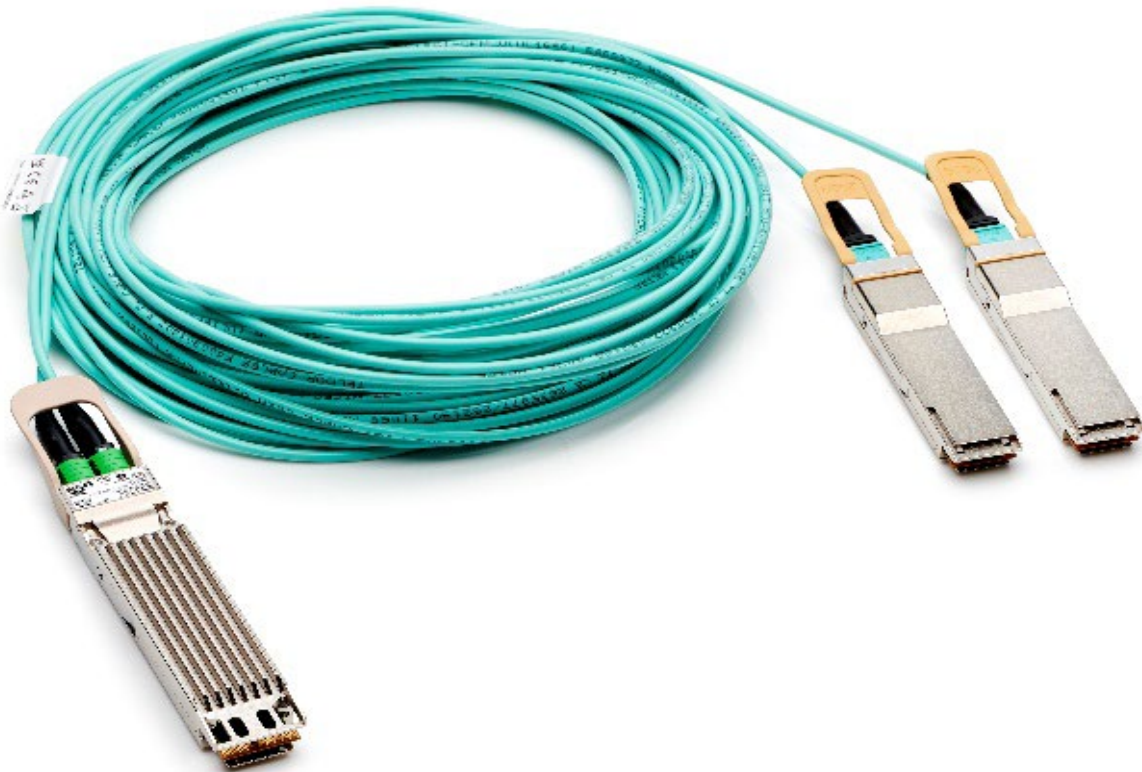# QuickSpecs

Overview

HPE InfiniBand NDR Cables

HPE InfiniBand NDR cables offer a variety of cable types and lengths in order to accommodate customer requirements while taking into consideration the scale of cost and performance. These cables are qualified as InfiniBand and Ethernet enabled.

InfiniBand NDR Direct Attach Copper Cables (DAC) and InfiniBand NDR Active Copper Cables (ACC) are the lowest cost cabling choice to create high-speed, low-latency connections in an InfiniBand NDR solution. These cables are offered in a various lengths and as OSFP and QSFP112 types. Passive DACs use copper wires without any electronics as the connection. These cables consume zero power and have the lowest latency and insertion loss. InfiniBand Active Copper Cables include signal-boosting integrated circuits (ICs) in the cable end to extend their reach.

NDR optical interconnect is enabled through NDR transceivers usage with fiber cables. NDR transceivers for switches are dual ported and support two NDR links. NDR transceivers for Host Channel Adapters (HCAs) are single ported.   Connection between NDR switches and HDR/HDR100 adapters is enabled with Active Optical Cable (AOC) providing OSFP to dual QSFP.

These cables meet the InfiniBand Trade Association (IBTA) standards and are designed for use in supercomputers that have the most stringent requirements.

Overview

Models

InfiniBand Direct Attach Copper Cables

HPE InfiniBand NDR/Ethernet OSFP to OSFP 0.5m Switch-Switch Direct Attach Copper Cable	P45696-B21
HPE InfiniBand NDR/Ethernet OSFP to OSFP 1m Switch-Switch Direct Attach Copper Cable	P45696-B22
HPE InfiniBand NDR/Ethernet OSFP to OSFP 1.5m Switch-Switch Direct Attach Copper Cable	P45696-B23
HPE InfiniBand NDR/Ethernet OSFP to OSFP 2m Switch-Switch Direct Attach Copper Cable	P45696-B24
HPE InfiniBand NDR200/Ethernet OSFP to 4xOSFP 1m Splitter Direct Attach Copper Cable	P45698-B22
HPE InfiniBand NDR200/Ethernet OSFP to 4xOSFP 1.5m Splitter Direct Attach Copper Cable	P45698-B23
HPE InfiniBand NDR200/Ethernet OSFP to 4xOSFP 2m Splitter Direct Attach Copper Cable	P45698-B24
HPE InfiniBand NDR200/Ethernet OSFP to 4xOSFP 2.5m Splitter Direct Attach Copper Cable	P45698-B25
HPE InfiniBand NDR200/Ethernet OSFP to 4xOSFP 3m Splitter Direct Attach Copper Cable	P45698-B26
HPE InfiniBand NDR/Ethernet OSFP to 2xOSFP 1m Splitter Direct Attach Copper Cable	P45697-B22
HPE InfiniBand NDR/Ethernet OSFP to 2xOSFP 1.5m Splitter Direct Attach Copper Cable	P45697-B23
HPE InfiniBand NDR/Ethernet OSFP to 2xOSFP 2m Splitter Direct Attach Copper Cable	P45697-B24
HPE InfiniBand NDR/Ethernet OSFP to 2xOSFP 2.5m Splitter Direct Attach Copper Cable	P45697-B25
HPE InfiniBand NDR/Ethernet OSFP to 2xOSFP 2m Splitter Direct Attach Copper Cable	P45697-B26
HPE InfiniBand NDR200/Ethernet OSFP to 4xQSFP112 1m Direct Attach Copper Cable	P65335-B21
HPE InfiniBand NDR200/Ethernet OSFP to 4xQSFP112 2m Direct Attach Copper Cable	P65335-B23
HPE InfiniBand NDR200/Ethernet OSFP to 4xQSFP112 3m Direct Attach Copper Cable	P65335-B25

Notes:

– Switch-Switch cables may only be used to connect between NDR switches. Splitter cables may only be used to connect switches to Host Channel Adapters (HCAs)

– Switch-side transceivers may only be used in NDR switch ports. HCA-side transceivers may only be used in HCA ports

– Multi-mode and single modes MUST not be mixed. Multi-mode transceivers MUST be used with Multi-mode fiber cables. Single-mode transceiver MUST be used with Single-mode fibers

InfiniBand Active Copper Cables

HPE InfiniBand NDR/Ethernet OSFP to OSFP 3m Switch-Switch Active Copper Cable	P55189-B21
HPE InfiniBand NDR/Ethernet OSFP to OSFP 4m Switch-Switch Active Copper Cable	P55189-B22
HPE InfiniBand NDR/Ethernet OSFP to OSFP 5m Switch-Switch Active Copper Cable	P55189-B23
HPE InfiniBand NDR200/Ethernet OSFP to 4xOSFP 4m Splitter Active Copper Cable	P50397-B21
HPE InfiniBand NDR200/Ethernet OSFP to 4xOSFP 5m Splitter Active Copper Cable	P50397-B22
HPE InfiniBand NDR/Ethernet OSFP to 2xOSFP 4m Splitter Active Copper Cable	P50396-B21
HPE InfiniBand NDR/Ethernet OSFP to 2xOSFP 5m Splitter Active Copper Cable	P50396-B22
HPE InfiniBand NDR200/Ethernet OSFP to 4xQSFP112 4m Active Copper Cable	P65340-B21
HPE InfiniBand NDR200/Ethernet OSFP to 4xQSFP112 5m Active Copper Cable	P65340-B22

Notes:

– Switch-Switch cables may only be used to connect between NDR switches. Splitter cables may only be used to connect switches to Host Channel Adapters (HCAs)

– Switch-side transceivers may only be used in NDR switch ports. HCA-side transceivers may only be used in HCA ports

– Multi-mode and single modes MUST not be mixed. Multi-mode transceivers MUST be used with Multi-mode fiber cables. Single-mode transceiver MUST be used with Single-mode fibers

– Both OSFP and QSFP112 ends of the cable are based on the CMIS management interface

InfiniBand Single Mode Optical Transceiver

HPE InfiniBand NDR/Ethernet 2x400Gb OSFP Single-mode 100m Switch-side Transceiver	P45693-B21

Notes:

– Switch-Switch cables may only be used to connect between NDR switches. Splitter cables may only be used to connect switches to Host Channel Adapters (HCAs)

– Switch-side transceivers may only be used in NDR switch ports. HCA-side transceivers may only be used in HCA ports

– Multi-mode and single modes MUST not be mixed. Multi-mode transceivers MUST be used with Multi-mode fiber cables. Single-mode transceiver MUST be used with Single-mode fibers

– Only supported from switch to switch. There is no switch to HCA support using single mode fiber.

Overview

InfiniBand Single Mode Multi Fiber Push On

HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Single-mode 3m Cable	P45731-B21
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Single-mode 5m Cable	P45731-B22
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Single-mode 10m Cable	P45731-B23
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Single-mode 15m Cable	P45731-B24
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Single-mode 20m Cable	P45731-B25
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Single-mode 30m Cable	P45731-B26

Notes:
- Switch-Switch cables may only be used to connect between NDR switches. Splitter cables may only be used to connect switches to Host Channel Adapters (HCAs)
- Switch-side transceivers may only be used in NDR switch ports. HCA-side transceivers may only be used in HCA ports
- Multi-mode and single modes MUST not be mixed. Multi-mode transceivers MUST be used with Multi-mode fiber cables. Single-mode transceiver MUST be used with Single-mode fibers

InfiniBand Multi Mode Optical Transceiver

HPE InfiniBand NDR/Ethernet 2x400Gb OSFP Multi-mode 50m Switch-side Transceiver	P49762-B21
HPE InfiniBand NDR/Ethernet 1x400Gb OSFP Multi-mode 50m HCA-side Transceiver	P49764-B21
HPE InfiniBand NDR/Ethernet 400G QSFP112 MPO12 850nm Multi-mode 50m APC Transceiver	P65334-B21

Notes:
- Switch-Switch cables may only be used to connect between NDR switches. Splitter cables may only be used to connect switches to Host Channel Adapters (HCAs)
- Switch-side transceivers may only be used in NDR switch ports. HCA-side transceivers may only be used in HCA ports
- Multi-mode and single modes MUST not be mixed. Multi-mode transceivers MUST be used with Multi-mode fiber cables. Single-mode transceiver MUST be used with Single-mode fibers

InfiniBand Multi Mode Fiber Push On

HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Multi-mode 3m Cable	P49765-B21
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Multi-mode 5m Cable	P49765-B22
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Multi-mode 10m Cable	P49765-B23
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Multi-mode 15m Cable	P49765-B24
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Multi-mode 20m Cable	P49765-B25
HPE InfiniBand NDR/Ethernet 8 Fiber MPO to 8 Fiber MPO Multi-mode 30m Cable	P49765-B26
HPE InfiniBand NDR200/Ethernet 8 Fiber MPO to 2x4 Fiber MPO Multi-mode 3m Splitter Cable	P49766-B21
HPE InfiniBand NDR200/Ethernet 8 Fiber MPO to 2x4 Fiber MPO Multi-mode 5m Splitter Cable	P49766-B22
HPE InfiniBand NDR200/Ethernet 8 Fiber MPO to 2x4 Fiber MPO Multi-mode 10m Splitter Cable	P49766-B23
HPE InfiniBand NDR200/Ethernet 8 Fiber MPO to 2x4 Fiber MPO Multi-mode 15m Splitter Cable	P49766-B24
HPE InfiniBand NDR200/Ethernet 8 Fiber MPO to 2x4 Fiber MPO Multi-mode 20m Splitter Cable	P49766-B25
HPE InfiniBand NDR200/Ethernet 8 Fiber MPO to 2x4 Fiber MPO Multi-mode 30m Splitter Cable	P49766-B26

Notes:
- Switch-Switch cables may only be used to connect between NDR switches. Splitter cables may only be used to connect switches to Host Channel Adapters (HCAs)
- Switch-side transceivers may only be used in NDR switch ports. HCA-side transceivers may only be used in HCA ports
- Multi-mode and single modes MUST not be mixed. Multi-mode transceivers MUST be used with Multi-mode fiber cables. Single-mode transceiver MUST be used with Single-mode fibers

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https://www.hpe.com/services/operational

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- Modular and fully personalized engagement
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- Digitally enabled and AI driven customer experience

https://www.hpe.com/services/completecare

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HPE Tech Care Service is the operational support service experience for HPE products. The service goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service is available in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential which provides a 15-minute response time 24x7 for most enterprise level customers, and Critical which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.

https://www.hpe.com/services/techcare

Service and Support

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- HPE Firmware Update Analysis Service: Recommendations for firmware revision levels for selected HPE products, taking into account the relevant revision dependencies within your IT environment.
- HPE Firmware Update Implementation Service: Implementation of firmware updates for selected HPE server, storage, and solution products, taking into account the relevant revision dependencies within your IT environment.
- Implementation assistance services: Highly trained technical service specialists to assist you with a variety of activities, ranging from design, implementation, and platform deployment to consolidation, migration, project management, and onsite technical forums.
- HPE Service Credits: Access to prepaid services for flexibility to choose from a variety of specialized service activities, including assessments, performance maintenance reviews, firmware management, professional services, and operational best practices.

Notes: To review the list of Lifecycle Services available for your product go to:
https://www.hpe.com/services/lifecycle

For a list of the most frequently purchased services using service credits, see the **HPE Service Credits Menu**

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Technical Specifications

Environment-Friendly Products and Approach End-of-Life Management and Recycling

Hewlett Packard Enterprise offers end-of-life **product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE Directive (2012/19/EU) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the **Hewlett Packard Enterprise web** site.

These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Page 8

Date	Version History	Action	Description of Change
03-Jun-2024	Version 6	Changed	Overview section was updated.
08-Jan-2024	Version 5	Changed	Overview section was updated. HPE Services Rebranding
10-Jul-2023	Version 4	Changed	Overview section was updated.
03-Apr-2023	Version 3	Changed	Overview section was updated.
06-Mar-2023	Version 2	Changed	Overview section was updated.
19-Dec-2022	Version 1	New	QS Created

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