

FEATURES

- 32 bit serial transmit & receive
- AHB Configuration Register Interface
- AHB Interface for accessing external SPI device
- Dual-bit or Single-bit mode operation
- Asynchronous SCLK operation
- 32 word Transmit FIFO
- 16 word Receive FIFO
- Interrupt control
- LSB mode
- Support for all SPI modes (CPOL, CPHA)
- Up to 4 slaves under Master control

LICENSED IP PACKAGE INCLUDES

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

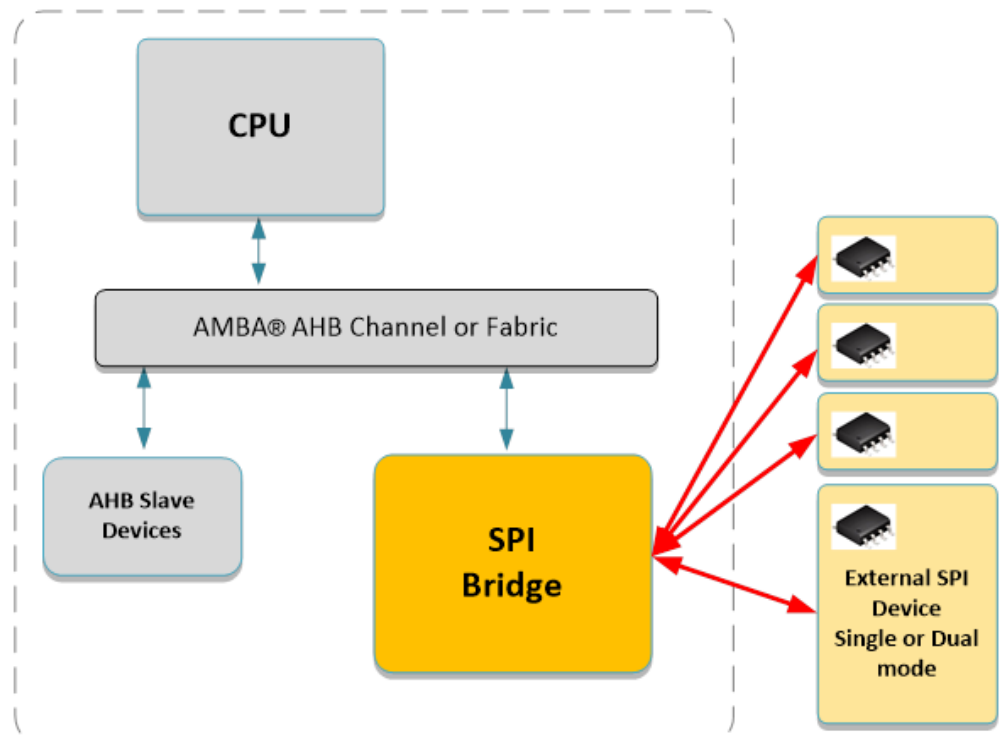
DESCRIPTION

The AHB-Lite to SPI Bridge is used to translate 32-bit AHB-Lite Writes and Reads to Writes and Reads over a SPI interface. A custom 32-bit protocol is implemented on the SPI bus.

The AHB-Lite to SPI Bridge has two AHB-Lite Slave interfaces; one for access to the control/status registers (Register Interface), and another for access to the external SPI device (External Interface). The Bridge also has a SPI interface that operates exclusively as a SPI Master device.

Designed to be used to communication with the SPI to AHBLite Bridge (IPC-SpiAhbLiteBridge-AHB) in another device.

GENERAL USE



You may also be interested in:

AMBA® Subsystems

- [Low Power Subsystem \(simple AHB system\)](#)
- [Low Power / Performance Subsystem \(includes AHB Multi-matrix Fabric\)](#)
- [Custom Performance Subsystem \(includes AXI Multi-layer Fabric\)](#)

IP Cores

Infrastructure Cores

AHB Multi-Matrix Fabric
AHB/AHBLite Channel
AHB Arbiter
AXI Multi-Layer Fabric
AXI to AHBLite Bridge
AXI to APB Bridge
AHB to ABP Bridge
APB Channel

AXI Cores

AXI Multi-Layer Fabric
AXI to AHBLite Bridge
AXI to APB Bridge
AXI External Bus Interface
(Memory/Flash Controller)
AXI Internal Memory Controller
AXI QSPI with Execute in Place (XIP)

AHB Cores

AHB Channel
AHB Multi-Matrix Fabric
AHB to ABP Bridge
AHB Arbiter
AHB QSPI with Execute in Place (XIP)
AHB External Bus Interface
AHB Internal SRAM Controller
AHB Interrupt Controller
AHB DMA Controller
AHB DMA 4 Channel Controller
AHB TFT LCD Controller
AHB DES/TDES Encryption/Decryption

AHB Serial Flash Controller
Octal, Quad, Dual and Single Modes

Serial to AHB Bridge
SPI slave to AHB Master
Monitor/Control

APB Cores

APB Channel
APB Quad SPI Controller
APB General Purpose IO
APB Timer
APB UART
APB I2C (Master and Slave)
APB SPI
APB Watchdog Timer
APB Pulse Width Modulator
APB Real Time Clock

General

DES – Digital Encryption Standard
Triple DES (Low Gates)
Triple DES (pipelined)
ADC Interface (semi-custom)
Mixed-Signal Interfaces (semi-custom)
Power Management Unit (semi-custom)

AES Encryption Core

For more information contact



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