Product Highlights

Performance

- 7280CR-48: 48x 100GbE and 8 x 40GbE
- 7280QR-C72: 56x 40GbE and 16 x 100GbE
  7280QR-C36: 24 x 40GbE and 12 x 100GbE
- 7280TR-48C6: 48x10GbE and 6x 100GbE
- 7280SR-48C6: 48x10GbE and 6x 100GbE
- Up to 48 wire-speed 100GbE ports
- Up to 10.24 terabits per second
- Up to 5.76 billion packets per second
- Wire speed L2 and L3 forwarding
- QSFP100: Quad 10GbE or 25GbE mode

Data Center Optimized Design

- Ultra-deep packet buffer up to 32GB
- Virtual Output Queues per port to eliminate head of line blocking
- Over 94% efficient power supplies
- 1+1 redundant & hot-swappable power
- N+1 redundant & hot-swappable fans
- Front-to-rear or rear-to-front cooling
- Designed for NEBS
- Tool less rails for simple installation

Virtualization and Provisioning

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

Cloud Networking Ready

- 768K MAC Addresses
- 768K IPv4 and IPv6 Host Routes
- Over 1M IPv4 Routes

Resilient Control Plane

- High Performance x86 CPU
- Up to 16GB DRAM
- 4GB Flash
- User applications can run in a VM

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 7280R Series are key components of the Arista 7000 Series portfolio of data center switches. The Arista 7280R Series are purpose built fixed configuration 10/40/100GbE systems built for the highest performance environments, and to meet the needs of the largest scale data centers. They combine scalable L2 and L3 resources and high density with advanced features for network monitoring, precision timing and network virtualization to deliver scalable and deterministic network performance while simplifying designs and reducing Opex. The 7280R capabilities address the requirements for modern networking and rich multi-media content delivery requiring a lossless forwarding solution in a compact and energy efficient form factor.

The 7280R can be deployed in a wide range of open networking solutions including large scale layer 2 and layer 3 cloud designs, overlay networks, virtualized or traditional enterprise data center networks. Deep packet buffers and large routing tables allow for internet peering applications. The broad range of interfaces and density choice provides deployment flexibility.

The 7280R Series are available in a range of models with a choice of 10GBASE-T, 10GbE SFP+ with 40/100GbE QSFP uplinks and a range of 1RU and 2RU 40/100GbE systems that offers up to 48 ports of wire speed 100GbE in a 2RU system.

7280R support for 100GbE QSFP incorporates a flexible choice of interface speed including 25GbE and 50GbE providing unparalleled flexibility and the ability to seamlessly transition data centers to the next generation of Ethernet performance. The 7280R Series provide industry leading power efficiency with airflow choices for back to front, or front to back. An optional built-in SSD supports advanced logging, data captures and other services directly on the switch. Combined with Arista EOS the 7280R Series delivers advanced features for big data, cloud, virtualized and traditional designs.

Arista 7280R Series

Arista EOS

All Arista products including the 7280R Series runs the same Arista EOS software, binary image simplifying network administration with a single standard across all switches. Arista EOS is a modular switch operating system with a unique state sharing architecture that cleanly separates switch state from protocol processing and application logic. Built on top of a standard Linux kernel, all EOS processes run in their own protected memory space and exchange state through an in-memory database. This multi-process state sharing architecture provides the foundation for in-service-software updates and self-healing resiliency together with stateful switchover without the loss of data plane forwarding.

Arista EOS enables advanced monitoring and automation capabilities such as Zero Touch Provisioning, LANZ, VM Tracer and Linux based tools to be run natively on the switch.

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.

The Four Pillars of Arista's Software Defined Cloud Networking:

Universal Cloud Network
- Scalable standards-based MLAG at Layer 2, ECMP for Layer 3 and VXLAN for network virtualization flexibility
- Non blocking leaf-spine for 10K-100K hosts

Cloud Control
- Standards based EOS with AEM, ZTP/ZTR, LANZ and DANZ
- Automated Monitoring for visibility and telemetry

Network Wide Virtualization
- Multi-vendor API Support with eAPI
- Support for VMWare and NSX with VXLAN and VMTracer
- Support for Microsoft OMI and Openstack OVSDB

### Network Applications and Automated Management
- Single point of network-wide state with Arista CloudVision
- Networked applications for workload mobility, smart systems rollback and upgrades and workflow telemetry
- Open Partner integration

Scaling Data Center Performance

The Arista 7280R Series deliver non-blocking switching capacity that enables dramatically faster and simpler network designs for data centers and lowers both capital and operational expenses. The Arista 7000 Series of fixed and modular systems with a single consistent EOS allows for flexible selections at all tiers of the network and deployment scenarios including layer 2 MLAG, layer 3 ECMP, VXLAN Overlay, and Internet Peering.

Arista's **Multi-Chassis Link Aggregation** (MLAG) technology supports a leaf and spine active/active L2 network topology. An **Equal Cost Multi-Path (ECMP)** design at Layer 3 scales the network in a fully non-blocking, low-latency, two-stage network that provides predictable and consistent application performance. The flexibility of the L2 and L3 multi-path design options combined with support for open standards provides maximum flexibility, scalability and network wide virtualization that scales to hundreds of thousands of hosts in a single two-tier design. Both designs support overlay networks via VXLAN and can integrate with standards-based overlay controller solutions.

The Arista 7280R Series **FlexRoute** engine provides the flexible scalability to support deployment as a routing platform with Internet scale routing. Arista FlexRoute along with EOS NetDB enables innovation not natively available in merchant chipsets. Arista EOS provides operational savings through visibility, automation and improved network operations.

L2 MLAG or L3 ECMP Network   VXLAN Overlay Network   Internet Peering
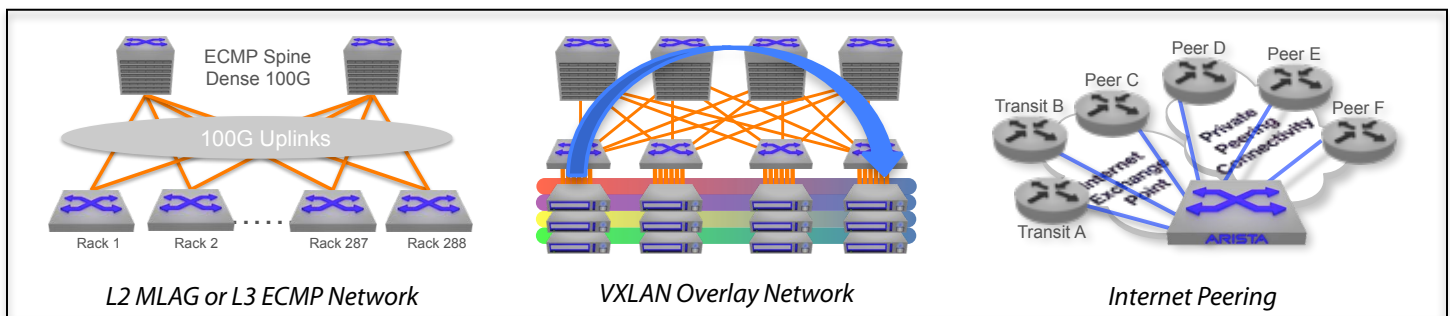
Arista Flexible Network Architectures

Enhanced Features for High Performance Cloud Networks

The Arista 7280R delivers a suite of advanced traffic control and monitoring features to improve the agility of modern high performance environments, with solutions for automation, data monitoring, precise timing and next-generation virtualization.

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

Arista offers solutions for a variety of approaches to cloud-like network automation. Addressing the needs of the largest public cloud environments as well as applying those lessons learned in the turnkey CloudVision automation offering.

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.

Arista 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.

Precise Data Analysis

Arista Latency Analyzer (LANZ) and Precision Data Analyzer (DANZ) are integrated features of EOS. DANZ provides a solution to monitoring and visibility challenges at 10/40/100Gbps giving IT operations the ability to proactively deliver feedback on congestion events, filter, replicate, aggregate and capture traffic without affecting production performance. 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.

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 the Supervisor module clock input port with a PPS source or IEEE 1588 PTP.

Virtualization

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and emerging encapsulation technologies such as VXLAN. The 7280R 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 7280R 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.

Maximum Network Design Flexibility

- Scalable designs with up to a 128-way ECMP provides flexibility and balances traffic evenly across the largest leaf-spine designs
- MLAG designs are effective at almost any layer of the network and maximize cross-sectional bandwidth with fast failover times measured in 100's of milliseconds for link failures.
- VXLAN gateway, bridging and routing with VMTracer features to enable next generation data center designs
- Scaleable routing tables to support internet route peering
- Wide choice of dense 10G/40G/100G interfaces with broad support for flexible 10GbE, 25GbE or 50GbE modes.
- Virtual output queue (VoQ) architecture and deep packet buffering to eliminate head of line blocking with low latency
- ACL scalability with up to 24K entries per forwarding engine and 192K ACL entries per system allows for rich policy control
- Flexible allocation of L2 and L3 forwarding table resources for more design choice
- PTP, sFlow, DANZ and multi-port mirroring tools provide network wide visibility and monitoring to detect traffic bursts, monitor latency and congestion and allow capacity planning to improve application performance and availability

System Overview

The 7280R Series deliver unprecedented levels of buffering, scale and availability with a wide choice of high density 10/40/100GbE interfaces as shown below.

7280TR-48C6 and 7280SR-48C6: 48 port 10GbE BASE-T or SFP+ and 6 ports 100GbE
  - Offer 48 wire speed 10G ports with six QSFP100 for up to 72 total 10G ports
  - Six QSFP100 ports allow choice of 6 x 100GbE, 24x 25GbE, 6x 40GbE, or 24x 10GbE
  - 5 speeds for flexible 10GbE, 25GbE, 40GbE, 50GbE and 100GbE with optics or cables
  - 2.16Tbps of wire speed performance with 4GB of buffer

7280QR-C36: 24 port QSFP+ and 12 ports QSFP100
  - Offer a choice of ports combinations with QSFP+ and QSFP100 optics and cables
  - Flexible interface combinations - 36x 40G, 144x 10G, 12x 100G, 48 x 25G, 24x 50G
  - 5 speeds for flexible 10GbE, 25GbE, 40GbE, 50GbE and 100GbE with optics or cables
  - 4.32Tbps of wire speed performance with 8GB of buffer

7280QR-C72: 56 port QSFP+ and up to 16 ports QSFP100
  - Full 72 ports of 40G with flexible combinations of up to 16 ports of 100GbE
  - Maximum of 96 ports of 10G with 48 of 40G, or 56 of 40G and 8 ports of 100GbE
  - QSFP100 ports with 5 speeds including 10GbE, 25GbE, 40GbE, 50GbE and 100GbE
  - 6.4Tbps of wire speed performance with 16GB of buffer

7280CR-48: 48 port QSFP100 and 8 ports of QSFP+
  - Up to 48 100G ports with QSFP100 and 8 ports of 40G with QSFP+
  - Maximum of 224 ports of 10GbE or 192 ports of 25GbE
  - 5 speeds for flexible 10GbE, 25GbE, 40GbE, 50GbE and 100GbE with optics or cables
  - 10.24Tbps of wire speed performance with 32GB of buffer

Arista 7280R Flexible Combinations

7280R Deterministic Network Performance

The Arista 7280 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 7280 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.

7280R High Availability

The Arista 7280R 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)
- Smart System Upgrade (SSU) and Accelerated Software Update (ASU)

7280R 1RU Rear View: Rear to Front and Front to Rear

Arista 7280R 2RU Rear View: Front to Rear airflow (red)

Hot swap fan modules

Hot swap power supplies

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
  - 224 groups per system
- MLAG (Multi-Chassis Link Aggregation)
  - Uses IEEE 802.3ad LACP
  - 128 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 *
- SMPTE-2059-2 *

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)
- Unicast Reverse Path Forwarding (uRPF)
- VRRP
- Virtual ARP (VARP)
- Policy Based Routing (PBR)
- Route Maps

Multicast

- IGMP v2/v3
- Protocol Independent Multicast (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)
  - Configurable Congestion Notification (CLI, Syslog) *
  - Streaming Events (GPB Encoded) *
  - Capture/Mirror of congested traffic *
- Zero Touch Provisioning (ZTP)
- Advanced Mirroring
  - Port Mirroring (16 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
- Restore and Configure from USB
- RFC 3176 sFlow
- Optional SSD for logging and data capture
- IEEE 1588 PTP *

Virtualization Support

- VXLAN Gateway (draft-mahlingam-dutt-dcops-vxlan-01)
- VXLAN Tunnel Endpoint
- VXLAN Bridging
- VXLAN Routing (VRF, MLAG) *
- VM Tracer VMware Integration

Security Features

- Ingress / Egress ACLs using L2, L3, L4 fields
- Ingress / Egress ACL Logging and Counters
- Atomic ACL Hitless restart
- Control Plane Protection (CPP)
- DHCP Relay
- MAC Security
- TACACS+
- RADIUS
- ARP trapping and rate limiting

Quality of Service (QoS) Features

- Up to 8 queues per port
- Strict priority queueing
- 802.1p based classification
- DSCP based classification and remarking *
- Egress shaping / Weighted round robin (WRR)
- Policing / Shaping
- Rate limiting *
- Explicit Congestion Notification (ECN) marking *
- 802.1Qbb Per-Priority Flow Control (PFC)
- 802.1Qaz Enhanced Transmission Selection (ETS)*
- Data Center Bridging Extensions (DCBX)*

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
- Beacon LED for system identification
- 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

Scalability

- 9216 Byte Jumbo Frame Support
- 8 Priority Queues per Port
- 1152 Link Aggregation Groups (LAG)
- 32 Ports per LAG
- 768K MAC Addresses
- 768K IPv4 Host Routes
- 768K IPv6 Unicast Host Routes
- Over 1M IPv4 Unicast LPM Routes
- Up to 768K IPv6 Unicast LPM Routes
- 768K Multicast Routes
- 24K ACL Entries per Forwarding Engine
- Up to 192K ACL Entries per system
- Virtual Output Queueing
- Distributed Scheduler
- WFQ, CIR*, ETS*, Fixed Priority

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 Flow Control
- 802.3ab 1000BASE-T
- 802.3z Gigabit Ethernet
- 802.3ae 10 Gigabit Ethernet
- 802.3ba 40 Gigabit Ethernet
- 802.3ba 100 Gigabit Ethernet
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 2461 Neighbor Discovery for IP Version 6 (IPv6)
- RFC 2462 IPv6 Stateless Address Autoconfiguration
- RFC 2463 Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification
- IEEE 1588-2008 Precision Time Protocol

SNMP MIBs

- RFC 3635 EtherLike-MIB
- RFC 3418 SNMPv2-MIB
- RFC 2863 IF-MIB
- RFC 2864 IF-INVERTED-STACK-MIB
- RFC 2096 IP-FORWARD-MIB
- RFC 4363 Q-BRIDGE-MIB
- RFC 4188 BRIDGE-MIB
- RFC 2013 UDP-MIB
- RFC 2012 TCP-MIB
- RFC 2011 IP-MIB
- RFC 2790 HOST-RESOURCES-MIB
- RFC 3636 MAU-MIB
- RMON-MIB
- RMON2-MIB
- HC-RMON-MIB
- LLDP-MIB
- LLDP-EXT-DOT1-MIB
- LLDP-EXT-DOT3-MIB
- ENTITY-MIB
- ENTITY-SENSOR-MIB
- ENTITY-STATE-MIB
- ARISTA-ACL-MIB
- ARISTA-QUEUE-MIB
- RFC 4273 BGP4-MIB
- RFC 4750 OSPF-MIB
- ARISTA-CONFIG-MAN-MIB
- ARISTA-REDUNDANCY-MIB
- RFC 2787 VRRPv2MIB
- MSDP-MIB
- PIM-MIB
- IGMP-MIB
- IPMROUTE-STD-MIB
- SNMP Authentication Failure trap
- ENTITY-SENSOR-MIB support for DOM (Digital Optical Monitoring)
- User configurable custom OIDs

See EOS release notes for latest supported MIBs

*Not currently supported in EOS

Model	7280CR-48	7280QR-C72	7280QR-C36	7280SR-48C6	7280TR-48C6
Ports	48 x QSFP100 & 8 x QSFP+	72 x QSFP (56x QSFP+ and 16 x QSFP100)	36 x QSFP (24x QSFP+ and 12x QSFP100)	48 x SFP+ 6 x QSFP100	48 x 10G-T 6 x QSFP100
Max 100GbE Ports	48	16	12	6	6
Max 50GbE Ports *	96	32	24	12	12
Max 40GbE Ports	56	72	36	6	6
Max 25GbE Ports *	192	64	48	24	24
Max 10GbE Ports	224	160	144	72	72
Throughput	10.24Tbps	6.4Tbps	4.32Tbps	2.16Tbps	2.16Tbps
Packets/Second	5.76 Bpps	2.88 Bpps	1.44 Bpps	720 Mpps	720 Mpps
Latency	From 3.8us	From 3.8us	3.8us	3.8us	3.8us
CPU	Multi-core x86	Multi-core x86	Quad-Core x86	Quad-Core x86	Quad-Core x86
System Memory	16 Gigabytes	8 GB (16GB optional)	8 GB (32GB optional)	8 GB (32GB Optonal)	8 GB (32GB Optional)
Flash Storage Memory	4 GB	4 GB	4 GB	4 GB	4 GB
Packet Buffer Memory	32GB (4GB per group of ports)	16GB (4GB per group of ports)	8GB (4GB per group of ports)	4GB	4GB
SSD Storage Option	Yes	Yes	Yes	Yes	Yes
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 Supplies	2 (1+1 redundant)	2 (1+1 redundant)	2 (1+1 redundant)	2 (1+1 redundant)	2 (1+1 redundant)
Hot-swappable Fans	4 (N+1 redundant)	4 (N+1 redundant)	4 (N+1 redundant)	4 (N+1 redundant)	4 (N+1 redundant)
Reversible Airflow Option	No (front to rear)	Yes	Yes	Yes	Yes
Rack Units	2U	2U	1U	1U	1U
Size (WxHxD)	19 x 3.5 x 22.2" (48.3 x 8.9 x 56.3cm)	19 x 3.5 x 22.2" (48.3 x 8.9 x 56.3cm)	19 x 1.75 x 20.6" (48.3 x 4.4 x 52.3cm)	19 x 1.75 x16" (48.3 x 4.4 x40.6cm)	19 x 1.75 x 16" (48.3 x 4.4 x40.6cm)
Typical/Max Power Draw	1363W / 1710W	805W / 1202W	324W / 499W	263W / 381W	290W / 405W
Weight	46.7lbs (21.2kg)	47.2lbs (21.4kg)	22.4lbs (10.2kg)	22lbs (10.0kg)	22.2lbs (10.1kg)
NEBS	Yes	Yes	Yes	Yes	No
Power Supplies	1900W AC 1900W DC	1900W AC 1900W DC	745W AC 1900W DC	500W AC 500W DC	500W AC 500W DC
EOS Feature Licenses	LIC-FIX-4 (E, V, Z, FLX)	LIC-FIX-4 (E, V, Z, FLX)	LIC-FIX-3 (E, V, Z) LIC-FIX-2 (FLX)	LIC-FIX-2 (E, V, Z) LIC-FIX-2 (FLX)	LIC-FIX-2 (E, V, Z) LIC-FIX-2 (FLX)

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

* Not currently supported in EOS

Supported Optics and Cables

Interface Type	40G QSFP ports
10GBASE-CR	0.5m-5m QSFP+ to 4x SFP+ (see note 1)
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-LR4	10km SM Duplex
100GBASE-LRL4	2km SM Duplex
100GBASE-CWDM4	2km SM duplex
100GBASE-AOC	3m to 30m
100GBASE-CR4	QSFP to QSFP: 1m to 5m
25GBASE-CR	QSFP to SFP25: 1m to 3m lengths

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)

Interface Type	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
100Mb TX, 1GbE SX/LX/TX	Yes

Standards Compliance

EMC	Emissions: FCC, EN55022, EN61000-3-2, EN61000-3-3 or EN61000-3-11, EN61000-3-12 (as applicable) Immunity: EN55024 Emissions and Immunity: EN300 386
Safety	UL/CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all country differences
Certifications	North America (NRTL) European Union (EU) BSMI (Taiwan) C-Tick (Australia) CCC (PRC) MSIP (Korea) EAC (Customs Union) VCCI (Japan)
European Union Directives	2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 2011/65/EU RoHS Directive 2012/19/EU WEEE Directive

Power Supply Specifications

Power Supply	PWR-500AC	PWR-500-DC	PWR-745AC	PWR-1900AC	PWR-1900-DC
Input Voltage	100-240AC	40-72V DC	100-240VAC	200-240AC	40-72V DC
Typical Input Current	6.3 - 2.3A	13.1 - 7.3A 11A at -48V	10 - 4A	11.2 - 9.5A	28 - 50A 46A at -48V
Input Frequency	50/60Hz	DC	50/60Hz	50/60Hz	DC
Input Connector	IEC 320-C13	AWG #16-#12	IEC 320-C13	IEC 60320 C20	AWG #6-3
Efficiency (Typical)	93% Platinum	90%	93% Platinum	93% Platinum	90%
Compatibility	7280SR-48C6 7280TR-48C6	7280SR-48C6 7280TR-48C6	7280QR-C36	7280CR-48 7280QR-C72	7280CR-48 7280QR-C36, 7280QR-C72

* Not currently supported in EOS

Product Number	Product Description
DCS-7280QR-C72-F	Arista 7280R, 72x40GbE QSFP+ with 16x100GbE QSFP switch, front to rear air, 2x AC and 2xC19-C20 cords
DCS-7280QR-C72-R	Arista 7280R, 72x40GbE QSFP+ with 16x100GbE QSFP switch, rear to front air, 2x AC and 2xC19-C20 cords
DCS-7280QR-C72#	Arista 7280R, 72x40GbE QSFP+ with 16x100GbE QSFP switch, configurable fans and psu
DCS-7280QR-C72M#	Arista 7280R, 72x40GbE QSFP+ with 16x100GbE QSFP switch, expn mem, SSD, configurable fans and psu
DCS-7280QR-C72M-F	Arista 7280R, 72x40GbE QSFP+ with 16x100GbE QSFP switch, expn mem, SSD, front to rear air, 2x AC
DCS-7280QR-C72M-R	Arista 7280R, 72x40GbE QSFP+ with 16x100GbE QSFP switch, expn mem, SSD, rear to front air, 2x AC
DCS-7280QR-C72M-FLX#	Arista 7280R, 72x40GbE QSFP+ with 16x100GbE QSFP switch, expn mem, SSD, configurable fans and psu. Over 256K Routes, MPLS and VXLAN
DCS-7280QR-C36-F	Arista 7280R, 24x40GbE QSFP+ & 12x100GbE QSFP switch, front to rear air, 2x AC and 2xC13-C14 cords
DCS-7280QR-C36-R	Arista 7280R, 24x40GbE QSFP+ & 12x100GbE QSFP switch, rear to front air, 2x AC and 2xC13-C14 cords
DCS-7280QR-C36#	Arista 7280R, 24x40GbE QSFP+ & 12x100GbE QSFP switch, configurable fans and psu, 2xC13-C14 cords
DCS-7280QR-C36-M-F	Arista 7280R, 24x40GbE QSFP+ & 12x100GbE QSFP switch, expn mem, SSD, front to rear air, 2x AC
DCS-7280QR-C36-M-R	Arista 7280R, 24x40GbE QSFP+ & 12x100GbE QSFP switch, expn mem, SSD, rear to front air, 2x AC
DCS-7280QR-C36-M#	Arista 7280R, 24x40GbE QSFP+ & 12x100GbE QSFP switch, expn mem, SSD, configurable fans and psu
DCS-7280QR-C36-M-FLX#	Arista 7280R, 24x40GbE QSFP+ & 12x100GbE QSFP switch, expn mem, SSD, configurable fans and psu. Over 256K Routes, MPLS and VXLAN
DCS-7280SR-48C6-F	Arista 7280R, 48x10GbE (SFP+) & 6x100GbE QSFP switch, front to rear air, 2x AC and 2xC13-C14 cords
DCS-7280SR-48C6-R	Arista 7280R, 48x10GbE (SFP+) & 6x100GbE QSFP switch, rear to front air, 2x AC and 2xC13-C14 cords
DCS-7280SR-48C6#	Arista 7280R, 48x10GbE (SFP+) & 6x100GbE QSFP switch, configurable fans and psu, 2xC13-C14 cords
DCS-7280SR-48C6-M-F	Arista 7280R, 48x10GbE (SFP+) & 6x100GbE QSFP switch, expn mem, SSD, front to rear air, 2x AC and 2xC13-C14 cords
DCS-7280SR-48C6-M-R	Arista 7280R, 48x10GbE (SFP+) & 6x100GbE QSFP switch, expn mem, SSD, rear to front air, 2x AC and 2xC13-C14 cords
DCS-7280SR-48C6-M#	Arista 7280R, 48x10GbE (SFP+) & 6x100GbE QSFP switch, expn mem, SSD, configurable fans and psu
DCS-7280SR-48C6-M-FLX#	Arista 7280R, 48x10GbE (SFP+) & 6x100GbE QSFP switch, expn mem, SSD, configurable fans and psu. Over 256K Routes, MPLS and VXLAN
DCS-7280TR-48C6-F	Arista 7280R, 48x10GbE RJ45 (1/10G) & 6x100GbE QSFP switch, front to rear air, 2x AC and 2xC13-C14 cords
DCS-7280TR-48C6-R	Arista 7280R, 48x10GbE RJ45 (1/10G) & 6x100GbE QSFP switch, rear to front air, 2x AC and 2xC13-C14 cords
DCS-7280TR-48C6#	Arista 7280R, 48x10GbE RJ45 (1/10G) & 6x100GbE QSFP switch, configurable fans and psu, 2xC13-C14 cords
DCS-7280TR-48C6-M#	Arista 7280R, 48x10GbE RJ45 (1/10G) & 6x100GbE QSFP switch, expn mem, SSD, configurable fans and psu
DCS-7280TR-48C6-M-FLX#	Arista 7280R, 48x10GbE RJ45 (1/10G) & 6x100GbE QSFP switch, expn mem, SSD, configurable fans and psu. Over 256K Routes, MPLS and VXLAN
DCS-7280CR-48-F	Arista 7280R, 48x100GbE QSFP and 8x40GbE QSFP+ switch, front to rear air, 2 x AC and 2 x C19-C20 cords
DCS-7280CR-48#	Arista 7280R, 48x100GbE QSFP and 8x40GbE QSFP+ switch, configurable fans and psu, 2 x C19-C20 cords
DCS-7280CR-48-D#	Arista 7280R, 48x100GbE QSFP and 8x40GbE QSFP+ switch, SSD, configurable fans and psu, 2 x C19-C20 cords
DCS-7280CR-48-DC-F	Arista 7280R, 48x100GbE QSFP and 8x40GbE QSFP+ switch, front to rear air, 2 x DC

Note:
- Arista 7280CR-48 and 7280QR-C72 switches ship with two C19-C20 power cables (2m). Other power cables must be ordered separately
- Front-to-rear means the air flows from the switch port side to the fan side. Rear to front means the air flows from the fan side to the switch port side.

Optional Components and Spares

Product Number	Product Description
PWR-500AC-F	Spare 500 Watt AC power supply for Arista 7050X and 7280R 1RU Switches (front-to-rear airflow)
PWR-500AC-R	Spare 500 Watt AC power supply for Arista 7050X and 7280R 1RU Switches (rear-to-front airflow)
PWR-500-DC-F	Spare 500 Watt DC power supply for Arista 7050X and 7280R 1RU Switches (front-to-rear airflow)
PWR-500-DC-R	Spare 500 Watt DC power supply for Arista 7050X and 7280R 1RU Switches (rear-to-front airflow)
PWR-745AC-F	Spare 750 Watt AC power supply for Arista 7060X and 7280QR Series Switches (front-to-rear airflow)
PWR-745AC-R	Spare 750 Watt AC power supply for Arista 7060X and 7280QR Series Switches (rear-to-front airflow)
PWR-1900AC-F	Spare 1900 Watt AC power supply for Arista 7260CX and 7280R Series Switches (front-to-rear airflow)
PWR-1900AC-R	Spare 1900 Watt AC power supply for Arista 7260CX and 7280R Series Switches (rear-to-front airflow)
PWR-1900-DC-F	Spare 1900W DC Power Supply for 7260X and 7280R Series Series Switches (front to rear airflow)
PWR-1900-DC-R	Spare 1900W DC Power Supply for 7260X and 7280R Series Series Switches (rear-to-front airflow)
LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-132 port 10G (BGP, OSPF, ISIS, PIM, NAT)
LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-132 port 10G (VMTracer and VXLAN)
LIC-FIX-2-Z	Monitoring & provisioning license for Arista Fixed switches, 40-132 port 10G (ZTP, LANZ, TapAgg, OpenFlow)
LIC-FIX-3-E	Enhanced L3 License for Arista Fixed switches, 144-256 port 10G (BGP, OSPF, ISIS, PIM, NAT)
LIC-FIX-3-V	Virtualization license for Arista Fixed switches, 144-256 port 10G (VMTracer and VXLAN)
LIC-FIX-3-Z	Monitoring & provisioning license for Arista Fixed switches, 144-256 port 10G (ZTP, LANZ, TapAgg, OpenFlow)
LIC-FIX-4-E	Enhanced L3 License for Arista Fixed switches, 288-640 port 10G (BGP, OSPF, ISIS, PIM, NAT)
LIC-FIX-4-V	Virtualization license for Arista Fixed switches, 288-640 port 10G (VMTracer and VXLAN)
LIC-FIX-4-Z	Monitoring & provisioning license for Arista Fixed switches, 288-640 port 10G (ZTP, LANZ, TapAgg, OpenFlow)
LIC-FIX-2-FLX	Expanded L3 License for Arista Fixed switches, 40-256 port 10G (Over 256k Routes), MPLS and VXLAN
LIC-FIX-4-FLX	Expanded L3 License for Arista Fixed switches, 256-640 port 10G (Over 256K Routes), MPLS and VXLAN
FAN-7000-F	Spare fan module for Arista 7150, 7124SX(FX), 7050, 7280 & 7048-A switches (front-to-rear airflow)
FAN-7000-R	Spare fan module for Arista 7150, 7124SX(FX), 7050, 7280 & 7048-A switches (rear-to-front airflow)
FAN-7002H-F	Spare fan module for Arista 2U 7260CX-64, 7280CR and 7320X switches (front-to-rear airflow)
KIT-7001	Spare accessory kit for Arista 1RU tool-less switches
KIT-2POST	Spare 2RU 2 post rack mount installation kit for Arista 7250 / 7050, 7260X and 7280R switches
KIT-2POST-1U-NT	Spare 1RU 2 post rail kit for 1RU tool less systems (7050QX-32S, 7050SX/TX and 7280R)
KIT-4POST-NT	Spare 1RU/2RU tool-less rail kits for 4-post installation (7050QX-32S, 7050SX/TX, 7280R and 7250X)
KIT-7003	Spare accessory kit for Arista 7260CX-64 and 7280CR-48 2RU switches

Warranty

The Arista 7280R 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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