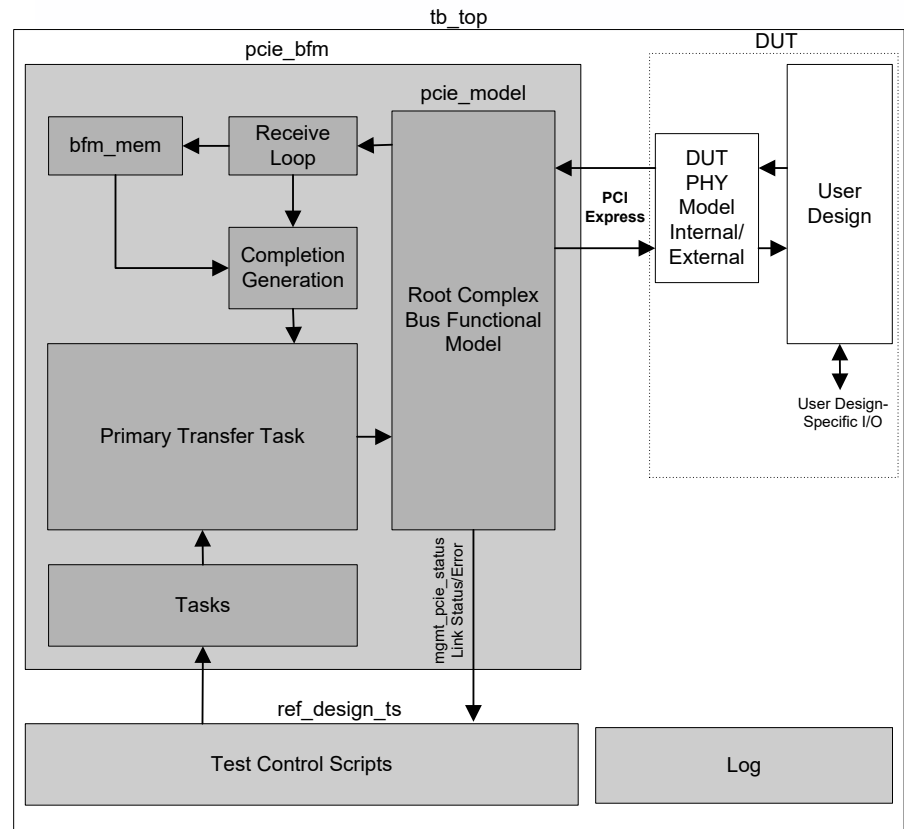


## Product Highlights

- Emulates a Root Complex device enabling simulation of a PCI Express design
- Test scripts are used to generate Root Complex master requests
- Automatically responds to DUT master requests
- Performs automatic data logging and checking
- Provided with a basic set of test cases
- Specifically designed for quick out-of-the-box setup and use
- Fast simulation speed
- PCI Express™ Base Specification Revision 3.0/2.0/1.1 compliant
- Provided in source code form

## Block Diagram



## Product Overview

Northwest Logic's Expresso Testbench emulates a Root Complex device enabling simulation of a PCI Express design.

This includes the following features:

- Root Complex master requests are generated using simple test control scripts. A basic set of test cases is included with the suite to generate standard PCI Express transactions including configuration, data transfers, DMA and interrupts.
- Automatic response to DUT master requests including providing completion responses.
- Modeling of Root Complex memory regions. These memory regions are used store data being send to and received from the DUT. The data in these memory regions can be automatically checked to insure proper operation.
- Performs Root Complex physical and data-link layer functions including error detection and correction
- Logging and display of transaction layer traffic on the PCI Express bus in a user-friendly format.

The fast setup and operation of the Expresso Testbench makes it easy for users to quickly and comprehensively perform simulations of designs which include the Northwest Logic PCI Express cores.

The Expresso Testbench is not a PCI Express full compliance suite. Northwest Logic recommends the use of the Avery Logic PCI-Xactor PCI Express Compliance Suite for ASIC validation.

The Testbench is compliant with PCI Express Base Specification Revision 3.0/2.1/ 1.1

### Product Deliverables:

- Testbench (Source Code) \*
- Documentation
- Expert Technical Support & Maintenance Updates

\* Except for Root Complex BFM