

SPI

SPI controller Intellectual Property (IP).

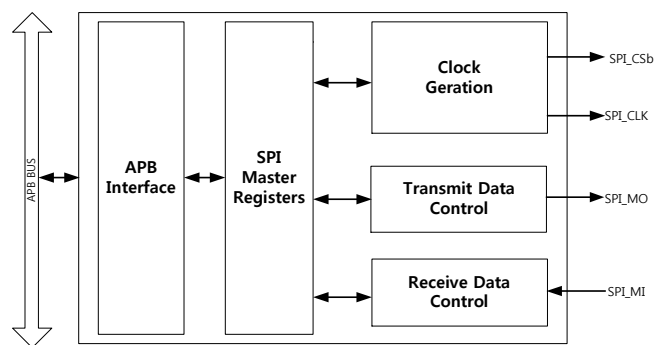
Description

SPI(Synchronous serial interfaces) are widely used to provide economical board-level interfaces between different devices such as microcontrollers, DACs, ADCs and other. Although there is no single standard for a synchronous serial bus, there are industry-wide accepted guidelines based on two most popular implementations. Many IC manufacturers produce components that are compatible with SPI and Microwire/Plus.

The SPI core is compatible with both above-mentioned protocols as master with some additional functionality.

Features

- Full duplex synchronous serial data transfer
- A Motorola SPI-compatible interface
- Variable length of transfer word up to 16 bits
- 16 bit wide, 8-location deep transmit FIFO
- 16 bit wide, 8-location deep transmit FIFO
- Rx and Tx on both rising or falling edge of serial clock independently
- Fully static synchronous design with one clock domain
- Fully interrupt based operation
- Optional AHB,APB and custom bus interfaces



Application area	: SPI Interface
Available documents	: Data Book, Sample program code written by C
Design file formats	: EDIF File Format , VHDL/Verilog Code
Verification	: Verilog Testbench
Simulation tool used	: Model Technology ModelSim™ 6.4