

SPI Master / Slave

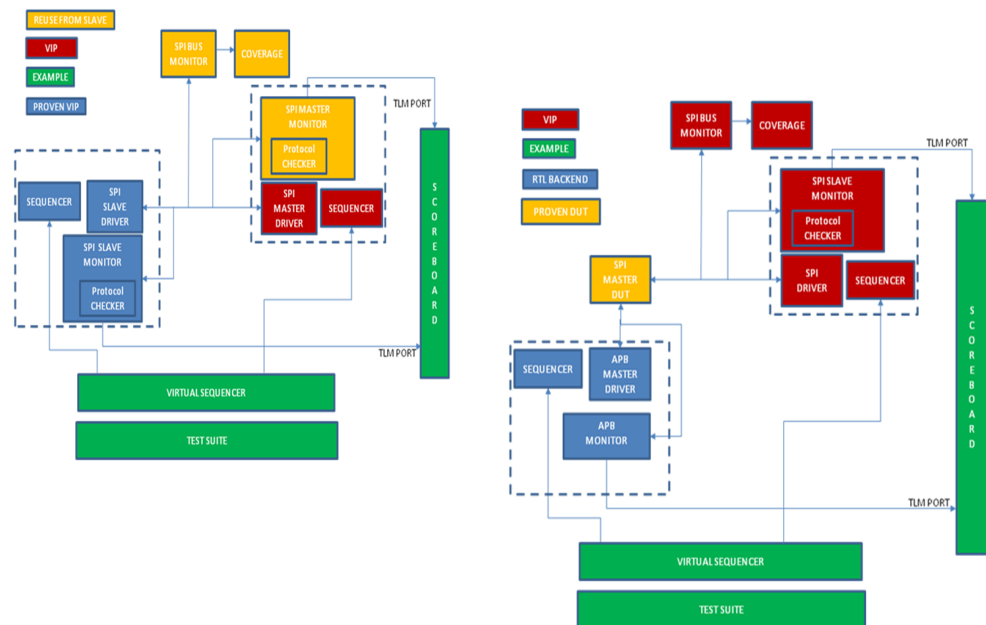


asureVIP™

SPI OVM/UVM Master and Slave VIP

Test and Verification Solutions offers SPI OVM/UVM Master and Slave VIP as part of its asureVIP™ series of offerings. This is a highly flexible and configurable verification IP which can be easily integrated into any SOC verification environment. The Master VIP has been interoperability tested with a Slave VIP configuration and the Slave VIP has been used in successfully verifying a DUT Master, later silicon proven.

The VIP comes with a Bus Monitor for performing all protocol checks. The monitor also performs key protocol checks and reports errors for non compliance with Freescale SPI block guide.



Overview

VIP: SPI Master and Slave

Compliance: SPI Freescale Block Guide v4.01

Language: System Verilog

Methodology: OVM 2.1.1 / UVM 1.1

Simulators: Cadence Incisive, Mentor Questa and Aldec Riviera PRO

Deliverables

- SPI Master and Slave VIP
- Sample Testbench (Integrated with proven SPI Master DUT and APB Master)
- Sample Virtual Sequencer
- Sample Scoreboard
- VIP user guide

Key Benefits

- Highly Flexible, Independent and Configurable SPI Slave VIP
- Proven against Silicon Proven DUT
- Less TAT in integrating into SOC Verification environments

Technical Specifications

- Master mode and slave mode
- Bi-directional mode
- Slave select output (Multiple Slaves Supported)
- Double-buffered operation
- Serial clock with programmable polarity and phase
- Control of SPI operation during wait mode
- Multiple baud rate support

Other VIPs Available

- **ARM:** AXI, APB, AMBA ACE and CHI
- **Hi-Speed Interface:** Ethernet (10/100/1000MB & 10GB), PCIe RC and EP, USB 3.0 Host and Device, CSIX and SPI
- **Memory and Storage:** SDCARD 4.0, DDR 4/3, LPDDR 4/3 and ONFI
- **MIPI:** DPHY, DSI, LPDDR, MPHY, SMBUS, RFFE and Unipro
- **Universal Serial I/O:** CAN, GPIO, I2C, UART, SPDIF, I2S, SMBUS, SPI and TDM

Independent Verification Service

TVS can deliver an independent verification service that not only reduces development costs and time-to-market, but also improves product quality.

Proven Implementations

Use asureVIP with the confidence of knowing that they have been successfully deployed by leading SoC companies around the world.

About TVS

Test and Verification Solutions Ltd (TVS) provides services and products to organisations developing complex products in the microelectronics and embedded software and systems industries.

TVS operates globally with offices in the UK, France, Germany, India, Singapore the USA plus a network of international partners.

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