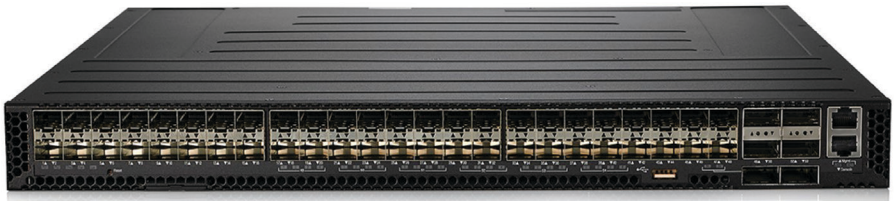
Hewlett Packard Enterprise

HPE Altoline 6800 Switch Series



Key features

- High-density 10GbE ports and low latency for demanding applications
- Open networking and disaggregated solution for customer choice
- ONIE boot loader for choice of network OS and easy installation
- VXLAN L2 and L3 for efficient network virtualization overlay solutions
- Intel® Broadwell-DE, 4-core 2.4GHz CPU; Switching ASIC: Broadcom Qumran-MX
- Redundant fans, and power supplies for data center deployments

Product overview

The HPE Altoline 6800 Switch Series are top-of-rack (ToR) leaf switches for high-performance cloud data centers in a compact 1RU form factor. The switches provide line-rate L2 and L3 switching across up to 48 GbE SFP+ ports, with 6 x 100GbE QSFP28 uplinks.

The HPE Altoline 6800 Switch Series is designed to be deployed as leaf ToR switches supporting 1/10GbE server connections.

In the HPE Altoline 6800 Switch Series, bare-metal switches are loaded with the Open Network Install Environment (ONIE), which supports installing and uninstalling of compatible third-party switch Network Operating System (NOS) offerings.

Features and benefits

Data center optimized

- **Flexible high port density**
  The HPE Altoline 6800 Switch Series enables scaling of the server edge with 1/10GbE copper or fiber server connections, with 100GbE uplinks, to new heights with high density in 1RU design.

- **High-performance switching**
  Broadcom Qumran-MX ASIC delivers low latency for very demanding cloud data center applications; the switch delivers high-performance switching capacity and 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 5+1 redundant fan trays enhance reliability and availability

  VAC and VDC power supplies are supported.

- **VXLAN hardware support**
  Supports VXLAN L2 and L3 VTEP overlay technologies; can terminate and forward VXLAN tunnels; supports over 16 million VXLAN IDs

- NEBS Level 3 Compliant

- Timing synchronization (requires support by Network Operating System)

  – SyncE support stratum 3E

  – IEEE 1588 step 1 and step 2

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 the ONIE boot loader for NOS installation and uninstallation

- **Intel x86 CPU**
  Provides high-performance support of widely available, industry-standard software and utilities

L2 switching

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

Additional information

- Surge 6KV compliant 90+% efficient under nominal condition (AC) and compatible with HVDC (High voltage Direct Current) input

- Maximum power: 241 W without pluggable optics

- Rack mountable in standard 19" racks

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 6800 Switch Series

Specifications	HPE Altoline 6822 48XG 6QSFP28 x86 ONIE Switch
I/O ports and slots	48 SFP+ 1/10GbE ports (IEEE 802.3ae Type 10GBASE-ER, IEEE 802.3ae Type 10GBASE-LR, IEEE 802.3ae Type 10GBASE-SR, IEEE 802.3z Type 1000BASE-SX, IEEE 802.3z Type 1000BASE-LX) 6 QSFP28 100GbE ports (each supporting 1 x 40/100 GbE)
Additional ports and slots	1 x RJ-45 serial console 1 x RJ-45 100/1000BASE-T management port 1 x USB Type A storage port 1 x RJ-45 100/1000BASE-T management port 1 x USB Type A storage port
Power supplies	2 power supply slots; 1 minimum power supply required AC or -48 VDC supported deepening on the optional kit installed 1+1 redundancy and load sharing AC input range: 90 V~300 VAC (90~ 277 VAC is minimum) DC input range: -36~-72 VDC
Fan tray	6 fan tray slots; minimum of 5 required Fans are hot-swappable and support 5+1 redundancy
Physical characteristics	
Bare chassis	
Dimensions	17.26(w) x 20.28(d) x 1.73(h) (43.84 x 51.5 x 4.4 cm)
Weight	19.42 lb (8.81 kg)
Fully populated chassis	
Dimensions	17.26(w) x 21.46(d) x 1.73(h) (43.84 x 54.5 x 4.4 cm)
Weight	24.47 lb (11.1kg)
Fan	
Dimensions	1.93(w) x 4.33(d) x 1.65(h) (4.9 x 11 x 4.2 cm)
Weight	.32 lb (.143 kg)
Power supply	
AC	
Dimensions	2.17 (w) x 13.39(d) x 1.57(h) (5.5 x 34 x 4 cm)
Weight	2.17 lb (.984 kg)
DC	
Dimensions	2.17 (w) x 13.39(d) x 1.57(h) (5.5 x 34 x 4 cm)
Weight	2.18 lb (.987 kg)
Memory and processor	Intel® Broadwell-DE, 4-core 2.4GHz CPU; DDR4 SO-DIMM 2*8GB; NAND Flash: 32GB
Performance	
Latency	< 10 µs (64-byte packets)
Throughput	720 Mpps
Routing/Switching capacity	800 Gbps
VLAN IDs	4000
Routing table size	250 entries (IPv4), 64 entries (IPv6)
MAC address table size	750K entries (MAC + IPv4 Host)
Environment	
Operating relative humidity	5% to 95%, noncondensing
Operating temperature	32°F to 104°F (0°C to 40°C)
Non-operating/Storage temperature	-40°F to 158°F (-40°C to 70°C)
Airflow direction	Front-to-back or back-to-front depending on the kit that is installed (a kit is required).
Electrical characteristics	
Frequency	50/60 Hz
Voltage	AC input range: 90 V~300 VAC (90~ 277 VAC minimum) DC input range: -36~-72 VDC
Maximum power rating	380 W
Idle power	241 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

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Specifications	HPE Altoline 6822 48XG 6QSFP28 x86 ONIE Switch
Safety	IEC/EN 60950-1; UL 609501-1; CSA 22.2 No 60950-1 IEC/EN 62368-1
Emissions	FCC part 15 Subpart B Class A; EN 55032 Class A; VCCI-CISPR 32 Class A; FCC part 15 Subpart B Class A; ICES-003 Class A; BSMI CNS 13438 Class A; EN 61000-3-2 Class A; EN 61000-3-3
Immunity	EN55024 IEC 61000-4-2/3/4/5/6/8/11
Management	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.

HPE Altoline 6800 Switch Series Ordering Information

JL442A	HPE Altoline 6822 48XG 6QSFP28 x86 ONIE Switch
JL440A	HPE Altoline Type 3 Fan Tray AC Power Supply and Rack Mount Front-to-Back Kit
JL441A	HPE Altoline Type 3 Fan Tray AC Power Supply and Rack Mount Back-to-Front Kit
JL443A	HPE Altoline Type 3 Fan Tray DC Power Supply and Rack Mount Front-to-Back Kit
JL444A	HPE Altoline Type 3 Fan Tray DC Power Supply and Rack Mount Back-to-Front Kit
JD092B	HPE X130 10G SFP+ LC SR Transceiver X
JD095C	HPE X240 10G SFP+ SFP+ 0.65m DAC Cable X
JD096C	HPE X240 10G SFP+ SFP+ 1.2m DAC Cable X
JD097C	HPE X240 10G SFP+ SFP+ 3m DAC Cable X
JG081C	HPE X240 10G SFP+ SFP+ 5m DAC Cable X
JL290A	HPE X2A0 10G SFP+ 7m AOC Cable X
JG325B	HPE X140 40G QSFP+ MPO SR4 XCVR X
JL251A	HPE X140 40G QSFP+ LC BiDi 100m MM XCVR X
JL274A	HPE X150 100G QSFP28 MPO SR4 100m MM XCVR X
JL276A	HPE X2A0 100G QSFP28 7m AOC Cable X

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