

C9000 / C9500 Series

Modular Backbone Switch / High-End Backbone Switch

Data Sheet | v2

Product Overview

The CoreEdge C9000 and C9500 Series are modular backbone switches designed for high-density enterprise campus cores, data center aggregation, and carrier backbone deployments. Built on a chassis-based architecture with hot-swappable interface modules, fabric modules, management modules, fan trays, and power supplies, these switches provide maximum flexibility and investment protection as network requirements evolve.

The C9000 Series offers three chassis sizes — C9000-3S (6 RU), C9000-4S (11 RU), and C9000-8S (15 RU) — scaling from 3.6 Tbps to 9.6 Tbps switching capacity. The flagship C9500-8S delivers 20 Tbps of switching capacity with 4 fabric module slots and a deeper chassis designed for maximum line-card density. All models share a common software image and a unified interface module ecosystem, enabling seamless migration.

Key Features and Benefits

Scalable Modular Architecture

- 4 chassis options: C9000-3S (3-slot, 6 RU), C9000-4S (4-slot, 11 RU), C9000-8S (8-slot, 15 RU), C9500-8S (8-slot, 15 RU, 20 Tbps)
- Hot-swappable interface modules, fabric modules, fan trays, and power supplies — no service interruption during upgrades
- 12 interface module types supporting 1G/10G/40G/100G; mix and match within the same chassis

Carrier-Grade Performance

- Up to 20 Tbps switching capacity and 7.6 Bpps forwarding rate (C9500-8S)
- Up to 288K MAC entries and 128K IPv4 routes for high-density campus and data center environments
- MPLS VPN and Multi-VRF support for multi-tenant and service provider deployments
- VxLAN encapsulation and EVPN for modern overlay networking and IP mobility

Enterprise Software — Full L3, No Extra License

- Full routing suite: Static, RIP, OSPF, IS-IS, BGP, PBR, BFD, VRRP — included in base software
- Virtual Stacking (VS) up to 4 units with Multi-Active Detection (MAD)
- Comprehensive security: 802.1x, DHCP Snooping, Dynamic ARP Inspection, IP Source Guard
- NETCONF / SDN support; ZTP, auto-provisioning, and health monitoring via CoreEdge Smart Controller (CSC)*

* Requires CoreEdge Smart Controller (CSC).

Model Comparison



Specification	C9000-3S	C9000-4S	C9000-8S	C9500-8S
Series	C9000	C9000	C9000	C9500
Switching Capacity	3.6 Tbps	4.8 Tbps	9.6 Tbps	20 Tbps
Forwarding Rate	2.1 Bpps	2.8 Bpps	5.7 Bpps	7.6 Bpps
Interface Module Slots	3	4	8	8
Mgmt Module Slots	2	2	2	2
Fabric Module Slots	-	2	2	4
Max 10G Ports	156	240	416	416
Max 40G Ports	36	48	96	128
Max 100G Ports	12	16	32	32
MAC Table	256K	256K	256K	288K
IPv4 Routes	128K	128K	128K	128K
DRAM / Flash	4 GB / 8 GB	4 GB / 8 GB	4 GB / 8 GB	4 GB / 8 GB+SD
Fan	Dual modular FAN, Hot-swap	Dual modular FAN, Hot-swap	Dual modular FAN, Hot-swap	Dual modular FAN, Hot-swap
Power Supplies	4× Hot-swap	4× Hot-swap	4× Hot-swap	4× Hot-swap
Form Factor	6 RU	11 RU	15 RU	15 RU
Dimensions (W×D×H)	440×435×266 mm	440×435×490 mm	440×435×665 mm	442×645×666 mm

Note: All models support operating temperature 0–50°C, humidity 10–90% (non-condensing).

Hardware Specifications

C9000-3S — 3-Slot Modular Backbone Switch (6 RU)



Performance

Switching Capacity	3.6 Tbps
Forwarding Rate	Max 2.1 Bpps

Slots

Interface Module Slots	3
Management Module Slots	2
Fabric Module Slots	— (integrated fabric)

Max Interface Capacity

1G/10G Copper	Max 144 ports (10/100/1000Base-T or 1G/10GBase-T)
1G Fiber / 10G Fiber	Max 156 × 1000Base-X Max 156 × 10GBase-R
40G / 100G	Max 36 × 40GBase-R Max 12 × 100GBase-R

System

DRAM / Flash	4 GB / 8 GB
Fan	Dual modular fans, hot-swappable
Power Supply	4× modular hot-swappable power supplies
Operating Temp / Humidity	0–50°C 10–90% (non-condensing)
Dimensions (W×D×H)	440 × 435 × 266 mm 6 RU

Management Module



Figure 1: C9000-3S-MPA — Management Module — 1× Console (RJ-45/USB), 1× MGMT Port, 1× USB

C9000-4S — 4-Slot Modular Backbone Switch (11 RU)



Performance	
Switching Capacity	4.8 Tbps
Forwarding Rate	Max 2.8 Bpps
Slots	
Interface Module Slots	4
Management Module Slots	2
Fabric Module Slots	2
Max Interface Capacity	
1G/10G Copper	Max 192 ports (10/100/1000Base-T or 1G/10GBase-T)
1G Fiber / 10G Fiber	Max 272 × 1000Base-X Max 240 × 10GBase-R
40G / 100G	Max 48 × 40GBase-R Max 16 × 100GBase-R
System	
DRAM / Flash	4 GB / 8 GB
Fan	Dual modular fans, hot-swappable
Power Supply	4× modular hot-swappable power supplies
Operating Temp / Humidity	0–50°C 10–90% (non-condensing)
Dimensions (W×D×H)	440 × 435 × 490 mm 11 RU

Management Module



Figure 2: C9000-4S-MPA — Management Module — 1× Console (RJ-45/USB), 1× MGMT Port, 1× USB

Fabric Module

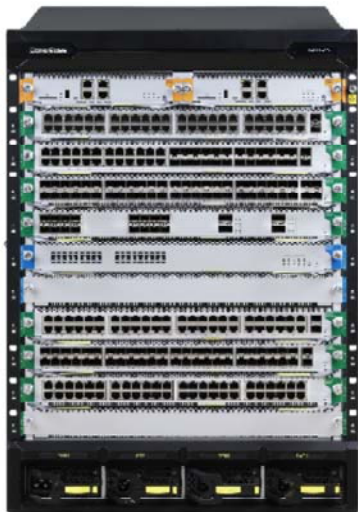


Figure 3: C9000-4S-SFA — Fabric Module



Figure 4: C9000-16GF16XG-SFC — Fabric Module

C9000-8S — 8-Slot Modular Backbone Switch (15 RU)



Performance	
Switching Capacity	9.6 Tbps
Forwarding Rate	Max 5.7 Bpps
Slots	
Interface Module Slots	8
Management Module Slots	2
Fabric Module Slots	2
Max Interface Capacity	
1G/10G Copper	Max 384 ports (10/100/1000Base-T or 1G/10GBase-T)
1G Fiber / 10G Fiber	Max 416 × 1000Base-X Max 416 × 10GBase-R
40G / 100G	Max 96 × 40GBase-R Max 32 × 100GBase-R
System	
DRAM / Flash	4 GB / 8 GB
Fan	Dual modular fans, hot-swappable
Power Supply	4× modular hot-swappable power supplies
Operating Temp / Humidity	0–50°C 10–90% (non-condensing)
Dimensions (W×D×H)	440 × 435 × 665 mm 15 RU

Management Module



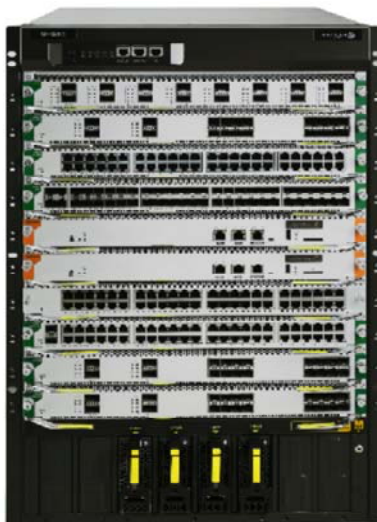
Figure 5: C9000-8S-MPA — Management Module — 1× Console (RJ-45/USB), 1× MGMT Port, 1× USB

Fabric Module



Figure 6: C9000-8S-SFA — Fabric Module

C9500-8S — 8-Slot High-End Backbone Switch (15 RU)



Performance	
Switching Capacity	20 Tbps
Forwarding Rate	Max 7.6 Bpps
Slots	
Interface Module Slots	8
Management Module Slots	2
Fabric Module Slots	4 (doubled vs. C9000-8S for higher throughput)
Max Interface Capacity	
1G/10G Copper	Max 384 ports (10/100/1000Base-T or 1G/10GBase-T)
1G Fiber / 10G Fiber	Max 416 × 1000Base-X Max 416 × 10GBase-R
40G / 100G	Max 128 × 40GBase-R Max 32 × 100GBase-R
MAC Table	Max 288K entries (vs. 256K on C9000 Series)
System	
DRAM / Flash	4 GB / 8 GB + 1× SD Card slot
Fan	Dual modular fans, hot-swappable
Power Supply	4× modular hot-swappable power supplies
Operating Temp / Humidity	0–50°C 10–90% (non-condensing)
Dimensions (W×D×H)	442 × 645 × 666 mm 15 RU

Management Module



Figure 7: C9500-8S-MPA — Management Module — 1× Console (RJ-45/USB), 1× MGMT Port, 1× USB

Fabric Module



Figure 8: C9500-8S-SFA — Fabric Module

Interface Modules (C9000 / C9500 Compatible)

Interface Part Number	Supported Chassis	1G	10G	40G	40G/100G
C9000-48GT2XG-A	C9000-3S/4S/8S	48 UTP	2 Fiber	-	-
C9000-48GF2XG-A	C9000-3S/4S/8S	48 Fiber	2 Fiber	-	-
C9000-24GT24GF2XG-A	C9000-3S/4S/8S	24 UTP + 24 Fiber	2 Fiber	-	-
C9000-52XG-A	All	-	52 Fiber	-	-
C9000-48XGT-A	All	-	48 UTP	-	-
C9000-16XG4QX-A	All	-	16 Fiber	4	-
C9000-12QX-A	All	-	-	12	-
C9000-4QFP-A	All	-	-	-	4
C9000-48GT-B	C9500-8S	48 UTP	-	-	-
C9000-48GF2XG-B	C9500-8S	48 Fiber	2 Fiber	-	-
C9000-24GT24GF2XG-B	C9500-8S	24 UTP + 24 Fiber	2 Fiber	-	-
C9000-16QX-B	C9500-8S	-	-	16	-

Interface Modules



Figure 9: C9000-48GT2XG-A — 48x 1G UTP + 2x 10G SFP+



Figure 10: C9000-48GF2XG-A — 48x 1G SFP + 2x 10G SFP+



Figure 11: C9000-24GT24GF2XG-A — 24x 1G UTP + 24x 1G SFP + 2x 10G SFP+



Figure 12: C9000-52XG-A — 52x 10G SFP+



Figure 13: C9000-48XGT-A — 48x 1G/10G UTP

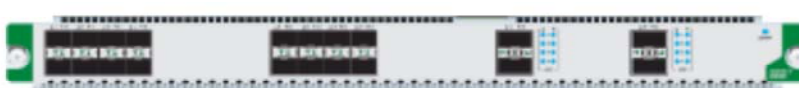


Figure 14: C9000-16XG4QX-A — 16x 10G SFP+ + 4x 40G QSFP+



Figure 15: C9000-12QX-A — 12x 40G QSFP+



Figure 16: C9000-4QFP-A — 4x 40G/100G QSFP28



Figure 17: C9000-48GT-B — 48x 1G UTP



Figure 18: C9000-48GF2XG-B — 48x 1G SFP + 2x 10G SFP+



Figure 19: C9000-24GT24GF2XG-B — 24x 1G UTP + 24x 1G SFP + 2x 10G SFP+



Figure 20: C9000-16QX-B — 16x 40G QSFP+

Software Features

Feature	Description
Virtualization	Virtual Stacking (VS) – up to 4 units; Multi-Active Detection (MAD); MPLS VPN; Multi-VRF
VLAN	IEEE 802.1Q; MAC/Protocol/IP-Subnet; QinQ; Private VLAN; Super-VLAN; Voice VLAN; GVRP
Link Aggregation	Static & Dynamic (LACP); up to 8 members per group
IPv6	IPv4/IPv6 Dual Stack; IPv6 Management, ACL, MLD Snooping; VRRPv3; RIPng/OSPFv3/BGP4+
SDN	VxLAN encapsulation for IP mobility; EVPN; NETCONF; ZTP (via CSC)*; Auto Backup/Upgrade/Provisioning*
QoS	8 queues; SP/WRR/SP+WRR scheduling; DSCP/802.1p marking; Traffic Shaping & Policing; Tail-drop & WRED
Management	Console/Telnet/SSHv2; SNMPv1/2c/3 & RMON; LLDP/LLDP-MED; NTP; DHCP Server/Relay/Client; AAA (RADIUS/TACACS+); Syslog; DDM; Flow Monitoring; RBAC; FTP/SFTP
MAC / Route Table	256K MAC entries (288K for C9500-8S); 128K IPv4 routes; 4K Active VLANs; 9 KB Jumbo Frame
Spanning Tree	STP/RSTP/MSTP; PVST+; ERPS; BPDU Guard/Filter/Root Guard; Loop Detection; Link Flap Detection
Multicast	IGMP Snooping (v1/v2/v3) with Querier & Fast Leave; IGMP Filter; PIM-DM/SM/SSM; Multicast VLAN
L3 Routing	Full L3 – no additional license; Static/RIP/OSPF/IS-IS/BGP; PBR; BFD; VRRP; IPsec for routing protocols
Security	L2–L4 ACL (Port/VLAN/Global/Time-based); 802.1x; DHCP Snooping; Dynamic ARP Inspection; IP Source Guard; CPP; Strong Password Policy
Reliability	OS Image & Configuration Redundancy; Hot Patch; Hardware Watchdog; Configuration Rollback

Standards Compliance

IEEE Standards

IEEE Standard	IEEE Standard
IEEE 802.3ab 1000Base-T	IEEE 802.3z 1000Base-X
IEEE 802.3ae 10GBase-R	IEEE 802.3an 10GBase-T
IEEE 802.3ba 40GbE	IEEE 802.3bm 100GbE
IEEE 802.3az EEE	IEEE 802.3x Flow Control
IEEE 802.3ad LACP	IEEE 802.1AX Link Aggregation
IEEE 802.3ah EFM	IEEE 802.1ag CFM
IEEE 802.1D STP	IEEE 802.1w RSTP
IEEE 802.1s MSTP	IEEE 802.1x Port-Based NAC
IEEE 802.1ad Q-in-Q	IEEE 802.1Q VLAN Tagging
IEEE 802.1v VLAN by Protocol	IEEE 802.1AB LLDP

RFC Compliance (Selected)

Routing	RFC 1058 RIP; RFC 2453 RIPv2; RFC 2328 OSPFv2; RFC 5798 VRRP; RFC 3973 PIM-DM; RFC 7761 PIM-SM; RFC 4271 BGP-4; RFC 4760 MP-BGP
IPv6	RFC 2460 IPv6; RFC 4291 IPv6 Addressing; RFC 4861 ND(Neighbor Discovery); RFC 3315 DHCPv6; RFC 4443 ICMPv6; RFC 1981 Path MTU Discovery (IPv6)
Security	RFC 2865 RADIUS Auth; RFC 2866 RADIUS Accounting; RFC 3414 SNMPv3 USM
Management	RFC 1157 SNMPv1; RFC 2578 SMIV2; RFC 2819 RMON; RFC 5905 NTPv4; RFC 5424 Syslog; RFC 2131 DHCPv4
TCP/IP	RFC 791 IP; RFC 792 ICMP; RFC 793 TCP; RFC 768 UDP; RFC 826 ARP; RFC 1812 IPv4 Router Requirements

Certifications

KC EMC	KC Electro-Magnetic Compatibility — National Radio Research Agency (NRRA), Korea
Network Security	Security Functionality Certificate — National Intelligence Service (NIS), Korea
Performance	Performance Test Report — Electronics and Telecommunications Research Institute (ETRI), Korea
Quality	ISO 9001 Quality Management System
Environmental	ISO 14001 Environmental Management System

Ordering Information

Product Number	Product Type	Description
C9000-3S-Single-Bundle	Bundled Switch	C9000-3S Single Bundle 2x Management module slot, 3x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 1x C9000-3S-MPA management module, 2x C9000-PWR-S power module, 2x C9000-3S-FAN fan module)
C9000-3S-Full-Bundle	Bundled Switch	C9000-3S Full Bundle 2x Management module slot, 3x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 2x C9000-3S-MPA management module, 4x C9000-PWR-S power module, 2x C9000-3S-FAN fan module)
C9000-4S-Single-Bundle-A	Bundled Switch	C9000-4S Single Bundle - A 2x Management module slot, 2x Fabric module slot, 4x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 1x C9000-4S-MPA management module, 1x C9000-4S-SFA fabric module, 2x C9000-PWR-S power module, 2x C9000-4S-FAN fan module)
C9000-4S-Full-Bundle-A	Bundled Switch	C9000-4S Full Bundle - A 2x Management module slot, 2x Fabric module slot, 4x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 2x C9000-4S-MPA management module, 2x C9000-4S-SFA fabric module, 4x C9000-PWR-S power module, 2x C9000-4S-FAN fan module)
C9000-4S-Single-Bundle-C	Bundled Switch	C9000-4S Single Bundle - C 2x Management module slot, 2x Fabric module slot, 4x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 1x C9000-4S-MPA management module, 1x C9000-16GF16XG-SFC fabric module, 2x C9000-PWR-S power module, 2x C9000-4S-FAN fan module)
C9000-4S-Full-Bundle-C	Bundled Switch	C9000-4S Full Bundle - C 2x Management module slot, 2x Fabric module slot, 4x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 2x C9000-4S-MPA management module, 2x C9000-16GF16XG-SFC fabric module, 4x C9000-PWR-S power module, 2x C9000-4S-FAN fan module)
C9000-8S-Single-Bundle-A	Bundled Switch	C9000-8S Single Bundle - A 2x Management module slot, 2x Fabric module slot, 8x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 1x C9000-8S-MPA management module, 1x C9000-8S-SFA fabric module, 3x C9000-PWR-S power module, 2x C9000-8S-FAN fan module)
C9000-8S-Full-Bundle-A	Bundled Switch	C9000-8S Full Bundle - A 2x Management module slot, 2x Fabric module slot, 8x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 2x C9000-8S-MPA management module, 2x C9000-8S-SFA fabric module, 4x C9000-PWR-S power module, 2x C9000-8S-FAN fan module)
C9500-8S-Single-Bundle	Bundled Switch	C9500-8S Single Bundle 2x Management module slot, 4x Fabric module slot, 8x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 1x C9500-8S-MPA management module, 2x C9500-8S-SFA fabric module, 3x C9000-PWR-S power module, 2x C9500-8S-FAN fan module)
C9500-8S-Full-Bundle	Bundled Switch	C9500-8S Full Bundle 2x Management module slot, 4x Fabric module slot, 8x Interface Module slot, 4x Power supply module slot, 2x FAN module slot (Included 2x C9500-8S-MPA management module, 4x C9500-8S-SFA fabric module, 4x C9000-PWR-S power module, 2x C9500-8S-FAN fan module)
C9000-3S-MPA	Management module	Management module for C9000-3S (Optional)
C9000-4S-MPA	Management module	Management module for C9000-4S (Optional)
C9000-8S-MPA	Management module	Management module for C9000-8S (Optional)

Product Number	Product Type	Description
C9500-8S-MPA	Management module	Management module for C9500-8S (Optional)
C9000-4S-SFA	Fabric module	Fabric module for C9000-4S (Optional)
C9000-8S-SFA	Fabric module	Fabric module for C9000-8S (Optional)
C9500-8S-SFA	Fabric module	Fabric module for C9500-8S (Optional)
C9000-16GF16XG-SFC	Fabric module	Hybrid Fabric + Interface module for C9000-4S (Optional) Occupies fabric module slot while providing 16× 1000Base-X (SFP) + 16× 1G/10G (SFP/SFP+) ports. (Restriction: Cannot be mixed with C9000-4S-SFA)
C9000-PWR-S	Power supply module	Power Supply Module (Optional) Add redundant C9000-PWR-S in C9000-3S, C9000-4S, C9000-8S, C9500-8S
C9000-3S-FAN	FAN module	FAN module for C9000-3S
C9000-4S-FAN	FAN module	FAN module for C9000-4S
C9000-8S-FAN	FAN module	FAN module for C9000-8S
C9500-8S-FAN	FAN module	FAN module for C9500-8S
C9000-48GT2XG-A	Network module	Backbone Series Interface Module, 48port 10/100/1000Base-T, 2port 1G/10G (SFP/SFP+) For C9000-3S, C9000-4S, C9000-8S
C9000-48GF2XG-A	Network module	Backbone Series Interface Module, 48port 1000Base-X(SFP), 2port 1G/10G (SFP/SFP+) For C9000-3S, C9000-4S, C9000-8S
C9000-24GT24GF2XG-A	Network module	Backbone Series Interface Module, 24port 10/100/1000Base-T, 24port 1000Base-X(SFP), 2port 1G/10G (SFP/SFP+) For C9000-3S, C9000-4S, C9000-8S
C9000-52XG-A	Network module	Backbone Series Interface Module, 52port 1G/10G (SFP/SFP+) For C9000-3S, C9000-4S, C9000-8S, C9500-8S
C9000-48XGT-A	Network module	Backbone Series Interface Module, 48port 1G/10G UTP For C9000-3S, C9000-4S, C9000-8S, C9500-8S
C9000-16XG4QX-A	Network module	Backbone Series Interface Module, 16port 1G/10G (SFP/SFP+), 4port 40G(QSFP+) For C9000-3S, C9000-4S, C9000-8S, C9500-8S
C9000-12QX-A	Network module	Backbone Series Interface Module, 12port 40G(QSFP+) For C9000-3S, C9000-4S, C9000-8S, C9500-8S
C9000-4QFP-A	Network module	Backbone Series Interface Module, 4port 40G/100G(QSFP28) For C9000-3S, C9000-4S, C9000-8S, C9500-8S
C9000-48GT-B	Network module	Backbone Series Interface Module, 48port 10/100/1000Base-T, For C9500-8S
C9000-48GF2XG-B	Network module	Backbone Series Interface Module, 48port 1000Base-X(SFP), 2port 1G/10G (SFP/SFP+), For C9500-8S
C9000-24GT24GF2XG-B	Network module	Backbone Series Interface Module, 24port 10/100/1000Base-T, 24port 1000Base-X(SFP), 2port 1G/10G (SFP/SFP+), For C9500-8S
C9000-16QX-B	Network module	Backbone Series Interface Module, 16port 40G(QSFP+), For C9500-8S

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