

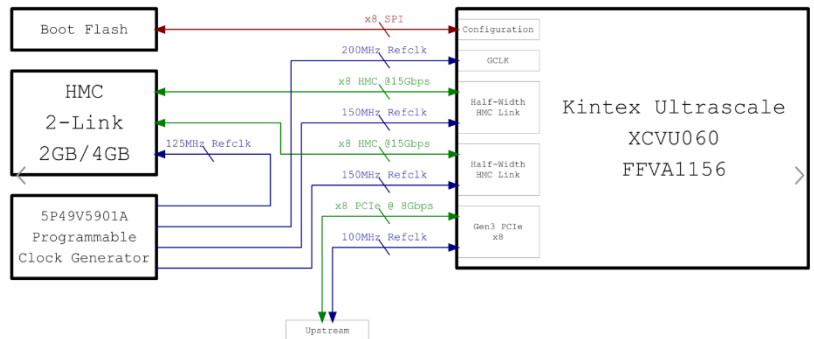
# AC-510

## UltraScale FPGA with Hybrid Memory Cube



### OVERVIEW

The business card-sized AC-510 advances our unique modular architecture with Micron’s high-bandwidth hybrid memory cube (HMC) and a Xilinx UltraScale FPGA. Up to six AC-510 modules can be snapped onto Pico Computing’s full-length PCIe backplanes (and up to eight backplanes in a 4U chassis), filling a single PCIe slot with a groundbreaking level of parallel processing density for compute-intensive/memory-bound applications. Equally important, the AC-510, 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. Also included is a complete suite of analytics tools.



### SPECIFICATION SUMMARY

- Kintex UltraScale 060 FPGA
- Hybrid Memory Cube:
  - 2GB or 4GB
  - 2x half-width (x8) links with 15Gb/s transceivers (supporting local bus at 375MHz)
- Bandwidth: up to 60 GB/s
  - Each half-width (x8) link provides up to 30 GB/s for both RX and TX
- PCIe: x8 Gen 3 PCIe Upstream
- OpenCL support
- Easy design framework with simple FPGA bitstream loading from Host

