## Product Highlights

### Performance

- 7020SR-24C2: 24 x 10G and 2 QSFP100
- 7020SR-32C2: 32 x 10G and 2 QSFP100
- 7020TR-48: 48 x 100/1000Mb and 6 SFP+
- 7020TRA-48: 48 x 100/1000Mb and 6 SFP+
- Up to 1.04Tbps throughput
- Up to 300Mpps forwarding
- Wire speed L2 and L3 forwarding

### Data Center Optimized Design

- Ultra-deep packet buffer up to 3GB
- Virtual Output Queues per port to eliminate head of line blocking
- 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
- 2 post and 4 Post mounting
- Over 90% efficient power supplies
- AC or DC Power Options

### Cloud Networking Ready

- Up to 256K MAC entries
- Up to 200K IPv4/IPv6 Routes
- Up to 80K IPv4/IPv6 Host Routes
- 128-way ECMP / 64-port MLAG
- 3GB Buffer

### Resilient Control Plane

- Multi-core x86 CPU
- 8GB DRAM
- 4GB Flash (min)

### Advanced Provisioning & Monitoring

- CloudVision
- Zero Touch Provisioning (ZTP)
- Advanced Event Monitoring
- sFlow (RFC3176)
- VXLAN for next generation DC
- DANZ Advanced Mirroring & TAP Aggregation for improved visibility
- LANZ for microburst detection
- VM Tracer *
- OpenStack
- Chef, Puppet, Ansible

### Arista Extensible Operating System

- Single binary image
- 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 7020R Series, including the 7020SR, 7020SRG, 7020TR and 7020TRA, offers a purpose built high performance and power efficient solution for high density data center deployments. With a choice of 10G SFP+ or 100/1000Mb RJ45, the switches deliver non-blocking forwarding of up to 1.04 Tbps combined with feature rich L2 and L3 switching. A natural extension to the 7280R Series, the 7020R are members of the Arista portfolio of data center switches.

With broad support for QoS, security, automation and monitoring features, the 7020R provides an ideal solution to the challenges of implementing network policy consistently in both 1G and 10G environments when combined with the Arista fixed configuration 7280R Series 10 and 40 Gigabit switches. The 7020R deliver the flexibility to be deployed as the server edge of 1Gb Ethernet leaf and spine designs or as a high performance storage network switch. Arista EOS advanced automation, monitoring and provisioning features are consistent to all Arista switches, eliminating the complexity associated with managing mixed environments with inconsistent feature sets. The 7020R Series deep packet buffers and large forwarding tables allow for a broad set of networking applications.

The 7020SR and 7020SRG provide SFP+ ports for both 1G or 10G connections and 2 ports of 100G with a full range of optics and cables. The 7020TR and 7020TRA both provide 48 100/1000Mb RJ45 ports and 6 SFP+ ports for both 1G or 10G uplink connections with a full range of optics and cables. The Arista 7020R switches offer low latency and a deep packet buffer of up to 3GB that is fully shared and allocated dynamically to ports that are congested. Consuming under 1W per gigabit, the 7020R are power efficient with choices of AC and DC power, hot-swap power redundancy along with redundant fans supporting either forward or reverse airflow in a single system.

Combined with Arista EOS, the 7020R Series delivers advanced features for big data, cloud, virtualized and traditional designs together with enhancements for video streaming, media and entertainment.
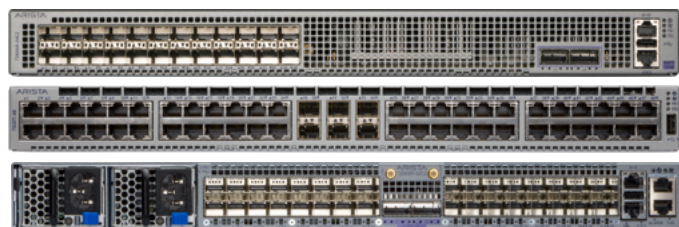


*7020R: 24 and 32 port 10G, and 48 port 100/1000 Mb and 6 port 10GbE Switch*

## Arista EOS

The Arista 7020R 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, LANZ, VMTracer and Linux based tools can be run natively on the switch with the powerful x86 CPU subsystem.

## Model Overview

The **7020SR-24C2 and 7020SRG-24C2** are 1RU systems with 24 10G SFP+ ports and 2 100G QSFP ports offering wire speed performance with an overall throughput up to 880 Gbps. Each SFP+ port offers a choice of 1GbE and 10GbE modes with no restrictions. The 2 QSFP ports support wire speed 100G and can be broken out for a choice of 10G, 25G or 40G modes allowing easy transitions and maximum flexibility, as a dedicated server leaf, hyper converged infrastructure or as an edge router with 10G and 100G connections. 7020SRG support for IPsec increases the roles allowing for site-site VPNs or data-center interconnect. The 7020SR models include support for Accelerated sFlow.

The **7020SR-32C2** are 1RU systems with 32 10G SFP+ ports and 2 100G QSFP ports offering wire speed performance with an overall throughput up to 1.04Tbps. Each SFP+ port offers a choice of 1GbE and 10GbE modes with no restrictions. The 2 QSFP ports support wire speed 100G and can be broken out for a choice of 10G, 25G or 40G modes allowing maximum flexibility, as a dedicated edge router with 1/10G and 100G connections..

The **7020TR-48 and 7020TRA-48** are 1RU systems with 48 100Mb/1G RJ45 ports and 6 10G SFP+ ports offering wire speed performance with an overall throughput up to 216 Gbps. Each SFP+ port allows for both 1G and 10G modes, ensuring integration with existing networks. With a deep buffer and VoQ architecture the 7020TR are optimized for demanding workloads. The 7020TRA-48 includes support for AlgoMatch, and both the 7020TR and 7020TRA models support Accelerated sFlow.

## High Availability

The Arista 7020R switches 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)
- Up to 32 ports per link aggregation group (LAG)
- Multi-chassis LAG for active/active L2 multi-pathing
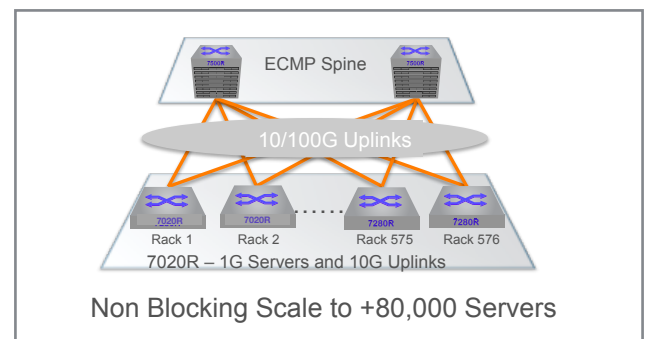- 128-way ECMP routing for load balancing and redundancy

## Scaling Data Center Performance

The Arista 7020R series delivers line rate switching at layer 2 and layer 3 to enable dramatically faster and simpler network designs for data centers that lowers the network capital and operational expenses. When used in conjunction with the Arista 7000 series of fixed and modular switches it allows networks to scale to over 80,000 1G servers in a high performance and low-latency two-tier network that provides predictable and consistent application performance. The flexibility of the L2 and L3 multi-path design options combined with support for open standards provides maximum flexibility, scalability and network wide virtualization. Arista EOS advanced features provide control and visibility with single point of management.



*7020SR-24C2 and 7020SRG-24C2 Front View*
*24 SFP+ and 2 QSFP100*



*7020SR-24C2 and 7020SRG-24C2 Rear View*



*7020SR-32C2 Front and Rear View*
*32 SFP+ and 2 QSFP100*



*7020TR-48  and 7020TRA-48 Front View*
*48 RJ45 and 6 SFP+*



*7020TR  and 7020TRA Rear View:*
*Front to Rear and Rear to Front*



*Hot swap power supplies*



*Hot swap fan modules*



Non Blocking Scale to +80,000 Servers

Interconnected 1G Servers with Arista Leaf-Spine Design

## 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.

## 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 7020R include enhancements that allow for flexible scale-out designs:
- 24 ports of 1/10G or 48 ports of 1G RJ45 to provide scalable designs and balance traffic evenly across large 2 tier leaf-spine designs
- Comprehensive L2 and L3 forwarding table resources for more design choice
- VXLAN gateway, bridging and routing with VMTracer features to enable next generation data center designs *
- Virtual output queue (VoQ) architecture and deep packet buffering to eliminate head of line blocking with low latency
- Wide choice of both 1G, 10G and 40G/100G transceivers and cables for single port multi-speed flexibility
- Integrated packet capture, sFlow and multi-port mirroring provide network wide visibility and monitoring to detect traffic bursts, monitor latency and congestion and allow capacity planning to improve application performance and availability *

## 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.

## 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.

## Next Generation Provisioning and Monitoring

Zero Touch Provisioning (ZTP) combined with other Arista features, like VMTracer's adaptive VLAN configuration allows data center managers to fully automate the bring-up of network elements and virtual servers and leverage Arista's unique 'hands-off' provisioning. Designed to integrate with VMware, OpenStack and Microsoft OMI, Arista's open architecture allows for integration with any virtualization and orchestration system providing visibility to the VM-level enabling portable policies, persistent monitoring and rapid troubleshooting of cloud networks.

## 7020R Deterministic Network Performance

The Arista 7020R Series uses a deep buffer virtual output queue (VOQ) architecture that eliminates head-of-line (HOL) blocking and virtually eliminates packet drops even in the most congested network scenarios. An advanced traffic scheduler fairly allocates bandwidth between all virtual output queues while accurately following queue disciplines including weighted fair queueing, fixed priority, or hybrid schemes. As a result, the Arista 7020R can handle the most demanding data center requirements with ease, including mixed traffic loads of real-time, multicast, and storage traffic while still delivering low latency.

## Virtualization

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and emerging encapsulation technologies such as VXLAN. The 7020R builds on the valuable tools already provided by the Arista VM Tracer suite to integrate directly into encapsulated environments. Offering a wire-speed gateway between VXLAN and traditional L2/3 environments, the 7020R makes integration of non-VXLAN aware devices including servers, firewalls and load-balancers seamless and provides the ability to leverage VXLAN as a standards based L2 extension technology for non-MPLS environments.

## 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 is available on the 7020RA Series of products.

## Secure Encryption with IPSec (7020SRG-24C2 Only)

The 7020SRG includes support for high performance IPSec. IPSec ensures the protection of sensitive information between participating IPsec devices. IPsec is a framework of open standards, developed by the IETF, that provides security for the transmission of sensitive information over unprotected network by encrypting the data. IPSec acts at the network layer, protecting and authenticating IP packets between participating IPSec devices. 7020SRG IPSec is optimized for site to site VPNs, for example to a POP or a backup datacenter location, with support for AES-256 and SHA-256 secure public key encryption.
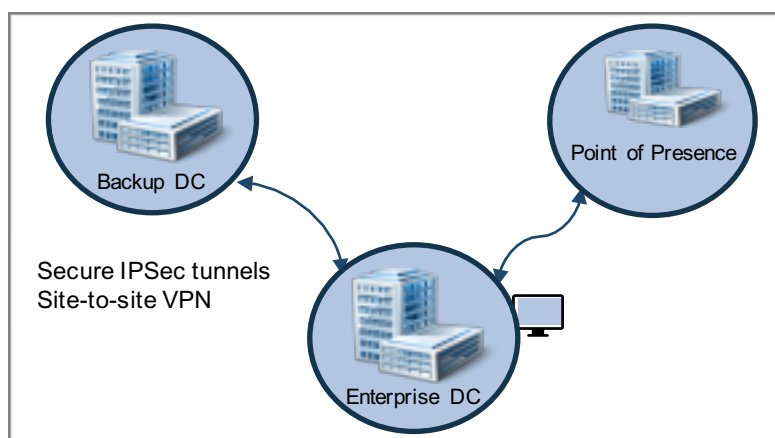


IPSec encryption is an EOS licensed feature and requires a license file to enable the encryption feature. License information is included in the ordering information section of this document.

## 7020R Accelerated sFlow

SFlow is a powerful tool used commonly by network operators for advanced network telemetry, capacity planning, security analysis and quality of experience monitoring. All models of the 7020R Series enable sFlow utilizing the high performance CPU. Within modern high performance systems traffic sampling requires the capability to both sample and process packet rates of hundreds of millions of packets per second. With the 7020R Series Accelerated sFlow feature the sampling and processing of flow samples into sFlow datagrams is handled via an sFlow engine capable of generating high rate sFlow data, and of supporting 1:1000 sampling rates of full wire speed systems or higher rates with selective sampling based on triggers and filters. All sFlow v5 information is included in the sFlow records ensuring consistent integration with existing standard sFlow collection and analysis tools and no loss of information.

## EOS Software Licensed Features

Arista EOS delivers a comprehensive feature set along with single image consistency with all other Arista switches. The default EOS system software has a broad Layer 2 feature set with extensive monitoring and provisioning, security, QoS and management features.

* 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
    - 54 groups per system
- Multi-Chassis Link Aggregation (MLAG)
    - 64 ports per MLAG
- 802.1Q VLANs/Trunking
- 802.1AB Link Layer Discovery Protocol
- 802.3x Flow Control
- Jumbo Frames (9216 Bytes)
- IGMP v1/v2/v3 snooping
- Storm Control
- 802.1 AVB

## Layer 3 Features

- Static Routes
- Routing Protocols: OSPF, OSPFv3, BGP, MP-BGP, IS-IS, and RIPv2
- 128-way Equal Cost Multipath Routing (ECMP)
- VRF
- Bi-Directional Forwarding Detection (BFD)
- Route Maps
- Policy Based Routing (PBR) *
- VRRP
- Virtual ARP (VARP)
- uRPF *
- RAIL

## Multicast

- IGMP v2/v3
- PIM-SM / PIM-SSM
- PIM-BiDir *
- Anycast RP (RFC 4610)
- Multicast Source Discovery Protocol (MSDP)

## Advanced Monitoring and Provisioning

- Latency Analyzer and Microburst Detection (LANZ)
- Zero Touch Provisioning (ZTP)
- Advanced Mirroring
    - Port Mirroring (14 sessions)
    - Enhanced Remote Port Mirroring
    - SPAN/TAP M:N Aggregation
    - L2/3/4 Filtering
- 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
- IEEE 1588 PTP

## Virtualization Support

- VXLAN Bridging and Routing (VRF, MLAG)
- VM Tracer VMware Integration *
    - VMware vSphere support
    - VM Auto Discovery
    - VM Adaptive Segmentation
    - VM Host View

## Security Features

- Control Plane Protection (CPP)
- PDP
- Service ACLs
- IPv4 / IPv6 ACLs using L2, L3, L4 fields
- MAC ACLs *
- 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
- Per-Priority Flow Control (PFC)
- Data Center Bridging Extensions (DCBX) *
- ACL based DSCP Marking *
- Policing/Shaping
- Rate limiting *

## Network Management

- CloudVision
- Configuration rollback and commit
- 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
- System Logging
- Environment monitoring

* Not currently supported in EOS

## Extensibility

- Linux Tools
  - Bash shell access and scripting
  - RPM support
  - Custom kernel modules
- Software Defined Networking (SDN)
  - eAPI
  - OpenStack Neutron Support
- Programmatic access to system state
  - Python
  - Chef
  - Puppet
  - C++
  - eAPI
  - GO
  - OpenConfig
  - OpenStack Neutron Plug-in support
- Native KVM/QEMU support

## IPSec (7020SRG-24C2)

- IPSec performance: 20Gbps
- Number of tunnels: 98
- IPSec profile
  - encryption algorithms: AES128, AES256
  - integrity algorithms: SHA1, SHA256
  - tunnel-mode

## 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
- 802.3x full duplex on 100BASE-TX and 1000BASE-T
- 802.3u 100BASE-TX
- 802.3ab 1000BASE-T
- 802.3z 1000BASE-X
- 802.3ae 10 Gigabit Ethernet
- 802.3ba 40 Gigabit Ethernet
- 802.3ba 100 Gigabit Ethernet
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 4861 Neighbor Discovery for IP Version 6 (IPv6)
- RFC 4862 IPv6 Stateless Address Autoconfiguration
- RFC 4443 Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification

## SNMP MIBs

- RFC 3635 EtherLike-MIB
- RFC 3418 SNMPv2-MIB
- RFC 2863 IF-MIB
- RFC 2864 IF-INVERTED-STACK-MIB
- RFC 2096 IP-FORWARD-MIB

- RFC 4363 Q-BRIDGE-MIB
- RFC 4188 BRIDGE-MIB
- RFC 2013 UDP-MIB
- RFC 2012 TCP-MIB
- RFC 2011 IP-MIB
- RFC 2790 HOST-RESOURCES-MIB
- RFC 3636 MAU-MIB
- RMON-MIB
- RMON2-MIB
- HC-RMON-MIB
- LLDP-MIB
- LLDP-EXT-DOT1-MIB
- LLDP-EXT-DOT3-MIB
- ENTITY-MIB
- ENTITY-SENSOR-MIB
- ENTITY-STATE-MIB
- ARISTA-ACL-MIB
- ARISTA-QUEUE-MIB
- RFC 4273 BGP4-MIB
- RFC 4750 OSPF-MIB
- ARISTA-CONFIG-MAN-MIB
- RFC 2787 VRRPv2MIB
- MSDP-MIB
- PIM-MIB
- IGMP-MIB
- IPMROUTE-STD-MIB
- SNMP Authentication Failure trap
- ENTITY-SENSOR-MIB support for DOM (Digital Optical Monitoring)
- User configurable custom OIDs

See EOS release notes for latest supported MIBs

### Table Sizes

| | |
|---|---|
| STP Instances | 64 (MST)/510 (RPVST+) |
| IGMP Groups | up to 64K |
| Ingress ACLs | 12K |
| Egress ACLs | 12K |
| ECMP | 128-way |
| MAC Addresses | 256K |
| IPv4 Host Routes | 64K |
| IPv4 Multicast (S,G) | 24K |
| IPv6 Host Routes | 80K |
| IPv4 Routes - Unicast | 200K |
| IPv6 Routes - Unicast | 200K |

Maximum values dependent on shared resources in some cases

\* Not yet supported in EOS

| Specifications | 7020SR-32C2[E] | 7020SR-24C2[E] | 7020SRG-24C2[E] | 7020TR-48[E] | 7020TRA-48[E] |
|---|---|---|---|---|---|
| Ports | 32 x 10G SFP+ 2 x 100G QSFP100 | 24 x 10G SFP+ 2 x 100G QSFP100 | 24 x 10G SFP+ 2 x 100G QSFP100 | 48 x100/1000 Mb RJ-45 6 x 1/10GbE SFP+ | 48 x100/1000 Mb RJ-45 6 x 1/10GbE SFP+ |
| 100/1000BASE-T (RJ45) Ports | — | — | — | 48 | 48 |
| 1/10GbE SFP/SFP+ Ports | 32 | 24 | 24 | 6 | 6 |
| Max 25GbE Ports | 8 | 8 | 8 | — | — |
| Max 40GbE Ports | 2 | 2 | 2 | — | — |
| Max 100GbE Ports | 2 | 2 | 2 | — | — |
| Throughput | 1.04 Tbps | 880 Gbps | 880 Gbps | 216 Gbps | 216 Gbps |
| Packets/Second | 300 Mpps | 300 Mpps | 300 Mpps | 162 Mpps | 162 Mpps |
| Latency (RJ45/SFP-uplinks) | From 3.8 microseconds | | | | |
| CPU | Dual-Core x86 | Quad-Core x86 | Quad-Core x86 | Quad-Core x86 | Quad-Core x86 |
| System Memory | 8 Gigabytes | 8 Gigabytes | 8 Gigabytes | 8 Gigabytes | 8 Gigabytes |
| Flash Storage Memory | 8 Gigabytes | 4 Gigabytes | 4 Gigabytes | 4 Gigabytes | 4 Gigabytes |
| Packet Buffer Memory | 3 Gigabytes | 3 Gigabytes | 3 Gigabytes | 3 Gigabytes | 3 Gigabytes |
| 100/1000 Mgmt Ports | 1 | 1 | 1 | 1 | 1 |
| RS-232 Serial Ports | 1 (RJ-45) | 1 (RJ-45) | 1 (RJ-45) | 1 (RJ-45) | 1 (RJ-45) |
| USB Ports | 1 | 1 | 1 | 2 | 2 |
| Hot-swap Power | 2 (1+1 redundant) | | | | |
| Hot-swappable Fans | 2 (N+1) | 3 (N+1) | 3 (N+1) | 4 (N+1 redundant) | 4 (N+1 redundant) |
| Reversible Airflow | Yes | | | | |
| Typical Power Draw [1] | 160W | 95W | 95W | 105W | 115W |
| Max Power Draw | 189W | 105W | 105W | 115W | 125W |
| Size (WxHxD) | 17.3 x 1.71 x 13.6" (43.9 x 4.34 x 34.7cm) | 17.3 x 1.71 x 15.8" (43.9 x 4.34 x 40.1cm) | 17.3 x 1.71 x 15.8" (43.9 x 4.34 x 40.1cm) | 17.3 x 1.71 x 15.8" (43.9 x 4.34 x 40.1cm) | 17.3 x 1.71 x 15.8" (43.9 x 4.34 x 40.1cm) |
| Weight | 14.4 lbs (6.4kg) | 16.5 lbs (7.5kg) | 16.5 lbs (7.5kg) | 17 lbs (7.71kg) | 17 lbs (7.71kg) |
| Fans | FAN-7001C-F/R | FAN-7000-F/R | FAN-7000-F/R | FAN-7000-F/R | FAN-7000-F/R |
| Power Supplies | PWR-400AC PWR-400-DC | PWR-500AC PWR-500-DC | PWR-500AC PWR-500-DC | PWR-500AC PWR-500-DC | PWR-500AC PWR-500-DC |
| AlgoMatch | No | No | No | No | Yes |
| Accelerated sFlow | No | Yes | Yes | Yes | Yes |
| IPSec | No | No | Yes | No | No |
| EOS Feature Licenses | Group 1 | Group 1 | Group 1 | LIC-FIX-G-E, LIC-FIX-G-V2, LIC-FIX-G-FLX, LIC-FIX-G-FLX-L | |
| Minimum EOS | 4.21.5 | 4.21.0 | 4.22.0 | 4.18.3 | 4.19.1 |

1. Typical power consumption measured at 25C ambient with 50% load
E. Product is subject to an End of Sale notice

## Supported QSFP Optics and Cables

| Interface Type | 40G QSFP ports |
|---|---|
| 10GBASE-CR | 0.5m-5m QSFP+ to 4x SFP+ |
| 40GBASE-CR4 | QSFP+ to QSFP+: 0.5m-5m |
| 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) / 400m (OM4) |
| 40GBASE-PLRL4 | 1km (1km 4x10G LR/LRL) |
| 40GBASE-PLR4 | 10km (10km 4x10G LR/LRL) |
| 40GBASE-LRL4 | 1km |
| 40GBASE-LR4 | 10km |
| 40GBASE-ER4 | 40km |

| 100GbE | 100G QSFP ports |
|---|---|
| 100GBASE-SR4 | 70m OM3 / 100m OM4 Parallel MMF |
| 100GBASE-XSR4 | 170m OM3 / 300m OM4 Parallel MMF |
| 100GBASE-SRBD | 70m OM3 / 100m OM4 duplex MMF |
| 100GBASE-SWDM4 | 70m OM3 / 100m OM4 duplex MMF |
| 100GBASE-LR | 10km SM Duplex |
| 100GBASE-LR4 | 10km SM duplex |
| 100GBASE-LRL4 | 2km SM duplex |
| 100GBASE-CWDM4 | 2km SM duplex |
| 100GBASE-FR | 2km SM Duplex |
| 100GBASE-DR | 500m SM Duplex |
| 100GBASE-PSM4 | 500m SM Parallel |
| 100GBASE-AOC | 3m to 30m |
| 100GBASE-ERL4 | 40km SM duplex |
| 100GBASE-CR4 | QSFP to QSFP: 1m to 5m |
| 25GBASE-CR | QSFP to SFP25: 1m to 3m lengths |

## Supported SFP Optics and Cables

| Interface Type | SFP+ ports |
|---|---|
| 10GBASE-CR | SFP+ to SFP+: 0.5m-5m |
| 10GBASE-AOC | SFP+ to SFP+: 3m-30m |
| 10GBASE-SRL | 100m (OM3) / 150m (OM4) |
| 10GBASE-SR | 300m (OM3) / 400m (OM4) |
| 10GBASE-LRL | 1km SMF |
| 10GBASE-LR | 10km SMF |
| 10GBASE-ER | 40km |
| 10GBASE-ZR | 80km |
| 10GBASE-DWDM | 80km |
| 100/1000BASE-T, 1GbE SX/LX | Yes |

## Standards Compliance

| | |
|---|---|
| EMC | FCC Class A, ICES-003, EN 55032, EN IEC 61000-3-2:2019, EN 61000-3-3 |
| Immunity | EN 55035<br>EN 300 386 |
| Safety | EN 62368-1:2014 + A11:2017<br>IEC-62368-1:2014 |
| Certifications | BSMI (Taiwan)<br>CE (European Union)<br>KCC (South Korea)<br>NRTL (North America)<br>RCM (Australia/New Zealand)<br>UKCA (United Kingdom)<br>VCCI (Japan) |
| European Union Directives | 2014/35/EU Low Voltage Directive<br>2014/30/EU EMC Directive<br>2012/19/EU WEEE Directive<br>2011/65/EU RoHS Directive<br>2015/863/EU Commission Delegated Directive |
| Further Information | Product Certification Portal |

## 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) |

## Power Supply Specifications

| Power Supply Model | PWR-500AC | PWR-500-DC | PWR-400AC | PWR-400-DC |
|---|---|---|---|---|
| Input Voltage | 100-240AC | -48 to -60 VDC | 100-240AC | -24 to -60 VDC |
| Typical Input Current | 6.3 - 2.3A | 11.8A Max (-48V) | 4.5 - 2.3A | 11A Max (-48V) |
| Input Frequency | 50/60Hz | DC | 50/60Hz | DC |
| Input Connector | IEC 320-C13 | AWG #14 Max | IEC 320-C13 | AWG #14 Max |
| Efficiency (Typical) | 93% Platinum | 90% | 93% Platinum | 90% |
| Compatibility | 7020TR-48, 7020TRA-48, 7020SR-24C2, 7020SRG-24C2 | | 7020SR-32C2 | |

## Ordering Information

| Product Number | Product Description |
|---|---|
| DCS-7020TR-48-F | Arista 7020R switch 48x RJ45 (100/1000Mb), 6 x SFP+ (1/10GbE), front to rear air, 2x AC |
| DCS-7020TR-48-R | Arista 7020R switch 48x RJ45 (100/1000Mb), 6 x SFP+ (1/10GbE), rear to front air, 2x AC, |
| DCS-7020TR-48# | Arista 7020R switch 48x RJ45 (100/1000Mb), 6 x SFP+ (1/10GbE), configurable fans and PSU |
| DCS-7020TRA-48-F | Arista 7020RA switch 48xRJ45 (100/1000), 6xSFP+(1/10GbE), AlgoMatch, front-to-rear fans, 2xAC |
| DCS-7020TRA-48-R | Arista 7020RA switch 48xRJ45 (100/1000), 6xSFP+(1/10GbE), AlgoMatch, rear-to-front fans, 2xAC |
| DCS-7020TRA-48# | Arista 7020RA switch 48xRJ45 (100/1000), 6xSFP+(1/10GbE), AlgoMatch, configurable fans and PSU |
| DCS-7020SR-24C2-F | Arista 7020SR, 24x10GbE (SFP+) and 2 x 100GbE switch, front-to-rear air, 2xAC |
| DCS-7020SR-24C2-R | Arista 7020SR, 24x10GbE (SFP+) and 2 x 100GbE switch, rear-to-front air, 2xAC |
| DCS-7020SR-24C2# | Arista 7020SR, 24x10GbE (SFP+) and 2 x 100GbE switch, configurable fans & psu |
| DCS-7020SRG-24C2-F | Arista 7020SR, 24x10GbE (SFP+) and 2 x 100GbE switch with IPSec, front-to-rear air, 2xAC, 2xC13-C14 cords |
| DCS-7020SRG-24C2-R | Arista 7020SR, 24x10GbE (SFP+) and 2 x 100GbE switch with IPSec, rear-to-front air, 2xAC, 2xC13-C14 cords |
| DCS-7020SRG-24C2# | Arista 7020SR, 24x10GbE (SFP+) and 2 x 100GbE switch with IPSec, configurable fans & psu, 2xC13-C14 cords |
| DCS-7020SR-32C2-F | Arista 7020SR, 32x10GbE (SFP+) and 2 x 100GbE switch, front-to-rear air |
| DCS-7020SR-32C2-R | Arista 7020SR, 32x10GbE (SFP+) and 2 x 100GbE switch, rear-to-front air, |
| DCS-7020SR-32C2# | Arista 7020SR, 32x10GbE (SFP+) and 2 x 100GbE switch, configurable |
| LIC-FIX-G-V2 | EOS Extensions, Security and Partner Integration license for Arista 1G/mG Fixed switches - 7020TR-48 and 7020TRA-48 |
| LIC-FIX-G-E | Enhanced License for Arista Fixed 1G/mG Ethernet Switches (OSPF, BGP, ISIS, PIM) -7020TR-48 and 7020TRA-48 |
| LIC-FIX-G-FLX-L | FLX-Lite License for Arista Gigabit Ethernet Switches - OSPF, ISIS, BGP/MP-BGP, PIM, Up to 32K Routes, EVPN, VXLAN - 7020TR-48 and 7020TRA-48 |
| LIC-FIX-G-FLX | FLX License for Arista Gigabit Ethernet Switches - OSPF, ISIS, BGP/MP-BGP, PIM, 32K - 200K Routes, EVPN, VXLAN - 7020TR-48 and 7020TRA-48 |
| LIC-FIX-1-E | Enhanced L3 License for Arista Group 1 Fixed switches (BGP, OSPF, ISIS, PIM, NAT) |
| LIC-FIX-1-Z | Monitoring & Automation license for Arista Group 1 Fixed switches  (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow) |
| LIC-FIX-1-V | Virtualization license for Group 1 Arista Fixed switches  (VMTracer and VXLAN) |

Spare Options

| | |
|---|---|
| LIC-FIX-1-V2 | EOS Extensions, Security and Partner Integration license for Arista Group 1 Fixed switches |
| LIC-FIX-1-FLX | FLX License for Arista Fixed switches Group 1 - Full Routing up to 256K Routes, EVPN, VXLAN, SR, Adv MPLS LSR and Pseudowires |
| LIC-FIX-1-FLX-L | FLX-Lite License for Arista Fixed switches Group 1 - Full Routing up to 256K Routes, EVPN, VXLAN, SR, base MPLS LSR (no TE or link/node protection) |
| LIC-FIX-1-IPSEC | IPSec Encryption License for Arista Fixed switches Group 1 - IPSec encryption |
| PWR-500AC-F | Spare 500 Watt AC power supply for Arista 7050X, 7020R and 7280R 1RU Switches (front-to-rear airflow) |
| PWR-500AC-R | Spare 500 Watt AC power supply for Arista 7050X, 7020R and 7280R 1RU Switches (rear-to-front airflow) |
| PWR-500-DC-F | Spare 500 Watt DC power supply for Arista 7050X, 7020R and 7280R 1RU Switches (front-to-rear airflow) |
| PWR-500-DC-R | Spare 500 Watt DC power supply for Arista 7050X, 7020R and 7280R 1RU Switches (rear-to-front airflow) |
| PWR-400AC-BLUE | Spare 400W AC Power supply for Arista 1U Switches (front-to-rear airflow) |
| PWR-400AC-RED | Spare 400W AC Power supply for Arista 1U Switches (rear-to-front airflow) |
| PWR-400-DC-BLUE | Spare 400W DC Power supply for Arista 1U Switches (front-to-rear airflow) |
| PWR-400-DC-RED | Spare 400W DC Power supply for Arista 1U Switches (rear-to-front airflow) |
| FAN-7000-F | Spare fan module for Arista 7150, 7124SX(FX), 7050, 7020R, 7280 & 7048-A switches (front-to-rear airflow) |
| FAN-7000-R | Spare fan module for Arista 7150, 7124SX(FX), 7050, 7020R, 7280 & 7048-A switches (rear-to-front airflow) |
| KIT-7001 | Spare tool-free accessory kit (v2) for 1RU Arista switches. 2-post & 4-post mount. (2x C13-C14, 2m) |
| KIT-7021 | Spare accessory kit for Arista 7020SR-32C2 switch. 2-post mount. (2x C13-C14, 2m) |
| KIT-2POST-1U-NT | Spare tool-free 2-post mount kit (v2) for 1RU Arista tool-free switches |
| KIT-4POST-NT | Spare tool-free 4-post mount kit (v2) for 1RU Arista tool-free switches |
| KIT-7010-4POST | Optional 4-post rack mount kit for 7010T and 7020SR-32C2 switches |
| FAN-7001C-F | Spare fan module for Arista 7000 Series 1RU switches (front-to-rear airflow) |
| FAN-7001C-R | Spare fan module for Arista 7000 Series 1RU switches (rear-to-front airflow) |

## Warranty

The Arista 7020R switches comes 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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