

Arista 7320X: Q&A

Product Overview

What are the 7320X series?

The 7320X series are a range of high performance 100GbE systems that offer flexible support for 10GbE to 100GbE. The 7320X series comprise the 7324X and 7328X systems together with the 7320X 100GbE line cards. The 7320X-32C 100GbE line card for the 7320X series provides high density 40GbE/100GbE connectivity options. The line card is based on the same system on chip found in the 7060X and 7260X series.

What models are available in the 7320X series?

The 7320X series comprises the 7324X and 7328X systems and the 7320X linecard that offers 32 ports of 100GbE. Each QSFP100 port can be configured as 1 x 100GbE, 1 x 40GbE, 4 x 10GbE or 4 x 25GbE or 2 x 50GbE. As this range of interface speeds is available in a single line card, a wide choice of density and speed combinations can be provided with just one module.

What are the main differences of the 7320X family over the 7300X series?

At a high level:

- Arista 7300X series: Choice of three systems with 10/20/40 Tbps of switching
- Arista 7320X series: Choice of two systems with 25 or 50Tbps of switching

In terms of features, the 7320X offers a number of enhancements while maintaining overall feature consistency. This makes it an ideal option to expand existing solutions looking for high-density 100GbE.

What are the key features of the 7320X?

The 7320X series provide a number of advanced features for software defined cloud networking, high performance compute, big data and traditional Enterprise data center applications.

Feature	Benefits
High Density 100GbE	Scale out of spine networks with compact and power efficient systems
25GbE Server Connectivity	High system density for servers with support for both 10GbE and 25GbE. Seamless migration for next generation data center designs
50G Storage	Increased bandwidth and density at a lower cost point than existing 40GbE technologies for high performance storage

Hitless speed change	Enables a modular approach to service migration, without impacting other network services.
Smart System Upgrade (SSU)	Optimized SW upgrades to reduce the impact of software upgrades and avoid network convergence
Latency Analyzer	A solution to improve monitoring and visibility at both 10G and 40G for congestion from persistent and short lived microbursts.
Cloud Control	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
Parity Error Resilience	Automatic detection and correction of system parity errors with no discernable impact to the system
Power Efficient	Optimized airflow and a choice of AC or DC high efficiency power supplies
VXLAN & Virtualization	Support for VXLAN bridging in a high density 100GbE system

What are the key markets for the 7320X?

The key features of the 7320X are support for high density and cost effective 25GbE, 50GbE and 100GbE. These characteristics are attractive to a number of markets:

- Cloud Scale Data Centers

With the introduction of support for 25GbE on servers and switches a rapid movement to server attachment at 25G is expected, replacing the use of servers at 40G and driving switch uplinks to transition to 100GbE. As a result the primary market for the 7320X series are cloud scale networks combined with the 7060X and 7260X series as the top of rack systems.

- 25G, 50G and 100G HPC Clusters

In addition to 25GbE the emergence of 50GbE and 100GbE host connectivity for the largest scale of high performance compute (HPC) is driving scale out of the network edge. In these areas the 7320X will deliver the highest single system performance and when deployed in leaf and spine networks will scale to thousands of ports.

- IP Based Storage Clusters

The introduction of 25GbE and 50GbE host connection solutions at low price points, and lower power 40GbE systems allow for expansion of IP Based Storage.

In addition, Big Data analysis, Content Delivery, High Tech Enterprise and Manufacturing, SW Development would all benefit from 25GbE servers, 100GbE based leaf and spine and investment protection support for

10GbE to 100GbE connectivity.

What EOS licenses are available and what features require them?

The 7320X series use the same license structure as other 7000 series switches. Customers using licensed features must purchase the appropriate EOS licenses.

There are three licenses available for the 7320X series, which align to the system density.

The **Enhanced Routing** License enables dynamic unicast and multicast routing protocols - OSPF, BGP (v4 and v6), PIM and NAT. (RIPv2 is supported without the Enhanced License).

The **Virtualization** License is required for the VM Tracer and VXLAN features.

The **Network Monitoring and Provisioning (Z)** License is required for ZTP, LANZ and Tap Aggregation features.

Description	Product SKU	Platform
Virtualization feature license for Arista Modular switches (VM Tracer and VXLAN)	LIC-MOD-1-V	7324
	LIC-MOD-2-V	7328
Enhanced L3 License for Arista Modular switches, (BGP, OSPF, ISIS, PIM, NAT)	LIC-MOD-1-E	7324
	LIC-MOD-2-E	7328
Network monitoring and provisioning feature license for Arista Modular switches (ZTP, LANZ, TapAgg, API, Time-stamping)	LIC-MOD-1-Z	7324
	LIC-MOD-2-Z	7328

For more information on Arista licensing please refer to the official [licensing page](#).

How many ports does each of the 7320X series chassis support?

The 7320X series supports a wide variety of 10GbE and 40GbE interface options, presented through the QSFP100 pluggable optic

Speed	7324X	7328X
100GbE	128	256
50GbE	256	512
40GbE	128	256
25GbE	512	1024
10GbE	512	1024

How are the speed of the QSFP100 ports modified and what is the default?

The default interface speed is 100GbE. The 7320X line cards feature multi-speed QSFP100 ports that can be used as four 10/25GbE ports, two 50GbE ports or a single 40GbE/100GbE port. To migrate the links to a different speed, use the 'speed forced' command on the appropriate master lane. For 40/100GbE the master lane is x/1, for 50GbE x/1 and x/3, and for 10/25GbE x/1, x/2, x/3 and x/4.

```
7320X(config)#interface ethernet 3/1
7320X(config-if-Et3/1)#speed forced 40gfull
```

What are the advantages of buffer allocation on the 7320X series?

The 7320X series provides a best of both worlds approach to buffering. Combining a shared/dynamic buffer architecture with a small segment size, which together are designed to ensure maximum efficiency by minimizing 'unusable' buffer space.

What are the maximums for forwarding tables on the 7320X series?

The 7060X & 7260X support comprehensive L2 and L3 resources optimized for data center deployments:

Resources	Base Mode	UFT Mode
MAC Addresses	8K	136K
IPv4 Hosts	8K	104K
IPv4 Routes - Unicast	16K	128K
IPv4 Routes - Multicast	4K	52K*
IPv6 Hosts	4K	52K
IPv6 Routes - Unicast	8K	85K*
IPv6 Routes - Multicast	4K	No Change

Maximum values dependent on shared resources in some cases
 * Supported in a future software release

What is the power draw on the 7320X series

The 7320X features low power draw with typical per port power of just 17W per 100GbE port.

What efficiency rating do the 7320X series power supplies have?

The 7320X Series 3000W AC Power supplies have an efficiency of over 94% - which equates to a Titanium power efficiency rating.

What are the high availability options?

The Arista 7320X switch was designed for high availability from both a software and hardware perspective.

Key high availability features include:

- Dual hot-swap and redundant supervisor modules
- N+N hot-swappable power supplies
- Live software patching
- Hot swap and redundant fabric modules
- Multiple redundant and individually hot swappable fan modules
- Color-coded PSUs and fans common to Arista 2RU and 7300 series
- EOS Zero Touch Provisioning (ZTP)
- Self-healing software with Stateful Fault Repair (SFR)
- Multi-chassis LAG for active/active L2 multi-pathing
- 128-way ECMP routing for load-balancing and redundancy

Which cables and optics are supported on the 7320X series?

The 7320X series supports all standards based QSFP+ and QSFP100 pluggable optics. See the table at [Arista Transceivers and Cables](#)

What is the minimum EOS software version for the Arista 7320X series?

Minimum supported versions are documented under the recommended releases page on www.arista.com

What are the options for support?

Arista A-Care Service Options are designed to provide you with world-class support. A-Care service offerings are available 24x7x365 with advance replacement options to minimize any network downtime. All A-Care Service options include full access to bug fixes and software downloads. For more information about A-Care Service options go to <http://www.aristanetworks.com/en/service>.

Where do I get more information on the Arista 7320X series?

For more information please go to www.arista.com or contact us at sales@arista.com