

AC-520

Arria 10 FPGA with Hybrid Memory Cube

OVERVIEW



The AC-520 advances our unique modular architecture with Micron’s high-bandwidth Hybrid Memory Cube (HMC) and an Altera Arria 10 FPGA. Up to three AC-520 modules can be snapped onto Pico Computing’s full-length PCIe backplanes (with up to eight backplanes in a 4U chassis), filling a single PCIe slot with a tremendous amount of parallel processing density for compute-intensive/memory-bound applications. Equally important, the AC-520, which includes the HMC controller IP, provides an inexpensive entry point for HMC, making evaluation easy and straightforward. And now with support for OpenCL, any software developer can exploit this transformative combination of technologies to accelerate the most demanding workloads—and with the most efficient and cost-effective performance/watt profile available. Moreover, we’ve done all the interface and configuration automation work so you don’t have to; our firmware, API, and other tools let you get started right away.

SPECIFICATION SUMMARY

- Altera Arria 10 GX1150 FPGA
- Hybrid Memory Cube:
 - 2GB or 4GB
 - Four half-width (x8) links with 15Gb/s transceivers
- HMC bandwidth: up to 120 GB/s
 - Each half-width (x8) link provides up to 30 GB/s (RX and TX combined)
- 16GB DDR4 SODIMM
- PCIe: Gen 3 x8
- OpenCL support
- Easy design framework with simple FPGA bitstream loading from Host
- Complete suite of analytics tools

