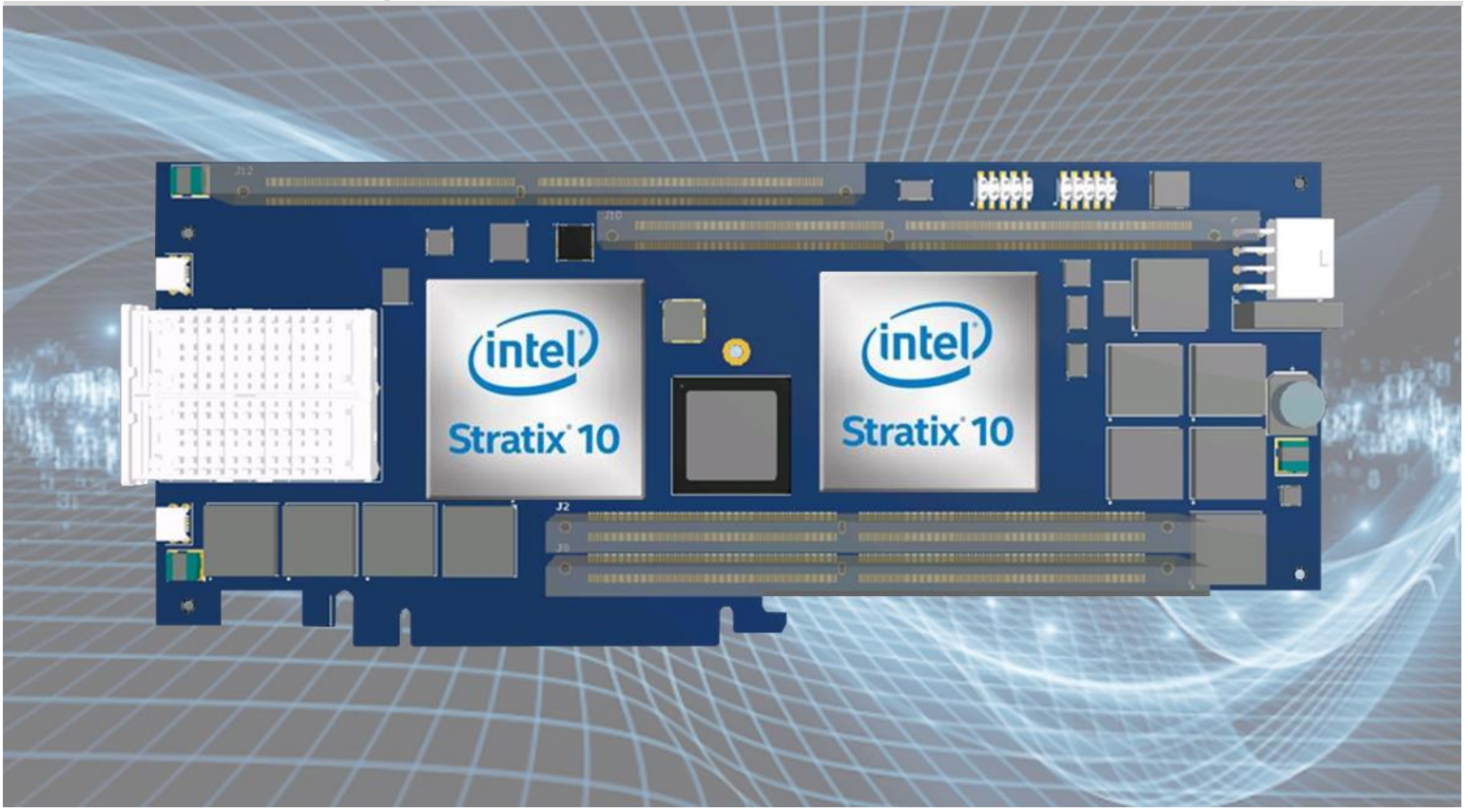
XhpcN-DS10

eXtreme High Performance Compute Node - Dual Stratix



Product Capabilities

From Data Ingestion to Model & Simulation, from Radar Processing to Computational Finance, and from Cyber Security to Edge Analytics, the Dual Stratix 10 eXtreme High Performance Compute Node (XhpcN-DS10) is the most versatile and highest performing FPGA Accelerator card about to hit the market!

The XhpcN-DS10 is designed to take on today's data-intensive computing problems by incorporating two of Intel's revolutionary Stratix 10 FPGAs, massive amounts of DDR4 and plenty of high speed I/O. With the OpenCL support included in the Board Support Package (BSP), the XhpcN-DS10 can now be easily programmed without the need to dive down into complicated Verilog or VHDL code.

Features

- Dual Intel Stratix 10 FPGAs
- Up to 520 GB DDR4 (260 GB per FPGA)
- QSFP + 40/100GbE
- PEX PCIe x16 Gen 3
- Altera MaxV CPLD
- Freescale K61 Microcontroller
- GPU-sized PCIe Form Factor

ALTERA now part of Intel

OpenCL

ARM POWERED

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XhpcN DS10

XhpcN-DS10

Configurations

Model Number	Configuration
XhpcN-DS10	Dual Stratix 10
XhpcN-S10	Single Stratix 10

Specifications

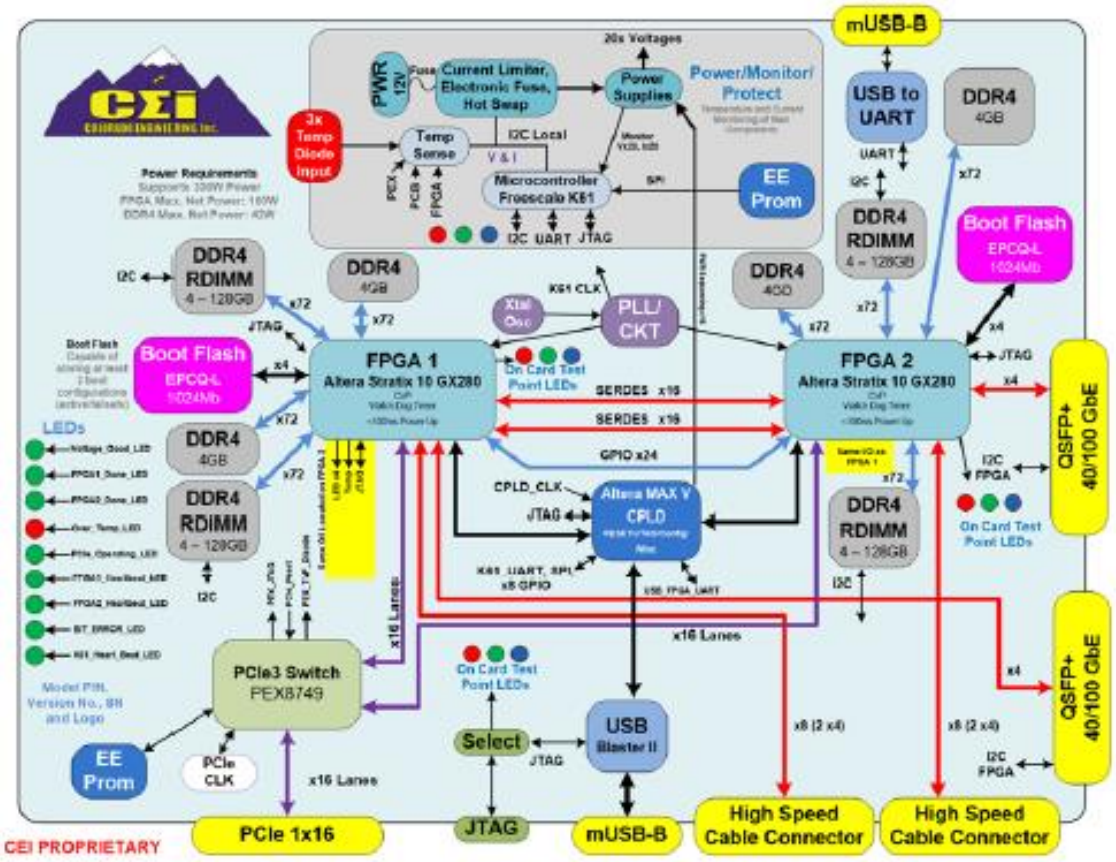
Stratix 10 FPGA
- GX280UF50
- 96 XCVR
- 1160 User I/O
- 2.8M Logic Elements
- 11,520 18x19 Multipliers
- Quad-core 64 bit ARM Cortex-A53
- 50 GB/s FPGA-to-FPGA

DDR4 RAM
- 4 GB Discrete
- 4x RDIMM – 512 GB Max
- 2400 MT/s
- 19.2 GB/s

I/O
- 40/100 GbE QSFP+ (25 Gbps x4)
- mUSB—B
- High Speed Cable Connector (Optional) -x8 SerDes (18 Gbps x4)

Power/Monitor/Protect/Config
- Freescale K61 mController
- Altera Max V CPLD
- 1024 Mb Boot Flash per FPGA

Applications
- Communications
- Computing
- Military
- Broadcast
- Medical
- Test & Measurement



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8/17/2016