

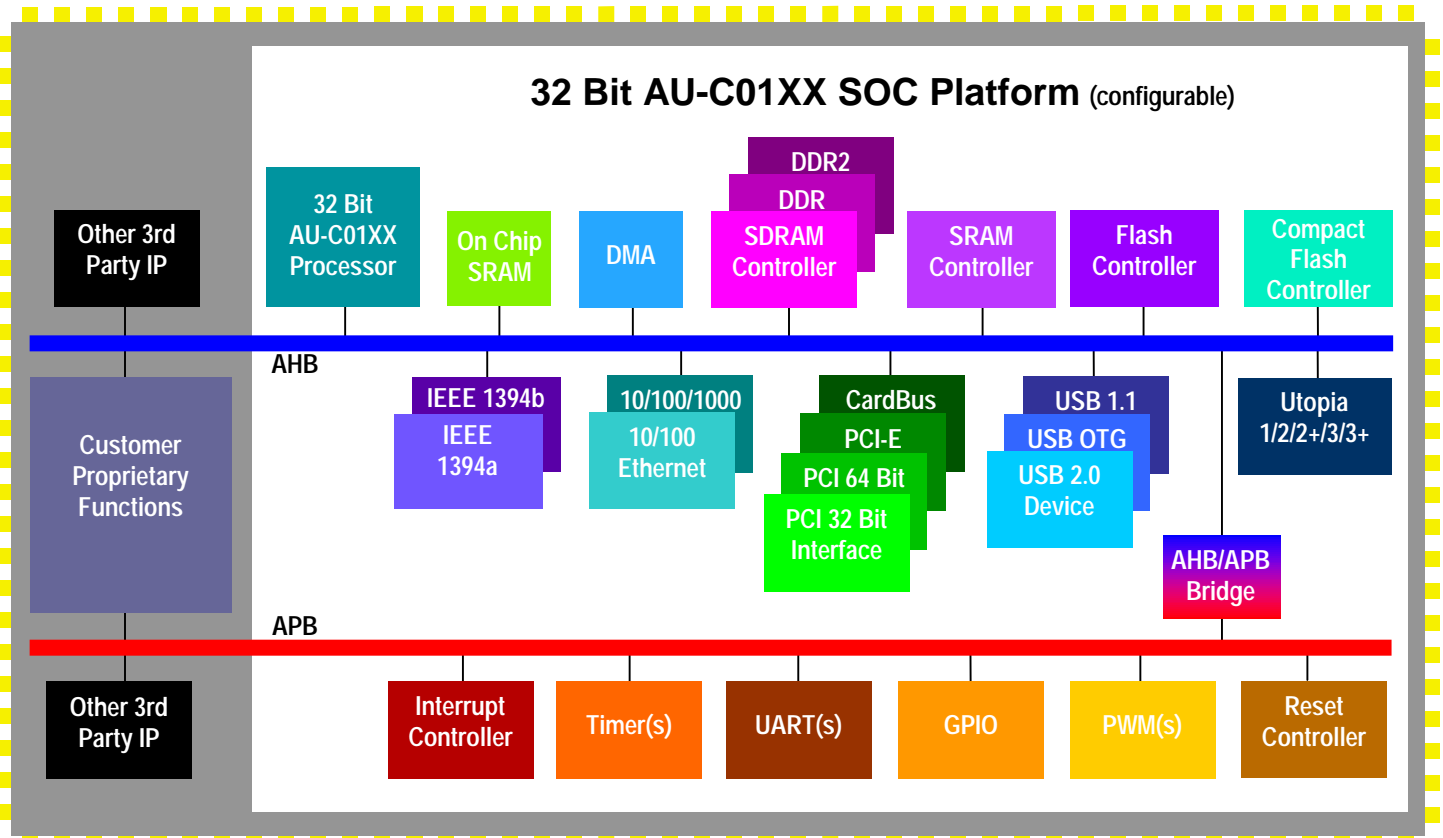


32 Bit AU-C01XX Processor SOC Platform

The 32 Bit AU-C01XX SOC Platform is a configurable 32 bit AU-C01XX SOC platform with several popular peripherals and system functions. It provides a 32 bit AU-C01XX processor SOC to which designers may add their proprietary hardware, and other third party IP of their choice. This 32 bit AU-C01XX processor SOC is assembled and ready to go, thus saving SOC designers countless hours to get their SOC to tapeout and running in the lab. The 32 Bit AU-C01XX SOC Platform is available as a synthesizable Verilog model from Aurora VLSI, Inc. Contact CustomerService@auroravlsi.com.

32 Bit AU-C01XX SOC Platform features and components include:

- AMBA Bus system- AHB Bus(es), APB Bus(es), arbiters, decoders
- Popular peripherals- RAM controllers, Ethernet, PCI, USB, 1394a, UARTs, PWMs, PIOs
- Popular system functions- DMA, embedded SRAM, interrupt controller, timers
- User specifies:
 - AMBA Buses- type and number
 - Peripherals to include- type and number
 - System functions to include- type and number
 - Peripheral and system function connectivity to the AMBA buses
- Services available to integrate 3rd party IP, and users' proprietary hardware



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AU-C01XX Processor Core

- 32 bit processor- small, low power
- Popular, industry standard legacy instruction set based on the RISC instruction set that originated at Stanford*
- Separate instruction and data caches (optional)
- Cache sizes are configurable from 256 bytes to 16K bytes each
- MMU (optional)
- TLB- 24 or 40 entries (optional, configurable)
- IEEE754-1985 floating point (optional)

User Selectable Components

- DRAM Controller
 - SDRAM Controller
 - DDR Controller
 - DDR2 Controller
 - Combined Memory Controller
- SRAM Controller
 - SRAM Controller
 - Combined Memory Controller
- Flash Controller
 - Flash Controller- NAND and NOR
 - Combined Memory Controller
- Compact Flash Controller
- XD Controller
- On Chip SRAM
- DMA Engine- 1 to 8 channels
- Ethernet
 - Ethernet 10/100
 - Ethernet 10/100/1000
- PCI
 - 32 bit PCI
 - 64 bit PCI
 - 32 bit PCI and CardBus
 - PCI Express
- USB
 - USB 1.1 Device
 - USB 2.0 Device
 - USB 2.0 On The Go (OTG)
- IEEE 1394
 - IEEE1394a
 - IEEE 1394a + OHCI 1.1
 - IEEE 1394b
 - IEEE 1394b + OHCI 1.2
- Utopia
- Timers/Counters
 - 32 bit Timer
 - 64 bit Timer
 - Watchdog Timer
 - Free running counter
 - Event counter
 - Other popular configurations
- Interrupt Controller
- UARTs
- SPI
- PWMs
- GPIOs
- Reset Controller

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