



C9500-24Q-E DataSheet

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

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C9500-24Q-E Description



Cisco Catalyst C9500-24Q-E is a 1-RU fixed-core switch that delivers twenty-four wire-rate 40 GbE QSFP+ ports, each able to break out to 4 × 10 GbE for 96 access links. Built on Cisco's UADP ASIC, the switch supplies 1.92 Tbps switching capacity and 1.43 Bpps forwarding, while hardware MACsec-256 encryption, Trust Anchor secure-boot and Cisco DNA Essentials software enable zero-trust segmentation and SD-Access edge onboarding. Dual hot-swap 1600 W PSUs, N+1 modular fan trays and open IOS XE APIs (NETCONF, RESTCONF, gNMI) keep the network always-on and fully programmable, making the C9500-24Q-E ideal for high-density campus cores, data-centre leafs and metro aggregation upgrades.

Model Meaning

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

Model Comparison

Parameter	C9500-24Q-E	C9500-24Y4C-E	C9500-32QC-E
Licence Tier	Essentials	Essentials	Essentials
Down-link Ports	24 × QSFP+	24 × SFP28	32 × QSFP+
Per-Port Speed	40 G (4×10 G)	25 G (split 10 G)	100 G / 40 G
Additional Uplinks	–	4 × QSFP28 (100 G)	–
Switching Capacity	1.92 Tbps	4.8 Tbps	6.4 Tbps
Forwarding Rate	1.43 Bpps	3.57 Bpps	4.76 Bpps
MACsec-256	Yes	Yes	Yes
SD-Access Role	Edge/Core	Edge/Core	Spine/Core
Default PSUs	2 × 1 600 W	2 × 1 600 W	2 × 1 600 W
Fan Modules	N+1	N+1	6 (modular)
Typical Power Draw	≈ 800 W	≈ 950 W	≈ 1 200 W
Dimensions (H×W×D)	1 RU, 44 × 437 × 600 mm	Same	1 RU, 44 × 437 × 600 mm
Weight	≈ 17 kg	≈ 18 kg	≈ 19 kg

Specification

Parameter	Value	Parameter	Value
Product ID	C9500-24Q-E	Series	Catalyst 9500 High-Performance
Port Configuration	24 × QSFP+	Break-out Support	4 × 10 G per port (96 × 10 G max)
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 Technology	StackWise Virtual (2 × 40 G)	SD-Access Role	Fabric Edge / Core
Encryption	MACsec-256 line-rate	Trust Anchor	Secure Boot with TPM 2.0
Quality of Service	8 egress queues / port	ACL Entries	32 K (IPv4/IPv6)
Open APIs	NETCONF, RESTCONF, gNMI	Telemetry	Model-driven, streaming
Power Supplies	2 × 1 600 W AC/DC, hot-swap	Fan Modules	6 × modular (N+1)
Typical Power Draw	≈ 800 W @ 50 % load	Heat Dissipation	≈ 2 730 BTU/hr
Dimensions (H×W×D)	1 RU, 44 × 437 × 600 mm	Weight	≈ 17 kg
Operating Temp.	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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