

### 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)

<b>I/O ports and slots</b>	32 QSFP+ 40GbE ports	
<b>Additional ports and slots</b>	1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 USB 2.0	
<b>Power supplies</b>	2 power supply slots 1 minimum power supply required includes: 2 x PSUs	
<b>Fan tray</b>	5 fan tray slots Switch comes with five (5) fan trays (port to power airflow)	
<b>Physical characteristics</b>	<b>Dimensions</b>	17.32(w) x 18.5(d) x 1.72(h) in (44.00 x 47.0 x 4.4 cm)
	<b>Weight</b>	18.52 lb (8.4 kg)
<b>Memory and processor</b>	Freescale PPC @ 1.2 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 12 MB, 8 GB SD Card	
<b>Performance</b>	<b>40 Gbps Latency</b>	> .6 $\mu$ s
	<b>Throughput</b>	up to 1440 Mpps
	<b>Routing/Switching capacity</b>	2560 Gbps
	<b>Routing table size</b>	64000 entries (IPv4), 20000 entries (IPv6)
	<b>MAC address table size</b>	320000 entries
	<b>Environment</b>	<b>Operating temperature</b>
<b>Operating relative humidity</b>		5% to 95%, noncondensing
<b>Nonoperating/Storage temperature</b>		-40°F to 158°F (-40°C to 70°C)
<b>Electrical characteristics</b>	<b>Frequency</b>	50/60 Hz
	<b>Voltage</b>	90 - 264 VAC, rated (depending on power supply chosen)
	<b>Maximum power rating</b>	315 W
	<b>Idle power</b>	267 W
	<b>Notes</b>	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
<b>Safety</b>	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	
<b>Emissions</b>	FCC part 15 Class A; EN 55022 Class A; VCCI	
<b>Immunity</b>	<b>ESD</b>	EN 60950
	<b>EFT/Burst</b>	IEC 68-2-14

## Technical Specifications

<b>Management</b>	Command-line interface; Out-of-band management; SNMP manager; Telnet; FTP
<b>Services</b>	Refer to the Hewlett Packard Enterprise website at: <a href="http://www.hp.com/networking/services">http://www.hp.com/networking/services</a> 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.

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

<b>I/O ports and slots</b>	32 QSFP+ 40GbE ports	
<b>Additional ports and slots</b>	<b>Dimensions</b>	17.32(w) x 18.5(d) x 1.72(h) in (44.00 x 47.0 x 4.4 cm)
	<b>Weight</b>	18.52 lb (8.4 kg)
<b>Power supplies</b>		1 minimum power supply required
		includes: 2 x PSUs
<b>Fan tray</b>		5 fan tray slots
		Switch comes with five (5) fan trays (power to port airflow)
<b>Physical characteristics</b>	<b>Dimensions</b>	17.32(w) x 18.5(d) x 1.72(h) in (44.00 x 47.0 x 4.4 cm)
	<b>Weight</b>	18.52 lb (8.4 kg)
<b>Memory and processor</b>	Freescale PPC @ 1.2 GHz, 2 GB DDR3 SDRAM; Packet buffer size: 12 MB, 8 GB SD Card	
<b>Performance</b>	<b>40 Gbps Latency</b>	> .6 $\mu$ s
	<b>Throughput</b>	up to 1440 Mpps
	<b>Routing/Switching capacity</b>	2560 Gbps
	<b>Routing table size</b>	64000 entries (IPv4), 20000 entries (IPv6)
	<b>MAC address table size</b>	320000 entries
	<b>Operating temperature</b>	32°F to 104°F (0°C to 40°C)
<b>Environment</b>	<b>Operating relative humidity</b>	5% to 95%, noncondensing
	<b>Nonoperating/Storage temperature</b>	-40°F to 158°F (-40°C to 70°C)
<b>Electrical characteristics</b>	<b>Frequency</b>	50/60 Hz
	<b>Voltage</b>	90 - 264 VAC, rated (depending on power supply chosen)
	<b>Maximum power rating</b>	315 W
	<b>Idle power</b>	267 W
	<b>Notes</b>	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
<b>Safety</b>	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	
<b>Emissions</b>	FCC part 15 Class A; EN 55022 Class A; VCCI	

## Technical Specifications

<b>Immunity</b>	<b>ESD</b>	EN 60950
	<b>EFT/Burst</b>	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.

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## 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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