**VLSI TECHNOLOGY PAGE**

**AXI4VIP SPECIFICATION:**

**DESIGN DESCRIPTION**

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# ****GLOSSARY****

| **Glossary** | **Description** |
| --- | --- |
|  |  |
|  |  |

# AXI4VIP OVERVIEW

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## Features

* Support both AMBA AXI4 master and slave mode
* Support both active and passive mode
* Configure the bit width of address and data bus
* Configure the transfer type, response type
* Support the AXI protocol checker and assertion
* Support the debug report
* Support outstanding and out-of-order feature
* Do not support “send a write data before sending the write address” (AXI3 only)

## Block diagram



Hình ‑: VIP integration block diagram

## Directory and file structure

Table ‑: Directory and file structure

| **Directory and File** | **Description** | **Priority** |
| --- | --- | --- |
| rtl | RTL code (DUT) | 1 |
| vip | UVM components |  |
| |-- axi\_mst\_agent.sv |  | 7 |
| |-- axi\_mst\_driver.sv |  | 5 |
| |-- axi\_mst\_sequencer.sv |  | 6 |
| |-- axi\_mst\_transaction.sv |  | 4 |
| |-- axi\_mst\_cfg.sv |  | 4 |
| |-- axi\_slv\_agent.sv |  | 7 |
| |-- axi\_slv\_driver.sv |  | 5 |
| |-- axi\_slv\_sequencer.sv |  | 6 |
| |-- axi\_slv\_transaction.sv |  | 4 |
| |-- axi\_slv\_cfg.sv |  | 4 |
| |-- axi\_monitor.sv |  | 5 |
| |-- axi\_transaction.sv |  | 3 |
| |-- axi\_typedef.sv |  | 2 |
| |-- axi\_defines.svh |  | 2 |
| |-- axi\_pkg.sv |  | 8 |
| |-- axi\_cfg.sv |  | 3 |
| |-- axi\_interface.sv |  | 1 |
| |-- axi\_func\_cov.sv |  | 8 |
| |-- axi\_assertion.sv |  | 8 |
| env | environment components |  |
| |-- axi\_environment.sv |  | 9 |
| |-- axi\_testbench.sv |  | 9 |
| |-- axi\_scoreboard.sv |  |  |
| |-- axi\_env\_pkg.sv |  |  |
| |-- axi\_vir\_sequencer.sv |  |  |
| |-- axi\_error\_catcher.sv |  |  |
| test | testcase files |  |
| |-- axi\_base\_test.sv |  | 10 |
| |-- axi\_test\_pkg.sv |  | 10 |
| seq | sequence files |  |
| |-- axi\_mst\_base\_seq.sv |  | 11 |
| |-- axi\_slv\_base\_seq.sv |  | 11 |
| |-- axi\_seq\_pkg.sv |  | 11 |
| run | working directory and the testcase execution |  |
| |-- run\_sim.py |  | 13 |
| |-- compile.f |  | 12 |
| |-- Makefile |  | 13 |
| project.env | Set the env variables | 12 |
| img | Project images |  |
| doc | Specification documents |  |

# ****BIBLIOGRAPHY****

1. ...