

General Description

The TOD3003 is a highly integrated single chip Bluetooth device with a stand-alone baseband processor and integrated 2.4 GHz transceiver and is compliant to Bluetooth 2.0. This chip is specifically designed for applications in wireless input devices including keyboards, mice, presenters and gaming controllers. Built-in firmware is fully compliant to Bluetooth® Human Interface Device (HID) profile.

Application

- Wireless mouse
- Wireless keyboard
- Game controllers
- Presenters
- Remote controls
- GPS mouse (G-mouse)

RF-Transceiver

- Clean, fast hopping synthesizer
- 0 dBm, 1 Mbps GFSK transmitter
- Analog and Digital filtered receiver
- Internal VCO resonator and PLL filter
- 50 ohm ant. port eliminates most external RF parts

Features

- Compliant with Bluetooth® Specification V2.0
- Compliant with Bluetooth® HID profile version 1.0
- Support AFH
- Embedded 8-bits 'C51 compatible Micro-Controller
- Internal 128 kB mask ROM and 8 kB SRAM
- On chip support for common mouse sensor interface eliminates external processor
- On chip support for Serial Peripheral Interface (SPI) (master/slave mode)
- Optional I²C compatible interface
- Built-in Power On Reset (POR)
- Built-in 8-bit accuracy/10-bit resolution ADC with 4 input channels for detecting low power of battery and reading various analog sensors such as 3-axis accelerometer, etc.
- Low Power 1.8V core operation
- Integrated Switch-mode Regulators (1 BUCK and 1 BOOST) to support external sensor, LED/Laser and MCU to reduce external BOM cost.
- Crystal oscillator with built-in digital trimming
- Power management includes digital shutdown and wake up commands with an integrated low power oscillator for sniff mode
- Support MCP option with 4 Megabit Flash
- Support COB (Chip on Board) option
- 56-Pin QFN package available (8 x 8 x 0.9 mm)

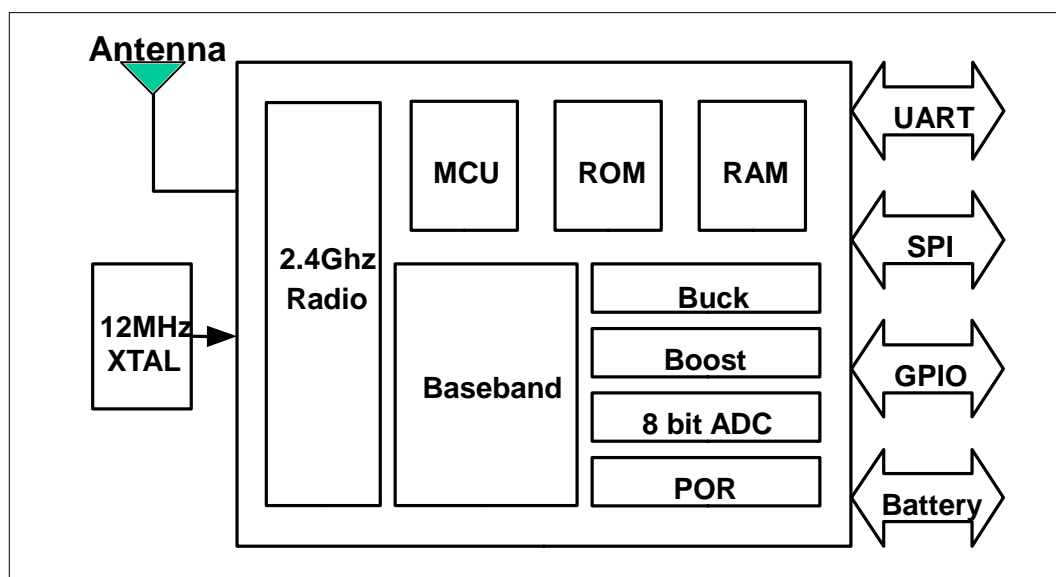


Figure 1 – Functional Block Diagram

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