

Features:

- Integrated Verilog SOC Reference Design.
- ARM AHB Based Platform
- Includes all functions needed to run controller applications.
- RTOS Support
- Device Drivers included
- FPGA or ASIC
- Verilog Source or FPGA Netlist

Overview

SoC Solutions' **PiP-EC02 Pre-integrated IPTM** Embedded Controller platform is the basic infrastructure needed in all microprocessor based SOC's that run real time operating systems. The **PiP-EC02 Pre-integrated IPTM** jumpstarts your development by providing a pre-verified hardware/software platform (or SOC reference design).

The **PiP-EC02** is an ARM AHB based integrated Verilog SOC design combined with an integrated software suite. The SoC contains the basic hardware functions needed to run a RTOS. Along with the hardware, the **Pre-integrated IPTM** includes all the software device drivers and boot code needed to start software application development right away.

The **PiP-EC02** contains a the distributed DMA and arbitration features of the high performance AHB bus along with the bridge to the slower APB peripheral bus. The **PiP-EC02** architecture allows easy expansion on both the AHB system bus and the APB peripheral bus as well.

The scalable interrupt controller has the flexibility of easily adding additional interrupt sources. The GPIO (General Purpose I/O) block is fully programmable (by bit) and can generate interrupts on either edge of each input thus making a powerful I/O processing device for keyboard parsing and external interrupt control.

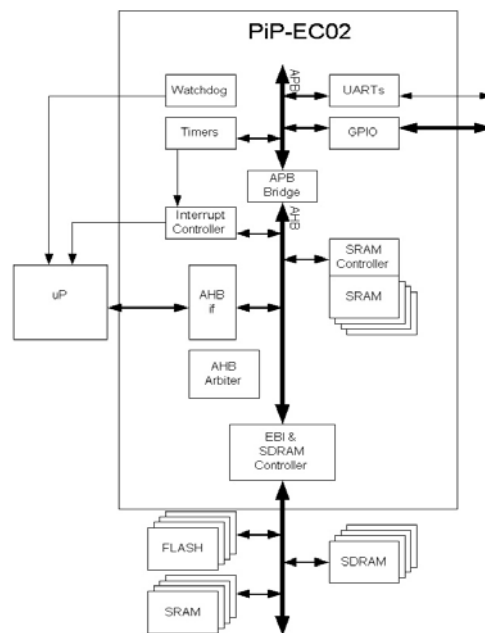
The External Bus Interface access control is programmable to allow many types of memory or peripheral devices to interface to the external bus.

Software

The software development tools supported are ARM ADS and SoC-RDS01 Rapid Development System from Avnet Design Services.

Hardware

The **PiP-EC02** is targeted for FPGA or ASIC SOC's. The **PiP-EC02** Verilog IP is fully tested and extensive system level test bench is available in C/C++ and Verilog.



PiP-EC02 contains:

AHB Bus with Arbiter

APB Bridge

Interrupt Controller

SRAM Controller

Timers

UARTs

External Bus Interface

Watchdog