

FEATURES

- AMBA® AHB Compatible
- Handles byte, half, and word (8,16,32bit) accesses to internal SSRAM
- Can be used with Internal Flash or OTP Memory
- Zero wait state / low latency operation

LICENSED IP PACKAGE INCLUDES

- Verilog Source
- Complete Test Environment
- AHB Bus Functional Model
- C-Sample Code

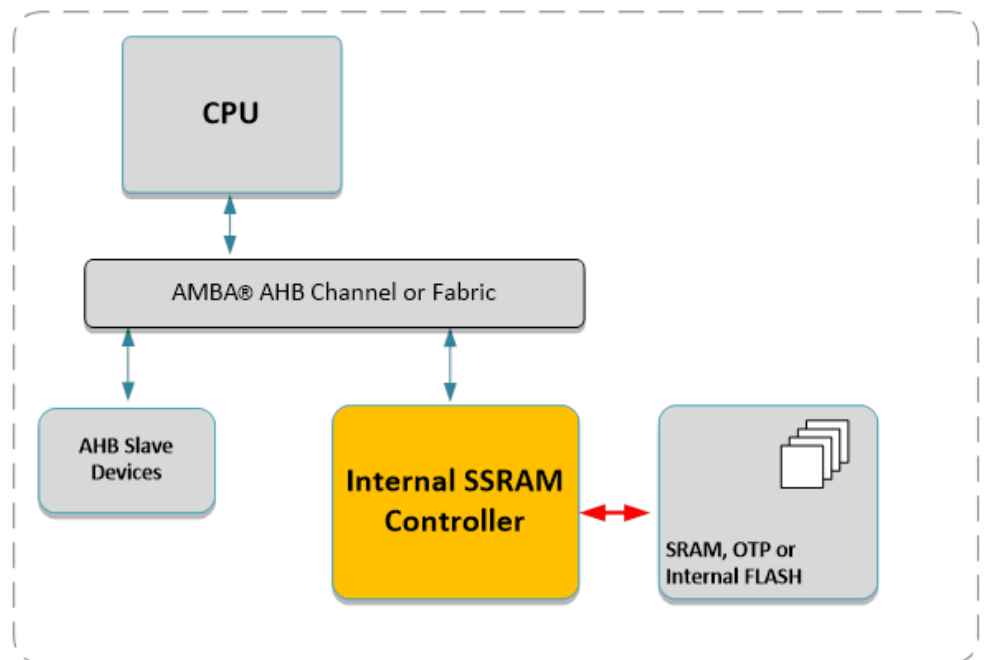
DESCRIPTION

The AHB SRAM Controller provides a standard AHB interface to translate AHB bus reads and writes into reads and writes with the signaling and timing of a standard 32-bit synchronous SRAM.

The AHB SRAM Controller provides zero-wait-state AHB access to the synchronous SRAM in all cases except for the following back-to-back events: an AHB write directly followed by an AHB read. In this case, a single wait state is asserted. Because of the zero-wait-state operation, this interface is intended to drive an on-chip memory (as opposed to off-chip memory where the return path for the read data might require wait states).

The AHB SRAM Controller contains two interfaces: an AHB Slave interface (for connecting to a Mirrored-Slave interface of an AHB Channel module), and a Memory interface (for connecting to a standard synchronous SRAM).

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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