# QuickSpecs

## Overview

## **HPE FlexFabric 5700 Switch Series**

## **Models**

HPE FlexFabric 5700 40XG 2QSFP+ SwitchJG896AHPE FlexFabric 5700 48G 4XG 2QSFP+ SwitchJG894AHPE FlexFabric 5700 32XGT 8XG 2QSFP+ SwitchJG898A

## **Key features**

- Cut-through with low latency and wire speed
- HPE Intelligent Resilient Fabric (IRF) for virtualization and two-tier architectures
- High 1 GbE/10GbE ToR port density with 40 GbE uplinks
- Layer 2 and Light Layer 3 features with Static Routing and RIP
- Convergence-ready with DCB, FCoE, and TRILL

## **Product overview**

The HPE Flex Fabric 5700 Switch Series is a family of high-performance, high-density, ultra-low-latency, top-of-rack (ToR) switches that is part of the Hewlett Packard Enterprise (HPE) FlexNetwork architecture's HPE FlexFabric solution.

Ideally suited for deployment at the server access layer of large enterprise data centers, the HPE 5700 Switch Series is positioned to provide a cost-effective solution that is still powerful enough to handle the increase in virtualized applications and server-to-server traffic, customers now require ToR switch innovations that will meet their needs for higher-performance server connectivity, convergence of Ethernet and storage traffic, the capability to handle virtual environments, and ultra-low-latency all in a single device.

## Features and benefits

## **Quality of Service (QoS)**

- Powerful QoS features
  - Flexible classification

Flow classification based on source MAC, destination MAC, Source IP (IPv4/IPv6), destination IP, port, protocol and VLAN.

Feature queue scheduling

provides support for Strict Priority (SP), Weighted Deficit Round Robin (WDRR), Weighted Fair Queuing (WFQ), SP+WDRR, SP+WFQ. Supports Explicit Congestion Notification (ECN), and Weighted Random Early Detection (WRED)

#### Data center optimized

## Flexible high port density

the HPE 5700 Switch Series enables scaling of the server edge with 1 GbE and 10GbE ToR deployments to new heights with high-density 32 and 48-port solutions delivered in a 1RU design; the high server port density is backed by 40 GbE QSFP+ uplinks to deliver the availability of needed bandwidth for demanding applications; each 40 GbE QSFP+ port can also be configured as four 10GbE ports by using a 40-GbE-to-10GbE splitter cable



## • High-performance switching

cut-through and nonblocking architecture delivers low latency (~1.5 microsecond for 10GbE) for very demanding enterprise applications; the switch delivers high-performance switching capacity and wire-speed packet forwarding

## • Higher scalability

Hewlett Packard Enterprise (HPE) Intelligent Resilient Framework (IRF) technology simplifies the architecture of server access networks; up to nine HPE 5700 switches can be combined to deliver unmatched scalability of virtualized access layer switches and flatter two-tier networks using IRF, which reduces cost and complexity. In addition, support for IRF as a fabric will enable the 5700 Series to scale up to 30 switches as one virtualized device.

## Advanced modular operating system

Comware v7 software's modular design and multiple processes bring native high stability, independent process monitoring, and restart; the OS also allows individual software modules to be upgraded for higher availability and supports enhanced serviceability functions like hitless software upgrades with single-chassis ISSU

#### TRILL and EVB/VEPA

Transparent Interconnection of Lots of Links (TRILL) is supported to increase the scale of enterprise data centers; Edge Virtual Bridging with Virtual Ethernet Port Aggregator (EVB/VEPA) provides connectivity into the virtual environment for a data center-ready environment

#### Reversible airflow

enhanced for data center hot-cold aisle deployment with reversible airflow—for either front-to-back or back-to-front airflow

## • Redundant fans and power supplies

1+1 internal redundant and hot-pluggable power supplies and dual fan trays enhance reliability and availability

## Lower OPEX and greener data center

provide reversible airflow and advanced chassis power management

## • Data Center Bridging (DCB) protocols

provides support for IEEE 802.1Qbb Priority Flow Control (PFC) and Data Center Bridging Exchange (DCBX) for converged applications

## FCoE support

provides support for Fibre Channel over Ethernet (FCoE) including FCF, Transit and NPV.

## • Jumbo frames

with frame sizes of up to 10,000 bytes on Gigabit Ethernet and 10-Gigabit ports, allows high-performance remote backup and disaster-recovery services to be enabled

## Software-defined networking

## OpenFlow

supports OpenFlow 1.0 and 1.3 specifications to enable SDN by allowing separation of the data (packet forwarding) and control (routing decision) path

## Manageability

#### Full-featured console

provides complete control of the switch with a familiar CLI

#### Troubleshooting

## Ingress and egress port monitoring

enable network problem solving

## - Traceroute and ping

enable testing of network connectivity

#### Multiple configuration files

allow multiple configuration files to be stored to a flash image

## sFlow (RFC 3176)

provides wire-speed traffic accounting and monitoring

## SNMP v1, v2c and v3

facilitate centralized discovery, monitoring, and secure management of networking devices

#### • 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

## • Remote configuration and management

is available through a secure command-line interface (CLI) over Telnet and SSH; Role-Based Access Control (RBAC) provides multiple levels of access; Configuration Rollback and multiple configurations on the flash provide ease of operation; remote visibility is provided with sFlow and SNMP v1/v2/v3, and is fully supported in HPE Intelligent Management Center (IMC)

## • ISSU and hot patching

provides hitless software upgrades with single-unit In Services Software Upgrade (ISSU) and hitless patching of the modular operating system

## Autoconfiguration

provides automatic configuration via DHCP autoconfiguration, NETCONF and Python Scripting

## • Network Time Protocol (NTP) and Secure Network Time Protocol (SNTP)

synchronize timekeeping among distributed time servers and clients; keep consistent timekeeping among all clock-dependent devices within the network so that the devices can provide diverse applications based on the consistent time. Precision Time Protocol (PTP) RFC 1855 Compliant

## Resiliency and high availability

## HPE Intelligent Resilient Fabric (IRF) technology

enables an HPE FlexFabric to deliver resilient, scalable, and secured data center networks for physical and virtualized environments; groups up to nine HPE 5700 switches in an IRF configuration, allowing them to be configured and managed as a single switch with a single IP address; simplifies ToR deployment and management, reducing data center deployment and operating expenses

## • IEEE 802.1w Rapid Convergence Spanning Tree Protocol

increases network uptime through faster recovery from failed links

## • IEEE 802.1s Multiple Spanning Tree

provides high link availability in multiple VLAN environments by allowing multiple spanning trees

## • Hitless patch upgrades

allows patches and new service features to be installed without restarting the equipment, increasing network uptime and facilitating maintenance

## • Device Link Detection Protocol (DLDP)

monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks

## Layer 2 switching

#### • Address Resolution Protocol (ARP)

supports static, dynamic, and reverse ARP and ARP proxy

## • Flow Control

IEEE 802.3x Flow Control provides intelligent congestion management via PAUSE frames

#### Ethernet Link Aggregation

provides IEEE 802.3ad Link Aggregation of up to 128 groups of 16 ports; support for LACP, LACP Local Forwarding First, and LACP Short-time provides a fast, resilient environment that is ideal for the data center

## Spanning Tree Protocol (STP)

STP (IEEE 802.1D), Rapid STP (RSTP, IEEE 802.1w) and Multiple STP (MSTP) IEEE 802.1s)

## VLAN support

provides support for 4,094 VLANs based on port. VLAN Mapping, Q-in-Q and Selective Q-in-Q

## IGMP support

provides support for IGMP Snooping v1/v2/v3, PIM Snooping, MLD snooping v1/v2 and IPv6 PIM Snooping

## DHCP support at Layer 2

provides full DHCP Snooping support for DHCP Snooping Option 82, DHCP Relay Option 82, DHCP Snooping Trust, and DHCP Snooping Item Backup

#### Layer 3 services

## • Address Resolution Protocol (ARP)

determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network

#### • Dynamic Host Configuration Protocol (DHCP)

simplifies the management of large IP networks and supports client and server; DHCP Relay enables DHCP operation across subnets

## Operations, administration and maintenance (OAM) support

provides support for Connectivity Fault Management (IEEE 802.1AG) and Ethernet in the First Mile (IEEE 802.3AH); provides additional monitoring that can be used for fast fault detection and recovery

## Layer 3 routing

## Equal-Cost Multipath (ECMP)

enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth

#### Layer 3 IPv4 routing

provides routing of IPv4 at media speed; supports static routes, RIP and RIPv2

## • Static IPv6 routing

provides simple manually configured IPv6 routing

#### Dual IP stack

maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design

## Bidirectional Forwarding Detection (BFD)

enables link connectivity monitoring and reduces network convergence time for RIP, OSPF, BGP, IS-IS, VRRP, MPLS, and IRF

## Layer 3 IPv6 routing

provides routing of IPv6 at media speed; supports static routing and RIPng

#### **Additional information**

## Green IT and power

improves energy efficiency through the use of the latest advances in silicon development; shuts off unused ports and utilizes variable-speed fans, reducing energy costs

## • Low maximum power consumption

is rated to have one of the lowest power usages in the industry by Miercom independent tests

## Management

#### USB support

#### File copy

allows users to copy switch files to and from a USB flash drive

## • Multiple configuration files

stores easily to the flash image

## • SNMPv1, v2c, and v3

facilitate centralized discovery, monitoring, and secure management of networking devices

#### Network Time Protocol (NTP)

synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network so that the devices can provide diverse applications based on the consistent time

#### 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

## Port mirroring

enables traffic on a port to be simultaneously sent to a network analyzer for monitoring

## Remote configuration and management

is available through a command-line interface (CLI)

## • IEEE 802.1AB Link Layer Discovery Protocol (LLDP)

advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications

## • sFlow (RFC 3176)

provides scalable ASIC-based wirespeed network monitoring and accounting with no impact on network performance; this allows network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes

#### • Command authorization

leverages RADIUS to link a custom list of CLI commands to an individual network administrator's login; an audit trail documents activity

## Dual flash images

provides independent primary and secondary operating system files for backup while upgrading

#### Command-line interface (CLI)

provides a secure, easy-to-use CLI for configuring the module via SSH or a switch console; provides direct real-time session visibility

## Logging

provides local and remote logging of events via SNMP (v2c and v3) and syslog; provides log throttling and log filtering to reduce the number of log events generated

## • Management interface control

provides management access through a modem port and terminal interface, as well as in-band and out-of-band Ethernet ports; provides access through terminal interface, Telnet, or secure shell (SSH)

## • Industry-standard CLI with a hierarchical structure

reduces training time and expenses, and increases productivity in multivendor installations

## • Management security

restricts access to critical configuration commands; offers multiple privilege levels with password protection; ACLs provide Telnet and SNMP access; local and remote syslog capabilities allow logging of all access

## • Information center

provides a central repository for system and network information; aggregates all logs, traps, and debugging information generated by the system and maintains them in order of severity; outputs the network information to multiple channels based on user-defined rules

#### Network management

HPE Intelligent Management Center (IMC) centrally configures, updates, monitors, and troubleshoots

## • Remote intelligent mirroring

mirrors ingress/egress ACL-selected traffic from a switch port or VLAN to a local or remote switch port anywhere on the network

## Security

#### Access control lists (ACLs)

provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number

## RADIUS/TACACS+

eases switch management security administration by using a password authentication server

## Secure shell

encrypts all transmitted data for secure remote CLI access over IP networks

## • IEEE 802.1X and RADIUS network logins

controls port-based access for authentication and accountability

## Port security

allows access only to specified MAC addresses, which can be learned or specified by the administrator

#### Convergence

## • LLDP-MED (Media Endpoint Discovery)

defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones

## Warranty and support

## • 1-year warranty

see <a href="http://www.hpe.com/networking/warrantysummary">http://www.hpe.com/networking/warrantysummary</a> for warranty and support information included with your product purchase.

## Software releases

to find software for your product, refer to <a href="http://www.hpe.com/networking/support">http://www.hpe.com/networking/support</a>; for details on the software releases available with your product purchase, refer to <a href="http://www.hpe.com/networking/warrantysummary">http://www.hpe.com/networking/warrantysummary</a>

# Build To Order: BTO is a standalone unit with no integration. BTO products ship standalone are not part of a CTO or Rack-Shippable solution.

## **Standard Switch Enclosures**

HPE FlexFabric 5700 48G 4XG 2QSFP+ Switch	JG894A
• 48 RJ45 10/100/1000Base-T Copper ports	See
<ul> <li>4 - 1/10GbE SFP+ ports (min=0 \ max=4 SFP+ Transceivers)</li> </ul>	Configuration
• 2 - 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers)	<b>NOTE:</b> 1, 2, 4

1 Power Supply Required

1U - Height

## HPE FlexFabric 5700 40XG 2QSFP+ Switch

JG896A 40 - 1/10GbE SFP+ ports (min=0 \ max=40 SFP+ Transceivers) See Configuration • 2 - 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers) **NOTE:**1, 2, 4, 6

1 Power Supply Required

1U - Height

#### HPE FlexFabric 5700 32XGT 8XG 2QSFP+ Switch

JG898A 32 RJ45 1/10GBase-T Copper ports See Configuration • 8 - 1/10GbE SFP+ ports (min=0 \ max=8 SFP+ Transceivers) **NOTE:**1, 2, 4, 6

• 2 - 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers)

1 Power Supply Required

1U - Height

## **Configuration Rules**

## The following Transceivers install into this Switch's SFP+ Ports:

HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X125 1G SFP LC LH70 Transceiver	JD063B
HPE X130 10G SFP+ LC SR Transceiver	JD092B
HPE X130 10G SFP+ LC LR Transceiver	JD094B
HPE X130 10G SFP+ LC SR Data Center Transceiver	JL437A
HPE X130 10G SFP+ LC LR Data Center Transceiver	JL439A
HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A
HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C
HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C

	HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
	HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
Note 2	The following Transceivers install into this switch's QSFP+ Ports:	
	HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
	HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver	JL251A
	HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
	HPE X140 40G QSFP+ LC LR4L 2km SM Transceiver	JL286A
	HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A
	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
Note 4	The following 40G Transceivers install into this switch:	
	HPE X2A0 40G QSFP+ to QSFP+ 7m Active Optical Cable	JL287A
	HPE X2AO 40G QSFP+ to QSFP+ 10m Active Optical Cable	JL288A
	HPE X2A0 40G QSFP+ to QSFP+ 20m Active Optical Cable	JL289A
Note 6	The following 40G Transceiver install into this switch:	
	HPE X140 40G QSFP+ LC ER4 40km SM Transceiver	JL306A
Remark	S	
	OCA Blue Note - The following 1G XCVR's are only supported on PHY switch ports:	
	LIDE V125 1C CED I CLUV 0 1710 per Transparing	IDO/1 A

HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X125 1G SFP LC LH70 Transceiver	JD063B

OCA Blue Note - The following 10G XCVR is only supported on the PHY switch ports for the HP FF 5700-32XGT-8XG-2QSFP+ Switch (JG898A).

HPE X130 10G SFP+ LC ER 40km Transceiver JG234A

OCA Only Model Selection Form -

HPE Offering > DataCenter Networking > FlexFabric Switches - Access:

5700 Switch Series

# **Box Level Integration CTO Models**

## **CTO Solution SKU**

HPE FlexFabric 57xx Configure to order Switch Solution

SSP trigger SKU

JH061A

## **CTO Switch Chassis**

HPE FlexFabric 5700 48G 4XG 2QSFP+ Switch

JG894A

JG898A

See Configuration

**NOTE:**1, 2, 4, 5, 7

# Configuration

See Configuration • 48 RJ45 10/100/1000Base-T Copper ports **NOTE:**1, 2, 4, 5 4 - 1/10GbE SFP+ ports (min=0 \ max=4 SFP+ Transceivers)

- 2 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers)
- 1 Power Supply Required
- 1U Height

#### HPE FlexFabric 5700 40XG 2QSFP+ Switch

JG896A 40 - 1/10GbE SFP+ ports (min=0 \ max=40 SFP+ Transceivers) See Configuration 2 - 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers) **NOTE:**1, 2, 4, 5, 7

- 1 Power Supply Required
- 1U Height

#### HPE FlexFabric 5700 32XGT 8XG 2QSFP+ Switch

32 RJ45 1/10GBase-T Copper ports

- 8 1/10GbE SFP+ ports (min=0 \ max=8 SFP+ Transceivers)
- 2 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers)
- 1 Power Supply Required
- 1U Height

## **Configuration Rules**

## The following 40G Transceivers install into this switch: (Use #0D1 or #B01 quoted to switch if switch is CTO) - if applicable 100/24

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HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A	
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B	
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B	
HPE X120 1G SFP LC SX Transceiver	JD118B	
HPE X120 1G SFP LC LX Transceiver	JD119B	
HPE X120 1G SFP RJ45 T Transceiver	JD089B	
HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A	
HPE X125 1G SFP LC LH70 Transceiver	JD063B	
HPE X130 10G SFP+ LC SR Transceiver	JD092B	
HPE X130 10G SFP+ LC LR Transceiver	JD094B	
HPE X130 10G SFP+ LC SR Data Center Transceiver	JL437A	
HPE X130 10G SFP+ LC LR Data Center Transceiver	JL439A	
HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A	
HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attack	ch Copper Cable JD095C	
HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attack	n Copper Cable JD096C	
HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach (	Copper Cable JD097C	
HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach (	Copper Cable JG081C	
HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Cop	pper Cable JC784C	

## Note 2 The following Transceivers install into this switch's QSFP+ Ports: (Use #0D1 or #B01 if switch is CTO)

HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver	JL251A
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE X140 40G QSFP+ LC LR4L 2km SM Transceiver	JL286A
HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A
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

Note 4 If the Switch Chassis is to be Box Level Factory Integrated (CTO), Then the #0D1 is required on the Switch Chassis and integrated to the JH061A - HPE FlexFabric 57xx Configure to order Switch Solution. (Min 1/Max 1 Switch per SSP)

Note 5 The following 40G Transceivers install into this switch: (Use #0D1 or #B01 quoted to switch if switch is CTO) - if applicable

HPE X2AO 4OG QSFP+ to QSFP+ 7m Active Optical Cable	JL287A
HPE X2AO 4OG QSFP+ to QSFP+ 10m Active Optical Cable	JL288A
HPE X2AO 40G QSFP+ to QSFP+ 20m Active Optical Cable	JL289A

Note 7 The following 40G Transceiver install into this switch: (Use #0D1 or #B01 if switch is CTO)

HPE X140 40G QSFP+ LC ER4 40km SM Transceiver JL306A

#### Remarks:

OCA Blue Note - The following 1G XCVR's are only supported on PHY switch ports:

HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPF X125 1G SFP LC LH70 Transceiver	JD063B

OCA Blue Note - The following 10G XCVR is only supported on the PHY switch ports for the HPE FF 5700-32XGT-8XG-2QSFP+ Switch (JG898A).

HPE X130 10G SFP+ LC ER 40km Transceiver JG234A

Clic UNB - If an option is ordered with #0D1/#B01, then the switch must have #0D1 option.

## **Rack Level Integration CTO Models**

## **Standard Switch Chassis**

HPE FlexFabric 5700 48G 4XG 2QSFP+ Switch

• 48 RJ45 10/100/1000Base-T Copper ports

4 - 1/10GbE SFP+ ports (min=0 \ max=4 SFP+ Transceivers)

• 2 - 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers)

- 1 Power Supply Required
- 1U Height

HPE FlexFabric 5700 40XG 2QSFP+ Switch

• 40 - 1/10GbE SFP+ ports (min=0 \ max=40 SFP+ Transceivers)

2 - 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers)

- 1 Power Supply Required
- 1U Height

JG894A

See Configuration

**NOTE:** 1, 2, 4, 11

See Configuration NOTE: 1, 2, 4, 6,

JG896A

HPE FlexFabric 5700 32XGT 8XG 2QSFP+ Switch

JG898A

•	32 RJ45 1/10GBase-T Copper ports	See Configuration
•	8 - 1/10GbE SFP+ ports (min=0 \ max=8 SFP+ Transceivers)	<b>NOTE:</b> 1, 2, 4, 6,
•	2 - 40GbE QSFP ports (min=0 \ max=2 QSFP Transceivers)	11

- 1 Power Supply Required
- 1U Height

## **Configuration Rules**

## Note 1 The following Transceivers install into this Switch's SFP+ Ports:

HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X125 1G SFP LC LH70 Transceiver	JD063B
HPE X130 10G SFP+ LC SR Transceiver	JD092B
HPE X130 10G SFP+ LC LR Transceiver	JD094B
HPE X130 10G SFP+ LC SR Data Center Transceiver	JL437A
HPE X130 10G SFP+ LC LR Data Center Transceiver	JL439A
HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A
HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C
HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C

## Note 2 The following Transceivers install into this switch's QSFP+ Ports: (Use #0D1 or #B01 if switch is CTO)

HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver	JL251A
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE X140 40G QSFP+ LC LR4L 2km SM Transceiver	JL286A
HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A
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

# Note 4 The following 40G Transceivers install into this switch: (Use #0D1 or #B01 quoted to switch if switch is CTO) - if applicable

HPE X2AO 40G QSFP+ to QSFP+ 7m Active Optical Cable	JL287A
HPE X2AO 40G QSFP+ to QSFP+ 10m Active Optical Cable	JL288A
HPE X2AO 40G QSFP+ to QSFP+ 20m Active Optical Cable	JL289A

## Note 6 The following 40G Transceiver install into this switch: (Use #0D1 or #B01 if switch is CTO)

HPE X140 40G QSFP+ LC ER4 40km SM Transceiver JL306A

Note 11 If HPE CTO Switch Chassis is selected for Rack Level Integration, Then the Switch needs to integrate (with #0D1) to the HPE Rack.

## Remarks:

OCA Blue Note - The following 1G XCVR's are only supported on PHY switch ports:

HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X125 1G SFP LC LH70 Transceiver	JD063B

OCA Blue Note - The following 10G XCVR is only supported on the PHY switch ports for the HP FF 5700-32XGT-8XG-2QSFP+ Switch (JG898A).

HPE X130 10G SFP+ LC ER 40km Transceiver JG234A

Clic UNB - If an option is ordered with #0D1/#B01, then the switch must have #0D1 option.

Enter the following menu selections as integrated to the CTO Model X server above if order is factory built.

## **Transceivers**

#### **SFP Transceivers**

HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X125 1G SFP LC LH70 Transceiver	JD063B

#### **SFP+ Transceivers**

HPE X130 10G SFP+ LC SR Transceiver	JD092B
HPE X130 10G SFP+ LC LR Transceiver	JD094B
HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A
HPE X130 10G SFP+ LC SR Data Center Transceiver	JL437A
HPE X130 10G SFP+ LC LR Data Center Transceiver	JL439A
HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C
HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C

#### **QSFP+ Transceivers**

HPE X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver	JG661A
HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver	JL251A
HPE X140 40G QSFP+ MPO SR4 Transceiver	JG325B
HPE X140 40G QSFP+ LC LR4L 2km SM Transceiver	JL286A

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HPE X140 40G QSFP+ MPO MM 850nm CSR4 300m Transceiver	JG709A
HPE X140 40G QSFP+ LC ER4 40km SM Transceiver	JL306A
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 X2AO 40G QSFP+ to QSFP+ 7m Active Optical Cable	JL287A
HPE X2AO 40G QSFP+ to QSFP+ 10m Active Optical Cable	JL288A
HPE X2AO 40G QSFP+ to QSFP+ 20m Active Optical Cable	JL289A

## **Internal Power Supplies**

System (std 0 // max 2) User Selection (min 1 // max 2) per switch enclosure

HPE A58x0AF Back (Power Side) to Front (Port Side) Airflow 300W AC Power Supply
 JG900A
 see Configuration
 NOTE: 1, 2, 3

PDU Cable NA/MEX/TW/JP JG900A#B2B

C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW JG900A#B2C

• C15 PDU Jumper Cord (ROW)

High Volt Switch/Router to Wall Power Cord JG900A#B2E

NEMA L6-20P Cord (NA/MEX/JP/TW)

HPE A58xOAF Back (Power Side) to Front (Port Side) Airflow 300W DC Power Supply

JG901A

See Configuration

**NOTE:** 1, 3, 5

HPE 58x0AF 650W AC Power Supply
 JC680A
 See Configuration
 NOTE: 1, 2, 4

PDU Cable NA/MEX/TW/JP JC680A#B2B

C15 PDU Jumper Cord (NA/MEX/TW/JP)

PDU Cable ROW JC680A#B2C

C15 PDU Jumper Cord (ROW)

HPE FlexFabric Switch 650W 48V Hot Plug NEBS-compliant DC Power Supply

JH336A

See Configuration NOTE: 1, 4

**Configuration Rules:** 

Note 2 Localization (Wall Power Cord) required on orders without #B2B, #B2C (PDU Power Cord) or #B2E. (See Localization Menu)

REMARK: When Switches/Routers are Factory Racked, Then #B2B, or #B2C should be the Defaulted Power Cable option on the Switches/Routers.

- Note 3 This power supply is only supported on JG894A and JG896A.
- Note 4 This power supply is only supported on JG894A and JG898A.
- Note 5 Watson Only Add "(NEBS)" after the description on the PS table.

Remarks Drop down under power supply should offer the following options and results:

Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (Configurators Default B2B or B2C for Rack Level CTO)

Switch/Router/Power Supply to Wall Power Cord - Localized Option (Configurators Default for BTO and Box Level CTO)

High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)

NOTE\* Switches JG894A and JG896A should default selection of Power Supply as JG900A, but allow selection of JG901A, and JC680A if applicable.

## **Switch Options**

## Fan Trays

System (std 0 // max 2) User Selection (min 2 // max 2) per switch

HPE 58x0AF Back (Power Side) to Front (Port Side) Airflow Fan Tray

See Configuration NOTE: 1, 2

JC682A

HPE 58x0AF Front (Port Side) to Back (Power Side) Airflow Fan Tray

JC683A See Configuration NOTE: 1, 2

HPE X711 Front (Port Side) to Back (Power Side) Airflow High Volume Fan Tray

JG552A See Configuration NOTE: 1, 3

HPE X712 Back (Power Side) to Front (Port Side) Airflow High Volume Fan Tray

JG553A See Configuration NOTE: 1, 3

## **Configuration Rules**

Note 1 Fan Trays cannot be mixed in the same switch enclosure

Note 2 This Fan Tray is only supported on JG894A and JG896A.

Note 3 This Fan Tray is only supported on JG898A.

## Remarks: Configurator Informational Text:

If there is any empty space below the switch in a rack when using Back to Front Fan Trays, JG553A, the rack will receive an Air Plenum kit that takes up 1U of additional space in the rack. The Air Plenum kit is not required on fully configured racks. This only applies for CTO Rack Level Integration. The Air Plenum Kit is a non-saleable SKU, and is brought in automatically for CTO Factory Rack Level Integration.

HPE FlexFabric 5700 40XG 2QSFP+ Switch (JG896A)

I/O ports and slots 40 fixed 1000/10000 SFP+ ports

2 QSFP+

Additional ports and

1 RJ-45 serial console port

slots

1 RJ-45 out-of-band management port

1 USB 2.0

**Power supplies** 2 power supply slots

1 minimum power supply required (ordered separately)

2 fan tray slots Fan tray

The customer must order fan trays, as fan trays are not included with the switch. This system requires two

same-direction airflow fan trays to function properly.

The system should not be operated with only one fan tray for more than 24 hours. The system should not

be operated without a fan tray for more than two minutes.

The system should not be operated outside of the temperature range of 32°F (0°C) to 113°F (45°C).

Failure to comply with these operating requirements may void the product warranty.

Physical characteristics Dimensions 17.32(w) x 18.11(d) x 1.72(h) in (43.99 x 46 x 4.37 cm) (1U height)

> Weight 22.05 lb (10 kg) shipping weight

Memory and processor 512 MB flash; Packet buffer size: 9 MB, 2 GB SDRAM

**Performance** 10 Gbps Latency  $< 1.5 \mu s (64-byte packets)$ 

> **Throughput** up to 714.2 Mpps

Routing/Switching capacity 960 Gbps

Routing table size 128 entries (IPv4), 128 entries (IPv6))

MAC address table size 128000 entries

Operating temperature 32°F to 113°F (0°C to 45°C) Environment

**Operating relative humidity** 10% to 90%, noncondensing

**Acoustic** Low-speed fan: 65.7 dB, High-speed fan: 70.6 dB

**Electrical** 

characteristics

50/60 Hz Frequency

Voltage 100 - 240 VAC. rated

-48 to -60 VDC, rated

(depending on power supply chosen)

Maximum power rating 162 W 90 W Idle power

**Notes** Idle power is the actual power consumption of the device with no ports

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.

Safety UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2;

IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR

Subchapter J; NOM; ROHS Compliance

**Emissions** VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN

61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47,

Part 15) Class A

Generic **Immunity** ETSI EN 300 386 V1.3.3

> EN 55024:1998+ A1:2001 + A2:2003 **EN**

ESD EN 61000-4-2; IEC 61000-4-2
Radiated EN 61000-4-3; IEC 61000-4-3
EFT/Burst EN 61000-4-4; IEC 61000-4-4
Surge EN 61000-4-5; IEC 61000-4-5
Conducted EN 61000-4-6; IEC 61000-4-6
Power frequency magnetic IEC 61000-4-8; EN 61000-4-8

field

**Voltage dips and** EN 61000-4-11; IEC 61000-4-11

interruptions

**Harmonics** EN 61000-3-2, IEC 61000-3-2 **Flicker** EN 61000-3-3, IEC 61000-3-3

Management IMC - Intelligent Management Center; command-line interface; out-of-band management; SNMP Manager;

Telnet: FTP

Services Refer to the Hewlett Packard Enterprise website at <a href="http://www.hpe.com/networking/services">http://www.hpe.com/networking/services</a> 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 FlexFabric 5700 48G 4XG 2QSFP+ Switch (JG894A)

I/O ports and slots 48 RJ-45 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-

TX, IEEE 802.3ab Type 1000BASE-T); Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full

only

4 fixed 1000/10000 SFP+ ports

2 QSFP+

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 (ordered separately)

**Fan tray** 2 fan tray slots

The customer must order fan trays, as fan trays are not included with the switch. This system requires two

same-direction airflow fan trays to function properly.

The system should not be operated with only one fan tray for more than 24 hours. The system should not

be operated without a fan tray for more than two minutes.

The system should not be operated outside of the temperature range of 32°F (0°C) to 113°F (45°C).

Failure to comply with these operating requirements may void the product warranty.

**Physical characteristics Dimensions** 17.32(w) x 18.11(d) x 1.72(h) in (43.99 x 46 x 4.37 cm) (1U height)

**Weight** 22.05 lb (10 kg) shipping weight

Memory and processor 512 MB flash; Packet buffer size: 9 MB, 2 GB SDRAM

**Performance** 10 Gbps Latency  $< 1.5 \mu s (64-byte packets)$ 

**Throughput** up to 250 Mpps **Routing/Switching capacity** 336 Gbps

**Routing table size** 128 entries (IPv4), 128 entries (IPv6)

MAC address table size 128000 entries

**Environment** Operating temperature 32°F to 113°F (0°C to 45°C)

Operating relative humidity 10% to 90%, noncondensing

**Acoustic** Low-speed fan: 65.7 dB, High-speed fan: 70.6 dB

Frequency 50/60 Hz

Voltage 100 - 240 VAC, rated

-48 to -60 VDC, rated

(depending on power supply chosen)

Maximum power rating 175 W

**Electrical** characteristics

Idle power 115 W

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.

Safety UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2;

IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR

Subchapter J; NOM; ROHS Compliance

VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN **Emissions** 

61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47,

Part 15) Class A

**Notes** 

**Immunity** Generic ETSI EN 300 386 V1.3.3

> EN 55024:1998+ A1:2001 + A2:2003 EN

**ESD** EN 61000-4-2: IEC 61000-4-2 **Radiated** EN 61000-4-3; IEC 61000-4-3 **EFT/Burst** EN 61000-4-4; IEC 61000-4-4 Surge EN 61000-4-5; IEC 61000-4-5 **Conducted** EN 61000-4-6; IEC 61000-4-6 Power frequency magnetic IEC 61000-4-8; EN 61000-4-8

field

Voltage dips and EN 61000-4-11; IEC 61000-4-11

interruptions

**Harmonics** EN 61000-3-2, IEC 61000-3-2 EN 61000-3-3. IEC 61000-3-3 **Flicker** 

IMC - Intelligent Management Center; command-line interface; out-of-band management; SNMP Manager; Management

Telnet: FTP

**Services** Refer to the Hewlett Packard Enterprise website at http://www.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 FlexFabric 5700 32XGT 8XG 2QSFP+ Switch (JG898A)

I/O ports and slots 32 RJ-45 1/10GBASE-T ports; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only

8 fixed 1000/10000 SFP+ ports

2 QSFP+

Additional ports and

1 RJ-45 serial console port

slots 1 RJ-45 out-of-band management port

1 USB 2.0

**Power supplies** 2 power supply slots

1 minimum power supply required (ordered separately)

Fan tray 2 fan tray slots

> The customer must order fan trays, as fan trays are not included with the switch. This system requires two same-direction airflow fan trays to function properly. The system should not be operated with only one fan tray for more than 24 hours. The system should not be operated without a fan tray for more than two

minutes.

The system should not be operated outside of the temperature range of 32°F (0°C) to 113°F (45°C).

Failure to comply with these operating requirements may void the product warranty.

Physical characteristics Dimensions 17.32(w) x 25.98(d) x 1.72(h) in (43.99 x 66.0 x 4.37 cm) (1U height)

> Weight 28.66 lb (13 kg) shipping weight

Memory and processor 512 MB flash; Packet buffer size: 9 MB, 2 GB SDRAM

**Performance** 10 Gbps Latency  $< 1.5 \mu s (64-byte packets)$ 

> up to 714.2 Mpps Throughput

Routing/Switching capacity 960 Gbps

Routing table size 128 entries (IPv4), 128 entries (IPv6)

MAC address table size 128000 entries

**Environment** Operating temperature 32°F to 113°F (0°C to 45°C)

Operating relative humidity 10% to 90%, noncondensing

Low-speed fan: 65.7 dB, High-speed fan: 70.6 dB **Acoustic** 

**Electrical** characteristics **Frequency** 50/60 Hz

Voltage 100 - 240 VAC. rated

-48 to -60 VDC, rated

(depending on power supply chosen)

Maximum power rating 350 W Idle power 150 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.

UL 60950-1; EN 60825-1 Safety of Laser Products-Part 1; EN 60825-2 Safety of Laser Products-Part 2; Safety

IEC 60950-1; CAN/CSA-C22.2 No. 60950-1; Anatel; ULAR; GOST; EN 60950-1/A11; FDA 21 CFR

Subchapter J; NOM; ROHS Compliance

**Emissions** VCCI Class A; EN 55022 Class A; ICES-003 Class A; ANSI C63.4 2003; AS/NZS CISPR 22 Class A; EN

61000-3-2:2006; EN 61000-3-3:1995 +A1:2001+A2:2005; EMC Directive 2004/108/EC; FCC (CFR 47,

Part 15) Class A

**Immunity** Generic ETSI EN 300 386 V1.3.3

> ΕN EN 55024:1998+ A1:2001 + A2:2003

**ESD** EN 61000-4-2: IEC 61000-4-2 **Radiated** EN 61000-4-3; IEC 61000-4-3 **EFT/Burst** EN 61000-4-4; IEC 61000-4-4 Surge EN 61000-4-5; IEC 61000-4-5 EN 61000-4-6; IEC 61000-4-6 Conducted Power frequency magnetic IEC 61000-4-8; EN 61000-4-8

field

Voltage dips and interruptions

EN 61000-4-11: IEC 61000-4-11

**Harmonics** EN 61000-3-2, IEC 61000-3-2 **Flicker** EN 61000-3-3. IEC 61000-3-3

Management IMC - Intelligent Management Center; command-line interface; out-of-band management; SNMP Manager;

Telnet; FTP

#### **Services**

Refer to the Hewlett Packard Enterprise website at http://www.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.

## Standards and protocols Device management

(applies to all products in RFC 1157 SNMPv1/v2c series)

RFC 1305 NTPv3

RFC 1591 DNS (client)

RFC 1902 (SNMPv2)

RFC 1908 (SNMP v1/2 Coexistence) RFC 2573 (SNMPv3 Applications)

RFC 2576 (Coexistence between SNMP V1, V2,

V3)

Multiple Configuration Files Multiple Software Images SSHv1/SSHv2 Secure Shell

TACACS/TACACS+

## **General protocols**

IEEE 802.1ad Q-in-Q

IEEE 802.1ag Service Layer OAM

IEEE 802.1D MAC Bridges

IEEE 802.1D Spanning Tree Protocol

IEEE 802.1p Priority IEEE 802.1Q VLANs

IEEE 802.1s Multiple Spanning Trees

IEEE 802.1w Rapid Reconfiguration of Spanning

Tree

IEEE 802.3 Type 10BASE-T

IEEE 802.3ab 1000BASE-T Gigabit Ethernet over

twisted pair (10/100/1000 models only)

IEEE 802.3ad Link Aggregation Control Protocol (LACP)

IEEE 802.3ae 10-Gigabit Ethernet

IEEE 802.3ag Ethernet OAM

IEEE 802.3ah Ethernet in First Mile over Point to

Point Fiber - EFMF

IEEE 802.3x Flow Control

RFC 768 UDP

RFC 783 TFTP Protocol (revision 2)

**RFC 791 IP** 

RFC 792 ICMP

RFC 793 TCP

RFC 826 ARP

RFC 854 TELNET

RFC 856 TELNET

RFC 868 Time Protocol

RFC 896 Congestion Control in IP/TCP

Internetworks R

RFC 950 Internet Standard Subnetting Procedure

RFC 1027 Proxy ARP

RFC 1058 RIPv1

RFC 1091 Telnet Terminal-Type Option

RFC 1141 Incremental updating of the Internet

checksum

RFC 1191 Path MTU discovery

RFC 1213 Management Information Base for

#### IPv<sub>6</sub>

RFC 2080 RIPna for IPv6

RFC 2460 IPv6 Specification

RFC 2461 IPv6 Neighbor Discovery

RFC 2462 IPv6 Stateless Address Auto-

configuration R

RFC 2463 ICMPv6

RFC 2464 Transmission of IPv6 over Ethernet

Networks

RFC 2563 ICMPv6

RFC 2711 IPv6 Router Alert Option

RFC 2767 Dual stacks IPv46 & IPv6

RFC 3315 DHCPv6 (client and relay)

RFC 4291 IP Version 6 Addressing Architecture

RFC 4862 IPv6 Stateless Address Auto-

configuration

RFC 5095 Deprecation of Type 0 Routing Headers

in IPv6

#### **MIBs**

RFC 1213 MIB II

RFC 1907 SNMPv2 MIB

RFC 2571 SNMP Framework MIB

RFC 2572 SNMP-MPD MIB

RFC 2573 SNMP-Notification MIB

RFC 2573 SNMP-Target MIB

RFC 2574 SNMP USM MIB

RFC 2737 Entity MIB (Version 2)

RFC 3414 SNMP-User based-SM MIB

RFC 3415 SNMP-View based-ACM MIB

LLDP-EXT-DOT1-MIB

LLDP-EXT-DOT3-MIB

LLDP-MIB

## Network management

RFC 3164 BSD syslog Protocol

#### QoS/CoS

IEEE 802.1p (CoS)

RFC 2475 DiffServ Architecture

RFC 2597 DiffServ Assured Forwarding (AF)

RFC 3247 Supplemental Information for the New

Definition of the EF PHB (Expedited Forwarding

Per-Hop Behavior)

RFC 3260 New Terminology and Clarifications for DiffServ

## Security

Access Control Lists (ACLs)

SSHv2 Secure Shell

Network Management of TCP/IP-based internets

RFC 1531 Dynamic Host Configuration Protocol

RFC 1541 DHCP

RFC 1591 DNS (client only)

RFC 1624 Incremental Internet Checksum

RFC 1723 RIP v2

RFC 1812 IPv4 Routing

RFC 2030 Simple Network Time Protocol (SNTP)

ν4

RFC 2131 DHCP

RFC 2236 IGMP Snooping

RFC 2453 RIPv2

RFC 2581 TCP Congestion Control

RFC 2644 Directed Broadcast Control

RFC 2767 Dual Stacks IPv4 & IPv6

RFC 3046 DHCP Relay Agent Information Option

RFC 4250 The Secure Shell (SSH) Protocol

Assigned Numbers

RFC 4251 The Secure Shell (SSH) Protocol

Architecture

RFC 4252 The Secure Shell (SSH) Authentication

Protocol

RFC 4253 The Secure Shell (SSH) Transport Layer

Protocol

RFC 4254 The Secure Shell (SSH) Connection

Protocol

RFC 4419 Diffie-Hellman Group Exchange for the

Secure Shell (SSH) Transport Layer Protocol

RFC 4594 Configuration Guidelines for DiffServ

Service Classes

RFC 4941 Privacy Extensions for Stateless

Address Autoconfiguration in IPv6

# **Accessories**

# **HPE FlexFabric 5700 Switch Series accessories**

THE ETTENT ABOVE 57 TO SWITCH SCHOOL ACCESSORIES	
Transceivers	
HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
HPE X120 1G SFP LC BX 10-U Transceiver	JD098B
HPE X120 1G SFP LC BX 10-D Transceiver	JD099B
HPE X120 1G SFP LC LX Transceiver	JD119B
HPE X120 1G SFP RJ45 T Transceiver	JD089B
HPE X120 1G SFP LC SX Transceiver	JD118B
HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
HPE X125 1G SFP LC LH70 Transceiver	JD063B
HPE X130 10G SFP+ LC SR Transceiver	JD092B
HPE X130 10G SFP+ LC LR Transceiver	JD094B
HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C
HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
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 FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
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
HPE X140 40G QSFP+ LC BiDi 100m MM Transceiver	JL251A
HPE X2A0 40G QSFP+ to QSFP+ 7m Active Optical Cable	JL287A
HPE X2A0 40G QSFP+ to QSFP+ 10m Active Optical Cable	JL288A
HPE X2A0 40G QSFP+ to QSFP+ 20m Active Optical Cable	JL289A
HPE X140 40G QSFP+ LC LR4L 2km SM Transceiver	JL286A
HPE FlexFabric 5700 40XG 2QSFP+ Switch (JG896A)	
HPE X140 40G QSFP+ LC ER4 40km SM Transceiver	JL306A
HPE A58xOAF Back (Power Side) to Front (Port Side) Airflow 300W AC Power Supply	JG900A
HPE A58xOAF Back (Power Side) to Front (Port Side) Airflow 300W DC Power Supply	JG901A
HPE 58x0AF Back (Power Side) to Front (Port Side) Airflow Fan Tray	JC682A
HPE 58x0AF Front (Port Side) to Back (Power Side) Airflow Fan Tray	JC683A
HPE FlexFabric 5700 48G 4XG 2QSFP+ Switch (JG894A)	
HPE A58xOAF Back (Power Side) to Front (Port Side) Airflow 300W AC Power Supply	JG900A
HPE A58xOAF Back (Power Side) to Front (Port Side) Airflow 300W DC Power Supply	JG901A
HPE 58x0AF 650W AC Power Supply	JC680A
HPE FlexFabric Switch 650W 48V Hot Plug NEBS-compliant DC Power Supply	JH336A
HPE 58x0AF Back (Power Side) to Front (Port Side) Airflow Fan Tray	JC682A
HPE 58x0AF Front (Port Side) to Back (Power Side) Airflow Fan Tray	JC683A
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# **Accessories**

## HPE FlexFabric 5700 32XGT 8XG 2QSFP+ Switch (JG898A)

HPE X140 40G QSFP+ LC ER4 40km SM Transceiver	JL306A
HPE X130 10G SFP+ LC ER 40km Transceiver	JG234A
HPE 58x0AF 650W AC Power Supply	JC680A
HPE FlexFabric Switch 650W 48V Hot Plug NEBS-compliant DC Power Supply	JH336A
HPE X711 Front (Port Side) to Back (Power Side) Airflow High Volume Fan Tray	JG552A
HPE X712 Back (Power Side) to Front (Port Side) Airflow High Volume Fan Tray	JG553A

# **Summary of Changes**

Date	Version History	Action	Description of Change
07-May-2018	Version 14	Changed	Accessories and Configuration section updated
16-Oct-2017	Version 13	Changed	Changes made on the Features and Benefits section and Configuration
25-Sep-2017	Version 12	Changed	Configuration section updated.
06-Mar-2017	Version 11	Changed	Configuration section updated: Add existing TXVR to All 5700 Switches
01-Aug-2016	Version 10	Added	SKUs added: JL287A, JL288A, JL289A, JL290A, JL291A, JL292A, JL250A, JL286A
		Changed	Features and Benefits updated
22-Apr-2016	Version 9	Changed	SKU descriptions updated on all the document
16-Feb-2016	Version 8	Added	SKU added: JL251A
		Changed	Overview and Technical Specifications updated
08-Jan-2016	Version 7	Changed	Warranty and support updated
12-Oct-2015	Version 6	Added	Added new DC power supply: JH336A
		Changed	Overview, Technical Specifications and Configuration sections updated
12-Dec-2014	Version 5	Removed	Deleted SKU JG325A
26-Nov-2014	Version 4	Changed	Minor Changes made on the Configuration section
		Removed	SKU JD093B removed from Accessories
11-Sep-2014	Version 3	Changed	Updated Technical Specifications and Accessories
			Added Software-defined networking
22-Aug-2014	Version 2	Changed	Fixed error on Overview Section
18-Aug-2014	Version 1	Created	Document creation





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