

## BP20422 Class 2 Bluetooth Module

### Overview

BluePacket BP20422 is a Bluetooth Human Interface Device (HID) module based on Broadcom BCM2042 Bluetooth controller. It is integrated with PCB antenna, serial EEPROM, crystal, and also components for the built-in switching regulators to reduce the external BOM cost.

BluePacket BP20422 Bluetooth module integrates the entire profile, application, and Bluetooth protocol stack and is fully compliant with the Bluetooth SIG specification for human interface devices.

The BP20422 is fully compliant with the version 2.0 Bluetooth specification (BQB ID:B02973) including adaptive frequency hopping and fast connection, which are essential to mouse, keyboard and remote control applications in personal computers.

### BP20422 Module



actual size



4X actual size

### Applications

- Wireless mouse
- Wireless keyboard
- Wireless pointing devices
- Remote control HID devices
- Wireless Game controllers
- Wireless Joysticks
- Presenter devices

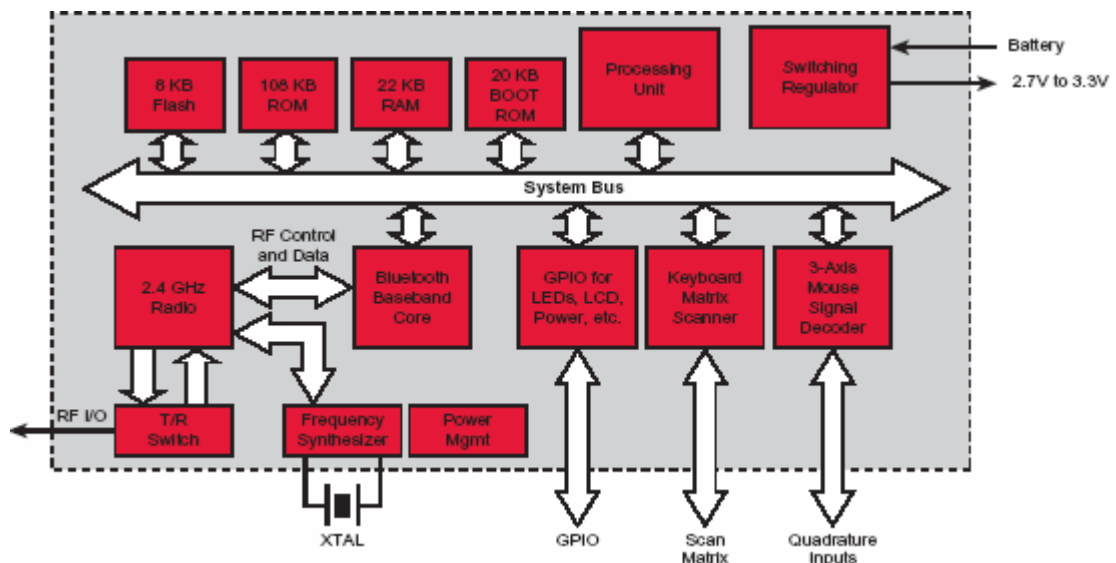
### Features

- Bluetooth 2.0 specification compliant
- Bluetooth HID profile 1.0 compliant
- 0.13um Radio with extreme low power consumption
- Bluetooth AFH support
- Supports common keyboard, mouse and remote control interfaces
- Built-in switching regulator to reduce external BOM and provide high efficient power for external sensor
- On-module serial EEPROM for configuration and patch code
- Supports SPI (full duplex and half duplex) to communicator with mouse sensor
- Integrate dedicated 8x20 key matrix

# Technical Specifications

- RF output power : up to +2dBm (Class-2)
- RX Sensitivity: -85dBm Typ. (Class-2)
- Working distance: up to 10 meters in open space
- Integrated 8 Kbytes of non-volatile flash memory for storing Bluetooth address and configuration data
- Programmable key-scan matrix interface, up to 8x20 key-scanning matrix for keyboard application
- Programmable output power control meets Class 2 requirement
- 3-axis quadrature signal decoder
- 1.5V to 3V output range to support core and external sensors
- On-board 8051 processor and RAM/ROM memory
- Compact size : 31.0mm x 15.0mm with PCB antenna included

## BP20422 Functional Block Diagram (Top View)



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