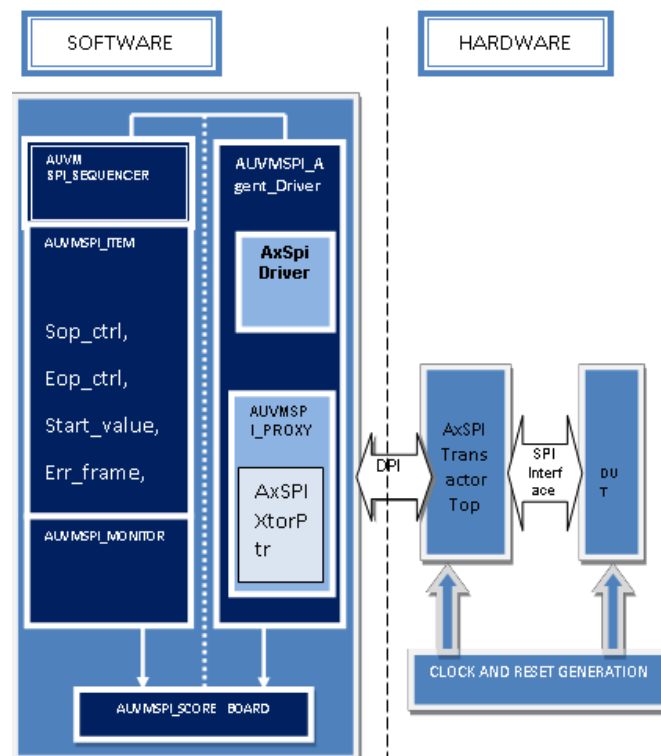# asure**VIP**

SPI-4.2 UVM VIP

Tessolve offers SPI-4.2 VIP as part of its asureVIP series of offerings. This is a highly flexible and configurable verification IP. VIP can be used for both functional verification & for emulator.

The TVS SPI-4.2 UVM VIP provides capability to communicate over SPI bus with the TVS SPI-4.2 transistor comprising:

- Synthesizable hardware written in System Verilog
- Software part written in C++ and System Verilog
- API written in System Verilog
- Testbench support with UVM

The VIP comes with a UVM Monitor for checking the conformance of the design with the technical specifications. The monitor performs the protocol checks and reports errors for noncompliance of features with OIF-SPI-4-02.1 October 2003.

Block Diagram

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TESSOLVE
A **Hero Electronix** Venture

Overview

VIP: SPI-4.2

Compliance: OIF-SPI-4-02.1 Oct. 2003 Spec.

Language: System Verilog

Methodology: UVM 1.1

Simulators: Cadence Incisive, Mentor Questa, Aldec Riviera-PRO

Deliverables

- SPI-4.2 VIP
- Sample Testbench Integrated with proven XILINX SPI CORE
- Sample Scoreboard
- Sample Virtual Sequencer

Key Benefits

- Highly Flexible, Independent and Configurable SPI-4.2 VIP
- Excellent Technical Support

Technical Specifications

- Point-to-Point Connection (i.e., between single PHY and single Link Layer device)
- Support for 256 ports
- 16 bits wide Transmit / Receive Data Path
- In-band port address
- Start / End-of-packet indication
- Error-control code
- Supports randomization of training sequence
- Supports SOP spacing
- Transmit / Receive FIFO Status Interface
- 2-bit parallel FIFO Status indication

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

Tessolve can deliver an independent verification service that not only reduces development costs and time-to-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 Tessolve

Tessolve Semiconductor Limited Private provides services and products to organizations developing complex products in the microelectronics and embedded software and systems industries.

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

asureVIP™

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