Supermicro SSE-T8032 400G Ethernet Switch

Supermicro's next generation high port density 400Gbps Open Networking Switch SSE-T8032 is designed to meet low latency high performance applications and large-scale cluster deployments.

In the realm of cutting-edge applications like hyper-scale cloud computing and AI/ML clusters, the backbone lies in the robustness of 400 Gigabit Ethernet technology. With the relentless pursuit of faster CPU, NIC, GPUs, and lightning-fast storage solutions, the landscape is primed for the evolution of larger, more sophisticated clusters. These clusters demand nothing short of high bandwidth, low latency, and expansive network capabilities to unleash their full potential. With its capability of 25.6Tbps throughput Supermicro SSE-T8032 delivers the

SSE-T8032 400G Ethernet Switch

highest density of 400G switching in a 1U platform. SSE-T8032 will be an ideal choice for high performance applications and large-scale cluster requirements.

SSE-T8032 comes with twin port 2x400GbE with 32 physical OSFP ports, offering denser 64x400GbE in just 1U form factor. The interface provides flexibility to meet variety of speed and used cases such as 400G, 200G, 100G, 50G, 40G and 25G using splitter cables appropriate transceivers. Switch has an additional 10G SFP+ to meet the legacy connectivity.

With emerging Supermicro Enterprise Advanced SONiC OS support on SSE-T8032 switch provides greater flexibility to applications such as large-scale enterprises, AI/MI and high-performance cloud computing. Supermicro provides user friendly enhancements to the OS that suits to the various data center application and deployment.

SSE-T8032S model provides a data-center-friendly standard (front to back) air-flow model along with AC Power supply option and the included rail kit facilitates rack-mounting 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.

Benefits & Advantages

Target Use Cases

• Data Center Core, Edge, ToR and DCI applications

Key Advantages

• The most optimized ethernet solution with leading low latency for Datacenter, HPC, and AI industry
• Open Network OS supported system to maximize flexibility
• 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
• Switch capacity with large buffers
• Support AC PSU options with air cooling SKU

Key Switch Specs

• Form Factor: 1RU
• Switch Fabric Capacity: 25.6Tbps
• Operating System: Supermicro Enterprise Advanced SONiC OS

July, 2025   SUPERMICRO

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

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 / Dynamic Load Balancing (ARS/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

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 total 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.

SUPERMICRO

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	upto 500m	800G OSFP DR8 Transceiver, Dual MPO12, 500m
TRX-1222-DR8-R	upto 500m	800G OSFP DR8 Transceiver, MPO16, 500m
TRX-1107-VR8-R	upto 50m	800G OSFP VR8 Transceiver, Dual MPO12, 50m
TRX-1222-VR8-R	upto 50m	800G OSFP VR8 Transceiver, MPO16, 50m
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

MKT-0002-06/2025-R6

SUPERMICRO