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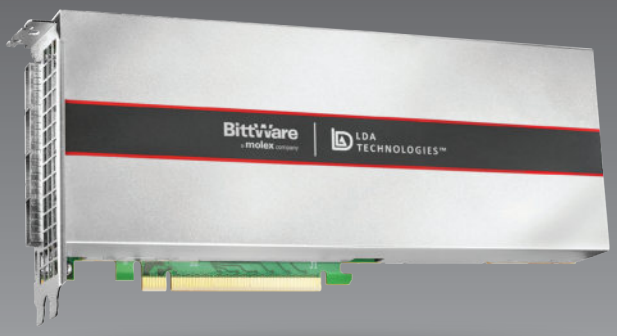
AV-860h

PCIe Adaptive SoC Card



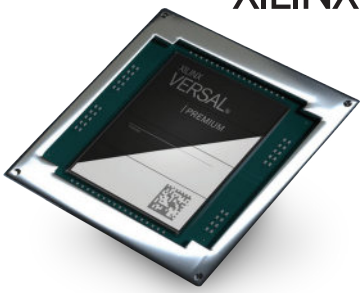
LDA

Versal™ Premium Adaptive SoC Card

32GB HBM, High-Speed I/O, and PCIe Gen5

Brought to market in partnership with LDA Technologies, the AV-860h is a PCIe Gen5 accelerator card designed to deliver extreme performance for data center and edge compute workloads. Featuring AMD Xilinx®'s Versal Premium Adaptive SoC with 32GB of HBM memory, the AV-860h is a deployment-ready full height, ¾ length PCIe accelerator compatible with high-performance servers. The card features a high-speed I/O expansion with 64 SerDes channels, PCIe Gen5 x8, and a sophisticated Board Management Controller (BMC) for advanced system monitoring and control.

AMD XILINX

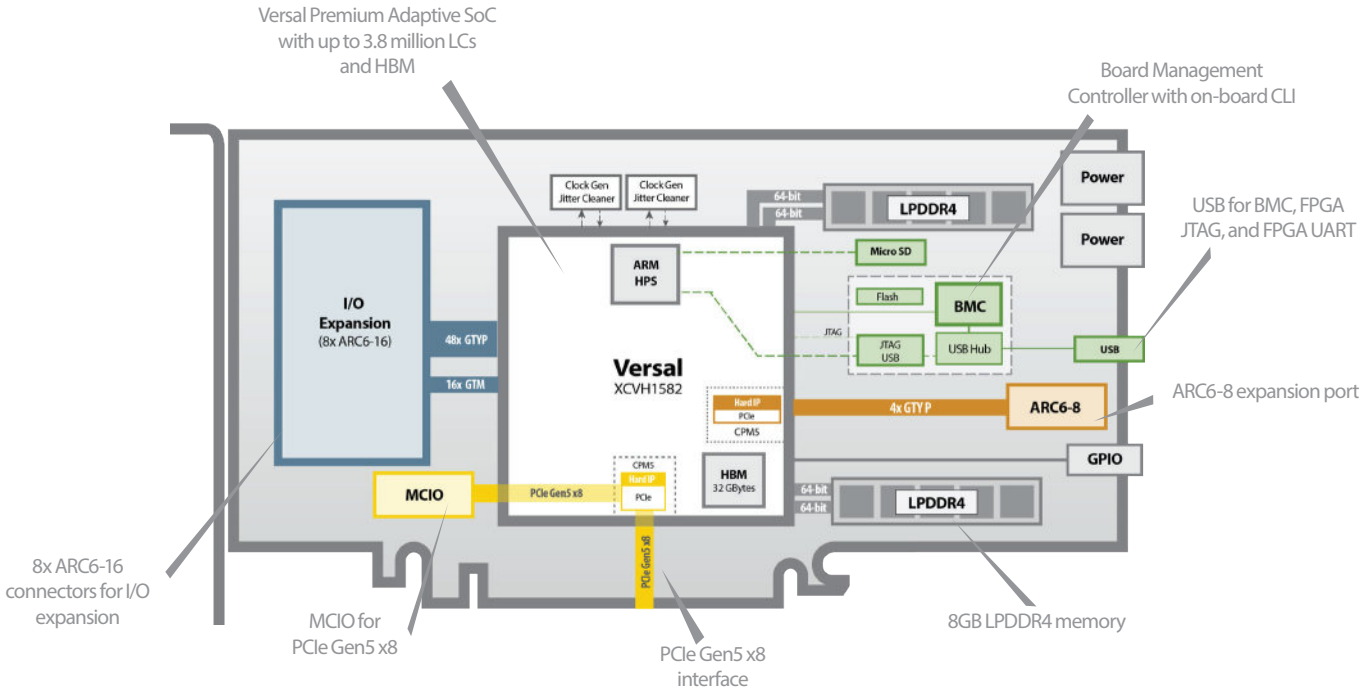


key features

32 GB HBM and **64GB LPDDR4**

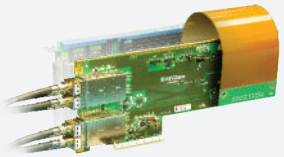
PCIe Gen5 x8

Versal Premium with up to **3.8M Logic Cells**



Additional Services

Take advantage of BittWare's range of design, integration, and support options

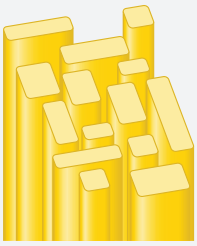


Customization

Additional specification options or accessory boards to meet your exact needs.

Server Integration

Available pre-integrated in our TeraBox servers in a range of configurations.



IP and Solutions

Our portfolio of IP and solutions reduce risk for development and deployment.

Service and Support

BittWare Developer Site provides online documentation and issue tracking.

Board Specifications

Adaptive SoC	• Versal Premium
	  • XCVH1582
	  • Core speed grade - 2
	  • 32 GB HBM

On-board Flash	• Flash memory for booting FPGA
External memory	• 32GB LPDDR4 @ 4266MHz -or- 64GB LPDDR4 @ 3733MHz
Host interface	• PCIe x8 Gen5 interface direct to FPGA, connected to PCIe Hard IP

I/O Expansion	• 8x ARC6-16 connectors for I/O expansion
	• Connected to FPGA via 64x SerDes channels
	  • 48x GTYP
	  • 16x GTM

ARC6-8	• ARC6-8 connector connected to FPGA via 4x SerDes channels
Clocking	• 2x Jitter cleaners for network recovered clocking
USB	• USB access to BMC, USB-JTAG, USB-UART
Board Management Controller	• Onboard CLI • Python, C++ API • 200 Mbps parallel port connected to the FPGA fabric and the NOC • USB SD Card Reader for simple OS images transfer to ARM processors • Fast FPGA Boot Flash programming • Temperature, voltage, current monitoring • SNMP agent for centralized management • Dedicated preprogrammed array of 32 MAC addresses • I/O ports monitoring. Full QSFP, SFP, QSFP-DD access • and programming through CLI and API • CLI-based clock selection supporting custom clock configurations
Cooling	• Standard: dual-width passive heatsink
Electrical	• On-board power derived from 12V PCIe slot and 2x AUX connectors • Power dissipation is application dependent
Environmental	• Operating temperature 5°C to 35°C
Form factor	• ¾-length, standard-height PCIe dual-width board • 10 x 4.37 inches (254 x 111.15 mm)

Development Tools

Application development	Supported design flows -Vivado Design Suite (HDL, Verilog, VHDL, etc.)

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BittWare a molex company

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