

# asureVIP™ from TVS

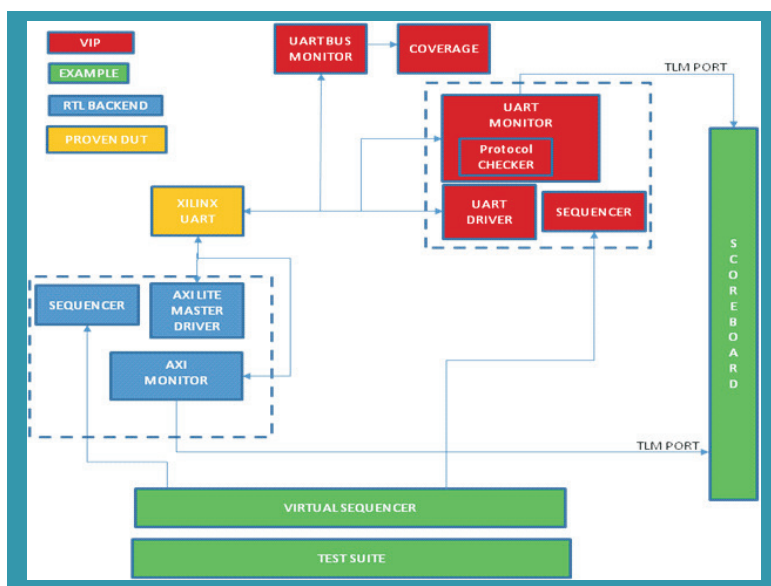
## TVS UART OVM VIP

### OVERVIEW

Test and Verification Solutions offers a UART OVM 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 TVS OVM SPI Master VIP supports UART and UART16550 Modes. It 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 protocol checks and reports errors for non compliance with National Semiconductors UART Specification.

### BLOCK DIAGRAM



# Test and Verification Solutions

## FEATURES

- Independently controlled transmit, receive, line status, and data set interrupts.
- Programmable baud generator divides any input clock by 1 to  $(2^{16} - 1)$  and generates the 16 clock.
- Independent receiver clock input.
- MODEM control functions (CTS, RTS, DSR, DTR, RI, and DCD).
- Fully programmable serial-interface characteristics:
  - 5-, 6-, 7-, or 8-bit characters
  - Even, odd, or no-parity bit generation and detection
  - 1-, 1(1/2)-, or 2-stop bit generation
  - Baud generation (DC to 1.5M baud).
- False start bit detection.
- Complete status reporting capabilities.
- TRI-STATEÉ TTL drive for the data and control buses.
- Line breaks generation and detection.



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### TECHNICAL SPECIFICATION

Part Number	asureVIP_UART
Description	UART OVM VIP
Provider	Test and Verification Solutions
Languages Supported	System Verilog
Methodology	OVM 2.1.1
Simulators	Cadence Incisive, Mentor Questa
Compliance	National Semiconductor PC16550D June 1995 Specification
Availability	August 2011

### 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](mailto:vip@tandvsolns.co.uk)

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June 2011 Version 1.0

# Test and Verification Solutions

### BENEFITS

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

### DELIVERABLES

- VIP user Guide
- UART OVM VIP
- Sample Testbench Integrated with proven XILINX UART VIP
- Sample Scoreboard
- Sample Virtual Sequencer



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