

Product Highlights

Performance

- 7050DX4-32S: 32x QSFP-DD 400G & 2SFP+
- 7050PX4-32S: 32x OSFP 400G & 2SFP+
- High density 400G in compact 1 RU
- Flexible 100G, 200G and 400G support
- Up to 12.8 terabits per second
- Up to 64 x 200G or 32 x 400G
- Up to 128 x 10G, 25G or 144x 50G
- Up to 5.3 billion packets per second
- Wire speed L2 and L3 forwarding
- Latency from 900ns

Data Center Optimized Design

- 32 x 400G ports with under 10W / port
- Over 94% efficient power supplies
- 1+1 redundant & hot-swappable power
- N+1 redundant & hot-swappable fans
- Data center optimized airflow
- Tool less rails for simple installation

Cloud Networking Ready

- VXLAN and EVPN
- 128K MAC entries
- 800K/500K IPv4/v6 Routes
- 128-way ECMP for scale-out networks
- Up to 320K/80K IPv4/v6 Host Routes
- 132MB integrated intelligent buffer with dynamic buffer allocation

Resilient Control Plane

- High Performance x86 CPU
- 16GB DRAM and SSD
- User applications can run in a VM

Advanced Provisioning & Monitoring

- CloudVision
- Zero Touch Provisioning (ZTP)
- LANZ for microburst detection*
- DANZ Advanced Mirroring for visibility
- sFlow
- INT and GREEN-T for In-Band Telemetry*
- Self-configure and recover from USB
- Traffic aware ECMP and UCMP

Arista Extensible Operating System

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

Overview

The Arista 7050X4 series is the fourth generation of the Arista 7050X family and a key component of the Arista 400G portfolio of data center switches.

As enterprises continue to optimize data center facilities for modern cloud-native applications, collaboration tools, containerized services and emerging AI/ML technologies, the requirement for high capacity, low latency networking is driving a flattening of data center architectures and high bandwidth interconnectivity between facilities and the public cloud.

400G Ethernet is a key enabler in realizing modern high performance infrastructure, offering the ability to not only carry large volumes of data, but also to significantly increase the radix of 100Gbps networks and to support emerging 50/100/200Gbps server and storage connectivity driven by the adoption of PCIe Gen4.

The Arista 7050X4 Series high performance flexible data center switches provide support for a wide range of interface speeds, a broad set of wire speed, low latency L2 and L3 Enterprise features including EVPN/VXLAN and extensive automation and programmability with Arista's EOS for industry leading software driven cloud networking.

Available in a choice of OSFP and QSFP-DD configuration options, combining high density and class leading power efficiency in a compact, wire-speed device, the 7050DX4-32S and 7050PX4-32S are ideal for both high performance leaf or collapsed spine tiers with support for both front-to-rear and rear-to-front airflow.

All models of the 7050X4 Series offer flexible forwarding tables, latency from as low as 900ns and a shared packet buffer of up to 132MB for superior burst absorption. Comprehensive support for a wide range of interface speeds including 10G, 25G, 40G, 50G, 100G, 200G and 400G combined with Arista EOS ensures the 7050X4 delivers the flexibility for enterprises deploying emerging applications, scaling up existing facilities or consolidating multi-tiered networks into efficient leaf-spine topologies.



Arista 7050X4 Series Switches: 7050DX4-32S, 7050PX4-32S

Arista EOS

The Arista 7050X4 series runs the same Arista EOS software as all Arista products, simplifying network administration. 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.

With Arista EOS, advanced monitoring and automation capabilities such as Zero Touch Provisioning, VMTracer and Linux based tools can be run natively on the switch with the powerful x86 CPU subsystem.

Model Overview

The Arista 7050X4 series come in different configurations. Each delivers high performance combined with feature rich layer 2 and layer 3 forwarding, suited for both top of rack leaf, or fixed configuration spines.

The **7050DX4-32S** is a 1RU system with 32 400G QSFP-DD ports offering wire speed throughput of up to 12.8Tbps bi-directional. Each QSFP-DD port supports a choice of 7 speeds with flexible configuration between 400GbE, 200GbE, 100GbE, 50GbE, 40GbE, 25GbE and 10GbE modes for up to 128 ports of 10GbE and 25GbE or 144 ports of 50GbE or 64 ports of 200GbE using breakouts. All ports can operate in any supported mode without limitation, allowing easy migration from lower speeds and the flexibility for leaf or spine deployment.



Arista 7050DX4-32S:
32x 400G QSFP-DD ports, 2 SFP+ ports

The **7050PX4-32S** is a 1RU system with 32 400G OSFP ports offering wire speed throughput of up to 12.8Tbps bi-directional. Each OSFP 400G port supports a choice of 7 speeds with flexible configuration between 400GbE, 200GbE, 100GbE, 50GbE, 40GbE, 25GbE and 10GbE modes for up to 128 ports of 10GbE and 25GbE or 144 ports of 50GbE or 64 ports of 200GbE using breakouts. All ports can operate in any supported mode without limitation, allowing easy migration from lower speeds and the flexibility for leaf or spine.



Arista 7050PX4-32S:
32x 400G OSFP ports, 2 SFP+ ports

High Availability

The Arista 7050X4 series switches are designed for high availability from both a software and hardware perspective. Key high availability features include

- 1+1 hot-swappable power supplies and four N+1 hot-swap fans
- Color coded PSU's and fans
- Live software patching
- Self healing software with Stateful Fault Repair (SFR)
- Smart System Upgrade (SSU)
- Multi-chassis LAG for active/active L2 multi-pathing
- 128-way ECMP routing for load balancing and redundancy



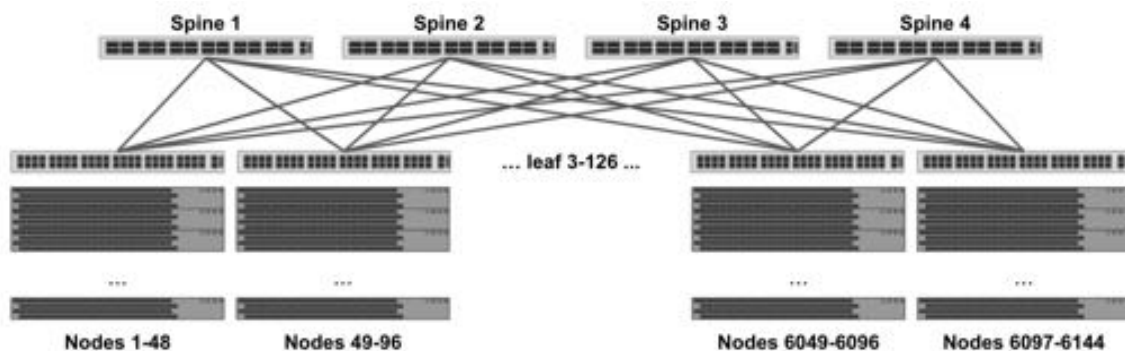
7050PX4-32S 1RU Rear View (front to rear airflow)



7050DX4-32S 1RU Rear View (front to rear airflow)

Deployment example

The diagram below shows an example of non-blocking network fabric leveraging a 32 x 400G device configured to offer 128 x 100G ports, a simple 2-tier fabric is able to support up to 6144 servers across 128 leaf switches with a fixed 3:1 oversubscription and optimally deterministic bisectional performance. The following diagram shows each leaf connecting with 4 x 100GbE across the four spine devices.



A typical 3:1 oversubscribed cluster with 25G attached nodes and 4-way 32x400G spine switches

Dynamic Buffer Allocation

In cut-through mode, the Arista 7050X4 switches forward packets with a consistent low latency of 900 nanoseconds. Upon congestion, the packets are buffered in an intelligent fully shared packet memory that has a total size of 132MB for superior burst absorption. Unlike other architectures that have fixed per-port packet memory, the 7050X4 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.

Software Driven Cloud Networking

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.

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 far as 128-way without significant changes to the architecture. The Arista 7050X4 include enhancements 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/200G/400G interfaces for multi-speed flexibility
- Support for standards based IEEE 50GbE PAM4 for simple and cost effective migration from 25G and 100G to 50G and 400G
- 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 400G to eliminate down-time when implementing speed changes

Flexible Forwarding Table

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 7050X4 leverage flexible forwarding tables for the L2 MAC, L3 Routing, L3 Host and IP Multicast forwarding entries, which can be flexibly allocated per entry type. The ideal size of each partition varies depending on the network deployment scenario. The flexibility of the forwarding table coupled with the range of pre-defined profiles available on the 7050X4 ensures optimal resource allocation for all network topologies and network virtualization technologies.

Enhanced Features for High Performance Networks

The Arista 7050X4 series deliver a suite of advanced traffic control and monitoring features to improve the agility of modern high performance environments, with solutions for data monitoring, 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.

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.

Virtualization

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and encapsulation technologies such as VXLAN. The 7050X4 build 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.

Precision Timing (IEEE 1588)*

Arista's hardware derived Precision Time Protocol solution provides a robust mechanism for accurate in-band time distribution in high performance environments. The system clock can be synchronized using IEEE 1588 PTP.

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.

Programmable Pipeline

The Arista 7050X4 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, the programmable pipeline increases the flexibility of the platform allowing for broad use cases and ensures continued investment protection.

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.

EOS Licensing

Arista 7050X4 Series with EOS and CloudVision, is designed to provide flexibility both in the choice of the appropriate feature functionality and in the software consumption model. The base feature set of Arista EOS comes bundled with the Arista products and systems. A set of feature licenses are available to enable additional functionality in advanced feature sets. The traditional licensing procurement model employs a perpetual term for the right to use the feature, set at a fixed price. For Arista CloudVision the functionality is available as a monthly subscription, for an agreed upon term.

Routing: General Routing functionality (BGP, OSPF, Multicast, etc) is available in the EOS Enhanced (E) license. The EOS Flex-route (FLX) Lite license expands that to include key features like BGP-EVPN for VXLAN.

Automation/Visibility: CloudVision is the most complete offering for advanced automation and visibility. Arista also offers subsets of CloudVision Lite, for entry-level GUI functionality. CloudVision is offered as an on-premises appliance (virtual or physical appliance) or as a SaaS-based software application that is fully managed by Arista. The EOS V2 license includes capability to run custom extensions natively or via containers in EOS. In addition, the V2 license gives customers an option of integrating with Arista's best of breed ecosystem for security, analytics, visibility, and other use-cases.

* 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
 - 128 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 Pause Flow Control Tx
- 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 (PBR)*
- uRPF*

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 (8 active sessions)
 - L2/3/4 Filtering on Mirror Sessions
 - Port Channel source and destination
 - 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)
 - Arista DirectFlow
 - eAPI
 - OpenStack Neutron Support
- IEEE 1588 PTP (Transparent Clock and Boundary Clock)*

Virtualization Support

- VXLAN Routing and Bridging
- VM Tracer VMware Integration

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
- TACACS+
- RADIUS

Quality of Service (QoS) Features

- Up to 8 unicast + 2 multicast 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
- 802.1Qbb Per-Priority Flow Control (PFC)
- 802.1Qaz Data Center Bridging Exchange (DCBX)
- ACL based DSCP Marking
- Rate limiting with ACL based Policing
- Per port MMU Configuration
- Traffic Shaping

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

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
- 802.3by 25 Gigabit Ethernet
- 802.3ba 40 and 100 Gigabit Ethernet
- 802.3bs 400 and 200 Gigabit Ethernet
- 802.3cm 400 Gigabit over multimode fiber
- 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 4292 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 VRRPv2-MIB
 - 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

STP Instances	64 (MST)/254 (RPVST+)
IGMP Groups	128K max, with 4K unique groups
ACLs	11K
Egress ACLs	2K
ECMP	128-way, 4K groups
Max. IPv4 Host Routes	320K
Max IPv6 Host Routes	80K
Max IPv4 Multicast (S,G)	160K

LPM Table Mode		ALPM	1	2	3	4
Shared	Max. IPv4 LPM Routes	800K	16K	16K	16K	16K
	Max. IPv6 LPM Routes - Unicast (prefix length <= 64)	500K	6K	4K	2K	—
	Max. IPv6 LPM Routes - Unicast (any prefix length)	500K	1K	2K	3K	4K

* Not currently supported in EOS

Specifications

Switch Model	7050DX4-32S	7050PX4-32S
Ports	32x QSFP-DD 400G 2x SFP+	32x OSFP 400G 2x SFP+
Max 400GbE Ports ¹	32	32
Max 200GbE Ports ¹	64	64
Max 100GbE Ports ¹	128	128
Max 50GbE Ports ¹	144	144
Max 40GbE Ports ¹	64	64
Max 25GbE Ports ¹	128	128
Max 10GbE Ports ¹	128 +2	128 +2
Max Total Interfaces ²	144	144
Throughput ³	12.8Tbps	12.8Tbps
Packets/Second	5.3Bpps	5.3Bpps
Latency	900ns	900ns
CPU	Quad-Core x86	Quad-Core x86
System Memory	16 Gigabytes	
Flash Storage Memory	16 Gigabytes	
Packet Buffer Memory	132 MB (Dynamic Buffer Allocation)	
100/1000 Mgmt Ports	1	
RS-232 Serial Ports	1 (RJ-45)	
USB Ports	1	
Hot-swap Power	2 (1+1 redundant)	
Hot-swappable Fans	4 (N+1 redundant)	
Reversible Airflow	Yes	Yes
Typical/Max Power ⁴	353W / 1208W	353W / 1208W
Rack Units	1RU	1RU
Size (WxHxD)	17.3 x 1.75 x 19.9 in (43.9 x 4.45 x 50.56 cm)	17.3 x 1.75 x 20.72 in (43.9 x 4.45 x 52.65 cm)
Weight	24.4 lbs (11.1kgs)	26.6lbs (12.1kgs)
Fan Tray	FAN-7011H	FAN-7011H
Power Supplies	PWR-1511 AC PWR-1511 DC	PWR-1511 AC PWR-1511 DC
EOS Feature Licenses	LIC-FIX-3	LIC-FIX-3
Minimum EOS	TBD	TBD

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities

2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used

3. Performance figures based on average packet size of 289B

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

Power Supply Specifications

Power Supply	PWR-1511AC	PWR-1511DC
Input Voltage	200-240V AC	-48 to -60 VDC
Typical Input Current	9.6A	35.2A Max (-48V)
Input Frequency	50/60Hz	DC
Output Power	1500W	1500W
Input Connector	IEC 320-C13	AWG #6 Max
Efficiency (Typical)	93% Platinum	92%
Compatibility	7050DX4-32S 7050PX4-32S	7050DX4-32S 7050PX4-32S

Standards Compliance

EMC	Emissions: FCC, EN55032, EN61000-3-2, EN61000-3-3
Immunity	EN55024, EN55035 EN300 386
Safety	UL/CSA 60950-1, EN 62368-1, IEC-62368-1, IEC 60950-1 CB Scheme with all country differences
Certifications	North America (NRTL) European Union (EU) BSMI (Taiwan) C-Tick (Australia) CCC (PRC) KC (S. Korea) EAC (Eurasian 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 7050DX4-32S, 7050PX4-32S

Operating Temperature	0 to 40°C (32 to 104°F)
Operating Temperature 7050DX4-32S-R	0 to 35°C (32 to 95°F)
Storage Temperature	-40 to 70°C (-40 to 158°F)
Relative Humidity	5 to 95%
Operating Altitude	0 to 10,000 ft, (0-3,000m)

Arista Optics and Cables

The Arista 7050X4 Series supports a wide range of 10G to 400G pluggable optics and cables. For details about the different optical modules and the minimum EOS Software release required for each of the supported optical modules, visit. <https://www.arista.com/en/products/transceivers-cables>.

Supported Optics and Cables ¹

Interface Type	400G OSFP ports
400GBASE-CR8	OSFP to OSFP: 1m-3m lengths
400GBASE-AOC	OSFP to OSFP: 1m-30m lengths
400GBASE-SR8	100m OM3/4 Parallel MMF
400GBASE-DR4	500m Parallel SM
400GBASE-XDR4	2km Parallel SM
400GBASE-FR4	2km Duplex SM
400GBASE-2FR4	2km 2 x Duplex SM
400GBASE-LR4	10km Duplex SM
400GBASE-PLR4	10km Parallel SM
400GBASE-ZR	120km (with optical amplification)
200GBASE-CR4	OSFP to 2xQSFP: 1m to 3m lengths
200GBASE-SR4	100m (using OSFP-400G-SR8)
200GBASE-FR4	2km (using OSFP-400G-2FR4)
100GBASE-CR2	OSFP to 4xQSFP: 1m to 3m lengths
100GBASE-CR4 ²	OSFP to 2xQSFP: 1m to 3m lengths
50GBASE-CR	OSFP to 8xSFP: 1 to 3m lengths
50GBASE-CR2 ²	OSFP to 4xQSFP: 1m to 3m lengths
25GBASE-CR ²	OSFP to 8xSFP: 1m to 3m lengths

Supported Optics and Cables ¹

Interface Type	400G QSFP-DD ports
400GBASE-CR8	QSFP-DD to QSFP-DD: 1m-2.5m lengths
400GBASE-AOC	QSFP-DD to QSFP-DD: 1m-30m lengths
400GBASE-SR8	100m OM3/4 Parallel MMF
400GBASE-DR4	500m Parallel SM
400GBASE-XDR4	2km Parallel SM
400GBASE-FR4	2km Duplex SM
400GBASE-LR4	10km Duplex SM
400GBASE-PLR4	10km Parallel SM
400GBASE-ZR	120km (with optical amplification)
200GBASE-CR4	QSFP-DD to 2xQSFP: 1m to 2.5m lengths
200GBASE-SR4	100m (QDD-400G-SR8 / QSFP-200G-SR4)
200GBASE-FR4	2km (using QSFP-200G-FR4)
100GBASE-CR2	QSFP-DD to 4xQSFP: 1m to 3m lengths
100GBASE-CR4 ²	QSFP-DD to 2xQSFP: 1m to 3m lengths
50GBASE-CR	QSFP-DD to 8xQSFP: 1m to 3m lengths
50GBASE-CR2 ²	QSFP-DD to 4xQSFP: 1m to 3m lengths
25GBASE-CR ²	QSFP-DD to 8xSFP: 1m to 3m lengths

1. For a complete list of transceivers, please refer to the Transceiver Datasheet and check EOS release notes for support

2. Requires OSFP / QSFP-DD port to be configured for 200G, 8 x 25G NRZ lanes. Allows interop with 100G QSFP and 25G SFP ports

Supported Optics and Cables ¹

Interface Type	40G QSFP ports
10GBASE-CR	QSFP+ to 4xSFP+: 0.5m-5m lengths
40GBASE-CR4	QSFP+ to QSFP+: 0.5m-5m lengths
40GBASE-AOC	3m to 100m lengths
40GBASE-UNIV	150m OM3 / 150m OM4, 500m SM
40GBASE-SRBD	100m OM3 / 150m OM4 Duplex MMF
40GBASE-SR4	100m OM3 / 150m OM4 Parallel MMF
40GBASE-XSR4	300m OM3 / 400m OM4 Parallel MMF
40GBASE-PLRL4	1 km (1km 4x10G LR/LRL)
40GBASE-PLR4	10km (10km 4x10G LR/LRL)
40GBASE-LRL4	1km Duplex SM
40GBASE-LR4	10km Duplex SM
40GBASE-ER4	40km Duplex SM
100GbE	100G QSFP ports
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 Duplex SM
100GBASE-LR4	10km Duplex SM
100GBASE-LRL4	2km Duplex SM
100GBASE-XCWDM4	10km Duplex SM
100GBASE-CWDM4	2km Duplex SM
100GBASE-FR	2km Duplex SM
100GBASE-DR	500m Duplex SM
100GBASE-PSM4	500m Parallel SM
100GBASE-AOC	1m to 30m lengths
100GBASE-ERL4	40km Duplex SM
100GBASE-CR4	QSFP to QSFP: 1m to 5m lengths
50GBASE-CR2	QSFP to 2xQSFP: 1m to 5m lengths
25GBASE-CR	QSFP to SFP25: 1m to 5m lengths

Supported Optics and Cables ¹

10GbE	SFP+ ports
10GBASE-CR	SFP+ to SFP+: 0.5m-5m lengths
10GBASE-AOC	SFP+ to SFP+: 3m-30m lengths
10GBASE-SRL	100m OM3 / 150m OM4 Duplex MMF
10GBASE-SR	300m OM3 / 400m OM4 Duplex MMF
10GBASE-LRL	1km Duplex SM
10GBASE-LR	10km Duplex SM
10GBASE-ER	40km Duplex SM
10GBASE-ZR	80km Duplex SM
10GBASE-T	Up to 30m over Cat6a
10GBASE-DWDM	80km Duplex SM
25GbE	25G SFP Ports
25GBASE-CR	SFP25 to SFP25: 1m-5m lengths
25GBASE-AOC	SFP+ to SFP+: 3m-30m lengths
25GBASE-MR-XSR	25G: 200m OM3 / 300m OM4 Duplex MMF 10G: 300m OM3 / 400m OM4 Duplex MMF
25GBASE-MR-SR	25G: 70m OM3 / 100m OM4 Duplex MMF 10G: 300m OM3 / 400m OM4 Duplex MMF
25GBASE-SR	70m OM3 / 100m OM4 Duplex MMF
25GBASE-LR	10km Duplex SM
25GBASE-MR-LR	10km Duplex SM

1. For a complete list of transceivers, please refer to the Transceiver Datasheet and check EOS release notes for support

2. Requires OSFP / QSFP-DD port to be configured for 200G, 8 x 25G NRZ lanes. Allows interop with 100G QSFP and 25G SFP ports

Product Number	Product Description
DCS-7050DX4-32S-F	Arista 7050X4, 32x400GbE QSFP-DD & 2xSFP+ switch, front-to-rear air, 2xAC
DCS-7050DX4-32S-R	Arista 7050X4, 32x400GbE QSFP-DD & 2xSFP+ switch, rear-to-front air, 2xAC
DCS-7050DX4-32S#	Arista 7050X4, 32x400GbE QSFP-DD & 2xSFP+ switch, configurable fans and psu
DCS-7050PX4-32S-F	Arista 7050X4, 32x400GbE OSFP & 2xSFP+ switch, front-to-rear air, 2xAC
DCS-7050PX4-32S-R	Arista 7050X4, 32x400GbE OSFP & 2xSFP+ switch, rear-to-front air, 2xAC
DCS-7050PX4-32S#	Arista 7050X4, 32x400GbE OSFP & 2xSFP+ switch, configurable fans and psu
LIC-FIX-3-E	Enhanced L3 License for Arista Group 3 Fixed switches, (BGP, OSPF, ISIS, PIM, NAT)
LIC-FIX-3-V	Virtualization license for Group 3 Arista Fixed switches (VMTracer and VXLAN)
LIC-FIX-3-V2	EOS Extensions, Security and Partner Integration license for Arista Group 3 Fixed switches
LIC-FIX-3-Z	Monitoring & Automation license for Arista Group 3 Fixed switches (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)
LIC-FIX-3-FLX-L	FLX-Lite License for Arista Fixed switches Group 3 - Full Routing Up to 256K Routes, EVPN, VXLAN, SR, base MPLS LSR (no TE or link/node protection)

Optional Components and Spares

FAN-7011H-F	Spare fan module for Arista 7050X3, 7060X, 7160 and 7280R Series 1RU switches (front-to-rear airflow)
FAN-7011H-R	Spare fan module for Arista 7050X3, 7060X, 7160 and 7280R Series 1RU switches (rear-to-front airflow)
PWR-1511-AC-RED	Arista PSU, 1RU, AC/DC, 1500W, FORWARD, 73.5MM
PWR-1511-AC-BLUE	Arista PSU, 1RU, AC/DC, 1500W, REVERSE, 73.5MM
PWR-1511-DC-RED	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
PWR-1511-DC-BLUE	Arista PSU, 1RU, DC/DC, 1500W, REVERSE, 73.5MM
KIT-7101	Spare accessory kit (v3) for Arista tool-free switches with C13/14 power cords (2-Post ears not included)
KIT-2POST-1U-NT	Spare 1RU 2 post mid-mount rack kit for 1RU tool less systems (7050X4)
KIT-7101-RK	Spare 4-post tool-less rail kit (v3). (Compatible with KIT-ADJ-RLR)
KIT-GND-EXT-1U	Arista 7000 Series 1RU Ground Extender Kit for NEBS compliance (7050X4)

Warranty

The Arista 7050X4 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>

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