

Supermicro SSE-T8032 400G Ethernet Switch

The Premier Compact 400G Solution with 64x400G Density in 1U for Modern AI & Cloud Clusters



Key Advantages for AI/Cloud Cluster Applications:

- The most optimized ethernet solution with leading low latency for Datacenter, HPC, and AI industry in a 1RU form factor
- Open Network OS supported system to maximize flexibility, with Supermicro Enterprise Advanced SONiC OS
- High performance 50G/100G/200G/400G capable switching in HPC, AI, DC high bandwidth application
- High density, high efficiency, multi rate 400G/200G/100G switching through either direct and/or breakout cables in ToR application access with server/storage data center environments
- 25.6Tbps switch capacity with large buffers
- Support AC PSU options with air cooling SKU

High-Performance 400G Switching for Modern Clusters

Supermicro's compact, high port density 400Gbps Open Networking Switch, the SSE-T8032 is designed for low-latency, high-performance applications and large-scale cluster deployments. In cutting-edge environments such as hyper-scale cloud computing and AI/ML clusters, robust 400 Gigabit Ethernet forms the essential backbone. The ongoing drive toward faster CPUs, NICs, GPUs, and high-speed storage is enabling larger, more sophisticated clusters that require high bandwidth, low latency, and expansive networking capabilities to reach their full potential.

Industry-Leading Density and Throughput

With 25.6 Tbps of throughput, the SSE-T8032 delivers the highest density of 400G switching available in a 1RU platform, making it an ideal choice for demanding high-performance applications and large-scale cluster requirements. It features twin-port 2x400GbE interfaces across 32 physical OSFP ports, providing denser 64x400GbE connectivity within a compact 1U form factor.

Flexible Multi-Speed Connectivity

The flexible interface supports a wide range of speeds and use cases—including 400G, 200G, 100G, 50G, 40G, and 25G—through the use of appropriate splitter cables and transceivers. An additional 10G SFP+ port is included to accommodate legacy connectivity needs, further enhancing deployment versatility.

Open Networking OS and Deployment-Ready Design

Support for the Supermicro Enterprise Advanced SONiC OS on the SSE-T8032 delivers greater flexibility for large-scale enterprises, AI/ML workloads, and high-performance cloud computing. Supermicro provides user-friendly OS enhancements tailored to diverse data-center applications, while the SSE-T8032S model offers standard front-to-back airflow, AC power-supply options, and an included rail kit for straightforward rack-mount installations.

Operating System / NOS

The SSE-T8032 series switch comes with preloaded Supermicro Enterprise Advanced SONiC OS. This comes in a 3-year license and is required for software support including upgrades

Download

Manuals	SSE-T8032 Manuals	[Download]
Firmware	SSE-T8032 Firmware	[Download]

Hardware Specifications

Physical Ports

- 32x 2x400G OSFP ports
- 2x10G SFP+ports
- 1xRJ45 console and OOB Ethernet management ports
- 1x USB 2.0 Type A interface

CPU Engine

- Intel Xeon-D x86 CPU, 4C / 8C at 2.9GHz / 2.3GHz
- 32GB DDR4
- 128GB SSD

Data Forwarding

- 25.6Tbps switching capacity
- Non-Blocking, wire-speed

Physical and Environmental

- 1RU, Mountable in 19" or 21" racks
- Dimensions: (WxDxH) 438.5 x 657.5 x 43.1mm
- Weight: 14kg
- Front to Rear airflow
- Hot Swappable 6+1 redundant Fan Modules
- Temperature: Operating 0C° to 40C°
- Humidity: Operating: 5% to 95% RH

Power

- 1+1 Hot-pluggable, load sharing, and redundant 2000W power supply
- Input Voltage: 100-240VAC, 50/60Hz
- Optics/Cables: Up to 20W/26W transceivers

Cables and Transceivers

- OSFP DAC options from 2-3m
- OSFP Active Copper options to 5m
- OSFP Active Electrical Copper to 10m
- OSFP Active Optical to 10m

Safety and Compliance

Safety

EU:

- EN 60950-1
- IEC 60950-1
- EN 62368-1
- IEC 62368-1

North America:

- UL 60950-1
- CAN/CSA-C22.2 No. 60950
- UL 62368-1
- CAN/CSA-C22.2 No. 62368-1

China (CCC):

- GB4943.1

Environmental

- EU (RoHS)
- EU (REACH)
- EU (WEEE)
- China (RoHS)

Electromagnetic Compatibility

North America:

- 47CFR Part 15(CFR 47) Class A
- ICES003 issue7 Class A

EU:

- CISPR 32
- EN 55032
- BS EN 55032
- CISPR 35
- EN 55035
- BS EN 55035
- EN6100-3-2
- BS EN 6100-3-2
- EN6100-3-3
- BS EN 6100-3-3
- EN 300 386

Japan (VCCI):

- VCCI CISPR 32-1

Supermicro Enterprise Advanced Software Features

System and Platform Infrastructure Features

- System locator and interface LED
- Hardware watchdog
- Third-party container management
- Interface aliasing (IS-standard and IS-standard-extended interface naming)
- Maintenance mode
 - LACP graceful shut
 - BGP graceful shut
 - OSPFv2 maximum metrics
- Multi-instance Redis DB
- Hardware resource allocation and reservation
- DOM information display
- Dynamic port breakout
- Port auto-breakout and auto-detect for port speed
- Transceiver parameter tuning
- Link flap error-disable
- CPU/memory histogram
- System ready for services and applications
- Secure boot process and reference implementation
- Syslog high threshold notifications and clear for CPU/temperature
- Patching support in SONiC (patch host/containers)
- Media AutoFEC for FEC type automation

Layer 2 Features

- LAG (Static and LACP)
- LLDP
- UDLD
- PVST, RPVST+, and MSTP
- DHCP snooping
- IGMP
- IGMP snooping (v1, v2, v3)

Layer 3 Features

- DHCP relay and IP helper
- Proxy ARP
- VRRP
- Route leaking
- IP SLA (ICMP and TCP tracker)
- IPv4 unnumbered interfaces
- Many hashing algorithms to support a range of traffic patterns
- Static routing, BGP, OSPFv2 and OSPFv3
- BFD
- RIB/FIB consistency checker
- Next Hop Group (NHG)
- L3 PIM (operates on L3 interfaces only)
- IPv4 PIM-SSM
- 1 million route scale

ACL and Flow-Based Services

- PBR and service chaining
- Layer 2 and Layer 3 ACLs
- Policy-based routing (IPv4 and IPv6)
- ACL consistency checker

Security Features

- AAA – RADIUS, TACACS, LDAP, MFA
- CAC-PIV over SSH
- Federal certs common criteria
- Role-Based Access Control (RBAC)

Manageability Features

- Industry Standard CLI (IS-CLI)
- NTP client and server
- SCP, SFTP, TFTP, FTP
- Syslog and audit logs
- Remote logging
- In-memory debug logging
- SPAN/ERSPAN
- Zero Touch Provisioning (ZTP)

QoS

- Configurable queue and buffer size
- L2 and L3 QoS maps
- Traffic priority scheduling
- Rate limiting
- ACL-based DSCP and PCP remarking
- Priority Flow Control (PFC)
- CoPP (Control Plane Policing)

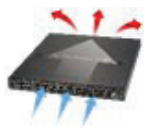
Telemetry and Instrumentation

- sFlow
- gNMI
- REST
- SNMP

AI/ML Focused Features

- RoCEv2
- RoCEv2 with cut-through mode support
- PFC, ECN, ETS optimizations
- Enhanced DCQCN
- Adaptive Routing Selection (ARS)/ Dynamic Load Balancing (DLB)
- Enhanced hashing and load balancing with 100mSec granularity
- Rich congestion and load balancing telemetry
- LLDP for DCBx
- RoCE buffer configurable based on cable length per interface

Switch Hardware SKUs

	Part Number	Description
Layer 2/3 800G/400G Ethernet Switch	 SSE-T8032S	32 twin port 400Gx2 OSFP - 100-240VAC PSU Front-to-rear airflow - Air Cooling

Optics & Cables Supported

SMC P/N	Length	Description
CBL-NTWK-1107-20M-G	2m	800G OSFP to OSFP, DAC, 2m
CBL-NTWK-1226-25M-H	2.5m	800G OSFP to OSFP, AEC, 2.5m
CBL-NTWK-1226-35M-H	3.5m	800G OSFP to OSFP, AEC, 3.5m
CBL-NTWK-1109-50M-E	5m	800G OSFP to OSFP, AOC, 5m
CBL-NTWK-1109-100M-E	10m	800G OSFP to OSFP, AOC, 10m
CBL-NTWK-0976-20M-G	2m	800G OSFP to 2x400G QSFP112, DAC, 2m
CBL-NTWK-1110-20M-G	2m	800G OSFP to 2x400G OSFP RHS, DAC, 2m
CBL-NTWK-1120-25M-H	2.5m	800G OSFP to 2x400G OSFP RHS, AEC, 2.5m
CBL-NTWK-1119-25M-H	2.5m	800G OSFP to 2x400G QSFP112, AEC, 2.5m
CBL-NTWK-1120-50M-H	5m	800G OSFP to 2x400G OSFP RHS, AEC, 5m
CBL-NTWK-1115-20M-G	2m	800G OSFP to 4x200G QSFP112, DAC, 2m
CBL-SRK-MCA7J75-N004	4m	Nvidia 800G OSFP to 4x200G QSFP112, AEC, 4m
CBL-SRK-MCA7J75-N005	5m	Nvidia 800G OSFP to 4x200G QSFP112, AEC, 5m
SMC P/N	Length	Description
TRX-1107-DR8-R	up to 500m	800G OSFP DR8 Transceiver, Dual MPO12, 500m
TRX-1222-DR8-R	up to 500m	800G OSFP DR8 Transceiver, MPO16, 500m
TRX-1107-VR8-R	up to 50m	800G OSFP VR8 Transceiver, Dual MPO12, 50m
TRX-1222-VR8-R	up to 50m	800G OSFP VR8 Transceiver, MPO16, 50m

Optics & Cables Supported

SMC P/N	Length	Description
CBL-NTWK-0973-50M-P	5m	MPO12/MPO12, OM4, MMF, 50/125 5m APC
CBL-NTWK-0973-100M-P	10m	MPO12/MPO12, OM4, MMF, 50/125 10m APC
CBL-NTWK-0973-150M-P	15m	MPO12/MPO12, OM4, MMF, 50/125 15m APC
CBL-NTWK-0973-200M-P	20m	MPO12/MPO12, OM4, MMF, 50/125 20m APC
CBL-NTWK-0973-300M-P	30m	MPO12/MPO12, OM4, MMF, 50/125 30m APC
CBL-NTWK-0973-500M-P	50m	MPO12/MPO12, OM4, MMF, 50/125 50m APC
CBL-NTRK-1217-30M-P	3m	MPO12/2xMPO12, OM4, MMF, 50/125 3m APC
CBL-NTRK-1217-50M-P	5m	MPO12/2xMPO12, OM4, MMF, 50/125 5m APC
CBL-NTRK-1217-100M-P	10m	MPO12/2xMPO12, OM4, MMF, 50/125 10m APC
CBL-NTRK-1217-150M-P	15m	MPO12/2xMPO12, OM4, MMF, 50/125 15m APC
CBL-NTRK-1217-200M-P	20m	MPO12/2xMPO12, OM4, MMF, 50/125 20m APC
CBL-NTRK-1217-300M-P	30m	MPO12/2xMPO12, OM4, MMF, 50/125 30m APC
CBL-NTRK-1217-500M-P	50m	MPO12/2xMPO12, OM4, MMF, 50/125 50m APC
CBL-NTWK-0983-50M-P	5m	MTP/MPO12, SMF, 5m APC
CBL-NTWK-0983-100M-P	10m	MTP/MPO12, SMF, 10m APC
CBL-NTWK-0983-150M-P	15m	MTP/MPO12, SMF, 15m APC
CBL-NTWK-0983-200M-P	20m	MTP/MPO12, SMF, 20m APC
CBL-NTWK-0983-300M-P	30m	MTP/MPO12, SMF, 30m APC
CBL-NTWK-0983-500M-P	50m	MTP/MPO12, SMF, 50m APC
CBL-NTWK-0983-1K-P	100m	MTP/MPO12, SMF, 100m APC
CBL-NTRK-1219-50M-P	5m	MTP/2xMPO12, SMF, 5m APC
CBL-NTRK-1219-100M-P	10m	MTP/2xMPO12, SMF, 10m APC
CBL-NTRK-1219-150M-P	15m	MTP/2xMPO12, SMF, 15m APC
CBL-NTRK-1219-200M-P	20m	MTP/2xMPO12, SMF, 20m APC
CBL-NTRK-1219-300M-P	30m	MTP/2xMPO12, SMF, 30m APC
CBL-NTRK-1219-500M-P	50m	MTP/2xMPO12, SMF, 50m APC
CBL-NTWK-0984-30M-P	3m	MPO12/4xLC, SMF, 3m APC
CBL-NTWK-0984-150M-P	15m	MPO12/4xLC, SMF, 15m APC
CBL-NTWK-0984-300M-P	30m	MPO12/4xLC, SMF, 30m APC

Warranty

SSE-T8032 comes with a standard (3-1-1) warranty which covers 3 years of labor, 1 year of parts, and 1 year of cross-shipment warranty. The warranty can be extended up to a total of 5 years. For more information, please visit the [warranty](#) page.

Onsite Services

Supermicro Hardware Maintenance provides flexible and customizable Service Level Agreements for remote help desk and rapid onsite support to cover Supermicro hardware solutions. Our Onsite Service Programs offer up to a 4-hour Onsite Response time option for mission-critical uptime or any tailored solution that will meet your specific business requirements. For more details, please visit the [Onsite Services](#) page.