Product Highlights

System Scale and Performance

- 7280DR3A Series: Up to 54 x 400G
- 7280CR3A Series: Up to 72 x 100G
- 7280SR3A Series: Up to 48 x 50G
- Up to 21.6. Tbps / 8.1 Bpps throughput
- QSFP, OSFP and QSFP-DD: for 10-400G
- 400G ZR and ZR+ Support
- Dedicated OSFP-Line System ports
- Synchronous Ethernet and IEEE 1588
- MACsec, IPsec and VXLANsec encryption

Cloud Grade Routing

- Secure Internet Peering
- Carrier Edge VPN Services
- Next Generation EVPN Services for 5G/ MEC, CIN, & Metro
- Carrier Core transport (LDP, RSVP-TE, SR-TE) and HA with FRR and TI-LFA
- Next Generation timing (PTP and SyncE)
- Open programmable APIs (JSON-RPC, NETCONF) for provisioning, telemetry, path selection/topology discovery

Data Center Optimized Design

- Ultra-deep packet buffer up to 24GB
- Virtual Output Queues per port to eliminate head of line blocking
- Over 94% efficient power supplies
- Redundant & hot-swap power and fans
- Designed for NEBS

Virtualization and Provisioning

- CloudVision
- EVPN-VXLAN for next generation DC
- LANZ for microburst detection
- Zero Touch Provisioning (ZTP)
- Accelerated sFlow (RFC3176)

Cloud Networking Ready

- Up to 384K MAC Addresses
- Over 5M IPv4 Routes with 7280R3AK
- Algorithmic ACLs for 400K+ rules

Resilient Control Plane

- High Performance eight-core x86 CPU
- 64GB DRAM and 120GB SSD

Arista Extensible Operating System

- Single 64-bit binary image
- Fine-grained truly modular network OS
- Stateful Fault Containment & Repair
- Full access to Linux shell and tools
- Extensible platform - bash, python, C++

Overview

The Arista 7280R3A Series of fixed systems, including the 7280R3A, 7280R3AM and the 7280R3AK, are the latest generation of Arista 7000 Series portfolio of data center switches. The 7280R3A Series are purpose built 100G and 400G systems built for the highest performance environments, and to meet the needs of the largest scale data centers and service providers. They deliver scalable L2 and L3 resources, high bandwidth encryption 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.

Designed for deployment in a wide range of open networking solutions including large scale layer 2 and layer 3 cloud designs, enterprise data centers and service provider networks, the 7280R3A Series support 100G and 400G interfaces, up to 54 ports of wirespeed 400G in 2RU. For maximum flexibility, each platform provides a choice of three levels of scale and functionality with Standard (R3A), Encryption (R3AM) and Large Scale (R3AK) models available.

The 7280R3A's 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, offering rich functionality for traditional data centre, virtualized/overlay networking and wide area networking along with deep packet buffers, large routing tables and industry leading switching capacity.

7280R3A systems with OSFP or QSFP-DD incorporate a flexible choice of interface speed including 25G and 50G and support for dense 400G DWDM, providing unparalleled flexibility and the ability to seamlessly transition data centers to the next generation of Ethernet performance. The 7280R3A Series provide industry leading power efficiency. Combined with Arista EOS the 7280R3A Series delivers advanced features for big data, cloud, virtualized and traditional designs.
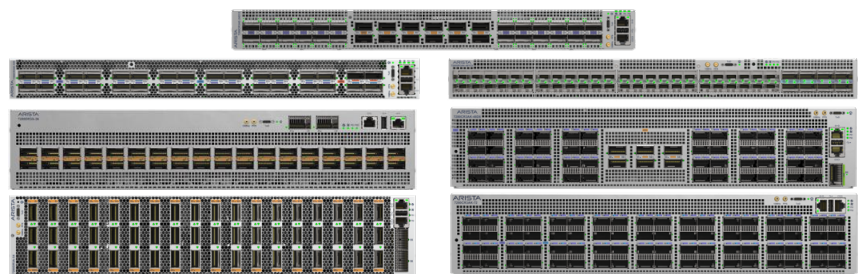
Arista 7280R3A Series

Arista EOS

The Arista 7280R3A series run 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.

Arista's 64-bit EOS is purpose built for high performance, large scale workloads and embeds advanced monitoring, telemetry and automation capabilities. With a powerful x86 CPU subsystem and full access to Linux, a wealth of standard tools can also be run natively on the switch for simple integration into automation workflows.

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 EVPN for network virtualization flexibility
- Non blocking leaf-spine architecture for 10K-500K 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 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 High Performance Data Centers

The Arista 7280R3A Series deliver non-blocking switching capacity that enables dramatically faster and simpler network designs for data centers and lowers both capital and operational expenses. Arista's wide range of systems, with a single consistent EOS, allows for flexible, right-sized product choice for all tiers of the network with a strong focus on open standards and interoperability.

The 7280R3A family provides comprehensive support for all common data center architectures, including layer 2 MLAG, layer 3 ECMP and EVPN-VXLAN overlay networking. Leaf-spine topologies provide the most efficient foundation for modern high performance applications, scalable to hundreds of thousands of hosts, while providing predictable, non-blocking, low latency performance. Arista's Multi-Chassis Link Aggregation (MLAG) technology supports active/active L2 network topologies, while layer 3 Equal Cost Multi-Path (ECMP) designs enable construction of very high radix topologies for large scale deployment. Both designs support EVPN-VXLAN overlay networks for additional segmentation and can integrate with standards-based overlay controller solutions.

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. The Arista 7280R3A Series FlexRoute engine provides Internet scale routing to support deployment as an Internet border/peering router, enterprise CDN backbone or data center interconnect (DCI). 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.

Cloud Grade Routing

The 7280R3A series are key components of Arista's portfolio of Cloud Grade Routing platforms that encompasses a wide choice of fixed and modular systems. Combining Arista EOS's proven and feature rich Service Provider functionality, telemetry and open programmability with industry leading scale, density and power efficiency, the R3 series systems are designed for versatile deployment in a wide variety of open networking environments.

Next generation multi-service environments require flexibility, security and open programmability to leverage the power efficiency and proven scale of cloud networks. The R3 Series routing solutions include large scale layer 2, layer 3 and EVPN based telco and cloud data center designs, low latency MEC overlay fabrics, data center interconnect (DCI) with long haul optics, provider edge networks with scaleable L2 and L3 VPN services, high density 100G/400G traffic engineered MPLS and SR-TE cores, 5G infrastructure and metro-aggregation for the backhaul of E-LINE services.

7280R3A Deterministic Network Performance

The Arista 7280R3A 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 7280R3A 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.

Routing Table Scale and FlexRoute™

Network scalability is directly impacted by the size of a system's forwarding tables. In many systems a 'one size fits all' approach is adopted using discrete fixed size tables for each of the common types of forwarding entry. The Arista 7280R3A Series leverage a database for forwarding resources which can be allocated for MAC, Routing, Host and ARP tables with a choice of forwarding profiles that optimizes these tables.

Arista's innovative FlexRoute Engine, with its patented algorithmic approach to building layer 3 forwarding tables on Arista R-Series, provides support for the full internet routing table in hardware. Scaling to more than 5 million routes in 7280R3AK, the R series Universal Spine and Leaf platforms have sufficient headroom for future growth in both IPv4 and IPv6. The flexibility coupled with the range of system forwarding profiles ensures optimal resource allocation for a wide range of network topologies and use cases including Internet Peering, virtualization, Carrier Edge and Security as well as datacenter spine and leaf.

10-400G Wire-speed Encryption with TunnelSec

7280R3AM and 7280R3AK series platforms support Arista's TunnelSec technology, enabling line-rate, industry standard, authenticated strong encryption using the AES-256-GCM block cipher. TunnelSec devices offer IEEE 802.1AE MAC Security (MACsec), IPsec (RFC 4303) and VXLANsec for flexible encryption of layer 2, layer 3 or overlay networks. While MACsec operates at the link layer, offering point to point encryption, IPsec and VXLANsec enable the construction of encrypted IP tunnels that traverse multiple unencrypted hops between router or VTEP endpoints enabling line-rate strong encryption across third party infrastructure for WAN or DCI deployments.

The flexibility to offer multiple types of encryption enables a broad range of deployments and removes the need for additional encryption devices while providing orders of magnitude improvements in latency and throughput when compared to traditional appliance based implementations. The 7280R3AM and 7280R3AK series support TunnelSec on all interface speeds, from 10G to 400G without a performance penalty. Encryption services are 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.

Dense 400G DWDM

Arista's R3A platforms are optimized to support high power 400ZR OSFP and QSFP-DD optical modules. 400ZR modules are software tunable, DWDM, coherent optical modules, with a reach of up to 120km. When combined with Arista's ZR Line System, up to 8x 400ZR modules can be multiplexed to transport 3.2 Tb/s over a single fiber pair. Arista's ZR Line System consists of the AMP-ZR, an optical amplifier packaged into a single transceiver module, and the CAB-LC8-CS, a simple fiber splitter/combiner that multiplexes up to 8x 400ZR modules into a fiber pair. Selected 7280R3A platforms include dedicated ports that can house the amplifier without using data plane ports. The combination of 7280R3A, 400G-ZR and the ZR-LS represent a revolutionary plug-and-play approach, completely eliminating external transponders and line systems while reducing cost and complexity - allowing DCI links to be turned up as quickly and easily as inside-the-datacenter links.

Algorithmic ACLs

Algorithmic ACLs combine both software and hardware to enable more flexible and scalable solutions for access control, policy based forwarding and network telemetry. Combining general purpose memory with advanced software algorithms delivers higher scale, performance and efficiency with lower power and is more cost effective than traditional solutions. Algorithmic ACLs leverage efficient packet matching algorithms 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. Algorithmic ACLs are available on the 7280R3AK Series of products.
- 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

Enhanced Features for High Performance Cloud Networks

The Arista 7280R3A Series 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.

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 100Gbps and 400Gbps 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 and SyncE*)

Many modern and emerging applications are using precision timing as part of their service delivery requirements including 5G, Media production, manufacturing, IoT sensors, high frequency trading etc. To meet the stringent timing and synchronization requirements, Arista's hardware delivers various timing solutions, including high precision in-band time and frequency distribution support via Precision Time Protocol (PTP, IEEE 1588v2) and Synchronous Ethernet (ITU G.8261) as well as flexibility of time synchronization via external timing ports. It also supports Class C timing, to meet the enhanced accuracy requirements at the edge of the 5G networks. As part of PTP support, Arista platforms provide both Boundary and Transparent clock modes as well as PTP profiles (8275.1 and 8275.2) with full and partial timing support allowing greater flexibility in the distribution of end to end timing solutions.

Virtualization

The foundation for Arista's Network Virtualization solutions is VXLAN, an open IETF specification designed to standardize an overlay encapsulation protocol. Arista solutions range from OVSDB and Openstack integration to BGP EVPN in conjunction with EOS CloudVision®, a platform for network-wide workload orchestration and workflow automation.

The 7280R3A builds on the deep buffer wire-speed gateway with EVPN/VXLAN for layer-2 and layer-3 stretch within data center as well as DCI use cases. The 7280R3A is the perfect solution for transit gateway between EVPN domains connected over MPLS.

Inband Network Telemetry

Inband network telemetry, or INT, is a standards approach to providing deep visibility into traffic in real-time, with no impact on switch performance. INT provides per-flow monitoring of traffic drops, latency, congestion and the network path. INT information can be exported in IPFIX or sFlow formats to a management system or collector such as Arista CloudVision, for predictive analytics and deep forensics to measure latency per device and across the network, trace packets and reconstruct path topology as well as detecting hot-spots. Inband Network Telemetry is available on the 7280R3A, 7280R3AM and 7280R3AK Series of products, with the ability to originate, pass and terminate, along with mirroring to external collectors.

* Roadmap capability for 2H2023

7280R3A 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. Traditional sFlow utilizes a system CPU for processing samples of hundreds of thousands of flows. In modern high performance systems guaranteed high rate sampling requires the capability to both sample and process packet rates of billions of packets per second. With the 7280R3A Series Accelerated sFlow feature the sampling and processing of flow samples into sFlow datagrams is handled via integrated sFlow engines capable of supporting 1:500 sampling rates on 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.

Maximum Network Design Flexibility

- Scalable designs with up to a 512-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
- Scalable routing tables to support internet route peering
- Wide choice of dense 100G and 400G interfaces with broad support for flexible 10G, 25G, 50G or 200G modes.
- Support for standards based IEEE 25GbE with mix and match support for simple and cost effective migration
- Virtual output queue (VOQ) architecture and deep packet buffering to eliminate head of line blocking with low latency
- ACL scalability with up to 100K entries per forwarding engine allows for rich policy control
- Flexible allocation of L2 and L3 forwarding table resources for more design choice
- PTP, Accelerated 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

7280R3A System Scalability

Switch Model	7280R3A Series		7280R3AK Series			
Profile	L3	Balanced	L3-XL	L3-XXL	L3-XXXL	Balanced-XL
ARP Entries	88k	80k	112k	112k	80k	96k
MAC Addresses	224k	224k	256k	192k	384k	256k
IPv4 Unicast Routes	1450k	800k	2250k	2850k	3950k	1850k
Additional IPv4 Unicast Routes with FlexRoute	+ 1792k	+ 1792k	+ 2048k	+ 1536k	+ 3072k	+ 2048k
IPv6 Unicast Routes	433-483k	250-267k	683-750k	833-950k	1100-1317k	567-617k
Multicast Routes	128k	128k	128k	128k	128k	128k
TCAM ACL Entries (Per chip)	24k	24k	24k	24k	24k	24k
Traffic Policy ACL IPv4 Prefixes	30k	30k	430k	296k	30k	430k
Traffic Policy ACL IPv6 Prefixes	10k	10k	150k	100k	10k	150k
ECMP	512-Way	512-Way	512-Way	512-Way	512-Way	512-Way

Maximum values dependent on shared resources in some cases

7280R3A High Availability

The Arista 7280R3A 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 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)
- Accelerated Software Update (ASU)
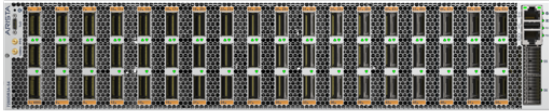
Arista 7280DR3A-54

7280DR3A-54: 54 port 400G QSFP-DD
- 21.6 Tbps wire speed performance with 24 GB buffer
- MACsec, SyncE and large scale options
- 2 x OSFP-LS ports for dense 400G-ZR deployment

Arista 7280DR3A-36

7280DR3A-36: 36 port 400G QSFP-DD
- 14.4 Tbps wire speed performance with 16 GB buffer
- MACsec, SyncE and large scale options
- 2 x OSFP-LS ports for dense 400G-ZR deployment

Arista 7280CR3A-24D12

7280CR3A-24D12: 24 port 100G QSFP and 12 port 400G QSFP-DD
- 7.2 Tbps wire speed performance with 8 GB buffer
- MACsec, SyncE and large scale options

Arista 7280CR3A-48D6

7280CR3A-48D6: 48 port 100G QSFP and 6 port 400G QSFP-DD
- 7.2 Tbps wire speed performance with 8 GB buffer
- MACsec, SyncE and large scale options
- 1 x OSFP-LS ports for dense 400G-ZR deployment

Arista 7280CR3A-72

7280CR3A-72: 72 port 100G QSFP
- 7.2 Tbps wire speed performance with 8 GB buffer
- MACsec, SyncE and large scale options

Arista 7280CR3A-32S

7280CR3A-32S: 32 port 100G QSFP with 200G/400G flexibility
- 3.6 Tbps wire speed performance with 4 GB buffer
- MACsec, SyncE and large scale options

Arista 7280SR3A-48YC8

7280SR3A-48YC8: 48 port 10G/25G/50G SFP and 6 port 200G QSFP
- 3.6 Tbps wire speed performance with 4 GB buffer
- MACsec, SyncE and large scale options

Arista 7280R3A 1 and 2RU Rear Views
AC Powered, Front to Rear airflow (red)

1U Hot swap fan modules

1.5kW Hot swap power supplies

2U Hot swap fan modules

2.4kW 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
    - 256 Ports / Channel
    - 2048 groups per system (subject to system density)
- MLAG (Multi-Chassis Link Aggregation)
    - Uses IEEE 802.3ad LACP
    - 512 ports per MLAG
- 802.1Q VLANs/Trunking
- 802.1AB Link Layer Discovery Protocol
- 802.3x Receive Flow Control
- Jumbo Frames (9216 Bytes)
- IGMP v1/v2/v3 snooping
- Storm Control
- Loop protection
- Layer 2 sub-interfaces
- Flexible VLAN encapsulation

Layer 3 Features

- Static Routes
- Routing Protocols: OSPF, OSPFv3, BGP, MP-BGP, IS-IS, and RIPv2
- BGP FlowSpec, BMP, BGP-RPKI, PIC
- 512-way Equal Cost Multipath Routing (ECMP)
- Unequal Cost Multipath Routing with BGP communities
- VRF, Inter-VRF Route Leaking
- Bi-Directional Forwarding Detection (BFD)
- Micro BFD (RFC 7130)
- Unicast Reverse Path Forwarding (uRPF)
- VXLAN Bridging and Routing
- VRRP / VRRPv3
- Virtual ARP (VARP)
- Policy Based Routing (PBR)
- Route Maps & RCF (Routing Control Functions)
- Layer 3 sub-interfaces
- Route-target pruning, Route-target constraints
- Route Reflector, Optimal Route Reflector

Multicast

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

Advanced Monitoring and Provisioning

- Latency Analyzer and Microburst Detection (LANZ)
    - Configurable Congestion Notification (CLI, Syslog)
    - Streaming Events (GPB Encoded)
- Zero Touch Provisioning (ZTP)

- Advanced Mirroring
    - Port Mirroring (14 sessions)
    - Enhanced Remote Port Mirroring
    - SPAN/TAP M:N Aggregation
    - L2/3/4 Filtering
- Post-card Telemetry
- 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
- IPFIX

Security Features

- Control Plane Protection (CPP)
- Ingress / Egress ACLs using L2, L3, L4 fields
- Ingress / Egress ACL Logging and Counters
- MAC ACLs
- UDF (User Defined Fields)
- ACL Deny Logging
- ACL Counters
- Atomic ACL Hitless restart
- DHCP Relay / Snooping
- MAC Security
- TACACS+
- RADIUS
- ARP trapping and rate limiting
- Scalable traffic policies
- MACsec (IEEE 802.1AE)
- IPsec
- VXLANsec

Quality of Service (QoS) Features

- Up to 8 queues per port / sub-interface
- Strict priority queueing
- 802.1p based classification
- DSCP based classification and remarking
- Egress shaping / Weighted round robin (WRR)
- WFQ, CIR*, ETS*, Fixed Priority
- Policing / Shaping, H-QoS
- Explicit Congestion Notification (ECN) marking
- 802.1Qbb Per-Priority Flow Control (PFC)
- 802.1Qaz Enhanced Transmission Selection (ETS)
- Data Center Bridging Extensions (DCBX)
- Virtual Output Queueing
- Distributed Scheduler

Precision Timing

- G.8262, G.8262.1 (Synchronous Ethernet (SyncE) with ESMC)
- G.8273.2 (IEEE 1588-2008 PTP T-BC with GNSS input)
- G.8275.1, G.8275.2 (FTS, PTS)

* Not currently supported in EOS

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

MPLS

- LDP, RSVP-TE, FRR, BGP-LU, BGP-LS
- Bandwidth reservation, auto-bandwidth, split-tunneling
- ISIS-SR, OSPF-SR*, SR-TE, TI-LFA, BGP-SR, BGP-LU for EPE, ISIS FlexAlgo
- Seamless BFD with Round Trip Time
- Class Based Forwarding
- Flow-Aware Transport (RFC 6391), Entropy label (RFC 6790)

L2/L3 VPN

- IP-VPN (RFC 4364), 6PE, 6vPE, inter-as option A,B&C
- LDP pseudowires (Type-4 & Type-5)
- VPLS with LDP signaling, BGP-AD
- VPLS with BGP signaling*
- Multicast VPN (NG-MVPN) mLDP with default MDT, data MDT*
- EVPN-VXLAN (L2 & L3)
- EVPN-MPLS (L2 & L3)
- EVPN VLAN based & VLAN-aware services
- EVPN Multihoming
- EVPN VPWS & VPWS-FXC with MPLS
- EVPN integrated Routing & Bridging (IRB)
- EVPN E-tree with MPLS
- EVPN L2 multicast, L3 OISM with VXLAN
- EVPN-VXLAN to EVPN-MPLS, EVPN-VXLAN to EVPN-VXLAN, EVPN-VXLAN to IP-VPN GWs

Extensibility

- Linux Tools
  - Bash shell access and scripting
  - RPM support
  - Custom kernel modules
- Software Defined Networking (SDN)
  - OpenStack Neutron Plug-in support
- Programmatic access to system state
  - EOS SDK, Python, C++, GO

- Chef, Puppet
  - eAPI (HTTP & HTTPS), NETCONF, RESTCONF, GNMI
  - OpenConfig yang models, EOS native models
- Native KVM/QEMU support

Ethernet OAM

- Ethernet CFM (UP, DOWN MEPs)
- LM (Loss Measurement), SLM (Synthetic Loss Measurement), DM (Delay Measurement)
- RFC2544 (Initiator & reflector)
- TWAMP (Two Way Active Measurement Protocol)
- Link Fault signaling
- EOS connectivity monitor
- MPLS ping & trace route, VCCV 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
- 802.3x Flow Control
- 802.3ab 1000BASE-T
- 802.3z Gigabit Ethernet
- 802.3ae 10 Gigabit Ethernet
- 802.3by 25 Gigabit Ethernet
- 802.3ba 40 Gigabit Ethernet
- 802.3ba 100 Gigabit Ethernet
- 802.3bs 400 and 200 Gigabit Ethernet
- 802.3cm 400 Gigabit over multimode fiber
- RFC 2460 Internet Protocol, Version 6 (IPv6)
- RFC 2461 Neighbor Discovery for IP Version 6 (IPv6)
- RFC 2462 IPv6 Stateless Address Autoconfiguration
- RFC 2463 Internet Control Message Protocol (ICMPv6)
- IEEE 1588-2008 Precision Time Protocol

SNMP MIBs

- MIBs available at https://www.arista.com/en/support/product-documentation/arista-snmp-mibs

OpenConfig paths

- Supported paths available at https://www.arista.com/en/support/toi/path-support

* Not currently supported in EOS

Model Comparison	7280DR3A-54	7280DR3AM-54	7280DR3AK-54
Ports	54 x QSFP-DD	54 x QSFP-DD	54 x QSFP-DD
Max 400G Ports [1]	54	54	54
Max 100G Ports [1]	216	216	216
Max 50G Ports [1]	348	348	348
Max 40G Ports [1]	54	54	54
Max 25/10G Ports [1]	348	348	348
Encryption	—	All Ports	All Ports
Max Total Interfaces [2]	348	348	348
Throughput (FDX)	21.6 (43.2) Tbps	21.6 (43.2) Tbps	21.6 (43.2) Tbps
Packets/Second	8.1 Bpps	8.1 Bpps	8.1 Bpps
Latency	From 3.8 us	From 3.8 us	From 3.8 us
CPU	Eight-Core x86	Eight-Core x86	Eight-Core x86
System Memory	64 Gigabytes	64 Gigabytes	64 Gigabytes
Packet Buffer Memory	24 GB	24 GB	24 GB
Synchronous Ethernet	Inband + PPS/10M/ToD		
OSFP-LS Ports	2		
USB Ports	1		
SSD Storage	120 GB		
100/1000 Mgmt Ports	1		
RS-232 Serial Ports	1 (RJ-45)		
Hot-swap Power Supplies	2 (1+1 redundant)		
Hot-swappable Fans	4 (N+1 redundant)		
Airflow Direction	Front to Rear		
Rack Units	2 U		
Size (WxHxD) inc. handles	17.3 x 3.46 x 30.07 in (43.99 x 8.79 x 76.39 cm)		
Typical/Max Power Draw [3]	933 W / 1715 W		
Weight	61.6 lbs (27.94 kg)		
Fan Tray	FAN-7012H		
Power Supplies	PWR-3001 (AC or DC)		
Accelerated sFlow	Yes		
EOS Feature Licenses	Group 5		
Minimum EOS	4.29.1		

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities. 40G assumes the use of QSFP+
2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used
3. Typical power consumption measured at 25C ambient with 50% load on all ports, excludes transceivers.

Model Comparison	7280DR3A-36	7280DR3AM-36	7280DR3AK-36
Ports	36 x QSFP-DD	36 x QSFP-DD	36 x QSFP-DD
Max 400G Ports [1]	36	36	36
Max 100G Ports [1]	144	144	144
Max 50G Ports [1]	232	232	232
Max 40G Ports [1]	36	36	36
Max 25/10G Ports [1]	232	232	232
Encryption	—	All Ports	All Ports
Max Total Interfaces [2]	232	232	232
Throughput (FDX)	14.4 (28.8) Tbps	14.4 (28.8) Tbps	14.4 (28.8) Tbps
Packets/Second	5.4 Bpps	5.4 Bpps	5.4 Bpps
Latency	From 3.8 us	From 3.8 us	From 3.8 us
CPU	Eight-Core x86	Eight-Core x86	Eight-Core x86
System Memory	64 Gigabytes	64 Gigabytes	64 Gigabytes
Packet Buffer Memory	16 GB	16 GB	16 GB
Synchronous Ethernet	Inband + PPS/10M/ToD		
OSFP-LS Ports	2		
USB Ports	1		
SSD Storage	480 GB		
100/1000 Mgmt Ports	1		
RS-232 Serial Ports	1 (RJ-45)		
Hot-swap Power Supplies	2 (1+1 redundant)		
Hot-swappable Fans	4 (N+1 redundant)		
Airflow Direction	Front to Rear		
Rack Units	2 U		
Size (WxHxD) inc. handles	17.3 x 3.46 x 24.09 in (43.99 x 8.79 x 61.18 cm)		
Typical/Max Power Draw [3]	643 W / 1283 W		
Weight	53.1 lbs (24.09 kg)		
Fan Tray	FAN-7012H		
Power Supplies	PWR-2411 (AC or DC)		
Accelerated sFlow	Yes		
EOS Feature Licenses	Group 5		
Minimum EOS	4.30.0		

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities. 40G assumes the use of QSFP+
2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used
3. Typical power consumption measured at 25C ambient with 50% load on all ports, excludes transceivers.

Model Comparison	7280CR3A-24D12	7280CR3AM-24D12	7280CR3AK-24D12
Ports	24 x QSFP100 12 x QSFP-DD	24 x QSFP100 12 x QSFP-DD	24 x QSFP100 12 x QSFP-DD
Max 400G Ports [1]	12	12	12
Max 100G Ports [1]	84	84	84
Max 50G Ports [1]	116	116	116
Max 40G Ports [1]	36	36	36
Max 25/10G Ports [1]	116	116	116
Encryption	—	All Ports	All Ports
Max Total Interfaces [2]	116	116	116
Throughput (FDX)	7.2 (14.4) Tbps	7.2 (14.4) Tbps	7.2 (14.4) Tbps
Packets/Second	2.7 Bpps	2.7 Bpps	2.7 Bpps
Latency	From 3.8 us	From 3.8 us	From 3.8 us
CPU	Eight-Core x86	Eight-Core x86	Eight-Core x86
System Memory	64 Gigabytes	64 Gigabytes	64 Gigabytes
Packet Buffer Memory	8 GB	8 GB	8 GB
Synchronous Ethernet	Inband + PPS/10M/ToD		
OSFP-LS Ports	—		
USB Ports	1		
SSD Storage	480 GB		
100/1000 Mgmt Ports	1		
RS-232 Serial Ports	1 (RJ-45)		
Hot-swap Power Supplies	2 (1+1 redundant)		
Hot-swappable Fans	3 (N+1 redundant)		
Airflow Direction	Front to Rear and Rear to Front		
Rack Units	1 U		
Size (WxHxD) inc. handles	17.3 x 1.72 x 23.31 in (43.99 x 4.37 x 59.2 cm)		
Typical/Max Power Draw [3]	346 W / 845 W		
Weight	32.6 lbs (14.79 kg)		
Fan Tray	FAN-7011H		
Power Supplies	PWR-1511-AC or PWR-1511-DC		
Accelerated sFlow	Yes		
EOS Feature Licenses	Group 4		
Minimum EOS	4.31.1		

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities. 40G assumes the use of QSFP+
2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used
3. Typical power consumption measured at 25C ambient with 50% load on all ports, excludes transceivers.

Model Comparison	7280CR3A-48D6	7280CR3AM-48D6	7280CR3AK-48D6
Ports	48 x QSFP100 6 x QSFP-DD	48 x QSFP100 6 x QSFP-DD	48 x QSFP100 6 x QSFP-DD
Max 400G Ports [1]	6	6	6
Max 100G Ports [1]	68	68	68
Max 50G Ports [1]	114	114	114
Max 40G Ports [1]	54	54	54
Max 25/10G Ports [1]	114	114	114
Encryption	—	All Ports	All Ports
Max Total Interfaces [2]	116	116	116
Throughput (FDX)	7.2 (14.4) Tbps	7.2 (14.4) Tbps	7.2 (14.4) Tbps
Packets/Second	2.7 Bpps	2.7 Bpps	2.7 Bpps
Latency	From 3.8 us	From 3.8 us	From 3.8 us
CPU	Eight-Core x86	Eight-Core x86	Eight-Core x86
System Memory	64 Gigabytes	64 Gigabytes	64 Gigabytes
Packet Buffer Memory	8 GB	8 GB	8 GB
Synchronous Ethernet	Inband + PPS/10M/ToD		
OSFP-LS Ports	1		
USB Ports	1		
SSD Storage	120 GB		
100/1000 Mgmt Ports	1		
RS-232 Serial Ports	1 (RJ-45)		
Hot-swap Power Supplies	2 (1+1 redundant)		
Hot-swappable Fans	4 (N+1 redundant)		
Airflow Direction	Front to Rear and Rear to Front		
Rack Units	2 U		
Size (WxHxD) inc. handles	17.3 x 3.46 x 27.31 in (43.99 x 8.79 x 68.38 cm)		
Typical/Max Power Draw [3]	388 W / 979 W		
Weight	48.6 lbs (22.04 kg)		
Fan Tray	FAN-7012H		
Power Supplies	PWR-1512-AC or PWR-1511-DC		
Accelerated sFlow	Yes		
EOS Feature Licenses	Group 4		
Minimum EOS	4.31.1		

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities. 40G assumes the use of QSFP+
2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used
3. Typical power consumption measured at 25C ambient with 50% load on all ports, excludes transceivers.

Model Comparison	**7280CR3A-72**	**7280CR3AM-72**	**7280CR3AK-72**
Ports	72 x QSFP100	72 x QSFP100	72 x QSFP100
Max 400G Ports [1]	—	—	—
Max 100G Ports [1]	72	72	72
Max 50G-2 Ports [1]	102	102	102
Max 40G Ports [1]	72	72	72
Max 25/10G Ports [1]	102	102	102
Encryption	—	All Ports	All Ports
Max Total Interfaces [2]	116	116	116
Throughput (FDX)	7.2 (14.4) Tbps	7.2 (14.4) Tbps	7.2 (14.4) Tbps
Packets/Second	2.7 Bpps	2.7 Bpps	2.7 Bpps
Latency	From 3.8 us	From 3.8 us	From 3.8 us
CPU	Eight-Core x86	Eight-Core x86	Eight-Core x86
System Memory	64 Gigabytes	64 Gigabytes	64 Gigabytes
Packet Buffer Memory	8 GB	8 GB	8 GB
Synchronous Ethernet	Inband + PPS/10M/ToD		
OSFP-LS Ports	—		
USB Ports	1		
SSD Storage	120 GB		
100/1000 Mgmt Ports	1		
RS-232 Serial Ports	1 (RJ-45)		
Hot-swap Power Supplies	2 (1+1 redundant)		
Hot-swappable Fans	4 (N+1 redundant)		
Airflow Direction	Front to Rear and Rear to Front		
Rack Units	2 U		
Size (WxHxD) inc. handles	17.3 x 3.46 x 27.04 in (43.99 x 8.79 x 68.69 cm)		
Typical/Max Power Draw [3]	406 W / 754 W		
Weight	49.4 lbs (22.41 kg)		
Fan Tray	FAN-7012H		
Power Supplies	PWR-1512-AC or PWR-1511-DC		
Accelerated sFlow	Yes		
EOS Feature Licenses	Group 4		
Minimum EOS	4.31.2		

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities. 40G assumes the use of QSFP+
2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used
3. Typical power consumption measured at 25C ambient with 50% load on all ports, excludes transceivers.

Model Comparison	7280CR3A-32S	7280CR3AM-32S	7280CR3AK-32S
Ports	30 x QSFP100/200 2 x QSFP200/QSFP-DD	30 x QSFP100/200 2 x QSFP200/QSFP-DD	30 x QSFP100/200 2 x QSFP200/QSFP-DD
Max 400G Ports [1]	2	2	2
Max 200G Ports [1]	18	18	18
Max 100G Ports [1]	36	36	36
Max 50G-1 Ports [1]	56	56	56
Max 25/10G Ports [1]	56	56	56
Encryption	—	All Ports	All Ports
Max Total Interfaces [2]	56	56	56
Throughput (FDX)	3.6 (7.2) Tbps	3.6 (7.2) Tbps	3.6 (7.2) Tbps
Packets/Second	1.35 Bpps	1.35 Bpps	1.35 Bpps
Latency	From 3.8 us	From 3.8 us	From 3.8 us
CPU	Eight-Core x86	Eight-Core x86	Eight-Core x86
System Memory	64 Gigabytes	64 Gigabytes	64 Gigabytes
Packet Buffer Memory	4 GB	4 GB	4 GB
Synchronous Ethernet	Inband + PPS/10M/ToD		
USB Ports	1		
SSD Storage	120 GB		
100/1000 Mgmt Ports	1		
RS-232 Serial Ports	1 (RJ-45)		
Hot-swap Power Supplies	2 (1+1 redundant)		
Hot-swappable Fans	3 (N+1 redundant)		
Airflow Direction	Front to Rear and Rear to Front		
Rack Units	1 U		
Size (WxHxD) inc. handles	17.3 x 1.72 x 22.27 in (43.99 x 4.37 x 56.57 cm)		
Typical/Max Power Draw [3]	TBD		
Weight	28.25 lbs (12.81 kg)		
Fan Tray	FAN-7011H		
Power Supplies	PWR-1512-AC or PWR-1511-DC		
Accelerated sFlow	Yes		
EOS Feature Licenses	Group 3		
Minimum EOS	TBD		

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities. 40G assumes the use of QSFP+
2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used
3. Typical power consumption measured at 25C ambient with 50% load on all ports, excludes transceivers.

Model Comparison	7280SR3A-48YC8	7280SR3AM-48YC8	7280SR3AK-48YC8
Ports	48 x SFP50 4 x QSFP200 4 x QSFP100	48 x SFP50 4 x QSFP200 4 x QSFP100	48 x SFP50 4 x QSFP200 4 x QSFP100
Max 400G Ports [1]	—	—	—
Max 200G Ports [1]	6	6	6
Max 100G Ports [1]	8	8	8
Max 50/25/10G Ports [1]	48	48	48
Max 40G Ports [1]	8	8	8
Encryption	—	All Ports	All Ports
Max Total Interfaces [2]	56	56	56
Throughput (FDX)	3.6 (7.2) Tbps	3.6 (7.2) Tbps	3.6 (7.2) Tbps
Packets/Second	1.35 Bpps	1.35 Bpps	1.35 Bpps
Latency	From 3.8 us	From 3.8 us	From 3.8 us
CPU	Eight-Core x86	Eight-Core x86	Eight-Core x86
System Memory	64 Gigabytes	64 Gigabytes	64 Gigabytes
Packet Buffer Memory	4 GB	4 GB	4 GB
Synchronous Ethernet	Inband + PPS/10M/ToD		
USB Ports	1		
SSD Storage	120 GB		
100/1000 Mgmt Ports	1		
RS-232 Serial Ports	1 (RJ-45)		
Hot-swap Power Supplies	2 (1+1 redundant)		
Hot-swappable Fans	3 (N+1 redundant)		
Airflow Direction	Front to Rear and Rear to Front		
Rack Units	1 U		
Size (WxHxD) inc. handles	17.3 x 1.72 x 19.81 in (43.99 x 4.37 x 50.31 cm)		
Typical/Max Power Draw [3]	TBD		
Weight	24.75 lbs (11.23 kg)		
Fan Tray	FAN-7011H		
Power Supplies	PWR-1011-AC or PWR-1011-DC		
Accelerated sFlow	Yes		
EOS Feature Licenses	Group 2		
Minimum EOS	TBD		

1. Maximum port numbers are uni-dimensional, may require the use of break-outs and are subject to transceiver/cable capabilities. 40G assumes the use of QSFP+
2. Where supported by EOS, each system supports a maximum number of interfaces. Certain configurations may impose restrictions on which physical ports can be used
3. Typical power consumption measured at 25C ambient with 50% load on all ports, excludes transceivers.

Power Supply Specifications

Power Supply	PWR-1011 AC	PWR-1011 DC	PWR-1512 and 1511 AC	PWR-1511 DC
Input Voltage	100-240 VAC	-48 to -60 VDC	200-240 VAC	-48 to -60 VDC
Max Input Current	12.0 - 6.0 A	23 A Max (-48 V)	9.6 A	35.2 A Max (-48 V)
Input Frequency	50/60 Hz	DC	50/60 Hz	DC
Output Power	1000 W	1000 W	1500 W	1500 W
Input Connector	IEC 60320 C14	AWG #6 Max	IEC 60320 C14	AWG #6 Max
Efficiency	93% Platinum	94%	93% Platinum	92%

Power Supply	PWR-2411 AC	PWR-2411 DC	PWR-3001 AC	PWR-3001 DC
Input Voltage	200-240 VAC	-48 to -60 VDC	200-240 VAC	-48 to -60 VDC
Max Input Current	14 A	55 A Max (-48 V)	17 A	69 A Max (-48 V)
Input Frequency	50/60 Hz	DC	50/60 Hz	DC
Output Power	2400 W	2400 W	3000 W	3000 W
Input Connector	IEC 60320 C20	AWG #6 Max	SAF-D	AWG #3 Max
Efficiency	93% Platinum	94%	94% Platinum	94%

Standards Compliance

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

Environmental Characteristics

Operating Temperature [1]	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)

1. Certain airflow configurations or the use of higher power or reduced temperature range optics may reduce maximum operating temperature.

Arista Optics and Cables

The Arista 7280R3A Series supports a wide range of 10G to 400G pluggable optics and cables. For a complete list of modules, detailed technical specifications and the first EOS Software release which provides support for a specific module, visit **https://www.arista.com/en/products/transceivers-cables.**

Supported Optics and Cables [1]

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

Interface Type	100G QSFP ports
100GBASE-SR4	70m OM3 / 100m OM4 Parallel MMF
100GBASE-XSR4	150m OM3 / 300m OM4 Parallel MMF
100GBASE-SWDM4	70m OM3 / 100m OM4 Duplex MMF
100GBASE-SRBD	70m OM3 / 100m OM4 Duplex MMF
100GBASE-LR	10km Duplex SM
100GBASE-LR4	10km Duplex SM

Supported Optics and Cables [1]

Interface Type	100G QSFP ports
100GBASE-LRL4	2km Duplex SM
100GBASE-XCWDM4	10km Duplex SM
100GBASE-CWDM4	2km Duplex SM
100GBASE-FR	2km Duplex SM
100GBASE-DR	500m Duplex SM
100GBASE-PSM4	500m Parallel SM
100GBASE-AOC	1m to 30m lengths
100GBASE-ERL4	40km Duplex SM
100GBASE-CR4	QSFP to QSFP: 1m to 5m lengths
50GBASE-CR2	QSFP to 2xQSFP: 1m to 5m lengths

Interface Type	40G QSFP ports
10GBASE-CR	QSFP+ to 4xSFP+: 0.5m-5m lengths
40GBASE-CR4	QSFP+ to QSFP+: 0.5m-5m lengths
40GBASE-AOC	3m to 100m lengths
40GBASE-UNIV	150m OM3 / 150m OM4, 500m SM
40GBASE-SRBD	100m OM3 /150m OM4 Duplex MMF
40GBASE-SR4	100m OM3 /150m OM4 Parallel MMF
40GBASE-XSR4	300m OM3 /400m OM4 Parallel MMF
40GBASE-PLRL4	1km (1km 4x10G LR/LRL)
40GBASE-PLR4	10km (10km 4x10G LR/LRL)
40GBASE-LRL4	1km Duplex SM
40GBASE-LR4	10km Duplex SM
40GBASE-ER4	40km Duplex SM

1. For a complete list of transceivers, please refer to the Transceiver Datasheet and check EOS release notes for support
2. Requires OSFP / QSFP-DD port to be configured for 200G, 8 x 25G NRZ lanes. Allows interop with 100G QSFP and 25G SFP ports

7280DR3A-54	Product Description
DCS-7280DR3A-54-F	Arista 7280R3A, 54x400GbE QSFP-DD switch router, front to rear air, 2 x AC
DCS-7280DR3A-54#	Arista 7280R3A, 54x400GbE QSFP-DD switch router, configurable fans and psu
DCS-7280DR3AM-54-F	Arista 7280R3A, 54x400GbE QSFP-DD switch router, TunnelSec, front to rear air, 2 x AC
DCS-7280DR3AM-54#	Arista 7280R3A, 54x400GbE QSFP-DD switch router, TunnelSec, configurable fans and psu
DCS-7280DR3AK-54-F	Arista 7280R3A, 54x400GbE QSFP-DD switch router, large routes and TunnelSec, front to rear air, 2 x AC
DCS-7280DR3AK-54#	Arista 7280R3A, 54x400GbE QSFP-DD switch router, large routes and TunnelSec, configurable fans and psu
PWR-3001-AC-RED	Arista PSU, 1RU, AC/DC, 3000W, FORWARD, 73.5MM
PWR-3001-DC-RED	Arista PSU, 1RU, DC/DC, 3000W, FORWARD, 73.5MM
FAN-7012H-RED	Spare fan module for Arista 7000 Series 2RU High Speed Fan (front-to-rear airflow)
KIT-7203	Spare tool-free accessory kit (v2) for Arista 2RU switches. 4-post mount. (2x SAF-D-C20, 2m)
KIT-7004-2UL	Spare extended tool-free 4-post mount kit (v2) for 2-4RU Arista tool-free switches
CAB-SYNCE-RJ	Spare Time of Day adapter cable (USB-C to 2 x RJ-45)
KIT-GND-EXT-2RU	Arista 7000 Series 2RU Ground Extender Kit for NEBS compliance (DR3A-54 Only)

Note:
- For the complete contents of each accessory kit, please use the lookup tool here: https://www.arista.com/en/support/product-documentation/accessory-kit-lookup
- 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.

7280DR3A-36	Product Description
DCS-7280DR3A-36-F	Arista 7280R3A, 36x400GbE QSFP-DD switch router, front to rear air, 2 x AC
DCS-7280DR3A-36#	Arista 7280R3A, 36x400GbE QSFP-DD switch router, configurable fans and psu
DCS-7280DR3AM-36-F	Arista 7280R3A, 36x400GbE QSFP-DD switch router, TunnelSec, front to rear air, 2 x AC
DCS-7280DR3AM-36#	Arista 7280R3A, 36x400GbE QSFP-DD switch router, TunnelSec, configurable fans and psu
DCS-7280DR3AK-36-F	Arista 7280R3A, 36x400GbE QSFP-DD switch router, large routes and TunnelSec, front to rear air, 2 x AC
DCS-7280DR3AK-36#	Arista 7280R3A, 36x400GbE QSFP-DD switch router, large routes and TunnelSec, configurable fans and psu
DCS-7280DR3AK-36S-F	Arista 7280R3A, 36x400GbE QSFP-DD switch router, large routes and TunnelSec, front to rear air, 2 x AC (secure boot enabled)
DCS-7280DR3AK-36S#	Arista 7280R3A, 36x400GbE QSFP-DD switch router, large routes and TunnelSec, configurable fans and psu (secure boot enabled)
PWR-2411-AC-RED	Arista PSU, 1RU, AC/DC, 2400W, FORWARD, 73.5MM
PWR-2411-DC-RED	Arista PSU, 1RU, DC/DC, 2400W, FORWARD, 73.5MM
FAN-7012H-RED	Spare fan module for Arista 7000 Series 2RU High Speed Fan (front-to-rear airflow)
KIT-7202	Spare tool-free accessory kit (v2) for Arista 2RU switches. 4-post mount. (2x C19-C20, 2m)
KIT-7004-2UL	Spare extended tool-free 4-post mount kit (v2) for 2-4RU Arista tool-free switches
CAB-SYNCE-RJ	Spare Time of Day adapter cable (USB-C to 2 x RJ-45)

Note:
- For the complete contents of each accessory kit, please use the lookup tool here: https://www.arista.com/en/support/product-documentation/accessory-kit-lookup
- 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.

7280CR3A-24D12 — Product Description

7280CR3A-24D12	Product Description
DCS-7280CR3A-24D12-F	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, front to rear air, 2 x AC
DCS-7280CR3A-24D12-R	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, rear to front air, 2 x AC
DCS-7280CR3A-24D12#	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, configurable fans and psu
DCS-7280CR3AM-24D12-F	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AM-24D12-R	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AM-24D12#	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, TunnelSec, configurable fans and psu
DCS-7280CR3AK-24D12-F	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, large routes and TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AK-24D12-R	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, large routes and TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AK-24D12#	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, large routes and TunnelSec, configurable fans and psu
DCS-7280CR3AK-24D12-S-F	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, large routes and TunnelSec, front to rear air, 2 x AC (secure boot enabled)
DCS-7280CR3AK-24D12-S-R	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, large routes and TunnelSec, rear to front air, 2 x AC (secure boot enabled)
DCS-7280CR3AK-24D12-S#	Arista 7280R3A, 24x100GbE QSFP and 12x400GbE QSFP-DD switch router, large routes and TunnelSec, configurable fans and psu (secure boot enabled)
PWR-1511-AC-RED	Arista PSU, 1RU, AC/DC, 1500W, FORWARD, 73.5MM
PWR-1511-AC-BLUE	Arista PSU, 1RU, AC/DC, 1500W, REVERSE, 73.5MM
PWR-1511-DC-RED	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
PWR-1511-DC-BLUE	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
FAN-7011H-F	Spare fan module for Arista 7000 Series 1RU High Speed Fan (front-to-rear airflow)
FAN-7011H-R	Spare fan module for Arista 7000 Series 1RU High Speed Fan (rear-to-front airflow)
KIT-7101-D	Spare tool-free accessory kit (v3) for Arista switches. 4-post mount with deep chassis adapters. (2 x C13-C14, 2m)
KIT-7101-RK	Spare tool-free 4-post mount kit (v3). (Compatible with KIT-ADJ-RLR)
KIT-7101-LD-RK	Spare extended tool-free 4-post mount kit (v3), includes deep chassis adapters. (82 - 107cm / 32 - 42")
KIT-ADJ-RLR	Spare adapters for deep tool-free switches (pair) (Compatible with KIT 7101/7102 only)
KIT-GND-EXT-1RU	Arista 7000 Series 1RU Ground Extender Kit for NEBS compliance.
CAB-SYNCE-RJ	Spare Time of Day adapter cable (USB-C to 2 x RJ-45)

Note:
- For the complete contents of each accessory kit, please use the lookup tool here: https://www.arista.com/en/support/product-documentation/accessory-kit-lookup
- 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.

7280CR3A-48D6	Product Description
DCS-7280CR3A-48D6-F	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, front to rear air, 2 x AC
DCS-7280CR3A-48D6-R	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, rear to front air, 2 x AC
DCS-7280CR3A-48D6#	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, configurable fans and psu
DCS-7280CR3AM-48D6-F	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AM-48D6-R	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AM-48D6#	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, TunnelSec, configurable fans and psu
DCS-7280CR3AK-48D6-F	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, large routes and TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AK-48D6-R	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, large routes and TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AK-48D6#	Arista 7280R3A, 48x100GbE QSFP and 6x400GbE QSFP-DD switch router, large routes and TunnelSec, configurable fans and psu
PWR-1512-AC-RED	Arista PSU, 1RU, AC/DC, 1500W, FORWARD, 73.5MM
PWR-1512-AC-BLUE	Arista PSU, 1RU, AC/DC, 1500W, REVERSE, 73.5MM
PWR-1511-DC-RED	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
PWR-1511-DC-BLUE	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
FAN-7012H-RED	Spare fan module for Arista 7000 Series 2RU High Speed Fan (front-to-rear airflow)
FAN-7012H-BLUE	Spare fan module for Arista 7000 Series 2RU High Speed Fan (rear-to-front airflow)
KIT-7201	Spare tool-free accessory kit (v2) for Arista 2RU switches. 4-post mount. (2x C13-C14, 2m)
KIT-7004-2UL	Spare extended tool-free 4-post mount kit (v2) for 2-4RU Arista tool-free switches
CAB-SYNCE-RJ	Spare Time of Day adapter cable (USB-C to 2 x RJ-45)

Note:
- For the complete contents of each accessory kit, please use the lookup tool here: https://www.arista.com/en/support/product-documentation/accessory-kit-lookup
- 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.

7280CR3A-72	Product Description
DCS-7280CR3A-72-F	Arista 7280R3A, 72x100GbE QSFP switch router, front to rear air, 2 x AC
DCS-7280CR3A-72-R	Arista 7280R3A, 72x100GbE QSFP switch router, rear to front air, 2 x AC
DCS-7280CR3A-72#	Arista 7280R3A, 72x100GbE QSFP switch router, configurable fans and psu
DCS-7280CR3AM-72-F	Arista 7280R3A, 72x100GbE QSFP switch router, TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AM-72-R	Arista 7280R3A, 72x100GbE QSFP switch router, TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AM-72#	Arista 7280R3A, 72x100GbE QSFP switch router, TunnelSec, configurable fans and psu
DCS-7280CR3AK-72-F	Arista 7280R3A, 72x100GbE QSFP switch router, large routes and TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AK-72-R	Arista 7280R3A, 72x100GbE QSFP switch router, large routes and TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AK-72#	Arista 7280R3A, 72x100GbE QSFP switch router, large routes and TunnelSec, configurable fans and psu
PWR-1512-AC-RED	Arista PSU, 1RU, AC/DC, 1500W, FORWARD, 73.5MM
PWR-1512-AC-BLUE	Arista PSU, 1RU, AC/DC, 1500W, REVERSE, 73.5MM
PWR-1511-DC-RED	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
PWR-1511-DC-BLUE	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
FAN-7012H-RED	Spare fan module for Arista 7000 Series 2RU High Speed Fan (front-to-rear airflow)
FAN-7012H-BLUE	Spare fan module for Arista 7000 Series 2RU High Speed Fan (rear-to-front airflow)
KIT-7201	Spare tool-free accessory kit (v2) for Arista 2RU switches. 4-post mount. (2x C13-C14, 2m)
KIT-7004-2UL	Spare extended tool-free 4-post mount kit (v2) for 2-4RU Arista tool-free switches
CAB-SYNCE-RJ	Spare Time of Day adapter cable (USB-C to 2 x RJ-45)

Note:
- For the complete contents of each accessory kit, please use the lookup tool here: https://www.arista.com/en/support/product-documentation/accessory-kit-lookup
- 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.

7280CR3A-32S	Product Description
DCS-7280CR3A-32S-F	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, front to rear air, 2 x AC
DCS-7280CR3A-32S-R	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, rear to front air, 2 x AC
DCS-7280CR3A-32S#	Arista 7280R3A, 7 32x100GbE/2x400G QSFP switch router, configurable fans and psu
DCS-7280CR3AM-32S-F	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AM-32S-R	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AM-32S#	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, TunnelSec, configurable fans and psu
DCS-7280CR3AK-32S-F	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, large routes and TunnelSec, front to rear air, 2 x AC
DCS-7280CR3AK-32S-R	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, large routes and TunnelSec, rear to front air, 2 x AC
DCS-7280CR3AK-32S#	Arista 7280R3A, 32x100GbE/2x400G QSFP switch router, large routes and TunnelSec, configurable fans and psu
PWR-1512-AC-RED	Arista PSU, 1RU, AC/DC, 1500W, FORWARD, 73.5MM
PWR-1512-AC-BLUE	Arista PSU, 1RU, AC/DC, 1500W, REVERSE, 73.5MM
PWR-1511-DC-RED	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
PWR-1511-DC-BLUE	Arista PSU, 1RU, DC/DC, 1500W, FORWARD, 73.5MM
FAN-7011H-F	Spare fan module for Arista 7000 Series 1RU High Speed Fan (front-to-rear airflow)
FAN-7011H-R	Spare fan module for Arista 7000 Series 1RU High Speed Fan (rear-to-front airflow)
KIT-7101	Spare tool-free accessory kit (v3) for Arista switches. 4-post mount. (2 x C13-C14, 2m)
KIT-7101-RK	Spare tool-free 4-post mount kit (v3). (Compatible with KIT-ADJ-RLR)
KIT-7101-LD-RK	Spare extended tool-free 4-post mount kit (v3), includes deep chassis adapters. (82 - 107cm / 32 - 42")
KIT-GND-EXT-1RU	Arista 7000 Series 1RU Ground Extender Kit for NEBS compliance.
CAB-SYNCE-RJ	Spare Time of Day adapter cable (USB-C to 2 x RJ-45)

Note:
- For the complete contents of each accessory kit, please use the lookup tool here: https://www.arista.com/en/support/product-documentation/accessory-kit-lookup
- 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.

7280SR3A-48YC8 — Product Description

7280SR3A-48YC8	Product Description
DCS-7280SR3A-48YC8-F	Arista 7280R3A, 48x50GbE SFP and 6 x 200G QSFP switch router, front to rear air, 2 x AC
DCS-7280SR3A-48YC8-R	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, rear to front air, 2 x AC
DCS-7280SR3A-48YC8#	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, configurable fans and psu
DCS-7280SR3AM-48YC8-F	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, TunnelSec, front to rear air, 2 x AC
DCS-7280SR3AM-48YC8-R	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, TunnelSec, rear to front air, 2 x AC
DCS-7280SR3AM-48YC8#	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, TunnelSec, configurable fans and psu
DCS-7280SR3AK-48YC8-F	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, large routes and TunnelSec, front to rear air, 2 x AC
DCS-7280SR3AK-48YC8-R	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, large routes and TunnelSec, rear to front air, 2 x AC
DCS-7280SR3AK-48YC8#	Arista 7280R3A, 48x50GbE SFP and 6x200G QSFP switch router, large routes and TunnelSec, configurable fans and psu
PWR-1011-AC-RED	Arista PSU, 1RU, AC/DC, 1000W, FORWARD, 73.5MM
PWR-1011-AC-BLUE	Arista PSU, 1RU, AC/DC, 1000W, REVERSE, 73.5MM
PWR-1011-DC-RED	Arista PSU, 1RU, DC/DC, 1000W, FORWARD, 73.5MM
PWR-1011-DC-BLUE	Arista PSU, 1RU, DC/DC, 1000W, FORWARD, 73.5MM
FAN-7011H-F	Spare fan module for Arista 7000 Series 1RU High Speed Fan (front-to-rear airflow)
FAN-7011H-R	Spare fan module for Arista 7000 Series 1RU High Speed Fan (rear-to-front airflow)
KIT-7101	Spare tool-free accessory kit (v3) for Arista switches. 4-post mount. (2 x C13-C14, 2m)
KIT-7101-RK	Spare tool-free 4-post mount kit (v3). (Compatible with KIT-ADJ-RLR)
KIT-7101-LD-RK	Spare extended tool-free 4-post mount kit (v3), includes deep chassis adapters. (82 - 107cm / 32 - 42")
KIT-GND-EXT-1RU	Arista 7000 Series 1RU Ground Extender Kit for NEBS compliance.
CAB-SYNCE-RJ	Spare Time of Day adapter cable (USB-C to 2 x RJ-45)

Note:
- For the complete contents of each accessory kit, please use the lookup tool here: https://www.arista.com/en/support/product-documentation/accessory-kit-lookup
- 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.

Software Licenses   Product Description

Software Licenses	Product Description
LIC-FIX-4-E	Enhanced L3 License for Arista Group 4 Fixed switches, (BGP, OSPF, ISIS, PIM, NAT)
LIC-FIX-4-V	Virtualization license for Group 4 Arista Fixed switches (VMTracer and VXLAN)
LIC-FIX-4-V2	EOS Extensions, Security and Partner Integration license for Arista Group 4 Fixed switches
LIC-FIX-4-Z	Monitoring & Automation license for Arista Group 4 Fixed switches (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)
LIC-FIX-4-FLX-L	FLX-Lite License for Arista Fixed switches Group 4 - Full Routing Up to 246K Routes, EVPN, VXLAN, SR, base MPLS LSR (no TE or link/node protection)
LIC-FIX-4-FLX	FLX License for Arista Fixed Group 4 - Full Routing upto 2M Routes, >24K ACL, EVPN, VXLAN, SR, Adv MPLS-LER/LSR, with TE & link/node protection
LIC-FIX-4-MACSEC	MACSEC Encryption License for Arista Group 4 Fixed switches, MACSEC capable ports
LIC-FIX-4-ENCR	Enhanced Security Encryption License for Arista Group 4 Fixed switches, Encryption capable ports, TunnelSec, IPsec and MACsec
LIC-FIX-5-E	Enhanced L3 License for Arista Group 5 Fixed switches, (BGP, OSPF, ISIS, PIM, NAT)
LIC-FIX-5-V	Virtualization license for Group 5 Arista Fixed switches (VMTracer and VXLAN)
LIC-FIX-5-V2	EOS Extensions, Security and Partner Integration license for Arista Group 5 Fixed switches
LIC-FIX-5-Z	Monitoring & Automation license for Arista Group 5 Fixed switches (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)
LIC-FIX-5-FLX-L	FLX-Lite License for Arista Fixed switches Group 5 - Full Routing Up to 256K Routes, EVPN, VXLAN, SR, base MPLS LSR (no TE or link/node protection)
LIC-FIX-5-FLX	FLX License for Arista Fixed Group 5 - Full Routing upto 2M Routes, >24K ACL, EVPN, VXLAN, SR, Adv MPLS-LER/LSR, with TE & link/node protection
LIC-FIX-5-MACSEC	MACSEC Encryption License for Arista Group 5 Fixed switches, MACSEC capable ports
LIC-FIX-5-ENCR	Enhanced Security Encryption License for Arista Group 5 Fixed switches, Encryption capable ports, TunnelSec, IPsec and MACsec

Warranty

The Arista 7280R3A Series 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

Headquarters

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

Support

support@arista.com
408-547-5502
866-476-0000

Sales

sales@arista.com
408-547-5501
866-497-0000

www.arista.com