

QUANT 5500 INDUSTRIAL GIGABIT POE+ SWITCH SERIES



Q-IE-5500-24P-L2-4S-E



Q-IE-5500-48P-L2-4G-E

PRODUCT OVERVIEW

The **Quant 5500 Industrial Switch Series** delivers cost-effective, high-performance Layer 2+ access switching designed for enterprises, industrial environments, branch offices, and small to mid-size businesses.

Available in 24-port and 48-port Gigabit PoE+ models, the series provides reliable, secure, and high-density connectivity with advanced redundancy and comprehensive management features.

These fully managed switches offer industrial-grade design, enhanced PoE power budgets, and versatile uplink options to support a wide range of mission-critical applications such as CCTV, access control, intelligent building systems, and IoT networks.

With a wide operating temperature range ($-40\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$), robust surge protection, and dual power inputs, the Quant 5500 Series is ideally suited for harsh environments demanding maximum uptime and network resilience.

PRODUCT FEATURE

- **Industrial-Grade Design**

Extended operating temperature range of $-40\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$.

Galvanized steel IP30-rated housing with 6 kV surge protection.

Fan-cooled, low-power design for stable long-term operation in industrial deployments.

- **Powerful PoE+ Capability**

IEEE 802.3af/at compliant, delivering up to 30 W per port.

400 W total PoE power (24-port) and 600 W total PoE power (48-port).

Intelligent PoE features including power scheduling, remote control, and priority allocation.

- **Flexible Uplink Options**

24-port model: 4 × 100/1000 Mbps SFP uplinks.

48-port model: 4 × 1/10 G SFP+ uplinks for high-speed backbone integration.

Supports single-mode and multi-mode fiber with DDM and hot-swapping.

- **Advanced Switching & Security**

VLAN, QinQ, ACL, and IGMP Snooping v1/v2/v3.

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

STP/RSTP/MSTP and ERPS ($< 20\text{ ms}$) redundancy for high availability.

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TECHNICAL SPECIFICATION

• Versatile Network Management

Intuitive Web GUI, CLI, Telnet, SNMP v1/v2/v3, HTTPS, SSH.

LLDP and Quant-NMS support for centralized monitoring and control.

Industrial diagnostics tools: cable testing, ping, CPU/memory monitoring, RMON.

Model	Downlink PoE Ports	SFP Uplink	Network Protocol	Transmission Distance
Connectivity				
Q-IE-5500-24P-L2-4S-E	24 × 10/100/1000 Mbps PoE+	4 × 1/10G SFP+	IEEE 802.3af/at	100 m
Q-IE-5500-48P-L2-4G-E	48 × 10/100/1000 Mbps PoE+	4 × 1/10G SFP+	IEEE 802.3af/at	100 m

- Multi-mode fiber: up to 550 m, LC interface.
- Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km, LC/SC interface.

Model	Switching Capacity	Forwarding Rate	MAC Address Table	Buffer Memory	Jumbo Frame	CPU	Forwarding Mode	Input Voltage
Performance and Efficiency								
Q-IE-5500-24P-L2-4S-E	52 Gbps	38.69 Mpps	8 K	8 Mbit	9.6 KB	416 MHz	Store-and-forward	380W
Q-IE-5500-48P-L2-4G-E	176 Gbps	131 Mpps	32 K	32 Mbit	9.6 KB	500MHz	Store-and-forward	600W

- Redundant AC + DC power inputs with automatic failover.
- 6 kV lightning protection and IP30 enclosure for rugged environments.
- IEC 61000-4 compliance for surge, ESD, and EMI immunity.
- ERPS (< 20 ms) and STP/RSTP/MSTP support for network protection and fast recovery.

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TECHNICAL SPECIFICATION



Model	Q-IE-5500-24P-L2-4S-E	Q-IE-5500-48P-L2-4G-E
Interface Characteristics		
Fixed Port	2*AC100-240V input ports 1*Console port (115200,N,8,1) 1*Power failure alarm switch port (FAULT) 24*10/100/1000Base-T PoE ports (Data/ Power) 4*100/1000M uplink SFP fiber ports (including 2 combo ports) (Data) 1 set DC48-57V input ports (support reverse connection protection)	2*AC100-240V input ports 1*Console RS232 port (115200, N, 8,1) 4*1/10G uplink SFP+ fiber ports (Data) 48*10/100/1000Base-T PoE ports (Data/Power) 2*DC48-57V input ports (support reverse polarity protection)
Ethernet Port	Port 1-24 can support 10/100/1000Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaption	Port 1-48 can support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)	
SFP Slot Port	-	1/10G SFP+ optical fiber port, default no include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)
Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km	Multi-mode: 850nm/ 0~550m (1.25G), 850nm/ 0~300m(10G), Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter		
Network Management Type	L2+	
DRAM	1G	4G
FLASH	128M	256M
LED Indicator	Power: PWR(Yellow), System: SYS(Yellow), Network: Link/Act (Yellow), PoE: PoE (Green), Fiber port: L/A(Green)	
Reset Switch	Yes	

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TECHNICAL SPECIFICATION

Model	Q-IE-5500-24P-L2-4S-E	Q-IE-5500-48P-L2-4G-E
PoE& Power Supply		
PoE Port	Port 1-24	Port 1 to 48
PoE Management	PoE power supply total power limit configuration Power delay start, PoE work and time scheduling Port PoE working status display, Port PoE output priority configuration Port PoE output power distribution, PoE on/off, af/at power distribution	
Power Supply Pin	1/2(+) 3/6 (-)	
Power Consumption	Standby<18W, Full load<380W	Standby<35W, Full load<600W
Power Supply	Built-in power supply, AC100~240V 50-60Hz, 5.0A	Built-in power supply, AC100~240V 50-60Hz, 6.6A
Power Input Port	Alarm switch port, 2*AC power input ports, 2*DC48-57V input ports Dual input power port design: AC power supply priority to support anti-reverse connection protection, and automatically switches to DC connection when power fails.	
Physical Parameter		
Operation Temp/ Humidity	-40~+80°C, 5%~90% RH Non condensing	
Storage Temp/ Humidity	-40~+85°C, 5%~95% RH Non condensing	
Dimension (L*W*H)	440*378*44.5mm	
Weight	5.4 kg	6.75 kg
Installation	Desktop, 1U/19" cabinet	
Certification & Warranty		
Lighting Protection	IEC61000-4-3(RS):10V/m (80~1000MHz) FCC Part 15/CISPR22 (EN55022): Class A IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4-10 (Damped oscillation): 30A/m, 1MHz IEC61000-4-12/18 (Shockwave): CM 2.5kV, DM 1kV Protection level: IP30, Lightning protection: 6KV 8/20us IEC61000-4-4(EFT): Power cable: ±4kV, Data cable: ±2kV IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz) IEC61000-4-8 (Power frequency magnetic field): 100A/m,1000A/m, 1-3s IEC61000-4-5(Surge): Power cable: CM±4kV/DM±2kV, Data cable: ±4kV	

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TECHNICAL SPECIFICATION

Model	Q-IE-5500-24P-L2-4S-E	Q-IE-5500-48P-L2-4G-E
Certification & Warranty		
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-32 (Free Fall), IEC60068-2-27 (Anti Shock)	
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS	
Country of Origin	Vietnam	
Warranty	2 Years	

ORDERING INFORMATION

Model	Description	Input Voltage
Q-IE-5500-24P-L2-4S-E	24-Port Industrial Gigabit PoE+ L2+ Managed Switch with 4 × SFP Uplinks	400W
Q-IE-5500-48P-L2-4G-E	48-Port Industrial Gigabit PoE+ L2+ Managed Switch with 4 × 1/10 G SFP+ Uplinks	600W

