



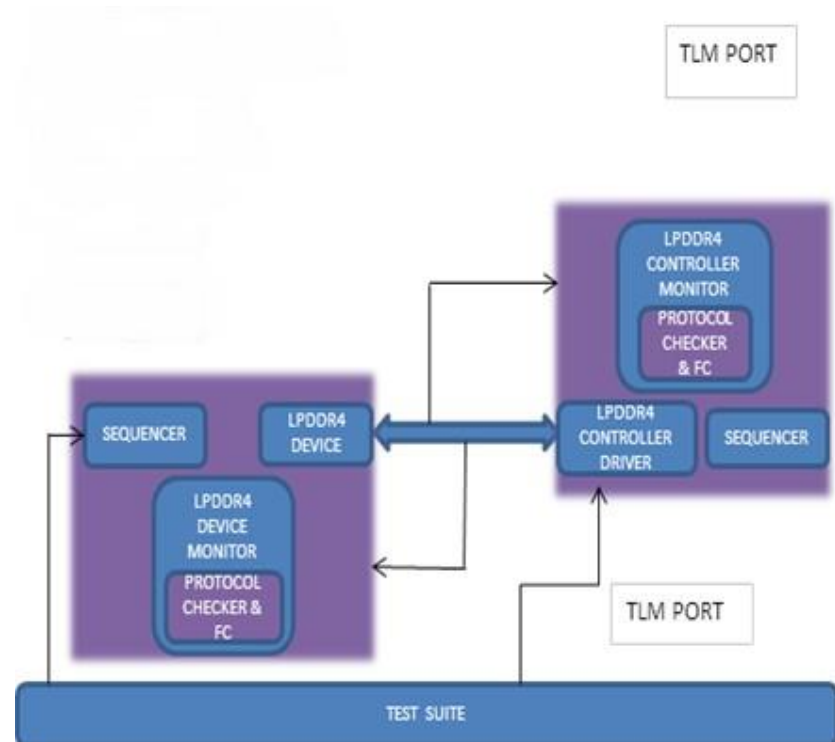
asureVIP

MIPI LPDDR4 UVM VIP

The asureVIP for LPDDR4 enables constrained random metric driven verification of IP level or SOC level verification of this protocol specification. LPDDR4 VIP offers flexibility, excellent product support, while UVM support allows reusability, fully configurable, coverage driven verification.

This UVM VIP has extensive constrained-random stimuli generation capabilities, configurable monitors and checks to ensure protocol compliance for Host as well as Peripherals. Pre-defined coverage bins enable easier extension and coverage collection.

Block Diagram



Overview

VIP: MIPI LPDDR4

Compliance: SK Hynix LPDDR4 Draft Spec

Language: System Verilog

Methodology: UVM 1.1

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

Deliverables

- MIPI LPDDR4 UVM VIP
- Sample Testbench
- Sample Scoreboard
- Sample Virtual Sequencer
- VIP user guide

Key Benefits

- Highly Flexible, Independent and Configurable MIPI LPDDR4 UVM VIP
- Proven against Silicon Proven VIP
- Less TAT in integrating into SOC Verification environments
- Excellent product support

Technical Specifications

- Single data rate architecture for command and address
- All control and address latched at rising edge of the clock
- Double data rate architecture for data Bus;
- Two data accesses per clock cycle
- Differential clock inputs
- DMI pin support for write data masking and DBI dc functionality
- Programmable RL (Read Latency) and WL (Write Latency)
- Auto refresh and self-refresh supported
- All bank auto refresh and directed per bank auto refresh supported
- Auto TCSR (Temperature Compensated Self Refresh)

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 assureVIP 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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