

**AMBA APB Verification IP** provides an effective & efficient way to verify the components interfacing with AMBA® APB bus of an IP or SoC.

This AMBA APB VIP is fully compliant with standard AMBA® 2APB, AMBA® 3 APB v1.0 and AMBA 3 APB v.2.0 (aka APB4) specification from ARM.

This VIP is a light weight VIP with easy plug-and-play interface so that there is no hit on the design time and the simulation time.

This VIP is compatible with Mentor Questa, Cadence NC and Synopsys VCS.

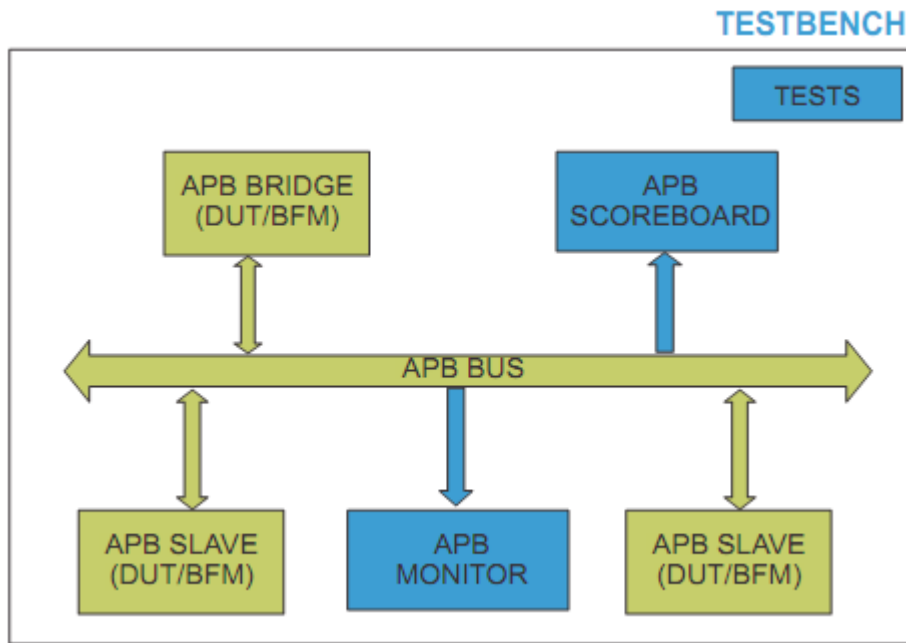
## Key Benefits

- Available in native System Verilog (UVM/OVM/VMM) and Verilog
- Unique development methodology to ensure highest levels of quality
- Availability of Compliance & Regression Test Suites
- 24X5 customer support
- Unique and customizable licensing models
- Exhaustive set of assertions and coverage points with connectivity example for all the components
- Consistency of interface, installation, operation and documentation across all our VIPs.

## Features

- Compliant to AMBA® 2APB, AMBA® 3 APB v1.0 and AMBA 3 APB v.2.0 (aka APB4)
- Support for all type of AMBA APB devices:
  - Bridge Agent
  - Slave Agent
- Strong protocol checking Bus Monitor
- Parameterized data and address bus
- Support bus-endian converter / checker
- Internal Architecture Based on TLM 2.0
- Rich set of configuration parameters to control APB functionality including constrained randomization of protocol attributes
- VIP supports protected accesses
- Supports all types of memory access
- Extensive set of Assertions and Coverages
- Supports Callback in bridge and Slave to provided user control
- Configurable wait states
- Supports wide variety of error injection scenarios
- Supports Configurable memory

## Block Diagram



## Deliverables

- AMBA APB Bridge/Slave Agent
- AMBA APB Bus Monitor and Score boarding
- Test-Bench Configurations
- Test Suite (Available in Source code) :
  - Basic and Directed Protocol Tests
  - Random Tests
  - Error Scenario Tests
  - Assertions & Coverage Tests
  - User Tests
- User Guide and Release Notes

## Related products

We can offer different Verification IP solution for your selection.

- MIPI M-PHY Verification IP
- MIPI CSI-2 Verification IP
- MIPI CSI-3 Verification IP
- MIPI UniPro Verification IP
- AMBA 3 AHB-lite Verification IP
- AMBA 2.0 AHB Verification IP
- AMBA APB Verification IP
- AMBA ATB Verification IP
- AMBA AXI3 Verification IP
- AMBA AXI4 Verification IP
- I2C Verification IP
- USB3.0 Verification IP
- USB3.1 Verification IP
- USB2.0 xHCI Verification IP
- SSIC Verification IP

*For more information about the above VIP documents can be gotten from WWAGO sales contacts.*

# WWAGO

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