



**SSE-T7132S**  
**SSE-T7132SR**

**SSE-T7132D**  
**SSE-T7132DR**

## Supermicro SSE-G7132 400G Ethernet Switch

The Super Micro Computer (SMC) SSE-T7132 is professional datacenter switch with robust 50 Gbps PAM4 SERDES lowers the cost per bit and enables higher scale I/O such as 200 GbE and 400 GbE while maintaining backward compatibility with 10/25G NRZ. Evolution to the new generation requires systems that deliver optimized performance for Machine Learning, Artificial Intelligence, and address the growth and increased scale of modern cloud environments, The SMC SSE-T7132 is an extremely compact 1RU form factor that increases the network radix for high density switching. Line rate performance and proven layer 2 and layer 3 features with up to 128ports of 100G or 64 ports of 200GE or 32 ports of 400G along with break through power efficiency.

With emerging SONiC OS support on SSE-T7132 switch provides greater flexibility to applications such as large-scale enterprises, service providers and cloud computing. Supermicro provides user friendly enhancements to the OS that suits to the various data center applications.

SSE-T7132 offers Datacenter friendly options to choose from. And the SSE-T7132 model provides a data-center-friendly standard and reverse air-flow models along with AC & DC Power supply options and the included rail kit facilitates rack-mounting installations.

## Supermicro SSE-T7132 Switch Benefit & 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 400G/200G/100G switching in HPC, AI, DC high bandwidth application.
- High density, high efficiency, multi rate 400G/200G/100G/ 50G/40G/25G/10G switching through either direct and/or breakout cables in ToR application

access with server/storage data center environments.

- Switch capacity with large buffers
- Support DAC cable upto 3 meters.
- Support both AC, DC PSU options.

### Key Switch Specs

- Form Factor: 1 RU
- Switch Fabric Capacity: 25.6Tbps
- Interfaces Speeds: 400, 200, 100, 50, 40, 25 & 10GbE
- Supported Configurations: 32x400GbE, 64x200GbE, 128x100GbE...etc.
- 70MB memory packet buffer
- Operating System: SONiC

## Hardware Specifications

### Physical Ports

- 32 x QSFP-DD Ports
- 2 x SFP+ Ports
- 1 x RJ45 Serial Console
- 1 x RJ45 100/1000BASE-T Management
- 1 x USB Type A Storage

### Onboard CPU Engine

- INTEL X86 Xeon 4-core CPU
- 16GB DDR4 DRAM with ECC
- 16MB SPI Flash
- 64GB SSD

### Data Forwarding

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

### Power

- 1+1 Hot-pluggable, load sharing, and redundant power supply
- Input Voltage: 100-127 / 200-240VAC, 50/60Hz or -48~-60VDC
- Max Power Consumption 1100W.
- Typical Power Consumption 780W.
- QSFP-DD Transceivers/Optics support up to 12W in Front to Back airflow and DAC support up to 3M.

### Physical and Environmental

- 1RU, Mountable in 19" or 21" racks
- Dimensions: (WxDxH) 433 x 600 x 44mm
- Weight: 12kg
- Front-to-Rear and Rear-to-Front airflow
- Hot Swappable 5+1 redundant Fan Modules
- Temperature:
  1. SSE-T7132S/D support all ports upto 12W/port @ Operating 0C to 40C
  2. SSE-T7132SR/DR support all ports upto 12W/port @ Operating 0C to 35C. (Port 1,2,4,6,10,24,26, 28,30,31,32 support 12W/port, rest ports support 8W/port @ Operating 0C to 40C)
- Humidity: Operating: 5% to 95%

### IEEE compliance

802.1p QOS/COS  
802.1Q VLAN Tagging  
802.1AB Link Layer Discovery Protocol  
802.3ad Link Aggregation with LACP  
802.3ae 10 Gigabit Ethernet  
802.3ba 100 Gigabit Ethernet  
802.3bs 400 and 200 Gigabit Ethernet  
802.3cm 400 Gigabit over multimode fiber  
802.1Qbb PFC 802.1Qaz ETS  
802.1X Network Access Control  
802.3x Flow Control

## Software Features

### Layers 2 Protocols

VLAN  
VLAN Trunking  
MAC Aging  
802.3ad Link Aggregation/LACP  
64 ports/channel  
McLAG  
Resilient LAG Hashing  
802.1AB LLDP  
802.3x Flow Control  
Jumbo Frames (9216 bytes)  
Storm Control (202205 release)

### Layers 3 Features

IPv4 Routes-136K  
BGP/BGP MP  
BGP Graceful Restart  
IPv6  
Basic VRF  
ECMP Groups-4K

ECMP member per group-128  
L3 VxLAN  
BGP-EVPN (type 2,3,5)  
L3 RIF counters  
Mgmt VRF

### RFC Compliance

768 UDP  
793 TCP  
854 Telnet  
959 FTP  
1321 MD5  
1350 TFTP  
2474 Differentiated Services  
2698 Two Rate Three Color Marker  
3164 Syslog  
4254 SSHv2

### General IPv4 Protocols

791 IPv4

792 ICMP  
826 ARP  
1027 Proxy ARP  
1035 DNS (client)  
1042 Ethernet Transmission  
1191 Path MTU Discovery  
1305 NTPv4  
1519 CIDR  
1812 Routers, Static Routes  
1858 IP Fragment Filtering  
2131 DHCPv4 (server and relay)  
5798 VRRPv3  
3021 31-bit Prefixes  
1812 Requirements for IPv4 Routers  
1918 Address Allocation for Private Internets  
2474 Diffserv Field in IPv4 and Ipv6 Headers  
2597 Assured Forwarding PHB Group  
3195 Reliable Delivery for Syslog  
3246 Expedited Forwarding PHB Group VRF (BGPv4/v6)

#### [General IPv6 Protocols](#)

1981 Path MTU for IPv6  
2372 IPv6 Addressing  
2460 IPv6 Protocol Specification  
2461 Neighbor Discovery  
2462 Stateless Address AutoConfig  
2711 IPv6 Router alert  
2463 ICMPv6  
3484 Default Address Selection  
4291 Addressing Architecture  
3542 Advanced Sockets API  
2374 Global Unicast Address Format  
4291 IPv6 Addressing  
2711 IPv6 Router Alert Option  
4007 IPv6 Scoped Address Architecture  
4213 Transition Mechanisms for IPv6 Hosts and Routers  
3633 DHCPv6 Relay

#### [Security](#)

IPv4 / IPv6 Ingress & Egress ACLs using L2, L3, L4 fields  
ACL Drop Logging and ACL Counters  
Packet erspan mirror action in ACL rules  
Port range matching in ACL rules  
TACACS+  
RADIUS AAA

#### [Network Monitoring](#)

SNMP  
Syslog  
Everflow  
OOM  
TCPDump  
Critical Resource Monitoring  
Mirroring  
Sensor transceiver monitoring  
sFlow  
BDC/HDC with remote & local collectors  
SONiC system telemetry

#### [Network Management](#)

RS-232 Serial Console Port  
Serial over LAN Console Port  
USB Port  
SNMP v1, v2, v3  
Management over IPv6  
Telnet and SSHv2  
Syslog  
gRPC and gNMI  
REST  
KLISH CLI

#### [Automation](#)

Zero Touch Provisioning (ZTP)  
SONiC YANG Support for KDUMP, ACL, MCLAG, BUM Storm Control, VxLAN, SNMP

#### [Quality of Service](#)

CoPP  
COS  
PFC  
PFC Watermark  
PFC WD  
Asymmetric PFC  
ECN  
RDMA  
WRED

#### [MIBs](#)

RFC 1213 MIB-II  
RFC 2737 Physical Table MIB  
RFC 2863 Interfaces MIB  
RFC 3433 Sensor Table MIB  
RFC 4292 IP Forwarding Table MIB  
RFC 4363 Q-BRIDGE-MIB  
IEEE 802.1 AB LLDP-MIB

## 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

#### Aus/Nz (ACMA):

- AS/NZS 60950-1
- AS/NZS 62368-1

#### Taiwan (BSMI):

- CNS15598-1

#### Korean (KCC):

- KC 62368-1

#### China (CCC):

- GB4943.1

### Electromagnetic Compatibility

#### 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

#### North America

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

#### Japan (VCCI)

- VCCI CISPR 32-1

#### Aus/Nz (ACMA)

- AS/NZS CISPR 32

#### Taiwan (BSMI)

- CNS 15936

#### Korean (KCC)

- KN32 Class A
- KN35

#### China (CCC):

- GB9254.1

### Environmental

EU (RoHS)

EU (REACH)

EU (WEEE)

Taiwan (RoHS)

China (RoHS)

## Optics & Cables Supported

Cable Type	Cable Model	Length
400G DAC	QSFP-DD 400G straight DAC cable, 30AWG	1M
400G DAC	QSFP-DD 400G straight DAC cable, 28AWG	2M
400G DAC	QSFP-DD 400G straight DAC cable, 28AWG	2.5M
400G DAC	QSFP-DD 400G straight DAC cable, 26AWG	3M
400G AEC	QSFP-DD 400g TO 400g 3M DAC, 32AWG,	3M
400G AEC	QSFP-DD 400g TO 400g 5M DAC, 30AWG,	5M
400G AEC	QSFP-DD 400g TO 400g 7M DAC, 28AWG,	7M
400G to 200G DAC	400G, QSFP-DD PAM4 to 2*200G QSFP56 PAM4, 30AWG,	3M
400G to 100G DAC	400G, QSFP-DD PAM4 to 4*100G QSFP56 PAM4, 30AWG,	3M
400G to 100G AEC	400G, QSFP-DD PAM4 to 4*100G QSFP28 NRZ, 30AWG,	3M
400G to 100G AEC	400G, QSFP-DD PAM4 to 4*100G QSFP28 NRZ, 30AWG,	5M
400G AOC	QSFP-DD 400g TO 400g 10M AOC	10M
400G Transceivers	QSFP-DD 400G-SR8 100Meter	upto 100M
400G Transceivers	QSFP-DD 400G-DR4 500Meter	upto 500M
400G Transceivers	QSFP-DD 400G-DR4+ 2000Meter	upto 2KM
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 0.5m	0.5M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 1m	1M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 1.5m	1.5M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 2m	2M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 2.5m	2.5M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 3m	3M
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 1M, 30AWG,	1M
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 2M, 30AWG,	2M
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 3M, 30AWG,	3M
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 5M, 30AWG,	5M
100G Transceivers	TXCVR, QSFP28,100GBASE-SR4, 850nm, MMF, MPO	upto 100M
100G Transceivers	TXCVR, QSFP28,100GBASE-DR1,	upto 500M