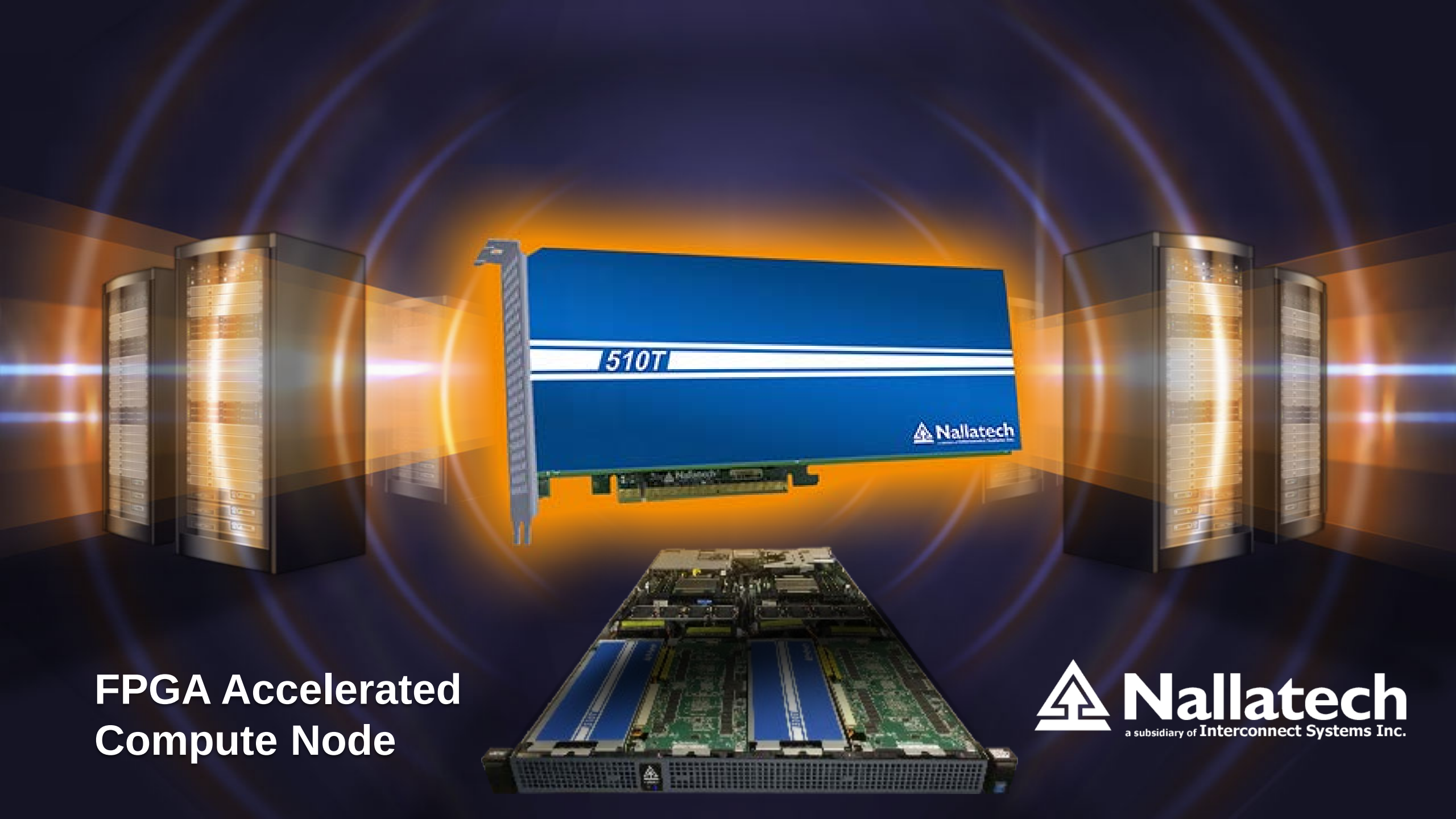


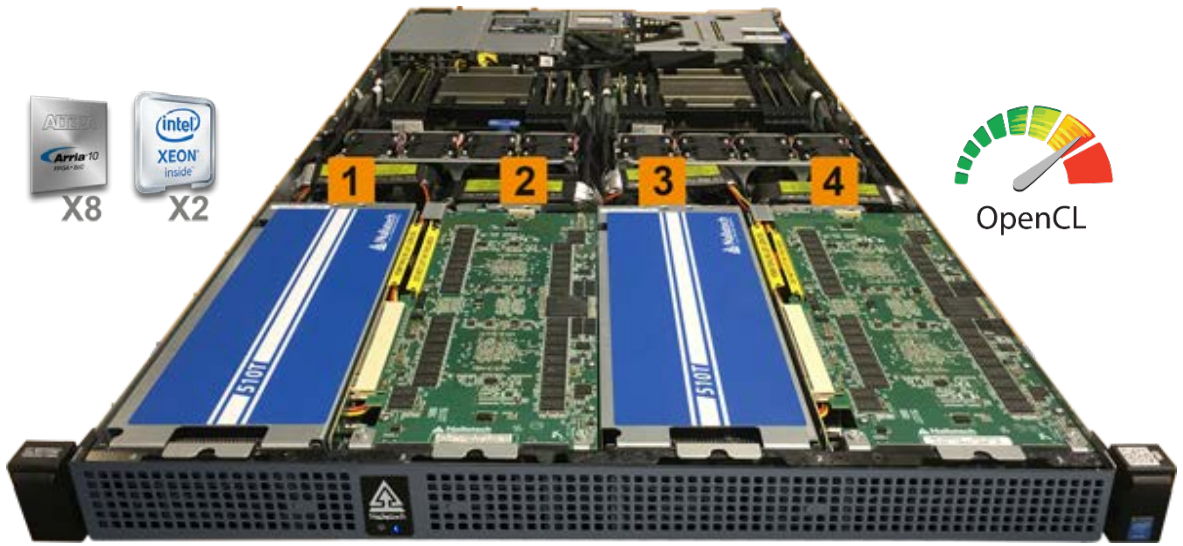
FPGA Accelerated Compute Node

Nallatech
a subsidiary of Interconnect Systems Inc.

FPGA Accelerated Compute Node

Maximize Acceleration – Increase Efficiency – Save Time

The **Nallatech FPGA Accelerated Compute Node** allows you to drive the most demanding HPC, data visualization and rendering workloads with a flexible, extremely dense 1U rack server optimized for accelerators. This new product is made possible with a powerhouse partnership of integrated technologies from Altera / Intel, Dell and Nallatech to create a reliable, extremely fast and scalable server to provide the ideal HPC environment.



Node Features:

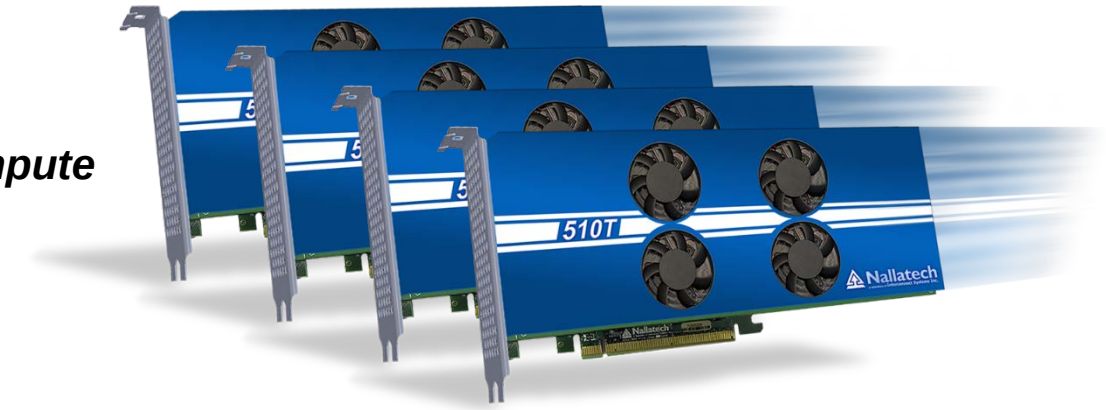
- High Density 1U Rack Server Optimized for Energy-Efficient FPGA Acceleration
- (4) Nallatech 510T Cards with (8) Latest-Generation Altera / Intel Arria 10 FPGAs
- **OpenCL** Programming Support
- Nallatech Application Optimization and Custom Configurations Available

Node Benefits:

- Rich Blend of Processor, FPGA and Memory Resources Provides Ultimate Platform for FPGA Accelerated Computing
- Dense Form-Factor Provides Datacenter Scalability
- System, Power and Thermal Management so you can Focus on Application Development Instead of System Integration

Nallatech 510T Main Features:

510T ***Extreme Compute Acceleration***



FPGA Resources

- (2) Arria 10 1150 GX FPGAs delivering up to 2.8 TeraFLOPs
- 1.8X more FPGA resources than previous generation devices
- Best performance per computing Watt

Host Interface

- PCIe Gen3 x16

Memory

- Up to 290 GBytes/s Peak Aggregate Memory Bandwidth
  - 32GB and 85GB/s Peak DDR4 Memory Bandwidth per FPGA
  - 30GB/s Write + 30GB/s Peak Read HMC Bandwidth per FPGA

Programming Environment

- Altera Quartus Prime Pro design software
- OpenCL SDK provides an industry-standard parallel programming
- environment for much faster and higher level software development flow

Form Factor

- Standard Full-Height, ¾-Length, double-width PCIe card with passive heatsink

Server Main Features

Processor

- Up to 2x Intel® Xeon® Processor E5-2600 v3 Product Family

Memory

- 16 x DDR4 DIMM slots
- Up to 256GB maximum memory

Storage

- Up to 2 x 1.8” SATA SSD boot drives
- Optional data drive tray supports up to 4 x 2.5” SAS/SATA drives
- Optional 12Gb/s SAS and 6Gb/s SATA (with PERC9 card)

Dimensions

- Height: 4.31 cm (1.69 in)
- Width: 43.93 cm (17.29 in) without rack latches
- Depth: 88.58 cm (34.87 in) back of rack latch to rear wall

Comprehensive Solution

Scalability

Industry standard, enterprise class hardware permits scaling from node to rack to datacenter with comprehensive support and warranty.

System Management

Nallatech Management Library (NML) is a C-based API for monitoring and managing Nallatech FPGA Accelerator Nodes through a dedicated USB-based control channel, providing access to health parameters including:

- Ambient Temperature
- FPGA Temperature
- Overall Power Consumption
- Power Supply Status

Application Support & Design Services

Nallatech offers 20+ years of experience in helping customers achieve optimum performance with FPGA technology

- System Architecture
- Software / Firmware / Hardware Design
- OpenCL Optimization
- Full Application Ports from Software to FPGA
- Specialist in Data-Centric Computing

Engaging with Nallatech

Learn more about our FPGA Accelerated Compute Nodes

Contact Nallatech to discuss any potential customer engagements:

» Cristina Claxton
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