



Arista 7250QX-64

## Arista 7250X Series Introduction

The Arista 7250X Series are the benchmark for performance, scale and power efficiency in 2RU data center switches. Increased adoption of 10G servers is accelerating the need for flexible, dense 10GbE/40GbE solutions. The Arista 7250X Series extends the industry leading Arista 7000 Series with increased performance, scalability, density and rich features designed for software defined networking.

The Arista 7250QX-64 is a compact 2RU 10GbE and 40GbE high performance, low latency and scalable system powered by Arista EOS, the worlds most advanced network operating system.

## High Performance

- 5Tbps system capacity
- Up to 3.84 billion packets per second
- Wire speed unicast & multicast
- Class leading latency from 550ns
- High density 10G/40G
- Dynamic buffer allocation 48MB
- Under 10W per 40G port

## Feature Rich

- High Availability
- DC optimized airflow
- Rich L2 and L3 features
- 64-Way MLAG
- 64-Way ECMP
- VXLAN gateway
- Zero touch provisioning
- Hitless MLAG ISSU

## High Scalability

- System scalability
- 64 x 40G
- 256 x 10G
- Scalable Spline and Leaf/Spine designs
- MAC 288K / IPv4 Hosts 208K
- Routes: 16K IPv4 / 8K IPv6
- UFT – IPv4/v6 144K/77K

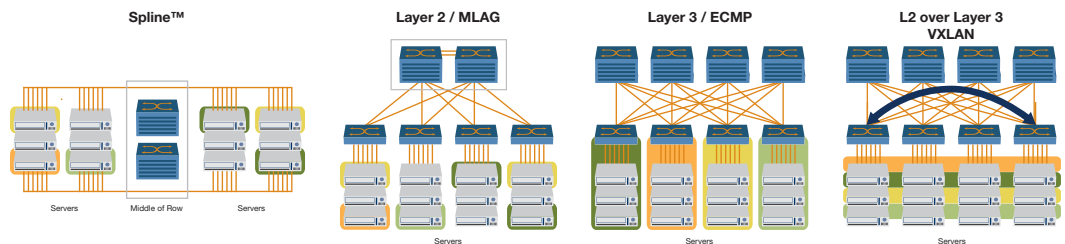
## Advanced Monitoring

- LANZ microburst detection
- DANZ advance monitoring
- AEM proactive management
- sFlow for network visibility
- SSD for local monitoring
- VM Tracer integration
- RAIL for Big Data and Hadoop

## 7250QX Deployment Scenarios

Scale out network designs allow solutions to start small and expand over time; simple highly scalable one and two-tier network designs are built with MLAG, ECMP and VXLAN technologies.

### Cloud Networking: 2-tier Leaf/Spine or 1-tier Collapsed Spine



The 7250X Series are ideal for a number of deployment scenarios inside the data center. With the flexibility of 64 ports of QSFP+ supporting dense 40GbE or 10GbE they are ideal for use as a single tier collapsed leaf and spine or at both the leaf and spine layers of two-tier networks. The Arista universal network architecture is optimized for all application types ranging from large cloud to enterprise deployments. The following are a selection of use cases:

- Collapsed Spine™ server access as middle of row or end of row supporting full range of 10G and 40G connection options
- Leaf-Spine — open standards based L2 and L3 with monitoring and visibility features — LANZ, DANZ and Network Tracers
- ECMP designs up to 64-way — cost-effective multi-pathing solutions using open protocols as either the spine or as a leaf connecting to 7500 and 7300
- Software Defined Networking — with support for OpenFlow, DirectFlow, eAPI and VXLAN
- Enterprise aggregation with up to 256 x 10G ports or 64 x 40G - full L2 and L3 features
- Grid / HPC — designs requiring cost effective and power efficient systems to enable non-blocking or minimal over-subscription
- Spine for hadoop and big data applications with fully meshed east-west connectivity
- Directly connected 40GbE attached storage – dense NFS systems, requiring high performance and predictable latency

### Arista EOS

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.

Feature	Description
Network Address Translation *	Network address translation with no performance impact to resolve overlapping addressing challenges without penalty
Wirespeed VXLAN	Seamless integration between VXLAN and L2/L3 environments, physical and virtualized networks
Accelerated SW Update *	Optimized SW upgrades to reduce the impact of software upgrades and avoid network convergence
64-way ECMP and LAG	Improve network scalability and balance traffic across large-scale leaf-spine designs or server load balancers
Latency Analyzer	A solution to improve monitoring and visibility at both 10G and 40G for congestion from persistent or microbursts.
Cloud Control & SDN	Support for Openflow and OpenStack automation and self-service provisioning with cloud scale economics
Scalable Tables — ALPM and UFT	Flexible allocation of L2 and L3 forwarding table resources for greater design choice

### 7250X Series Systems

Arista 7250X Series support hot-swappable power supplies, N+1 fan redundancy, EOS high availability, a choice of L2 and L3 multi-pathing designs and powerful EOS innovations for visibility, application level performance monitoring and virtualization.

	7250QX-64
Interface Type	QSFP+
10G Ports	Up to 256
40G Ports	Up to 64
Rack Units	2
Latency	550ns to 1800ns
Buffer	48MB
Airflow	F-R / R-F

**7250QX-64 Front View**— 64 QSFP+ ports supports a flexible combination of 256x 10GbE or up to a full 64x 40GbE ports.

**7250QX-64 Rear View** —

- Dual hot-swap power supplies
- Four N+1 fan modules
- Color coded PSU and Fans
- Shared common equipment with 2RU 7050X

