Product Preview - Preliminary

BSN6050 ROM Version Baseband Processor for Bluetooth™ From Texas Instruments

The BSN6050 is a highly integrated Bluetooth baseband controller. The device incorporates a hardware core for highly optimized execution of the Bluetooth protocol, ROM, RAM, ARM7 processor and peripheral interfaces. The BSN6050 allows full Bluetooth throughput via both UART HCI and USB HCI.

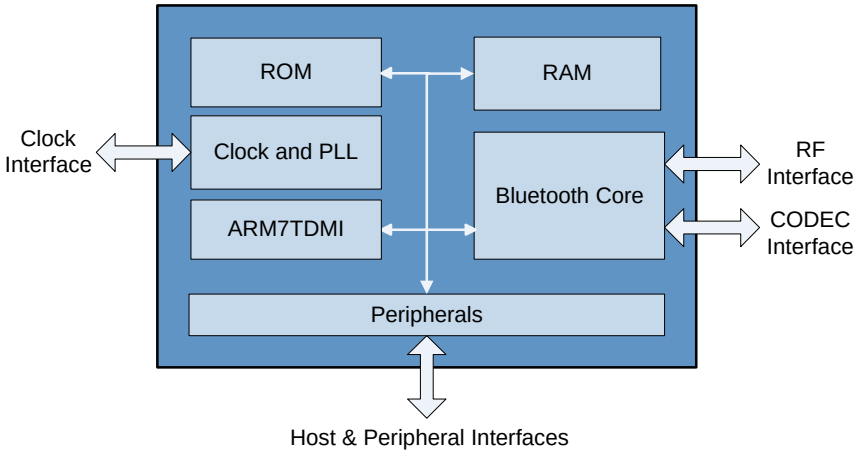
These features together with low power consumption, small package size and additional features, enable the implementation of a wide variety of low cost Bluetooth-enabled products.

The BSN6050, together with the TRF6001 RF (Radio Frequency) transceiver from Texas Instruments, form a complete high performance, low cost Bluetooth point-to-multipoint wireless communications system.

BSN6050 Baseband Processor

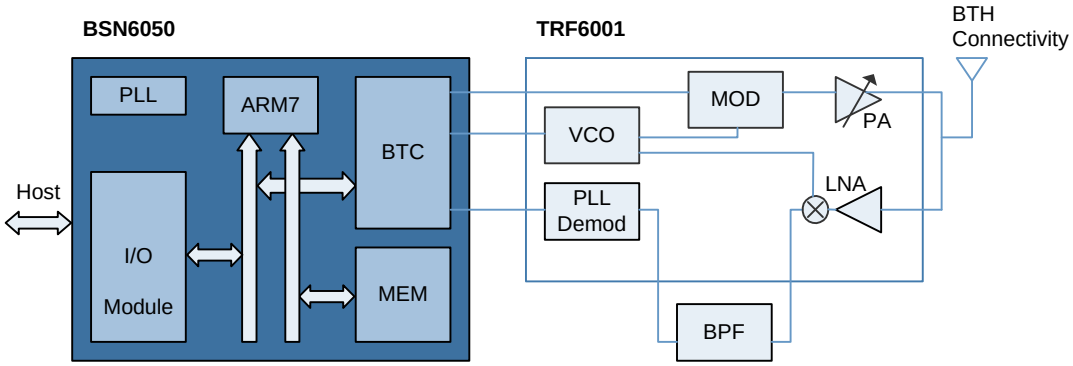
- Full Point-To-Multipoint Functionality (7 Slaves)
- Bluetooth Specifications V1.1 Compliant
- On Chip ROM (LC+LM Firmware up to HCI)
- Low Power Mode For Ultra Low Current Consumption
- HCI USB & UART Interfaces
- USB 1.1 Compliant (12Mbps)
- Full Bluetooth Throughput (723.2 Kbps in DH5)
- Support for 3 Voice Links
- Multi-Rate System Clock Support
- Host-Based/Hostless Applications
- 151 BGA (Ball Grid Array) Package (10x10mm) for pin to pin compatibility with the BSN6040
- **Process:** 0.15u CMOS

Functional Block Diagram:



Consisting of the BSN6050 Baseband Controller and the TRF6001 Radio Frequency (RF) Transceiver, the Bluetooth™ chipset from Texas Instruments provides an integrated two-chip solution that supports the latest Bluetooth specification for short-distance wireless communications. The BSN6050 ROM version controller eliminates the need for baseband and link manager firmware external memory.

Complete Bluetooth Solution



Operating in the 2.4-GigaHertz (GHz) range worldwide, the Bluetooth chipset from Texas Instruments supports simultaneous point-to-multipoint transmission of voice and data, with rates up to 1 Megabit per second (Mbps).

With TI proprietary low power mode, the chipset (BSN6050+TRF6001) total average current consumption is extremely low, enabling longer battery life in portable and battery operated devices.

The chipset not only reduces the required space and power consumption, but also allows developers to implement Bluetooth solutions in a wide variety of applications, due to the low cost, high performance and multi-rate system clock support (Fast clock: 10-20MHz in 1MHz; Slow clock: 32.0 / 32.768kHz).

Bluetooth Applications:

- Handheld Devices
- Access Points and Dongles
- Cellular Phones
- Data Applications
- Laptop Computers
- Printers

10mm Not to scale

IMPORTANT NOTICE: ***PRODUCT PREVIEW*** **information concerns products in the formative or design phase of development. Characteristic data and other specifications are design goals. Texas Instruments reserves the right to change or discontinue these products without notice.**