

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

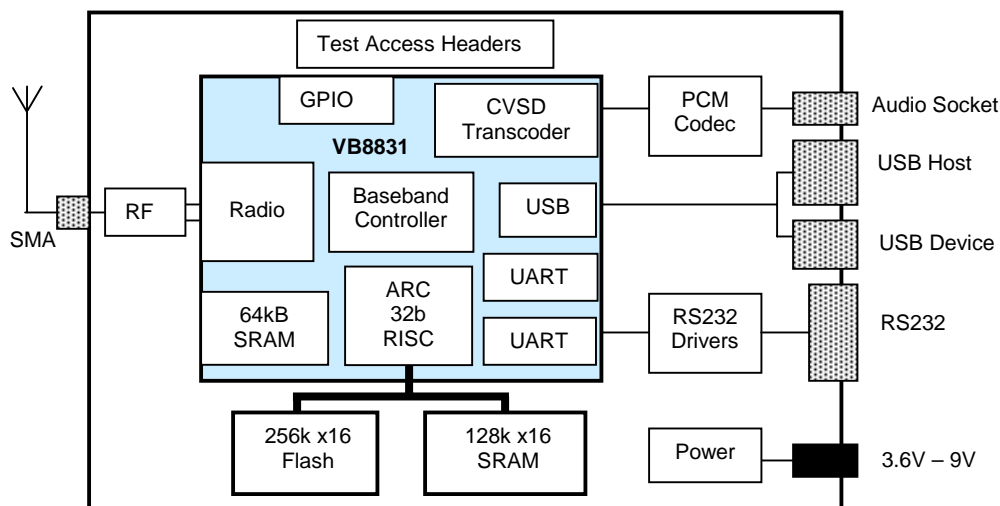
Software Features

- Complete Bluetooth stack supplied as v1.1 compliant source code and object files
- Documented APIs and example code
- Integrated firmware downloader
- PC-based (Windows 98/2000) Development Application with GUI provides powerful demo, test, trace and diagnostics capabilities
- Compliant with UART and USB HCl's

Target Applications

- Development of embedded applications running entirely on the integrated ARC RISC processor

Block Diagram



Kit Contents

- Two VB8831EVB Development Boards with detachable antennae
- CD with *BlueBand-2* Bluetooth Protocol Stack source and object files, Development Application and documentation
- Power supply 120V in, 6V out
- RS232 (9 pin) Serial Port cable
- USB device cable
- Audio headset

General Description

The VB8831DK2 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 software to support development of "fully embedded" Bluetooth applications when used with standard embedded software development tools for the ARC processor, available from Metaware Inc (not included).

The software provided with this kit is Vaishali's "BlueBand-2" complete Bluetooth protocol stack for fully embedded applications. Combining the Link Manager, Link Controller, RFCOMM, SDP, OBEX and TCS functions, this stack is compliant with the Bluetooth v1.1 specification. It is supplied as a combination of source and object code files with exposed APIs, along with comprehensive documentation, to enable development of custom applications running under its own compact micro-kernel.

Compiled application code can be downloaded into the Flash memory and run on the embedded 32b ARC RISC processor. An integrated firmware downloader supports field upgrades of the embedded firmware via a serial port.

Also included in this kit is example code for fully embedded applications, and a Windows .exe which provides a powerful development and test application, with trace and diagnostics. A lightweight headset and PCM codec are included to support Bluetooth audio.

Stack Diagram

