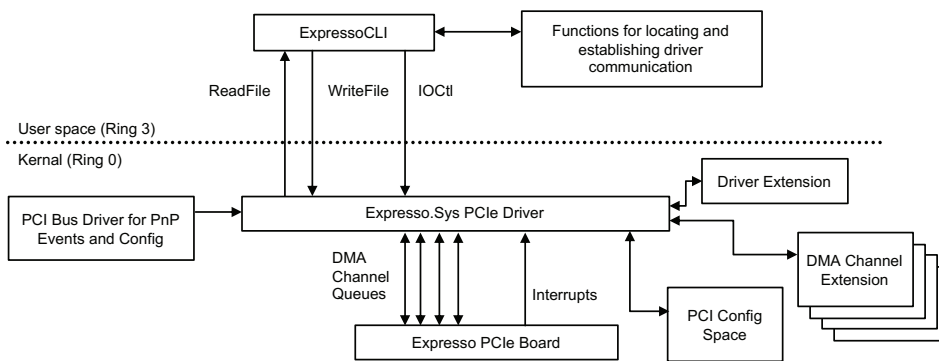


# Expresso DMA Driver

The Northwest Logic Expresso DMA Driver is specifically designed to be used with the Expresso DMA Bridge core. It supports all DMA modes supported by the Expresso DMA Bridge core. Together they provide a complete, pre-packaged, flexible DMA solution.

## Expresso DMA Driver Environment



## Highlights

- Works with Northwest Logic Expresso DMA Bridge core to provide high-performance, scatter-gather DMA operation
- Fully supports overlapped DMA operation
- Supports up to 1024 DMA channels
- Windows and Linux versions share common API
- Supports 32 and 64-bit system addressing
- Supports legacy, MSI, MSI-X and local AXI interrupts
- Performs parameter checking
- Quickly customized to create an application-specific driver
- Includes Command Line Interface (CLI) test application

## Deliverables

- Driver source code (C)
- Developer's guide
- Expert technical support
- Maintenance updates

## Overview

The Northwest Logic Expresso DMA Driver is specifically designed to be used with the Expresso DMA Bridge core. It supports all DMA modes supported by the Expresso DMA Bridge core. Together the driver and core provide a complete, pre-packaged, flexible DMA system.

The Expresso DMA Driver includes support for device registers and memory reads and writes, DMA read-and-write transfers, low-level performance statistics, PnP and Power Management events (Windows), and legacy, MSI and MSI-X interrupts.

The driver creates and manages descriptor chains in system memory. It then fetches and executes these descriptor chains.

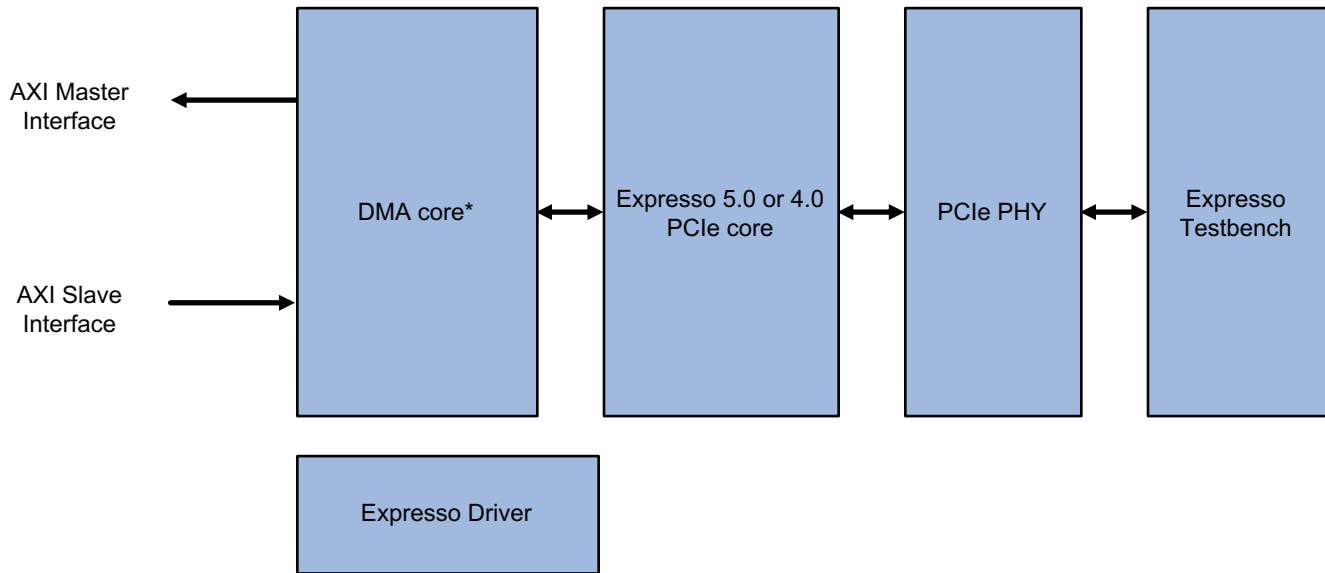
This approach enables the descriptor chain size to be maximized while minimizing the need for large descriptor memories in the Expresso DMA Bridge core.

Windows and Linux versions of the Expresso DMA driver have been designed for maximum API compatibility to facilitate application porting between Windows and Linux. A CLI test application is provided which can read and write large quantities of data, collect performance data, etc.

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

- Works with Northwest Logic Expresso DMA core to provide high-performance, scatter-gather DMA operation
- Fully supports overlapped DMA operation
- Supports up to 1024 DMA channels
- Windows and Linux versions share common API
- Supports 32 and 64-bit system addressing
- Supports legacy, MSI, MSI-X and local AXI interrupts
- Performs parameter checking
- Quickly customized to create an application-specific driver
- Includes Command Line Interface (CLI) test application
- Delivered as source code
- Customization and integration services available

[rambus.com/controllers](https://rambus.com/controllers)

