

## QUANT 9400 CORE SWITCH SERIES



Q-CR-9400-24P-L3-4G



Q-CR-9400-48P-L3-4G

### PRODUCT OVERVIEW

The Quant 9400 Series is a new generation of Layer 3 core routing switches engineered for next-generation enterprise networks, metropolitan backbones, and data-intensive environments.

With 24 or 48 Gigabit access ports and 4 × 1/10 Gb SFP+ uplinks, the 9400 Series delivers line-rate L2/L3/L4 switching, high-bandwidth scalability, and carrier-grade reliability for critical core, aggregation, and distribution layers.

Powered by a 598 Gbps non-blocking switching fabric, these switches enable seamless handling of converged traffic — voice, video, and data — across multi-tenant or high-density campus infrastructures.

Advanced IPv4 / IPv6 dual-stack routing, including RIP, OSPF, BGP, VRRP, and PIM-SM/DM, supports dynamic, resilient, and scalable inter-networking across enterprise and service-provider networks.

The Quant 9400 is designed with modular fan and power systems, intelligent thermal management, and energy-efficient Ethernet (IEEE 802.3az) to reduce power consumption while maintaining 24 × 7 availability. High-availability protocols such as ERPS (G.8032) and BFD-based fast link detection ensure sub-20 ms failover, delivering the continuous uptime required by enterprise cores and smart-city deployments.

### PRODUCT FEATURE

- **High-Performance L3 Routing Core**
  - Non-blocking 598 Gbps switching fabric
  - Hardware-accelerated IPv4 / IPv6 routing (RIP, OSPF, BGP, VRRP)
  - MPLS VPN and PIM-SM/DM multicast support
- **Enterprise Virtualization and Scalability**
  - Virtual Stack (Hot/Standby VRRP) for clustered operation
  - ISSU (In-Service Software Upgrade) for zero-downtime updates
  - 10 Gbps SFP+ uplinks for high-speed aggregation
- **Comprehensive Security Architecture**
  - IEEE 802.1X authentication, RADIUS / TACACS+ integration
  - DoS, TCP SYN, UDP Flood, and broadcast storm defense
  - Role-based CLI access and multi-level user permissions

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### PRODUCT FEATURE

- **Advanced QoS and Traffic Engineering**

8 hardware queues per port (SP, WRR, SP+WRR)  
sFlow and RMON for real-time traffic analytics  
DSCP / CoS priority mapping and WRED congestion control

- **Operational Resilience and Energy Efficiency**

The intelligent fan design supports a flexible selection of front and back/back and front air ducts and supports automatic fan speed regulation to effectively  
6 kV surge protection and IP30 enclosure  
IEEE 802.3az Green Ethernet for reduced consumption

### TECHNICAL SPECIFICATION

Model	Downlink PoE Ports	Uplink Ports	Routing Type	Network Protocol	Power Supply	Installation
<b>Connectivity</b>						
<b>Q-CR-9400-24P-L3-4G</b>	24 × 10/100/1000 Base-T RJ45	4 × 1/10 G SFP+	Layer 3 Dual-Stack IPv4/IPv6	IEEE 802.3af/at	Internal AC 100–240 V	1U Rack Mount
<b>Q-CR-9400-48P-L3-4G</b>	48 × 10/100/1000 Base-T RJ45	6 × 1/10 G SFP+	Layer 3 Dual-Stack IPv4/IPv6	IEEE 802.3af/at	Internal AC 100–240 V	1U Rack Mount

- Multi-mode 850 nm up to 550 m; Single-mode 1310/1550 nm up to 120 km (SFP+ module dependent).

Model	Switching Capacity	Forwarding Rate	MAC Address Table	Buffer Memory	Jumbo Frame	Forwarding Mode	Input Voltage
<b>Performance and Efficiency</b>							
<b>Q-CR-9400-24P-L3-4G</b>	598 Gbps	222 Mpps	16 K	12 MB	9 KB	Store-and-forward	72W
<b>Q-CR-9400-48P-L3-4G</b>	598 Gbps	160 Mpps	32 K	32 MB	9 KB	Store-and-forward	75W

- ISSU (In-Service Software Upgrade) for zero-downtime updates
- VRRP Hot Standby and HSRP-compatible redundancy
- STP/RSTP/MSTP and ERPS (G.8032) for link failover < 20 ms
- BFD for OSPF / BGP link health detection
- Dual AC power design with intelligent monitoring and slow-start control
- Fan redundancy and auto-speed regulation for silent operation
- Surge protection 6 kV, IP30 metal enclosure, and CE/FCC safety certification

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### TECHNICAL SPECIFICATION



Model	Q-CR-9400-24P-L3-4G	Q-CR-9400-48P-L3-4G
<b>Interface Characteristics</b>		
<b>Fixed Port</b>	1*RJ45 Console port 24*10/100/1000M RJ45 ports (Data) 4*1/10G uplink SFP+ fiber ports (Data)	1*RJ45 Console port 48*10/100/1000M RJ45 ports (Data) 4*1/10G uplink SFP+ fiber ports (Data)
<b>Ethernet Port</b>	Port 1-24 support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption	Port 1-48 support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
<b>Twisted Pair Transmission</b>	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)	
<b>Optical Fiber Port</b>	1/10G SFP+ optical fiber port, default no include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)	
<b>Optical Cable/ Distance</b>	Multi-mode: 850nm/ 0-550m, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km.	
<b>Chip Parameter</b>		
<b>Network Management Type</b>	L3	
<b>Network Protocol</b>	IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3ae 10Gb/s Ethernet, IEEE 802.3x	
<b>Forwarding Mode</b>	Store and Forward (Full Wire Speed)	
<b>Switching Capacity</b>	598Gbps (non-blocking)	
<b>Forwarding Rate</b>	222 Mpps	160 Mpps
<b>Power Supply</b>		
<b>Fixed Port</b>	Port 1 to 24	Port 1 to 48
<b>Power Consumption</b>	Standby<25W, Full Load<35W	Standby < 30 W / Full < 50 W
<b>Power Supply</b>	Built-in power supply, AC100-240V 50-60Hz, 1.0A	Built-in power supply, AC100~240V 50-60Hz, 1.0A

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### TECHNICAL SPECIFICATION

Model	Q-CR-9400-24P-L3-4G	Q-CR-9400-48P-L3-4G
<b>Physical Parameter</b>		
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 × 208 × 45 mm	
Weight	5.3 kg	5.3 kg
Installation	Desktop, 1U/19" cabinet	
<b>Certification &amp; Warranty</b>		
Lighting Protection	Port lightning protection: 6KV 8/20us, Protection level: IP30	
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS	
Country of Origin	Vietnam	
Warranty	2 Years	

### ORDERING INFORMATION

Model	Description	Input Voltage
<b>Q-CR-9400-24P-L3-4G</b>	24-Port Gigabit Layer 3 Core Switch with 4 × 1/10 G SFP+ uplinks, non-blocking 598 Gbps fabric, advanced routing.	72W
<b>Q-CR-9400-48P-L3-4G</b>	48-Port Gigabit Layer 3 Core Switch with 6 × 1/10 G SFP+ uplinks, carrier-class redundancy, IPv4/IPv6 routing and BFD support.	75W