

## Datasheet

# 32-Port 10G Uplink Managed Ethernet Fiber Switch

## SUN-36032FM



SUN-36032FM è uno switch in fibra Ethernet gestito con uplink 10G. Dispone di 4 porte RJ45 10/100/1000Base-T e 24 porte in fibra 100/1000Base-X SFP e 4 porte in fibra 1/10G SFP+. Ogni porta può supportare l'inoltro wire-speed.

Il SUN-36032FM dispone di una funzione di gestione completa della rete L2+, supporta la gestione IPV4/IPV6, l'inoltro statico della linea a piena velocità, un meccanismo completo di gestione della sicurezza, una politica ACL/QoS e ricche funzioni VLAN. Supporta più protocolli di ridondanza di rete STP/RSTP/MSTP (<50ms) e (ITU-T G.8032) ERPS (<20ms) per migliorare il backup dei collegamenti e l'affidabilità della rete. In caso di guasto della rete unidirezionale, la comunicazione può essere ripristinata rapidamente per garantire una comunicazione ininterrotta. In base ai requisiti effettivi dell'utilizzo, è possibile configurare più servizi applicativi, come il controllo del traffico delle porte, la divisione delle VLAN e l'SNMP attraverso la modalità di gestione della rete Web.

### ■ **Multi-fiber port 10G uplink**

- ◇ All series support “gigabit RJ45 port and SFP fiber port” combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- ◇ Support non-blocking wire speed forwarding.
- ◇ Support full duplex based on IEEE802.3x and half duplex based on backpressure.

### ■ **Strong business processing capability**

- ◇ ERPS/STP/RSTP/MSTP.
- ◇ Static and dynamic aggregation.
- ◇ IGMP V1/V2 and IGMP Snooping.
- ◇ IEEE802.1Q VLAN, flexible VLAN division, Voice VLAN, and QinQ configuration.
- ◇ QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including EQU, SP, WRR & SP+WRR.
- ◇ ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.

### ■ **Security**

- ◇ 802.1X authentication.
- ◇ Port isolation, Storm control.
- ◇ IP-MAC-VLAN-Port binding.

### ■ **Stable and reliable**

- ◇ CCC, CE, FCC, RoHS.
- ◇ Low power consumption, galvanized steel metal casing.
- ◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, SYS, Link, L/A.
- ◇ Self-developed power supply, high redundancy design, providing a long term and stable power output.

### ■ **Easy operation and maintenance management**

- ◇ HTTPS, SSLV3, and SSHV1/V2.

- ◊ RMON, system log, LLDP, and port traffic statistics.
- ◊ CPU monitoring, memory monitoring, Ping test, and cable diagnose.
- ◊ Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).

## TECHNICAL SPECIFICATION

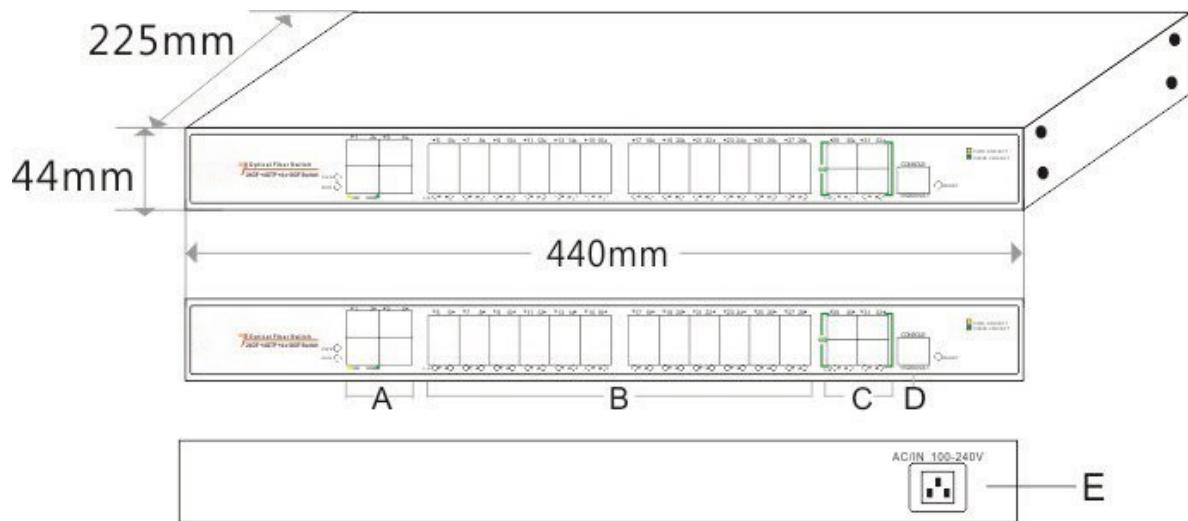
Model	SUN-36032FM	SUN-38032FM
<b>Interface Characteristics</b>		
Fixed Port		4*10/100/1000Base-T RJ45 ports (Data) 24*100/1000Base-X SFP fiber slot ports(Data) 4*1/10G SFP+ fiber slot ports(Data) 1*Console RS232 port (115200,N,8,1)
Ethernet Port		Port 1-4 support 10/100/1000Base-T(X) automatic detection, full / half duplex MDI/MDI-X adaptive
Twisted Pair Transmission		10BASE-T: Cat3,4,5 UTP( $\leq$ 100 meter) 100BASE-TX: Cat5 or later UTP( $\leq$ 100 meter) 1000BASE-T: Cat5e or later UTP( $\leq$ 100 meter)
SFP Slot Port		1/10G SFP+ optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
Optical Cable/ Distance		Multi mode: 850nm / 0 ~ 500m(1.25G), 0 ~ 300m(10G) single mode: 1310nm / 0 ~ 40km, 1550nm / 0 ~ 120km.
<b>Chip Parameter</b>		
Network Management Type	L2+	L3
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-SR/LR IEEE802.3x	
Forwarding Mode	Store and Forward(Full Wire Speed)	
Switching Capacity	598Gbps(non-blocking)	

Forwarding Rate@64byte	101.18Mpps
MAC	32K
Buffer Memory	32M
Jumbo Frame	9.6K
LED Indicator	Power: PWR (yellow), System:SYS(yellow), network: Link(yellow), fiber port: L/A (green)
Reset Switch	Yes, One-button factory reset
<b>Power</b>	
Total PWR / Input Voltage	60W (AC100-240V)
Power Consumption	Standby<20W, Full Load<45W
Power Supply	Built-in power supply, AC100~240V 50-60Hz 1.0A
<b>Physical Parameter</b>	
Operation TEMP / Humidity	-20~+55°C, 5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+80°C, 5%~95% RH Non condensing
Dimension (L*W*H)	440*225*44mm
Net /Gross Weight	<3.2kg / <3.8kg
Installation	Desktop, 19 inch 1U cabinet
<b>Certification</b>	
Lightning protection / protection level	Lightning protection: 6KV 8/20us, Protection level: IP30
Certification	CCC,CE mark, commercial, CE/LVD EN60950, FCC Part 15 Class B, RoHS
<b>Network Management Features</b>	
Interface	IEEE802.3X (Full-duplex) Port temperature protection setting

	<p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>The speed limit of the message flow in the access port.</p> <p>The minimum particle size is 64Kbps.</p>	
Layer 3 Features	<p>L2+ network management ,IPV4/IPV6 management</p> <p>L3 soft routing forwarding, Static route, Default route @ 128 pcs,</p> <p>APR @ 1024 pcs</p>	<p>L3+ network management ,IPV4/IPV6 management</p> <p>L3 full wire-speed forwarding , Static route, Default route @ 128 pcs, APR @ 1024 pcs</p>
VLAN	<p>4K VLAN based on port, IEEE802.1q</p> <p>VLAN based on the protocol</p> <p>VLAN based on MAC</p> <p>Voice VLAN, QinQ configuration</p> <p>Port configuration of Access, Trunk, Hybrid</p>	
Port Aggregation	<p>LACP, Static aggregation</p> <p>Max 16 aggregation groups and 8 ports per group.</p>	
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)	
ERPS Networking Protocol	<p>G.8032 (ERPS), Recovery time less than 20ms</p> <p>250 Ring at most, Max 1024 devices per ring.</p>	
Multicast	<p>MLD Snooping v1/v2,Multicast VLAN</p> <p>IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out</p>	
Port Mirroring	Bidirectional data mirroring based on port	
QoS	<p>Flow-based Rate Limiting</p> <p>Flow-based Packet Filtering</p> <p>8*Output queues of each port</p> <p>802.1p/DSCP priority mapping</p> <p>Diff-Serv QoS,Priority Mark/Remark</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p>	
ACL	<p>Port-based Issuing ACL,ACL based on port and VLAN</p> <p>L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP</p>	

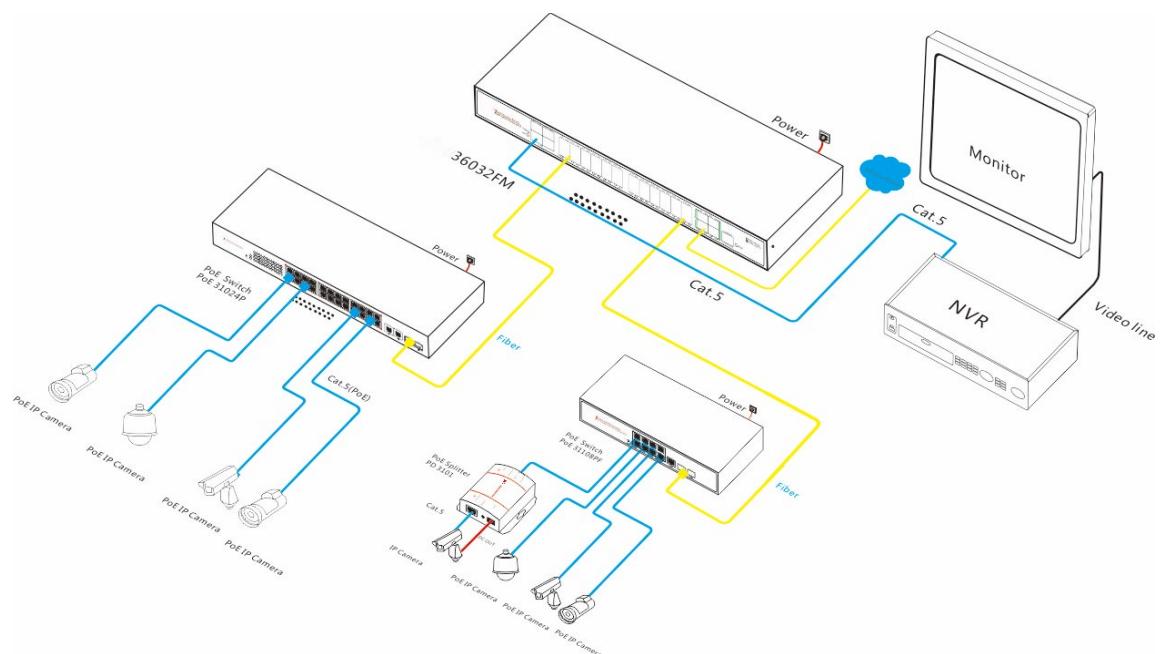
	Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
Security	IP-MAC-VLAN-Port binding ARP inspection,Anti-DoS attack AAA & RADIUS,MAC learning limit Mac black holes,IP source protection IEEE802.1X & MAC address authentication Broadcast storm control,Backup for host datum SSH 2.0,SSL,Port isolation,ARP message speed limit User hierarchical management and password protection
DHCP	DHCP Client,DHCP Snooping,DHCP Server,DHCP Relay
Management	One-key recovery Cable Diagnose,LLDP Web Management (HTTPS) NTP,System work log,Ping Test CPU instant utilization status view Console/AUX Modem/Telnet/SSH2.0 CLI Download & Management on FTP, TFTP, Xmodem, SFTP,SNMP V1/V2C/V3
System	Category 5 Ethernet network cable Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

## DIMENSION



- |   |                           |
|---|---------------------------|
| A. 4*10/100/1000M RJ45 ports            | B. 24*100/1000M SPF ports |
| C. 4*1/10G SPF+ ports                   | D. Console port           |
| E. Power input port AC100–240V, 50/60Hz |                           |

## APPLICATION



## OPTICAL MODULE INFORMATION

Product	Model	Description	Unit
1.25G Optical Module	SUN-2630	SFP optical module, 1.25G, multi mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, support hot plug and pull.	PC
	SUN-2632	SFP optical module, 1.25G, single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	SUN-2612-T	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	SUN-2613-R	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	SUN-2612-T-SC	SFP optical module, 1.25G, single-mode single fiber TX1310nm/RX1550nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC
	SUN-2613-R-SC	SFP optical module, 1.25G, single-mode single fiber TX1550nm/RX1310nm, transmission distance: 20km, SC interface, support DDM function, support hot plug and pull.	PC
Power Module	SUN-2633	1.25G SFP optical module transfers to 10/100/1000M RJ45 port.	PC
10G Optical Module	SUN-6630	SFP+ optical module, 10G Multi-mode dual fiber 850nm, transmission distance: 300m, LC interface, support DDM function, support hot plug and pull.	PC
	SUN-7832	SFP+ optical module, 10G Single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC
	SUN-7832-33	SFP+ optical module, 10G Single-mode single fiber TX1330nm/RX1270nm, transmission distance: 20km, LC interface, support DDM function, support hot plug and pull.	PC

## ORDERING INFORMATION

Model	Description
SUN-36032FM	L2+ managed Ethernet aggregation fiber switch with 4* 10/100/1000M RJ45 ports and 24*100/1000M SFP slot ports and 4*1/10G SFP+ slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
SUN-38032FM	L3 managed Ethernet aggregation fiber switch with 4* 10/100/1000M RJ45 ports and 24*100/1000M SFP slot ports and 4*1/10G SFP+ slot ports, Built-in 60W power supply. Support 1U/19 inch rack installation.
<b>Note:</b> Ethernet fiber switch does not match the optical module by default.	

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