

## Product Highlights

### Performance

- 7050CX3M-32S: 32x QSFP100
- Flexible 40G and 100G support
- Quad 10GbE and 25GbE support
- Up to 6.4 terabits per second
- Up to 2 billion packets per second
- Wire speed L2 and L3 forwarding
- Latency from 800ns

### Wire-speed Encryption

- IEEE 802.1AE MACsec encryption
- Wire speed encryption on all ports
- Optimized for secure DCI and site-site encryption in a compact footprint

### Data Center Optimized Design

- 32 QSFP100 ports in 1RU with under 10W per port typical
- 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 VM Tracer
- OpenFlow, DirectFlow and eAPI
- 288K MAC entries
- 360K IPv4 Routes
- 168K IPv4 Host Routes
- 32MB integrated intelligent buffer with dynamic buffer allocation

### Resilient Control Plane

- High Performance x86 CPU
- 8GB DRAM
- User applications can run in a VM

### Advanced Provisioning & Monitoring

- CloudVision
- Zero Touch Provisioning (ZTP)
- LANZ for microburst detection
- sFlow
- 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)
- Full Access to Linux shell and tools
- Extensible platform - bash, python, C++, GO, Openconfig

## Overview

The Arista 7050CX3M are members of the Arista 7050X series and key components of the Arista portfolio of data center switches. The 7050X3 MACsec systems are high performance systems with built-in wire speed MACsec encryption for the needs of next generation datacenters. The adoption of high performance servers using virtualization and containers with increasingly higher bandwidth is accelerating the need for dense 25 and 100G Ethernet switching in both the leaf and spine tiers of modern networks. The Arista 7050X3 Series are high performance flexible data center switches with a rich set of wire speed L2 and L3 features combined with extensive automation and programmability capabilities, low latency and consistent features for software driven cloud networking.

The 7050CX3M built-in MACsec capability removes the need for external encryption devices and provides security against intrusion, passive wire tapping and other playback attacks. MACsec encryption meets regulatory compliance requirements and provides data protection without loss of performance.

The Arista MACsec solution utilizes proven encryption technology to protect traffic for simple, reliable and scalable data center interconnect and for securing links between tiers in leaf and spine data center designs. MACsec offers security in the data link layer and is transparent and non-disruptive to L2/L3 traffic. Flexible 100GbE and 40GbE QSFP pluggable optics ensures a broad choice of cost effective connections.

Combining high density and industry leading power efficiency with typical power consumption under 10W per 100GbE port the 7050CX3M-32S is ideal for both high performance leaf or collapsed spine tiers with airflow choices for back to front, or front to back. The 7050CX3M Series offer flexible forwarding tables with a Unified Forwarding Table, latency from 800ns and a fully shared packet buffer of up to 32MB for superior burst absorption. Comprehensive support for a wide range of interface speeds including 10G, 25G, 40G, 50G and 100G combined with Arista EOS ensures the 7050CX3M delivers the flexibility and features for big data, cloud, virtualized and traditional network designs and accommodates the myriad different applications and east-west traffic patterns found in modern data centers.



*Arista 7050X3 Series MACsec Switches: 7050CX3M-32S*

## Arista EOS

The Arista 7050CX3M 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 7050X3 MACsec systems deliver high performance combined with feature rich layer 2 and layer 3 forwarding, suited for both top of rack leaf, or fixed configuration spines, connecting to existing and next generation systems with a choice of interface speeds.

The **7050CX3M-32S** is a 1RU system with 32 100G QSFP ports offering wire speed throughput of up to 6.4 Tbps bi-directional with wire speed encryption on all QSFP ports. Each QSFP port supports a choice of 5 speeds with flexible configuration between 100GbE, 40GbE, 4x10GbE, 4x25GbE or 2x50GbE modes for up to 128 ports of 10GbE and 25GbE or 64 ports of 50GbE. All ports can operate in any supported mode without limitation, allowing easy migration from lower speeds and the flexibility for leaf or spine deployment. Two additional SFP+ ports provide 1/10G support for out of band and management network connections.



*Arista 7050CX3M-32S:  
32x 100G QSFP100 ports, 2 SFP+ ports*

## Dynamic Buffer Allocation

In cut-through mode, the Arista 7050CX3M switches forward packets with a consistent low latency of 800 nanoseconds. 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 7050X3 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.

## 100G Wire-speed Encryption

Industry standard IEEE 802.1AE (MAC Security standard, referred to as MACsec) capabilities provide line-rate frame encryption and authentication for all traffic. This removes the need for additional encryption devices and ensures confidentiality as well as provides anti-replay protection and therefore confidence in the integrity of encrypted traffic. MACsec is a link layer encryption technology and operates at the speed of the Ethernet ports, providing high performance without the processing overheads associated with encryption options such as IPSec.

MACsec uses a long-term key to derive session keys used for encryption utilizing the MACsec Key Agreement Protocol per IEEE 802.1X-2010. Long term keys can either be statically defined or derived via RADIUS server(s). Data is encrypted using the 128 bit or 256-bit GCM-AES-XPB block cipher suite. MACsec encryption is a EOS licensed feature and requires a license file to enable the encryption feature. License information is included in the ordering information section of this document. The 7050CX3M enables MACsec at a range of speeds, including 10G, 25G, 40G and 100G, determined by the operation of the QSFP ports mode.

## High Availability

The Arista 7050CX3M 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 three 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



*Arista 7050CX3M-32S 1RU Rear View - Front to rear airflow*



*7050CX3M-32S hot swap fans and power supplies*

## 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 7050CX3M 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 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

## Unified 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 7050X3M leverage 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 profiles available on the 7050X3 ensures optimal resource allocation for all network topologies and network virtualization technologies.

## Enhanced Features for High Performance Networks

The Arista 7050X3M 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.

## 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.

## 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 7050X3 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.

## Flexible Pipeline

The Arista 7050X3M 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 7050X3M 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.

## 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 Flow Control
- Jumbo Frames (9216 Bytes)
- IGMP v1/v2/v3 snooping
- Storm Control
- Audio Video Bridging (AVB) \*

## 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
- RAIL
- Network Address Translation
  - Source/Destination NAT
  - Source/Group Multicast NAT

## 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 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)
  - Openflow 1.0 \*
  - Openflow 1.3 \*
  - 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
- 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)
- 802.1Qaz Data Center Bridging Extensions (DCBX)
- ACL based DSCP Marking
- ACL based Policing
- Per port MMU Configuration
- Policing/Shaping
- Rate limiting

## 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
- 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)/510 (RPVST+)        |          |             |          |          |
| IGMP Groups                                     | 288K, with 16K unique groups |          |             |          |          |
| ACLs  | 2K                           |          |             |          |          |
| Egress ACLs                                     | 2K                           |          |             |          |          |
| ECMP  | 128-way, 1K groups           |          |             |          |          |
| <b>UFT Mode - 2 is default</b>                  | <b>0</b>                     | <b>1</b> | <b>2</b>    | <b>3</b> | <b>4</b> |
| MAC Addresses                                   | 288K                         | 224K     | <b>160K</b> | 96K      | 32K      |
| IPv4 Host Routes                                | 16K                          | 80K      | <b>144K</b> | 168K     | 16K      |
| IPv4 Multicast (S,G)                            | 8K                           | 40K      | <b>72K</b>  | 104K     | 8K       |
| IPv6 Host Routes                                | 8K                           | 40K      | <b>72K</b>  | 104K     | 8K       |
| <b>LPM Table Mode</b>                           | <b>ALPM</b>                  | <b>1</b> | <b>2</b>    | <b>3</b> | <b>4</b> |
| IPv4 LPM Routes                                 | <b>360K</b>                  | 32K      | 32K         | 32K      | 32K      |
| IPv6 LPM Routes - Unicast (prefix length <= 64) | <b>0-192K</b>                | 12K      | 8K          | 4K       | -        |
| IPv6 LPM Routes - Unicast (any prefix length)   | <b>2K-40K</b>                | 2K       | 4K          | 6K       | 8K       |

\* Not currently supported in EOS

## Specifications

| Switch Model                        | 7050CX3M-32S   |
|-------------------------------------|--|
| Ports                               | 32x QSFP100<br>2x SFP+   |
| Max 100GbE Ports <sup>1</sup>       | 32   |
| Max 50GbE Ports <sup>1</sup>        | 64   |
| Max 40GbE Ports <sup>1</sup>        | 32   |
| Max 25GbE Ports <sup>1</sup>        | 128  |
| Max 10GbE Ports <sup>1</sup>        | 129  |
| Max 1GbE Ports <sup>1</sup>         | 2  |
| Max Total Interfaces <sup>2</sup>   | 129  |
| Throughput <sup>3</sup>             | 6.4Tbps  |
| Packets/Second                      | 2Bpps  |
| Latency                             | 800ns  |
| CPU                                 | Quad-Core x86  |
| System Memory                       | 8 Gigabytes  |
| Flash Storage Memory                | 8 Gigabytes  |
| Packet Buffer Memory                | 32 MB (Dynamic Buffer Allocation)                              |
| 10/100/1000 Mgmt Ports              | 1  |
| RS-232 Serial Ports                 | 1 (RJ-45)  |
| USB Ports                           | 1  |
| Hot-swap Power Supplies             | 2 (1+1 redundant)  |
| Hot-swappable Fans                  | 3 (2+1 redundant)  |
| Reversible Airflow Option           | Yes  |
| Typical/Max Power Draw <sup>4</sup> | 398W / 751W  |
| Rack Units                          | 1RU  |
| Size (WxHxD)                        | 19 x 1.75 x 22 inches<br>(48.3 x 4.4 x 55.88 cm)               |
| Weight                              | 26.45 lbs (12kg)   |
| Power Supplies                      | 1000W AC/DC Forward & Reverse<br>1500W AC/DC Forward & Reverse |
| EOS Feature Licenses                | LIC-FIX-2  |
| Minimum EOS                         | 4.23.0   |

## Supported Optics and Cables

| 40GbE           | 40G QSFP ports                        |
|-----------------|---------------------------------------|
| 10GBASE-CR      | 0.5m-5m QSFP+ to 4x SFP+ (see note 5) |
| 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          | 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 SM Duplex                        |
| 100GBASE-LR4    | 10km SM Duplex                        |
| 100GBASE-LRL4   | 2km SM Duplex                         |
| 100GBASE-XCWDM4 | 10km SM Duplex                        |
| 100GBASE-CWDM4  | 2km SM Duplex                         |
| 100GBASE-PSM4   | 500m SM Parallel                      |
| 100GBASE-AOC    | 1m to 30m                             |
| 100GBASE-ERL4   | 40km SM Duplex                        |

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 200B

4. Typical power consumption measured at 25C ambient with 50% load on all ports. Max power is at 100% load and includes 3.5W 100G optics, at 40C, 10,000ft

5. CR cables are only supported on SFP+ ports

| 10GbE           | 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-DWDM    | 80km                  |
| 1GbE SX/LX/TX * | Yes                   |

### Environmental Characteristics

|                       |                            |
|-----------------------|----------------------------|
| Operating Temperature | 0 to 40°C (32 to 104°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) |

### Standards Compliance

|                           |  |
|---------------------------|--|
| EMC                       | Emissions: FCC, EN55032, EN61000-3-2, EN61000-3-3  |
| Immunity                  | EN55024, EN55035<br>EN300 386  |
| Safety                    | UL/CSA 60950-1, EN 62368-1, IEC-62368-1, IEC 60950-1<br>CB Scheme with all country differences   |
| Certifications            | North America (NRTL)<br>European Union (EU)<br>BSMI (Taiwan)<br>C-Tick (Australia)<br>CCC (PRC)<br>KC (S. Korea)<br>EAC (Eurasian Customs Union)<br>VCCI (Japan) |
| European Union Directives | 2006/95/EC Low Voltage Directive<br>2004/108/EC EMC Directive<br>2011/65/EU RoHS Directive<br>2012/19/EU WEEE Directive  |

### Power Supply Specifications

| Power Supply          | PWR-1011AC   | PWR-1011DC     | PWR-1511AC   | PWR-1511DC       |
|-----------------------|--------------|----------------|--------------|------------------|
| Input Voltage         | 100-240V AC  | -48 to -60 VDC | 200-240V AC  | -48 to -60 VDC   |
| Typical Input Current | 11- 5A       | 23A Max (-48V) | 9.6A         | 35.2A Max (-48V) |
| Input Frequency       | 50/60Hz      | DC             | 50/60Hz      | DC               |
| Output Power          | 1000W        | 1000W          | 1500W        | 1500W            |
| Input Connector       | IEC 320-C13  | AWG #6 Max     | IEC 320-C13  | AWG #6 Max       |
| Efficiency            | 93% Platinum | 94%            | 93% Platinum | 92%              |

\* 100Mb is supported on 10G SFP+ ports only



| Product Number     | Product Description   |
|--------------------|---|
| DCS-7050CX3M-32S-F | Arista 7050X3, 32x100GbE QSFP+ & 2xSFP+ switch, MACsec, front-to-rear air, 2xAC   |
| DCS-7050CX3M-32S-R | Arista 7050X3, 32x100GbE QSFP+ & 2xSFP+ switch, MACsec, rear-to-front air, 2xAC   |
| DCS-7050CX3M-32S#  | Arista 7050X3, 32x100GbE QSFP+ & 2xSFP+ switch, MACsec, configurable fans and psu   |
| LIC-FIX-2-MACSEC   | MACSEC Encryption License for Arista Fixed switches, 25-64 MACSEC capable ports   |
| LIC-FIX-2-E        | Enhanced L3 License for Arista Group 2 Fixed switches, (BGP, OSPF, ISIS, PIM, NAT)  |
| LIC-FIX-2-V        | Virtualization license for Group 2 Arista Fixed switches (VMTracer and VXLAN)   |
| LIC-FIX-2-V2       | EOS Extensions, Security and Partner Integration license for Arista Group 2 Fixed switches  |
| LIC-FIX-2-Z        | Monitoring & Automation license for Arista Group 2 Fixed switches (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)                                 |
| LIC-FIX-2-FLX-L    | FLX-Lite License for Arista Fixed switches Group 2 - Full Routing Up to 256K Routes, EVPN, VXLAN, SR, base MPLS LSR (no TE or link/node protection) |

### Optional Components and Spares

|                  |  |
|------------------|--|
| FAN-7011M-F      | Spare fan module for Arista 7000 Series 1RU Enhanced Fan Speed (front-to-rear airflow)                               |
| FAN-7011M-R      | Spare fan module for Arista 7000 Series 1RU Enhanced Fan Speed (rear-to-front airflow)                               |
| PWR-1011-AC-RED  | Arista PSU, 1RU, AC, 1000W, front-to-rear airflow, 73.5mm  |
| PWR-1011-AC-BLUE | Arista PSU, 1RU, AC, 1000W, rear-to-front airflow, 73.5mm  |
| PWR-1011-DC-RED  | Arista PSU, 1RU, DC, 1000W, front-to-rear airflow, 73.5mm  |
| PWR-1011-DC-BLUE | Arista PSU, 1RU, DC, 1000W, rear-to-front airflow, 73.5mm  |
| PWR-1511-AC-RED  | Arista PSU, 1RU, AC, 1500W, front-to-rear airflow, 73.5mm  |
| PWR-1511-AC-BLUE | Arista PSU, 1RU, AC, 1500W, rear-to-front airflow, 73.5mm  |
| PWR-1511-DC-RED  | Arista PSU, 1RU, DC, 1500W, front-to-rear airflow, 73.5mm  |
| PWR-1511-DC-BLUE | Arista PSU, 1RU, DC, 1500W, rear-to-front airflow, 73.5mm  |
| KIT-7001         | Spare accessory kit for Arista 7050X3 1RU switches with tool-less rails  |
| KIT-2POST-1U-NT  | Spare 1RU 2 post rail kit for 1RU tool less systems (7050QX-32S, 7050SX/TX, 7050X3, 7060X and 7280)                  |
| KIT-4POST-NT     | Spare 1RU/2RU tool-less rail kits for 4-post installation (7050QX-32S, 7050SX/TX, 7050X3, 7060X, 7260X, 7280, 7250X) |
| KIT-GND-EXT-1RU  | Arista 7000 Series 1RU Ground Extender Kit for NEBS compliance   |

## Warranty

The Arista 7050X3 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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