PE310G4FA2I71

Silicom Programmable Application Accelerator SDI 40/10 Gigabit Servers Adapter

Product Description

Silicom Programmable Application Accelerator 40/10G Ethernet PCIe server adapter is based on a standard de facto Intel controller and an in-line FPGA accelerator engine.
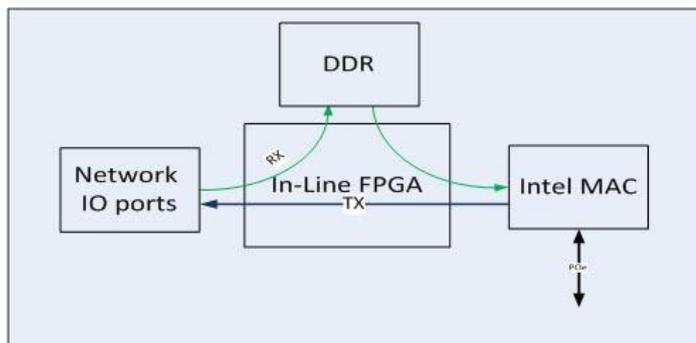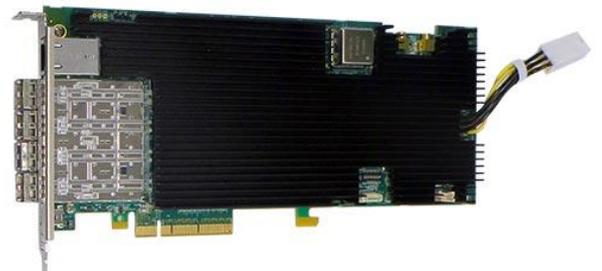
Silicom Programmable Application Accelerator enables customer to develop their own FPGA code.

Silicom as a basis provides a framework that enables to sustain peak receive burst data when the host CPU/Server is busy.

Silicom's Application Accelerator server adapters offer the simplest integration into any network application device due to their use of the standard Intel controllers.

Silicom's Application Accelerator server adapters are based on Intel market-leading controllers and includes dual support for Intel DPDK and SRIOV .

Silicom's 40/10G Ethernet PCI Express Application Accelerator server adapter are based on a standard Intel XL710AM1 controller, Silicom's FPGA Acceleration hardware engine and DDR3 on-board memory.

Silicom Application Accelerator functional block diagram

Key Features

- Open Application Accelerator SDI adapter: Enables customer to develop their own application.

- Large on-board DDR3 for Receive data packet buffer (Accelerator adapter supports up to 3.5GB, standard NIC, 4x64KB)

- Supports Intel DPDK

- Supports SR-IOV

- On-board Silicom FPGA Accelerator Engine

- Based on a standard Intel MAC controller using all its features

- Supports in-line rate packet processing for any packet size

- Simplest logic programmable FPGA

- Programmable memory management with adaptive memory watermarks to minimize PCI transactions

- Programmable block-size packet transactions

- Silicom Open Platform Architecture, customer logic can be added

- Simplest application accelerator NIC solution

- Lowest-power application accelerator NIC

- Variety of SKUs available to support applications:

  o   4x10G IO, 4x10G host

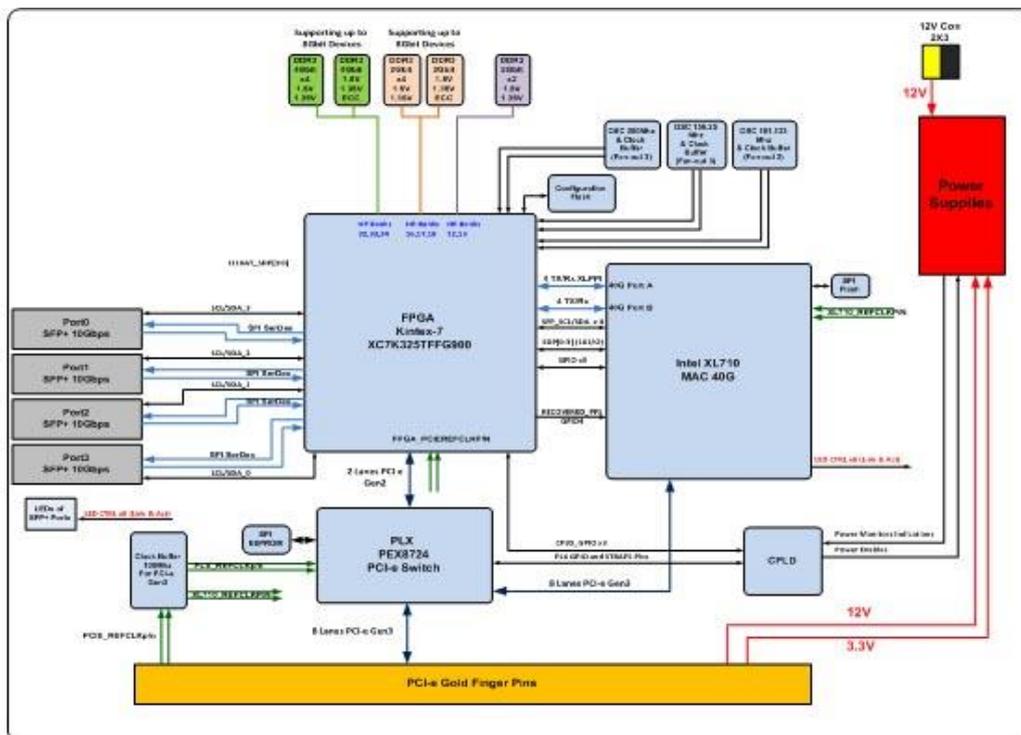## Technical Specifications

Advantages:

Price/Performance ratio: lowest- cost Application Accelerator solution on the market.

Simplest and highly mature architecture leading to highest reliability.

Not sensitive to roadmap development: roadmap easily follows the roadmap of Intel's controllers.

Intel Networking solution and drivers: seamless integration with the customer's OS and application.

Vendor-independent solution: no need to have a "one vendor locked" solution.

General Technical Specifications:	
Interface Standard:	PCI-Express Base Specification Revision X8 / Gen 3.0 (8GT/s)
Board Size:	Standard height : 241.3 x 111.15mm (9.5" x 4.376")
Controller:	Intel XL710AM1
HW Accelerator Engine:	Xilinx XC7K325TFFG900
On Board Memory packet buffer:	DDR3: 2GByte on HP (packet data), 1.5 GB on HR. (user application)
Operating system support:	Linux FreeBSD

Order Information

P/N	Description	Notes
PE310G4FA2I71-XR	Quad Port Fiber 10 Gigabit Ethernet PCI Express Application Accelerator Server Adapter	X8 Gen3, Based on Intel XL710AM1 w/ Accelerator Engine, 9.5″ long standard height 4x10G -> 4x10G Independent ports
PE340G1FA3QI71-QX4	QSFP+ 40 Gigabit Ethernet PCI Express Application Accelerator Server Adapter	X8 Gen3, Based on Intel XL710AM1 w/ Accelerator Engine, 9.5″ long standard height 40G -> 40G

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