

Overview

HPE Altoline 6700 Switch Series



Models

HPE Altoline 6940 32QSFP+ PPC ONIE AC Front-to-Back Switch	JL114A
HPE Altoline 6940 32QSFP+ PPC ONIE AC Back-to-Front Switch	JL115A

Key features

- High 40GbE port density and low latency for demanding applications.
- ONIE boot loader for choice of network OS and easy installation.
- Open-networking and disaggregated solution for customer choice.
- VXLAN for efficient network virtualization overlay solutions.
- 40GbE and redundant fans and power supplies for data center deployments.

Product overview

The HPE Altoline 6700 switch is a top-of-rack (TOR) or spine switch for high-performance data centers. In a compact 1RU form factor, the switch provides line-rate L2 and L3 switching across up to 32 x QSFP ports, supporting up to 32 x 40GbE connections or 96 x 10GbE with 8 x 40GbE uplink connections.

The HPE Altoline 6700 switch can be deployed as a TOR switch supporting 10GbE or 40GbE server connections, or as a spine switch, supporting 10GbE or 40GbE spine interconnects. The switch provides 20 fixed QSFP ports and two module slots, each capable of supporting a 6 x QSFP module, pre-installed.

The HPE Altoline 6700 is a bare-metal switch loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible independent switch OS offerings.

Features and benefits

Data center optimized

- **Flexible high port density**
the HPE Altoline 6700 Switch Series enables scaling of the server edge with 40GbE spine and ToR deployments to new heights with high-density 32-port solutions delivered in a 1RU design. Up to 24 40GbE QSFP+ ports can also be

Overview

configured as four 10GbE ports by using a 40GbE-to-10GbE splitter cable providing up to 96 10GbE ports with eight 40GbE uplinks.

- **High-performance switching**
cut-through and nonblocking architecture delivers low latency (600 - 720 nanosecond for 40GbE) for very demanding enterprise applications; the switch delivers high-performance switching capacity and wire-speed packet forwarding
- **Hot/cold aisle support**
models available with front-to-back (port to power) or back-to-front (power to port) airflow
- **Redundant fans and power supplies**
1+1 internal redundant and hot-pluggable power supplies and N+1 redundant fan trays enhance reliability and availability
- **VXLAN hardware support**
supports VXLAN VTEP overlay technologies

Manageability

- **Out-of-band interface**
isolates management traffic from user data plane traffic for complete isolation and total reachability, no matter what happens in the data plane
- **ONIE bootloader**
switch is loaded with Open Network Install Environment (ONIE) software installer

Layer 2 switching

- **VLAN support**
provides support for 4,096 VLAN IDs

Additional information

- **Low power consumption**
typical operation uses just 267W of AC power

Warranty and support

- **3-year Warranty**
advance hardware replacement with 10-calendar-day delivery (available in most countries)
- **Electronic and telephone support**
limited electronic and business-hours telephone support is available from HPE for the entire warranty period; to reach our support centers, refer to <http://www.hp.com/networking/contact-support>; for details on the duration of support provided with your product purchase, refer to <http://www.hp.com/networking/warrantysummary>
- **Software releases**
to find software for your product, refer to <http://www.hp.com/networking/support>; for details on the software releases available with your product purchase, refer to <http://www.hp.com/networking/warrantysummary>

Technical Specifications

HPE Altoline 6940 32QSFP+ PPC ONIE AC Front-to-Back Switch (JL114A)

I/O ports and slots	32 QSFP+ 40GbE ports	
Additional ports and slots	1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 USB 2.0	
Power supplies	2 power supply slots 1 minimum power supply required includes: 2 x PSUs	
Fan tray	5 fan tray slots Switch comes with five (5) fan trays (port to power airflow)	
Physical characteristics	Dimensions	17.32(w) x 18.5(d) x 1.72(h) in (44.00 x 47.0 x 4.4 cm)
	Weight	18.52 lb (8.4 kg)
Memory and processor	Freescale PPC @ 1.2 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 12 MB, 8 GB SD Card	
Performance	40 Gbps Latency	> .6 μ s
	Throughput	up to 1440 Mpps
	Routing/Switching capacity	2560 Gbps
	Routing table size	64000 entries (IPv4), 20000 entries (IPv6)
	MAC address table size	320000 entries
	Environment	Operating temperature
Operating relative humidity		5% to 95%, noncondensing
Nonoperating/Storage temperature		-40°F to 158°F (-40°C to 70°C)
Electrical characteristics	Frequency	50/60 Hz
	Voltage	90 - 264 VAC, rated (depending on power supply chosen)
	Maximum power rating	315 W
	Idle power	267 W
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PSU Efficiency: Up to 93% for AC PSUs
Safety	cUL Certified; EN 60950; EN 55022 Class A; VCCI Class A; ROHS Compliance; FCC Class A: Regulations for Radio Frequency Devices for Electromagnetic Compliance; UL	
Emissions	FCC part 15 Class A; EN 55022 Class A; VCCI	
Immunity	ESD	EN 60950
	EFT/Burst	IEC 68-2-14

Technical Specifications

Management	Command-line interface; Out-of-band management; SNMP manager; Telnet; FTP
Services	Refer to the Hewlett Packard Enterprise website at: http://www.hp.com/networking/services or details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

HPE Altoline 6940 32QSFP+ PPC ONIE AC Back-to-Front Switch (JL115A)

I/O ports and slots	32 QSFP+ 40GbE ports	
Additional ports and slots	Dimensions	17.32(w) x 18.5(d) x 1.72(h) in (44.00 x 47.0 x 4.4 cm)
	Weight	18.52 lb (8.4 kg)
Power supplies		1 minimum power supply required
		includes: 2 x PSUs
Fan tray		5 fan tray slots
		Switch comes with five (5) fan trays (power to port airflow)
Physical characteristics	Dimensions	17.32(w) x 18.5(d) x 1.72(h) in (44.00 x 47.0 x 4.4 cm)
	Weight	18.52 lb (8.4 kg)
Memory and processor	Freescale PPC @ 1.2 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 12 MB, 8 GB SD Card	
Performance	40 Gbps Latency	> .6 μ s
	Throughput	up to 1440 Mpps
	Routing/Switching capacity	2560 Gbps
	Routing table size	64000 entries (IPv4), 20000 entries (IPv6)
	MAC address table size	320000 entries
	Operating temperature	32°F to 104°F (0°C to 40°C)
Environment	Operating relative humidity	5% to 95%, noncondensing
	Nonoperating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
Electrical characteristics	Frequency	50/60 Hz
	Voltage	90 - 264 VAC, rated (depending on power supply chosen)
	Maximum power rating	315 W
	Idle power	267 W
	Notes	Idle power is the actual power consumption of the device with no ports connected. Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated. PSU Efficiency: Up to 93% for AC PSUs
Safety	cUL Certified; EN 60950; EN 55022 Class A; VCCI Class A; ROHS Compliance; FCC Class A: Regulations for Radio Frequency Devices for Electromagnetic Compliance; UL	
Emissions	FCC part 15 Class A; EN 55022 Class A; VCCI	

Technical Specifications

Immunity	ESD	EN 60950
	EFT/Burst	IEC 68-2-14

Management Command-line interface; Out-of-band management; SNMP manager; Telnet; FTP

Services Refer to the Hewlett Packard Enterprise website at: <http://www.hp.com/networking/services> or details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local Hewlett Packard Enterprise sales office.

Accessories

HPE Altoline 6700 Switch Series accessories

Transceivers

HPE FlexNetwork X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable	JG326A
HPE FlexNetwork X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable	JG327A
HPE FlexNetwork X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable	JG328A
HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable	JG329A
HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	JG330A
HPE FlexNetwork X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable	JG331A
HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A

Summary of Changes

Date	Version History	Action	Description of Change
27-May-2016	From Version 2 to 3	Changed	Product description updated.
22-May-2015	From Version 1 to 2	Added	Product image added
		Changed	Error fixed on footer



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