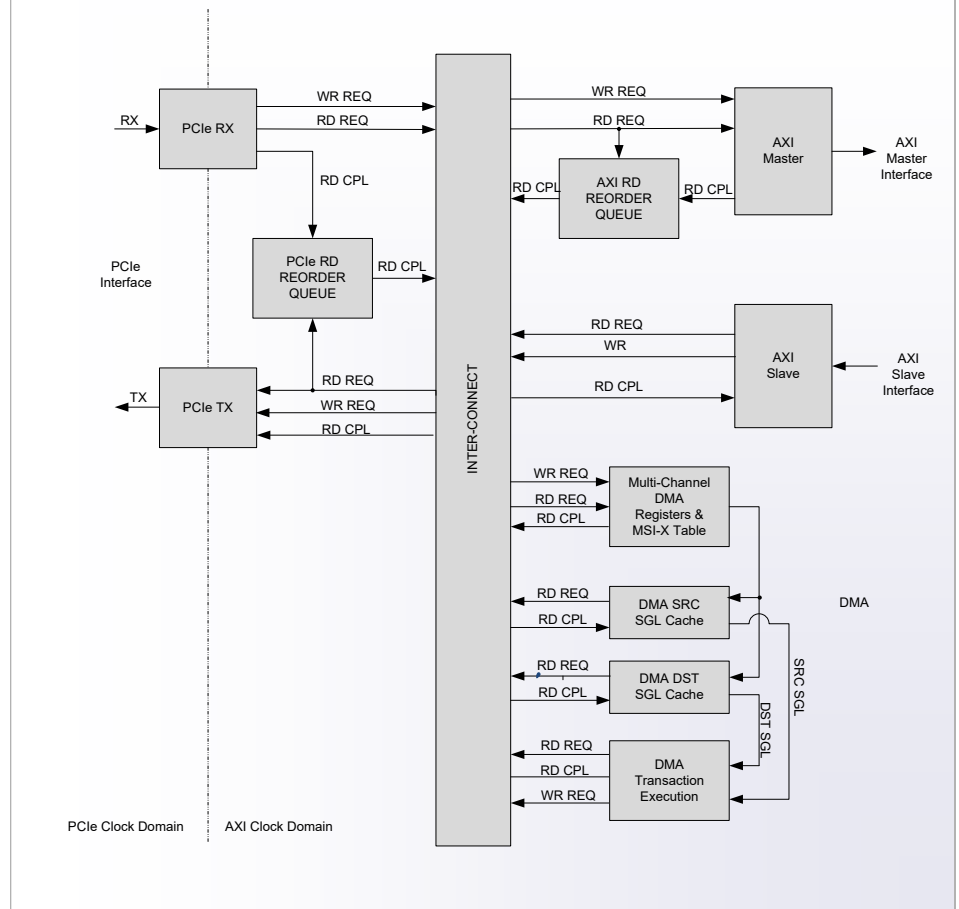


## Product Highlights

- Provides high performance, scatter-gather DMA operation
- Works with Northwest Logic Expresso Cores and FPGA PCI Express hard cores
- Support for up to 1024 DMA Channels
- Supports AXI Master and Slave interfaces of selectable data widths 32,64,128 or 256-bit
- Supports PCIe Multi-Function and SR-IOV capability
- Supports Endpoint and Root Port applications
- Supports legacy, MSI, MSI-X and local AXI interrupts
- 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 Core provides high-performance, scatter-gather DMA operation in a flexible fashion. This enables the core to be easily integrated and used in a wide variety of DMA-based systems.

Key features which contribute to this flexibility include:

- Works with Northwest Logic soft Expresso Cores and FPGA hard cores
- Can be configured with multiple DMA Channels which are independently controlled by software
- Supports PCIe Multi-Function and SR-IOV capability
- Supports DMA registers to be accessible from both PCIe and AXI interface
- Supports DMA scatter-gather list and completion Status Queue to be located either in PCIe or AXI memory
- Supports legacy, MSI, MSI-X and local AXI interrupts

Using the core eliminates the need for the user to implement their own DMA design 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 Core to implement scatter-gather DMA operation.

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