



SSE-T7132S

SSE-T7132SR

SSE-T7132D

SSE-T7132DR

Supermicro SSE-T7132 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

access with server/storage data center environments.

- Switch capacity with large buffers
- Support both AC, DC PSU options.

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

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.

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: 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
802.3x 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 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
1305 NTPv4
1519 CIDR

1812 Routers, Static Routes
1858 IP Fragment Filtering
2131 DHCPv4 (server and relay)
3021 31-bit Prefixes
1812 Requirements for IPv4 Routers
1918 Address Allocation for Private Internets
2474 Diffserv Field in IPv4 and Ipv6 Headers
3195 Reliable Delivery for Syslog

[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, 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:

- IEC 60950-1:2005,
- IEC 60950-1:2005/AMD1:2009,
- IEC 60950-1:2005/AMD2:2013,
- EN 60950-1:2006 including
- A11:2009/A1:2010/A12:2011/A2:2013

CSA/cUL:

- CAN/CSA C22.2 No. 62368-1:19
- ANSI/UL 62368-1, 3rd Ed.

CE/UKCA:

- EN 55032:2015+A11:2020 Class A, BS EN 55032:2015+A11:2020 Class A
 - EN 300 386 V2.1.1(2016-07) Class A,
 - EN IEC 61000-3-2:2019, BS EN IEC 61000-3-2:2019,
 - EN 61000-3-3:2013+A1:2019, BS EN 61000-3-3:2013+A1:2019,
 - EN 55035:2017+A11:2020, BS EN 55035:2017+A11:2020,
 - EN 300 386 V2.1.1(2016-07)
- (IEC 61000-4-2 Edition 2.0 2008-12, IEC 61000-4-3 Edition 3.2 2010-04, IEC 61000-4-4 Edition 3.0 2012-04, IEC 61000-4-5 Edition 3.1 2017-08, IEC 61000-4-6 Edition 4.0 2013-10, IEC 61000-4-8 Edition 2.0 2009-09,

IEC 61000-4-11 Edition 3.0 2020-01)

ICES :

- ICES-003 Issue 7, Class A

FCC:

- FCC Part 15 Subpart B

CB:

- CB 242716-80161384
- IEC 62368-1:2014
- EN 62368-1:2014+A11:2017

Japan (VCCI)

- VCCI 32-1

AUS/NZS:

- AS/NZS CISPR 32:2015 AMD 1:2020

Environmental

EU (RoHS)

EU (REACH)

Cable Type	Cable Model	Length	SMC P/N
400G DAC	QSFP-DD 400G straight DAC cable, 30AWG	1M	CBL-NTWK-0957-QSFPDD-1
400G DAC	QSFP-DD 400G straight DAC cable, 28AWG	2M	CBL-NTWK-0957-QSFPDD-2
400G DAC	QSFP-DD 400G straight DAC cable, 26AWG	3M	CBL-NTWK-0957-QSFPDD-3
400G AEC	400G QSFP-DD, to QSFP-DD, AEC,3M	3M	CBL-NTWK-0970-AEC-3
400G AEC	400G QSFP-DD, to QSFP-DD, AEC,5M	5M	CBL-NTWK-0970-AEC-5
400G AEC	400G QSFP-DD, to QSFP-DD, AEC,7M	7M	CBL-NTWK-0970-AEC-7
400G AOC	QSFP-DD 400g TO 400g 10M AOC	10M	CBL-QSFPDD-400G-AOC-10
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 0.5m	0.5M	CBL-NTWK-0944-SS28C05M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 1m	1M	CBL-NTWK-0944-SS28C10M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 2m	2M	CBL-NTWK-0944-SS28C20M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 3m	3M	CBL-NTWK-0944-SS28C30M
100G DAC	Passive Copper cable, 100GbE, 100Gb/s, QSFP, LSZH, 5m	5M	CBL-NTWK-0944-SS28C50M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,0.5m,Molex QSFP28 Copper	0.5M	CBL-NTWK-0942-MQ28C05M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,1m,Molex QSFP28 Copper	1M	CBL-NTWK-0942-MQ28C10M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,1.5m,Molex QSFP28 Copper	1.5M	CBL-NTWK-0942-MQ28C15M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,2m,Molex QSFP28 Copper	2M	CBL-NTWK-0942-MQ28C20M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,2.5m,Molex QSFP28 Copper	2.5M	CBL-NTWK-0942-MQ28C25M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,3m,Molex QSFP28 Copper	3M	CBL-NTWK-0943-SQ28C30M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,1m, QSFP28 Copper	1M	CBL-NTWK-0943-SQ28C10M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,3m, QSFP28 Copper	3M	CBL-NTWK-0943-SQ28C30M
100G DAC	ETHERNET,QSFP28,100GbE,PASSIVE,LSZH,5m, QSFP28 Copper	5M	CBL-NTWK-0943-SQ28C50M
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 1M, 30AWG,	1M	CBL-NTWK-0988-Q28M1
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 2M, 30AWG,	2M	CBL-NTWK-0988-Q28M2
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 3M, 30AWG,	3M	CBL-NTWK-0988-Q28M3
100G to 25G DAC splitter	100GbE/QSFP28 to 4x 25GbE/SFP28, PASSIVE, 5M, 30AWG,	5M	CBL-NTWK-0988-Q28M5
100G Transceivers	TXCVR, QSFP28,100GBASE-SR4, 850nm, MMF, MPO	up to 100M	TRX-100GbE-SR4-FIN
100G Transceivers	TXCVR, QSFP28,100GBASE-DR1,	up to 500M	TRX-100G-DR1-01
400G Transceivers	QSFP-DD 400G-SR8 100Meter	up to 100M	TRX-400G-SR8-01
400G Transceivers	QSFP-DD 400G-DR4 500Meter	up to 500M	TRX-400G-DR4-03
400G Transceivers	QSFP-DD 400G-DR4+ 2000Meter	up to 2KM	TRX-400G-DR4PLUS-01
DR4/DR4+ compatible cable	MTP12 OS2 single mode, 12Fibers, PLENUM	3M	CBL-NTWK-0950-03
Global Services & Support	OS4HR3/2/1		3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1		3/2/1-year onsite NBD service