



C9500-24Q-A DataSheet

Buy Cisco C9500-24Q-A—24-port 40 G QSFP+ Catalyst 9500 switch with DNA Advantage, 1.92 Tbps fabric, MACsec-256, dual 1 600 W PSUs and SD-Access readiness.

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C9500-24Q-A Description

Cisco Catalyst C9500-24Q-A—often called the Cisco 9500 24Q Advantage switch—is a 1-RU fixed-core platform that packs twenty-four wire-rate 40 GbE QSFP+ ports into a compact chassis. Each QSFP+ can split into 4 × 10 GbE, presenting up to 96 access links and a 1.92 Tbps non-blocking fabric. The DNA Advantage software tier unlocks SD-Access automation, Encrypted-Traffic Analytics and advanced routing, while hardware MACsec-256 encryption and Trust Anchor secure-boot enforce zero-trust design. Dual hot-swap 1600 W PSUs, N+1 modular fans and open IOS XE APIs (NETCONF, RESTCONF, gNMI) keep the C9500-24Q-A always-on and fully programmable for campus cores, data-centre leafs or metro aggregation.

Model Meaning

Code	Meaning
C	Cisco Catalyst fixed-form-factor switch family
9500	9500 Series core/aggregation platform
24Q	24 × QSFP+ ports (native 40 GbE; break-out 4 × 10 GbE)
A	DNA Advantage hardware SKU (ships with Cisco DNA Adv licence)

Model Comparison

Parameter	C9500-24Q-A	C9500-24Q-E	C9500-24Y4C-A
Licence Tier	DNA Advantage	DNA Essentials	DNA Advantage
Port Type	24 × QSFP+	24 × QSFP+	24 × SFP28 + 4 × QSFP28
Per-Port Speed	40 G / 4×10 G	40 G / 4×10 G	25 G / 10 G + 100 G uplinks
Switching Capacity	1.92 Tbps	1.92 Tbps	4.8 Tbps
Forwarding Rate	1.43 Bpps	1.43 Bpps	3.57 Bpps
MACsec-256	Yes	Yes	Yes
SD-Access Role	Edge/Core	Edge/Core	Edge/Core
Default PSUs	2 × 1600 W	2 × 1600 W	2 × 1600 W
Fan Modules	6 (N+1 modular)	6	6
Break-out Support	96 × 10 G	96 × 10 G	24 × 10 G
Typical Power Draw	800 W	800 W	950 W
Dimensions (H×W×D)	1 RU, 44×437×600 mm	Same	Same
Weight	≈ 17 kg	≈ 17 kg	≈ 18 kg

Specification

Parameter	Value	Parameter	Value
Product ID	C9500-24Q-A	Series	Catalyst 9500 High-Performance
Ports	24 × QSFP+	Break-out	4 × 10 G per port (96 × 10 G)
Switching Capacity	1.92 Tbps	Forwarding Rate	1.43 Bpps
ASIC / CPU	UADP 3.0; 4-core x86	System Memory	16 GB DRAM
On-board Storage	32 GB eMMC	Optional SSD	240 GB SATA
MAC Address Table	256 K	VLANs Supported	4 000
Stacking	StackWise Virtual (2 × 40 G)	SD-Access Role	Fabric Edge / Core
Encryption	Line-rate MACsec-256	Trust Anchor	Secure-Boot TPM 2.0
QoS Queues	8 egress / port	ACL Entries	32 K (IPv4 / IPv6)
APIs	NETCONF, RESTCONF, gNMI	Telemetry	Model-driven streaming
Power Supplies	2 × 1600 W AC/DC, hot-swap	Fan Modules	6 × field-replaceable (N+1)
Typical Power	≈ 800 W @ 50 % load	Heat Dissipation	≈ 2 730 BTU/hr
Dimensions (H×W×D)	1 RU, 44 × 437 × 600 mm	Weight	≈ 17 kg
Operating Temperature	0 – 45 °C	Relative Humidity	5 – 90 % non-cond.
Acoustic Rating	≤ 74 dB LWAd	Altitude	Up to 3 000 m
Management Ports	1 × RJ-45 OOB, 1 × USB 3.0	Console Ports	USB-C & RJ-45
Precision Timing	IEEE 1588 PTP	Warranty	Cisco Enhanced LLW
Mounting Kit	Standard 19-in rack	High Availability	ISSU / NSF capable

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