NETGEAR®

Intelligent Edge Managed Switches

M4300 series

The M4300 Stackable L3 Managed Switch Series comes with 40G, 10G and 1G models in a variety of form factors including PoE+ full provisioning. M4300 Switch Series delivers IPv4/IPv6 rich services for mid-enterprise edge and SMB core with mixed stacking between 40-, 10- and 1-Gigabit models. Layer 3 feature set includes static and policy-based routing, RIP, VRRP, OSPF, and PIM dynamic routing. M4300 is ideal for server aggregation, wireless access, unified communications and Video-over-IP.

NETGEAR M4300 series key features:

- Cost effective 1G access layer in campus LAN networks, and high performance 10G/40G distribution layer for midsize organizations networks
- Zero Touch AV-over-IP with pre-configured L2 Multicast (SDVoE-ready)
- Advanced Layer 2, Layer 3 and Layer 4 feature set - no license required - including Policy Based Routing, RIP, VRRP, OSPF and PIM
- Innovative mixed "Spine and Leaf", 1G, 10G and 40G stacking with nonstop forwarding (NSF) and hitless failover redundancy
- Low acoustics, half-width 16-port and 24-port 10G models can be paired in a single rack space for redundant Top of Rack
- Modular 12-slot 2RU model scaling up to 96-port 10G by multiple of 8 ports or 24-port 40G by multiple of 2 ports
- Up to 768 (10 Gigabit) ports, 192 (40 Gigabit) ports or 384 (1 Gigabit) ports, or a combination in a single logical switch
- PoE+ (30 watts per port) with hot swap, redundant power supplies and full provisioning

NETGEAR M4300 series software features:

- Advanced classifier-based, time-based hardware implementation for L2 (MAC), L3 (IP) and L4 (UDP/TCP transport ports) security and prioritization
- Selectable Port-Channel / LAG (802.3ad - 802.1AX) L2/L3/L4 hashing for fault tolerance and load sharing with any type of Ethernet channeling
- Voice VLAN with SIP, H323 and SCCP protocols detection and LLDP-MED IP phones automatic QoS and VLAN configuration
- Efficient authentication tiering with successive DOT1X, MAB and Captive Portal methods for streamlined BYOD
- Comprehensive IPv4/IPv6 static and dynamic routing including Proxy ARP, OSPF, Policy-based routing and automatic 6-to-4 tunneling
- Scalable Pro AV deployments with IGMP+ automatic L2 multicast (only subscribed videos flow from one switch to the other across the L2 topology)
- High performance IPv4/IPv6 multicast routing with PIM timer accuracy and unhandled PIM (S,G,rpt) state machine events transitioning
- Advanced IPv4/IPv6 security implementation including malicious code detection, DHCP Snooping, IP Source Guard protection and DoS attacks mitigation
- Innovative multi-vendor Auto-iSCSI capabilities for easier virtualization optimization

NETGEAR M4300 series resiliency and availability features:

- Dual redundant, modular power supplies equipping full width models contribute to business continuity management
- Vertical or horizontal flexible stacking with management unit hitless failover and nonstop forwarding (NSF) across operational stack members
- Spine and leaf architecture with every leaf switch (1G access switches) connecting to every spine switch (distributed 10G "core" switches)
- Stacking and distributed link aggregation allow for multi-resiliency with zero downtime and load balancing capabilities
- Link Dependency new feature enables or disables ports based on the link state of different ports
- Per VLAN Spanning Tree and Per VLAN Rapid Spanning Tree (PVSTP/ PVRSTP) offer interoperability with PVST+ infrastructures

NETGEAR M4300 series management features:

- DHCP/BootP innovative auto-installation including firmware and configuration file upload automation
- Industry standard SNMP, RMON, MIB, LLDP, AAA, sFlow, RSPAN and PTPv2 1-step transparent clock implementation (select M4300 models)
- Service port for out-of-band Ethernet management (OOB)
- Standard RS232 straight-through serial RJ45 and Mini-USB ports for local management console
- Standard USB port for local storage, logs, configuration or image files
- Dual firmware image for updates with minimum service interruption
- Industry standard command line interface (CLI) for IT admins used to other vendors commands
- Fully functional Web console (GUI) for IT admins who prefer an easy to use graphical interface
- Single-pane-of-glass NMS300 management platform with mass-configuration support

Industry leading warranty and support

- NETGEAR M4300 series is covered under NETGEAR Enterprise Lifetime Warranty*
- 3 years of Sprint support included with 24/5 Technical Support (phone, online) and Advance RMA Replacement
- Overdrive support contracts available for 24/7 Technical Support (phone, online, 2h SLA) and Next Business Day RMA Replacement

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Hardware at a Glance

			FRONT			REAR		MANAGEMENT	
10G models Model name	Form-Factor	Switching Fabric	10GBASE-T RJ45 ports	10GBASE-X SFP+ ports	40GBASE-X QSFP+ports	PSU	Fans	Out-of-band Console	Model number
M4300-8X8F	**Half-width** 1-unit 1U 2-unit 1U rack mount	320 Gps	**8 ports** (independent) 100M; 1G; 10G	**8 ports** (independent) 1G; 10G	-	**Modular 1 bay** 1 PSU included: APS250W	**Fixed** Front-to-back 36.9dB	Ethernet: Out-of-band 1G port (Front) Console: RJ45 RS232 (Front) Console: Mini-USB (Front) Storage: USB (Front)	**XSM4316S**
M4300-16X	**Half-width** 1-unit 1U 2-unit 1U rack mount	480 Gps	**16 ports** PoE+100M; 1G; 2.5G; 5G; 10G	-	-	**Modular 1 bay** For either APS299W or APS600W	**Fixed** Front-to-back 35dB	Ethernet: Out-of-band 1G port (Back) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	
			199W PoE Budget			1 PSU included: APS299W			**XSM4316PA**
			500 W PoE Budget			1 PSU included: APS600W			**XSM4316PB**
M4300-12X12F	**Half-width** 1-unit 1U 2-unit 1U rack mount	480 Gps	**12 ports** (independent) 100M; 1G; 10G	**12 ports** (independent) 1G; 10G	-	**Modular 1 bay** 1 PSU included: APS250W	**Fixed** Front-to-back 36.9dB	Ethernet: Out-of-band 1G port (Back) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**XSM4324S**
M4300-24X	**Half-width** 1-unit 1U 2-unit 1U rack mount	480 Gps	**24 ports** 100M; 1G; 10G	**4 ports** (shared, back) 1G; 10G	-	**Modular 1 bay** 1 PSU included: APS250W	**Fixed** Front-to-back 37dB	Ethernet: Out-of-band 1G port (Back) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**XSM4324CS**
M4300-24XF	**Half-width** 1-unit 1U 2-unit 1U rack mount	480 Gps	**2 ports** (shared, back) 100M; 1G; 10G	**24 ports** 1G; 10G	-	**Modular 1 bay** 1 PSU included: APS250W	**Fixed** Front-to-back 39.07dB	Ethernet: Out-of-band 1G port (Back) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**XSM4324FS**
M4300-24X24F	**Full width** 1-unit 1U rack mount	960 Gps	**24 ports** (independent) 100M; 1G; 10G	**24 ports** (independent) 1G; 10G	-	**Modular 2 bays** 1 PSU included: APS250W	**Fixed** Front-to-back 35.8dB	Ethernet: Out-of-band 1G port (Front) Console: RJ45 RS232 (Front) Console: Mini-USB (Front) Storage: USB (Front)	**XSM4348S**
M4300-48X	**Full width** 1-unit 1U rack mount	960 Gps	**48 ports** 100M; 1G; 10G	**4 ports** (shared) 1G; 10G	-	**Modular 2 bays** 1 PSU included: APS250W	**Fixed** Front-to-back 40.3dB	Ethernet: Out-of-band 1G port (Back) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**XSM4348CS**
M4300-48XF	**Full width** 1-unit 1U rack mount	960 Gps	**2 ports** (shared) 100M; 1G; 10G	**48 ports** 1G; 10G	-	**Modular 2 bays** 1 PSU included: APS250W	**Fixed** Front-to-back 42.04dB	Ethernet: Out-of-band 1G port (Back) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**XSM4348FS**
M4300-96X	**Modular** 1-unit 2U rack mount	1.920 Tbps	**up to 96 ports** 100M; 1G; 2.5G; 5G; 10G	**up to 96 ports** 1G; 10G	**Up to 24 ports** 40G	**Modular 2 bays** for APS600W or APS1200W	**Fixed** Front-to-back 35.8dB (no PoE) 66.8dB (max PoE)	Ethernet: Out-of-band 1G port (Back) Console: RJ45 RS232 (Back) Console: Mini-USB (Back) Storage: USB (Back)	
12 slots for port expansion cards:			**APM408C** (8 ports) **APM408P** (8 ports PoE+)*	**APM408F** (8 ports)	**APM402XL** (2 ports)				
			* Only first 6 slots are delivering PoE power to APM408P cards for 48 PoE+ ports per switch. APS1200W PSU is preferred for PoE applications.			Empty switch version, no PSU (PSU must be purchased separately)			**XSM4396K0**
						Starter Kit with the switch, 48 x SFP+ (6 x APM408F) and 1 PSU APS600W			**XSM4396K1**
			110V/220V AC	34W (min) 232W (max) PoE Budget with 1 x APS600W PSU, or 1+1 redundant*		110V/220V AC	1,440W (min/max) PoE Budget with 2 x APS1200W PSUs in shared mode*		
			110V/220V AC	634W (min) 832W (max) PoE Budget with 2 x APS600W PSUs in shared mode		110V AC	1,084W (min) 1,282W (max) PoE Budget with APS600W+APS1200W PSUs in shared mode		
			110V AC	484W (min) 682W (max) PoE Budget with 1 x APS1200W PSU, or 1+1 redundant		220V AC	1,234W (min) 1,432W (max) PoE Budget with APS600W+APS1200W PSUs in shared mode		
M4300-96X online configurator: www.netgear.com/96x-config			220V AC	634W (min) 832W (max) PoE Budget with 1 x APS1200W PSU, or 1+1 redundant					

* PoE Budget depends on number of PSU and APM port cards per switch. Min values above are guaranteed when 6xAPM408P (48x10G PoE+) plus any combination of 6 other port cards. Max values are guaranteed when only 6xAPM408P (48x10G PoE+) per switch, or less. APS600W provides 600W@110V/220VAC; APS1200W delivers 1,050W@110VAC or 1,200W@220VAC per PSU. The system consumes 110W, plus 5W per empty slot. APM408C/APM408P consume 38W per port card. APM408F/APM402XL consume 23W per port card.

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Hardware at a Glance

			FRONT			REAR		MANAGEMENT	
1G models Model name	Form-Factor	Switching Fabric	10/100/1000 BASE-T RJ45 ports	100/1000/10G BASE-T RJ45 ports	1000/10G BASE-X SFP+ ports	PSU	Fans	Out-of-band Console	Model number
M4300-28G	**Full width** 1-unit 1U rack mount	128 Gps	**24 ports** (No 10M/ half on ports 17-24)	**2 ports** (independent) 100M; 1G; 10G	**2 ports** (independent) 1G; 10G	**Modular** **2 bays** 1 PSU included: APS150W	**Fixed** Front-to-back 30.3dB	Ethernet: Out-of-band 1G port (Front) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**GSM4328S**
M4300-52G	**Full width** 1-unit 1U rack mount	176 Gps	**48 ports** (No 10M/ half 17-24 and 41-48)	**2 ports** (independent) 100M; 1G; 10G	**2 ports** (independent) 1G; 10G	**Modular** **2 bays** 1 PSU included: APS150W	**Fixed** Front-to-back 31.5dB	Ethernet: Out-of-band 1G port (Front) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**GSM4352S**
M4300-28G-PoE+	**Full width** 1-unit 1U rack mount	128 Gps	**24 ports** **PoE+** (No 10M/ half on ports 17-24)	**2 ports** (independent) 100M; 1G; 10G	**2 ports** (independent) 1G; 10G	**Modular** **2 bays**	**Fixed** Front-to-back 39.8dB	Ethernet: Out-of-band 1G port (Front) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**GSM4328PA**
				480W PoE Budget with 1 PSU 480W PoE Budget with 2 PSUs in RPS mode 720W PoE Budget with 2 PSUs in EPS mode		1 PSU included: APS550W			
			110V AC input 220V AC input	630W PoE Budget with 1 PSU 630W PoE Budget with 2 PSUs in RPS mode 720W PoE Budget with 2 PSUs in EPS mode 720W PoE Budget with 1 PSU 720W PoE Budget with 2 PSUs in RPS mode		1 PSU included: APS1000W			**GSM4328PB**
M4300-52G-PoE+	**Full width** 1-unit 1U rack mount	176 Gps	**48 ports** **PoE+** (No 10M/ half 17-24 and 41-48)	**2 ports** (independent) 100M; 1G; 10G	**2 ports** (independent) 1G; 10G	**Modular** **2 bays** RPS connector	**Fixed** Front-to-back 39.8dB	Ethernet: Out-of-band 1G port (Front) Console: RJ45 RS232 (Back) Console: Mini-USB (Front) Storage: USB (Front)	**GSM4352PA**
			110V/220V AC input	480W PoE Budget with 1 PSU 480W PoE Budget with 2 PSUs in RPS mode 720W PoE Budget with 2 PSUs in EPS mode		1 PSU included: APS550W	External RPS4000 for power redundancy (RPS) when 2 internal PSUs are used in EPS mode		
			110V AC input 220V AC input	591W PoE Budget with 1 PSU 591W PoE Budget with 2 PSUs in RPS mode 1,010W PoE Budget with 2 PSUs in EPS mode 860W PoE Budget with 1 PSU 860W PoE Budget with 2 PSUs in RPS mode 1,440W PoE Budget with 2 PSUs in EPS mode		1 PSU included: APS1000W	External RPS4000 for power redundancy (RPS) when 2 internal PSUs are used in EPS mode		**GSM4352PB**

PoE models: APS550W and APS1000W cannot be mixed and matched. A switch can only have two APS550W, or two APS1000W. PA versions can be upgraded to PB, but their APS550W must be replaced by APS1000W (and reversely).

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Software at a Glance

	LAYER 3 PACKAGE											
Model name	Management	Usability Enhancements	IPv4/IPv6 ACL and QoS, DiffServ	IPv4/IPv6 Multicast filtering	IPv4 / IPv6 Policing and Convergence	Spanning Tree Green Ethernet	VLANs	Trunking Port Channel	IPv4/IPv6 Authentication Security	IPv4/IPv6 Static Routing	IPv4/IPv6 Dynamic Routing	Model number
M4300 series	Out-of-band; Web GUI; HTTPs; CLI; Telnet; SSH SNMP, MIBs RSPAN Radius Users, TACACS+	Stacking NSF with Hitless Failover Link Dependency (Enable or Disable one or more ports based on the link state of one or more different ports) Syslog and Packet Captures can be sent to USB storage	Ingress/ egress 1 Kbps shaping Time-based Single Rate Policing	IGMP+ for automatic IGMP IGMPv3 MLDv2 Snooping, Proxy ASM & SSM IGMPv1,v2 Querier (compatible v3) Control Packet Flooding	Auto-VoIP Auto-iSCSI Policy-based routing (PBR) LLDP-MED IEEE 1588 PTPv2** 1-Step End-to-End Transparent Clock	STP, MTP, RSTP PV(R)STP[1] BPDU/STRG Root Guard EEE (802.3az)	Static, Dynamic, Voice, MAC GVRP/ GMRP Double VLAN mode Private VLANs	Distributed LAG across the stack Static or Dynamic LACP (LACP automatically reverts to and from Static LAG) Seven (7) L2/L3/ L4 hashing algorithms	Successive Tiering (DOT1X; MAB; Captive Portal) DHCP Snooping Dynamic ARP Inspection IP Source Guard	Port, Subnet, VLAN routing, DHCP Relay; Multicast static routes; Stateful DHCPv6 Server	IPv4: RIP, VRRP IPv4/IPv6: OSPF, Proxy ARP, PIM-SM, PIM-DM, 6-to-4 tunnels	**All models**

[1] CLI only ** All M4300 models except 48-port 10G platforms (M4300-24X24F, M4300-48X, M4300-48XF)

Performance at a Glance

	TABLE SIZE*												
Model name	MAC ARP/ NDP	Routing / Switching Capacity	Through-put	Application Route Scaling	Packet Buffer	Latency	IP Multicast Forwarding Entries	CPU	Multicast IGMP Group member-ship	VLANs	DHCP	sFlow	Model number
M4300-96X	256K MAC* 8K ARP/ NDP*	1.920 Tbps Line-rate	2,857 Mpps	Static: 64v4/ 64v6 RIP: 512 OSPF: 12,000	96Mb	64-byte frames <2.56µs 10G RJ45 <0.89µs 10G SFP	2,048 IPv4 1,024 IPv6	CPU 1.4 Ghz 2GB RAM 256MB Flash	2K IPv4 2K IPv6	4K VLANs	DHCP Server: 2K leases IPv4: 256 pools IPv6: 16 pools	416 samplers 416 pollers 8 receivers	**XSM4396K0** **XSM4396K1**
M4300-24X24F **M4300-48X** **M4300-48XF**	128K MAC* 8K ARP/ NDP*	960 Gbps Line-rate	714 Mpps	Static: 64v4/ 64v6 RIP: 512 OSPF: 12,000	56Mb	M4300-24X24F <2.39µs 10G RJ45 <0.88µs 10G SFP+ M4300-48X <2.41µs 10G RJ45 <1.51µs 10G SFP+ M4300-48XF <1.245µs 10G RJ45 <0.9µs 10G SFP+	1,024 IPv4 512 IPv6	CPU 800 Mhz 1GB RAM 256MB Flash					**XSM4348S** **XSM4348CS** **XSM4348FS**
M4300 other models	16K MAC 888 ARP/ NDP	Up to 480 Gbps All models Line-rate	Up to 357 Mpps	Static: 64v4/ 64v6 RIP: 512 OSPF: 512	M4300-12X12F: 32Mb Others: 16Mb	M4300-8X8F: <2.43µs 10G RJ45 <0.89µs 10G SFP+ All others: <2.76µs 10G RJ45 <1.83µs 10G SFP+	96 IPv4 32 IPv6	CPU 800 Mhz 1GB RAM 256MB Flash					**All other models**

* For mixed stacking between more capable devices and less capable devices, SDM mixed stacking template is used based on "least common denominator" set of capacities and capabilities
Other SDM "native" templates can be used on superior platforms, for a larger table size. A stack requires an uniform table size across all stack members.

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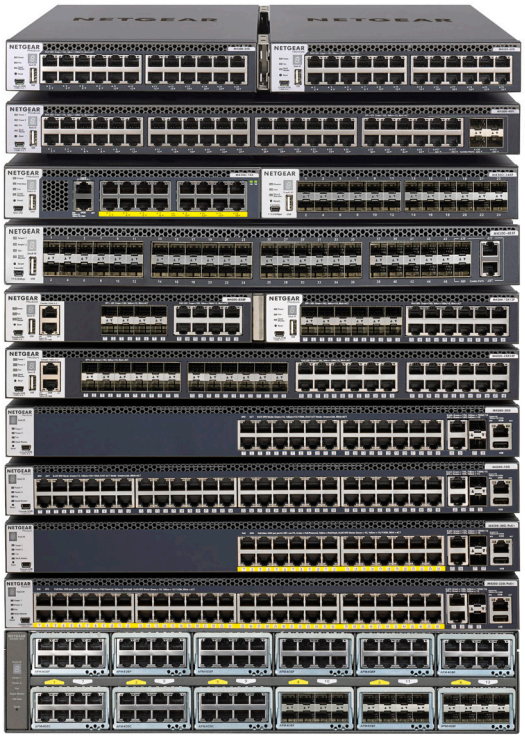
ORDERING INFORMATION	
M4300-8X8F	
Americas, Europe	XSM4316S-100NES
Asia Pacific	XSM4316S-100AJS
China	XSM4316S-100PRS
M4300-16X with 199W PSU	
Americas, Europe	XSM4316PA-100NES
Asia Pacific	XSM4316PA-100AJS
China	XSM4316PA-100PRS
M4300-16X with 600W PSU	
Americas, Europe	XSM4316PB-100NES
Asia Pacific	XSM4316PB-100AJS
China	XSM4316PB-100PRS
M4300-12X12F	
Americas, Europe	XSM4324S-100NES
Asia Pacific	XSM4324S-100AJS
China	XSM4324S-100PRS
M4300-24X	
Americas, Europe	XSM4324CS-100NES
Asia Pacific	XSM4324CS-100AJS
China	XSM4324CS-100PRS
M4300-24XF	
Americas, Europe	XSM4324FS-100NES
Asia Pacific	XSM4324FS-100AJS
China	XSM4324FS-100PRS
M4300-24X24F	
Americas, Europe	XSM4348S-100NES
Asia Pacific	XSM4348S-100AJS
China	XSM4348S-100PRS
M4300-48X	
Americas, Europe	XSM4348CS-100NES
Asia Pacific	XSM4348CS-100AJS
China	XSM4348CS-100PRS
M4300-48XF	
Americas, Europe	XSM4348FS-100NES
Asia Pacific	XSM4348FS-100AJS
China	XSM4348FS-100PRS
M4300-96X	
Worldwide (Empty Switch, No PSU)	XSM4396K0-10000S
Americas, Europe (Starter Kit 48xSFP+)	XSM4396K1-100NES
Asia Pacific (Starter Kit 48xSFP+)	XSM4396K1-100AJS
Worldwide (10G Copper card)	APM408C-10000S
Worldwide (10G Copper PoE+ card)	APM408P-10000S
Worldwide (10G Fiber card)	APM408F-10000S
Worldwide (40G Fiber card)	APM402XL-10000S
Americas, Europe (600W PSU)	APS600W-100NES
Asia Pacific (600W PSU)	APS600W-100AJS
Americas, Europe (1,200W PSU)	APS1200W-100NES
Asia Pacific (1,200W PSU)	APS1200W-100AJS
M4300-28G	
Americas, Europe	GSM4328S-100NES
Asia Pacific	GSM4328S-100AJS
China	GSM4328S-100PRS
M4300-28G-PoE+ with 550W PSU	
Americas, Europe	GSM4328PA-100NES
Asia Pacific	GSM4328PA-100AJS
China	GSM4328PA-100PRS
M4300-28G-PoE+ with 1,000W PSU	
Americas, Europe	GSM4328PB-100NES
Asia Pacific	GSM4328PB-100AJS
China	GSM4328PB-100PRS
M4300-52G	
Americas, Europe	GSM4352S-100NES
Asia Pacific	GSM4352S-100AJS
China	GSM4352S-100PRS
M4300-52G-PoE+ with 550W PSU	
Americas, Europe	GSM4352PA-100NES
Asia Pacific	GSM4352PA-100AJS
China	GSM4352PA-100PRS
M4300-52G-PoE+ with 1,000W PSU	
Americas, Europe	GSM4352PB-100NES
Asia Pacific	GSM4352PB-100AJS
China	GSM4352PB-100PRS

Front View



M4300-24X

M4300-48X

M4300-16X
M4300-24XF

M4300-48XF

M4300-8X8F
M4300-12X12F

M4300-24X24F

M4300-28G

M4300-52G

M4300-28G-PoE+

M4300-52G-PoE+

M4300-96X

Rear View

M4300-24X

M4300-48X

M4300-16X
M4300-24XF

M4300-48XF

M4300-8X8F
M4300-12X12F

M4300-24X24F

M4300-28G

M4300-52G

M4300-28G-PoE+

M4300-52G-PoE+

M4300-96X

* This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller, and covers unmodified hardware, fans and internal power supplies – not software or external power supplies, and requires product registration at https://www.netgear.com/business/registration within 90 days of purchase; see https://www.netgear.com/about/warranty for details. Intended for indoor use only.