

# XhpcN-DS10

eXtreme High Performance Compute Node - Dual Stratix 10



### **Product Capabilities**

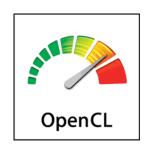
From Data Ingestion to Model & Simulation to Radar Processing to Computational Finance to Cyber Security to Edge Analytics, the Dual Stratix 10 eXtreme High Performance Compute Node (XhpcN-DS10) is the most versatile and highest performing FPGA Accelerator card to hit the market!

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 264 GB DDR4 (132 GB per FPGA)
- QSFP+40/100GbE
- PEX PCle x16 Gen 3
- Altera Max10 FPGA
- Freescale K61 Microcontroller
- GPU sized PCle Form Factor





#### **Contact Us**

1915 Jamboree Dr., Suite 165 Colorado Springs, CO 80920 (719) 388-8582 sales@coloradoengineering.com www.ColoradoEngineering.com





## Specifications

## XhpcN-DS10

## Configurations

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

### 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
- 139 GB/s FPGA-to-FPGA
- Memory Bandwidth: 19.2 x 8 = 153.6 GB/s

### **DDR4 RAM**

- 4 GB Discrete
- 4x RDIMM 264 GB Max
- 2400 MT/s
- 19.2 GB/s

### 1/0

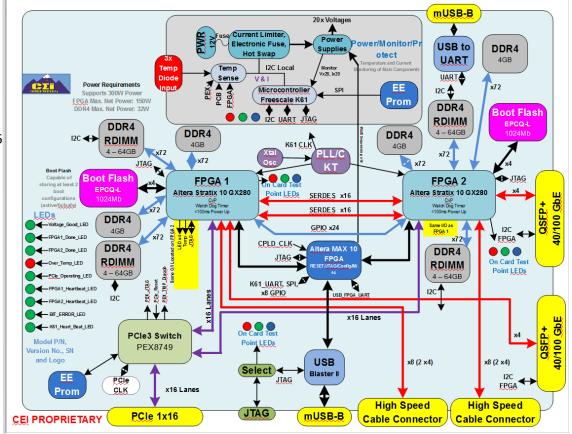
- 40/100 GbE QSFP+ (25 Gbps x4)
- mUSB-B
- High Speed Cable Connector (Optional) - x8 SerDes (18 Gbps x4)

### Power/Monitor/Protect/Config

- Freescale K61 mController
- Altera Max10 FPGA
- 1024 Mb Boot Flash per FPGA

### **Applications**

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



### **Custom Solutions Available!**



PLATINUM 2016

Are you looking for custom hardware, software, sensor or mechanical design support? Colorado Engineering Inc. (CEI) has been developing world class technology since 1990. We are proud to be Platinum member of Altera's Design Services Network. Please contact Sales@ColoradoEngineering.com to find out how we can help you be successful with your next design project!

#### **Contact Us**

1915 Jamboree Dr., Suite 165 Colorado Springs, CO 80920 (719) 388-8582 sales@coloradoengineering.com www.ColoradoEngineering.com

