Series 5 Commercial Managed 10G Network Switch

SIL 54424MP

Commercial Gigabit + 10G Managed PoE Switch

OVERVIEW

The SilverNet Commercial Gigabit PoE+ Managed Switch is a fully managed layer 3 switch that provides stable and reliable Ethernet transmission.

The Commercial Gigabit PoE+ Managed Switch has 24 x 10/100/1000Base-T ports with 4 x 10G SFP+ and is powered using 240V AC.

The SilverNet Commercial Gigabit + 10G Managed Switch is ideal for expanding your business network. The switch has configurable Layer 3 network features such as VLANS, PoE Scheduling, Static routing, IGMP snooping and more.

The SilverNet Commercial Gigabit + 10G Managed Switch delivers great performance for growing networks and is ideal for use with VoIP phones, IP cameras and wireless access points.

Features

- 24 x 10/100/1000Base-T RJ45 ports
- 4 x 10G SFP+ ports
- RJ45 supports auto MDI/MDI-X function
- Auto negotiation speed, half/full duplex
- Store and forward
- Max packet size: 10K bytes
- MAC address size: 16K

- IGMP Snooping
- SNMP Web Management Interface
- Port Mirroring
- Loop protection
- Link Layer Discovery Protocol (LLDP)
- Operating Temperature (0°C ~+50°C)
- Rack mountable

Distributed By:

SILVERNET
WIRELESS-NETWORK-SOLUTIONS

Technical Specifications

Part No.	SIL 54424MP
Ethernet Interface	
Ports	24×10/100/1000M Base-TX RJ45 4×10Gigabit SFP plus
Port Mode (Tx)	Auto Negotiation Full/Half Duplex Mode Auto MDI/MDI-X Connection
Standards	IEEE 802.3 for 10BaseT | IEEE 802.3u for 100BaseT(X) and 100BaseFX | IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseSX/LX/LHX/ZX | IEEE 802.3x for flow control | IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol | IEEE 802.1s for Multiple Spanning Tree Protocol | IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging | IEEE 802.1X for authentication | IEEE 802.3ad for Port Trunk with LACP
Packet Buffer Size	12Mbits
Maximum Packet Length	Up to 10K
MAC Address Table	16K
Transmission Mode	Store and Forward (full/half duplex mode)
Exchange Property	Delay time: < 7µs Backplane bandwidth: 128Gbps
IGMP Group	4096
Max. No. of VLAN	256
VLAN ID Range	VID 1 to 4094
Physical Characteristics	
Housing	Metal
IP Rating	IP30
Dimensions	400mmx300mmx45mm
Installation	Rack Mount
Weight	4000g
Environmental	
Operating Temperature	0℃ ~ 50℃
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-20℃ ~ 70℃
MTBF	100,819@Telcordia SR-332 GB 25℃
Cooling	Passive Cooling, Fanless Design
Noise Level	0 dBA
Power Characteristics	
PoE Ports	Port 1-24
Power Supply Pin	Default: 1/2(+), 3/6(-)
Max Power Per Port	IEEE802.3 af/at 30W
Total PWR	480W
Power Consumption	24 Watts Max (without PoE load)
Power Inputs	1
Input Voltage	Internal power adapter with AC100 – 240V 50-60Hz input
Connector	AC: 3 Pin AC Socket
Protection	Overload Current Protection, Reverse Polarity Protection

Additional Features

Part No.	SIL 54424MP
Software Features	
Management Interface	CLI(Console/Telnet(RFC854)), WebUI(HTTPS), SNMPv3
Management	ARP, Flow Control, DDM, DHCP Server/Client, IPv4/IPv6, LLDP, LLDP-MED, UDLD, Port Mirror, RMON, SNMPv1/v2c/v3, Syslog, Telnet
File Management	Firmware Upgrade/Backup, Dual Images, Configuration Download/Backup, Multiple Configuration, TFTP(RFC783), HTTP, UART
Management Access	Management VLAN, Management ACL(256)
Filter	802.1Q, GMRP, GVRP, IGMP Snooping v1/v2/v3, IGMP Querier V2/V3 QinQ VLAN
Redundant Network	Link Aggregation, STP/RSTP/MSTP/ERPSv2, Auto Edge Port, BPDU Filtering, Self Loop Detection
VLAN	Support IEEE 802.1Q 4K VLAN, QINQ, Double VLAN, Voice LAN, Surveillance VLAN(Auto/Manual), Multicast VLAN Registration(MVR)
Time Management	Local, SNTP, NTP
Unicast Routing	OSPFv2, RIPv1/v2, Static Route
QOS	Support Queue Scheduling(WRR, WFQ, Strict Priority , Hybrid(WRR+SP or WFQ+SP); Priority Queue(8 queues/port); Class of Service(Port-based, 802.1p, IP TOS Precedence, IP DSCP), Trusted QoS, Rate Limitation
ACL Type	L2/L3/L4, MAC-based, IPv4-based, IPv6-based
Diagnostic Maintenance	Support port mirroring, Syslog, Ping
POE Management	PoE working status Scheduling of PoE operation
Security	Broadcast Storm Control, HTTPS/SSLv2v3,TLSv1 RADIUS, TACACS+,AAA SSHv1/v2,Support DHCP Snooping, Option 43/82, 802.1X security access, Support user hierarchical management, ACL access control list, Support DOS, port-based MAC filtering/binding, MAC whitelist
Standards	
EMC/EMI/EMS	FCC Part15 Class A CE-EMC/LVD RoHS EN61000-4-2 (ESD):LEVEL 4 IEC 6100-4-2 (EFT):LEVEL 4 IEC 6100-4-2 (Surge): LEVEL 4 IEC 6100-4-2 (CS) : LEVEL 3 IEC 61000-4-2(PFMP) : LEVEL 5 EN61000-4-3 (RS):LEVEL 4
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Freefall	IEC60068-2-31
Safety	EN 60950-1, UL 60950-1, CSA C22.2 No.60950-1, UL 508
Package Contents	
Device	1x Ethernet Switch
Cable	1xDB9 female to RJ45 10-pin
Installation Kit	2x Rack-Mount Kits
Documentation	1 x Quick Start guide

STANDARD FEATURES

Physical Ports
- RJ45 with Auto MDI/MDI-X and Auto-negotiation
- SFP 10G

SIL 544O24M
- 24-port 10/100/1000Base-T and 4-port 10G SFP+
- Fibre optical

Rugged Design
- Metal case protection
- Rack mountable
- Supports EFT protection 4K for power line
- Supports 4K Ethernet ESD protection
- -20°C to 50°C operating temperature

Security
- IP-Based Access Control List (ACL)
- MAC-Based Access Control List
- Source MAC / IP address binding
- DHCP Snooping to filter untrusted DHCP messages

Management
- Switch Management Interfaces
- Console / Telnet Command Line Interface
- Web switch management
- SNMP v1 and v2c switch management
- Built-in Trivial File Transfer Protocol (TFTP) client
- Firmware upload / download via HTTP / TFTP
- NTP (Network Time Protocol)
- Reset button for system reboot or reset to factory default

Layer 2 Features
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x pause frame flow control (Full-Duplex)
- Store and Forward architecture and runt/CRC filtering
- Storm control support
- Broadcast / Multicast / Unicast
- Supports VLAN
- IEEE 802.1Q Tagged VLAN
- Up to 255 VLANs groups, out of 4094 VLAN IDs
- Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
- Supports Spanning Tree Protocol
- STP, IEEE 802.1D Spanning Tree Protocol
- RSTP, IEEE 802.1w Rapid Spanning Tree Protocol
- MSTP, IEEE 802.1s Multiple Spanning Tree Protocol, spanning tree by VLAN
- BPDU Guard
- Supports Link Aggregation
- 802.3ad Link Aggregation Control Protocol (LACP)
- Provides Port Mirror (1-to-1)
- Port mirroring to monitor the incoming or outgoing traffic on a particular port
- Loop protection to reduce the possiblity of broadcast loops

Quality of Service
- Ingress/egress rate limit per port bandwidth control
- 8 priority queues on all switch ports
- Traffic classification
- IEEE 802.1p CoS
- Typical network application
- Strict priority and Weighted Round Robin (WRR) CoS policies
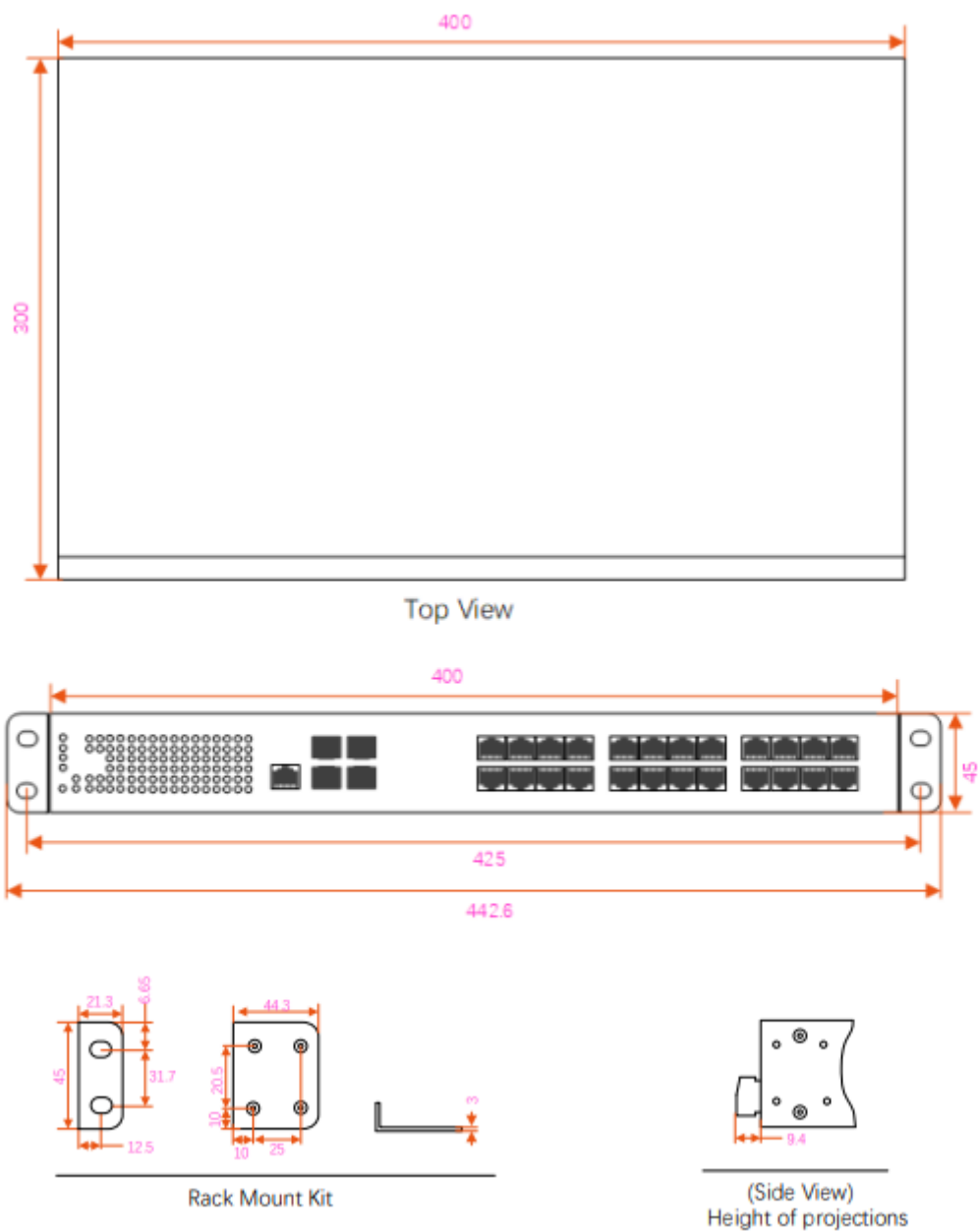- Supports QoS and In/Out bandwidth control on each port

Multicast
- Supports IGMP snooping v1, v2 and v3
- Supports MLD snooping v1 and v2
- Querier mode support
- IGMP snooping port filtering

Dimension Diagrams

Dimensions

Unit: mm

Top View

Rack Mount Kit

(Side View)
Height of projections

Series 5 Commercial 1G/10G Switches

Part Code	Description
SIL 534C24MP	24GE + 4 Combo (TP + SFP) POE+, Excluding Power Supply
SIL 532400MP	24GE POE+, Excluding Power Supply
Commercial 10G	
SIL 544O24M	24 x 10/100/1000M RJ45 ports + 4 x 10G SFP+ ports

1G/10G Fibre Transmission

Part Code	Description
SIL-SFP0-01-25-X850-0-5D	1G Multimode 850nm SFP, 550m
SIL-SFP0-01-25-X131-10XD	1G Singlemode 1310nm SFP, 10km
SIL-SFP0-01-25-X131-40XD	1G Singlemode 1310nm SFP, 40km
SIL-SFP0-01-25-X155-80XD	1G Singlemode 1550nm SFP, 80km
SIL-SFPX-08-10-X850-0-3D	10G Multimode 850nm SFP+, 300m
SIL-SFPX-08-10-X131-02XD	10G Multimode 1310nm SFP+, 2km
SIL-SFPX-08-10-X131-10XD	10G Singlemode 1310nm SFP+, 10km
1Gbps BiDi	
SIL-SFP0-01-25-B131-10XD	1G SM 1310nm TX FP 10km with DDM, 1550nm RX
SIL-SFP0-01-25-B155-10XD	1G SM 1550nm TX FP 10km with DDM, 1310nm RX
SIL-SFP0-01-25-B139-10XD	1G SM 1310nm TX FP 10km with DDM, 1490nm RX
SIL-SFP0-01-25-B149-10XD	1G SM 1490nm TX FP 10km with DDM, 1310nm RX
SIL-SFP0-01-25-B131-40XD	1G SM 1310nm TX DFB 40km with DDM, 1550nm RX
SIL-SFP0-01-25-B155-40XD	1G SM 1550nm TX DFB 40km with DDM, 1310nm RX
10Gbps BiDi	
SIL-SFPX-08-10-B127-40XD	10G SM 1270nm TX FP 10km with DDM, 1330nm RX
SIL-SFPX-08-10-B133-40XD	10G SM 1330nm TX FP 10km with DDM, 1270nm RX
SFP to Ethernet	
SIL-SFP0-01-25-XXXT-0-1	1G RJ45 Copper SFP, 100m
SIL-SFPX-08-10-XXXT-0-03	10G RJ45 Copper SFP, 30m

* Series 5 Commercial Switches are mains powered by IEC connector