

Key Features

High Performance

- Up to 960 gigabits per second (Gbps)
- Up to 720 million packets per second
- As low as 600 nanosecond latency

Arista Extensible Operating System

- Supports virtualized environments
- Customizable to customer needs

High Software Reliability

- Fine-grained software modularity
- Health monitoring and self-healing
- In-service-software upgrades (ISSU)

High Hardware Availability

- Redundant hot-swappable power
- Redundant hot-swappable fans
- Redundant management ports

Flexible Airflow/Mounting Options

- Front-to-rear airflow
- Reversible airflow option
- Hot or cold aisle port facing options

High 10-Gigabit Port Density

- 48 10GbE ports in 1U
- 2016 10GbE ports per 42U rack

Full Range of SFP+ PHY Options

- 10GBASE-X optical PHYs
- 10GBASE-CR copper cables
- 1000BASE-X optical PHYs
- 1000BASE-T copper PHY

Overview

The Arista 7100 Series is a family of high performance, very low latency layer 2/3/4 10 Gigabit Ethernet datacenter switches. Offered with 24 and 48 ports in a compact 1U chassis with redundant power and cooling, the Arista 7100 Series features front-to-rear airflow when mounted in either direction for flexible rack-top server aggregation deployments. All ports accommodate the full range of 10GbE SFP+ or GbE SFP optical or copper physical layer options, allowing for maximum flexibility and investment protection as customers of all sizes migrate their server connections from Gigabit to 10 Gigabit Ethernet.



Arista 7148SX: 48-port 10GbE 960 Gbps, 720 Mpps, L2/3/4, 1U Switch (SFP)



Arista 7148S: 48-port 10 GbE 800 Gbps, 600 Mpps, L2/3/4, 1U Switch (SFP)



Arista 7124S: 24-port 10 GbE 480 Gbps, 360 Mpps, L2/3/4, 1U Switch (SFP)

Arista EOS™

The Arista 7100 Series runs Arista EOS™, a datacenter-class operating system with a fine-grained modular protected memory architecture that ensures the highest levels of reliability and availability. Each process is monitored and restarted automatically in response to failure, while in-service software upgrades (ISSU) allow individual software components to be updated without disrupting system operation. Arista EOS can be extended to support virtualized environments and is customizable to meet specific customer functionality requirements.

Layer 2 Feature Set

- 16K L2 Forwarding Entries
- 802.1w Rapid Spanning Tree
- 802.3ad Link Aggregation/LACP
 - 16 ports/channel
 - 256 groups per system
- 802.1Q VLANs/Trunking
 - 4094 VLANs
- Port Mirroring¹
- Jumbo Frames (9216 Bytes)
- 802.3x PAUSE
- MAC Security*
- IGMP Snooping v 2¹

Layer 3 Feature Set

- 16K IPv4 Routes*
- 4K IPv6 Routes*
- Static Routes*
- OSPF*
- BGP*
- L2/3/4 Access Lists (up to 16K)*
- Atomic ACL Updates*

Network Management

- Dual 10/100/1000 Mgmt Ports
- RS-232 Serial Console Port
- USB Port
- SNMP v2, v3
- SSHv2
- Syslog
- TACACS+
- Telnet
- Network Time Protocol (NTP)
- File download via SCP, HTTP, HTTPS, FTP & TFTP Client
- Familiar Industry Standard CLI

IEEE Compliance

- 802.1D Bridging and Spanning Tree
- 802.1p QOS/COS*
- 802.1Q VLAN Tagging
- 802.1w Rapid Spanning Tree
- 802.1AB Link Layer Discovery*
- 802.3ad Link Aggregation with LACP
- 802.3x Flow Control
- 802.3ab 1000BASE-T
- 802.3z Gigabit Ethernet
- 802.3ae 10 Gigabit Ethernet

¹ Supported in a 2008 software release

* Supported in a 2009 software release

Model Comparison

	7124S	7148S	7148SX
Port Count	24	48	48
Throughput	480 Gbps	800 Gbps	960 Gbps
Packets/Second	360 Mpps	600 Mpps	720 Mpps
Latency	600 nsec	900 nsec	1200 nsec
CPU	X86 Dual-Core	X86 Dual-Core	X86 Dual-Core
Flash Memory ¹	1GB	1GB	1GB
Main Memory	1GB	1GB	1GB
Ethernet Mgmt Ports	2	2	2
Serial Ports	1	1	1
USB Port	1	1	1
Interface Type	SFP/SFP+	SFP/SFP+	SFP/SFP+
1+1 PSU Redundancy	Yes	Yes	Yes
Hot Swappable PSUs	Yes	Yes	Yes
Hot Swappable Fans	Yes	Yes	Yes
Reversible Airflow Option	Yes	Yes	Yes

Supported SFP Optics and Copper Media

Interface Type	Media	Max Distance
10GBASE-CR	Twinax Copper	5m
10GBASE-SRL	50 micron MMF	100m
10GBASE-SR	50 micron MMF	300m
10GBASE-LRM ¹	62.5 micron MMF	220m
10GBASE-LR	9 micron SMF	10km
1000BASE-SX	50 micron MMF	550m
1000BASE-LX	9 micron SMF	10km
1000BASE-T	Category 5 Copper	100m

Environmental Characteristics

- Operating Temperature: 0 to 40C
- Storage Temperature: -40 to 70C
- Relative Humidity: 5 to 95%
- Operating Altitude: 0-10,000 ft

Power Specifications

- Max Output Power: 650W
- Input Voltage Range: 100-240VAC
- Input Current (max): 4-8A
- Input Frequency: 50-60 Hz
- Input Connector: IEC 320-C13

Physical Characteristics

- Size HxWxD: 1.74 x 17.4 x 20.25" (44 x 440 x 515mm)
- Weight : 7124S: 26 lbs (11.8kg)
7148S: 29 lbs (13.2kg)

Standards Compliance

- EMI: FCC Part 15 Class A
ICES-003 Class A
- Safety: IEC/UL/CSA/EN 60950
CE, UL, TUV Mark
- Other: ROHS-5 compliant

Ordering Information

Product Number	Product Description
DCS-7124S-F	Arista 7124S, 24-port L2/3/4 switch (5 front-to-rear* airflow fans) & 2 650W AC** (SFPs optional)
DCS-7124S-R	Arista 7124S, 24-port L2/3/4 switch (5 rear-to-front* airflow fans) & 2 650W AC** (SFPs optional)
DCS-7148S-F	Arista 7148S, 48-port L2/3/4 switch (5 front-to-rear* airflow fans) & 2 650W AC** (SFPs optional)
DCS-7148S-R	Arista 7148S, 48-port L2/3/4 switch (5 rear-to-front* airflow fans) & 2 650W AC** (SFPs optional)
DCS-7148SX-F	Arista 7148SX, 48-port L2/3/4 switch (5 front-to-rear* airflow fans) & 2 650W AC** (SFPs optional)
DCS-7148SX-R	Arista 7148SX, 48-port L2/3/4 switch (5 rear-to-front* airflow fans) & 2 650W AC** (SFPs optional)
LIC-1RU-L3	Layer 3 Software License for Arista 7100 series switches (OSPF, BGP)
CAB-SFP-SFP-1M	10GBASE-CR twinax copper cable, 1 meter (SFP+ connectors pre-attached on both ends)
CAB-SFP-SFP-2M	10GBASE-CR twinax copper cable, 2 meters (SFP+ connectors pre-attached on both ends)
CAB-SFP-SFP-3M	10GBASE-CR twinax copper cable, 3 meters (SFP+ connectors pre-attached on both ends)
CAB-SFP-SFP-5M	10GBASE-CR twinax copper cable, 5 meters (SFP+ connectors pre-attached on both ends)
SFP-10G-SR	10GBASE-SR (Short Reach) SFP+
SFP-10G-SRL	10GBASE-SRL (Short Reach Lite) SFP+
SFP-10G-LRM	10GBASE-LRM (Long Reach Multimode) SFP+
SFP-10G-LR	10GBASE-LR (Long Reach) SFP+
SFP-1G-SX	1000BASE-SX (Short Haul) SFP
SFP-1G-LX	1000BASE-LX (Long Haul) SFP
SFP-1G-T	1000BASE-T (Copper) SFP

* Front-to-rear implies airflow from the port side to the fan side. Rear-to-front implies airflow from the fan side to the port side.

** All Arista 7100 Series switches ship with two meter C13-C14 power cables. Other power cables must be ordered separately.

Warranty

The Arista 7100 Series switches include a 1 year limited hardware warranty, which covers parts repair or replacement with a 10-business day turn-around after unit is received.

Service and Support

Additional support services including advanced hardware replacement are available.

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