The Arista 7100 Series is a family of high performance, low latency, layer 2/3/4, 1/10 Gigabit Ethernet data center switches. The latest series additions, the Arista 7100T switches, include 24 and 48-port models with auto-negotiating 1/10GBASE-T ports with standard RJ-45 connectors and SFP+ uplink ports. The 7100T switches support redundant, hot-swappable power and cooling in 1RU and offer front-to-rear airflow when mounted in either direction. Positioned for data center server access, the 7100T switches offer backwards compatibility with standard Gigabit Ethernet cabling and investment protection as customers migrate from Gigabit to 10 Gigabit Ethernet.

The Arista 7100T switches support 10GBASE-T over Category 6a and 7 cabling up to 100m, but also support Category 5e* and Category 6 cabling with distances up to 55m. This allows for investment protection with existing cabling plants.

* Performance of 10GBASE-T over Cat-5e cabling is not specified in the standard and thus cannot be guaranteed. Field testing is recommended before deployment to establish the feasibility of using existing Cat-5e cabling.

Arista 7140T-8S: 40-port 1/10GBASE-T (RJ-45) + 8 SFP+, 800 Gbps, 600 Mpps, L2/3/4

Arista 7120T-4S: 20-port 1/10GBASE-T (RJ-45) + 4 SFP+, 480 Gbps, 360 Mpps, L2/3/4

### Key Features

#### High-Performance

- Up to 800 Gbps, 600 Mpps
- Hardware based layer 2/3/4 switching
- 1/10GBASE-T auto-negotiating

#### Investment Protection

- Deploy as 1000BASE-T today
- Enable 10GBASE-T when ready
- Leverage existing cabling plants

#### Arista Extensible Operating System

- Supports virtualized environments
- Customizable to customer needs
- Access to Linux tools

#### 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 or rear-to-front fan options
- Hot or cold aisle port facing options

#### Full Range of SFP+ Uplink Options

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

### Overview

The Arista 7100 Series runs Arista EOS™, a data center-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.

* Performance of 10GBASE-T over Cat-5e cabling is not specified in the standard and thus cannot be guaranteed. Field testing is recommended before deployment to establish the feasibility of using existing Cat-5e cabling.
Arista EOS™ Key Attributes

Arista EOS™ is a highly modular operating system based on a unique multi-process state sharing architecture that completely separates networking state from processing. This enables fault recovery and incremental software updates on a fine-grain process basis without affecting the state of the system. Key EOS attributes include:

- Fine Grained Modularity
- Software Fault Containment (SFC)
- Stateful Fault Repair (SFR)
- In-Service Software Upgrades (ISSU)
- Access to Linux Tools
- Extensible Network Services
- Integration with 3rd Party Applications
- Dedicated GB of main memory for 3rd party applications

Predictable Latency and Multicast

The ultra-low latency of the Arista 7100 Series are consistent regardless of packet size and port speed, which means customers can reap the benefits of industry-leading latency at 1 Gigabit speeds in addition to 10 Gigabit speeds. The 7100 Series latency is also predictable with little variance in environments with random packet sizes, which is key to improving and maintaining application performance and server utilization.

Multicast and broadcast throughput is also very consistent at all packet sizes, maintaining line rate performance with no packet drops. This means that multimedia applications such as content delivery and video conferencing can be used in the network in a reliable and effective way.

High Availability

The Arista 7100 Series was designed for high availability from both a software and hardware perspective. Key high availability features include:

- Two 1+1 hot-swappable independent power supplies
- Five N+1 hot-swappable independent fans
- Dual management ports
- In-Service Software Upgrades (ISSU)
- Self-healing software with Stateful Fault Repair (SFR)
- Up to 16 10GbE ports per link aggregation group (LAG)
- ECMP routing for load balancing and redundant fail over

Target Positioning

The Arista 7100T Switches are positioned for a variety of places in the network including:

- Top-of-Rack Server Aggregation
- Blade Server Aggregation
- High Density 1/10G Server Virtualization
- 1/10G Cluster Interconnects
- Storage Access

10 Gigabit Ethernet is becoming the interconnect of choice in data centers of all sizes providing key improvements in terms of bandwidth, latency, scalability, reliability and application performance. The Arista 7100T Switches enable a seamless migration path from existing Gigabit Ethernet-based servers to 10 Gigabit Ethernet-based high-performance servers while further enabling the transition to virtualized environments.

Arista 7100T Rear View

Arista 7100T rear view with two 1+1 redundant, hot-swappable power supplies and five N+1 redundant, hot-swappable independent fans.

Cloud Leaf and Spine Network Design

In the data center, there is an architectural migration to two-tiered cloud networking designs. The main building blocks are Cloud Leaves (CL) and Cloud Spines (CS). Cloud Spines forward traffic along optimal paths between nodes at layer 2 or layer 3 while Cloud Leaves control the flow of traffic between servers.
### Supported SFP Optic and Copper Media Uplink Options

<table>
<thead>
<tr>
<th>Interface Type</th>
<th>Media</th>
<th>Max Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>10GBASE-CR</td>
<td>Twinax Copper</td>
<td>7m</td>
</tr>
<tr>
<td>10GBASE-SRL</td>
<td>50 micron MMF</td>
<td>100m</td>
</tr>
<tr>
<td>10GBASE-SR</td>
<td>50 micron MMF</td>
<td>300m</td>
</tr>
<tr>
<td>10BASE-LRM</td>
<td>62.5 micron MMF</td>
<td>220m</td>
</tr>
<tr>
<td>10BASE-LR</td>
<td>9 micron SMF</td>
<td>10km</td>
</tr>
<tr>
<td>1000BASE-SX</td>
<td>50 micron MMF</td>
<td>550m</td>
</tr>
<tr>
<td>1000BASE-LX</td>
<td>9 micron SMF</td>
<td>10km</td>
</tr>
<tr>
<td>1000BASE-T</td>
<td>Category 5 Copper</td>
<td>100m</td>
</tr>
</tbody>
</table>

### Quality of Service
- 8 queues per port
- 802.1p Based Classification
- Strict Priority Queueing
- Per-Priority Flow Control (PFC)
- Data Center Bridging Exchange (DCBX)

### Security
- IP Access Lists (per-port)
- MAC Security
- Control Plane Protection (CPP)
- IP Control Plane Access Lists
- SSHv2

### Physical Characteristics
- Size HxWxD: 1.74 x 17.4 x 20.25" (44 x 440 x 515mm)
- Weight: 7120T-4S 26 lbs (11.8kg)
  7140T-8S: 29 lbs (13.2kg)

### Power Specifications
- Max Output Power: 760W
- Input Voltage Range: 100-240VAC
- Input Current (max): 4.8A
- Input Frequency: 50-60 Hz
- Input Connector: IEC 320-C13

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

---

* Supported in a future software release

** Performance of 10GBASE-T over Cat-5e cabling is not specified in the standard and thus cannot be guaranteed. Field testing is recommended before deployment to establish the feasibility of using existing Cat-5e cabling.
## Ordering Information

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCS-7120T-4S-F</td>
<td>Arista 7100T, 20-port 1/10GBASE-T (RJ-45) + 4 SFP+ ports (5 front-to-rear* airflow fans) &amp; 2 760W AC**</td>
</tr>
<tr>
<td>DCS-7120T-4S-R</td>
<td>Arista 7100T, 20-port 1/10GBASE-T (RJ-45) + 4 SFP+ ports (5 rear-to-front* airflow fans) &amp; 2 760W AC**</td>
</tr>
<tr>
<td>DCS-7140T-8S-F</td>
<td>Arista 7100T, 40-port 1/10GBASE-T (RJ-45) + 8 SFP+ ports (5 front-to-rear* airflow fans) &amp; 2 760W AC**</td>
</tr>
<tr>
<td>DCS-7140T-8S-R</td>
<td>Arista 7100T, 40-port 1/10GBASE-T (RJ-45) + 8 SFP+ ports (5 rear-to-front* airflow fans) &amp; 2 760W AC**</td>
</tr>
<tr>
<td>LIC-7124-E</td>
<td>Enhanced Software License for Arista 7124S/T series switches (OSPF, BGP)</td>
</tr>
<tr>
<td>LIC-7148-E</td>
<td>Enhanced Software License for Arista 7148S/T and 7148SX series switches (OSPF, BGP)</td>
</tr>
<tr>
<td>CAB-SFP-SFP-0.5M</td>
<td>10GBASE-CR twinax copper cable, 0.5 meter (SFP+ connectors pre-attached on both ends)</td>
</tr>
<tr>
<td>CAB-SFP-SFP-1M</td>
<td>10GBASE-CR twinax copper cable, 1 meter (SFP+ connectors pre-attached on both ends)</td>
</tr>
<tr>
<td>CAB-SFP-SFP-2M</td>
<td>10GBASE-CR twinax copper cable, 2 meters (SFP+ connectors pre-attached on both ends)</td>
</tr>
<tr>
<td>CAB-SFP-SFP-3M</td>
<td>10GBASE-CR twinax copper cable, 3 meters (SFP+ connectors pre-attached on both ends)</td>
</tr>
<tr>
<td>CAB-SFP-SFP-5M</td>
<td>10GBASE-CR twinax copper cable, 5 meters (SFP+ connectors pre-attached on both ends)</td>
</tr>
<tr>
<td>CAB-SFP-SFP-7M</td>
<td>10GBASE-CR twinax copper cable, 7 meters (SFP+ connectors pre-attached on both ends)</td>
</tr>
<tr>
<td>SFP-10G-SR</td>
<td>10GBASE-SR (Short Reach) SFP+</td>
</tr>
<tr>
<td>SFP-10G-SRL</td>
<td>10GBASE-SRL (Short Reach Lite) SFP+</td>
</tr>
<tr>
<td>SFP-10G-LRM</td>
<td>10GBASE-LRM (Long Reach Multimode) SFP+</td>
</tr>
<tr>
<td>SFP-10G-LR</td>
<td>10GBASE-LR (Long Reach) SFP+</td>
</tr>
<tr>
<td>SFP-1G-5X</td>
<td>1000BASE-SX (Short Haul) SFP</td>
</tr>
<tr>
<td>SFP-1G-LX</td>
<td>1000BASE-LX (Long Haul) SFP</td>
</tr>
<tr>
<td>SFP-1G-T</td>
<td>1000BASE-T (Copper) SFP</td>
</tr>
</tbody>
</table>

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

** All Arista 7100T switches ship with two 2 meter C13-C14 power cables. Other power cables must be ordered separately.

## Warranty

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

## Service and Support

Additional support services including advanced hardware replacement are available.

### Headquarters
275 Middlefield Road  
Menlo Park, CA 94025  
USA  
650 462-5000

### Support
support@aristanetworks.com  
650 462-5002  
866 476-0000

### Sales
sales@aristanetworks.com  
650 462-5001  
866 497-0000

© Copyright 2009 Arista Networks, Inc. The information contained herein is subject to change without notice. Arista and the Arista logo are trademarks of Arista Networks Inc in the United States and other countries. Other product or service names may be trademarks or service marks of others.