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 PCIe x16 Gen 3
- Altera Max10 FPGA
- Freescale K61 Microcontroller
- GPU sized PCIe Form Factor

OpenCL
XhpcN-DS10

Configurations

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>XhpcN-DS10</td>
<td>Dual Stratix 10</td>
</tr>
<tr>
<td>XhpcN-S10</td>
<td>Single Stratix 10</td>
</tr>
</tbody>
</table>

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
- 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

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 Max10 FPGA
- 1024 Mb Boot Flash per FPGA

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

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

Custom Solutions Available!

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!