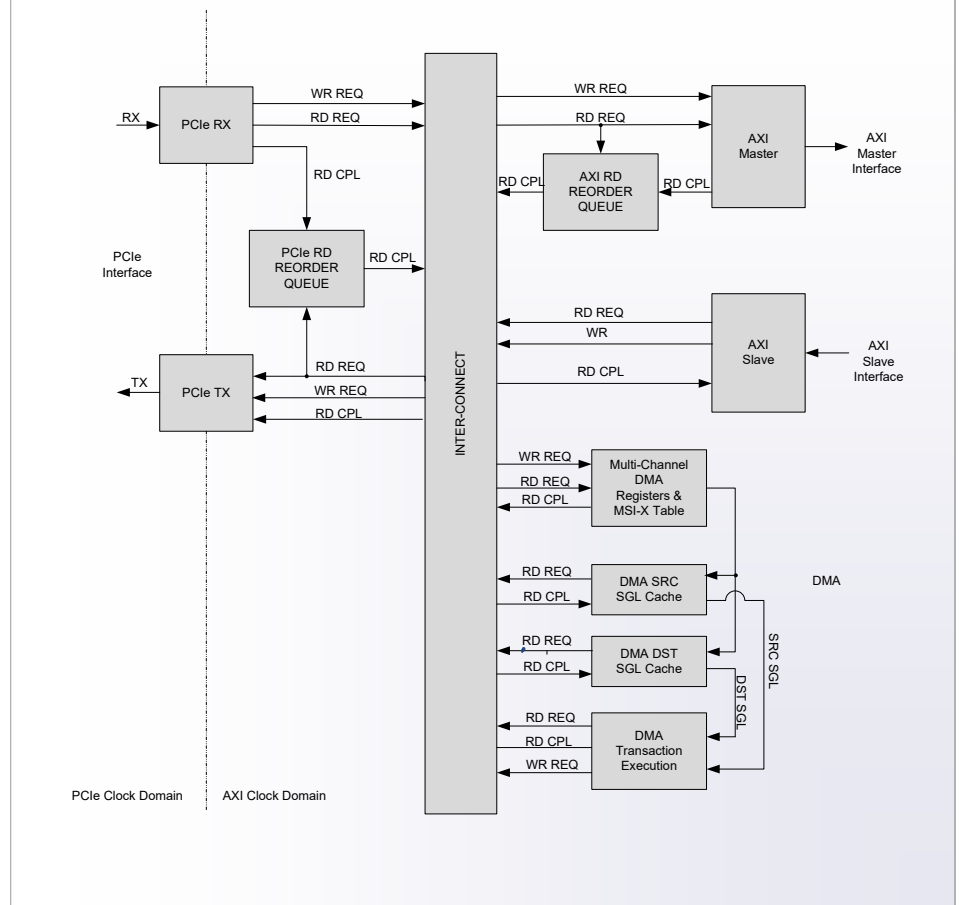## Product Highlights

- Provides high performance PCIe-AXI Bridge and/or scatter-gather DMA

- Works with Northwest Logic Expresso Cores and FPGA PCI Express hard cores

- Supports memory-mapped and streaming (FIFO) DMA operation

- Support for up to 1024 DMA Channels

- Supports Endpoint and Root Port applications

- Supports AXI data widths 32, 64,128 or 256-bit

- Supports PCIe Multi-Function and SR-IOV capability

- Fully hardware validated

- Companion Windows and Linux Expresso DMA Drivers available

- Provided with a PCI Express Testbench

- Delivered fully integrated with target PCI Express core

- Minimal ASIC gate count

- Source code available

- Customization and Integration services available

Block Diagram

Product Overview

The Northwest Logic Expresso DMA Bridge Core provides high-performance DMA and/or bridging between PCI Express and AXI for both Endpoint and Root Port applications.

Key features include:
- Provides high performance PCIe-AXI Bridge and/or scatter-gather DMA operation

- Works with Northwest Logic soft Expresso Cores and FPGA hard cores

- Provides complete Root Port Bridging support

- Supports memory-mapped/streaming (FIFO) DMA operation

- Can be configured with multiple DMA Channels which are independently controlled by software

- Provides Address translations and security support

- Supports legacy, MSI, MSI-X and local AXI interrupts

Using the core eliminates the need for the user to implement their own DMA and/or bridging design thus significantly reducing development time and risk.
In addition, Northwest Logic provides companion Windows and Linux Expresso DMA Drivers. The Expresso DMA Driver works hand-in-hand with the Expresso DMA Bridge Core.

Northwest Logic also provides board support packages for a wide variety of third party PCI Express boards. This support packages include a working FPGA design, Driver and GUI binaries. Contact Northwest Logic for more information.

Northwest Logic also provides IP Core customization services. Contact Northwest Logic for a quote.

Product Deliverables:
- Core (Netlist or Source Code)
- Testbench (Source Code)
- Complete Documentation
- Expert Technical Support & Maintenance Updates