

# Design Kit OCP / AMBA

## AMBA AHB / OCP bus wrappers

## AMBA APB / OCP bridge and wrappers



### Description

The Master and Slave AMBA AHB bus wrappers are used to connect bus independent Intellectual Properties (IPs) to an AMBA AHB bus controller. They let system designers seamlessly integrate OCP compliant IPs in their system core, enabling a practical reuse methodology.

Two versions of the wrapper are available, one for masters and another for slaves. They both manage burst transfers in order to increase the bus throughput.

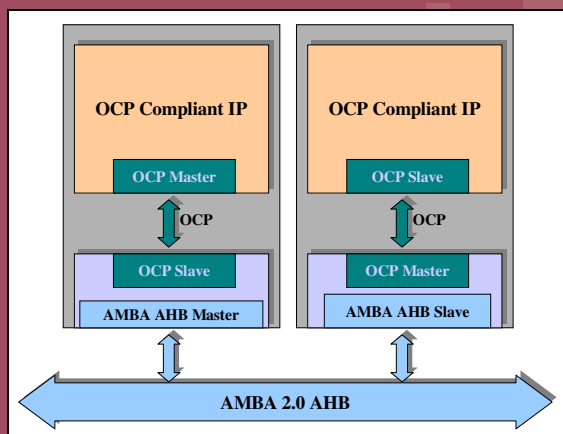
If asynchronous clocks are used for an IP and the bus controller, dedicated logic can be inserted to match the two clock domains.

The master wrapper can deal with RETRY or SPLIT responses given by the slave wrapper or any other slave connected to the bus.

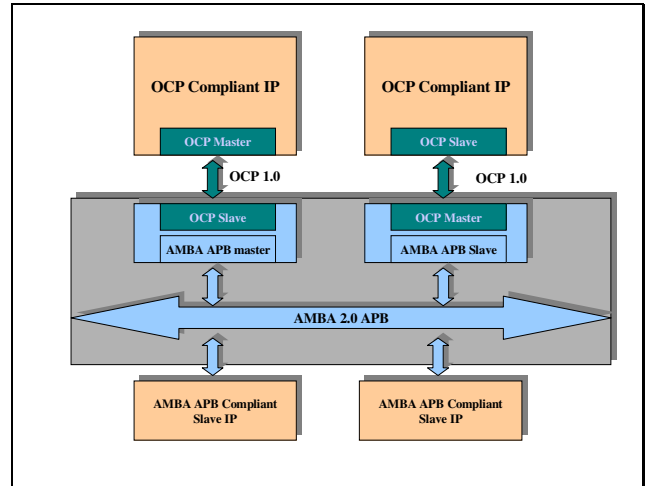
A OCP AMBA APB Controller is available to reuse all existing APB slaves or to connect several OCP native peripheral IP.

#### IP Deliverables :

- Synthesizable VHDL code with generics for different configurations.
- Customized Validation platform
- User's Manual
- Synthesis Scripts
- Integration Support.



OCP AMBA AHB Master and Slave wrappers



OCP AMBA APB Controller and wrappers

### Features

- AMBA AHB bus master wrapper to connect an OCP master
- AMBA AHB bus slave wrapper to connect an OCP slave
- The master wrapper supports RETRY and SPLIT responses
- The slave wrapper can generate RETRY or SPLIT responses
- Manages asynchronous clocks
- OCP AMBA APB controller and OCP AMBA APB wrappers

### Technical Specifications

- AMBA AHB rev 2.0 compliant (fully tested with Verity's AHB eVC)
- OCP v1.0 compliant (v2.0 soon)

### Supported Technologies

- Design for high performance ASIC/PLD/FPGA system

### Availability

- Now

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