

### Overview

#### Xilinx Accelerators for HPE

Hewlett Packard Enterprise supports, on select HPE servers, computational accelerator modules based on Xilinx Alveo Field Programmable Gate Array (FPGA) technology.

An FPGA can be reprogrammed and updated with new algorithms for different workloads. This flexibility allows a single FPGA to accelerate many different workloads efficiently, and to support future applications without the need to change the hardware. For instance, a FPGA could handle one workload during the morning shift and a different workload during an evening shift. Programmability also allows FPGAs to stay abreast of evolving standards, such as networking protocols, and enables updates to maintain compliance when a standard is finalized—again, without having to re-spin the hardware.

HPE has now teamed up with Xilinx to offer FPGA solutions on **select HPE servers**. HPE servers also offer a unique **Silicon Root of Trust** to protect against firmware-based cybersecurity threats. The combination of HPE servers with Xilinx FPGAs provides flexible, industrial-strength compute solutions that can be tuned for specific workloads.

The collaboration between **HPE and Xilinx** provides industrial-strength FPGA solutions that accelerate business-critical workloads. The supporting software ecosystem is developing at a rapid enough pace to be able to continuously add value to customers in an ever-expanding range of uses cases. The performance, adaptability and power efficiency of FPGAs serve to increase productivity and drive innovation—with rapid ROI and minimized TCO.

For further information on Xilinx Vitis Unified Software Platform, please visit <https://www.xilinx.com/products/design-tools/vitis.html>

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#### Xilinx Accelerators Models

HPE Xilinx Alveo U50 Accelerator	R4B02A
Xilinx Alveo U50 Accelerator for HPE	R4B02C
HPE Xilinx Alveo U250 Accelerator	R4B03A
Xilinx Alveo U250 Accelerator for HPE	R4B03C

**Notes:** Please see the HPE server QuickSpecs for the following servers for configuration rules, including requirements for enablement kits.

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## Standards Features

<b>Description</b>	HPE Xilinx Alveo U50 Accelerator
<b>SKU</b>	R4B02A R4B02C
<b>Form Factor</b>	Single-slot; ½ Height, ½ Length
<b>On-Board Memory</b>	8GB HBM2 with Error Correction Code
<b>PCIe</b>	Gen3 x16
<b>Power</b>	75W TDP
<b>Thermal Specifications</b>	Passive
<b>Supported Servers   Operating System</b>	HPE ProLiant DL385 Gen10 Plus, Rome Processor   RHEL 7.6 HPE ProLiant DL380 Gen10, 2 <sup>nd</sup> Gen Intel Xeon Scalable Processor   RHEL 7.6
<b>Interface</b>	1x QSFP28 (100GbE)

<b>Description</b>	HPE Xilinx Alveo U250 Accelerator
<b>SKU</b>	R4B03A R4B03C
<b>Form Factor</b>	Dual-slot; Full Height, ¾ Length
<b>On-Board Memory</b>	64GB DDR4 with Error Correction Code
<b>PCIe</b>	Gen3 x16
<b>Power</b>	225W TDP
<b>Thermal Specifications</b>	Passive
<b>Supported Servers   Operating System</b>	HPE ProLiant DL385 Gen10 Plus, Rome Processor   RHEL 7.6 HPE ProLiant DL380 Gen10, 2 <sup>nd</sup> Gen Intel Xeon Scalable Processor   RHEL 7.6
<b>Interface</b>	2x QSFP28 (100GbE)

## Supported Cables

The Xilinx FPGA has a QSFP+ cage on the front panel which supports one 40GbE or four 10GbE. The table below details the Xilinx-supported connectors which are required for use with the FPGA. Successful functioning of 40GbE and 10GbE requires appropriate physical medium attachment (PMA) settings. These settings may be set by your third-party Accelerator Functional Unit (AFU) provider. If not, or if you are developing your own AFU, run the provided PMA settings script as detailed in the 10Gbps Ethernet AFU Design Example User Guide or 40Gbps Ethernet AFU Design Example User Guide.

- Running 10GbE FPGA-to-FPGA Test between two connected FPGAs in the 10Gbps Ethernet Accelerator Functional Unit (AFU) Design Example User Guide
- Running 40GbE FPGA-to-FPGA Test between two connected FPGA in the 40Gbps Ethernet Accelerator Functional Unit (AFU) Design Example User Guide

## Networking Cable

HPE 100Gb QSFP28 to QSFP28 5m DAC

**Notes:** [Contact your Sales/Account Representative for sourcing a network cable.](#)



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## Service and Support

### Service and Support

If this is a qualified option, it is covered under the HPE Support Service(s) applied to the HPE ProLiant Server. Please check HPE ProLiant Server documentation for more details on the services for this particular option.

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### Warranty and Support Services

Warranty and Support Services will extend to include HPE options configured with your server or storage device. The price of support service is not impacted by configuration details. HPE sourced options that are compatible with your product will be covered under your server support at the same level of coverage allowing you to upgrade freely. Installation for HPE options is available as needed. To keep support costs low for everyone, some high value options will require additional support. Additional support is only required on select high value workload accelerators, fibre switches, InfiniBand and UPS batteries over 12KVA.

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### Protect your business beyond warranty with HPE Support Services

HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation. From the onset of your transformation journey, Advisory and Transformational Services focus on designing the transformation and creating a solution roadmap. Professional Services specializes in creative configurations with flawless and on-time implementation, and on-budget execution. Finally, operational services provides innovative new approaches like Flexible Capacity and Datacenter Care, to keep your business at peak performance. Hewlett Packard Enterprise is ready to bring together all the pieces of the puzzle for you, with an eye on the future, and make the complex simple.

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### Parts and materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

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### HPE Support Center

The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers.

Learn more <http://www.hpe.com/support/hpesc>

HPE's Support Center Mobile App\* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime.

HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement.

**NOTES:** \*HPE Support Center Mobile App is subject to local availability.

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### For more information

Visit the Hewlett Packard Enterprise Service and Support [website](#).

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## Summary of Changes

<b>Date</b>	<b>Version History</b>	<b>Action</b>	<b>Description of Change</b>
08-Jun-2020	Version 2	Changed	Removed embedded links to incorrect website
01-Jun-2020	Version 1	New	New QuickSpecs



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