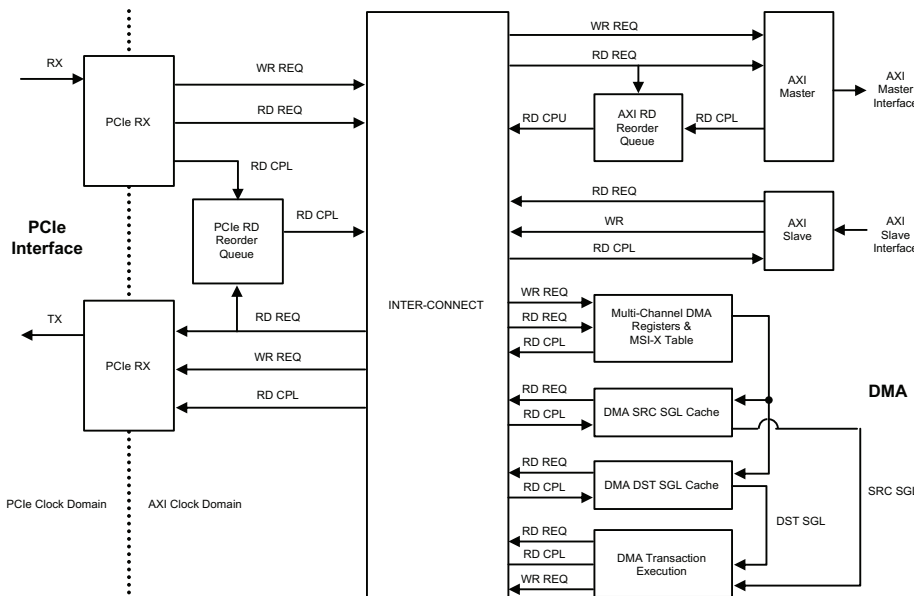


Expresso DMA Bridge Core

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

Expresso DMA Bridge Core Block Diagram



Highlights

- Provides high-performance PCIe-AXI Bridge and/or scatter-gather DMA
- Works with Northwest Logic Expresso cores and FPGA PCIe 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 32, 64, 128 or 256-bit data widths
- Supports PCIe Multi-Function and SRIOV capability
- Fully validated
- Windows and Linux Expresso DMA drivers available

Deliverables

- Core (source code)
- Testbench (source code)
- Complete documentation
- Expert technical support
- Maintenance updates

Overview

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.

The core provides high-performance PCIe-AXI bridge and/or scatter-gather DMA operation. It works with Northwest Logic Expresso cores and FPGA hard cores. It provides complete Root Port Bridging support, and supports memory-mapped/streaming (FIFO) DMA operation. It can be configured with multiple DMA channels which are independently controlled by software. The core provides address translations and security support. It supports legacy, MSI, MSI-X and local AXI interrupts.

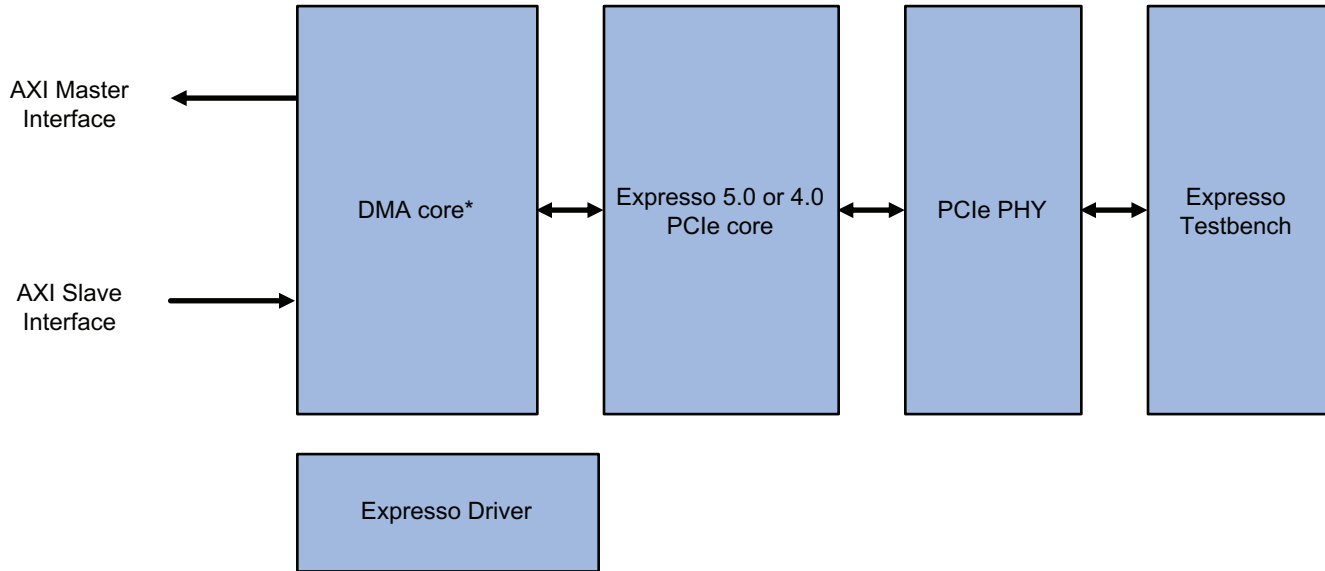
Using the core eliminates the need for the user to implement their own DMA and/or bridging design thus significantly reducing the development time and risk.

Companion Windows and Linux Expresso DMA drivers are available. The Expresso DMA Driver works hand-in-hand with the Expresso DMA Bridge core.

IP Core customization services are also available.



PCI Express Solution



*Options include the Expresso DMA Bridge core, DMA Back-End core or AXI DMA Back-End core

PCI Express Platform

Rambus, joined by the team at Northwest Logic, offers a complete solution for PCIe applications.

Features

- Provides high performance PCIe-AXI Bridge and/or scatter-gather DMA
- Works with Northwest Logic Expresso cores and FPGA PCIe 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 32, 64, 128 or 256-bit data widths
- Supports PCIe Multi-Function and SRIOV capability
- Fully validated
- Companion Windows and Linux Expresso DMA drivers available
- Provided with a PCIe Testbench
- Minimal ASIC gate count
- Source code available
- Customization and integration services available

rambus.com/controllers

