Industrial L2 Managed PoE++ Switch

SP3006FM−L2 | SP3010FM−L2 | SP3012FM−L2   Hardware version: V2.0

Overview

Wi−Tek Superic industrial L2 managed PoE++ switch provide 4/8 Gigabit Ethernet RJ−45 ports and 2/4 2.5 Gigabit SFP uplink ports. Some RJ−45 ports comply with 802.3af/at/bt PoE standard and output up to 90W PoE power.

This series switch support Layer 2 management functions, such as VLAN, VLAN classification, QinQ, port mirroring, STP, RSTP, MSTP, IGMP, QoS, DHCP, multicast, ACL, dying gasp,LLDP, 802.1X, fiber transceiver DDM, PoE management, G.8032 ERPS protocol, IPV6 management, Web, SNMP, Telnet, TFTP, etc.

Professional design provides a flexible, easy−to−use, and reliable industrial network solution. Redundant power design with polarity reverse/over−voltage/over−current protection guarantees a safe power supply. Solid shell, wide operation temperature from −40℃ to 75℃, and high−level EMI/EMC capability design ensure its stable and reliable operation even in harsh environments.

It is the best choice for outdoor CCTV project, wireless coverage project and the project of industrial application scenarios such as factory and transportation.

Features

Full Gigabit Interfaces Design

SP3006FM−L2: 4×10/100/1000 Base−T PoE ports and 2×1000/2500 Base−X SFP ports
SP3010FM−L2: 8×10/100/1000 Base−T PoE ports and 2×1000/2500 Base−X SFP ports
SP3012FM−L2: 8×10/100/1000 Base−T PoE ports and 4×1000/2500 Base−X SFP ports

−40~75℃ Operating Temperature

−40~75℃ working temperature design, makes it meet the requirement of harsh application environment.

High Level Protection Design

6kV surge immunity for power and Ethernet ports, 15kV air discharge and 8kV contact discharge ESD protection, makes it an ideal choice for outdoor application scenario.

Robust L2 Managed Functions

Support robust Layer 2 management functions, such as VLAN, VLAN classification, QinQ, port mirroring, STP, RSTP, MSTP, IGMP, QoS, DHCP, multicast, ACL, dying gasp, LLDP, 802.1X, fiber transceiver DDM, PoE management, G.8032 ERPS protocol, IPV6 management, which can meet the requirements of a simple industrial project. discharge ESD protection, makes it an ideal choice for outdoor application scenarios.

Redundant DC Power Input Design

Support redundant 44−57V DC power input, provide reliable alternative power access solutions.

Specifications

Model	SP3006FM–L2	SP3010FM–L2	SP3012FM–L2
Interfaces			
Downlink Ports	4 x 100/1000Mbps RJ45 ports	8 x 100/1000Mbps RJ45 ports	8 x 100/1000Mbps RJ45 ports
Uplink Ports	2 x 1000M/2.5Gbps SFP ports	2 x 1000M/2.5Gbps SFP ports	**4** x 1000M/2.5Gbps SFP ports
Management Port	1 x Conslole Port		
Performance			
Memory and Flash	128MB DRAM, 128MB Flash		
PoE			
PoE Port	Port 1– 4	Port 1– 8	Port 1– 8
PoE Standard	Port1–2: 802.3af/at/bt Port3–4: 802.3af/at	Port1–2: 802.3af/at/bt Port3–8: 802.3af/at	Port1–2: 802.3af/at/bt Port3–8: 802.3af/at
PoE	Mid–span and End–span		
PoE Pin Assignment	1/2(+), 3/6(–), 4/5(+), 7/8(–)		
PoE Power	90 W max for port1–2 30W max for port3–4 120 W Max. (PoE power budget)	90 W max for port1–2 30W max for port3–8 240 W Max. (PoE power budget)	
Switch Property			
Forwarding Mode	Store and Forward		
Switching Capacity	18 Gbps	26 Gbps	36 Gbps
Packet Forwarding Rate	13.39 Mpps	19.34 Mpps	26.78 Mpps
MAC Address Table	16 k		
Packet Buffer Memory	2 Mbit		12 Mbit
Jumbo Frame	10 kB		

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Power Supply			
Input Power	Power 1 (Main): 44–57V DC Power 2 (Backup): 44–57V DC		
Power Consumption	Idle: 8 W 100% Traffic Rate with PoE: 128 W	Idle: 10 W 100% Traffic Rate with PoE: 250 W	Idle:15 W 100% Traffic Rate with PoE: 255 W
Physical Characteristics			
LED Indicators	P Off: the device is power off or failed Green On: the device power on is normal S On: device on normal operation Blinking: device initialization Link Off: ports link down On: ports link up Blinking: data on TX/RX PoE Off: PoE not working On: PoE working 5, 6(Fiber ports indicators) Off: ports link down Green On: ports link up Green Blinking: data on TX/RX	P Off: the device is power off or failed Green On: the device power on is normal S On: device on normal operation Blinking: device initialization Link Off: ports link down On: ports link up Blinking: data on TX/RX PoE Off: PoE not working On: PoE working 9, 10(Fiber ports indicators) Off: ports link down Green On: ports link up Green Blinking: data on TX/RX	P Off: the device is power off or failed Green On: the device power on is normal S On: device on normal operation Blinking: device initialization Link Off: ports link down On: ports link up Blinking: data on TX/RX PoE Off: PoE not working On: PoE working 9–12(Fiber ports indicators) Off: ports link down Green On: ports link up Green Blinking: data on TX/RX
Fan Quantity	Fanless		
Switch Dimensions	179*124*54 mm		
Package Dimensions	233*184*72 mm		
Weight	Net Weight: 1.18 kg	Net Weight: 1.19 kg	Net Weight: 1.28 kg
	Package Weight: 1.34 kg	Package Weight: 1.36 kg	Package Weight: 1.38 kg
Installation	Desktop, DIN–rail		

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Environmental			
Surge Immunity of Ethernet ports	IEC 61000-4-5 Common mode 6kV Differential mode 2kV		
Surge Immunity of power	IEC 61000-4-5 Common mode 6kV Differential mode 4kV		
ESD Protection	IEC 61000-4-2 Contact discharge 8kV Air discharge 15kV		
Operating Temperature	-40℃ ~ 75℃(-40℉ to 167℉)		
Storage Temperature	-40℃ ~ 85℃(-40℉ to 185℉)		
Operating Humidity	10% ~ 90% (Non-condensation)		
Storage Humidity	5% ~ 95% (Non-condensation)		
Certification			
Certification	CE, FCC, RoHS, UKCA, RCM		

Model	SP3006FM-L2	SP3010FM-L2	SP3012FM-L2
Software Feature			
Port aggregation	Support 1GE port aggregation		
	Support 2.5GE aggregation		
	Support static aggregation		
	Support LACP dynamic aggregation		
	Up to 64 aggregation groups and up to 8 ports per group		
Port features	Support IEEE802.3x flow control		
	Support port traffic statistics		
	Support Broadcast Storm (Broadcast; Unknown Multicast;Unknown Unicast)		
	Support Loop Detection (Port Based; VLAN Based)		
	Support Port mirroring (One-to-One; Many-to-One; Tx/Rx/Both)		
VLAN	Support Mac Based VLAN		
	Support IP Based VLAN		
	Support Protocol Based VLAN		
	Support GVRP (normal mode; fixed mode; forbidden mode)		
	Support QinQ (Port-based QinQ; VLAN-based QinQ; VLAN-based QinQ)		
Ring network protocol	Support IEEE 802.1D-STP		
	Support IEEE 802.1W -RSTP		
	Support IEEE 802.1S -MSTP		
	Support BPDU Guard		
	Support G.8032 ERPS protocol		
DHCP	Support option-82		
	Support DHCP Client		
	Support DHCP Snooping		

Model	SP3006FM-L2	SP3010FM-L2	SP3012FM-L2
L2 Multicast	Support Group Address		
	Support IGMP snooping		
ACL	Support IP Standard ACL		
	Support IP extend ACL		
	Support MAC extend ACL		
	Support L2, L3		
QoS	8 priority queues		
	802.1p CoS/DSCP priority		
	Queue scheduling (SP (Strict Priority); WRR(Weighted Round Robin)SP+WRR)		
	Rate Limit (Ingress /Egress Port; Egress Queue)		
mac-address	Static mac-address management		
	Dynamic mac-address management)		
	Filtering mac-address		
Security	Support RADIUS/TACACS+		
	Support Dot1x (port authentication, MAC authentication)		
	Support RADIUS authentication access switch (Telnet; SSH; HTTP)		
	ARP Check		
	Support IP Source Guard (Port-based IP/mac binding access)		
	Support port isolation		
IPV6	DHCP IPv6 Client		
	Ping IPv6		
	Tracert IPv6		
	Telnet IPv6		
	SNMP IPv6		
	SSH IPv6		
	Http IPv6		
	TFTP IPv6		
	Dual IPv4/IPv6		

Model	SP3006FM–L2	SP3010FM–L2	SP3012FM–L2
Management and maintenance	Support Syslog		
	Support RMON(1,2,3 &9)		
	Support NTP/SNTP(RFC2030)		
	Support Ping; TRACERT		
	Support optical transceiver DDM function		
	Support TFTP Client		
	Support TFTP, web upgrading		
	Configuration Export/import		
	Support IPv6 Management		
	Support PoE management		

SP3006FM-L2

Dimensions (mm)

179mm

124mm

54mm

Front Panel

2×10/100/1000 Base-T PoE++ Ports

2×1000/2500 Base-X SFP ports

LED Indicators

2×10/100/1000 Base-T PoE+ Ports

Side Panel

44-57V DC Power Supply Input (Main)

44-57V DC Power Supply Input (Backup)

Grounding

Reset

Console
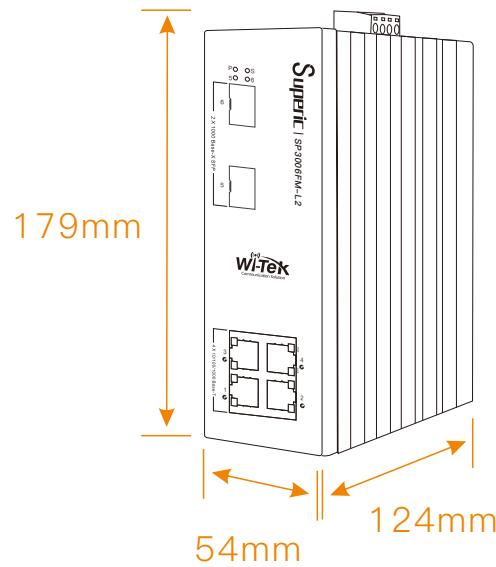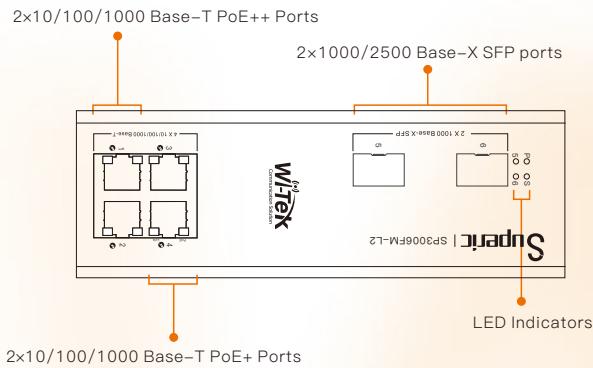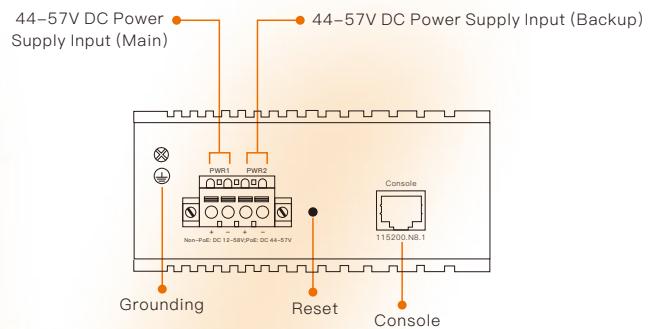
SP3010FM-L2

Dimensions (mm)

179mm

54mm

124mm

Front Panel

6×10/100/1000 Base-T PoE+ Ports

2×1000/2500 Base-X SFP ports

2×10/100/1000 Base-T PoE++ Ports

LED Indicators

Side Panel

44-57V DC Power Supply Input (Main)

44-57V DC Power Supply Input (Backup)

Grounding

Reset

Console
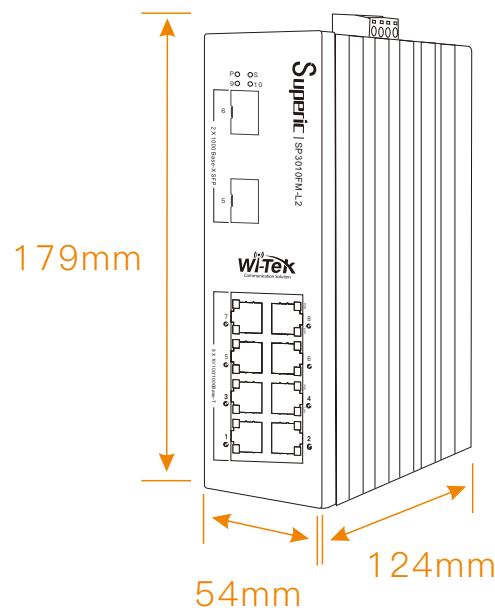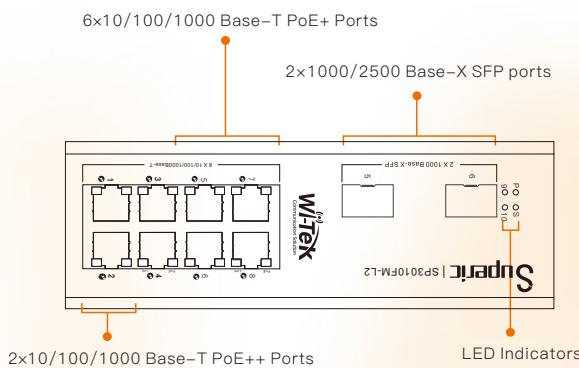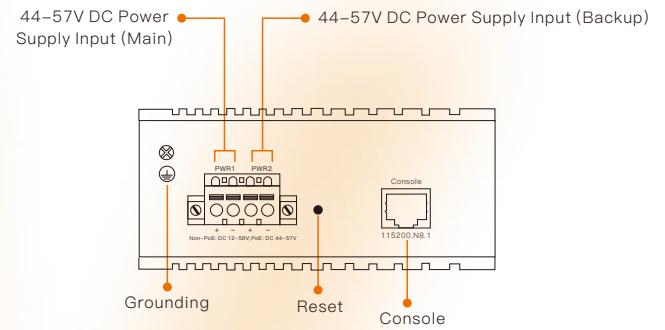
SP3012FM-L2

Dimensions (mm)

179mm

54mm

124mm

Front Panel

6 × 10/100/1000 Base-T PoE+ Ports

4×1000/2500 Base-X SFP ports

2×10/100/1000 Base-T PoE++ Ports

LED Indicators

Side Panel

44-57V DC Power Supply Input (Main)

44-57V DC Power Supply Input (Backup)

PWR1   PWR2

Non-PoE: DC 12~58V/PoE: DC 44-57V

Console

115200.N8.1

Grounding

Reset

Console
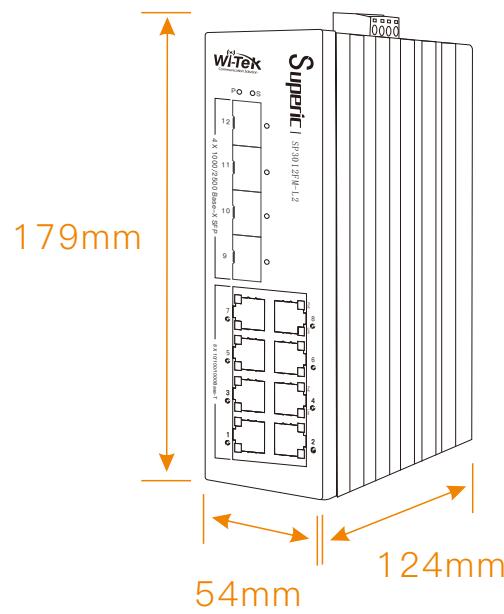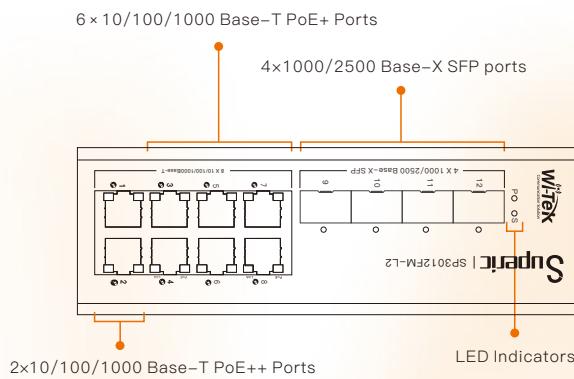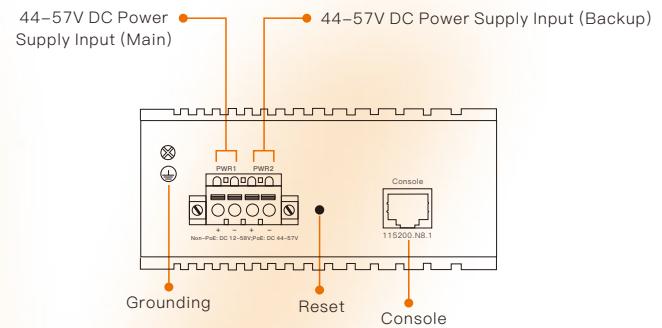
Package Contents

Welcome to order our products. After purchasing, you will receive:

Items	Quantity
Switch	1 pcs
Quick Installation Guide	1 pcs

CE FC RoHS UK CA

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