



HPE Altoline 6941 Switch Series

Key features

- High-density 40GbE ports and low latency for demanding applications
- Open networking disaggregated solution for customer choice
- Choice of network operating systems, including Cumulus Networks Linux® NOS, and Pica8 NOS
- VXLAN L2 and L3 for efficient network virtualization overlay solutions
- Intel® quad-core Atom CPU and Broadcom's Trident II+ for best performance
- Support for Big Switch Network's Big Cloud Fabric and Big Monitoring Fabric solutions

Product overview

HPE Altoline 6941 Switch Series are top-of-rack (ToR) spine or leaf switches for high-performance cloud data centers. Available in compact 1RU form factor, the switches provide line-rate L3 switching across up to 32 x QSFP ports, supporting 10GbE or 40GbE server connections as a leaf switch, or 10GbE or 40GbE spine switch.

The 32 fixed QSFP ports support up to 32 x 40GbE connections or 96 x 10GbE with 8 x 40GbE uplinks.

HPE Altoline 6941 Switch Series are bare-metal switches loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible-independent switch Network Operating System (NOS) offerings.

Features and benefits

Data center optimized

- Flexible high port density

HPE Altoline 6941 Switch Series enables scaling of the server edge with 10GbE or 40GbE spine or leaf 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 configured as four 10GbE ports each by using a 40GbE to 10GbE splitter cable providing up to 96 10GbE ports with eight 40GbE uplinks



- High-performance switching
Cut-through and non-blocking architecture delivers low latency (600–720 nanosecond for 40GbE) for very demanding enterprise applications; the 6941 delivers high-performance switching capacity and wirespeed packet forwarding
- Hot or 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 L2 and L3 VTEP overlay technologies; can terminate and forward VXLAN tunnels; supports more than 16 million VXLAN IDs

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 boot loader
Switch is loaded with ONIE software installer
- Intel x86 CPU
Provides high-performance support for widely available, industry-standard software and utilities

L 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

- 1-year warranty
See hpe.com/networking/warrantysummary for warranty and support information included with your product purchase.
- Software releases
To find software for your product, refer to hpe.com/networking/support; for details on the software releases available with your product purchase, refer to hpe.com/networking/warrantysummary



HPE Altoline 6941 Switch Series

Specifications

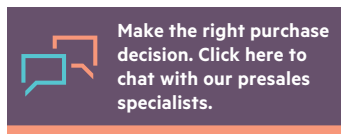
	HPE Altoline 6941 32QSFP+ x86 ONIE AC Front-to-Back Switch (JL313A)	HPE Altoline 6941 32QSFP+ x86 ONIE AC Back-to-Front Switch (JL314A)
I/O ports and slots	32 QSFP+ 40GbE ports	32 QSFP+ 40GbE ports
Additional ports and slots	1 RJ-45 serial console port 1 RJ-45 out-of-band management port 1 USB 2.0	1 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	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 (front-to-back airflow)	5 fan tray slots Switch comes with five (5) fan trays (back-to-front airflow)
Physical characteristics		
Dimensions	17.26(w) x 20.28(d) x 1.71(h) in. (43.84 x 51.51 x 4.34 cm)	17.26(w) x 20.28(d) x 1.71(h) in. (43.84 x 51.51 x 4.34 cm)
Weight	21.27 lb (9.65 kg)	21.27 lb (9.65 kg)
Memory and processor	Intel Atom C2538 quad-core x86 processor @ 2.4 GHz, 8 GB DDR3 SDRAM; storage: mSATA SSD (Optional); Packet buffer size: 12 MB, 8 GB NAND flash ASIC: Trident II+	Intel Atom C2538 quad-core x86 processor @ 2.4 GHz, 8 GB DDR3 SDRAM; storage: mSATA SSD (Optional); Packet buffer size: 12 MB, 8 GB NAND flash ASIC: Trident II+
Performance		
Latency	600 to 720 ns cut-through	600 to 720 ns cut-through
Throughput	Up to 1440 Mpps	Up to 1440 Mpps
Routing/Switching capacity	2560 Gbps	2560 Gbps
Routing table size	64000 entries (IPv4), 20000 entries (IPv6)	64000 entries (IPv4), 20000 entries (IPv6)
MAC address table size	320000 entries	320000 entries
Environment		
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Operating relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
Airflow direction	Front-to-back	Back-to-front



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Specifications (continued)

	HPE Altoline 6941 32QSFP+ x86 ONIE AC Front-to-Back Switch (JL313A)	HPE Altoline 6941 32QSFP+ x86 ONIE AC Back-to-Front Switch (JL314A)
Electrical characteristics		
Frequency	50/60 Hz	50/60 Hz
Voltage	90–264 VAC, rated	90–264 VAC, rated
Maximum power rating	370W, with 32 x 40GBase-LR4	370W, with 32 x 40GBase-LR4
Idle power	267W	267W
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	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	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	FCC part 15 Class A; EN 55022 Class A; VCCI
Immunity		
ESD	EN 60950	EN 60950
EFT/Burst	IEC 68-2-14	IEC 68-2-14
Management	Command-line interface; out-of-band management; SNMP manager; Telnet; FTP	Command-line interface; out-of-band management; SNMP manager; Telnet; FTP
Services	Refer to the Hewlett Packard Enterprise website at hpe.com/networking/services for 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.	Refer to the Hewlett Packard Enterprise website at hpe.com/networking/services for 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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