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BCM91125F PRODUCT Brief

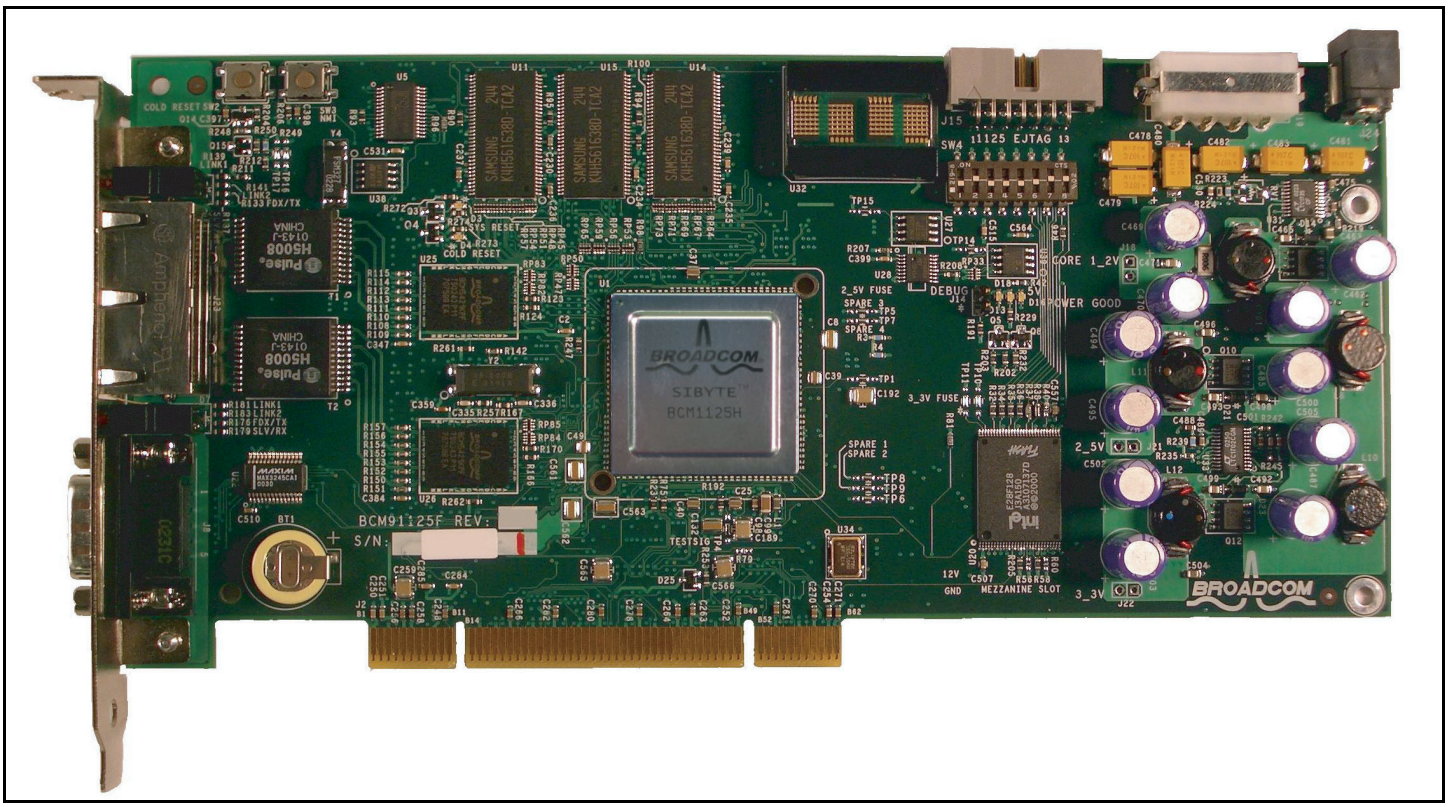
EVALUATION BOARD FOR BCM1125H PROCESSOR

FEATURES

- **BCM1125H System on a Chip (SOC)**
  - 64-bit MIPS processor SOC running at 600 MHz
  - 32-KB instruction and 32-KB data cache
  - 256K L2 cache
- **Soldered-down 128-MB DDR SDRAM**
- **128-Mb FLASH PROM, reprogrammable from firmware, or via JTAG**
- **32-bit, 33/66-MHz, half-length PCI form factor**
  - Configured as PCI target device
  - Operable with 3.3V or 5V PCI interface
- **Two Gigabit Ethernet ports on an I/O bracket**
  - 10/100/1000BASE-T on standard CAT 5 UTP cable
  - 802.3 compliant
  - Status LEDs showing link status and activity
- **Four-character LED display for system boot error codes**
- **One serial port on an I/O bracket, that is configured as a standard asynchronous UART with an RS232 interface**
- **Power is supplied from the PCI pins, or alternatively from a standard 4-pin ATX power supply, or from the included 110V-240V wall adapter**
- **EJTAG header for BCM1125H debug and test with included Macraigor JTAG probe**
- **Complete Integrated Development Environment (IDE) for PC - Arriba® Embedded Edition from Viosoft**
  - Includes one PC based development seat
  - Complete compiler, assembler, and debugger tool chain

For additional information about the BCM1125H processor, refer to the BCM112X Product Brief.

BCM91125F PCI Evaluation Board



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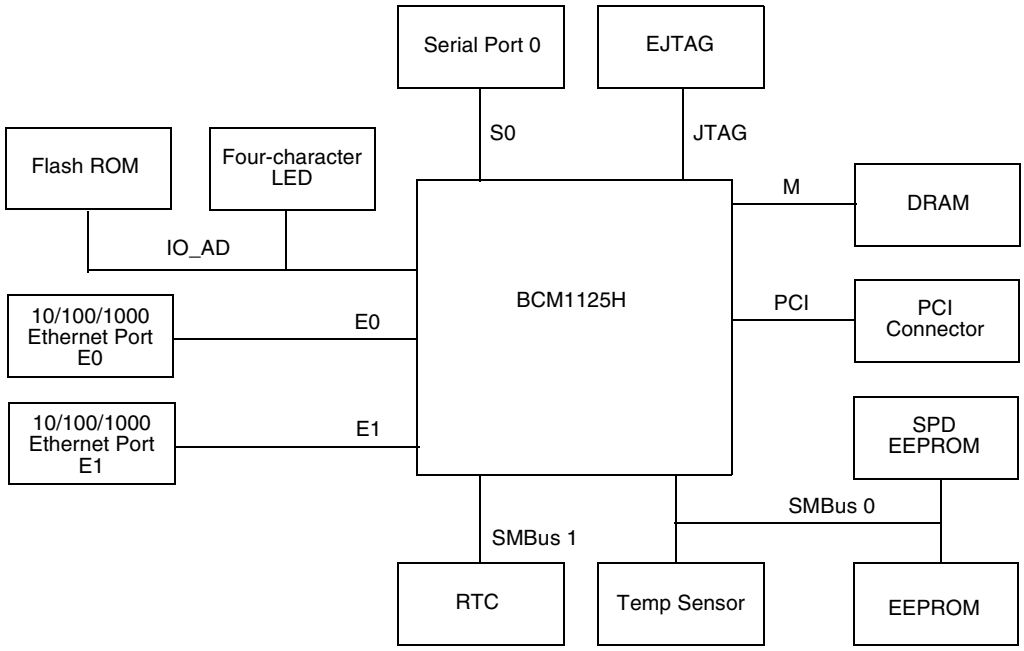
OVERVIEW



Product Overview

The **BCM91125F** is a half-length PCI evaluation board with the SiByte™ BCM1125H MIPS processor SOC. The board is designed for software development and developing PCI and Ethernet applications which require high-performance processors.

The **BCM91125F** can be plugged into a PCI slot in any PC, workstation or server, or can be used as a stand-alone device.

The **BCM91125F** comes with 128 MB of DDR SDRAM soldered down, two Gigabit Ethernet ports for network connectivity, and one RS-232 UART interface.

For additional information about BCM1125H processor, refer to the BCM112X Product Brief.

Firmware

The **BCM91125F** board is provided with the Common Firmware Environment (CFE) loaded in Flash, which supports 32-bit and 64-bit operation. The CFE solution initializes the CPU and peripherals on the BCM1125H, including the L2 cache, memory controller, Ethernet MACs, and UARTs.

The CFE provides an environment for downloading and booting an operating system using a disk, flash memory, the network, or the host as its boot device.

Operating System Support

Four operating systems are provided for the **BCM91125F**:

- Linux® running in 64-bit mode. Full source code is a available at http://www.linux-mips.org, the MIPS-Linux repository, with full support by MontaVista (www.mvista.com).
- VxWorks® with 64-bit support for data. Developers need to use the Tornado® tools for 64-bit support. The BSP for the **BCM91125F** in source form will be available from Wind River Systems.
- NetBSD version running in 32-bit mode. Support is provided by Wasabi Systems (www.wasabisystems.com).
- QNX® Neutrino® running in 32-bit mode with optional SMP on SiByte multicore products (www.qnx.com)

Development Tools

Included with the board is one PC (Windows98/NT/XP) based seat of Viosoft's Arriba® Embedded Edition. This complete development tools suite includes a compiler, assembler, and debugger and runs over the included Macraigor Wiggler JTAG probe, as well as a Macraigor Raven probe (sold separately). For more details, go to www.viosoft.com or www.ocdemon.net.

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