



Ethernet 10Gbps

asureVIP

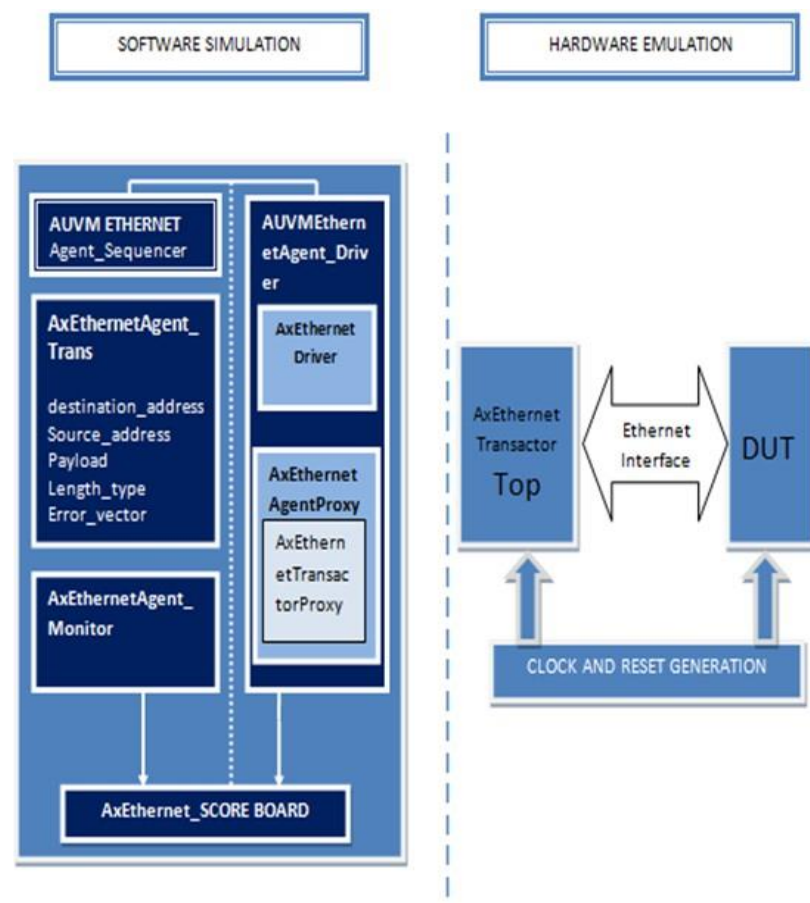
Ethernet 10Gbps UVM/eRM VIP

Tessolve Semiconductors offers Ethernet 10Gbps UVM/eRM VIP as a part of asureVIP series of offerings. This is a highly flexible and configurable verification IP, which can be easily integrated into any verification environment and can be used for both functional verification and as an emulator.

The Tessolve Ethernet UVM/eRM VIP encompasses several modes for different signal transmission rates upto 10Gbps, 100Mbps. It is programmed in System Verilog and supports the UVM/eRM Testbenches.

The VIP comes with a UVM/eRM 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 IEEE 802.3.

Block Diagram



Overview

VIP: Ethernet 10Gbps

Compliance: IEEE 802.3TM, 2008

Language: System Verilog

Methodology: UVM/eRM 1.1

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

Deliverables

- Ethernet 10Gbps VIP
- Sample Testbench integrated with proven XILINX CSIX core
- Sample Scoreboard
- Sample Virtual Sequencer
- VIP User Guide

Key Benefits

- Highly Flexible, Independent and Configurable IP
- Excellent Technical Support

Technical Specifications

- Compatible with Full duplex modes and speed of 10 Gbps
- XGMII interface Supports maximum flexibility when communicating between PHY and DTE
- C++ transactor is integrated to provide Flow control, RXFIFO, WRFIFO Ethernet packet generation
- Supports flow control by allowing programmable interframe gap
- Programmable error injection and detection
- Programmable IFG, pause_frame, Receiver Extract type, Payload data, preamble size
- Supports Write and Read Callback
- functions for receive and transmit packet info with time stamp
- Supports the following packet types:
 - Standard Ethernet Frame
 - Ethernet magic frame
 - Ethernet VLAN Frame
 - Ethernet Jumbo Frame

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-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 Semiconductors Private Limited 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.

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