

Cisco Catalyst 9300 Datasheet

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What you'll gain from this Catalyst 9300 datasheet:

✓ **Instant clarity**

All four Catalyst 9300 families (9300X, 9300, 9300L, 9300LM) are mapped —spec-by-spec—in one place, saving you hours of cross-referencing Cisco PDFs.

✓ **Decision confidence**

Side-by-side tables show port counts, stacking bandwidth, PoE budgets, licensing tiers, and security features so you can justify the exact model and SKU to stakeholders.

✓ **Budget foresight**

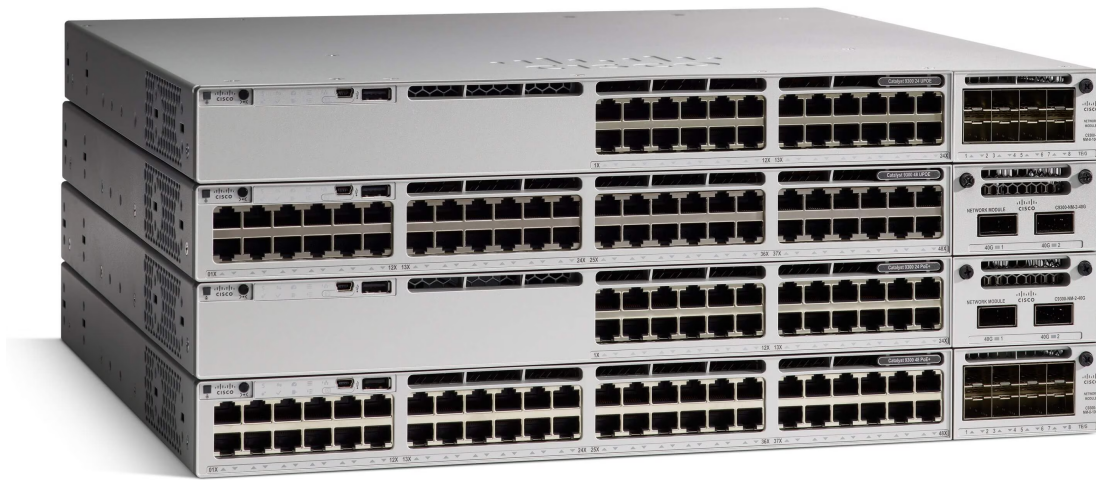
Default PSU wattage, per-port PoE power, and software-subscription options are spelled out, letting you project CapEx and OpEx with no hidden surprises.

↓ **Download Catalyst 9300 Datasheet PDF**

1. Positioning & Overview

The **Cisco Catalyst 9300 Series** is Cisco's flagship stackable switching platform for modern enterprise access networks. Designed for high-density campus and branch deployments, it delivers secure, automated, and cloud-ready connectivity from 1 GbE up to multigigabit 25 GbE. Powered by Cisco's latest UADP ASICs, the 9300 Series embeds hardware-based segmentation, real-time telemetry, and application hosting—making it the foundation

of **Cisco SD-Access**, zero-touch provisioning, and experience-first networking.



The family is divided into four lines to match different performance and budget requirements:

- ✓ **Catalyst 9300X** – 100 Gbps modular uplinks, 1 Tbps StackWise-1T, and built-in 100 G hardware IPsec.
- ✓ **Catalyst 9300** – Flexible modular uplinks up to 40 Gbps/25 Gbps for mainstream campus access.
- ✓ **Catalyst 9300L** – Fixed 1/10/40 Gbps uplinks for cost-optimized Layer 3 access.
- ✓ **Catalyst 9300LM** – Compact form factor with fixed 25 Gbps uplinks—ideal for space-constrained or high-density Wi-Fi 6/6E environments.

2. Key Highlights & Benefits

- ✓ **1 Tbps StackWise-1T Stacking**

Up to eight switches operate as one with sub-second failover, ensuring always-on services.

✓ **Line-rate 100 G Hardware IPsec**

Native encryption accelerates secure WAN or cloud edge tunnels with no performance penalty.

✓ **90 W Cisco UPOE+ & 60 W UPOE**

Powers Wi-Fi 6E access points, smart lighting, and collaboration endpoints over existing cabling.

✓ **Versatile Uplink Choices (1/10/25/40/100 G)**

Hot-swappable network modules or fixed 25 G ports protect future bandwidth investments.

✓ **Meraki Cloud Monitoring & Management**

“-M” SKUs onboard to Meraki Dashboard with a click for unified, cloud-delivered operations.

✓ **On-box Application Hosting & ThousandEyes**

Embedded x86 cores run security gateways, sensors, or custom Docker apps at the edge.

✓ **StackPower Shared PSUs**

Pool power supplies across the stack, dynamically reallocating PoE budget and improving redundancy efficiency.

✓ **Full Automation & Telemetry**

gNMI, NETCONF/YANG, and model-driven streaming telemetry enable intent-based networking and AIOps integrations.

3. Product Series Comparison

Attribute	C9300X-48HX	C9300X-48TX	C9300X-48HXN	C9300X-24HX
Down-link ports	48×10 G mGig UPOE+	48×10 G mGig data	8×10 G+40×5 G mGig UPOE+	24×10 G mGig UPOE+
Uplink slot	Modular (≤4×100 G)	Modular (≤4×100 G)	Modular (≤4×100 G)	Modular (≤4×100 G)
Switching capacity	1760 Gbps	1760 Gbps	960 Gbps	800 Gbps
Forwarding rate	1309 Mpps	1309 Mpps	714 Mpps	655 Mpps
Default AC PSU	1100 W AC	715 W AC	1100 W AC	1100 W AC
Default PoE budget	590 W	—	690 W	735 W
PoE type (max/port)	UPOE+ (90 W)	—	UPOE+ (90 W)	UPOE+ (90 W)

4. Hardware-Spec Tables

Cisco Catalyst 9300X

Attribute	C9300X-48HX	C9300X-48TX	C9300X-48HXN	C9300X-24HX
Down-link ports	48×10 G mGig UPOE+	48×10 G mGig data	8×10 G+40×5 G mGig UPOE+	24×10 G mGig UPOE+
Uplink slot	Modular (≤4×100 G)	Modular (≤4×100 G)	Modular (≤4×100 G)	Modular (≤4×100 G)
Switching capacity	1760 Gbps	1760 Gbps	960 Gbps	800 Gbps
Forwarding rate	1309 Mpps	1309 Mpps	714 Mpps	655 Mpps

Default AC PSU	1100 W AC	715 W AC	1100 W AC	1100 W AC
Default PoE budget	590 W	—	690 W	735 W
PoE type (max/port)	UPOE+ (90 W)	—	UPOE+ (90 W)	UPOE+ (90 W)

Attribute	C9300X-24Y	C9300X-12Y		
Down-link ports	24×25 G SFP28 data	12×25 G SFP28 data		
Uplink slot	Modular (≤4×100 G)	Modular (≤4×100 G)		
Switching capacity	2000 Gbps	1000 Gbps		
Forwarding rate	1488 Mpps	744 Mpps		
Default AC PSU	715 W AC	715 W AC		
Default PoE budget	—	—		
PoE type (max/port)	—	—		

Cisco Catalyst 9300

Attribute	C9300-24T	C9300-24P	C9300-24U	C9300-24UX
Down-link ports	24×1 G data	24×1 G PoE+	24×1 G UPOE	24×10 G mGig UPOE
Uplink slot	Modular	Modular	Modular	Modular
Switching capacity	208 Gbps	208 Gbps	208 Gbps	640 Gbps
Forwarding rate	155 Mpps	155 Mpps	155 Mpps	476 Mpps
Default AC PSU	350 W AC	715 W AC	1100 W AC	1100 W AC
Default PoE budget	—	445 W	830 W	560 W

PoE type (max/port)	—	PoE+ (30 W)	UPOE (60 W)	UPOE (60 W)
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Attribute	C9300-24UB	C9300-24UXB	C9300-24H	C9300-24S
Down-link ports	24×1 G UPOE	24×10 G mGig UPOE	24×1 G UPOE+	24×1 G SFP data
Uplink slot	Modular	Modular	Modular	Modular
Switching capacity	208 Gbps	640 Gbps	208 Gbps	208 Gbps
Forwarding rate	155 Mpps	476 Mpps	155 Mpps	155 Mpps
Default AC PSU	1100 W AC	1100 W AC	1100 W AC	350 W AC
Default PoE budget	830 W	560 W	830 W	—
PoE type (max/port)	UPOE (60 W)	UPOE (60 W)	UPOE+ (90 W)	—

Attribute	C9300-48T	C9300-48P	C9300-48U	C9300-48UXM
Down-link ports	48×1 G data	48×1 G PoE+	48×1 G UPOE	48×(12 mGig) UPOE
Uplink slot	Modular	Modular	Modular	Modular
Switching capacity	256 Gbps	256 Gbps	256 Gbps	580 Gbps
Forwarding rate	190 Mpps	190 Mpps	190 Mpps	432 Mpps
Default AC PSU	350 W AC	715 W AC	1100 W AC	1100 W AC
Default PoE budget	—	437 W	822 W	490 W
PoE type (max/port)	—	PoE+ (30 W)	UPOE (60 W)	UPOE (60 W)

Attribute	C9300-48UN	C9300-48UB	C9300-48H	C9300-48S
Down-link ports	48×5 G UPOE	48×1 G UPOE	48×1 G UPOE+	48×1 G SFP data
Uplink slot	Modular	Modular	Modular	Modular
Switching capacity	640 Gbps	256 Gbps	256 Gbps	256 Gbps

Forwarding rate	476 Mpps	190 Mpps	190 Mpps	190 Mpps
Default AC PSU	1100 W AC	1100 W AC	1100 W AC	350 W AC
Default PoE budget	645 W	822 W	822 W	—
PoE type (max/port)	UPOE (60 W)	UPOE (60 W)	UPOE+ (90 W)	—

Cisco Catalyst 9300L

Attribute	C9300L-24T-4G	C9300L-24T-4X	C9300L-48T-4G	C9300L-48T-4X
Down-link ports	24×1 G data	24×1 G data	48×1 G data	48×1 G data
Fixed uplinks	4×1 G	4×10 G	4×1 G	4×10 G
Switching capacity	56 Gbps	128 Gbps	104 Gbps	176 Gbps
Forwarding rate	42 Mpps	95 Mpps	77 Mpps	131 Mpps
Default AC PSU	350 W internal	350 W internal	350 W internal	350 W internal
Default PoE budget	—	—	—	—
PoE type (max/port)	—	—	—	—

Attribute	C9300L-24P-4G	C9300L-24P-4X	C9300L-48P-4G	C9300L-48P-4X
Down-link ports	24×1 G PoE+	24×1 G PoE+	48×1 G PoE+	48×1 G PoE+
Fixed uplinks	4×1 G	4×10 G	4×1 G	4×10 G
Switching capacity	56 Gbps	128 Gbps	104 Gbps	176 Gbps
Forwarding rate	42 Mpps	95 Mpps	77 Mpps	131 Mpps
Default AC PSU	715 W internal	715 W internal	715 W internal	715 W internal
Default PoE budget	505 W	505 W	505 W	505 W

PoE type (max/port)	PoE+ (30 W)	PoE+ (30 W)	PoE+ (30 W)	PoE+ (30 W)
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Attribute	C9300L-48PF-4G	C9300L-48PF-4X	C9300L-24UXG-4X	C9300L-24UXG-2Q
Down-link ports	48×1 G PoE+	48×1 G PoE+	8×mGig+16×1 G UPOE	8×mGig+16×1 G UPOE
Fixed uplinks	4×1 G	4×10 G	4×10 G	2×40 G
Switching capacity	104 Gbps	176 Gbps	272 Gbps	352 Gbps
Forwarding rate	77 Mpps	131 Mpps	202 Mpps	262 Mpps
Default AC PSU	1100 W internal	1100 W internal	1100 W internal	1100 W internal
Default PoE budget	890 W	890 W	880 W	722 W
PoE type (max/port)	PoE+ (30 W)	PoE+ (30 W)	UPOE (60 W)	UPOE (60 W)

Attribute	C9300L-48UXG-4X	C9300L-48UXG-2Q		
Down-link ports	12×mGig+36×1 G UPOE	12×mGig+36×1 G UPOE		
Fixed uplinks	4×10 G	2×40 G		
Switching capacity	392 Gbps	472 Gbps		
Forwarding rate	292 Mpps	351 Mpps		
Default AC PSU	1100 W internal	1100 W internal		
Default PoE budget	675 W	675 W		
PoE type (max/port)	UPOE (60 W)	UPOE (60 W)		

Cisco Catalyst 9300LM

Attribute	C9300LM-48UX-4Y	C9300LM-48U-4Y	C9300LM-24U-4Y	C9300LM-48T-4Y
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Down-link ports	8×10 G mGig+40×1 G UPOE	48×1 G UPOE	24×1 G UPOE	48×1 G data
Fixed uplinks	4×25 G	4×25 G	4×25 G	4×25 G
Switching capacity	440 Gbps	296 Gbps	248 Gbps	296 Gbps
Forwarding rate	327 Mpps	220 Mpps	185 Mpps	220 Mpps
Default AC PSU	1000 W internal	1000 W internal	600 W internal	600 W internal
Default PoE budget	790 W	790 W	420 W	—
PoE type (max/port)	UPOE (60 W)	UPOE (60 W)	UPOE (60 W)	—

5. Network & Security Features

Capability	What It Delivers	Where It Shines
Cisco SD-Access Fabric	Automated segmentation, policy-based routing, and zero-touch provisioning via Catalyst Center.	Large campuses, multi-building sites.
MACsec-256 Encryption	Line-rate Layer-2 encryption (256-bit keys) on every 1G/10G/25G/100G link.	Compliance-driven or shared-media environments.
Encrypted Traffic Analytics (ETA)	Detects malware in TLS-encrypted flows without decryption.	Early threat detection without privacy trade-offs.
Trust Anchor Technologies	Secure Boot, image signing, and runtime attestation protect against supply-chain tampering.	Any critical infrastructure node.
ThousandEyes Agent	Built-in x86 sensor measures SaaS and WAN	Proactive user-experience monitoring.

	performance from the switch itself.	
ASA-c / App-Hosting	On-box Docker or KVM VMs run NGFW, SD-WAN, or custom edge apps.	Secure local breakout, branch consolidation.

6. Software & Licensing Options

Stack	Entry Tier	Advanced Tier	How to Activate
IOS XE Networking	<i>Network Essentials</i> – Core Layer-2/Layer-3, basic QoS, static routing.	<i>Network Advantage</i> – Full routing suite, BGP, PBR, advanced QoS, VRF-Lite.	Smart License token or CSSM satellite.
Cisco DNA	<i>DNA Essentials</i> – SD-Access automation, AI endpoint analytics (base).	<i>DNA Advantage</i> – Full SD-Access fabric, macro-segmentation, ETA, Software-Defined WAN edge.	Term-based subscription (3/5/7 years).
Meraki-M Cloud	—	<i>Meraki Management</i> add-on (-M SKUs) unlocks Meraki Dashboard monitoring & config.	Cloud claim code; billed yearly.

Smart Licensing Workflow

1. Plug in the switch; connect to Cisco SSM or on-prem Satellite.
2. Enter Smart Account & Token — entitlement is pulled automatically.
3. View usage in Cisco Smart Software Manager; renew or reallocate as needed.

7. Management & Automation

Tool / Interface	Key Use Case
Cisco Catalyst Center	Policy design, SD-Access overlays, assurance, AI troubleshooting.
Meraki Dashboard (-M)	Cloud-hosted monitoring, firmware, and templated provisioning.
Embedded Web UI	Quick day-0/day-1 config without external tools.
Plug-and-Play (PnP)	Zero-touch onboarding via serial or DHCP option 43.
Programmatic APIs	NETCONF / RESTCONF / gNMI for intent automation.
Model-Driven Telemetry	gRPC-based streaming of interface, QoS, and health metrics at 1-s granularity.

8. Typical Deployment Scenarios

Scenario	At-a-Glance Description	Why Catalyst 9300
Three-Tier Campus Core-Distribution-Access	9300/9300L stacks serve as high-density access; uplink via 25 G or 40 G to distribution.	1 Tbps stacking + 90 W UPOE+ future-proof large buildings.
Branch SD-Access Fabric Edge	9300X provides fabric edge with built-in 100 G IPsec backhaul to HQ or cloud.	Hardware crypto + SD-Access automation reduces overlay complexity.
Smart Building / High-Power PoE	9300H/UPOE+ models power LED lighting, HVAC, and multisensor endpoints over one cable run.	90 W per port, StackPower pools budget across closets.
High-Density Wi-Fi 6/6E Floor	Compact 9300LM delivers 25 G uplinks and 60 W UPOE to every AP.	Eliminates access-layer bottlenecks for multigig radios.

9. Uplink Module, License and Cables



SKU

Description

C9300-NM-2Q	2×40G QSFP uplink module
C9300-NM-2Y	2×25G SFP28 uplink module
C9300-NM-4G	4×1G SFP uplink module
C9300-NM-4M	4×10G multigig uplink module
C9300-NM-8X	8×10G SFP+ uplink module

10. Ordering Information

SKU

Description

C9300-24H-A	24 90W UPOE+ mGig modular uplinks
C9300-24H-E	24 90W UPOE+ mGig modular uplinks
C9300-24P-A	24 PoE+ GbE modular uplinks
C9300-24P-E	24 PoE+ GbE modular uplinks

C9300-24S-A	24 SFP 1G modular uplinks
C9300-24S-E	24 SFP 1G modular uplinks
C9300-24T-A	24 GbE data modular uplinks
C9300-24T-E	24 GbE data modular uplinks
C9300-24U-A	24 UPOE GbE modular uplinks
C9300-24U-E	24 UPOE GbE modular uplinks
C9300-24UB-A	24 90W UPOE+ mGig modular uplinks
C9300-24UB-E	24 90W UPOE+ mGig modular uplinks
C9300-24UX-A	24 mGig UPOE+ modular uplinks
C9300-24UX-E	24 mGig UPOE+ modular uplinks
C9300-24UXB-A	24 90W UPOE+ mGig modular uplinks
C9300-24UXB-E	24 90W UPOE+ mGig modular uplinks
C9300-24UXG-2Q-A	24 mGig UPOE+ 2×40G QSFP uplinks
C9300-24UXG-2Q-E	24 mGig UPOE+ 2×40G QSFP uplinks
C9300-48H-A	48 90W UPOE+ mGig modular uplinks
C9300-48H-E	48 90W UPOE+ mGig modular uplinks
C9300-48P-A	48 PoE+ GbE modular uplinks
C9300-48P-E	48 PoE+ GbE modular uplinks
C9300-48S-A	48 SFP 1G modular uplinks
C9300-48S-E	48 SFP 1G modular uplinks
C9300-48T-A	48 GbE data modular uplinks
C9300-48T-E	48 GbE data modular uplinks
C9300-48U-A	48 UPOE GbE modular uplinks
C9300-48U-E	48 UPOE GbE modular uplinks
C9300-48UB-A	48 mGig UPOE+ 90W modular uplinks
C9300-48UB-E	48 mGig UPOE+ 90W modular uplinks
C9300-48UN-A	48 UPOE+ mGig modular uplinks
C9300-48UN-E	48 UPOE+ mGig modular uplinks
C9300-48UXM-A	48 mGig UPOE modular uplinks
C9300-48UXM-E	48 mGig UPOE modular uplinks
C9300L-24P-4G-A	24 PoE+ GbE 4×1G SFP uplinks
C9300L-24P-4G-E	24 PoE+ GbE 4×1G SFP uplinks
C9300L-24P-4X-A	24 PoE+ GbE 4×10G SFP+ uplinks
C9300L-24P-4X-E	24 PoE+ GbE 4×10G SFP+ uplinks
C9300L-24P-4X-M	24 PoE+ GbE 4×10G SFP+ uplinks
C9300L-24T-4G-A	24 GbE data 4×1G SFP uplinks
C9300L-24T-4G-A-1	24 GbE data 4×1G SFP uplinks
C9300L-24T-4X-A	24 GbE data 4×10G SFP+ uplinks
C9300L-24T-4X-E	24 GbE data 4×10G SFP+ uplinks
C9300L-24T-4X-M	24 GbE 4×10G SFP+ uplinks data only
C9300L-24UXG-4X-A	24 mGig UPOE+ 4×10G SFP+ uplinks
C9300L-24UXG-4X-E	24 mGig UPOE+ 4×10G SFP+ uplinks
C9300L-24UXG-4X-M	24 mGig UPOE+ 4×10G SFP+ uplinks
C9300L-48P-4G-A	48 PoE+ GbE 4×1G SFP uplinks
C9300L-48P-4G-E	48 PoE+ GbE 4×1G SFP uplinks
C9300L-48P-4X-A	48 PoE+ GbE 4×10G SFP+ uplinks
C9300L-48P-4X-E	48 PoE+ GbE 4×10G SFP+ uplinks
C9300L-48P-4X-M	48 PoE+ GbE 4×10G SFP+ uplinks
C9300L-48PF-4G-A	48 full PoE+ GbE 4×1G SFP uplinks

C9300L-48PF-4G-E	48 full PoE+ GbE 4x1G SFP uplinks
C9300L-48PF-4X-A	48 full PoE+ GbE 4x10G SFP+ uplinks
C9300L-48PF-4X-M	48 full PoE+ GbE 4x10G SFP+ uplinks
C9300L-48T-4G-A	48 GbE data 4x1G SFP uplinks
C9300L-48T-4G-A-1	48 GbE data 4x10G SFP+ uplinks
C9300L-48T-4G-E	48 GbE data 4x1G SFP uplinks
C9300L-48T-4X-E	48 GbE data 4x10G SFP+ uplinks
C9300L-48T-4X-E-2	48 full PoE+ GbE 4x10G SFP+ uplinks
C9300L-48T-4X-M	48 GbE 4x10G SFP+ uplinks data only
C9300L-48UXG-2Q-A	48 mGig UPOE+ 2x40G QSFP uplinks
C9300L-48UXG-2Q-E	48 mGig UPOE+ 2x40G QSFP uplinks
C9300L-48UXG-4X-A	48 mGig UPOE+ 4x10G SFP+ uplinks
C9300L-48UXG-4X-E	48 mGig UPOE+ 4x10G SFP+ uplinks
C9300L-48UXG-4X-M	48 mGig UPOE+ 4x10G SFP+ uplinks
C9300LM-24U-4Y-A	24 UPOE GbE 4x25G SFP28 uplinks
C9300LM-24U-4Y-E	24 UPOE GbE 4x25G SFP28 uplinks
C9300X-12Y-A	12x25G SFP28 aggregation switch
C9300X-12Y-E	12x25G SFP28 aggregation switch
C9300X-24HX-A	24 mGig UPOE+ 2x40G uplinks
C9300X-24HX-E	24 mGig UPOE+ 2x40G uplinks
C9300X-24Y-A	24x25G SFP28 aggregation switch
C9300X-24Y-E	24x25G SFP28 aggregation switch
C9300X-48HX-A	48-port UPOE+ 10 Gbps multigigabit access switch (Network Advantage)
C9300X-48HX-E	48-port UPOE+ 10 Gbps multigigabit access switch
C9300X-48HXN-A	48-port mixed UPOE+ multigig access switch
C9300X-48HXN-E	48-port UPOE+ mixed multigigabit access switch (8x10 Gbps + 40x5 Gbps) with modular uplinks
C9300X-48TX-A	48-port 10GBASE-T data-only switch
C9300X-48TX-E	48-port 10GBASE-T data-only access switch

Where To Buy

Want to buy this series of products? please contact:

- WhatsApp: +8613464386404
- Email: sales@layer23-switch.com (Sales Inquiries)

Or visit: [Cisco Catalyst 9300 Series Switches](#)