

CAST

BA2x-AXI-PP AXI Peripherals Platform for BA2x Processors

The BA2x-AXI-PP provides the essential IP cores and infrastructure software needed for systems using a BA2x Family microprocessor equipped with an AMBA® AXI bus compatibility. Ready for software development out of the box but also easy to customize and extend, it serves as a basic platform for the rapid development of a variety of system-on-chip (SoC) applications.

The platform is well suited to a variety of BA2x-based SoC designs. It includes an AXI interconnect supporting up to four Masters and eight slaves, and a bridge to the slower APB peripherals bus. The architecture makes it straightforward to add additional IP cores or custom logic to either bus. The platform includes synthesizable HDL cores for the AXI and APB buses, plus various commonly used peripherals.

Applications

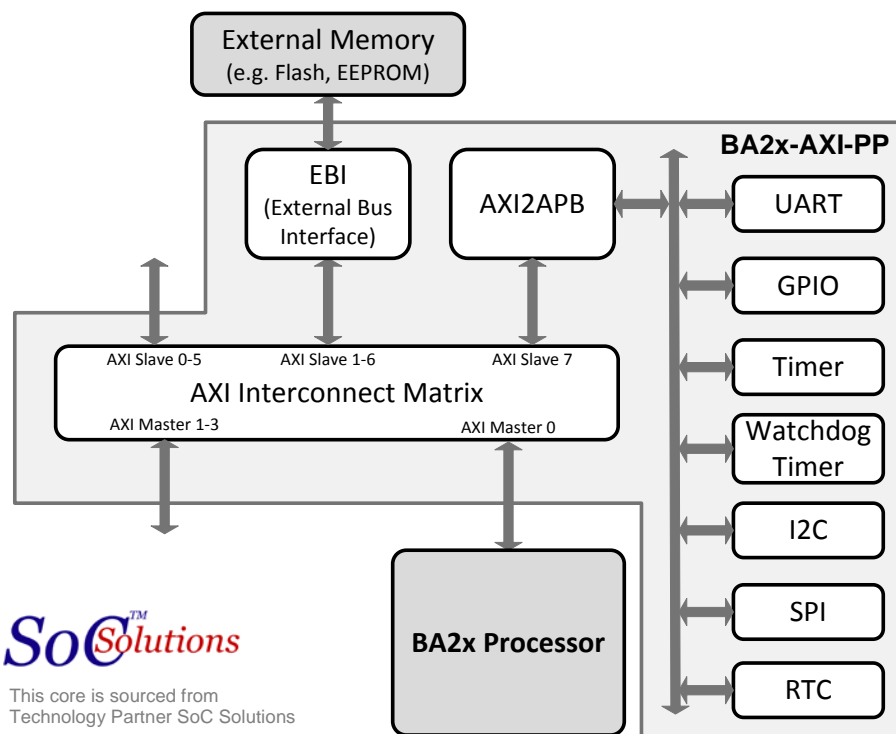
The platform is suitable for small microcontrollers and mixed-signal controllers for a variety of applications, including factory automation, automotive systems, hand-held devices, motor controls, and intelligent toys.

Options and Bundles

The BA2x-AXI-PP modules are offered pre-integrated with BA2x processor individually, in any combination, or in predefined bundles (see details in the sidebar).

Block Diagram

This shows all the available bus and peripheral cores.



Features

Benefits

- Integrated IP cores and software subsystem provides basic infrastructure for many SoC applications
- Platform saves significant time over acquiring and integrating separate modules
- Immediately begin software development and test
- Software device drivers, boot code, and complete user documentation included
- Easily add custom logic or additional IP cores to tailor or expand the system

BA2x-AXI-PP Modules

- AXI Interconnect
 - Matrix supporting up-to four Masters and eight Slaves
- AXI External Bus Interface (EBI)
- AXI to APB Bridge
- APB Peripherals:
 - Watchdog Timer
 - Timer/Counter
 - Real Time Clock
 - Serial Peripheral Interface (SPI) Master/Slave
 - I2C Master
 - 16550 UART with FIFOs
 - General Purpose I/O (GPIO)

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