

asureVIP™ from TVS

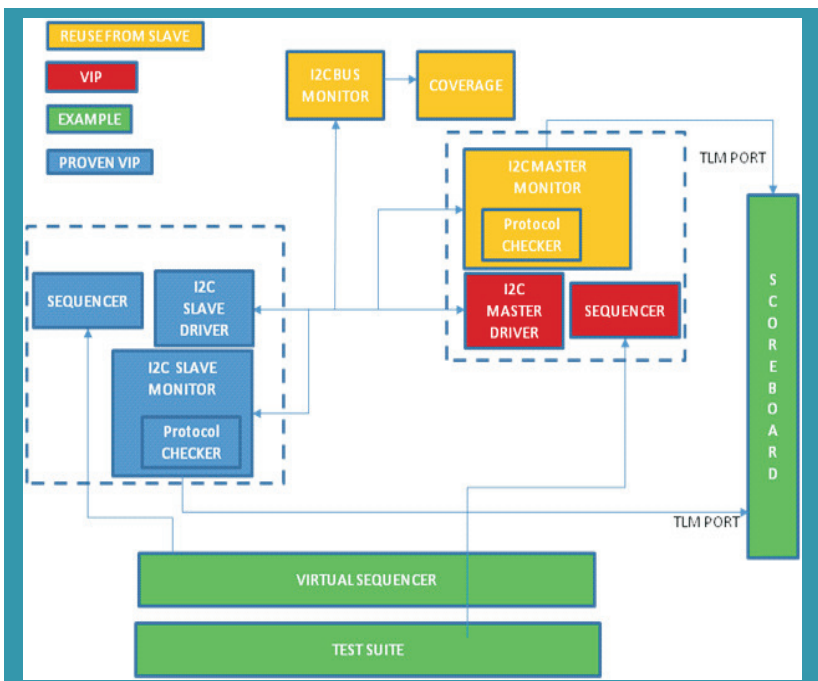
TVS I2C OVM MASTER VIP

OVERVIEW

Test and Verification Solutions offers an I2C OVM Master 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 I2C OVM Master VIP supports standard, fast and high speed modes of operation. It also supports 7-bit and 10-bit addressing modes. The Master VIP has been interoperability tested with a Slave VIP configuration. This slave VIP was used in successfully verifying a DUT, 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 Philips I2C Specification.

BLOCK DIAGRAM



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FEATURES

- Each slave device connected to the bus is software addressable by a unique address and simple master/slave relationships exist at all times.
- It's a true multi-master including collision detection and arbitration to prevent data corruption if two or more masters simultaneously initiate data transfer.
- Serial, 8-bit oriented, bi-directional data transfers can be made at up to 100 Kbit/s in the Standard-mode, up to 400 Kbit/s in the Fast-mode, or up to 3.4 Mbit/s in the High-speed mode.
- Addressing Modes Supported (7-bit, 10-bit & general call address).
- Clock Synchronization of more than two masters connected to the I2C Bus.
- Repeated Start Generation Scenarios
- Bus monitor has capability to detect Illegal Start/Stop/Repeated Start Conditions.
- Switching between different modes (H-Speed, F-Speed and S-Speed)



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TVS I2C OVM MASTER VIP

TECHNICAL SPECIFICATION

Part Number	asureVIP_I2C_M
Description	I2C OVM SV based Master VIP
Provider	Test and Verification Solutions
Languages Supported	System Verilog
Methodology	OVM 2.1.1
Simulators	Cadence Incisive, Mentor Questa
Compliance	I2C PHILIPS Specification January 2000
Availability	Now

ABOUT US

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

TVS combines skills and experience in software testing, hardware verification and outsourcing to provide customers with an efficient, well-managed, quality assurance service.

TVS provides both consultancy and execution services using experienced engineering resources in several locations around the world. TVS removes the pain and risk from outsourcing leaving you with just the benefits.

To learn more about our offerings, write to us at vip@tandvsolns.co.uk

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BENEFITS

- Highly Flexible, Independent and Configurable I2C Master VIP
- Proven against Silicon Proven VIP
- Less TAT in integrating into SOC Verification environments

DELIVERABLES

- VIP user Guide
- I2C Master OVM VIP
- Sample Testbench Integrated with proven I2C Slave VIP
- Sample Scoreboard
- Sample Virtual Sequencer



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