## Thuyết minh thông số kỹ thuật sản phẩm Switch Cisco Catalyst C9300-48P-A



## C9300-48P-A Catalyst 9300 48-port 1G copper with modular uplinks, PoE+, Network Advantage

Performance & Bandwidth thông số	
Mã part	C9300-48P-A
Cấu hình	48-port 1G copper PoE+
	modular uplinks C9300-NM-4G ; C9300-NM-8X
Total number of MAC addresses	32,000
Total number of IPv4 routes	32,000 (24,000 direct routes and 8000 indirect routes)
IPv6 routing entries	16,000
Multicast routing scale	8,000
QoS scale entries	5,120
ACL scale entries	5,120
Packet buffer per SKU	16 MB buffer for 24- or 48-port Gigabit Ethernet models
	32 MB buffer for 24 and 48-port Multigigabit
FNF entries	64,000 flow on 24- and 48-port Gigabit Ethernet models
	128,000 flows on 24-port Multigigabit
DRAM	8 GB
Flash	16 GB
VLAN IDs	4094
Total Switched Virtual Interfaces (SVIs)	1000
Jumbo frames	9198 bytes
Total routed ports per C9300 Series stack	448
Switching capacity	256 Gbps
Switching capacity with stacking	736 Gbps
Forwarding rate	190.47 Mpps
Forwarding rate with stacking	547.62 Mpps
Stacking support	StackWise-480
Stacking bandwidth support	480 Gbps
Optional Stacking hardware	StackWise Cable
Number of members	8
Number of members	Other C9300L SKUs with same license level
Supported stack members	C9300 higher scale SKUs only stack with other like higher scale models
Thông số kỹ thuật nguồn	Cooco Trigitor codic citos citiy clack with citics like trigitor codic models
Nguồn / nguồn dự phòng cho Cisco 9300	PWR-C1-715WAC-P; PWR-C1-715WAC-P/2
Power supply rated maximum output power	715W
Total output BTU	
(note: 1000 BTU/hr = 293W)	2440 BTU/hr, 715W
Input-voltage range and frequency	100 to 240 VAC,
	50 to 60 Hz
Input current	10-5A
Output ratings	-56V at 12.8A
Output holdup time	20 ms minimum at 100VAC
Power-supply input receptacles	IEC 320-C16
	(IEC60320-C16)
Power cord rating	15A
	1

Physical specifications	(H x W x D): 1.58 x 3.25 x 12.20 in
	Weight: 2.6 lb (1.2 kg)
Operating temperature	Normal operating temperature and altitudes:
	• -5°C to +45°C, up to 5000 feet (1500m)
	• -5°C to +40°C, up to 10,000 feet (3000m)
	Minimum ambient temperature for cold start is 32°F (0°C)
	Short-term exceptional conditions:
	• -5°C to +50°C, up to 5000 feet (1500m)
	• -5°C to +45°C, up to 10,000 feet (3000m)
	-5°C to +45°C, at sea level with single fan failure
	Not more than following in one-year period: 96 consecutive hours, or 360 hours total, or
Ctavara tavaranavatura	15 occurrences
Storage temperature  Relative humidity operating and nonoperating	-40° to 158°F (-40° to 70°C)
noncondensing	5% to 90% noncondensing
Altitude	10,000 ft. (3000 meters), up to 45°C
	FCC Part 15 (CFR 47) Class A
	ICES-003 Class A
	EN 55032 Class A
	CISPR 32 Class A
EMI and EMC compliance	AS/NZS 3548 Class A
	BSMI Class A (AC input models only)
	VCCI Class A
	EN 55024, EN300386, EN 61000-3-2, EN 61000-3-3
	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN 61000-6-1
	"AC OK": Input power to the power supply is OK
LED indicators	"PS OK": Output power from the power supply is OK
DNA mua kèm Switch Cisco Catalyst 9300	1 o or output points moin and points output to or .
Network Advantage	Tính năng DNA trên Cisco Catalyst 9300
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✓	Layer 2, Routed Access (RIP, EIGRP Stub, OSPF - 1000 routes), PBR, PIM Stub Multicast (1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IIP SLA Responder, SSO
✓	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF
	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF Network segmentation
<b>✓</b>	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF
<b>✓</b>	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO  Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF  Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN  Automation  NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python)
<i>I</i>	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO  Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF  Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN  Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility
/ /	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO  Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF  Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN  Automation  NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python)
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/ / /	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO  Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF  Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN  Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration
	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO  Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF  Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN  Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP
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	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO  Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF  Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN  Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP Security MACsec-256 Tính năng Cisco DNA Advantage
	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP Security MACsec-256 Tính năng Cisco DNA Advantage Switch features
	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP Security MACsec-256 Tinh năng Cisco DNA Advantage Switch features Optimized network deployments
✓  ✓  ✓  ✓  ✓  ✓  ✓  Cisco DNA Advantage	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP Security MACsec-256 Tính năng Cisco DNA Advantage Switch features
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✓  ✓  ✓  ✓  ✓  ✓  ✓  Cisco DNA Advantage	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP Security MACsec-256 Tính năng Cisco DNA Advantage Switch features Optimized network deployments Cisco DNA Service for Bonjour Advanced telemetry and visibility Full Flexible NetFlow, EEM
✓  ✓  ✓  Cisco DNA Advantage	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP Security MACsec-256 Tính năng Cisco DNA Advantage Switch features Optimized network deployments Cisco DNA Service for Bonjour Advanced telemetry and visibility Full Flexible NetFlow, EEM Optimized telemetry and visibility
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✓ ✓ ✓ Cisco DNA Advantage ✓	(1000 routes)), PVLAN, VRRP, PBR, CDP, QoS, FHS, 802.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO Advanced switch capabilities and scale BGP, EIGRP, HSRP, IS-IS, BSR, MSDP, PIM-BIDIR, IP SLA, OSPF Network segmentation VRF, VXLAN, LISP, SGT, MPLS, mVPN Automation NETCONF, RESTCONF, gRPC, YANG, PnP Agent, ZTP/Open PnP, GuestShell (On-Box Python) Telemetry and visibility Model-driven telemetry, sampled NetFlow, SPAN, RSPAN High availability and resiliency Nonstop Forwarding (NSF), Graceful Insertion and Removal (GIR), Fast Software Upgrade (FSU), Software Patching (CLI Based) IOT integration AVB, PTP, CoAP Security MACsec-256 Tinh năng Cisco DNA Advantage Switch features Optimized network deployments Cisco DNA Service for Bonjour Advanced telemetry and visibility Full Flexible NetFlow, EEM Optimized telemetry and visibility ERSPAN, AVC (NBAR2), app hosting (in containers/VMs), Wireshark Advanced Security Encrypted Traffic Analytics (ETA)

/	Cisco Network Plug-and-Play application, network settings, device credentials, LAN automation, host onboarding
/	Element management
	Discovery, inventory, topology, software image, licensing, and configuration management
/	Element management
	Patch management
<b>√</b>	Basic Assurance
	Health dashboards – Network, Client, Application; switch and wired client health monitoring
/	SD-Access
	Policy-based automation and assurance for wired and wireless
✓	SD-Access Embedded Wireless
	C9800 Wireless Software package to enable Wireless Controller Functionality
/	Network assurance and analytics
	Global insights, trends, compliance, custom reports; switch 360, wired client 360; fabric and non-fabric insights; app health, app 360, app performance (loss, latency, jitter)
	Other Software included (can be purchased separately)
Х	ISE Base
Х	ISE Plus
Х	StealthWatch