

APB Channel with Decoder and Data Mux

Overview

The APB Channel provides the necessary infrastructure to connect as many as 16 AHB Slave components (numbered 0-15) to an APB Bus Master component. The APB Channel performs a combinational decode on the incoming APB address to produce the block selects for the various APB Slave components.

Typically, the APB Channel is connected as in the following description. Each of the APB Channel's 16 Mirrored Slave component Ports is connected to an APB Slave component module (e.g. Timer, UART, GPIO). On the Master component side, the APB Channel's Mirrored Master component Port typically is connected to an AHB to APB Bridge module.

Features

- AMBA® APB 2.0 and 3.0 Compatible
- Bus Infrastructure for up to 16 APB Targets
- Includes address decode
- Includes read data muxing

Deliverables

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

