ± 0.1 V
Operating Temperature	-40 ~ +80°C
Storage Temperature	-40 ~ +80°C
Standby Current	8mA (Standby current can decrease to µA when low power mode enabled)
Operating Current	25mA
Search & Transmit Current	40mA
Range	10 m
Package Size	27.7(L) * 15.0(W) * 2.6(H) mm

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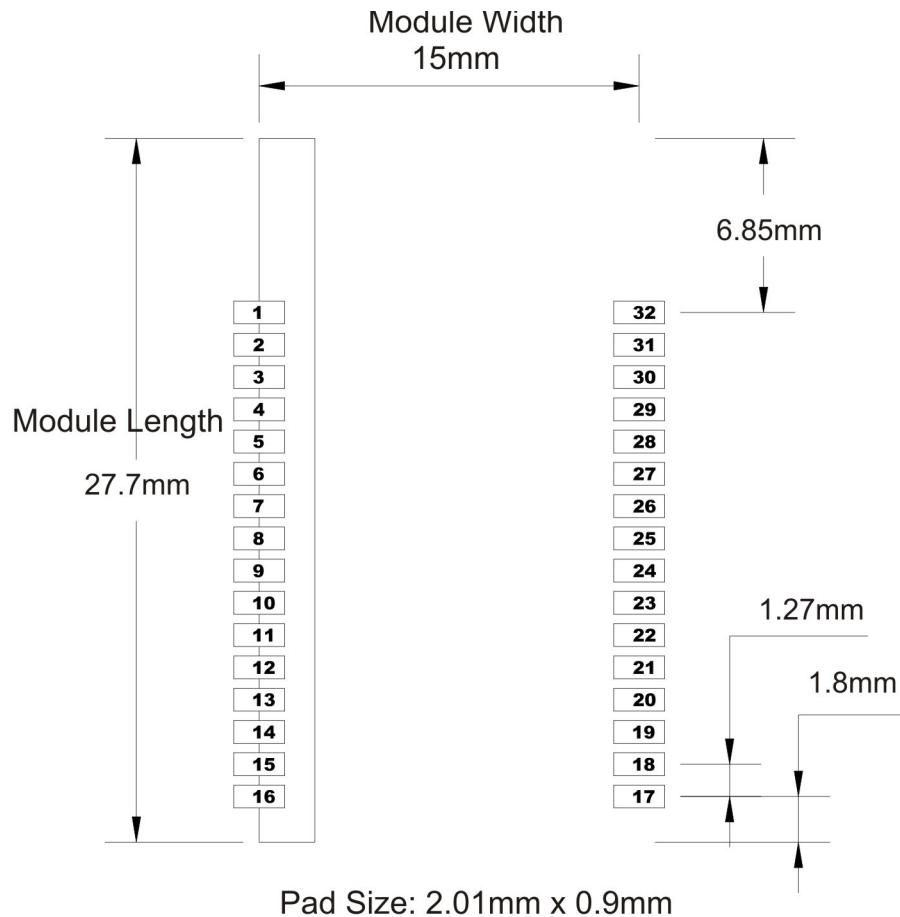
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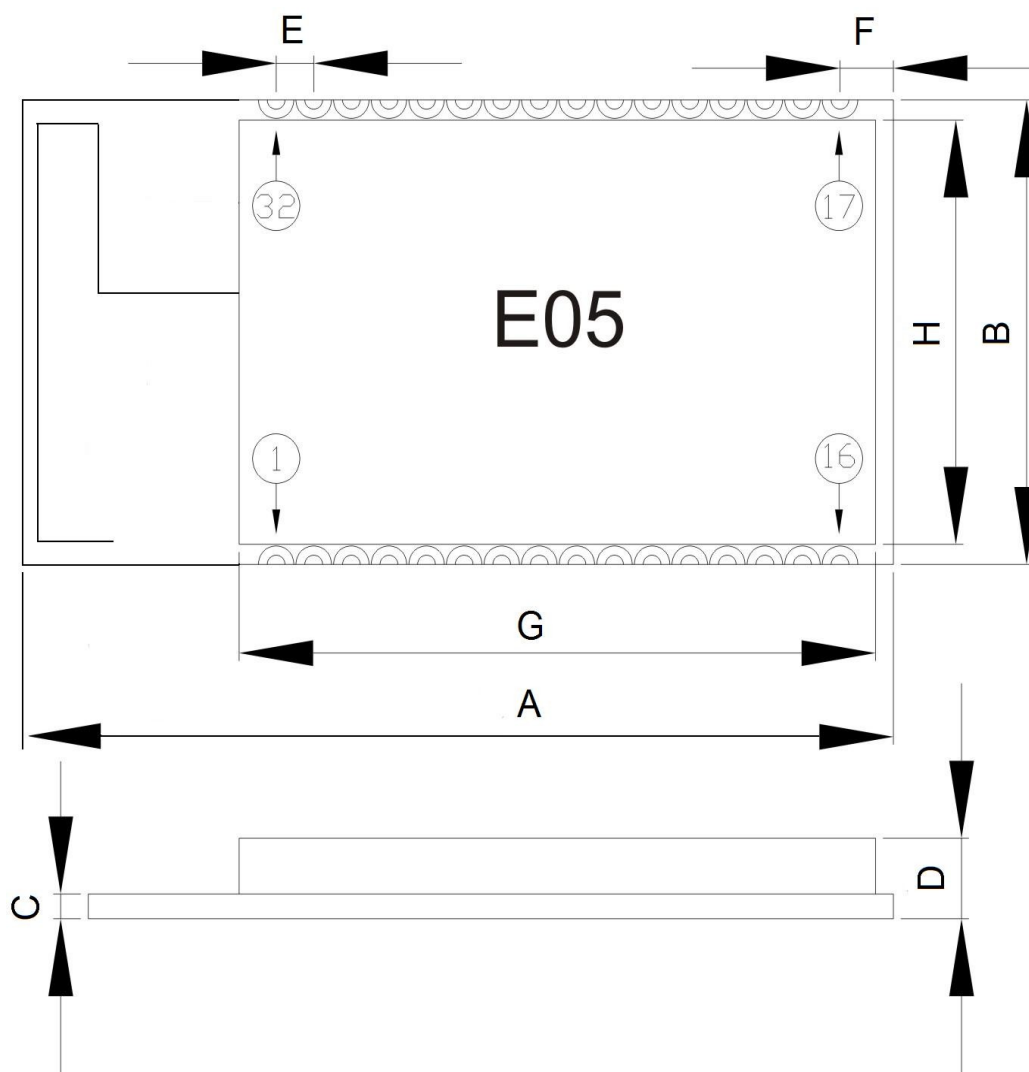
## Module Footprint

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## Dimensions (mm)



A	34.65±0.10	B	15.0±0.10	C	0.8
D	2.6±0.10	E	1.27±0.10	F	1.8±0.10
G	21.5±0.10	H	14.3±0.10		



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## **Additional Considerations**

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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. If not installed and used in accordance with the instructions, it 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 tuning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

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

TO OEM installer:

1. FCC ID label on the final system must be labeled with "Contains FCC ID: Y3TE05" or "Contains transmitter module FCC ID: Y3TE05".
2. In the user manual, final system integrator must ensure that there is no instruction provided in the user manual to install or remove the transmitter module.
3. 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 product. This device complies with the following radio frequency and safety standards.

The user manual of the final host system must contain the following statements:

USA - Federal Communications Commission (FCC)

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, (2) this device must accept any interference received, including interference that may cause

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undesired operation and (3) this device operates at a transmission rate of 1Mbps. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution: Exposure to Radio Frequency Radiation.

This device must not be co-located or operating in conjunction with any other antenna or transmitter.

The modular transmitter will be labeled with its own ID. Also the OEM host computer manufacturer will be informed to display a label referring to the enclosed module. The label on the final system must be labeled with "Contains IC: 8324A-E05".

This device complies with RSS 210 of Industry Canada.

"Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device."

"This Class B digital apparatus complies with Canadian ICES-003."

"Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada."

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