



Solution Includes:

- **Espresso Cores**
 - PCI Express 4.0, 3.0, 2.1 and 1.1 support
 - x16, x8, x4, x2, x1 including bifurcation support
 - Endpoint, Root Port & Switch support
 - Multi-Function and SR-IOV support
- **DMA Cores**
 - High-performance, multi-channel, scatter-gather DMA operation
 - FIFO and Memory mapped support
 - Supports host-based and local descriptors
 - AXI4/3 Interface support
 - Enables additional user ports to be easily integrated
- **DMA Drivers**
 - Manages DMA transfer to/from PC Memory
 - Windows and Linux support
 - Includes Command Line Interface (CLI) test application
- **Espresso Testbench**
 - Full-featured PCI Express Bus Functional Model

Key Features:

- **Complete Solution**
 - Includes complete PCIe and DMA support
 - Flexible PHY interface supports all PIPE compatible PHYs
 - Delivered fully integrated and verified with target PCIe PHY
 - PCIe standard compliant and PCI-SIG certified
 - Silicon proven
- **High Performance**
 - Supports full-duplex, scatter-gather DMA operation
 - Supports high-performance PCIe-AXI bridging
 - Provides maximum bandwidth across a wide range of applications
- **Easy-To-Use**
 - Simple interface, easy to configure, well-documented
- **Comprehensive Support**
 - ASIC, Structured ASIC and FPGA support
 - Expert technical support provided directly by designers
 - Integration and customization services available
 - Optionally integrated with Northwest Logic Memory Interface Solution