

TC356510 Baseband Complete Software Model for Bluetooth Systems

Highlights

- Toshiba is 1 of 5 Bluetooth™ SIG founding members ensuring compliance and commitment to Bluetooth specifications
- Proven manufacturing enables superior cost control and quick ramp-up to production volumes
- Flexible business model ensures secure migration path from modules to chips to ASICs
- Supports complete upper-layer software model for range of applications
- Designed for ultra-low-power consumption (standby mode)

Description

The TC356510 is a CMOS digital LSI for 2.4 GHz Bluetooth system designs. An ARM7TDMI microprocessor core is integrated as the main CPU and supports the 32-bit ARM instruction set for maximum performance and flexibility. Several kinds of Bluetooth applications can be constructed using on-chip UART/USB/PCM CODEC interfaces, including digital audio, home appliance, automotive and headset applications. External components include an RF IC and Flash ROM for program storage. Toshiba provides a full chipset (Baseband LSI, RF IC, and Flash Memory) to rapidly construct a Bluetooth system.

Features

- Bluetooth specification Version 1.1-compliant Baseband LSI
- Embedded ARM7TDMI (Fck=26 MHz) 96 KB data buffer memory
- Memory interface to connect external SRAM and Flash ROM
- On-chip CVSD transcoder for voice applications
- Interfaces
 - UART (up to 921.6 Kbps)
 - PCM Interface
 - Linear PCM, a-law, μ -law selectable
 - SD I/O (SD Association Spec. Version 1.0-compliant)
 - General Purpose I/O: 12 pins
 - EEPROM Interface (μ Wire Interface, Toshiba Proprietary EEPROM Interface)
 - JTAG interface for test control
- On-chip PLL for core CPU operation clock
- Supports low-power-consumption control (standby mode)
- Built-in 32.768 KHz oscillator circuit
- Power Supply: 1.8V or 3.0V(I/O), 1.5V(Core)
- Package: LQFP100 (Evaluation Purpose Only), FBGA113 (8.0x8.0x1.2mm or 0.8mm)

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