Overview

Arista 7050TX 10/40G Data Center Switch Series

HPE and Arista share a common vision around the need to deliver secure hybrid IT solutions and experiences built on industry-leading software-defined infrastructure-helping customers to operate their workloads with speed and agility to grow their business. This partnership will provide our customers with proven networking solutions that are superior to legacy alternatives and that complement HPE compute, storage, virtualization, and cloud offerings.

The Arista 7050TX are members of the Arista 7050X series and key components of the Arista portfolio of data center switches. The Arista 7050X series are purpose-built 10/40GbE data center switches in compact and energy efficient form factors with wire speed layer 2 and layer 3 features combined with low latency and advanced features for software defined cloud networking.

Increased adoption of 10 Gigabit Ethernet servers coupled with applications using higher bandwidth is accelerating the need for dense 10 and 40 Gigabit Ethernet switching. The 7050TX series support from 32 to 96 ports of auto-negotiating 100 Mb/1 Gb/10 GBASE-T and from 4 to 12 ports of 10/40GbE that allow customers to design large leaf and spine networks to accommodate the east-west traffic patterns found in modern data centers. The 7050TX backwards compatibility with existing gigabit Ethernet cabling reduces the cost of migrating to 10 Gigabit Ethernet and offers an easy evolution.

Featuring a choice of 1RU and 2RU models the 7050TX series deliver high-density 10GbE based RJ45 ports and 10/40 G ports using QSFP+ ports.

All models in the 7050TX series delivers rich layer 2 and layer 3 features with wire speed performance up to a maximum performance of 2.56 Tbps. The Arista 7050TX switches offer low latency and a shared packet buffer pool of up to 16 MB allocated dynamically to congested ports. With typical power consumption of less than 5 watts per 10GbE port, the 7050TX series are power efficient. An optional built-in SSD supports advanced logging, data capture, and other services directly on the switch. Combined with Arista EOS, the 7050X series delivers advanced features for big data, cloud, virtualized, and traditional data center designs.

Product Highlights

Performance

- 7050TX-128: 96 x 1/10GbE and 8x 40GbE
- 7050TX2-128: 96 x 1/10GbE and 8x
- 40GbE 7050TX-96: 48 x 1/10GbE and
- 12x 40GbE
- 7050TX-72Q: 48x 1/10GbE and 6x 40GbE
- 7050TX-64: 48x 1/10GbE and 4x 40GbE
- 7050TX-48: 32x 1/10GbE and 4x
- 40GbE
- Up to 2.56 terabits per second
- Up to 1.44 billion packets per second
- Wire speed L2 and L3 forwarding
- Latency from 3 microseconds

Data center optimized design

- Typical power under 5W per 10GbE port
- Over 94% efficient power supplies

Resilient Control Plane

- High-Performance x86 CPU
- Up to 8 GB DRAM
- User applications can run in a VM

Built-in storage

- A Solid State Drive option
- Store logs and data captures
- Leverage Linux tools with no limitations

Advanced provisioning & monitoring

- CloudVision
- Zero-touch provisioning (ZTP)
- LANZ for microburst detection
- DANZ Advanced Mirroring for visibility
- sFlow
- Self-configure and recover from USB

Overview

- 1+1 redundant & hot-swappable power
- N+1 redundant & hot-swappable fans
- Front-to-rear or rear-to-front cooling
- Tool-less rails for simple installation

Cloud networking ready

- VXLAN Bridging and Routing
- VM Tracer
- OpenFlow, DirectFlow and eAPI
- 288K MAC entries
- 144K IPv4 Routes/208K IPv4 Host Routes
- Up to 16 MB Dynamic Buffer Allocation

Arista EOS

- Single binary image for all products
- Fine-grained truly modular network OS
- Stateful fault containment (SFC)
- Stateful fault repair (SFR)
- Full Access to Linux shell and tools
- Extensible platform-bash, python, C++

Arista Extensible Operating System (EOS)

The Arista 7050X runs 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.

With Arista EOS, advanced monitoring and automation capabilities such as zero-touch provisioning, VM Tracer, and Linux-based tools can be run natively on the switch with the powerful x86 CPU subsystem.

High availability

The Arista 7050X series switches were designed for high availability from both a software and hardware perspective. Key high availability features include:

- 1+1 hot-swappable power supplies and four N+1 hot-swappable fans
- Color-coded PSU's and fans
- Live software patching
- Self-healing software with stateful fault repair (SFR)
- Smart System Upgrade (SSU) and Accelerated Software Update (ASU)
- Up to 64 10GbE or 40GbE ports per link aggregation group (LAG)
- Multi-chassis LAG for active/active L2 multi pathing
- Up to 128-way ECMP routing for load balancing and redundancy

Arista 7050X 2RU rear view: rear-to-front airflow model (blue)

Arista 7050X 1RU rear view: rear-to-front airflow model (blue), front-to-rear airflow (red)

Overview

Arista 7050X hot-swappable and reversible power supplies

Dynamic buffer allocation
In cut-through mode, the Arista 7050TX switches forward packets with a latency of under 3 usec. Upon congestion, the packets are buffered in shared packet memory that has a total size of 12 MB. Unlike other architectures that have fixed per-port packet memory, the 7050X series use dynamic buffer allocation (DBA) to allocate up to 6.7 MB of packet memory to a single port for lossless forwarding. The 7050TX2-128 has an enhanced 16 MB buffer that is optimized for more demanding environments.

Scaling data center performance
The Arista 7050X series delivers line rate switching at layer 2 and layer 3 to enable dramatically faster and simpler network designs for data centers that dramatically lowers the network capital and operational expenses. When used in conjunction with the Arista 7000 series of fixed and modular switches it allows networks to scale to over 110,000 10 G servers in a low-latency two-tier network that provides predictable and consistent application performance. 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. Arista EOS advanced features provide control and visibility with a single point of management.
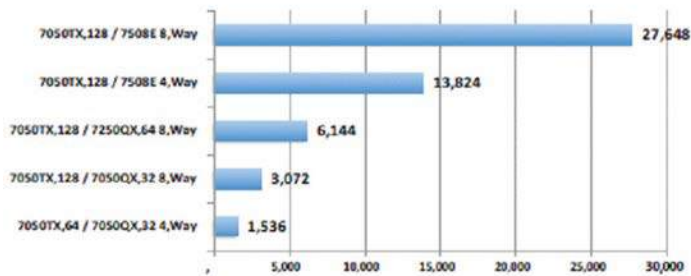
Arista Event Management (AEM)
Advanced Event Management (AEM), a sub-system of Arista EOS, is a powerful and flexible tool to automate tasks and customize the behavior of EOS and the operation of the overall data center switching infrastructure. Simplifying the overall operations, AEM provides the tools to customize alerts and ac
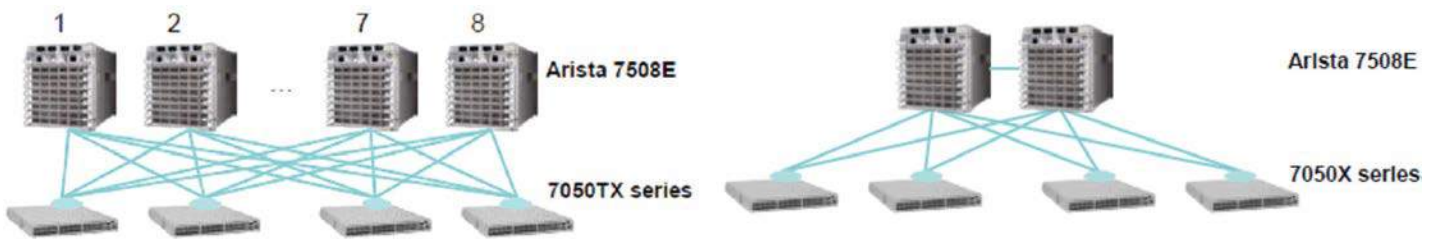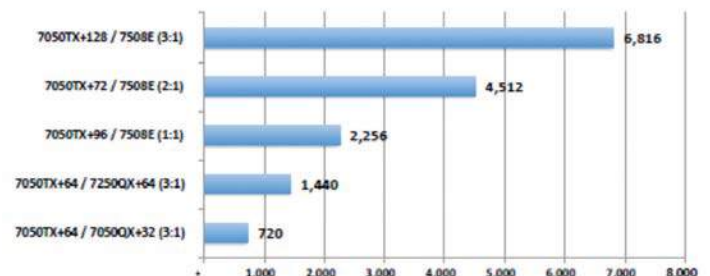

Arista leaf-spine design with L3 ECM

Arista leaf-spine design with L2 MLAG

Maximum flexibility for scale-out network designs
Scale-out network designs enable solutions to start small and evolve over time. A simple two-way design can grow as far as 64-way without significant changes to the architecture. The 7050X series includes enhancements that allow for flexible scale-out designs:

- Up to 128-way ECMP and 64-way MLAG provide scalable designs and balance traffic evenly across large scale 2 tier leaf-spine designs
- Custom hash algorithms for efficient hashing, persistent hashing and custom lookups for tunneled protocols.
- Flexible allocation of L2 and L3 forwarding table resources for more design choice
- Wide choice of dense 10 G/40 G QSFP+ ports

Overview

- VXLAN routing, bridging and gateway for physical to virtualization communication to enable next generation data center designs
- DANZ, sFlow and multi-port mirroring to detect micro-burst congestion and provide network wide visibility and monitoring

Software-defined networking

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.

Smart System Upgrade (SSU)

Smart System Upgrade is a network application designed to address one of the most complicated and challenging tasks facing data center administrators-network infrastructure maintenance. Changes to the underlying network infrastructure can affect large numbers of devices and cause significant outages. SSU provides a fully customizable suite of features that tightly couples data center infrastructure to technology partners allowing for intelligent insertion and removal, programmable updates to software releases and open integration with application and infrastructure elements.

Advanced Event Management (AEM)

Simplifying the overall operations, AEM provides the tools to customize alerts and actions. AEM is a powerful and flexible set of tools to automate tasks and customize the behavior of EOS and the operation of the overall data center switching infrastructure. AEM allows operators to fully utilize the intelligence within EOS to respond to real-time events, automate routine tasks, and automate actions based on changing network conditions.

Enhanced features for high-performance networks

The Arista 7050TX deliver a suite of advanced traffic control and monitoring features to improve the agility of modern high-performance environments, with solutions for data monitoring, and next-generation virtualization.

Precise data analysis

Arista Latency Analyzer (LANZ) is an integrated feature of EOS. LANZ provides precise real-time monitoring of microburst and congestion events before they impact applications, with the ability to identify the sources and capture affected traffic for analysis.

Virtualization

Supporting next-generation virtualized data centers requires tight integration with orchestration tools and emerging encapsulation technologies such as VXLAN. The 7050X builds on the valuable tools already provided by the Arista VM Tracer suite to integrate directly into encapsulated environments. Offering a wire-speed gateway between VXLAN and traditional L2/3 environments, the 7050X makes for seamless integration of non-VXLAN aware devices-including servers, firewalls, and load-balancers-and provides the ability to leverage VXLAN as a standards-based L2 extension technology for non-MPLS environments.

Unified forwarding table (UFT)

Cloud network scalability is directly impacted by the size of switches-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 7050X leverages a common unified forwarding table for the L2 MAC, L3 routing, L3 host, and IP multicast forwarding entries, which can be partitioned per entry type. The ideal size of each partition varies depending on the network deployment scenario. The flexibility of the UFT coupled with the range of pre-defined configuration profiles available on the 7050X ensures optimal resource allocation for all network topologies and network virtualization technologies.

Features and Benefits

Layer 2 Features
- 802.1w Rapid Spanning Tree

- Mirror to EOS/SSD
- Advanced Event Management suite (AEM)

Overview

- 802.1s Multiple Spanning Tree Protocol
- Rapid Per VLAN Spanning Tree (RPVST+)
- 4096 VLANs
- Q−in−Q
- 802.3ad Link Aggregation/LACP
    - 64 ports/channel
    - 104 groups per system
- Multi-Chassis Link Aggregation (MLAG)
    - 64 ports per MLAG
- Custom LAG Hashing
- 802.1AB Link Layer Discovery Protocol
- 802.3x Flow Control
- Jumbo Frames (9216 Bytes)
- IGMP v1/v2/v3 Snooping
- Storm Control
- RAIL

Layer 3 Features

- Routing protocols: OSPF, OSPFv3, BGP, MP-BGP, IS-IS, and RIPv2
- 64-way Equal Cost Multipath Routing
- (ECMP)*
- Resilient ECMP Routes
- VRF
- BFD
- VMware vSphere® support
- VM Auto Discovery
- Route maps
- IGMP v2/v3
- PIM-SM/PIM-SSM/PIM-BIDIR
- Anycast RP (RFC 4610)
- VRRP
- Virtual ARP (VARP)
- Policy Based Routing
- uRPF
- Selective Route Download

Advanced monitoring and provisioning

- Zero touch provisioning (ZTP)
- Latency Analyzer and Microburst Detection (LANZ)
    - Configurable Congestion Notification (CLI, Syslog)
    - Streaming Events (GPB Encoded)*
    - Capture/Mirror of congested traffic*
- Advanced Monitoring
    - Port mirroring (4 active sessions)
    - L2/3/4 Filtering on Mirror Sessions

- CLI Scheduler
- Event Manager
- Event Monitor
- Linux tools
- Optional SSD for logging and data capture
- Integrated packet capture/analysis with
- TCPDump
- RFC 3176 sFlow
- Restore and configure from USB
- Blue Beacon LED for system identification
- Software-defined networking (SDN)
    - OpenFlow 1.0 - OpenFlow 1.32
    - Arista DirectFlow
    - eAPI
    - OpenStack® Neutron Support
- IEEE 1588 PTP (Transparent Clock and Boundary Clock)3

Virtualization Support

- VXLAN Gateway (draft-mahalingam-dutt-dcops-vxlan-01)
- VXLAN Routing
- VXLAN Bridging
- VXLAN Tunnel Endpoint
- VM Tracer VMware® IntegrationVMware vSphere® support
- VM Auto Discovery
- VM Adaptive Segmentation
- VM Host View

Security Features

- IPv4/IPv6 Ingress and Egress ACLs using L2, L3, L4 fields
- MAC ACLs
- ACL Drop Logging
- ACL Counters
- Control Plane Protection (CPP)
- DHCP Relay/Snooping
- MAC Security
- TACACS+
- RADIUS

Network Management

- CloudVision
- 10/100/1000 Management Port
- RS-232 Serial Console Port
- USB Port
- SNMP v1, v2, v3

SNMP MIBs

- RFC 3635 EtherLike-MIB
- RFC 3418 SNMPv2-MIB
- RFC 2863 IF-MIB
- RFC 2864 IF-INVERTED-STACK-MIB
- RFC 2096 IP-FORWARD-MIB

Overview

- Management over IPv6
- Telnet and SSHv2
- Syslog
- AAA
- Industry Standard CLI
- Accelerated Software Upgrade (ASU)

Extensibility
- Linux Tools
    - Bash shell access and scripting
    - RPM support
    - Custom kernel modules
- Programmatic access to system state
    - Python
    - C++
- Native KVM/QEMU 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
- 802.3ab 1000BASE-T
- 802.3an 10 GBASE-T
- 802.3z Gigabit Ethernet
- 802.3ae 10 Gigabit Ethernet
- 802.3ba 40 Gigabit Ethernet
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 4861 Neighbor Discovery for IP Version 6 (IPv6)
- RFC 4862 IPv6 Stateless Address Autoconfiguration
- RFC 4443 Internet Control Message
- Protocol (ICMPv6) for the Internet Protocol
- Version 6 (IPv6) Specification

- RFC 4363 Q-BRIDGE-MIB
- RFC 4188 BRIDGE-MIB
- RFC 2013 UDP-MIB
- RFC 2012 TCP-MIB
- RFC 2011 IP-MIB
- RFC 2790 HOST-RESOURCES-MIB
- RFC 3636 MAU-MIB
- RMON-MIB
- RMON2-MIB
- HC-RMON-MIB
- LLDP-MIB
- LLDP-EXT-DOT1-MIB
- LLDP-EXT-DOT3-MIB
- ENTITY-MIB
- ENTITY-SENSOR-MIB
- ENTITY-STATE-MIB
- ARISTA-ACL-MIB
- ARISTA-QUEUE-MIB
- RFC 4273 BGP4-MIB
- RFC 4750 OSPF-MIB
- ARISTA-CONFIG-MAN-MIB
- ARISTA-REDUNDANCY-MIB
- RFC 2787 VRRPv2MIB
- MSDP-MIB
- PIM-MIB
- IGMP-MIB
- IPMROUTE-STD-MIB
- SNMP authentication failure trap
- ENTITY-SENSOR-MIB support for DOM
- (Digital Optical Monitoring)
- User configurable custom OIDs

See EOS release notes for latest supported MIBs

* Not currently supported in EOS
**See the EOS release notes for latest supported MIBs.

Configuration

Ordering Information

Description	Arista SKU	HPE SKU
Switch		
Arista 7050X2 96XGT 8QSFP+ Front-to-Back AC Switch	DCS-7050TX2-128-F	JH791A
Arista 7050X2 96XGT 8QSFP+ Back-to-Front AC Switch	DCS-7050TX2-128-R	JH792A
Arista 7050X 96XGT 8QSFP+ Front-to-Back AC Switch	DCS-7050TX-128-F	JH789A
Arista 7050X 96XGT 8QSFP+ Back-to-Front AC Switch	DCS-7050TX-128-R	JH790A
Arista 7050X 48XGT 6QSFP+ Front-to-Back AC Switch	DCS-7050TX-72Q-F	JH591A
Arista 7050X 48XGT 6QSFP+ Back-to-Front AC Switch	DCS-7050TX-72Q-R	JH592A
Arista 7050X 48XGT 4QSFP+ Front-to-Back AC Switch	DCS-7050TX-64-F	JH589A
Arista 7050X 48XGT 4QSFP+ Back-to-Front AC Switch	DCS-7050TX-64-R	JH590A
Arista 7050X 32XGT 4QSFP+ Front-to-Back AC Switch	DCS-7050TX-48-F	JH587A
Arista 7050X 32XGT 4QSFP+ Back-to-Front AC Switch	DCS-7050TX-48-R	JH588A
Optional components		
Arista 7000 Front-to-Back Fan Module	FAN-7000-F	JH856A
Arista 7000 Back-to-Front Fan Module	FAN-7000-R	JH857A
Arista 7300 Series Front-to-Back Fan Module	FAN-7002-F	JL402A
Arista 7300 Series Back-to-Front Fan Module	FAN-7002-R	JL403A
Arista 2 Post 2RU Rack Mount Kit	KIT-2POST	JH862A
Arista 2 Post 2RU Rack Mount Kit for 7050T Switches	KIT-7010-2POST-23	JQ134A
Arista 2 Post 1RU Rack Mount Kit	KIT-2POST-1U-NT	JH863A
Arista 4 Post Rack Mount Kit	KIT-4POST-NT	JH864A
Arista 7001 1RU Accessory Kit	KIT-7001	JH866A
Arista 7002 2RU Accessory Kit	KIT-7002	JH867A
Arista 7000 1900W Front-to-Back AC Power Supply	PWR-1900AC-F	JH876A
Arista 7000 1900W Front-to-Back DC Power Supply	PWR-1900-DC-F	JH878A
Arista 7000 1900W Front-to-Back DC Power Supply	PWR-1900-DC-F	JH878A
Arista 7000 1900W Back-to-Front DC Power Supply	PWR-1900-DC-R	JQ014A
Arista 750W TX Front-to-Back AC Power Supply	PWR-745AC-F	JH884A
Arista 750W TX Back-to-Front AC Power Supply	PWR-745AC-R	JH885A
Arista 500W Front-to-Back AC Power Supply	PWR-500AC-F	JH882A
Arista 500W Back-to-Front AC Power Supply	PWR-500AC-R	JH883A
Arista 500W Front-to-Back DC Power Supply	PWR-500-DC-F	JH597A
Arista 500W Back-to-Front DC Power Supply	PWR-500-DC-R	JH599A
Arista Expanded L3 Software Fix-2 E-LTU	LIC-FIX-2-FLX	JH601AAE
Arista Enhanced L3 Software 10G Fix-2 E-LTU	LIC-FIX-2-E	JH606AAE
Arista Provisioning Software 10G Fix-2 E-LTU	LIC-FIX-2-Z	JH608AAE
Arista Virtualization Software 10G Fix-2 E-LTU	LIC-FIX-2-V	JH609AAE
Arista FlexRoute L3 Lite Software Fix-2 E-LTU	LIC-FIX-2-FLX-L	JQ049AAE
Service		
Arista A-Care 7050TX-48 NBD Software 1 Month Support E-LTU	SVC-7050TX-48-1M-NB	JH511AAE
Arista A-Care 7050TX-48 4H Software 1 Month Support E-LTU	SVC-7050TX-48-1M-4H	JH512AAE
Arista A-Care 7050TX-48 2H Software 1 Month Support E-LTU	SVC-7050TX-48-1M-2H	JH513AAE

Configuration

Arista A-Care 7050TX-64 NBD Software 1 Month Support E-LTU	SVC-7050TX-64-1M-NB	JH514AAE
Arista A-Care 7050TX-64 4H Software 1 Month Support E-LTU	SVC-7050TX-64-1M-4H	JH515AAE
Arista A-Care 7050TX-64 2H Software 1 Month Support E-LTU	SVC-7050TX-64-1M-2H	JH516AAE
Arista A-Care 7050TX2-128 2H Software 1 Month Support E-LTU	SVC-7050TX2-128-1M-2H	JH724AAE
Arista A-Care 7050TX2-128 4H Software 1 Month Support E-LTU	SVC-7050TX2-128-1M-4H	JH725AAE
Arista A-Care 7050TX2-128 NBD Software 1 Month Support E-LTU	SVC-7050TX2-128-1M-NB	JH726AAE
Arista A-Care 7050X 48XGT 6QSFP+ NBD Software 1 Month Support E-LTU	SVC-7050TX-72Q-1M-NB	JL422AAE
Arista A-Care 7050X 48XGT 6QSFP+ 4H Software 1 Month Support E-LTU	SVC-7050TX-72Q-1M-4H	JL423AAE
Arista A-Care 7050X 48XGT 6QSFP+ 2H Software 1 Month Support E-LTU	SVC-7050TX-72Q-1M-2H	JL424AAE

Warranty, service, and support

The Arista 7050TX switches come with a one-year limited hardware warranty that covers parts, repair, or replacement with a 10-business-day turnaround after the unit is received.

All technical, hardware, and software support for Arista products is provided directly by Arista and not HPE. Consult the Arista Customer Support page for contact information: arista.com/en/support/customer-support. Services may be purchased from HPE or Arista to extend your support coverage and software upgrades. Support will be provided by Arista for these services. For details on Arista warranty and support, see: arista.com/assets/data/pdf/Warranty.pdf

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Technical Specifications

System resources	7050X series	7050X2 series
STP instances	64 (MST)/510 (RPVST+)	
IGMP groups	288K, with 8K unique groups	
ACLs	4K	11K
Egress ACLs	1K	756
ECMP	64-way, 1K groups	128-way, 2K groups

Forwarding resources	Base mode	UFT modes
MAC addresses	32K	288K
IPv4 hosts	16K	208K
IPv4 routes—unicast	16K	144K
IPv4 routes—multicast	16K	104K
IPv6 hosts	16K	104K
IPv6 routes—unicast	8K	77K
IPv6 routes—multicast	4K	52K

Model	7050TX2-128	7050TX-128	7050TX-72Q	7050TX-64	7050TX-48
Ports	96 x 10 G‑T 8 x QSFP+	96 x 10 G‑T 8 x QSFP+	48 x 10 G‑T 6 x QSFP+	48 x 10 G‑T 4 x QSFP+	32 x 10 G‑T 4 x QSFP+
Total 40GbE ports	8	8	6	4	4
Total 10GbE ports	96	96	72	64	48
100M/1G/10 GBASE-T	96	96	48	48	32
Throughput	2.56 Tbps	2.56 Tbps	1.44 Tbps	1.28 Tbps	960 Gbps
Packets/second	1440 Mpps	1440 Mpps	1080 Mpps	960 Mpps	720 Mpps
Latency (RJ45 to uplinks)	3 usec	3 usec	3 usec	3 usec	3 usec
CPU	Quad‑core x86	Quad‑core x86	Quad‑core x86	Quad‑core x86	Quad‑core x86
System memory	8 gigabytes	8 gigabytes	4 gigabytes	4 gigabytes	4 gigabytes
Flash storage memory	4 gigabytes	4 gigabytes	4 gigabytes	4 gigabytes	4 gigabytes
SSD storage (optional)	No	100 gigabytes	No	120 gigabytes	120 gigabytes
Packet buffer memory	16 MB		12MB (Dynamic buffer allocation)		
10/100/1000 management ports	2	2	1	1	1
RS-232 serial ports	1 (RJ‑45)				
USB ports	1	1	2	1	1
Hot-swappable power supply	2 (1+1 redundant)				
Hot-swappable fans	4 (N+1 redundant)				
Reversible airflow	Yes				
Typical/ max power*	485W/592W	570W/740W	340W/430W	315W/387W	305W/367W
Size	19 x 3.5 x 18.1 in (48.3 x 8.8 x 45.9 cm)		19 x 1.75 x 20.6 in. (48.3 x 4.4 x 52.3 cm)		19 x 1.75 x 15.8 in. (48.3 x 4.4 x 40.2 cm)
Weight	34.3 lb (15.6 kg)	34.3 lb (15.6 kg)	20.1 lb (9.1 kg)	19 lb (8.6 kg)	17 lb (7.7 kg)
Minimum EOS version	TBD	4.14.2	4.15.4	4.14.0	4.14.0

* Typical power consumption measured at 25°C ambient with 50% load
NOTE: Performance rated over operation with average packets larger than 200 bytes

Technical Specifications

Power supply specifications

Power supply model	PWR-500AC	PWR-500-DC	PWR-745AC	PWR-1900-DC
Input voltage	100‑240V AC	40‑72V DC	100‑240VAC	40‑72V DC
Typical input current	6.3 ‑ 2.3A	13.1 ‑ 7.3A 11A at ‑48V	10 ‑ 4A	28 ‑ 50A 46A at ‑48V
Input frequency	50/60 Hz	DC	50/60 Hz	DC
Input connector	IEC 320‑C13	AWG #16‑12	IEC 320‑C13	AWG #6‑3
Efficiency (typical)	94% platinum	-	93% platinum	90%
Compatibility	TX‑48, 7050TX‑64, 7050TX‑72, 7050TX‑72Q, 7050TX‑96		7050TX‑128, 7050TX2‑128	

Environmental characteristics

Operating temperature	e 0°C to 40°C (32°F to 104°F)
Storage temperature	-25°C to 70°C (-13°F to 158°F)
Relative humidity	5% to 95%
Operating altitude	0 to 10,000 ft (0-3000 m)

Standards compliance

EMC	Emissions: FCC, EN55022, EN61000-3-2, EN61000-3-3 or EN61000-3-11, EN61000-3-12 (as applicable) Immunity: EN55024 Emissions and immunity: EN300 386
Safety	CSA 60950-1, EN 60950-1, IEC 60950-1 CB Scheme with all country differences
Certifications	North America (NRTL) European Union (EU) BSMI (Taiwan) RCM (Australia) C CCC (PRC) MSIP (Korea) EAC (Customs Union) VCCI (Japan)
European Union Directives	2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 2011/65/EU RoHS Directive 2012/19/EU WEEE Directive

Supported optics and cables

10GBASE-CR	0.5 m to 5 m QSFP+ to 4x SFP+ [1]
40GBASE-CR4	0.5–5 m QSFP+ to QSFP+
40GBASE-AOC	3 m to 100 m
40GBASE-UNIV	150 m (OM3)/150 m (OM4)/500 m (SM)
40GBASE-SRBD	100 m (OM3)/150 m (OM4)
40GBASE-SR4	100 m (OM3)/150 m (OM4)

Technical Specifications

40GBASE-XSR4	300 m (OM3)/400 m (OM4)
40GBASE-PLRL4	1 km (1 km 4 x 10 G LR/LRL)
40GBASE-PLR4	10 km (10 km 4 x 10 G LR/LRL)
40GBASE-LRL4	1 km
40GBASE-LR4	10 km
40GBASE-ER4	40 km

[1] Not supported on 7050TX‑128 and 7050TX2‑128 Q SFP+ ports

Summary of Changes

Date	Version History	Action	Description of Change
05-Mar-2018	Version 6	Change	Configuration section updated
04-Dec-2017	Version 5	Added	SKU added: JH601AAE, JH606AAE, JH608AAE, JH609AAE, JQ049AAE, JH511AAE, JH512AAE, JH513AAE, JH514AAE, JH515AAE, JH516AAE, JH724AAE, JH725AAE, JH726AAE, JL422AAE, JL423AAE, JL424AAE
04-Sep-2017	Version 4	Added	SKU added: JQ134A
03-Jul-2017	Version 3	Added	SKU added: JQ049A
08-May-2017	Version 2	Changed	Overview, Configuration and Technical Specifications updated
06-Mar-2017	Version 1	Created	Document creation.

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