

**::NEW PRODUCT**

# Nallatech **250S+**

**Directly Attached Accelerator (DAA)  
Proxy In-Line Accelerator (PIA)**

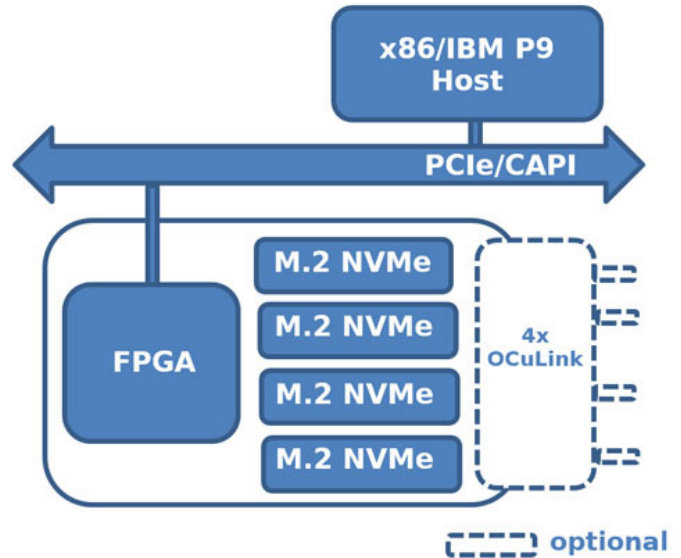


**XILINX**

**The 250S+ is a fully-programmable NIC-sized near-storage accelerator featuring a Xilinx Kintex + FPGA.**

This PCIe Gen 4-capable accelerator card can be added to PCIe or CAPI-enabled server platforms introducing an energy-efficient acceleration capability for applications including:

- Database Acceleration
- In-line Compression/Encryption
- Checkpoint Restarting
- Burst Buffer Caching



The 250S+ is available with a choice of two configurations: up to four M.2 NVMe SSDs coupled on-card to the Xilinx FPGA, or OCuLink break-out cabling allowing the 250S+ to be part of a massively scaled storage array.



**Fully Programmable, Inline Storage FPGA Accelerator  
with on-card M.2 NVMe SSD**

**VIVADO**  
HLx Editions

» **Accelerating High Level Design**

- Vivado HLx Editions supply design teams with the tools and methodology needed to leverage C-based design and optimized reuse
- Includes IP sub-system reuse, integration automation and accelerated design closure
- When coupled with the UltraFast™ High-Level Productivity Design Methodology Guide, this unique combination is proven to accelerate productivity
- It enables designers to work at a high level of abstraction while facilitating design reuse

**Nallatech**  
a **molex** company

## FPGA Accelerator Card

### Form Factor

- » Half-Height, Half-Length PCI Express card
- » Dimensions: 167.7 mm x 68.9 mm
- » Single or Double-Width options
- » Full-Height PCI bracket options

### Host Interface

- » 8-lane PCI-Express Gen 4.0 capable
- » Actual performance is host computer chipset and operating system dependent

### Processing

- » Xilinx Kintex UltraScale+ FFVA1156 package
- » Default configuration: KU15P
- » Core speed grade -2
- » Contact Sky Blue or Zerif for other FPGA options

### DDR4 SDRAM Memory

- » One bank of DDR4 SDRAM x 80 bits
- » 4GB per bank (8GB version also available)
- » Transfer Rate: 2400 MT/s

### Application Development

- » Vivado Design Suite HLx Editions:  
HDL and C/C++ with HLS
- » OpenPOWER CAPI SNAP 2.0 for POWER9

### Electrical

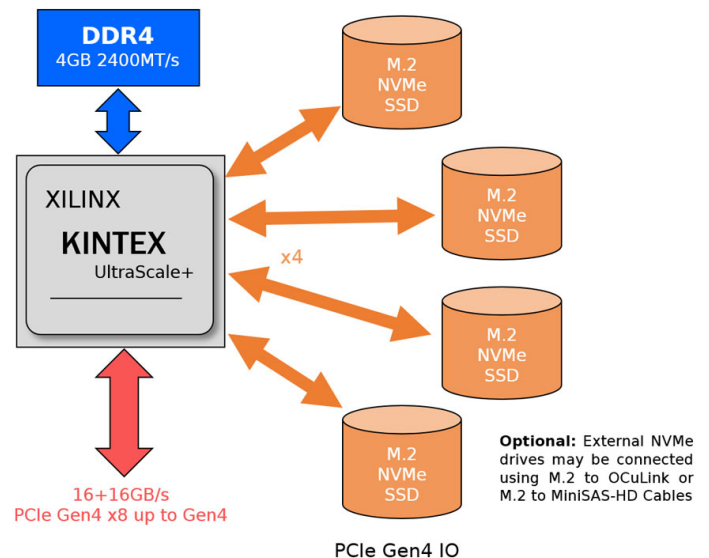
- » On-card power derived from PCIe slot supplies
- » Power dissipation is application dependent
- » Typical FPGA power consumption ~25-50W
- » Card designed to deliver up to 75W power consumption

### Quality

- » Manufactured to ISO9001:2008 IPC JSTD-001 -Class III
- » RoHS compliant

### Power Supply Monitoring & Reporting

- » Voltage monitoring
- » Temperature monitoring
- » Fault condition reporting to FPGA



### Storage Options

- » Four on-board 960GB NVMe SSD sticks
- » Four on-board 1.92TB NVMe SSD sticks
- » Four OCuLink cables
- » Four MiniSAS-HD cables

### Cooling

- » Single-width passive heatsink for FPGA power up to 25W
- » Double-width passive heatsink for FPGA power up to 50W

### Environmental

- » Cooling: Air convection
- » Operating temperature: 5°C to 35°C

### Deliverables

- » 250S+ FPGA card
- » Built-In-Self-Test (BIST)
- » 1 year access to online support lounge
- » 1 year hardware warranty

**Customization:** Technical specifications (e.g. FPGA type, size, external memory capacity, single width card solution etc.) can be modified to meet the exact needs of commercial customer applications as off-the-shelf product available to the general market.

**Application optimization:** Sky Blue and Zerif provides consultancy services assisting customers in the porting, optimization and benchmarking of applications executed on Nallatech FPGA accelerators.

### Contact



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