

asureVIP™ from TVS

TVS SDCARD 2.0 OVM DEVICE VIP

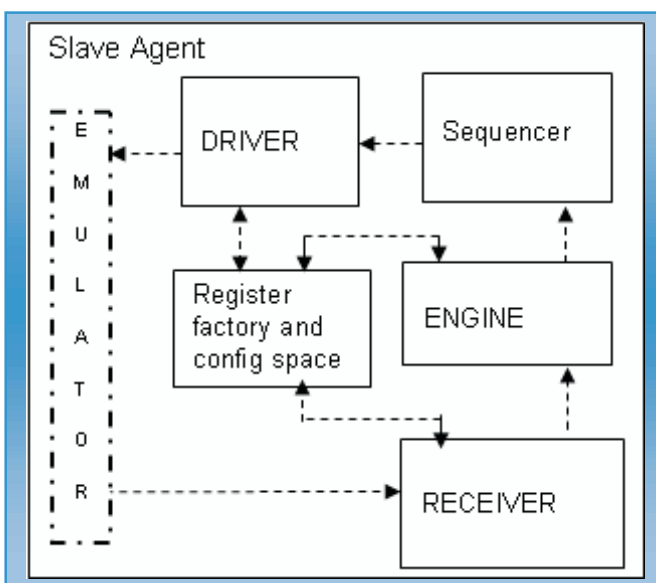
OVERVIEW

Test and Verification Solutions offers an SDCARD 2.0 OVM DEVICE 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.

Associative Arrays have been used as memory to improve simulation speed and provide a scalable solution. The VIP comes with an Emulatable RTL interface and a Bus Monitor which performs Setup, Hold and clock width checks on every cycle for all configurations. The monitor also performs protocol checks and reports errors for non compliance with SDCARD 2.0 Specification.

The VIP has been used to verify an SDCard interface for a chip that is first-time fully working silicon.

BLOCK DIAGRAM



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FEATURES

- OVM SD Card slave VIP is compliant to SDCARD 2.0 specification.
- Lower versions supported on configuration.
- Supports huge memory efficiently.
- Supports 1/4/8 bit data bus.
- Supports SDSC, SDHC with Non-UHS and UHS mode and SDXC.
- Performs protocol checks against SDCARD 2.0
- Supports write protect.
- Randomized error responses.
- Backdoor write and read API's provided.
- Configurable busy delay
- Configurable response timeout
- Random CRC insertion on configuration to test error scenarios
- Delay between read command and start bit of data block is configurable.
- Similar configuration is available for write command
- Configurable card programming error.
- SDHC and SDXC are Silicon Proven VIPs



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TVS SDCARD 2.0 OVM DEVICE VIP

TECHNICAL SPECIFICATION

| | |
|---------------------|---------------------------------|
| Part Number | asureVIP_SDCARD2_D |
| Description | SDCARD 2.0 OVM DEVICE VIP |
| Provider | Test and Verification Solutions |
| Languages Supported | System Verilog |
| Methodology | OVM 2.1.1 |
| Simulators | Cadence Incisive, Mentor Questa |
| Compliance | SDCARD 2.0 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

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BENEFITS

- Highly Flexible, Independent and Configurable SDCARD 2.0 Device VIP
- Proven against Silicon Proven VIP
- Less TAT in integrating into SOC Verification environments

DELIVERABLES

- VIP user Guide
- SDCARD 2.0 OVM DEVICE VIP
- Test cases and Master BFM Testbench
- Bus checker with cycle check engine
- Emulatable RTL code



Test and Verification Solutions
SETsquared Business Acceleration Centre
University Gate East, Park Row
Bristol BS1 5UB

Telephone: +44 (0)117 903 1100
Mobile: +44 (0)7796 307958
vip@tandvsolns.co.uk
www.tandvsolns.co.uk