



Solution Includes:

- **Expresso Core**
 - PCI Express 3.0, 2.0 and 1.1 support
 - Endpoint & Root Port support
- **DMA Back-End Core**
 - High-performance, multi-engine DMA operation
 - Packet and Block transfer support
 - AXI4/3 Interface support
 - Enables additional user ports to be easily integrated
 - Supports Northwest Logic Expresso Cores and FPGA hard cores
- **Multi-Port Front-End & Memory Controller Cores**
 - High-performance, multi-port memory interface
 - Supports all standard DRAMs (DDR3/DDR2/DDR SDRAM, Mobile DDR/SDR SDRAM, RLDRAM II)
 - Enables additional user ports to be easily integrated
- **Expresso Testbench**
 - Full-featured PCI Express Bus Functional Model
- **DMA Driver**
 - Manages DMA transfer to/from PC Memory
 - Windows and Linux support
- **Expresso GUI**
 - Provides throughput characterization

Key Features:

- Enables high-performance, application-specific designs to be quickly and easily created
- Hardware validated and PCI-SIG certified
- PCI Express 3.0, 2.0 and 1.1 support
- Endpoint & Root Port support
- x1, x2, x4, x8 lane support
- Complete PHY support
 - ASIC PHYs (Vsemi, Snowbush, MoSys, etc.)
 - Integrated PHY FPGAs (Altera, Xilinx)
 - Discrete PHYs (NXP, Genesys Logic, TI)
- Minimal ASIC gate count
- Simple, easy-to-use interfaces
- Broad range of ASIC and FPGA platforms supported
- Source code available
- Provided with expert technical support
- IP Customization and Logic, Board, and Software Development services available
- Board support packages are available
 - Contact Northwest Logic for more information