

Overview

Arista 7320X 10/25/40/50/100G Data Center Switch Series

The Arista 7320X Series modular switches deliver over 50Tbps of switching with up to 256 wire speed 100GbE ports. The 7320X Series are part of the Arista portfolio of data center switches and increase availability, flexibility and scalability supporting both leaf and spine and Spline™ applications. The 7320X systems share feature consistency and a common architecture with the Arista 7300X, 7060X and 7260X Series in two modular systems, a 4-slot and 8-slot, that support comprehensive features for network monitoring, precision timing and network virtualization to deliver scalable high performance for software defined cloud networking.

Increased adoption of high performance servers and applications requiring higher bandwidth is driving adoption of 25 Gigabit Ethernet switching in combination with 100Gigabit Ethernet. The 7320X Series support high density 100GbE in combination with wire speed layer 2/3/4 performance. Each 100GbE interface supports a choice of 10GbE, 25GbE, 40GbE, 50GbE and 100GbE speeds allowing customers to seamlessly transition data centers from existing 10GbE and 40GbE architectures to 25GbE and 100GbE in open leaf and spine networks with the capacity that meets the need for scale-out of virtualized networks, with east-west traffic patterns.

With front-to-rear airflow, redundant and hot swappable supervisor, power, fabric and cooling modules the system is purpose built for data centers. The 7320X Series is energy efficient with typical power consumption of under 17 Watts per 100GbE port for a fully loaded system. These attributes make the Arista 7320X Series an ideal platform for building reliable, low latency, resilient and scalable data center networks. Combined with Arista EOS the 7320X Series delivers advanced features for cloud, Big Data, virtualized and traditional designs.



Arista 7320X Series 100GbE Modular Data Center Switches

Product Highlights

Performance

- Over 50 Terabits per second fabric capacity
- Up to 38 billion packets per second
- Up to 6.4 Terabit per second per line card
- Wire speed L2 and L3 forwarding
- 256 wire-speed 40GbE and 100GbE ports
- Quad 10GbE or 25GbE mode support
- Latency below 2usec

High Availability

- 1+1 Supervisor redundancy
- N+N Grid redundant power system
- N+1 Fan module redundancy

Resilient Control Plane

- Quad-core Hyper-threaded x86 CPU
- 16GB DRAM/4GB Flash
- Dual Supervisor modules
- User applications can run in a VM

Data Center Class Design

- 8RU and 13RU chassis options
- Front-to-back airflow for optimized cooling
- Under 17W per 100GbE port typical power for lower cost of ownership
- High Density 100GbE and 40GbE
- Quad 10GbE and 25GbE on QSFP100 ports

Overview

- Redundant fabric modules

Cloud Networking Ready

- VXLAN and VM Tracer
- OpenFlow, DirectFlow and eAPI
- 16MB Dynamic Buffer per port group

Advanced Provisioning & Monitoring

- CloudVision
- Zero Touch Provisioning (ZTP)
- LANZ for microburst detection
- sFlow
- Self-configure and recover from USB
- Advanced Event Monitoring

Arista Extensible Operating System

- Single binary image for all products
- Fine-grained truly modular network OS
- Stateful Fault Containment (SFC)
- Stateful Fault Repair (SFR)
- Full access to Linux shell and tools
- Extensible platform—bash, python, C++

Arista Extensible Operating System (EOS)

All Arista products including the 7320X Series runs the same Arista EOS software binary image simplifying network administration with a single standard across all switches. Arista EOS is a modular switch operating system with a unique state sharing architecture that cleanly separates switch state from protocol processing and application logic. Built on top of a standard Linux® kernel, all EOS processes run in their own protected memory space and exchange state through an in-memory database. This multi-process state sharing architecture provides the foundation for in-service-software updates and self-healing resiliency together with stateful switchover without the loss of data plane forwarding.

Arista EOS enables advanced monitoring and automation capabilities such as Zero Touch Provisioning, LANZ, VM Tracer and Linux based tools to be run natively on the switch.

Scaling Data Center Performance

The Arista 7320X Series delivers wire speed switching at layer 2 and layer 3 to enable dramatically faster and simpler network designs for data centers that lowers network capital and operational expenses. When used in conjunction with Arista 1G, 10G and 40G leaf switches and Arista's Multi-Chassis Link Aggregation (MLAG) technology, a pair of 7320X Switches can support over 48,000 Servers with a leaf and spine active/active L2 network topology. A spine of 16 7320X at Layer 3 scales the network up to over 100K 10G Servers in a fully non-blocking, low-latency, two-stage network that provides predictable and consistent application performance. The flexibility of the L2 and L3 multi-path design options combined with support for open standards provides maximum flexibility, scalability and network wide virtualization. Arista EOS advanced features provides control, and visibility with single point of management.

Software Driven Cloud Networks

Arista Software Driven Cloud Networking (SDCN), combines the principles that have made cloud computing the unstoppable force that it is: automation, self service provisioning, and linear scaling of both performance and economics coupled with the trend in Software Defined Networking that delivers: network virtualization, custom programmability, simplified architectures, and lower capital expenditure. This combination creates a best-in-class software foundation for maximizing the value of the network to both the enterprise and service provider data center. A new architecture for the most mission-critical location within the IT infrastructure that simplifies management and provisioning, speeds up service delivery, lowers costs and creates opportunities for competitive differentiation, while putting control and visibility back in the hands of the network and systems administrators.

The Four Pillars of Arista's Software Defined Cloud Networking:

- Universal Cloud Network—scalable standards based MLAG at Layer 2, ECMP for Layer 3 and VXLAN for most flexibility
- Cloud Control—Standards based EOS with AEM, ZTP/ZTR, LANZ and DANZ, together with Automated Monitoring
- Network Wide Virtualization—Multi-vendor API Support with eAPI, VXLAN and NSX, Microsoft OMI and Openstack OVSDB
- Network Applications and Automated Management—Networks applications; single point of network wide state with

Overview

CloudVision and open partner integration

Dynamic Buffer Allocation

In cut-through mode, the Arista 7320X series switches forward packets with a latency of less than 2 usec. Upon congestion, the packets are buffered in shared packet memory that has a total size of 16 Mbytes. Unlike other architectures that have fixed per-port packet memory, the 7320X Series use Dynamic Buffer Allocation (DBA) to allocate packet memory to a single port for lossless forwarding.

Maximum Flexibility for Scale Out Network Designs

Scale out network designs enable solutions to start small and evolve overtime. A simple two-way design can grow as wide as 64-way without significant changes to the architecture. The 7300X Series include enhancements that allow for flexible scale-out designs:

- 128-way ECMP and 64-way MLAG to provide scalable designs and balance traffic evenly across large scale 2 tier leaf-spine designs
- Flexible allocation of L2 and L3 forwarding table resources for more design choice
- Wide choice of interface types with multi-speed support on the QSFP100 interfaces combined with a wide range of optics and cables
- VXLAN routing, bridging and gateway for physical to virtualization communication to enable next generation data center designs
- DANZ, sFlow, and multi-port mirroring to
- detect micro-burst congestion and provide network wide visibility and monitoring
- Investment protection for current and evolving requirements with support for
- 10GbE, 25GbE, 40GbE and 100GbE

Enhanced Features for High Performance Networks

The Arista 7320X Series delivers a suite of advanced traffic control and monitoring features to improve the agility of modern high performance environments, with solutions for data monitoring, precise timing and next-generation virtualization.

Smart System Upgrade

Smart System Upgrade (SSU) is a network application designed to address one of the most complicated and challenging tasks facing data center administrators—network infrastructure maintenance. Changes to the underlying network infrastructure can affect large numbers of devices and cause significant outages. SSU provides a fully customizable suite of features that tightly couples data center infrastructure to technology partners allowing for intelligent insertion and removal, programmable updates to software releases and open integration with application and infrastructure elements.

Precise Data Analysis

Arista Latency Analyzer (LANZ) is an integrated feature of EOS. LANZ provides precise real-time monitoring of micro-burst and congestion events before they impact applications, with the ability to identify the sources and capture affected traffic for analysis

Virtualization

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and emerging encapsulation technologies such as VXLAN. The 7320X Series builds on the valuable tools already provided by the Arista VM Tracer suite to integrate directly into encapsulated environments. Offering a wire-speed gateway between VXLAN and traditional L2/3 environments, the 7320X Series makes integration of non-VXLAN aware devices including servers, firewalls and load-balancers seamless and provides the ability to leverage VXLAN as a standards based L2 extension technology for non-MPLS environments.

Advanced Event Management (AEM)

Simplifying the overall operations, AEM provides the tools to customize alerts and actions. AEM is a powerful and flexible set of tools to automate tasks and customize the behavior of EOS and the operation of the overall data center switching infrastructure. AEM allows operators to fully utilize the intelligence within EOS to respond to real-time events, automate routine tasks, and automate actions based on changing network conditions.

Unified Forwarding Table

Overview

Cloud network scalability is directly impacted by the size of a switches forwarding tables. In many systems a 'one size fits all' approach is adopted using discrete fixed size tables for each of the common types of forwarding entry. The Arista 7320X leverages a common Unified Forwarding Table (UFT) for the L2 MAC, L3 Routing, L3 Host and IP Multicast forwarding entries, which can be partitioned per entry type. The ideal size of each partition varies depending on the network deployment scenario. The flexibility of the UFT coupled with the range of pre-defined configuration profiles available on the 7320X ensures optimal resource allocation for all network topologies and network virtualization technologies. Algorithmic Longest Prefix Match (ALPM) allows for the shared UFT to be expanded to contain up to 128K longest prefix match (LPM) route entries.

Designed for High Availability and Manageability

The Arista 7320X Series are designed for continuous operations with system wide monitoring of both hardware and software components, simple serviceability and provisioning to prevent single points of failure. The hardware supports high-availability with hot-swap of all components with redundant supervisors, power supplies, fabric and cooling modules. Fabric redundancy provides deterministic degradation and integrated fan systems for dynamic temperature control combined with N+1 redundancy. Each of the 7320X Series offers power redundancy that supports both power-source and powersupply redundancy.

The Arista EOS software enabled stateful failover* between the dual redundant supervisors as well as self-healing stateful fault containment (SFC), stateful fault repair (SFR) and live patching through in-service-software updates to help ensure continuous service. The Arista 7320X lowers total cost of ownership as it is designed to be efficient with power per port as low as 17W per 100GbE port which combined with front to rear cooling produces the most reliable, dense and power efficient modular switch.

CloudVision

CloudVision is a network-wide approach for workload orchestration and workflow automation as a turnkey solution for Cloud Networking. CloudVision extends the EOS publish subscribe architectural approach across the network for state, topology, monitoring and visibility. This enables enterprises to move to cloud-class automation without needing any significant internal development.

7320X Architecture

The 7320X Series architecture is designed around an internal clos with line cards and fabric modules fully interconnected to deliver a low latency fully non-blocking system. Each line card has self contained switch modules and interconnect via the vertical fabric modules for over 50 Tbps of switching capacity. Dual redundant supervisor modules provide centralized control plane and management functionality.

7300 Chassis—8-slot and 4-slot

The Arista 7300 chassis provides room for two supervisor modules, four or eight line card modules, multiple power supply modules, and four fabric modules. The 7304 chassis fits into 8 rack units while the 7308 chassis fits into 13U of a standard data center rack. Supervisor and line card modules plug in from the front, as do power supply modules, while the fabric and fan modules are inserted from the rear.



Arista 7300X Series Chassis

The midplane is completely passive with orthogonal connectors that provide direct connectivity between each of the fabric and line card modules. The system is optimized for data center deployments with front-to-rear airflow and can be installed in both standard 4-post and 2-post rack or cabinets without special modifications.

System Cooling

The Arista 7320X Series supports front to rear cooling that is optimized for modern data center and co-location facilities. Cool air is drawn into the system through the front over the line cards, supervisor modules and power supplies. Warm air is exhausted at the rear through the fabric modules by fan modules that are integrated into the fabric cards. The system controls the fans speeds to dynamically adjust to the ambient air temperature and internal temperature sensors built into all system elements to ensure optimum cooling.

Overview

Line Card Modules

The 7320X Series line cards deliver up to 4.7 Billion packets per second of forwarding with a single stage architecture that provides fair access to all ports. Each line card contains up to 32MB of packet memory that ensures up to 4MB for any single port for lossless forwarding. Line cards connect to all fabric modules in a non-blocking full mesh and leverage flow based load balancing to improve fabric efficiency. Fabric and line card connections are optimized to allow individual flows of up to 100 Gigabit per second. The Arista 7320X Series can be populated with up to eight high density 100GbE line cards. For environments requiring the highest performance combined with interface flexibility the 7320X line cards support five speed choices on each port. Each port can be configured for quad 10GbE or 25GbE, dual 50GbE or single 40GbE and 100GbE. Speed changes and breakout modes are enabled independently of the other ports on the line card. Additionally a wide range of both copper and fiber optics for all speeds are available with full support for industry standard connections. Each 7320X line card supports wire speed layer 2 and 3 forwarding and support for a wide range of L2 and L3 features.



Arista 7320X Series 32 port 100GbE Line Card

32 port QSFP100 100GbE line card for

- 10G/25G/40G/50G/100G
- 32 100GbE or 40GbE ports with 4x 10GbE or 4x25GbE on any port
- QSFP100 and QSFP+ optics and breakout cables
- Choice of Copper, Multimode and Single-mode connections
- Parallel cables and optics for quad breakout compatibility
- 4.7 Billion pps wire speed performance • Under 10W per 100G port
- Supported in both 4 and 8 Slot 7320X systems
- LEDs to indicate port status and mode

Supervisor Module

The supervisor module for the 7300X and 7320X series runs Arista Extensible Operating System (EOS) and handles all control plane and management functions of the system. One supervisor module is needed to run the system and a second can be added for 1+1 redundancy. Each supervisor module takes up only a half slot resulting in very efficient use of space and a higher density design. The quad-core x86 CPU with 16GB of DRAM and an optional solid state drive (SSD) provides the control plane performance needed to run an advanced data center switch scaling to over 2,000 physical ports and thousands of virtual ports. Supervisor modules have dedicated connections to all fabric modules and line cards for communication and monitoring.



Arista 7300X Series Supervisor Module

A pulse per second clock input port enables synchronizing with an external source to improve the accuracy of network timing and monitoring tools. The supervisor module features an auxiliary console port, 2 Ethernet management interfaces and a pair of USB ports for attaching external storage to install images, copy logs or support external connections. A series of status LEDs provide summary information for the system, power supplies, line cards, fabrics and fan modules.

Fabric and Fan Module

Overview

At the heart of the 7320X series is the fabric. It interconnects all line cards in a non-blocking architecture irrespective of the traffic pattern providing a full 6.4 Tbps of forwarding to each line card slot. Each line card connects to the fabric with multiple links and flows are spread across these paths to efficiently utilize the available fabric capacity. The four fabric modules are always active-active, providing high availability and can be hot-swapped with graceful performance degradation.



Arista 7320X Series Fabric and Fan Modules

The fabric modules for the two chassis are different based on the size of the chassis and each accommodates a set of individual hot-swap high speed fan modules which provides redundancy for cooling. Each high speed fan module can be independently replaced without any impact of the system. The high speed fan modules are common to many of the 7000 Series 2RU switches providing simpler maintenance and sparing across modular and fixed products.

Power Supply Modules

The 7320 series switches are equipped with a choice of 3000W AC or 2700W DC power supplies. The power supplies provide load sharing, support grid redundancy and are hot-swappable to eliminate downtime when replacing power supplies. A maximum of 4 power supplies are used on the 7304 and up to 6 power supplies on the 7308. System are fully redundant with just two power supplies depending on the configuration and adding more power supplies provides increased power capacity.



Arista 7320X Series AC and DC Power Supplies

The AC power supplies are Titanium climate saver rated and have an efficiency of over 94% across typical loading with a single stage conversion to the internal DC voltage. The DC power supplies require inputs at -48V DC to deliver up to 2700W. The 7320X Series uses multiple small power supplies which allows for incremental provisioning and smaller input circuits. Variable power supply fan speeds ensure power supply efficiency is optimized and reduces noise in data center environments.

Features and Benefits

Layer 2 Features

- 802.1w Rapid Spanning Tree
- 802.1s Multiple Spanning Tree Protocol
- Rapid Per VLAN Spanning Tree (RPVST+)
- 4096 VLANs
- Q-in-Q
- 802.3ad Link Aggregation/LACP
 - 64 ports/channel
 - 1024 groups per system

Network Management

- CloudVision
- 10/100/1000 Management Port
- RS-232 Serial Console Port
- USB Port
- SNMP v1, v2, v3
- Management over IPv6
- Telnet and SSHv2
- Syslog

Overview

- Multi-Chassis Link Aggregation (MLAG)
 - 64 ports per MLAG
- Custom LAG Hashing
- Resilient LAG Hashing
- 802.1AB Link Layer Discovery Protocol
- 802.3x Flow Control
- Jumbo Frames (9216 Bytes)
- IGMP v1/v2/v3 snooping
- Storm Control

Layer 3 Features

- Routing Protocols: OSPF, OSPFv3, BGP, MP-BGP, IS-IS, and RIPv2
- 128-way Equal Cost Multipath Routing (ECMP)
- Resilient ECMP Routes
- VRF
- BFD
- Route Maps
- IGMP v2/v3
- PIM-SM/PIM-SSM
- Anycast RP (RFC 4610)
- VRRP
- Virtual ARP (VARP)
- Policy Based Routing (DirectFlow)
- uRPF
- RAIL

Advanced Monitoring and Provisioning

- Zero Touch Provisioning (ZTP)
- Smart System Upgrade
- Latency Analyzer and Microburst Detection (LANZ)
 - Configurable Congestion Notification (CLI, Syslog)
 - Streaming Events (GPB Encoded)
 - Capture/Mirror of congested traffic
- Advanced Monitoring and Aggregation
 - Port Mirroring 4 to 128 (4 active sessions per ASIC)
 - L2/3/4 Filtering on Mirror Sessions
 - Mirror to EOS/SSD*
- Advanced Event Management suite (AEM)
 - CLI Scheduler
 - Event Manager
 - Event Monitor
 - Linux tools
- Optional SSD for logging and data capture
- Integrated packet capture/analysis with TCPDump
- RFC 3176 sFlow
- Restore & configure from USB
- Blue Beacon LED for system identification
- Software Defined Networking (SDN)
 - OpenFlow 1.0*
 - Arista DirectFlow*
 - eAPI

- AAA
- Industry Standard CLI

Extensibility

- Linux tools
 - Bash shell access and scripting
 - RPM support
 - Custom kernel modules
- Programmatic access to system state
 - Python
 - C++
- Native KVM/QEMU support

Standards Compliance

- 802.1D Bridging and Spanning Tree
- 802.1p QOS/COS
- 802.1Q VLAN Tagging
- 802.1w Rapid Spanning Tree
- 802.1s Multiple Spanning Tree Protocol
- 802.1AB Link Layer Discovery Protocol
- 802.3ad Link Aggregation with LACP
- 802.3ab 1000BASE-T
- 802.3z Gigabit Ethernet
- 802.3ae 10 Gigabit Ethernet
- 802.3ba 40 and 100 Gigabit Ethernet
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 4861 Neighbor Discovery for IP Version 6 (IPv6)
- RFC 4862 IPv6 Stateless Address Autoconfiguration
- RFC 4443 Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification

SNMP MIBs

- RFC 3635 EtherLike-MIB
- RFC 3418 SNMPv2-MIB
- RFC 2863 IF-MIB
- RFC 2864 IF-INVERTED-STACK-MIB
- RFC 2096 IP-FORWARD-MIB
- RFC 4363 Q-BRIDGE-MIB
- RFC 4188 BRIDGE-MIB
- RFC 2013 UDP-MIB
- RFC 2012 TCP-MIB
- RFC 2011 IP-MIB
- RFC 2790 HOST-RESOURCES-MIB
- RFC 3636 MAU-MIB
- RMON-MIB
- RMON2-MIB
- HC-RMON-MIB
- LLDP-MIB
- LLDP-EXT-DOT1-MIB
- LLDP-EXT-DOT3-MIB
- ENTITY-MIB
- ENTITY-SENSOR-MIB
- ENTITY-STATE-MIB
- ARISTA-ACL-MIB

Overview

- OpenStack Neutron Support
- IEEE 1588 PTP (Transparent Clock and Boundary Clock)*

Virtualization Support

- VXLAN Gateway
- (draft-mahalingam-dutt-dcops-vxlan-01)
- VXLAN Bridging
- VXLAN Routing*
- VXLAN Tunnel Endpoint
 - VM Tracer VMware Integration
 - VMware vSphere support
 - VM Auto Discovery
 - VM Adaptive Segmentation
 - VM Host View

- ARISTA-QUEUE-MIB
- RFC 4273 BGP4-MIB
- RFC 4750 OSPF-MIB
- ARISTA-CONFIG-MAN-MIB
- ARISTA-REDUNDANCY-MIB
- RFC 2787 VRRPv2MIB
- MSDP-MIB
- PIM-MIB
- IGMP-MIB
- IPMROUTE-STD-MIB
- SNMP Authentication Failure trap
- ENTITY-SENSOR-MIB support for DOM (Digital Optical Monitoring)
- User configurable custom OIDs

Security Features

- IPv4/IPv6 Ingress & Egress ACLs using L2, L3, L4 fields
- MAC ACLs
- ACL Drop Logging
- ACL Counters
- Control Plane Protection (CPP)
- DHCP Relay/Snooping
- MAC Security
- TACACS+
- RADIUS

See EOS release notes for latest supported MIBs

Quality of Service (QoS) Features

- Up to 8 queues per port
- 802.1p based classification
- DSCP based classification and remarking*
- Explicit Congestion Notification (ECN)*
- QoS interface trust (COS/DSCP)
- Strict priority queueing
- Weighted Round Robin (WRR) Scheduling*
- Per-Priority Flow Control (PFC)
- Data Center Bridging Extensions (DCBX)
- 802.1Qaz Enhanced Transmissions Selection (ETS)*
- ACL based DSCP Marking*
- ACL based Policing*
- Policing/Shaping
- Rate limiting
- Audio Video Bridging (AVB)*

*Not currently supported in EOS

Configuration

Ordering Information

Switches	Arista SKU	HPE SKU
Arista 7304X 2x PSU 4x Fabric Supervisor Front-to-Back DC Bundle	DCS-7304X-BND-DC-F	JH812A
Arista 7304X 2x PSU 4x Fabric Supervisor Back-to-Front DC Bundle	DCS-7304X-BND-DC-R	JH813A
Arista 7304X 2x PSU 4x Fabric Supervisor SSD Back-to-Front AC Bundle	DCS-7304X-BND-D-R	JH815A
Arista 7308X 4x PSU 4x Fabric Supervisor Front-to-Back DC Bundle	DCS-7308X-BND-DC-F	JH816A
Arista 7308X 4x PSU 4x Fabric Supervisor Back-to-Front DC Bundle	DCS-7308X-BND-DC-R	JH817A
Arista 7308X 4x PSU 4x Fabric Supervisor SSD Back-to-Front AC Bundle	DCS-7308X-BND-D-R	JH819A
Arista 7324X 2x PSU 4x Fabric Supervisor Front-to-Back DC Bundle	DCS-7324X-BND-DC-F	JH820A
Arista 7328X 4x PSU 4x Fabric Supervisor Front-to-Back DC Bundle	DCS-7328X-BND-DC-F	JH821A
Arista 7328X 4x PSU 4x Fabric Supervisor SSD Front-to-Back AC Bundle	DCS-7328X-BND-D-F	JH822A
Arista 7304XT 4x PSU Titanium 4x Fabric Supervisor Front-to-Back AC Bundle	DCS-7304XT-BND-F	JH927A
Arista 7304XT 4x PSU Titanium 4x Fabric Supervisor SSD Front-to-Back AC Bundle	DCS-7304XT-BND-F	JH928A
Arista 7308XT 4x PSU Titanium 4x Fabric Supervisor Front-to-Back AC Bundle	DCS-7308XT-BND-F	JH929A
Arista 7308XT 4x PSU Titanium 4x Fabric Supervisor SSD Front-to-Back AC Bundle	DCS-7308XT-BND-D-F	JH930A
Arista 7324X 2x PSU 4x Fabric Supervisor SSD Front-to-Back Bundle	DCS-7324X-BND-D-F	JH831A
Arista 7328X 8-slot 4xPSU 4xFabric Supervisor F-B Bundle	DCS-7328X-BND-F	JH547A
Arista 7324X 4-slot 2xPSU 4xFabric Supervisor F-B Bundle	DCS-7324X-BND-F	JH548A
Arista 7304X 4-slot 2xPSU 4xFabric Supervisor B-F Bundle	DCS-7304X-BND-R	JH550A
Arista 7308X 8-slot 4xPSU 4xFabric Supervisor B-F Bundle	DCS-7308X-BND-R	JH552A
Modules		
Arista 7300 Supervisor SSD Module	DCS-7300-SUP-D	JH811A
(Configurable) Min 1/Max 32 QSFP+ 100G Transceivers		
Arista 7320X 32QSFP28 4QSFP+ Module	DCS-7320X-32C-LC	JH554A
(Configurable) Min 1/Max 32 QSFP+ 100G Transceivers		
Arista 7300X 48SFP+ 4QSFP+ Module	DCS-7300X-64S-LC	JH555A
Min 1/Max 48 SFP+ 10G Transceivers		
Min 1/Max 4 QSFP+ 40G Transceivers		
Arista 7300X 48T 4QSFP+ Module	DCS-7300X-64T-LC	JH556A
Min 1/Max 4 QSFP+ 40G Transceivers		
Arista 7300X 32QSFP+ Module	DCS-7300X-32Q-LC	JH557A
Min 1/Max 32 QSFP+ 40G Transceivers		
Redundant Supervisors		
Arista 7300 Supervisor Module	DCS-7300-SUP	JH553A
Transceivers		
10G		
Arista X130 10G SFP+ LC SRL Transceiver	SFP-10G-SRL	JH644A
Arista X130 10G SFP+ LC SR Transceiver	SFP-10G-SR	JH645A
Arista X130 10G SFP+ LC LRM Transceiver	SFP-10G-LRL	JH646A
Arista X130 10G SFP+ LC LR Transceiver	SFP-10G-LR	JH647A
40G		
Arista X140 40G QSFP+ LC BiDi 100m MM Transceiver	QSFP-40G-SRBD	JH633A

Configuration

Arista 40G QSFP+ Universal Transceiver	QSFP-40G-UNIV	JH634A
Arista X140 40G QSFP+ MPO SR4 Transceiver	QSFP-40G-SR4	JH635A
Arista X140 40G QSFP+ LC LR4L SM Transceiver	QSFP-40G-LRL4	JH636A
Arista X140 40G QSFP+ LC PLRL4 SM Transceiver	QSFP-40G-PLRL4	JH637A
100G		
Arista X150 100G QSFP28 WDM2 2km SM Transceiver	QSFP-100G-LRL4	JH624A
Arista X150 100G QSFP28 LR4 10km SM Transceiver	QSFP-100G-LR4	JH625A
Arista X150 100G QSFP28 MPO SR4 100m MM Transceiver	QSFP-100G-SR4	JH626A
Arista 100G 100GBASE-PSM4 QSFP Transceiver	QSFP-100G-PSM4	JQ028A

Cables

Arista X240 10G SFP+ SFP+ 0.5m DAC Cable	CAB-SFP-SFP-0.5M	JH651A
Arista X240 10G SFP+ SFP+ 1.5m DAC Cable	CAB-SFP-SFP-1.5M	JH652A
Arista X240 10G SFP+ SFP+ 2m DAC Cable	CAB-SFP-SFP-2M	JH653A
Arista X240 10G SFP+ SFP+ 2.5m DAC Cable	CAB-SFP-SFP-2.5M	JH654A
Arista X240 10G SFP+ SFP+ 3m DAC Cable	CAB-SFP-SFP-3M	JH655A
Arista X2A0 10G SFP+ SFP+ 5m AOC Cable	AOC-S-S-10G-5M	JH661A
Arista X2A0 10G SFP+ SFP+ 3m AOC Cable	AOC-S-S-10G-3M	JH662A
Arista X240 40G QSFP+ 4x10G SFP+ 0.5m DAC Cable	CAB-Q-S-0.5M	JH656A
Arista X240 40G QSFP+ 4x10G SFP+ 1m DAC Cable	CAB-Q-S-1M	JH657A
Arista X240 40G QSFP+ 4x10G SFP+ 2m DAC Cable	CAB-Q-S-2M	JH658A
Arista X240 40G QSFP+ 4x10G SFP+ 3m DAC Cable	CAB-Q-S-3M	JH659A
Arista X240 40G QSFP+ 4x10G SFP+ 5m DAC Cable	CAB-Q-S-5M	JH660A
Arista X240 40G QSFP+ QSFP+ 1m DAC Cable	CAB-Q-Q-1M	JH638A
Arista X240 40G QSFP+ QSFP+ 2m DAC Cable	CAB-Q-Q-2M	JH639A
Arista X240 40G QSFP+ QSFP+ 3m DAC Cable	CAB-Q-Q-3M	JH640A
Arista X240 40G QSFP+ QSFP+ 5m DAC Cable	CAB-Q-Q-5M	JH641A
Arista X240 100G QSFP QSFP 1m DAC Cable	CAB-Q-Q-100G-1M	JH627A
Arista X240 100G QSFP QSFP 2m DAC Cable	CAB-Q-Q-100G-2M	JH628A
Arista X240 100G QSFP QSFP 3m DAC Cable	CAB-Q-Q-100G-3M	JH629A
Arista X240 100G QSFP QSFP 5m DAC Cable	CAB-Q-Q-100G-5M	JH630A
Arista X2A0 100G QSFP QSFP 3m AOC Cable	AOC-Q-Q-100G-3M	JH631A
Arista X2A0 100G QSFP QSFP 5m AOC Cable	AOC-Q-Q-100G-5M	JH632A
Arista X240 100G QSFP28 4x25G SFP28 5m Direct Attach Cable	CAB-Q-4S-100G-5M	JH993A

Switch Software Licenses

Arista IPsec Software Fix-1 LTU	LIC-FIX-1-EOS-IPSEC	JH715A
Arista MACsec Software Mod-1 LTU	LIC-MOD-1-MACSEC	JH716A
Arista Virtualization Software Mod-1 LTU	LIC-MOD-1-V	JH717A
Arista Provisioning Software Mod-1 LTU	LIC-MOD-1-Z	JH718A
Arista Virtualization Software Mod-2 LTU	LIC-MOD-2-V	JH719A
Arista Provisioning Software Mod-2 LTU	LIC-MOD-2-Z	JH720A
Arista Enhanced Software Mod-1 License	LIC-MOD-1-E	JH545A
Arista Enhanced Software Mod-2 License	LIC-MOD-2-E	JH546A

Management Software CloudVision Licenses

Arista Cloudvision Software Unlimited One Month Subscription	SS-CV-ENT-1M	JH523A
Arista Cloudvision Software Sw-500 One Month Subscription	SS-CV-S500-1M	JH524A
Arista Cloudvision Software Sw-150 One Month Subscription	SS-CV-S150-1M	JH525A
Arista Cloudvision Software Sw-1 One Month Subscription	SS-CV-SWITCH-1M	JH526A

Configuration

Arista Cloudvision Lite Software Sw-1 One Month Subscription	SS-CV-LT-SWITCH-1M	JH527A
Arista CloudVision Software Lab Switch-1 1 Month STU	SS-CV-SWITCH-LAB-1M	JH895A

Power Supplies, Spare Modules

Arista C19 L620P 2.5m Power Cord	CAB-C19-L6-20P	JH771A
Arista C19 C20 2.5m Power Cable	CAB-C19-C20	JL398A
Arista 7304 Empty Chassis	DCS-7304-CH	JH841A
Arista 7304X Fabric Front-to-Back Module	DCS-7304X-FM-F	JH842A
Arista 7304X Fabric Back-to-Front Module	DCS-7304X-FM-R	JH843A
Arista 7308 Empty Chassis	DCS-7308-CH	JH844A
Arista 7308X Fabric Front-to-Back Module	DCS-7308X-FM-F	JH845A
Arista 7308X Fabric Back-to-Front Module	DCS-7308X-FM-R	JH846A
Arista 7324X Fabric Front-to-Back Module	DCS-7324X-FM-F	JH847A
Arista 7328X Fabric Back-to-Front Module	DCS-7328X-FM-F	JH848A
Arista 7304 4 Post Rack Mount Kit	KIT-7300-4PR	JH869A
Arista 7304 Mid Mount Bracket Kit	KIT-7304-MMR	JH871A
Arista 7308 Mid Mount Bracket Kit	KIT-7308-MMR	JH873A
Arista 7300 Series 2700W Front-to-Back DC Power Supply	PWR-2700-DC-F	JH879A
Arista 7300 Series 2700W Back-to-Front DC Power Supply	PWR-2700-DC-R	JH880A
Arista 7300 Series 3000W Titanium Blue AC Power Supply	PWR-3KT-AC-BLUE	JH881A
Arista 7300 Supervisor Module	DCS-7300-SUP	JH553A
Arista 7300 Series 3000W Front-to-Back AC Power Supply	PWR-3K-AC-F	JL399A
Arista 7300 Series 3000W Back-to-Front AC Power Supply	PWR-3K-AC-R	JL400A
Arista 7300 Series 3000W Titanium AC Power Supply	PWR-3KT-AC-F	JL401A
Arista 7300 Series Front-to-Back Fan Module	FAN-7002-F	JL402A
Arista 7300 Series Back-to-Front Fan Module	FAN-7002-R	JL403A
Arista 7300 Series Line Card Slot Cover	DCS-7300-LCVR	JL404A
Arista 7300 Series Supervisor Slot Cover	DCS-7300-SCVR	JL405A
Arista 7300 Series Power Supply Slot Cover	DCS-7300-PCVR	JL406A
Arista 7304 Accessory Kit	KIT-7304	JL407A
Arista 7308 Accessory Kit	KIT-7308	JL408A

Support

Arista A-Care 7324X NBD Software One Month Support LTU	SVC-7324X-1M-NBD	JH463A
Arista A-Care 7324X 4H Software One Month Support LTU	SVC-7324X-1M-4H	JH464A
Arista A-Care 7324X 2H Software One Month Support LTU	SVC-7324X-1M-2H	JH465A

Warranty, service, and support

The Arista 7320X switches come with a one-year limited hardware warranty that covers parts, repair, or replacement with a 10-business-day turnaround after the unit is received.

All technical, hardware, and software support for Arista products is provided directly by Arista and not HPE. Consult the Arista Customer Support page for contact information: arista.com/en/support/customer-support. Services may be purchased from HPE or Arista to extend your support coverage and software upgrades. Support will be provided by Arista for these services. For details on Arista warranty and support, see: arista.com/assets/data/pdf/Warranty.pdf

Services may be purchased from HPE or Arista to extend your support coverage and software upgrades. Support will be provided by Arista for these services. For details on Arista warranty and support, see: arista.com/assets/data/pdf/Warranty.pdf.

Technical Specifications

Technical Specifications

Chassis	DCS-7308	DCS-7304
Supervisor slots	2	2
Linecard Slots	8	4
Fabric Module Slots	4	4
Power Supply Slots	6	4
Fan Modules	16	8
Physical Dimensions (HxWxD)	22.53" x 17.36" x 23.74" (57.2 x 44.1 x 60.3cm)	13.86" x 17.36" x 23.74" (35.2 x 44.1 x 60.3cm)
Rack Space	13RU	8RU
Weight (Chassis only)	110 lbs (49.9 kg)	78 lbs (35.3 kg)
Weight (Fully configured system)	299 lbs (135.6 kg)	188.4 lbs (85.45 kg)
Maximum 10GbE Port Density	1,024 Ports	512 Ports
Maximum 25GbE Port Density	1,024 Ports	512 Ports
Maximum 40GbE Port Density	256 Ports	128 Ports
Maximum 100GbE Port Density	256 Ports	128 Ports
Maximum Throughput / Packets per Second	50 Tbps / 38 Bpps	25 Tbps / 19 Bpps
Maximum Power Consumption	6000W	3000W

Fabric Module	DCS-7328X-FM	DCS-7324X-FM
Redundancy	Graceful Degradation	Graceful Degradation
Physical Dimensions (HxWxD)	17.3" x 3.7" x 11.8" (43.9 x 9.4 x 30cm)	11.80" x 3.70" x 10.27"(30x 9.4 x 26.1cm)
Weight	19.6 lbs (8.9 kg)	11.6 lbs (5.3 kg)
Typical Power (Maximum)	380W (577W)	191W (288W)
Chassis Support	DCS-7308	DCS-7304

Technical Specifications

Linecard Module	DCS-7320X-32C-LC
Ports	32 QSFP100 (40G/100G)
Max 10GbE	128 (via splitter cables)
Max 25GbE	128 (via splitter cables)
Max 40GbE	32
Max 100GbE	32
Port Buffer	32MB
Weight	11 lbs (5 kg)
Typical (Maximum) Power *	286W (428W)
Physical Dimensions (WxHxD)	17.11" x 1.73" x 11.83" (43.5 x 4.4 x 30 cm)
Chassis Support	DCS-7308 and DCS-7304

Supervisor Module	DCS-7300-SUP
Processor	2.6GHz, Quad Core, x86, 64-bit
System Memory	16 GB
Flash Storage Memory	4 GB
RS-232 Serial Ports	One (RJ-45)
100/1000 Management Ports	Two (RJ-45)
USB 2.0 Interface	Two
SSD Storage	100 GB Optional
Physical Dimensions (WxHxD)	8.24" x 1.73" x 11.84" (21 x 4.4 x 30.1 cm)
Weight	4.2 lbs (1.9 kg)
Typical Power (Maximum)	65W (80W)
Chassis Support	DCS-7308 and DCS-7304

* Typical power consumption measured at 25C ambient with 50% load on all ports

* Line card stated power is measured with optics and value shown with optics removed.

Power Supply Specifications

Technical Specifications

Model	3000W AC Titanium	3000W DC
Model Numbers	PWR-3KT-AC-F	PWR-3K-DC-F
Input Voltage	200 - 240V, 16A (20A North America)	-48-60V DC, 80A
Input Frequency	50/60 Hz, single phase AC	DC
Output Power	3000W	2700W
Input Connector	IEC 320 C19	AWG #4-3
Efficiency (Typical)	Over 94% Titanium	90%
Size (WxHxD)	2.75" x 4.13" x 11.65" (7.0 x 10.5 x 29.6cm)	
Weight	5.5 lbs (2.49 kg)	
Chassis Support	DCS-7308 and DCS-7304	

Supported Optics and Cables

Interface Type	QSFP+ / 40GbE ports	QSFP100 / 100GbE ports
10GBASE-CR	0.5m-5m QSFP+ to 4x SFP+	-
40GBASE-CR4	0.5m to 5m QSFP+ to QSFP+	-
40GBASE-AOC	3m to 100m	-
40GBASE-UNIV	150m (OM3) /150m (OM4) /500m (SM)	-
40GBASE-SRBD	100m (OM3) /150m (OM4)	-
40GBASE-SR4	100m (OM3) /150m (OM4)	-
40GBASE-XSR4	300m (OM3) /450m (OM4)	-
40GBASE-PLRL4	1km (1km 4x10G LR/LRL)	-
40GBASE-LRL4	1km	-
40GBASE-PLR4	10km (10km 4x10G LR/LRL)	-
40GBASE-LR4	10km	-
40GBASE-ER4	40km	-

Technical Specifications

100GBASE-CR4	-	Yes (various lengths)
100GBASE-AOC	-	3m to 30m
100GBASE-SR4	-	70m OM3 / 100m OM4 Parallel MMF
100GBASE-LRL4	-	1km SM Duplex
100GBASE-LR4	-	10km SM Duplex
100GBASE-CWDM4	-	2km SM duplex
100GBASE-PSM4	-	QSFP100 (MTP)

Standards Compliance

EMC

Emissions: FCC, EN55022, EN61000-3-2, EN61000-3-3 or EN61000-3-11, EN61000-3-12 (as applicable)
Immunity: EN55024
Emissions and Immunity: EN300 386

Safety

UL/CSA 60950-1, EN 60950-1, IEC 60950-1
CB Scheme with all country differences

Certifications

North America (NRTL)
European Union (EU)
BSMI (Taiwan)
C-Tick (Australia)
CCC (PRC)
MSIP (Korea)
EAC (Customs Union)
VCCI (Japan)

European Union Directives

2006/95/EC Low Voltage Directive
2004/108/EC EMC Directive
2011/65/EU RoHS Directive
2012/19/EU WEEE Directive

Environmental Characteristics

Technical Specifications

Operating Temperature

0 to 40°C (32 to 104°F)

Storage Temperature

-25 to 70°C (-13 to 158°F)

Relative Humidity

5 to 95%

Operating Altitude

0 to 10,000 ft, (0-3,000m)

Summary of Changes

Date	Version History	Action	Description of Change
08-May-2017	From Version 1 to 2	Changed	Configuration and Technical Specifications updated
06-Mar-2017	Version 1	Created	Document creation.



Sign up for updates



**Hewlett Packard
Enterprise**

© Copyright 2017 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

To learn more, visit: <http://www.hpe.com/networking>

a00003362 – 15874 - Worldwide - Version 2 - 08-May-2017