Micron® AC-511 Compute Module:
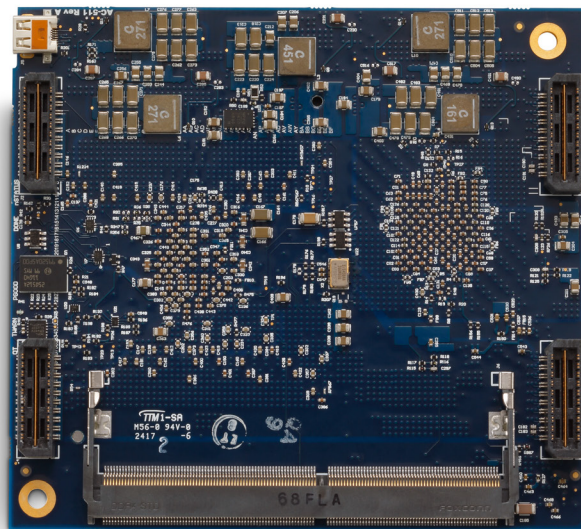# Micron Hybrid Memory Cube and DDR4 Memory with Xilinx Virtex UltraScale+ FPGA

The AC-511 advances our unique modular architecture with our high-bandwidth Hybrid Memory Cube (HMC) and a Xilinx® Virtex UltraScale+™ FPGA.

Up to three AC-511 modules can be snapped onto Micron's Advanced Computing Solutions (ACS) full-length PCIe® backplane (up to eight backplanes in a 4U chassis), filling a single PCIe slot with parallel processing density for compute-intensive/memory-bound applications. Support for OpenCL enables software developers to easily use this transformative combination of technologies to accelerate the most demanding workloads—with the most efficient and cost-effective performance-per-watt profile available.

With these compute modules, all the interface and configuration automation work is done for you—Micron's firmware, API, HMC controller IP, and complete suite of analytics and other tools lets you get started right away.
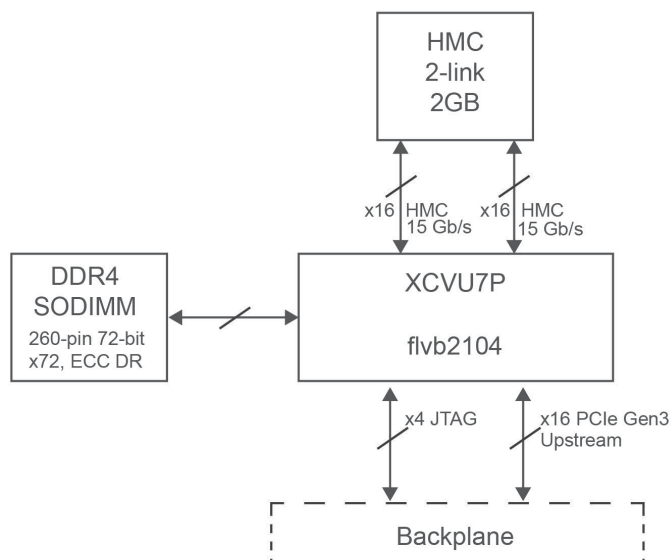
Product Overview

- Micron Hybrid Memory Cube (HMC)
  - 2GB
  - 2 full-width (x16) links with 15 Gb/s transceivers (supporting local bus at 375 MHz)
  - Each full-width (x16) link provides up to 60 GB/s for both reads and writes
  - Total bandwidth up to 120 GB/s (reads and writes)
- Xilinx UltraScale+ VU7P or VU9P FPGA

- Micron DDR4
  - 16GB ECC SODIMM PC4-2166
- PCIe x8 Gen3 Upstream
- OpenCL support
- Easy design framework with simple FPGA bitstream loading from host

Micron's AC-511 (Back)

Configuration

HMC
2-link
2GB

x16 | HMC 15 Gb/s   x16 | HMC 15 Gb/s

DDR4
SODIMM

260-pin 72-bit
x72, ECC DR

XCVU7P

flvb2104

x4 JTAG   x16 PCIe Gen3 Upstream

Backplane

Truly Scalable

Our flexible architecture and powerful development framework make accelerated computing technology easy to use.

With our modular and highly scalable architecture, system upgrades are as easy as snapping new modules into our PCIe backplanes or adding more fully populated backplanes to a chassis.

Contact Us

For more information on Micron's advanced computing solutions, go to micron.com/acs.

Or contact us directly at:
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micron.com

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