Overview

Highly dynamic cloud data center networks continue to evolve with the introduction of new protocols and server technologies such as containers bringing with them ever increasing bandwidth demands, accelerating the need for dense 100 Gigabit Ethernet switching in data center networks.

The Arista 7170 Series are purpose built fixed configuration 100GbE systems built for the highest performance environments, and to meet the needs of the largest scale data centers. They offer scalable L2 and L3 resources and high density with a highly programmable and customizable switch architecture combined with advanced features for software defined cloud networking and emerging requirements. With a uniquely flexible programmable architecture, the 7170 series allow reconfiguration of packet parsing, lookups, traffic scheduling, packet modification and traffic monitoring without re-engineering the switch architecture.

The Arista 7170-64C is a programmable data center switch with a packet buffer pool of up to 22MB that is shared across all ports. With 64 QSFP100 ports the 7170-64C is a dense 40/100GbE system that can support a flexible combination of up to 64x 40/100GbE, 128x 50GbE or 256x 10/25GbE of wire speed performance in a 2RU system.

The Arista 7170-32C/CD provide 32 QSFP100 ports based on the same architecture as 7170-64C offering full throughput and performance in a dense 1RU chassis supporting up to 32x 40/100GbE, 64x 50GbE or 128x 10/25GbE interfaces. The 7170-32C additionally provides double the system pipeline capacity to accommodate more advanced features and higher scalability.

Product Highlights

Performance

- 7170-64C: 64x QSFP100
- 7170-32C and 7170-32CD: 32x QSFP100
- Flexible 10G to 100G support on all ports
- Up to 256 x 10G, 25G or 128 x 50G using breakout cables
- Up to 12.8 terabits per second
- Up to 4.8 billion packets per second
- Wire speed L2 and L3 forwarding
- Latency from 800ns
- Up to 22MB integrated packet buffer

Data Center Optimized Design

- 64 QSFP100 ports in 2RU
- 32 QSFP100 ports in 1RU
- Under 5W per port typical
- Over 93% efficient power supplies
- 1+1 redundant & hot-swappable power
- N+1 redundant & hot-swappable fans
- Front-to-rear or rear-to-front cooling
- Tool less rails for simple installation

Resilient Control Plane

- High Performance x86 CPU
- Up to 64GB DRAM
- User applications can run in a VM

Advanced Provisioning & Monitoring

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

Flexible & Programmable Architecture

- Integrated and flexible packet forwarding
- Flexible resource allocation
- Advanced telemetry with packet traces and user defined triggers

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

Arista EOS

The Arista 7170 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 **7170-64C** is a 2RU system with 64 100G QSFP ports offering wire speed performance with an overall throughput up to 12.8 Tbps. Each QSFP port is capable of a choice of 100GbE, 40GbE, 4x10GbE, 4x25GbE or 2x50GbE with hitless configuration change between modes. The 64 QSFP ports can be broken out to a system maximum of 256 ports allowing for easy transitions and maximum flexibility enabling deployment as both a leaf and spine. The two integrated SFP+ ports provide additional high speed connections for management networks and out of band monitoring.

The **7170-32C** and **7170-32CD** are 1RU systems with 32 100G QSFP ports offering wire speed performance with an overall throughput up to 6.4 Tbps. Each QSFP port is capable of a choice of 100GbE, 40GbE, 4x10GbE, 4x25GbE or 2x50GbE with hitless configuration change between modes. The 32 QSFP ports can be broken out to a system maximum of 128 ports allowing for easy transitions and maximum flexibility enabling deployment as both a leaf and spine. The two integrated SFP+ ports provide additional high speed connections for management networks and out of band monitoring.

High Availability

The Arista 7170 Series were designed for continuous operations with system wide monitoring of both hardware and software components, simple serviceability and provisioning to prevent single points of failure. Key high availability features include:

- 1+1 hot-swappable power supplies and four hot-swap fans provide dynamic temperature control combined with N+1 redundancy
- Color coded PSU's and fans that deliver platinum level power efficiency
- Live software patching
- Self healing software with Stateful Fault Repair (SFR)
- Smart System Upgrade (SSU) and Accelerated Software Update (ASU) *

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 7170 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 Cost Multi-Pathing (ECMP) for 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 forwarding table resources for more design choice
- Wide choice of dense 10G/25G/40G/100G interfaces for multi-speed flexibility
- 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
- AlgoMatch to match business intent to network policy for flow matching, access control and telemetry
- Network Address Translation for network merging, address hiding for security and application scaling
- EOS tools for network wide visibility and monitoring to detect traffic bursts, monitor latency and congestion and allow capacity planning to improve application performance and availability

* Not currently supported in EOS
Programmable Architecture

The 7170 series offers a protocol independent switch architecture with a highly programmable packet pipeline that allows the addition of new protocols, encapsulation and tunneling features to the packet processor through simple software upgrades without changes to the underlying hardware. This allows for rapid testing and deployment avoiding costly replacements or major upgrades. A recent example of a new encapsulation in the data center environment is VXLAN which required new silicon technology, delaying customer deployments and innovation.

![Arista 7170 Series Packet Pipeline Architecture](image)

Match-Action Units

The 7170 series packet processor pipeline consists of identical blocks of hardware stages or Match-Action Units. The Match-Action Units are generic and can be configured to provide a specific function programatically. Each Match-Action Unit extracts a match key from a broad set of fields in the packet header and the application header. The key is used to lookup in the match table resulting in a broad set of actions and stateful table updates. This architecture results in a configurable data plane with very high throughput, broad range of packet processing functionality and application visibility.

Flexible and Scalable Resources

Network scalability is directly impacted by a switch’s forwarding tables. The 7170 Series provide flexibility on how memory resources are allocated among the different tables and features. The architecture allows for flexible and programmable allocation of available resources to achieve maximum efficiency for any given customer application. This allows for deployment of the 7170 Series across traditional use cases with standard scale requirement as well as a wide range of use cases with unique resource requirements.

Application Profiles

The 7170 series with Arista EOS support a rich set of both data plane and control plane features and capabilities with a programmable SDK that address the deployment in either a leaf or spine role in two-tier networks. Each application profile provides a targeted set of data plane and control plane features with the feature scale tailored to solve a specific application. Arista and customers can leverage P4 to define a new forwarding profile for the 7170 packet pipeline, to deliver custom behavior, change lookups performed on the packets or rapidly develop and test new functionality. This flexibility provided by multiple forwarding profiles written in P4 and compiled into Arista EOS, addresses multiple real world requirements for scale, advanced telemetry, security and encapsulation and can be further customized to specific customer use-cases. The Enhanced feature license enables use of specialist profiles.

Some examples of solutions the 7170 Series can enable:

- **Network Overlay and Virtualization** profile in a bare metal environment offloads network functions such as traffic segmentation or tunnel encapsulation from virtual servers freeing up compute resources and accelerating applications
- **Flexible Routing and Segmentation** profile supports a large FIB with provisions for customizations such as remove or change VLAN tags, modify MPLS labels and implement custom protocols
- **Network Security** profile supports firewall functionality such as learn and track micro flows and sessions, identify anomalies and take preventive measures dynamically
- **Large Scale Network Address Translation** profile to conceal internal networks, allow duplicate address spaces and facilitate IPv4 to IPv6 migration
- **Network and Application Telemetry** with flow level visibility, custom application counters, configurable thresholds and alarms, timestamping and end to end latency
- **Large Scale ACLs** with support for stateful ACLs, rule based policies, hierarchical ACLs and conditional filtering for enhanced security and application performance.
Intelligent Packet Buffers

The Arista 7170 Series switches offer up to 22 MB of unified packet buffer that is shared dynamically across all ports. The packet buffer can be allocated programmatically across multiple classes of applications to optimize performance for custom applications along with standard data center applications designed to avoid congestion from micro-bursts or fan-in packets. Unlike architectures with small per-port packet memory, or small shared memory pools the 7170 Series use a scheme to allocate memory intelligently based on a combination of traffic class, queue depth and quality of service policy ensuring fair allocation to all ports. Buffer utilization, occupancy and thresholds are all visible with Arista LANZ and can be exported to monitoring tools for detailed analysis.

Software Defined Cloud Networks

Arista Software Defined 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.

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)

Advanced Event Management (AEM), a sub-system of Arista EOS, is a powerful and flexible tool to automate tasks and customize the behavior of EOS and the operation of the overall data center switching infrastructure. Simplifying the overall operations, AEM provides the tools to customize alerts and actions. 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.

AlgoMatch™

AlgoMatch is a unique Arista innovation for modern cloud networks, combining both software and hardware to enable more flexible and scalable solutions for access control, policy based forwarding and network telemetry. By combining general purpose memory with advanced software algorithms AlgoMatch delivers higher scale, performance and efficiency with lower power and is more cost effective than traditional solutions. AlgoMatch provides a more efficient packet matching algorithm that in turn enables flow matching for access control, policy and visibility. The net benefits are a high performance policy engine with both increased functionality and scale in a cost and power efficient solution.

- AlgoMatch enables IPv4 and IPv6 access control at the same scale
- L4 rule ranges are programmed efficiently without expansion or reduced capacity
- Multiple actions can be performed on a single packet or flow
- User defined filters allow flexible packet classification based on offsets for custom actions
- Supports rich policy with consistent semantics that would exhaust classical resources

* 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
• Dynamic Load Balancing
• 802.3ad Link Aggregation/LACP
  • 128 ports/channel
  • 256 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
• Static Routes
• 128-way Equal Cost Multipath Routing (ECMP)
• Resilient ECMP Routes *
• VRF
• Bi-Directional Forwarding Detection (BFD)
• Route Maps
• IGMP v2/v3
• PIM-SM / PIM-SSM *
• Anycast RP (RFC 4610)
• VRRP
• Virtual ARP (VARP)
• Policy Based Routing (PBR) *
• uRPF *
• 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 (128 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
• eAPI
• OpenStack Neutron Support
• IEEE 1588 PTP (Transparent Clock and Boundary Clock)

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

Security Features
• PDP
• Service ACLs
• Ingress ACLs using L2, L3, L4 fields
• ACL Deny Logging *
• ACL Counters
• DHCP Relay / Snooping *
• 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) *
• Per port MMU Configuration
• 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

Extensibility

- Linux Tools
  - Bash shell access and scripting
  - RPM support
  - Custom kernel modules
- Programmatic access to system state
  - Python
  - Chef
  - Puppet
  - C++
  - eAPI
  - GO
  - OpenConfig
  - OpenStack Neutron Plug-in support
- 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 4292 IP-FORWARD-MIB
- RFC 4273 BGP4-MIB
- RFC 4750 OSPF-MIB
- RFC 4283 RSVP-MIB
- 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 VRPRPv2-MIB
- MSDP-MIB
- PIM-MIB
- IGMP-MIB
- IPMROUTE-STD-MIB
- ENTITY-SENSOR-MIB support for DOM (Digital Optical Monitoring)
- User configurable custom OIDs

See EOS release notes for latest supported MIBs

* Not currently supported in EOS
## Specifications

<table>
<thead>
<tr>
<th>Switch Model</th>
<th>7170-64C</th>
<th>7170-32C</th>
<th>7170-32CD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ports</strong></td>
<td>64x QSFP100, 2x SFP+</td>
<td>32x QSFP100, 2x SFP+</td>
<td>32x QSFP100, 2x SFP+</td>
</tr>
<tr>
<td><strong>Max 100GbE Ports</strong></td>
<td>64</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td><strong>Max 50GbE Ports</strong></td>
<td>128</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td><strong>Max 40GbE Ports</strong></td>
<td>64</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td><strong>Max 25GbE Ports</strong></td>
<td>256</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td><strong>Max 10GbE Ports</strong></td>
<td>258</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td><strong>Max 1GbE Ports</strong></td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Throughput</strong></td>
<td>12.8 Tbps</td>
<td>6.4 Tbps</td>
<td>6.4 Tbps</td>
</tr>
<tr>
<td><strong>Packets/Second</strong></td>
<td>Up to 4.8 Bpps</td>
<td>Up to 2.4 Bpps</td>
<td>Up to 2.4 Bpps</td>
</tr>
<tr>
<td><strong>Latency</strong></td>
<td>From 800 ns</td>
<td>From 800 ns</td>
<td>From 800 ns</td>
</tr>
<tr>
<td><strong>CPU</strong></td>
<td>Multi-core x86</td>
<td>Multi-core x86</td>
<td>Multi-core x86</td>
</tr>
<tr>
<td><strong>System Memory</strong></td>
<td>16 GB (64 GB Optional)</td>
<td>16 GB (32 GB Optional)</td>
<td>16 GB (32 GB Optional)</td>
</tr>
<tr>
<td><strong>Flash Storage Memory</strong></td>
<td>30 GB</td>
<td>30 GB</td>
<td>30 GB</td>
</tr>
<tr>
<td><strong>SSD Storage Option</strong></td>
<td>120 GB</td>
<td>30 GB</td>
<td>No</td>
</tr>
<tr>
<td><strong>Packet Buffer Memory</strong></td>
<td>22 MB</td>
<td>20 MB</td>
<td>20 MB</td>
</tr>
<tr>
<td><strong>10/100/1000 Mgmt Ports</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>RS-232 Serial Ports</strong></td>
<td>1 (RJ-45)</td>
<td>1 (RJ-45)</td>
<td>1 (RJ-45)</td>
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<tr>
<td><strong>USB Ports</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Hot-swap Power Supplies</strong></td>
<td>2 (1+1 redundant)</td>
<td>2 (1+1 redundant)</td>
<td>2 (1+1 redundant)</td>
</tr>
<tr>
<td><strong>Hot-swappable Fans</strong></td>
<td>4 (N+1 redundant)</td>
<td>4 (N+1 redundant)</td>
<td>4 (N+1 redundant)</td>
</tr>
<tr>
<td><strong>Reversible Airflow Option</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Typical/Max Power Draw Note 1</strong></td>
<td>271 W / 571 W</td>
<td>221 W / 490 W</td>
<td>221 W / 490 W</td>
</tr>
<tr>
<td><strong>Rack Units</strong></td>
<td>2RU</td>
<td>1RU</td>
<td>1RU</td>
</tr>
<tr>
<td><strong>Size (WxHxD)</strong></td>
<td>19 x 3.5 x 18 inches (48.3 x 8.8 x45.7 cm)</td>
<td>19 x 1.75 x 16 inches (48.3x 4.4x 40.64cm)</td>
<td>19 x 1.75 x 16 inches (48.3x 4.4x 40.64cm)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>34lbs (15.6kg)</td>
<td>22lbs (10kg)</td>
<td>22lbs (10kg)</td>
</tr>
<tr>
<td><strong>Power Supplies</strong></td>
<td>745W AC 1900W DC</td>
<td>747W AC 1900W DC</td>
<td>747W AC 1900W DC</td>
</tr>
<tr>
<td><strong>EOS Feature Licenses</strong></td>
<td>Group 3</td>
<td>Group 2</td>
<td>Group 2</td>
</tr>
<tr>
<td><strong>Minimum EOS</strong></td>
<td>4.20.5FX</td>
<td>4.21.0F</td>
<td>TBD</td>
</tr>
</tbody>
</table>

*Not currently supported in EOS*  

Note: 1. Typical power consumption measured at 25°C ambient with 50% load  
2. Performance rated over operation with average packets larger than 128 bytes.
## Supported Optics and Cables

<table>
<thead>
<tr>
<th>Interface Type</th>
<th>SFP+ ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>10GBASE-CR</td>
<td>SFP+ to SFP+: 0.5m-5m</td>
</tr>
<tr>
<td>10GBASE-AOC</td>
<td>SFP+ to SFP+: 3m-30m</td>
</tr>
<tr>
<td>10GBASE-SRL</td>
<td>100m OM3 / 150m OM4 duplex MMF</td>
</tr>
<tr>
<td>10GBASE-SR</td>
<td>300m OM3 / 400m OM4 duplex MMF</td>
</tr>
<tr>
<td>10GBASE-LR/LRL</td>
<td>10km/1km duplex SMF</td>
</tr>
<tr>
<td>10GBASE-ER</td>
<td>40km duplex SMF</td>
</tr>
<tr>
<td>10GBASE-ZR</td>
<td>80km duplex SMF</td>
</tr>
<tr>
<td>10GBASE-DWDM</td>
<td>80km duplex SMF (DWDM)</td>
</tr>
<tr>
<td>1Gbe SX/LX/ TX</td>
<td>Supported</td>
</tr>
</tbody>
</table>

## Interface Type

<table>
<thead>
<tr>
<th>Interface Type</th>
<th>40G QSFP ports</th>
<th>100G QSFP ports</th>
<th>25Gbase-CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>10GBASE-CR</td>
<td>0.5m-5m QSFP+ to 4x SFP+</td>
<td></td>
<td>QSFP to SFP25: 1m to 5m</td>
</tr>
<tr>
<td>40GBASE-CR4</td>
<td>0.5m to 5m QSFP+ to QSFP+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40GBASE-AOC</td>
<td>3m to 100m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40GBASE-SR4</td>
<td>100m OM3 / 150m OM4 parallel MMF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40GBASE-XSR4</td>
<td>300m OM3 / 400m OM4 parallel MMF</td>
<td></td>
<td></td>
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<tr>
<td>40GBASE-SRBD</td>
<td>100m OM3 / 150m OM4 duplex MMF</td>
<td></td>
<td></td>
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<tr>
<td>40GBASE-UNIV</td>
<td>150m OM3/OM4 duplex MMF</td>
<td>100m OM3/OM4 duplex MMF</td>
<td></td>
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<tr>
<td>40GBASE-PLR4/PLRL4</td>
<td>10km/1km duplex SMF (4x10G LR/LRL)</td>
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<td></td>
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<tr>
<td>40GBASE-LR4/LRL4</td>
<td>10km/1km duplex SMF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40GBASE-ER4</td>
<td>40km duplex SMF</td>
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<td></td>
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</table>

## Power Supply Specifications

<table>
<thead>
<tr>
<th>Power Supply</th>
<th>PWR-747AC</th>
<th>PWR-745AC</th>
<th>PWR-1900DC</th>
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<tbody>
<tr>
<td>Input Voltage</td>
<td>100-240VAC</td>
<td>100-240VAC</td>
<td>40-72 VDC</td>
</tr>
<tr>
<td>Typical Input Current</td>
<td>10 - 4A</td>
<td>10 - 4A</td>
<td>44A Max (-48V)</td>
</tr>
<tr>
<td>Input Frequency</td>
<td>50/60Hz</td>
<td>50/60Hz</td>
<td>DC</td>
</tr>
<tr>
<td>Input Connector</td>
<td>IEC 320-C13</td>
<td>IEC 320-C13</td>
<td>AWG #6 Max</td>
</tr>
<tr>
<td>Efficiency (Typical)</td>
<td>93% Platinum</td>
<td>93% Platinum</td>
<td>95%</td>
</tr>
<tr>
<td>Compatibility</td>
<td>7170-32C</td>
<td>7170-32CD</td>
<td>7170-64C</td>
</tr>
<tr>
<td></td>
<td>7170-32CD</td>
<td></td>
<td>7170-64C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7170-64C</td>
<td>7170-32C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7170-32CD</td>
</tr>
</tbody>
</table>

## 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
- North America (NRTL)
- European Union (EU)
- BSMI (Taiwan)
- C-Tick (Australia)
- CCC (PRC)
- KC (S. Korea)
- EAC (Eurasian Customs Union)
- VCCI (Japan)
- 2006/95/EC Low Voltage Directive
- 2004/108/EC EMC Directive
- 2011/65/EU RoHS Directive
- 2012/19/EU WEEE Directive

## 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)
<table>
<thead>
<tr>
<th>Product Number</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7170-64C-F</td>
<td>Arista 7170, Programmable 64 x 100GbE QSFP switch, front to rear air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-64C-R</td>
<td>Arista 7170, Programmable 64 x 100GbE QSFP switch, rear to front air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-64C#</td>
<td>Arista 7170, Programmable 64 x 100GbE QSFP switch, configurable fans and psu</td>
</tr>
<tr>
<td>DCS-7170-64C-M#</td>
<td>Arista 7170, Programmable 64 x 100GbE QSFP switch, expn mem, SSD, configurable fans and psu</td>
</tr>
<tr>
<td>DCS-7170-32C-F</td>
<td>Arista 7170, High Capacity Programmable 32 x 100GbE QSFP switch, front to rear air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-32C-R</td>
<td>Arista 7170, High Capacity Programmable 32 x 100GbE QSFP switch, rear to front air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-32C#</td>
<td>Arista 7170, High Capacity Programmable 32 x 100GbE QSFP switch, configurable fans and psu</td>
</tr>
<tr>
<td>DCS-7170-32C-M-F</td>
<td>Arista 7170, High Capacity Programmable 32 x 100GbE QSFP switch, expn mem, SSD, front to rear air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-32C-M-R</td>
<td>Arista 7170, High Capacity Programmable 32 x 100GbE QSFP switch, expn mem, SSD, rear to front air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-32C-M#</td>
<td>Arista 7170, High Capacity Programmable 32 x 100GbE QSFP switch, expn mem, SSD, configurable fans and psu</td>
</tr>
<tr>
<td>DCS-7170-32CD-F</td>
<td>Arista 7170, Programmable 32 x 100GbE QSFP switch, front to rear air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-32CD-R</td>
<td>Arista 7170, Programmable 32 x 100GbE QSFP switch, rear to front air, 2 x AC</td>
</tr>
<tr>
<td>DCS-7170-32CD#</td>
<td>Arista 7170, Programmable 32 x 100GbE QSFP switch, configurable fans and psu</td>
</tr>
<tr>
<td>LIC-FIX-2-E</td>
<td>Enhanced L3 License for Arista Group 2 Fixed switches, (BGP, OSPF, ISIS, PIM, NAT)</td>
</tr>
<tr>
<td>LIC-FIX-2-V</td>
<td>Virtualization license for Group 2 Arista Fixed switches (VMTracer and VXLAN)</td>
</tr>
<tr>
<td>LIC-FIX-2-V2</td>
<td>EOS Extensions, Security and Partner Integration license for Arista Group 2 Fixed switches</td>
</tr>
<tr>
<td>LIC-FIX-2-Z</td>
<td>Monitoring &amp; Automation license for Arista Group 2 Fixed switches (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)</td>
</tr>
<tr>
<td>LIC-FIX-2-FLX-L</td>
<td>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)</td>
</tr>
<tr>
<td>LIC-FIX-3-E</td>
<td>Enhanced L3 License for Arista Group 3 Fixed switches, (BGP, OSPF, ISIS, PIM, NAT)</td>
</tr>
<tr>
<td>LIC-FIX-3-V</td>
<td>Virtualization license for Group 3 Arista Fixed switches (VMTracer and VXLAN)</td>
</tr>
<tr>
<td>LIC-FIX-3-V2</td>
<td>EOS Extensions, Security and Partner Integration license for Arista Group 3 Fixed switches</td>
</tr>
<tr>
<td>LIC-FIX-3-Z</td>
<td>Monitoring &amp; Automation license for Arista Group 3 Fixed switches (ZTP, LANZ, TapAgg, OpenFlow)</td>
</tr>
<tr>
<td>LIC-FIX-3-FLX-L</td>
<td>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)</td>
</tr>
<tr>
<td>LIC-FIX-ENH1</td>
<td>Enhanced License Group 1 for 7170 platforms - (MAP-T, Load balancer, Large NAT, Firewall, etc.). Includes E, V2, Z, FLX.</td>
</tr>
</tbody>
</table>
Optional Components and Spares

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR-745AC-F</td>
<td>Spare 750 Watt AC power supply for Arista 7170 Series Switches (front-to-rear airflow)</td>
</tr>
<tr>
<td>PWR-745AC-R</td>
<td>Spare 750 Watt AC power supply for Arista 7170 Series Switches (rear-to-front airflow)</td>
</tr>
<tr>
<td>PWR-747AC-RED</td>
<td>Spare 750 Watt AC power supply for Arista 7170 Switches (front-to-rear airflow)</td>
</tr>
<tr>
<td>PWR-747AC-BLUE</td>
<td>Spare 750 Watt AC power supply for Arista 7170 Switches (rear-to-front airflow)</td>
</tr>
<tr>
<td>PWR-1900-DC-F</td>
<td>Spare 1900W DC Power Supply for Arista 7170 Series Switches (front to rear airflow switch)</td>
</tr>
<tr>
<td>PWR-1900-DC-R</td>
<td>Spare 1900W DC Power Supply for Arista 7170 Series Switches (rear to front airflow switch)</td>
</tr>
<tr>
<td>FAN-7002-F</td>
<td>Spare fan module for Arista 7050X/7250X, 7260QX, 7170 2RU and 7300 switches (front-to-rear airflow)</td>
</tr>
<tr>
<td>FAN-7002-R</td>
<td>Spare high speed fan module for Arista 7260X, 7280R, 7170 2RU and 7320X switches (rear to front airflow)</td>
</tr>
<tr>
<td>FAN-7000H-F</td>
<td>Spare high speed fan module for Arista 7060X, 7170, 7280R 1RU switches (rear to front airflow)</td>
</tr>
<tr>
<td>FAN-7000H-R</td>
<td>Spare high speed fan module for Arista 7060X, 7170, 7280R 1RU switches (rear to front airflow)</td>
</tr>
<tr>
<td>KIT-7002</td>
<td>Spare accessory kit for Arista 7170 2RU switches</td>
</tr>
<tr>
<td>KIT-2POST</td>
<td>Spare 2RU 2 post rack mount installation kit for Arista 7250 / 7050 and 7170/7260X switches</td>
</tr>
<tr>
<td>KIT-7001</td>
<td>Spare accessory kit for Arista 1RU tool-less switches</td>
</tr>
<tr>
<td>KIT-2POST-1U-NT</td>
<td>Spare 1RU 2 post rail kit for 1RU tool less systems (7050QX-32S, 7050SX/TX, 7170 and 7280R)</td>
</tr>
<tr>
<td>KIT-4POST-NT</td>
<td>Spare 1RU/2RU tool-less rail kits for 4-post installation (7050QX-32S, 7050SX/TX, 7060X, 7170, 7260X, 7280, 7250X)</td>
</tr>
<tr>
<td>KIT-GND-EXT-2RU</td>
<td>Arista 7000 Series 2RU Ground Extender Kit for NEBS compliance (All 7170 2RU models)</td>
</tr>
</tbody>
</table>

Warranty
The Arista 7170 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)

Headquarters
5453 Great America Parkway
Santa Clara, California 95054
408-547-5500

Support
[support@arista.com](mailto:support@arista.com)
408-547-5502
866-476-0000

Sales
[sales@arista.com](mailto:sales@arista.com)
408-547-5501
866-497-0000

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