Product Highlights

Performance
• Over 50 Terabits per second fabric capacity
• Up to 32 billion packets per second
• Up to 6.4 Terabit per second per line card
• Wire speed L2 and L3 forwarding
• 1.024 wire-speed 25/10GbE ports
• 256 wire-speed 100GbE ports
• Latency below 2.5usec

High Availability
• 1+1 Supervisor redundancy
• N+N Grid redundant power system
• N+1 Fan module redundancy
• Redundant fabric modules

Cloud Networking Ready
• VXLAN and VM Tracer
• OpenFlow, DirectFlow and eAPI
• 32MB Dynamic Buffer per port group

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

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-rear airflow for datacenter optimized cooling
• Under 1.7W per 10Gb of performance for lower cost of ownership
• Dense 25GbE and 100GbE

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++

Overview

The Arista 7300 Series modular switches are part of the Arista portfolio of data center and campus switches. The 7300 Series, with the third generation 7300X3 Series line cards, increase the scalability and performance of the 7300X Series supporting leaf / spine and Spline™ applications for collapsed data center tiers, and campus roles.

Modern campus and data center challenges demand simplified architectures, consistent operational experience, reduced complexity and higher performance. The 7300X3 Series systems share a common architecture with the Arista 7050X3 Series and offer a choice of two modular systems, a 4-slot and 8-slot. They support advanced features for extensive automation and programmability, network monitoring, precision timing and network virtualization to deliver secure high performance for an open, software driven approach to cloud networking.

The 7300X3 Series line cards support wire speed layer 2/3/4 performance that provides a flexible combination of 10G, 25G, 40G, 50G and 100G switching to design large networks for scale-out of east-west traffic patterns with low latency and power efficiency.

With optimized airflow, redundant and hot swappable supervisor, fabric, power and cooling the system is purpose built for modern networks. The 7300X3 Series is energy efficient with variable speed fans and redundant cooling. All of these attributes make the Arista 7300X3 Series an ideal platform for building high performance, open, resilient and scalable networks. Combined with Arista EOS the 7300X3 Series delivers advanced features for big data, cloud, virtualized and traditional designs.

Arista EOS

All Arista products including the 7300 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.
7300X3 Architecture
The 7300X 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.

The midplane is completely passive and provides control plane connectivity to each of the fabric and line card modules. The system is optimized for data center deployments with front-to-rear airflow.

Line Card Modules
Wire-speed line cards deliver up to 4 Billion packets per second of forwarding with a single stage architecture that delivers fair access to all ports. Line cards contains up to 32MB of packet memory for superior burst absorption. Each line card connects to all fabric modules in a non-blocking full mesh and leverages flow based dynamic load balancing to improve the fabric efficiency by reducing the probability of hash polarization.

The Arista 7300 Series can be populated with any combination of line cards. For environments requiring the highest performance combined with scalability a range of interface options is available addressing dense 1G/10G/25G and 40G/100G with full support for industry standard connections and comprehensive layer 2 and 3 features for flexible deployment choice.

7300 Supervisor Module
The supervisor modules for the 7300 series run Arista Extensible Operating System (EOS) and handle 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 stateful 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 SSD provides the control plane performance needed to run an advanced data center switch scaling to over 1,000 physical ports and thousands of virtual ports. A pulse per second clock input port enables synchronizing with an external source to improve the accuracy of network timing and monitoring tools.
7300X3 Fabric and Fan Module
At the heart of the 7300X3 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 module. Each line card module connects to the fabric with multiple links and flows are spread across these paths to efficiently utilize the available fabric capacity. The fabric modules are always active-active, providing high availability and can be hot-swapped without any impact of the system.

The fabric modules for the two chassis are different based on the size of the chassis and each accommodate a set of individual hot-swap fan modules. The fan modules support forward airflow and provide redundant cooling. Each fan module can be independently replaced without any impact of the system.

7300 Power Supply Module
The 7300 series switches are equipped with a choice of F-B airflow direction 3000W AC or 3000W 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.

The AC power supplies are highly efficient in both platinum or titanium climate saver rated options and have an efficiency of over 93% with single stage conversion to the internal DC voltage. The DC power supplies require inputs at-48V DC to deliver up to 3000W. The 7300 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.

Designed for High Availability and Manageability
The Arista 7300 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 7300 Series offers power redundancy that supports both power source and power supply 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 7300 lowers total cost of ownership as it is designed to be efficient with power per port as low as 1.7W per 10Gb of performance which combined with data center optimized cooling for both leaf and spine data center deployment produces the most reliable, dense and power efficient modular switch.

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.
Smart System Upgrade
Smart System Upgrade 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.

Scaling Data Center Performance
The Arista 7300X3 Series delivers wire speed switching at later 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 leaf switches and Arista's Multi-Chassis Link Aggregation (MLAG) technology, a pair of 7300X3 Switches can support over 12K 25G servers with a leaf and spine active/active L2 network topology. A combination of 16 7300X3 in a spine at Layer 3 scales the network up to over 16K 25G 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.

Maximum Flexibility for Scale Out Network Designs
Scale out network designs enable solutions to start small and evolve over time. A simple two-way design can grow as wide as 128-way without significant changes to the architecture. The 7300X3 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
- Equal and Unequal Cost Multi-Pathing (UCMP) for flexible traffic balancing in large scale multi-tier topologies
- Custom hash algorithms for efficient hashing, persistent hashing and custom lookups for tunneled protocols
- Flexible allocation of L2 and L3 forwarding table resources for more design choice
- Wide choice of dense 10G/25G/40G/50G/100G interfaces for multi-speed flexibility
- Support for standards based IEEE 25GbE for simple and cost effective migration from 10G and 40G to 25G and 100G
- VXLAN routing, bridging and gateway capability for physical to virtualization communication in next generation data center designs
- DANZ, sFlow and multi-port mirroring to detect micro-burst congestion and provide network wide visibility and monitoring
- Hitless speed changes from 10G to 100G to eliminate down-time when implementing speed changes

Enhanced Features for High Performance Networks
The Arista 7300X 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.

Automating the data center enables customers to dynamically provision computing resources in the most efficient manner while also meeting business needs by maintaining service level agreements (SLAs). Arista EOS automates complex IT workflows and simplifies network operations while reducing or even eliminating downtime. Arista EOS rich automation capabilities not only reduce the human error element in network operations but also enable IT operators to make the network work the way they want.

Dynamic Buffer Allocation
In cut-through mode, the Arista 7300X series switches forward packets with a latency of less than 2.5 usec. Upon congestion, the packets are buffered in an intelligent fully shared packet memory that has a total size of 32MB for superior burst absorption. Unlike other architectures that have fixed per-port packet memory, the 7300X3 series use dynamic thresholds to allocate packet memory based on traffic class, queue depth and quality of service policy ensuring a fair allocation to all ports of both lossy and lossless classes. Buffer utilization, occupancy and thresholds are all visible with Arista LANZ and can be exported to monitoring tools to identify hotspots and measure latency at the device and end to end.

* Not currently supported in EOS
Unified Forwarding Table

Cloud network scalability is directly impacted by the size of a switch's 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 7300X3 leverages a common Unified Forwarding Table 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 7300X3 ensures optimal resource allocation for all network topologies and network virtualization technologies.

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.

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.

Virtualization

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and emerging encapsulation technologies such as VXLAN. The 7300X3 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, they make integration of non-VXLAN aware devices including servers, firewalls and load-balancers seamless and provide the ability to leverage VXLAN as a standards based L2 extension technology for non-MPLS environments.

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. Advanced analytics are provided with features like buffer monitoring with configurable thresholds, in-band path and latency monitoring, event driven trace packets and granular time stamping.

Dynamic Load Balancing *

Traditional hash-based load balancing algorithms can result in link and path allocations with short term imbalances and under utilization of aggregate capacity. This is aggravated further in modern data centers with high traffic loads, varied flow duration, mixed packet sizes and micro-bursts. DLB enhancements to load balancing consider the real time load on links and dynamically assign new and existing flows to the best link. When imbalances are detected active flows and new flows are allocated to the least loaded paths to reduce the possibility of drops. Supported with any combination of ECMP and LAG/MLAG, DLB delivers higher throughput with enhanced load distribution while offering the user an open implementation.

Flexible Pipeline

The Arista 7050X3 series support an enhanced forwarding architecture with smarter and flexible packet pipeline which allows the addition of new capabilities to the data plane of the packet processor through software upgrades without changes or replacement of the underlying hardware. This allows for rapid testing and deployment avoiding costly replacements or major upgrades. Together with flexible resource allocation provided by the Unified Forwarding Tables (UFT), the programmable pipeline increases the flexibility of the platform allowing for broad use cases and ensures continued investment protection.

Network Address Translation *

The Arista 7050X3 series support static and dynamic address translation at line rate and introducing no additional latency when the mappings are set up. High performance environments can take advantage of NAT to resolve addressing challenges such as masking internal addresses and translating overlapping ranges resulting in simpler network topologies without performance penalty.

* Not currently supported in EOS
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
- 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
- Network Address Translation *
  - Source/Destination NAT
  - Source/Group Multicast NAT
- Selective Route Download

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 CPU *
- Advanced Event Management suite (AEM)
  - CLI Scheduler
  - Event Manager

- Event Monitor
- Linux tools
- 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 *
  - Openflow 1.3 *
  - Arista DirectFlow *
  - eAPI
  - OpenStack Neutron Support
- IEEE 1588 PTP (Transparent Clock and Boundary Clock)

Virtualization Support

- VXLAN Bridging and Routing
- VM Tracer VMware Integration
  - VMware vSphere support
  - VM Auto Discovery
  - VM Adaptive Segmentation
  - VM Host View

Security Features

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

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

* Not currently supported in EOS
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
- AAA
- Industry Standard CLI

Features

- Not currently supported in EOS

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
- 802.1AB 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
- 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

See EOS release notes for latest supported MIBs

Table Sizes

<table>
<thead>
<tr>
<th>STP Instances</th>
<th>64 (MST)/510 (RPVST+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGMP Groups</td>
<td>288K, with 16K unique groups</td>
</tr>
<tr>
<td>ACLs</td>
<td>2K</td>
</tr>
<tr>
<td>Egress ACLs</td>
<td>2K</td>
</tr>
<tr>
<td>ECMP</td>
<td>128-way, 1K groups</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>UFT Mode - 2 is default</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC Addresses</td>
<td>288K</td>
<td>224K</td>
<td><strong>160K</strong></td>
<td>96K</td>
<td>32K</td>
</tr>
<tr>
<td>IPv4 Host Routes</td>
<td>16K</td>
<td>80K</td>
<td><strong>144K</strong></td>
<td>168K</td>
<td>16K</td>
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<tr>
<td>IPv4 Multicast (S,G)</td>
<td>8K</td>
<td>40K</td>
<td><strong>72K</strong></td>
<td>104K</td>
<td>8K</td>
</tr>
<tr>
<td>IPv6 Host Routes</td>
<td>8K</td>
<td>40K</td>
<td><strong>72K</strong></td>
<td>104K</td>
<td>8K</td>
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</table>

<table>
<thead>
<tr>
<th>LPM Table Mode</th>
<th>ALPM</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>IPv4 LPM Routes</td>
<td><strong>384K</strong></td>
<td>32K</td>
<td>32K</td>
<td>32K</td>
<td>32K</td>
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<tr>
<td>IPv6 LPM Routes - Unicast (prefix length &lt;= 64)</td>
<td><strong>0-192K</strong></td>
<td>12K</td>
<td>8K</td>
<td>4K</td>
<td>-</td>
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<tr>
<td>IPv6 LPM Routes - Unicast (any prefix length)</td>
<td><strong>2K-40K</strong></td>
<td>2K</td>
<td>4K</td>
<td>6K</td>
<td>8K</td>
</tr>
</tbody>
</table>

* Not currently supported in EOS
### 7300X3 Series | Technical Specifications

<table>
<thead>
<tr>
<th>Chassis</th>
<th>DCS-7308</th>
<th>DCS-7304</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor slots</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Linecard Slots</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Fabric Module Slots</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Power Supply Slots</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Fan Modules</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Physical Dimensions (HxWxD)</td>
<td>22.53” x 17.36” x 23.74” (57.2 x 44.1 x 60.3cm)</td>
<td>13.86” x 17.36” x 23.74” (35.2 x 44.1 x 60.3cm)</td>
</tr>
<tr>
<td>Rack Space</td>
<td>13RU</td>
<td>8RU</td>
</tr>
<tr>
<td>Weight (Chassis only)</td>
<td>110 lbs (49.9 kg)</td>
<td>78 lbs (35.3 kg)</td>
</tr>
<tr>
<td>Weight (Fully configured system)</td>
<td>292 lbs (132.5 kg)</td>
<td>185 lbs (84 kg)</td>
</tr>
<tr>
<td>Maximum 10GbE Port Density</td>
<td>1,024 Ports</td>
<td>512 Ports</td>
</tr>
<tr>
<td>Maximum 25GbE Port Density</td>
<td>1,024 Ports</td>
<td>512 Ports</td>
</tr>
<tr>
<td>Maximum 50GbE Port Density</td>
<td>512 Ports</td>
<td>256 Ports</td>
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<tr>
<td>Maximum 40GbE Port Density</td>
<td>256 Ports</td>
<td>128 Ports</td>
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<tr>
<td>Maximum 100GbE Port Density</td>
<td>256 Ports</td>
<td>128 Ports</td>
</tr>
<tr>
<td>Maximum Throughput / Packets per Second</td>
<td>51.2 Tbps / 32 Bpps</td>
<td>25.6 Tbps / 16 Bpps</td>
</tr>
<tr>
<td>Maximum Power Consumption</td>
<td>6500W</td>
<td>3400W</td>
</tr>
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</table>

### Fabric Module

<table>
<thead>
<tr>
<th>DCS-7308X3-FM</th>
<th>DCS-7304X3-FM</th>
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</thead>
<tbody>
<tr>
<td>Redundancy</td>
<td>Graceful Degradation</td>
</tr>
<tr>
<td>Physical Dimensions (HxWxD)</td>
<td>17.3” x 3.7” x 11.8” (43.9 x 9.4 x 30cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>17.3 lbs (7.8 kg)</td>
</tr>
<tr>
<td>Typical Power (Maximum)</td>
<td>380W (577W)</td>
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<tr>
<td>Chassis Support</td>
<td>DCS-7308X</td>
</tr>
</tbody>
</table>

### Linecard Module

<table>
<thead>
<tr>
<th>DCS-7300X3-32C-LC</th>
<th>DCS-7300X3-48YC4-LC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ports</td>
<td>32 QSFP100 (100G/40G)</td>
</tr>
<tr>
<td>Max 25GbE/10GbE</td>
<td>128 (via splitter cables)</td>
</tr>
<tr>
<td>Max 100GbE/40GbE</td>
<td>32</td>
</tr>
<tr>
<td>Port Buffer</td>
<td>64MB</td>
</tr>
<tr>
<td>Weight</td>
<td>11 lbs (5 kg)</td>
</tr>
<tr>
<td>Typical (Maximum) Power *</td>
<td>219W (372W)</td>
</tr>
<tr>
<td>Physical Dimensions (WxHxD)</td>
<td>11.83” x 17.11” x 1.73” (30 x 43.5 x 4.4 cm)</td>
</tr>
<tr>
<td>Minimum EOS</td>
<td>4.21.1F</td>
</tr>
<tr>
<td>Chassis Support</td>
<td>DCS-7308X3 and DCS-7304X3</td>
</tr>
</tbody>
</table>

*Typical power consumption measured at 25C ambient with 50% load on all ports*
<table>
<thead>
<tr>
<th>Supervisor Module</th>
<th>DCS-7300-SUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>2.6GHz, Quad Core, x86, 64-bit</td>
</tr>
<tr>
<td>System Memory</td>
<td>16 GB</td>
</tr>
<tr>
<td>Flash Storage Memory</td>
<td>4 GB</td>
</tr>
<tr>
<td>RS-232 Serial Ports</td>
<td>One (RJ-45)</td>
</tr>
<tr>
<td>100/1000 Management Ports</td>
<td>Two (RJ-45)</td>
</tr>
<tr>
<td>USB 2.0 Interface</td>
<td>Two</td>
</tr>
<tr>
<td>SSD Storage</td>
<td>100 GB Optional</td>
</tr>
<tr>
<td>Physical Dimensions (WxHxD)</td>
<td>1.73&quot; x 8.24&quot; x 11.84&quot; (4.4 x 21 x 30.1 cm)</td>
</tr>
<tr>
<td>Weight</td>
<td>4.2 lbs (1.9 kg)</td>
</tr>
<tr>
<td>Typical Power (Maximum)</td>
<td>65W (80W)</td>
</tr>
<tr>
<td>Chassis Support</td>
<td>DCS-7308 and DCS-7304</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Supply Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td>Model Numbers</td>
</tr>
<tr>
<td>Input Voltage</td>
</tr>
<tr>
<td>Input Frequency</td>
</tr>
<tr>
<td>Output Power</td>
</tr>
<tr>
<td>Input Connector</td>
</tr>
<tr>
<td>Efficiency (Typical)</td>
</tr>
<tr>
<td>Size (WxHxD)</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>Chassis Support</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standards Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMC</strong></td>
</tr>
<tr>
<td><strong>Immunity</strong></td>
</tr>
<tr>
<td><strong>Safety</strong></td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Temperature</strong></td>
</tr>
<tr>
<td><strong>Storage Temperature</strong></td>
</tr>
<tr>
<td><strong>Relative Humidity</strong></td>
</tr>
<tr>
<td><strong>Operating Altitude</strong></td>
</tr>
</tbody>
</table>
### Supported Optics and Cables

**40GbE**

- **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

**100GbE**

- **100GBASE-SR4**: 70m OM3 / 100m OM4 Parallel MMF
- **100GBASE-XSR4**: 150m OM3 / 300m OM4 Parallel MMF
- **100GBASE-SWDM4**: 70m OM3 / 100m OM4 Duplex MMF
- **100GBASE-SRBD**: 70m OM3 / 100m OM4 Duplex MMF
- **100GBASE-LR**: 10km SM Duplex
- **100GBASE-LR4/LRL4**: 10km/2km SM Duplex
- **100GBASE-XCWDM4**: 10km SM Duplex
- **100GBASE-CWDM4**: 2km SM Duplex
- **100GBASE-FR**: 2km SM Duplex
- **100GBASE-DR**: 500m SM Duplex
- **100GBASE-PSM4**: 500m SM Parallel
- **100GBASE-AOC**: 1m to 30m
- **100GBASE-ERL4**: 40km SM Duplex
- **100GBASE-CR4**: QSFP to QSFP: 1m to 5m
- **25GBASE-CR**: QSFP to SFP25: 1m to 3m lengths

### 10GbE

- **40G QSFP ports**: SFP+ ports
- **10GBASE-CR**: SFP+ to SFP+: 0.5m-5m
- **10GBASE-AOC**: SFP+ to SFP+: 3m-30m
- **10GBASE-SRL**: 100m
- **10GBASE-SR**: 300m
- **10GBASE-LRL**: 1km
- **10GBASE-LR**: 10km
- **10GBASE-ER**: 40km
- **10GBASE-ZR**: 80km
- **10GBASE-T**: Up to 30m over Cat6a
- **10GBASE-DWDM**: 80km
- **1GbE SX/LX/TX**: Yes

### 25GbE

- **25G SFP Ports**: 25G SFP Ports
- **25GBASE-CR**: SFP25 to SFP25: 1m-5m
- **25GBASE-AOC**: SFP+ to SFP+: 3m-30m
- **25GBASE-MR-XSR**: 200m OM3 / 300m OM4 Duplex MMF
- **25GBASE-SR**: 70m
- **25GBASE-LR**: 10km
- **25GBASE-MR-LR**: 10km

### 10G SFP+ Ports

- **10GBASE-SR**: 100m (OM3) / 150m (OM4)
- **10GBASE-SR4**: 100m (OM3) / 150m (OM4)
- **10GBASE-XSR4**: 300m (OM3) / 450m (OM4)
- **10GBASE-PLRL4**: 1km (1km 4x10G LR/LRL)
- **10GBASE-LRL4**: 1km
- **10GBASE-PLR4**: 10km (10km 4x10G LR/LRL)
- **10GBASE-LR4**: 10km
- **10GBASE-ER4**: 40km

### 40GbE

- **40G QSFP ports**: 40G QSFP ports
- **40GBASE-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
<table>
<thead>
<tr>
<th>Product Number</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7308X3-BND-F</td>
<td>Arista 7308X3 chassis bundle. Includes 7308 chassis, 4x3KW PS, 4x 7300X3 Fabrics/fans, 1x Supervisor (F-R)</td>
</tr>
<tr>
<td>DCS-7308X3-BND-D-F</td>
<td>Arista 7308X3 chassis bundle. Includes 7308 chassis, 4x3KW PS, 4x 7300X3 Fabrics/fans, 1x Supervisor &amp; SSD (F-R)</td>
</tr>
<tr>
<td>DCS-7308X3-BND-DC-F</td>
<td>Arista 7308X3 chassis bundle. Includes 7308 chassis, 4xDC PS, 4x 7300X3 Fabrics/fans, 1x Supervisor (F-R)</td>
</tr>
<tr>
<td>DCS-7304X3-BND-F</td>
<td>Arista 7304X3 chassis bundle. Includes 7304 chassis, 2x3KW PS, 4x 7300X3 Fabrics/fans, 1x Supervisor (F-R)</td>
</tr>
<tr>
<td>DCS-7304X3-BND-D-F</td>
<td>Arista 7304X3 chassis bundle. Includes 7304 chassis, 2x3KW PS, 4x 7300X3 Fabrics/fans, 1x Supervisor &amp; SSD (F-R)</td>
</tr>
<tr>
<td>DCS-7304X3-BND-DC-F</td>
<td>Arista 7304X3 chassis bundle. Includes 7304 chassis, 2xDC PS, 4x 7300X3 Fabrics/fans, 1x Supervisor (F-R)</td>
</tr>
<tr>
<td>DCS-7300-SUP</td>
<td>Supervisor module for 7300 Series chassis</td>
</tr>
<tr>
<td>DCS-7300-SUP-D</td>
<td>Supervisor module for 7300 Series chassis, with SSD</td>
</tr>
<tr>
<td>DCS-7300X3-32C-LC</td>
<td>Arista 7300X3 32-port 100GbE QSFP linecard for 7300X3 Series (Spare)</td>
</tr>
<tr>
<td>DCS-7300X3-48YC4-LC</td>
<td>Arista 7300X3 48-port 25GbE SFP &amp; 4 port 100GbE QSFP linecard for 7300X3 Series (Spare)</td>
</tr>
</tbody>
</table>

**Optional Components and Spares**

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7308-CH</td>
<td>Arista 7308 empty chassis, 2 supervisor slots, 8 linecard slots, 4 fabric module slots</td>
</tr>
<tr>
<td>DCS-7304-CH</td>
<td>Arista 7304 empty chassis, 2 supervisor slots, 4 linecard slots, 4 fabric module slots</td>
</tr>
<tr>
<td>DCS-7308X3-FM-F</td>
<td>7300X3 Fabric (integrated fans) module for 7308 chassis, required for slots 1-4. Front-to-rear air</td>
</tr>
<tr>
<td>DCS-7304X3-FM-F</td>
<td>7300X3 Fabric (integrated fans) module for 7304 chassis, required for slots 1-4. Front-to-rear air</td>
</tr>
<tr>
<td>DCS-7300-LCVR</td>
<td>Blank cover for 7300 linecard slot</td>
</tr>
<tr>
<td>DCS-7300-SCVR</td>
<td>Blank cover for 7300 supervisor slot</td>
</tr>
<tr>
<td>DCS-7300-PCVR</td>
<td>Blank cover for 7300 power supply slot</td>
</tr>
<tr>
<td>KIT-7308</td>
<td>Spare accessory kit for Arista 7308 switches</td>
</tr>
<tr>
<td>KIT-7304</td>
<td>Spare accessory kit for Arista 7304 switches</td>
</tr>
<tr>
<td>KIT-7308-MMR</td>
<td>Spare Mid Mount Rack Brackets for 7308 switches</td>
</tr>
<tr>
<td>KIT-7304-MMR</td>
<td>Spare Mid Mount Rack Brackets for 7304 switches</td>
</tr>
<tr>
<td>KIT-7308-4PR</td>
<td>Spare 4 Post Rack Mount Brackets for 7304 and 7308 switches</td>
</tr>
<tr>
<td>FAN-7002-F</td>
<td>Spare fan module for Arista 7250 / 7050, 7280R 2RU and 7300 switches (front to rear airflow)</td>
</tr>
<tr>
<td>PWR-3KT-AC-BLUE</td>
<td>Spare 3kW Titanium AC Power Supply for 7300 series (blue handle)</td>
</tr>
<tr>
<td>PWR-3K-DC-BLUE</td>
<td>Spare 3kW DC Power Supply for 7300 series (blue handle)</td>
</tr>
<tr>
<td>LIC-MOD-1-E</td>
<td>Enhanced Software License for Arista Modular Switches - 4 slots (OSPF, BGP, PIM)</td>
</tr>
<tr>
<td>LIC-MOD-2-E</td>
<td>Enhanced Software License for Arista Modular Switches - 8 slots (OSPF, BGP, PIM)</td>
</tr>
<tr>
<td>LIC-MOD-1-V</td>
<td>Virtualization license for Arista Modular switches - 4 slots (VMTtracer and VXLAN)</td>
</tr>
<tr>
<td>LIC-MOD-2-V</td>
<td>Virtualization license for Arista Modular switches - 8 slots (VMTtracer and VXLAN)</td>
</tr>
<tr>
<td>LIC-MOD-1-V2</td>
<td>EOS Extensions, Security and Partner Integration license for Arista Modular switches - 4 slots</td>
</tr>
<tr>
<td>LIC-MOD-2-V2</td>
<td>EOS Extensions, Security and Partner Integration license for Arista Modular switches - 8 slots</td>
</tr>
</tbody>
</table>
## Optional Components and Spares

<table>
<thead>
<tr>
<th>License Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC-MOD-1-Z</td>
<td>Monitoring &amp; provisioning license for Arista Modular switches - 4 slots (ZTP, LANZ, API, TapAgg)</td>
</tr>
<tr>
<td>LIC-MOD-2-Z</td>
<td>Monitoring &amp; provisioning license for Arista Modular switches - 8 slots (ZTP, LANZ, API, TapAgg)</td>
</tr>
<tr>
<td>LIC-MOD-1-FLX-L</td>
<td>FLX-Lite License for Arista 4-Slot Modular - Full Routing Up to 256K Routes, EVPN, VXLAN, SR, base MPLS LSR (no TE or link/node protection)</td>
</tr>
<tr>
<td>LIC-MOD-2-FLX-L</td>
<td>FLX-Lite License for Arista 8-Slot Modular - Full Routing Up to 256K Routes, EVPN, VXLAN, SR, base MPLS LSR (no TE or link/node protection)</td>
</tr>
</tbody>
</table>

## Warranty

The Arista 7300X3 Series switches come with a one-year limited hardware warranty, which covers parts, repair, or replacement with a 10 business day turn-around after the unit is received.

## Service and Support

Support services including next business day and 4-hour advance hardware replacement are available. For service depot locations, please see: [http://www.arista.com/en/service](http://www.arista.com/en/service)