

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

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Distributed By:

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°C ~ 50°C
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-20°C ~ 70°C
MTBF	100,819@Telcordia SR-332 GB 25°C
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

STANDARD FEATURES

Physical Ports

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

SIL 544024M

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 possibility 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

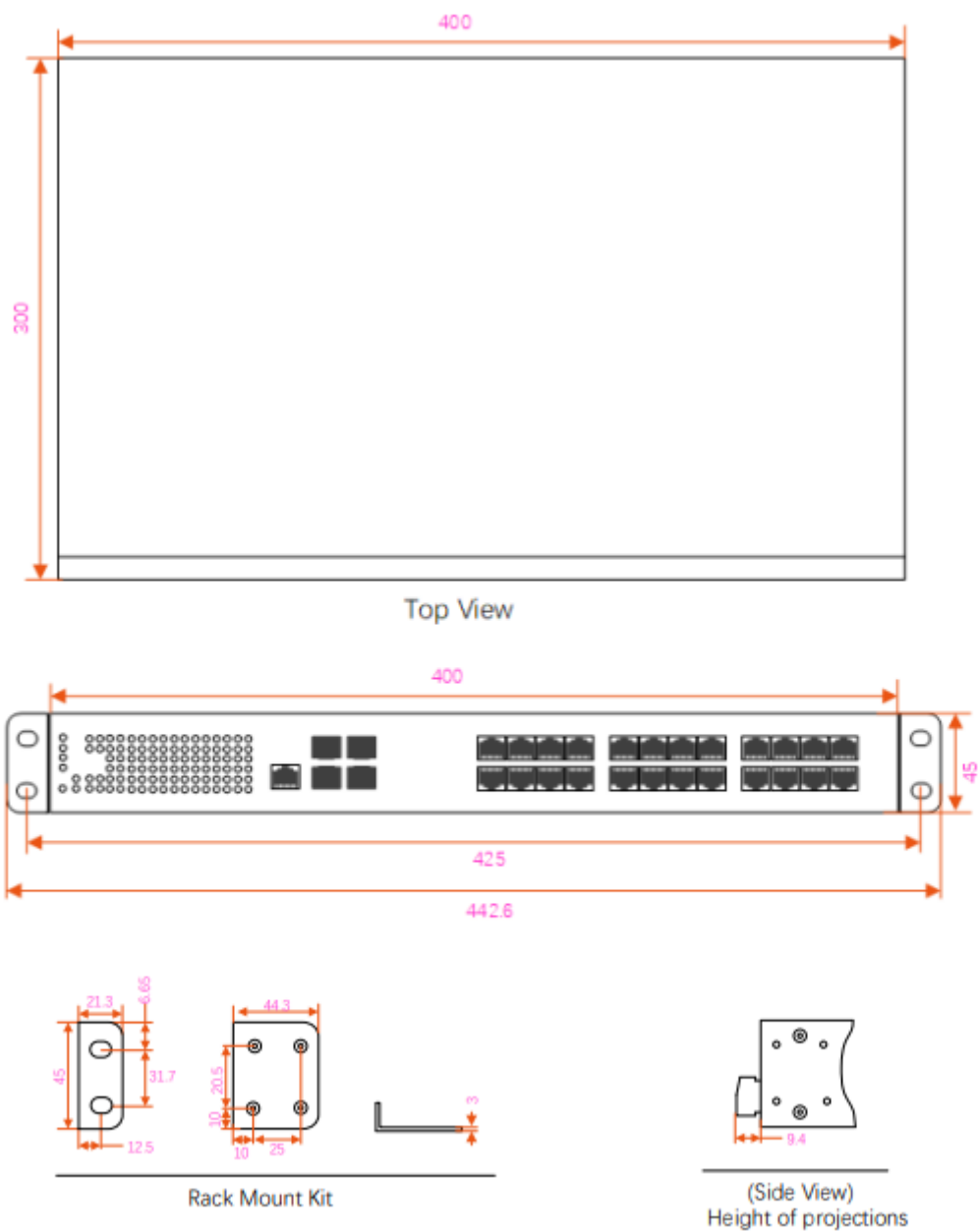
Multicast

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



Part Numbers & Accessories

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