

Layer 2 Ethernet Switches

Cost-effective 1-Gigabit Ethernet networking including a Power-over-Ethernet model and featuring Energy Efficient Ethernet – **We Keep IT Green®**

Rear View



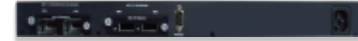
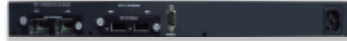
Model	SSE-G2252P (52 ports; 48 with Power-over-Ethernet)	SSE-G2252 (52 ports)
General Specifications:	<ul style="list-style-type: none"> 48 RJ45 10/100/1000 Mbps Ports 4 SFP 1-G Ports Non-Blocking Standard L2 Features IPv4 and IPv6 RJ45 Console Port: Web Management, CLI Power-over-Ethernet (IEEE802.3at) <ul style="list-style-type: none"> Up to 30W per port Up to 400W total PoE budget 	<ul style="list-style-type: none"> 48 RJ45 10/100/1000 Mbps Ports 4 SFP 1-G Ports Non-Blocking Standard L2 Features IPv4 and IPv6 RJ45 Console Port: Web Management GUI, CLI
Switching Capacity	<ul style="list-style-type: none"> 104 Gbps 	<ul style="list-style-type: none"> 104 Gbps
Energy Efficient Ethernet	<ul style="list-style-type: none"> 802.3az 	<ul style="list-style-type: none"> 802.3az
Power Supply	<ul style="list-style-type: none"> 500W 	<ul style="list-style-type: none"> 65W
Weight	<ul style="list-style-type: none"> 11.7 lbs / 5.3kg 	<ul style="list-style-type: none"> 6.8 lbs / 3.1kg
Dimensions (WxDxH)	<ul style="list-style-type: none"> 440 x 379 x 43mm (17.3" x 14.9" x 1.7") 	<ul style="list-style-type: none"> 440 x 279 x 43mm (17.3" x 11" x 1.7")
Switching Features	<ul style="list-style-type: none"> 16K MAC address entries Link Aggregation <ul style="list-style-type: none"> 802.3ad with LACP Up to 12 aggregation groups up to 8 ports per group Double tagging: <ul style="list-style-type: none"> 802.1 Q-in-Q 802.1ad provider bridge Unqualified learning and forwarding 	<ul style="list-style-type: none"> Storm protection <ul style="list-style-type: none"> Broadcast Multicast IGMP: <ul style="list-style-type: none"> IGMP snooping v1/v2/v3 Spanning tree <ul style="list-style-type: none"> 802.1D spanning tree 802.1s multiple Jumbo frames up to 9KB
VLAN	<ul style="list-style-type: none"> 802.1Q tagging, port and protocol based Dynamic VLAN Support (GVRP) 	<ul style="list-style-type: none"> 4K VLANs; 256 active Voice VLAN support
Quality of Service (QoS)	<ul style="list-style-type: none"> L2/L3/L4Traffic Classification/Priority Management Deficit WRR and Strict Priority Scheduling Traffic shaping <ul style="list-style-type: none"> IP based (all ports) Port based (all ports) Port based shaping QoS aware 4 priority queues per port IPv4/v6 DiffServ 	<ul style="list-style-type: none"> Per port bandwidth management <ul style="list-style-type: none"> Resolution 64KB Packet prioritization based on ingress/egress ports using pre-defined value Ingress/Egress metering at 64KB increments <ul style="list-style-type: none"> Ingress/egress policer Ingress and egress co-work
Security Features	<ul style="list-style-type: none"> 802.3x Port-Based Authentication Switch access password protection Layer 2, 3, 4 Access Control List (512 rules) 	<ul style="list-style-type: none"> RADIUS and TACACS+ Authentication SSH/SSL Encryption
Management Features	<ul style="list-style-type: none"> Web-based management interface – HTTP/HTTPS <ul style="list-style-type: none"> Telnet (4 sessions) SNMP Industry standard CLI with telnet, SSH, or local management port <ul style="list-style-type: none"> Scripting capability Command completion Context-sensitive "Help" 	<ul style="list-style-type: none"> Software upgrade/download Multiple configuration file upload/download by TFTP and HTTP Auto upgrade DHCP functions Telnet-Server SNMP v1/v2c/v3 RMON
PoE Features	<ul style="list-style-type: none"> Compliant with IEEE 802.3af-2003 & IEEE 802.3at-2009 PoE on 10/100/1000Base-T ports only (ports 1~48) Power start/stop (remote sense) Power feeding over 1/2 and 3/6 data twisted pair of Cat. 5 UTP/STP cable Independent overload and short-circuit protection for each port LED indicators for power status per port Per port configuration Port priority configuration IEEE 802.3af/IEEE 802.3at MIB for Power over Ethernet function 	
Operating Temperature	<ul style="list-style-type: none"> 0 ~ 50°C 	

Layer 2/3 Ethernet Switches

Enterprise-class performance with advanced switching capabilities in a 1U form factor.
Highly cost-effective 1/10-Gigabit Ethernet Networking – Standalone or Top-of-Rack.



Rear View



Model	SSE-G48-TG4	SSE-G24-TG4
Port Attributes	<ul style="list-style-type: none"> • 48 One Gigabit Ethernet ports - 48 RJ45 Copper ports - Four fiber SFP combo ports • Out-of-band RS-232 Management port • Up to four 10-Gigabit Ethernet uplinks • Up to two stacking ports 	<ul style="list-style-type: none"> • 24 One Gigabit Ethernet ports - 24 RJ45 Copper ports - Four fiber SFP combo ports • Out-of-band RS-232 Management port • Up to four 10-Gigabit Ethernet uplinks • Up to two stacking ports
Switching Capacity	• 184 Gbps	• 136Gbps
Stacking Performance	• Up to 48 Gbps	• Up to 48 Gbps
Power Consumption	• 145W	• 105W
Weight	• 13.7 lbs / 6.20 kg (w/ modules) 13.4 lbs / 6.06 kg (w/o modules)	• 12.6 lbs / 5.70 kg (w/ modules) 12.2 lbs / 5.54 kg (w/o modules)
Dimensions (WxDxH)	• 440 x 387 x 43mm (17.3" x 15.2" x 1.7")	
Availability	<ul style="list-style-type: none"> • Spanning Tree (802.1D) • Rapid Spanning Tree (802.1w) 	<ul style="list-style-type: none"> • Multiple Spanning Trees (802.1s) • Virtual Redundant Routing Protocol (VRRP)
VLAN	<ul style="list-style-type: none"> • 802.1Q tagging, port and protocol based • Dynamic VLAN Support (GVRP) 	• 1K Static VLANs
Quality of Service and DiffServ	<ul style="list-style-type: none"> • 8 priority queues per port • Adjusted WRR and Strict Priority Scheduling • Layer 2, 3, 4 Prioritization 	<ul style="list-style-type: none"> • Marking • Metering / Rate limiting
Switching Features	<ul style="list-style-type: none"> • Link Aggregation - 24 groups with 8 members per group • LACP Support • Link Layer Discovery Protocol (802.1AB) 	<ul style="list-style-type: none"> • Jumbo Frames up to 9KB • Port Mirroring – N to 1. Tx & Rx Configurable
Routing Features	<ul style="list-style-type: none"> • Static Routing, RIP v1/v2, RIPvng, OSPF v1/v2/v3 and BGP • IPv4 and IPv6 Routing 	<ul style="list-style-type: none"> • VRRP (Virtual Router Redundancy Protocol) • DVMRP (Distance Vector Multicast Routing Protocol) • PIM SM, PIM DM • PIM SMv6
Multicast	<ul style="list-style-type: none"> • IGMP Snooping v1, v2, v3 • IGMP v1, v2, v3 	<ul style="list-style-type: none"> • RADIUS and TACACS+ Authentication • SSH, SSL Encryption
Security Features	<ul style="list-style-type: none"> • 802.3x Port Based Authentication • Switch access password protection • Layer 2, 3, 4 Access Control Lists (256 rules) 	
Management Features	<ul style="list-style-type: none"> • Web-based management interface – HTTP/HTTPS - Telnet - SNMP • Industry standard CLI with telnet, SSH, or local management port - Scripting capability - Command completion - Context-sensitive "Help" 	<ul style="list-style-type: none"> • Multiple levels of user privilege (CLI and Web UI) • SNMP v1, v2, v3 • Four RMON Groups - (1, 2, 3 and 9) • Logging – syslog • Dual firmware images • Configuration file - upload / download
Operating Temperature	• 0 ~ 40°C	

Options (order at least one, maximum two with each SSE-G24-TG4 or SSE-G48-TG4)



AOM-SSE-X2C

Two-port CX4 connector module for copper connections and for Stacking



AOM-SSE-X2F

Two-port XFP connector module for fiber connections



AOM-SSE-X2S

Two-port SFP+ connector module for copper or fiber connections

Layer 2/3 Ethernet Switches

Enterprise-class performance with advanced switching capabilities in a 1U form factor.
Highly cost-effective 10-Gigabit Ethernet Networking – Standalone or Top-of-Rack.

Accessories



Rear View



Model	SSE-X24S/SR	SSE-X3348S/SR	SSE-X3348T/TR
Port Attributes	<ul style="list-style-type: none"> 24 Ten Gigabit Ethernet ports - SFP+ Connectors 1 One-Gigabit Ethernet port - RJ45 Connector Out-of-band RS-232 Management port 	<ul style="list-style-type: none"> 48 Ten-Gigabit Ethernet ports - SFP+ Connectors 4 Forty-Gigabit Ethernet ports - QSFP Connectors 2 One-Gigabit Ethernet ports - RJ45 Connectors Out-of-band RS-232 Management port 	<ul style="list-style-type: none"> 48 Ten-Gigabit Ethernet ports - 10GBase-T RJ45 connectors 4 Forty-Gigabit Ethernet ports - QSFP Connectors 2 One-Gigabit Ethernet ports - RJ45 Connectors Out-of-band RS-232 Management port Energy Efficient Ethernet- IEEE 802.3az
Switching Capacity	<ul style="list-style-type: none"> 480 Gbps 	<ul style="list-style-type: none"> 1284 Gbps 	<ul style="list-style-type: none"> 1284 Gbps
Power Consumption	<ul style="list-style-type: none"> 176W (Redundant Power Supplies) Reverse airflow model available 	<ul style="list-style-type: none"> 326W (Redundant Power Supplies) Reverse airflow model available 	<ul style="list-style-type: none"> 357W (Redundant Power Supplies) Reverse airflow model available
Weight	<ul style="list-style-type: none"> 16.7 lbs / 7.58 kg 	<ul style="list-style-type: none"> 18.1 lbs / 8.2 kg 	<ul style="list-style-type: none"> 20.3 lbs / 9.22 kg
Dimensions (WxDxH)	<ul style="list-style-type: none"> 440 x 387 x 43mm (17.3" x 15.2" x 1.7") 	<ul style="list-style-type: none"> 438 x 473 x 43mm (17.3" x 18.6" x 1.7") 	<ul style="list-style-type: none"> 438 x 473 x 43mm (17.3" x 18.6" x 1.7")
Availability	<ul style="list-style-type: none"> Spanning Tree (802.1D) Rapid Spanning Tree (802.1w) 	<ul style="list-style-type: none"> Multiple Spanning Trees (802.1s) Virtual Redundant Routing Protocol (VRRP) 	
VLAN	<ul style="list-style-type: none"> 802.1Q tagging, port and protocol based Dynamic VLAN Support (GVRP) 	<ul style="list-style-type: none"> 4K Static VLANs 	
Data Center	<ul style="list-style-type: none"> DCBx 		
Quality of Service and DiffServ	<ul style="list-style-type: none"> 8 priority queues per port Adjusted WRR and Strict Priority Scheduling Layer 2, 3, 4 Prioritization 	<ul style="list-style-type: none"> Marking Metering / Rate limiting 	
Switching Features	<ul style="list-style-type: none"> Link Aggregation - 24 groups with 8 members per group MLAG support LACP Support 	<ul style="list-style-type: none"> Link Layer Discovery Protocol (802.1AB) Jumbo Frames up to 9KB Port Mirroring – N to 1. Tx & Rx Configurable 	
Routing Features	<ul style="list-style-type: none"> Static Routing, RIP v1/v2, RIPng, OSPF v1/v2/v3 and BGP IPv4 and IPv6 Routing 	<ul style="list-style-type: none"> VRRP (Virtual Router Redundancy Protocol) DVMRP (Distance Vector Multicast Routing Protocol) 	
Multicast	<ul style="list-style-type: none"> IGMP Snooping v1, v2, v3 IGMP v1, v2, v3 	<ul style="list-style-type: none"> PIM SM, PIM DM PIM SMv6 	
Security Features	<ul style="list-style-type: none"> 802.3x Port Based Authentication Switch access password protection Layer 2, 3, 4 Access Control Lists (256 rules) 	<ul style="list-style-type: none"> RADIUS and TACACS+ Authentication SSH, SSL Encryption 	
Management Features	<ul style="list-style-type: none"> Web-based management interface – HTTP/HTTPS - Telnet - SNMP Industry standard CLI with telnet, SSH, or local management port - Scripting capability - Command completion - Context-sensitive "Help" 	<ul style="list-style-type: none"> Multiple levels of user privilege (CLI and Web UI) SNMP v1, v2, v3 Four RMON Groups - (1, 2, 3 and 9) Logging – syslog Dual firmware images Configuration file - upload / download 	
Operating Temperature	<ul style="list-style-type: none"> 0 ~ 40°C 	<ul style="list-style-type: none"> 0 ~ 47°C 	<ul style="list-style-type: none"> 0 ~ 45°C

Open Networking Ethernet Switches

The SSE-G3648B/SSE-G3648BR, SSE-X3648S/SSE-X3648SR, and SSE-C3632S/SSE-C3632SR switches are ideal for deployment in Data Center, Cloud and Enterprise environments with the capability of handling access for the most demanding applications. All are available as a reverse-airflow model for use in large data centers with alternating hot and cold equipment aisles. And all are equipped with a second, redundant power supply (optional on SSE-G3648B/SSE-G3648BR). Pre-loaded with the Open Network Install Environment (ONIE), all three are ready for your networking operating system of choice. Supermicro recommends the use of Cumulus Linux – these switches are all listed on the Hardware Compatibility List (HCL) of Cumulus Networks. Cumulus Linux is an OS for open networking incorporating a true Linux distribution with extensive networking features plus hardware acceleration of routing and switching functions. By using many of the same tools employed for servers, Cumulus Linux enables affordable scalability with clear CapEx savings and even greater OpEx savings; it unleashes rapid innovation via custom, open source or commercial Linux tools and applications. The embedded X86 Linux-based controller is particularly well suited for running the provisioning tools which are typically used for servers. Contact Cumulus Networks (www.cumulusnetworks.com) for more details and ordering information.

With these bare metal switches Supermicro customers have the opportunity to choose the hardware/software combination that best suits their own individual networking environment. And with Supermicro product reliability and support, customers can rest assured that their investment is truly protected.

New! Layer 2/3

New! Layer 2/3

New! Layer 2/3



Rear View



Model	SSE-G3648B/BR	SSE-X3648S/SR	SSE-C3632S/SR
Port Specifications	<ul style="list-style-type: none"> 48 x 1Gbps Ethernet RJ45 ports 4 x 10Gbps Ethernet SFP+ ports RJ-45 Ethernet management port RJ45 (for console cable) 	<ul style="list-style-type: none"> 48x Ten-Gigabit Ethernet ports – SFP+ 6x Forty-Gigabit Ethernet ports – QSFP+ RJ-45 (for console cable) RJ-45 1G Ethernet Management Port USB 	<ul style="list-style-type: none"> 32 x 40Gbps Ethernet QSFP28 ports 32 x 100Gbps Ethernet QSFP28 ports 1 x 10Gbps Ethernet SFP+ ports RJ-45 Gigabit Ethernet management port RJ-45 serial console Type A USB 2.0 port
Data Forwarding	<ul style="list-style-type: none"> Switching Capacity – 176 Gbps Broadcom Helix4 Switch Chip Wire-speed Layer 3 Routing 1:1 Non-blocking connectivity 	<ul style="list-style-type: none"> Switching Capacity - 1440 Gbps Broadcom Trident II Switch Chip Wire-speed Layer 3 Routing 1:1 Non-blocking connectivity 	<ul style="list-style-type: none"> Full Duplex 3.2Tbps Switching Capacity Broadcom Tomahawk Switch Chip Wire-speed Layer 3 Routing 1:1 Non-blocking connectivity
Control Plane	<ul style="list-style-type: none"> Intel® CPU 2GB DRAM 8GB SSD ONIE Cumulus Linux Ready 	<ul style="list-style-type: none"> Intel® CPU 4GB DRAM 16GB SSD ONIE Cumulus Linux Ready 	<ul style="list-style-type: none"> Intel® CPU 4GB DRAM 16GB SSD ONIE Cumulus Linux Ready
Power	<ul style="list-style-type: none"> Hot-pluggable 200W power supply Optional second redundant power supply AC Input: 100-127/200-240 V, 50/60 Hz Power Consumption: < 85.2 Watts 	<ul style="list-style-type: none"> Redundant, hot-pluggable, 460W power supplies AC Input: 100-127/200-240 V, 50/60 Hz Power Consumption: 305 Watts 	<ul style="list-style-type: none"> Redundant, hot-pluggable, 800W power supplies AC Input: 100-127/200-240 V, 50/60 Hz Power Consumption: 650 Watts
Physical/ Environmental	<ul style="list-style-type: none"> Weight: Net weight: 8.18kg (with 2 PSUs) Regular and Reverse Airflow Models Size (W x D x H): 434 x 320 x 44 mm (17.1 x 11.2 x 1.73 in.) Temperature: Operating 0°C to 45 °C (32°F to 113°F) Humidity -Operating: 5% to 95% (non-condensing) 	<ul style="list-style-type: none"> Weight: Net weight: 10.13kg (22.29 lb with 2 PSUs) Regular and Reverse Airflow Models Size (W x D x H): 434 x 550 x 44 mm (17.1 x 21.6 x 1.73 inches) Temperature: Operating 0°C to 40 °C (32°F to 104°F) Humidity - Operating: 5% to 95% (non-condensing) 	<ul style="list-style-type: none"> Weight: Net weight: 10.18kg (22.29 lb with 2 PSUs) Regular and Reverse Airflow Models Size (W x D x H): 434x 520 x 44 mm (17.1 x 20.47 x 1.73 inches) Temperature: Operating 0°C to 40 °C (32°F to 104°F) Humidity - Operating: 5% to 95% (non-condensing)
General	<ul style="list-style-type: none"> Bare metal - ONIE Installed IU form factor for flexible installation Mounting Flanges (included) 	<ul style="list-style-type: none"> Bare metal - ONIE Installed IU form factor for flexible installation Mounting Rails (included) 	<ul style="list-style-type: none"> Bare metal - ONIE Installed IU form factor for flexible installation Mounting Rails (included)
Optional Power Supply	<ul style="list-style-type: none"> PWS-FRU-G3648-1F Second (for redundancy) power supply for SSE-G3648B Ethernet Switch. Forward Airflow PWS-FRU-G3648-1R Second (for redundancy) power supply for SSE-G3648BR Ethernet Switch. Reverse Airflow 		