



asureVIP™

MIPI C-PHY UVM VIP

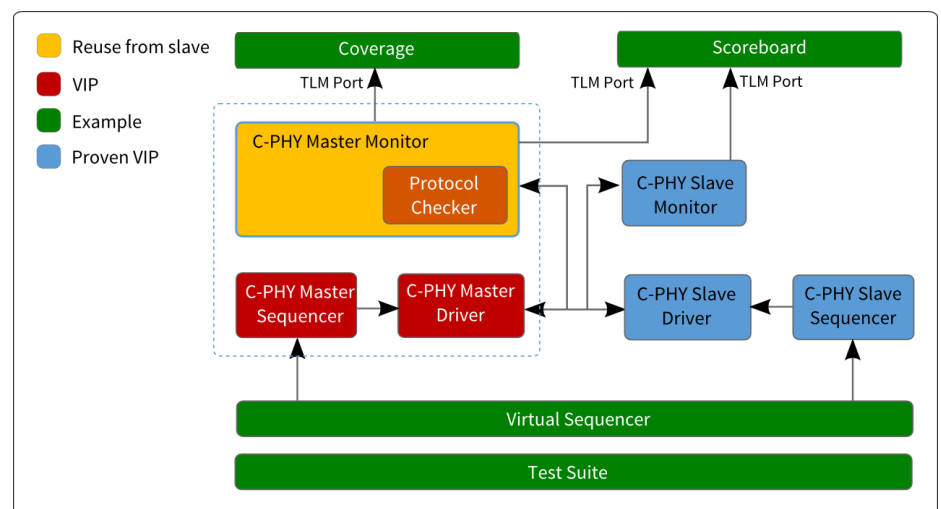
The MIPI C-PHY VIP is a highly flexible and configurable verification IP that can be easily integrated into any SOC verification environment. Supporting UVM, this C-PHY VIP is part of the asureVIP portfolio of implementation-proven VIP offerings.

This UVM VIP has extensive constrained random stimuli generation capabilities, configurable monitors and checks to ensure protocol compliance to MIPI standard for C-PHY specification 1.0. Pre-defined coverage bins enable easier extension and coverage collection. The VIP has been verified for protocol compliance using asureSIGN, TVS' in-house Requirements tracking tool.

Customers using the asureVIP products do so with the confidence of knowing that they have been independently developed by TVS and successfully deployed by leading SoC companies around the world.

TVS can also offer asureVIP customers an independent hardware verification service (asureVERIF) that not only reduces development costs and time-to-to-market, but also improves product quality.

Block Diagram



Overview

VIP:	MIPI C-PHY
Compliance:	MIPI C-PHY 1.0 specification
Language:	System Verilog
Methodology:	OVM 2.1.1 / UVM 1.1
Simulators:	Cadence Incisive, Mentor Questa, Aldec Riviera-PRO

Deliverables

- C-PHY VIP
- Sample Virtual Sequencer
- Sample Scoreboard
- VIP User Guide

Key Benefits

- Highly Flexible, Independent and Configurable VIP
- Proven against Silicon Proven VIP
- Faster testbench development
- Less turnaround time in integrating into SOC Verification environments

Technical Specifications

- Transmission error generation and detection
- Detection of all timeouts
- Injection of various timeout errors
- Parallel Peripheral Interface (PPI)
- Short and long packets
- High-speed and low-power packet transmission and reception
- Uni- and bi-directional communication

Other VIPs Available

- **ARM AMBA:** AXI, ACE, AHB, APB and CHI
- **Hi-Speed Interface:** CSIX, Ethernet, PCIe EP, PCIe RC, USB and SPI
- **Memory and Storage:** DDR 4/3, LPDDR 4/3, ONFI and SDCARD 4.0
- **MIPI:** C-PHY, D-PHY, DSI, M-PHY, RFFE, SMBUS and Unipro
- **Universal Serial I/O:** CAN, GPIO, I²C, I²S, SMBUS, SPDIF, SPI, TDM and UART

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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