

Hardware Features

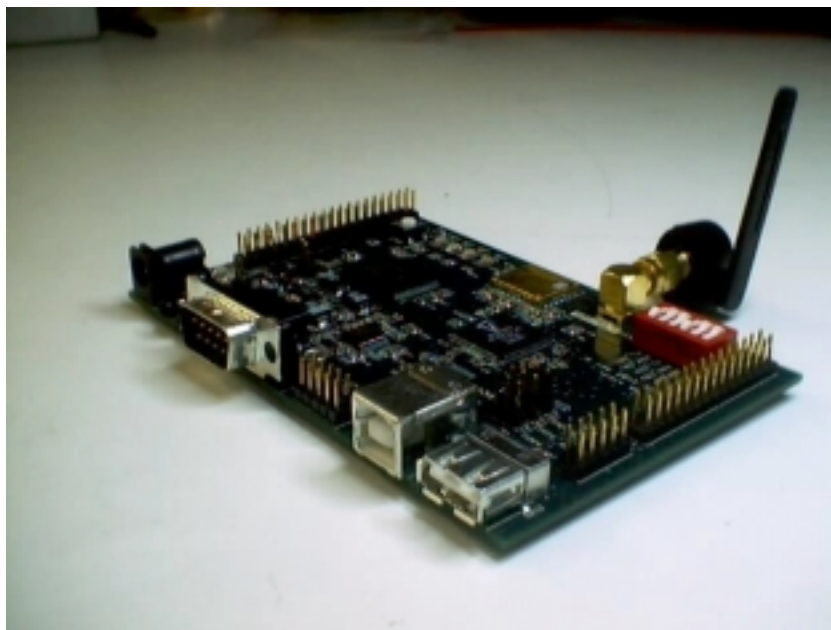
- VB8831 Bluetooth v1.1 compliant single chip Radio + Baseband Controller
- 2.4GHz Frequency-hopping Radio with SMA connector and detachable antenna
- ARC32 bit RISC processor with 2kB Cache 64kB on-chip SRAM, and JTAG debug port
- 512kB external Flash Memory (x16) with lower half of Bluetooth stack pre-loaded
- USB 1.1 Device and Host interfaces
- Fast (up to 921kbps) RS232 Serial Port (DB9)
- Second UART, 921kbps
- Test access to all bus and 19 GPIO signals
- Bluetooth Audio with 2.5mm Headset socket

Software Features

- Lower half-stack supplied as v1.1 compliant binary files
- Integrated firmware downloader
- PC-based (Windows 98/2000) Development Application with Bluetooth Upper Stack and GUI provides powerful demo, test, trace and diagnostics capabilities
- Compliant with UART and USB HCs

Target Applications

- Bluetooth demos and technology evaluation
- Development of "hosted" applications running on another processor and connected via a UART, RS232 or USB1.1 interface



Kit Contents

- One VB8831EVB Development Board with detachable antenna
- CD with *BlueBand-1* Lower Protocol Stack firmware (binary image files), Development Application and documentation
- Power supply 120V in, 6V out
- RS232 (9 pin) Serial Port cable
- USB device cable
- Audio headset

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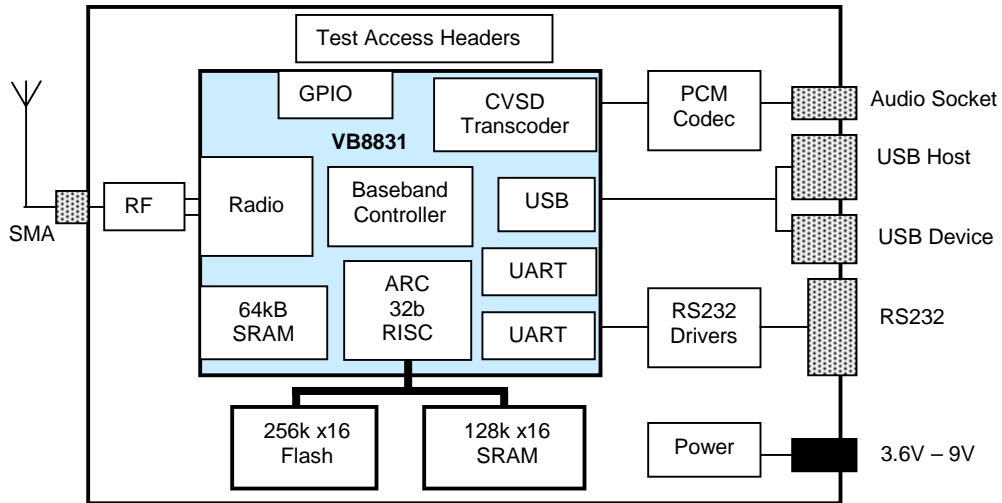
General Description

The VB8831DK1 is a hardware and software development kit based on the VB8831 CMOS single-chip Bluetooth Radio Transceiver and Baseband Controller. Included in this kit are all the necessary hardware and firmware to support development of the embedded half of "hosted" Bluetooth applications. A lightweight headset and PCM codec are included to support Bluetooth audio.

Vaishali's "BlueBand-1" firmware implementing the Bluetooth Link Manager and Link Controller functions, is burned into the Flash memory and runs on the embedded 32b ARC RISC processor. An integrated firmware downloader supports field upgrades of the embedded firmware via a serial port.

The upper half of the Bluetooth stack must run externally on a host processor, which can be connected to the board via the standard Bluetooth Host Controller Interfaces: UART or USB1.1. Included in this kit is a Windows .exe which combines a v1.1 compliant upper half-stack and a powerful development and test application. Alternatively, the host side can run an upper stack from a 3rd-party software vendor who supports the Bluetooth standard HCIs, such as Extended Systems.

Block Diagram



Stack Diagram

