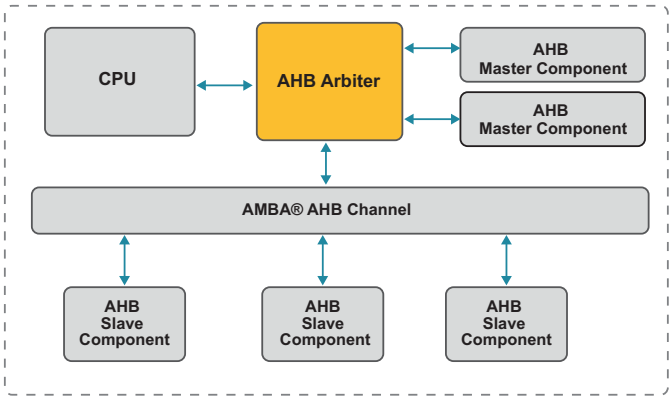
AHB Arbiter

The AHB Arbiter arbitrates for the AHB bus among as many as four AHB master components. The AHB Arbiter implements a round-robin arbitration algorithm to AHB Master components that are requesting use of the bus. Only one master component may control a given phase of the AHB transaction at a given time.

AHB is a pipelined bus in which there are three distinct phases: Arbitration Phase, Address (or Control) Phase, and Data Phase. A consequence of pipelining is that these phases overlap in time. For example, it is possible that Master component A wins the Arbitration Phase that is coincident with the Address Phase owned by Master component B and the Data Phase owned by Master component C. It is in these terms that an AHB system must be discussed.

The AHB Arbiter has four distinct Mirrored-Master component Ports, each of which can be connected to an AHB Master components (e.g. a processor or a DMA Controller), and one Port that connects to an AHB subsystem, typically through an AHB Channel module.



Features

- AMBA® 2.0 Compatible
- Supports up to 4 AHB Master components
- Round Robin Arbitration
- Easily Expandable

Deliverables

- Verilog Source
- Complete Test Environment
- AHB Bus Functional Model

For more information, please contact us at ip@silvaco.com.

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