FUTURE Design Systems

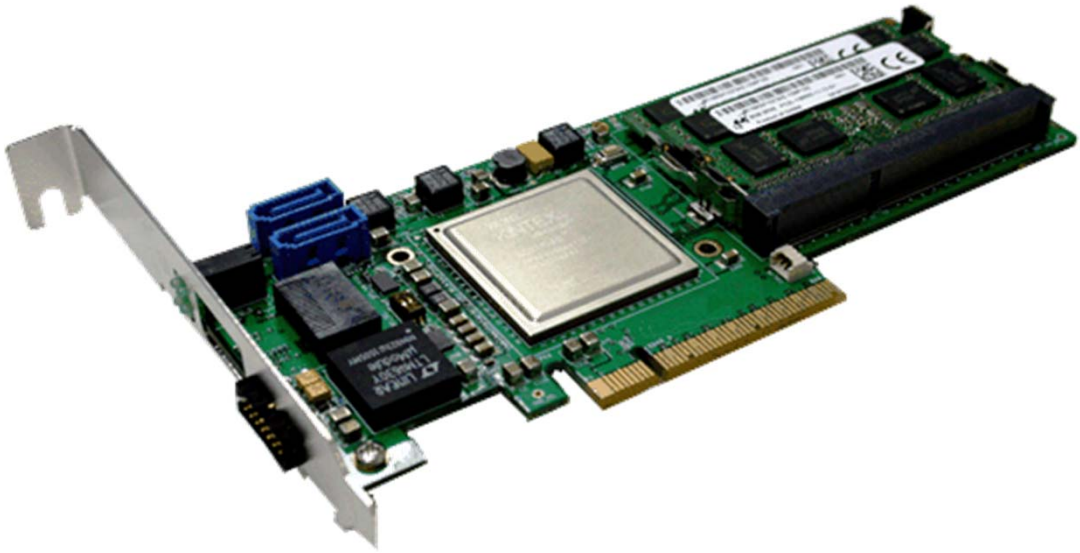
DeepAccel-KU

Preliminary

Xilinx Kintex UltraSCALE with PCIe

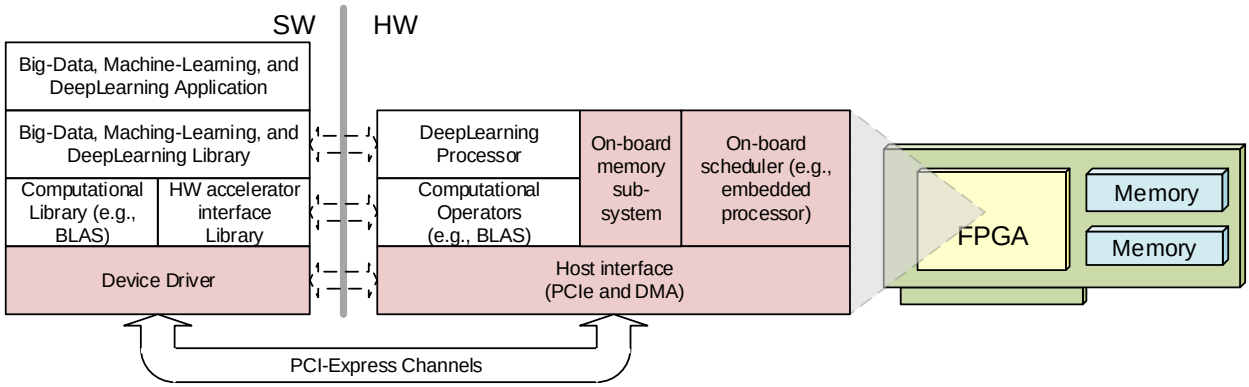
Overview

- DeepAccel-KU is an FPGA board with Xilinx Kintex UltraSCALE.
- DeepAccel-KU supports dual DDR3-72-bit SODIMM with ECC.
- DeepAccel-KU complies with PCI-Express Low Profile.
- DeepAccel-KU supports PIC-Express Gen3 with 8 lanes.
- DeepAccel-KU has SATA and SAS.

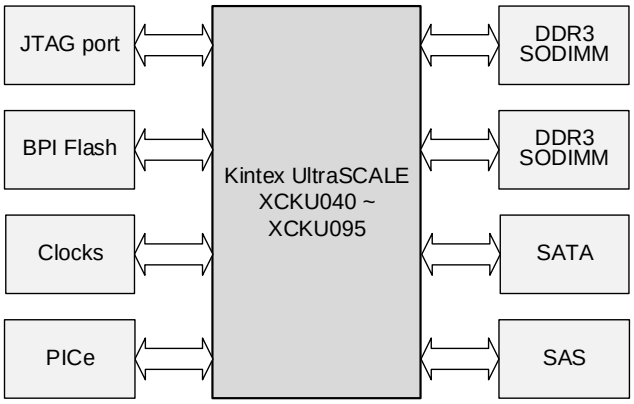


Applications

- Big-data processing
- Machine-learning
- Deep-learning
- Reconfigurable computing
- Heterogeneous computing
- Logic-simulation acceleration
- OpenCL
- Hadoop



DeepAccel-KU block diagram



DeepAccel-KU Specification

FPGA supporting		
	XCKU040 ~ 095	Xilinx Kintex UltraSCALE series
	Capacity	Logic Cells : 530K ~ 1,176K BRAM : 21.1Mb ~ 59.1Mb DSP slices : 768 ~ 4,100
Memory		
	DDR3	Two SODIMM 8GByte (x72) with ECC
	BPI FLASH	FPGA bitstream
External interfaces		
	PCI-Express	GEN3 (8GT/s per lane) 8 Lanes
	SATA	2 Channels
	SAS	4 Channels
	JTAG	FPGA configuration

Deliverables

PCI-Express Low-Profile Card
Example design
Linux 64-bit device driver
Linux application programming interface

Embedded processor platform
- AHB-based
- AXI-based

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