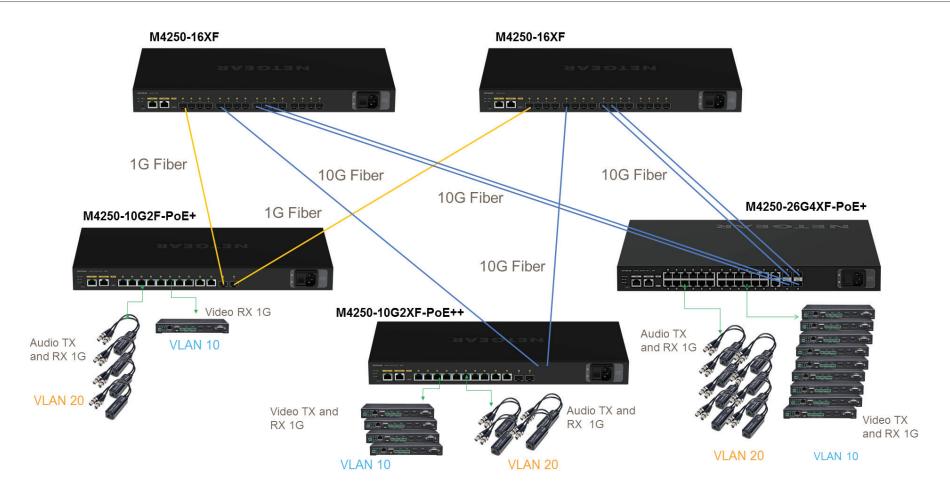
# M4250 AV Line Managed Switches

The NETGEAR AV Line M4250 series was designed with input from AV Professionals. The result is a line of switches built from the ground up to support 1Gb audio and video over IP with customized hardware and software along with dedicated service and support.

NETGEAR®



## **Target Application**



A new AV Line of M4250 switches with out-of-the-box functionality and an industry-first: a concurrent second user interface solely designed with the AV Pro in mind.

NETGEAR has enhanced the experience for AV professionals by including a new user interface designed from the ground up. Pro AV customers don't have to settle for an IT-centric interface with settings and IT-specific functionality they will never need. The new M4250 AV interface presents the common AV controls right up front with user-selectable profiles for common AV platforms making it a snap to ensure the settings are correct for a specific audio or video application.

When each M4250 is simply configured with AV profiles on certain ports, the AV Line offers automatic and dynamic configuration of multiple M4250 switches connected together. This automatic configuration, known as Auto-LAG and Auto-Trunk, combined with as NETGEAR IGMP Plus<sup>™</sup>, make setting up a complicated AV over IP network easier and quicker than ever before.

NETGEAR<sup>®</sup>

## M4250 Series Features

The NETGEAR AV Line M4250 series was designed with input from AV Professionals. The result is a line of switches built from the ground up to support 1Gb audio and video over IP with customized hardware and software along with dedicated service and support.

#### NETGEAR M4250 series key features:

- Ranges from 8 to 48 ports with a variety of PoE+ and Ultra90 PoE++ options for 15.4W, 30W, 60W, 75W and 90W AVoIP endpoints
- Uplink options include 1G for audio installations or standalone video installations as well as 10G uplinks for larger scale video deployments
- Also includes 12-port multi-gigabit Ethernet and 16-port 1G/10G fiber models for plug and play aggregation in a star topology
- Designed for a clean integration with traditional, rack-mounted, AV equipment
- The M4250 switches come with a sleek, black display panel with status in front and all cabling plus additional status in the back
- Reversed mounting is possible when ports are desired on the front of the rack
- A second pair of rackmount ears allows the switches to be mounted recessed by 2-inches to allow for the cabling
- Software-controlled fan adjustments enable the fans to be turned off when ambient temperature and PoE loads are appropriate for a totally fanless operation
- Threaded holes on the bottom (4xM5 for 50x100mm VESA) and in front (1xM10 for clamps) allow for universal mounting options outside the rack as well

#### NETGEAR M4250 series AV software features:

- Pre-configured for audio and video over IP out of the box, the M4250 switches enable encoders and decoders to be connected with zero configuration
- When more configuration is required, an AV webbased GUI is available
- This interface has been specially designed for AV installers with specific AV-related controls made more accessible and with port-based profiles
- For audio, profiles for Dante, Q-SYS and AES67 are built-in, as well as an AVB profile (AVB license sold separately)
- For video, the M4250 offers profiles for NVX, SVSI, Q-SYS, NDI, Kramer KDS, Aurora Multimedia, ZeeVee, Atlona, Dante and SDVoE
- Other AV CODECs and manufacturers are supported as well as audio/video/control mixed profiles
- To further simplify star deployments, NETGEAR IGMP Plus<sup>™</sup> brings multicast automation between all M4250 switches, and with M4300/M4500
- With Auto-Trunk and Auto-LAG, simply connect M4250 switches together and you are done!

#### NETGEAR M4250 series other software features:

- All M4250 switches share the same high-end NETGEAR Layer 2 / Layer 3 switching engine for a consistent experience
- All switches in the M4250 series have another main, IT web-based GUI for midsize Enterprise campus networks, IoT and IPTV
- Additional features include static, RIP and PIM-SM, DM and SSM multicast routing, DHCP Server and PTPv2 Transparent Clock (1-step E2E)
- AVB is the only feature requiring a license, all other advanced features are available license-free
- 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 Policy-based routing and 6-to-4 tunneling



## M4250 Series Features

 Advanced IPv4/IPv6 security implementation including malicious code detection, DHCP Snooping, IP Source Guard protection and DoS attacks mitigation

#### NETGEAR M4250 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
- Service port for out-of-band Ethernet management (OOB)
- Standard RS232 straight-through serial RJ45 and USB Type-C ports for local management console
- Standard USB-A port for local storage, logs, configuration or image files
- Dual firmware image for updates with minimum service interruption
- Single-pane-of-glass NMS300 management platform with mass configuration support
- Industry standard command line interface (CLI) for IT admins used to other vendors commands
- Fully functional Web console (main GUI) for IT admins who prefer an easy to use graphical interface
- Dedicated AV web-based GUI interface available at [switch IP address:8080] for AV installations

#### NETGEAR M4250 series warranty and support:

- NETGEAR ProSAFE Limited Lifetime Hardware
   Warranty\*\*
- Included Lifetime Technical Support
- Included Lifetime Next Business Day Hardware Replacement
- Offering free network design services and installation support, the NETGEAR Engineering Services Team is ready to help ensure your 1G deployments with the M4250 AV over IP switches go as smooth as possible. Just drop us an email at ProAVDesign@netgear.com to get started!



NETGEAR	Ξ				Question/Help $\sim$	🕒 admin 🗸					
Configure ^	Network Profiles Configure   Network Profiles										
Overview	M4250-26G4F-PoE+					Show Legends					
Network Profiles Link Aggregation Power over Ethernet Security	2	13 15 17 4 6 8	9 11 13 1 10 12 14 1		24 26 28	29					
Maintenance											
AVB License	Configured Profiles										
දී Diagnostics ~	Profile Name	Profile type	VLAN ID	IP Address	# of Assigned Por	15					
	Management VLAN	Data	1	192.168.1.100	12						
	Dante Primary	Audio Dante	10	192.168.10.254	8	I					
	1G Video Encode/Decode	Video	20	192.168.20.254	10	I					
	Profile Templates					Create AV Template					
	Audio Dante To connect IP Audio Dante	devices and their contro	ller			Ø					
	Data To connect PCs, sACN, Art	-Net, MANet and other ne	etwork devices.			Ø					
	Audio Q-SYS To connect IP Audio Q-SYS	S devices and their contro	oller			Ø					
		lers (TX), IP Video Decod		Audio Q-SYS supported at the s e, Atlona, Dante Video, NDI, SDVi		0					
	To connect IP Video Encod	Video with AESS7 audio To connect IP Video Encoders (TX), IP Video Decoders (RX), and their controller Audio AES67 supported at the same time in the same VLAN supported devices include Crestion IN/X, Aurora Multimedia, ZeeVee, Atlona, Dante Video, NDI, SD/VeE & etc.									
	Audio-over-IP AVB To connect IP Audio AVB d	evices				Ø					



# Hardware-at-a-Glance

				RE	AR (REVERSIBLE	=)*		LEDs	MANAGEMENT	
Model Name	Form-Factor	Switching Fabric	10/100/1000 BASE-T RJ45 ports	100/1000/2.5G BASE-T RJ45 ports	1000BASE-X SFP ports	1000/10G BASE-X SFP+ ports	PSU	Status Information	Out-of-band Console	Model Number
M4250-10G2F-PoE+	1U rackmount 440 x 43.2 x 200mm	24 Gbps	8 ports PoE+ (125W) 2 additional ports	-	2 ports SFP 1G	-	1 x Fixed (C14) On/off switch			GSM4212P
M4250-10G2XF-PoE+	1U rackmount 440 x 43.2 x 200mm	60 Gbps	8 ports PoE+ (240W) 2 additional ports	-	-	2 ports SFP+ 1G, 10G	1 x Fixed (C14) On/off switch			GSM4212PX
M4250-10G2XF-PoE++	1U rackmount 440 x 43.2 x 257mm	60 Gbps	8 ports PoE++** (720W) 2 additional ports	-	-	2 ports SFP+ 1G, 10G	1 x Fixed (C14) On/off switch			GSM4212UX
M4250-26G4F-PoE+	1U rackmount 440x43.2x257mm	60 Gbps	24 ports PoE+ (300W) 2 additional ports	-	4 ports SFP 1G		1 x Fixed (C14) On/Off switch			GSM4230P
M4250-26G4F-PoE++	1U rackmount 440x43.2x400mm	60 Gbps	24 ports PoE++ (1,440W)** (1 PSU/720W; 2 PSU/1,440W) 2 additional ports	-	4 ports SFP 1G		2 x Fixed (C14) On/Off switch	Available both in front and in the rear:	Ethernet: 1G Out-of-band (Rear) Console: RJ45 RS232 (Rear) Console: USB-C (Rear)	GSM4230UP
M4250-26G4XF-PoE+	1U rackmount 440x43.2x400mm	132 Gbps	24 ports PoE+ (480W) 2 additional ports	-	-	4 ports SFP+ 1G; 10G	1 x Fixed (C14) On/Off switch	Power LED PoE Max LED		GSM4230PX
M4250-40G8F-PoE+	1U rackmount 440x43.2x400mm	96 Gbps	40 ports PoE+ (480W)	-	8 ports SFP 1G		1 x Fixed (C14) On/Off switch	(PoE models) Fan LED	Storage: USB-A (Front)	GSM4248P
M4250-40G8XF-PoE+	1U rackmount 440x43.2x400mm	240 Gbps	40 ports PoE+ (960W)	-	-	8 ports SFP+ 1G; 10G	1 x Fixed (C14) On/Off switch	Port LEDs	LED Ext: USB-C (Front)	GSM4248PX
M4250-40G8XF-PoE++	2U rackmount 440x86.4x350mm	240 Gbps	40 ports PoE++ (2,880W)** (1 PSU/720W; 2 PSU/1,650W; 3 PSU/2,880W)			8 ports SFP+ 1G; 10G	3 x Fixed (C14) On/Off switch			GSM4248UX
M4250-12M2XF	1U rackmount 440x43.2x100mm	100 Gbps	-	12 ports 100M, 1G, 2.5G	-	2 ports SFP+ 1G, 10G	1 x Fixed (C14) On/Off switch			MSM4214X
M4250-16XF	1U rackmount 440x43.2x200mm	320 Gbps	-	-	-	16 ports SFP+ 1G, 10G	1 x Fixed (C14) On/Off switch			XSM4216F

\* Reversed mounting is possible when ports are desired on the front of the rack by using the standard rackmount ears, or the included alternate rackmount ears to mount the switch recessed by 2-Inches to allow for the cabling.

\*\* Ultra90 PoE++ 802.3bt is compatible with 802.3af PoE (15.4W), 802.3at PoE+ (30W) and 802.3bt (60W, 75W and 90W).



# Acoustic-at-a-Glance

	FAN O	FF MODI	E Setting /	maximum load	ding*	QUIET	MODE Se	etting at 25	°C ambier	nt**	COOL	MODE Setting	at 25°C ambient**	
Model Name	Fanless State	Ambient	Sensor	PoE Power Load	Conditions	PoE Power Load	Fan Duty	Sensor	Case Temp (Top)	Acoustic	Fan Duty	Case Temp (Top)	Acoustic	Model Number
M4250-10G2F-PoE+	0dBA / 41.8°C Case Temp	25°C	<= 42°C	80W	All ports can be used	125W	25	<= 36°C	35.9°C	27.38dBA	100	27.2°C	55dBA	GSM4212P
M4250-10G2XF-PoE+	0dBA / 39.6°C Case Temp	25°C	<= 44°C	90W	All ports can be used	240W	25	<= 37°C	40.6°C	27.4dBA	100	30.9°C	56dBA	GSM4212PX
						0-250W	25	<= 49°C	42.9°C	34.57dBA				
		0500	(700	45347		250-380W	30	<= 49°C	43.3°C	40dBA			(( 00 10 1	
M4250-10G2XF-PoE++	0dBA / 44.6°C Case Temp	25°C	<= 67°C	45W	All ports can be used	380W-500W	35	<= 49°C	44.9°C	44.22dBA	100	41.8°C	66.23dBA	GSM4212UX
						500W-720W	40	<= 49°C	52.1°C	47.19dBA				
		0500	S1<= 43°C		8 ports PoE	0-200W	25	S1<= 43°C S2<=47°C	43.5°C	28dBA	100	2772	57dBA	
M4250-26G4F-PoE+	0dBA / 40.5°C Case Temp	25°C	S2<= 47°C	45W	(no SFP)	200W-300W	30	S1<= 44°C S2<=48°C	51.3°C	34dBA	100	36.7℃	57dBA	GSM4230P
		1				0-280W	20	S1<= 37°C S2<=39°C	52.9°C	28dBA				
						280W-360W	25	S1<= 38°C S2<=40°C	57.4°C	36dBA				
						360W-420W	30	S1<= 39°C S2<=41°C	54.4°C	41dBA		720W		
			NIC			420W-480W	35	S1<= 40°C S2<=42°C	53.3°C	47dBA		36.7℃ 1,440W	69dBA	GSM4230UP
M4250-26G4F-PoE++			Not Support	ed		480W-540W	40	S1<= 41°C S2<=43°C	52.3°C	50dBA	100		090BA	
						540W-600W	45	S1<= 42°C S2<=44°C	54.4°C	54dBA		46°C		
						600W-660W	50	S1<= 43°C S2<=45°C	53.6°C	57dBA				
						660W-1,440W	55	S1<= 44°C S2<=46°C	55.7°C	60dBA				
M4250-26G4XF-PoE+	0-10.4.2.490 0	25°C	S1<= 41°C	45W	8 ports PoE	0-350W	20	S1<= 41°C S2<=46°C	39.3℃	25dBA	100	32.3°C	67dBA	GSM4230PX
M4230-26G4AF-P0E+	0dBA / 43.4°C Case Temp	2510	S2<= 46°C	4500	(no SFP+)	350W-480W	30	S1<= 42°C S2<=47°C	36.8°C	42dBA	100	32.3 C	07dbA	GSIVI4230PX
						0-150W	20	S1<= 37°C S2<=50°C	43.1℃	30dBA				
	0dDA / 45 200 0 T	25%	S1<= 37°C	2014/	8 ports PoE	150W-200W	25	S1<= 38°C	42.1°C	36dBA	100	25.4%	49404	CCMADADD
M4250-40G8F-PoE+	0dBA / 45.2°C Case Temp	25°C	S2<= 50°C	30W	(No SFP)	200W-340W	30	S1<= 39°C S2<=51°C	44°C	40dBA	100	35.4°C	68dBA	GSM4248P
						340W-480W	35	S1<= 40°C	47.6°C	47dBA				



# Acoustic-at-a-Glance

	FAN OF	F MODE	Setting /	maximum load	ing*	QUIE	T MODE S	etting at 25	°C ambier	it**	COOLM	ODE Setting at	: 25°C ambient**	
Model Name	Fanless State	Ambient	Sensor	PoE Power Load	Conditions	PoE Power Load	Fan Duty	Sensor	Case Temp (Top)	Acoustic	Fan Duty	Case Temp (Top)	Acoustic	Model Number
		1	L	1	1	0-400W	20	S1<= 33°C S2<=46°C	54.2°C	29dBA				
						400W-480W	25	S1<= 34°C S2<=47°C	42.8°C	35dBA				
						480W-560W	30	S1<= 35°C S2<=48°C	41.9°C	41dBA				
M4250-40G8XF-PoE+			560W-640W	35	S1<= 36°C S2<=49°C	42.1°C	48dBA	- 100	2/ 190	69dBA	CCM4249DV			
M4250-40G8XF-P0E+			Not Support	ea		640W-720W	40	S1<= 37°C S2<=50°C	40.9°C	51dBA	100	36.1°C	070DA	GSM4248PX
						720W-800W	45	S1<= 38°C S2<=51°C	40.7°C	54dBA				
						800W-880W	50	S1<= 39°C S2<=52°C	40.4°C	57dBA				
					880W-960W	55	S1<= 40°C S2<=53°C	40.5°C	59dBA					
						0-160W	20	S1<= 37°C S2<=49°C	41.3°C	30dBA		720W 31.4°C		
						160W-240W	25	S1<= 38°C	38.8°C	36dBA				
						240W-320W	30	S1<= 39°C S2<=50°C	36.4°C	42dBA				
M4250-40G8XF-PoE++			Not Support	ed		320W-400W	35	S1<=40°C	35.3℃	49dBA	- 100	1,650W	71dBA	GSM4248UX
			norouppon			400W-480W	40	S1<= 41°C S2<=51°C	34.4°C	51dBA		33.5°C	, 100, 1	
						480W-560W	45	S1<= 42°C	34.3°C	55dBA		2,880W 35.4°C		
					560W-640W	50	S1<= 43°C S2<=52°C	35.1°C	57dBA					
		1		1	1	660W-2,880W	55	S1<= 44°C	36.5℃	60dBA				
M4250-12M2XF	0dBA / 56°C Case Temp	25°C	<= 64°C	-	8 ports 2.5G (no SFP+)	-	25	<= 58°C	53.5℃	28.5dBA	100	33.2°C	55dBA	MSM4214X
M4250-16XF	0dBA / 41.3°C Case Temp	25°C	<= 78°C	-	8 ports SFP+	-	25	<= 67°C	41.6°C	27.44dBA	100	30.3°C	57dBA	XSM4216F

\* Software-controlled fan adjustments enable the fans to be turned off when ambient temperature and PoE loads are appropriate for a totally fanless operation.

\*\* dBA values are SPL (Sound Pressure Level) values, testing following the ISO-7779 standard. Bystander Mode. Chamber Temp 25°C during testing. Full, 100%, Data and PoE loaded. Worst case.

## Software-at-a-Glance

					LITE LAYER 3	PACKAGE						
Model Name	Management	AV Dedicated UI	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
	Out-of-band	AV web-based GUI		NETGEAR IGMP™	Auto-VolP			Auto-Trunk and Auto-		Port,		
	IT Web GUI (main)	Designed for AV installers		Plus for automated IGMP between switches	Policy-based routing (PBR)	STP, MTP, RSTP	Static, Dynamic,	LAG between M4250 Switches	Successive Tiering	Subnet, VLAN routing		
	HTTPs	AV-related controls	Ingress/egress	IGMPv3 MLDv2	LLDP-MED	PV(R)STP	Voice, MAC	Static LAG, or Dynamic LACP	(DOT1X; MAB; Captive Portal)	Multicast static routes	IPv4: RIP	
M4250 series	CLI; Telnet; SSH	Audio over IP profiles	1 Kbps shaping Time-based	Snooping, Proxy ASM & SSM	IEEE 1588 PTPv2 1-Step	BPDU/STRG Root Guard	GVRP/GMRP	LACP	DHCP	DHCPv4 Server	IPv4/IPv6: PIM-SM	All models
	SNMP, MIBs RSPAN	AVB profile*	Single Rate Policing	IGMPv1,v2 Querier (compatible v3)	End-to-End Transparent Clock	EEE 802.3az	Double VLAN mode	reverts to and from Static LAG)	Snooping Dynamic ARP	DHCP Relay	PIM-DM SSM	
	Radius Users,	Video over IP profiles		Control Packet	AVB*:	(EEE is disabled by default)	Private VLANs	Seven (7) L2/L3/L4	Inspection IP Source Guard	Stateful DH-		
	TACACS+	Mixed Audio and Video profiles		Flooding	802.1AS, 802.1Qav, 802.1Qat MSRP, 802.1ak MMRP, 802.1ak MVRP			hashing algorithms		CPv6 Server		

\* Requires AVB license, sold separately. All other software features are available, license-free.





\* Requires AVB license, sold separately. All other software features are available, license-free.

# Performance-at-a-Glance

						Т	ABLE SIZE							
Model Name	MAC ARP/NDP	Routing/Switching Capacity	Throughput 64-byte	Application Route Scaling	Packet Buffer	Latency	CPU	IP Multicast Routing Entries	Jumbo Frames	Multicast IGMP Group membership	VLANs	DHCP	sFlow	Model Number
M4250-10G2F-PoE+	16K MAC 4K ARP/NDP	24 Gbps Line-Rate	17.86 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<2.27µs 1G								GSM4212P
M4250-10G2XF-PoE+	16K MAC 4K ARP/NDP	60 Gbps Line-Rate	44.64 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<2.14µs 1G <0.84µs 10G	ARM A9 1.25Ghz 32-Bit 2GB RAM							GSM4212PX
M4250-10G2XF-PoE++	16K MAC 4K ARP/NDP	60 Gbps Line-Rate	44.64 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<1.84µs 1G <0.81µs 10G								GSM4212UX
M4250-26G4F-PoE+	16K MAC 4K ARP/NDP	60 Gbps Line-Rate	44.64 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<2.15.µs 1G								GSM4230P
M4250-26G4F-PoE++	16K MAC 4K ARP/NDP	60 Gbps Line-Rate	44.64 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<2.15µs 1G			Up to 12K		4K VLANs	DHCP Server: 2K leases IPv4: 256 pools IPv6: 16 pools	16 samplers 16 pollers 8 receivers	GSM4230UP
M4250-26G4XF-PoE+	16K MAC 4K ARP/NDP	132 Gbps Line-Rate	98.21 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<2.29µs 1G <0.83µs 10G	Quad-Core Cortex-A57 ARMv8 1.8Ghz	512 IPv4 128 IPv6						GSM4230PX
M4250-40G8F-PoE+	16K MAC 4K ARP/NDP	96 Gbps Line-Rate	71.42 Mpps	Static: 894v4/126v6 RIP: 32v4	32Mb	<2.46µs 1G	64-bit 2GB RAM							GSM4248P
M4250-40G8XF-PoE+	16K MAC 4K ARP/NDP	240 Gbps Line-Rate	178.56 Mpps	Static: 894v4/126v6 RIP: 32v4	32Mb	<2.74µs 1G <0.73µs 10G								GSM4248PX
M4250-40G8XF-PoE++	16K MAC 4K ARP/NDP	240 Gbps Line-Rate	178.56 Mpps	Static: 894v4/126v6 RIP: 32v4	32Mb	<2.78µs 1G <0.73µs 10G	ARM A9 1.25Ghz 32-Bit 2GB RAM							GSM4248UX
M4250-12M2XF	16K MAC 4K ARP/NDP	100 Gbps Line-Rate	74.40 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<2.84.µs 1G <6.02µs 2.5G <0.81µs 10G								MSM4214X
M4250-16XF	16K MAC 4K ARP/NDP	320 Gbps Line-Rate	238.08 Mpps	Static: 894v4/126v6 RIP: 32v4	16Mb	<1.30µs 1G <0.86µs 10G								XSM4216F

NETGEAR <sup>.</sup>	Ξ	Question/Help V
Configure  Overview Network Profiles Maintenance Licenses	Active Active Active Online License Activation Offline License Activation Licenses N/A Cancel Save	Cive

M4250 AVB Licenses are electronic SKUs. A license registration key is received by email and can be copied and pasted directly in the AV UI when the switch is online.





#### M4250-10G2E-PoE+ AV Line Managed Switch

- Americas: GSM4212P-100NAS
- Europe: GSM4212P-100EUS
- Asia Pacific: GSM4212P-100AJS
- China: GSM4212P-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4212P-10000S (sold separately)

- 8-port 10/100/1000BASE-T (RJ45) PoE+ with 125W PoE budget
- 2-port 10/100/1000BASE-T (RJ45)
- 2-port 1000BASE-X (SFP)
- 24 Gbps non-blocking fabric across 12 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, guiet, or cool operation
- Dimensions (WxDxH): 440 x 200 x 43.2 mm



#### M4250-10G2XF-PoE+ AV Line Managed Switch

- Americas: GSM4212PX-100NAS
- Europe: GSM4212PX-100EUS
- Asia Pacific: GSM4212PX-100AJS
- China: GSM4212PX-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4212PX-10000S (sold separately)

- 8-port 10/100/1000BASE-T (RJ45) PoE+ with 240W PoE budget
- 2-port 10/100/1000BASE-T (RJ45)
- 2-port 1000/10GBASE-X (SFP+)
- 60 Gbps non-blocking fabric across 12 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, quiet, or cool operation
- Dimensions (WxDxH): 440 x 200 x 43.2 mm





#### M4250-10G2XE-PoE++ AV Line Managed Switch

- Americas: GSM4212UX-100NAS
- Europe: GSM4212UX-100EUS
- Asia Pacific: GSM4212UX-100AJS
- China: GSM4212UX-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4212UX-10000S (sold separately)

- 8-port 10/100/1000BASE-T (RJ45) Ultra90 PoE++ with 720W PoE budget
- 2-port 10/100/1000BASE-T (RJ45)
- 2-port 1000/10GBASE-X (SFP+)
- Compatible 802.3af (15.4W), 802.3at (30W), 802.3bt (60, 75 and 90W)
- 60 Gbps non-blocking fabric across 12 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, quiet, or cool operation
- Dimensions (WxDxH): 440 x 257 x 43.2 mm
- Weight: 3.83Kg (8.44lb)





#### M4250-12M2XF AV Line Managed Switch

- Americas: MSM4214X-100NAS
- Europe: MSM4214X-100EUS
- Asia Pacific: MSM4214X-100AJS
- China: MSM4214X-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4214X-10000S (sold separately)

- 12-port 100/1000/2.5GBASE-T (RJ45)
- 2-port 1000/10GBASE-X (SFP+)
- 100 Gbps non-blocking fabric across 14 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, quiet, or cool operation
- Dimensions (WxDxH): 440 x 100 x 43.2 mm
- Weight: 1.74Kg (3.85lb)





#### M4250-16XF AV Line Managed Switch

- Americas: XSM4216F-100NAS
- Europe: XSM4216F-100EUS
- Asia Pacific: XSM4216F-100AJS
- China: XSM4216F-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4216F-10000S (sold separately)

- 16-port 1000/10GBASE-X (SFP+)
- 320 Gbps non-blocking fabric across 16 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, quiet, or cool operation
- Dimensions (WxDxH): 440 x 100 x 43.2 mm
- Weight: 1.74Kg (3.85lb)







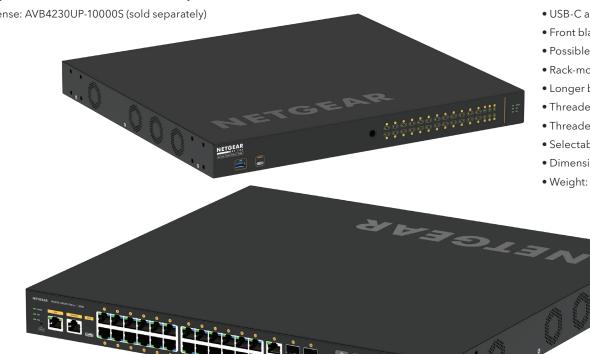
#### M4250-26G4F-PoE+ AV Line Managed Switch

- Americas: GSM4230P-100NAS
- Europe: GSM4230P-100EUS
- Asia Pacific: GSM4230P-100AJS
- China: GSM4230P-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4230P-10000S (sold separately)
  - NETGEA NELCENS

- 24-port 10/100/1000BASE-T (RJ45) PoE+ with 300W PoE budget
- 2-port 10/100/1000BASE-T (RJ45)
- 4-port 1000BASE-X (SFP)
- 60 Gbps non-blocking fabric across 30 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, quiet, or cool operation
- Dimensions (WxDxH): 440 x 43.2 x 257 mm
- Weight: 4.30Kg (9.47lb)

#### M4250-26G4F-PoE++ AV Line Managed Switch

- Americas: GSM4230UP-100NAS
- Europe: GSM4230UP-100EUS
- Asia Pacific: GSM4230UP-100AJS
- China: GSM4230UP-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4230UP-10000S (sold separately)



- 24-port 10/100/1000BASE-T (RJ45) Ultra90 PoE++ with 1,440W PoE budget
- 2-port 10/100/1000BASE-T (RJ45)
- 4-port 1000BASE-X (SFP)
- Compatible 802.3af (15.4W), 802.3at (30W), 802.3bt (60, 75 and 90W)
- 2 internal, fixed PSUs (C14 inlets) with embedded RPS/EPS function
- When one PSU is used, PoE budget is 720W
- When two PSU are used, PoE budget is 1,440W
- 60 Gbps non-blocking fabric across 30 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for quiet or cool operation
- Dimensions (WxDxH): 440 x 43.2 x 400 mm
- Weight: 6.75Kg (14.87lb)



#### M4250-26G4XF-PoE+ AV Line Managed Switch

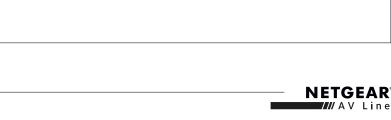
Ordering information

- Americas: GSM4230PX-100NAS
- Europe: GSM4230PX-100EUS
- Asia Pacific: GSM4230PX-100AJS
- China: GSM4230PX-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4230PX-10000S (sold separately)

NETGEAR

- 24-port 10/100/1000BASE-T (RJ45) PoE+ with 480W PoE budget
- 2-port 10/100/1000BASE-T (RJ45)
- 4-port 1000/10GBASE-X (SFP+)
- 132 Gbps non-blocking fabric across 30 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, quiet, or cool operation
- Dimensions (WxDxH): 440 x 43.2 x 400 mm
- Weight: 5.45Kg (12.02lb)

NETGEAR



#### M4250-40G8F-PoE+ AV Line Managed Switch

- Americas: GSM4248P-100NAS
- Europe: GSM4248P-100EUS
- Asia Pacific: GSM4248P-100AJS
- China: GSM4248P-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4248P-10000S (sold separately)

- 40-port 10/100/1000BASE-T (RJ45) PoE+ with 480W PoE budget
- 8-port 1000BASE-X (SFP)
- 96 Gbps non-blocking fabric across 48 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for fanless, quiet, or cool operation
- Dimensions (WxDxH): 440 x 43.2 x 400 mm
- Weight: 5.85Kg (12.90lb)



#### M4250-40G8XF-PoE+ AV Line Managed Switch

#### Ordering information

- Americas: GSM4248PX-100NAS
- Europe: GSM4248PX-100EUS
- Asia Pacific: GSM4248PX-100AJS
- China: GSM4248PX-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4248PX-10000S (sold separately)

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- 40-port 10/100/1000BASE-T (RJ45) PoE+ with 960W PoE budget
- 8-port 1000/10GBASE-X (SFP+)
- 240 Gbps non-blocking fabric across 48 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for quiet or cool operation
- Dimensions (WxDxH): 440 x 43.2 x 400 mm
- Weight: 6.31Kg (13.91lb)



#### M4250-40G8XF-PoE++ AV Line Managed Switch

Ordering information

- Americas: GSM4248UX-100NAS
- Europe: GSM4248UX-100EUS
- Asia Pacific: GSM4248UX-100AJS
- China: GSM4248UX-100PRS
- Warranty: Lifetime ProSAFE Hardware Warranty
- AVB License: AVB4248UX-10000S (sold separately)

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- 40-port 10/100/1000BASE-T (RJ45) Ultra90 PoE++ with 2,880W PoE budget
- 8-port 1000/10GBASE-X (SFP+)
- Compatible 802.3af (15.4W), 802.3at (30W), 802.3bt (60, 75 and 90W)
- 3 internal, fixed PSUs (C14 inlets) with embedded RPS/EPS function
- When one PSU is used, PoE budget is 720W
- When two PSU are used, PoE budget is 1,650W
- When three PSU are used, PoE budget is 2,880W
- 240 Gbps non-blocking fabric across 48 ports
- Out-of-band 1G Ethernet management port
- USB-C and RJ45 RS232 console ports and USB-A storage port
- Front black display panel and all ports in the back
- Possible reversed mounting with ports in the front
- Rack-mounting standard brackets
- Longer brackets for recessed mounting (2 inches / 5 cm)
- Threaded hole in front (1xM10) for clamps
- Threaded holes on the bottom (4xM5) for 50x100mm VESA plates
- Selectable fan modes for quiet or cool operation
- Dimensions (WxDxH): 440 x 86.4 x 350 mm (2U)



# Accessories

# GBIC SFP and SFP+ Optics for M4250 series

Ordering information	Multimoo	de Fiber (MMF)	Single mode Fiber (SMF)
<ul><li>Worldwide: see table below</li><li>Warranty: 5 years</li></ul>	OM1 or OM2 62.5/125µm	OM3 or OM4 50/125µm	9/125µm
10 Gigabit SFP+	AXM763	AXM763	AXM762
	10GBase-LRM long reach multimode 802.3aq - LC duplex connector	10GBase-LRM long reach multimode 802.3aq - LC duplex connector	10GBase-LR long reach single mode LC duplex connector
0 <sup>3</sup> /1	up to 220m (722 ft)	up to 260m (853 ft)	up to 10km (6.2 miles)
	AXM763-10000S (1 unit)	AXM763-10000S (1 unit)	AXM762-10000S (1 unit) AXM762P10-10000S (pack of 10 units)
		AXM761	AXM764
• Fits into M4250 SFP+ interfaces		10GBase-SR short reach multimode LC duplex connector	10GBase-LR LITE single mode LC duplex connector
		up to 300m (984 ft)	up to 2km (1.2 mile)
		AXM761-10000S (1 unit) AXM761P10-10000S (pack of 10 units)	AXM764-10000S (1 unit)
Gigabit SFP	AGM731F	AGM731F	AGM732F
MIRIAN Marine Marine Marine Marine	1000Base-SX short range multimode LC duplex connector	1000Base-SX short range multimode LC duplex connector	1000Base-LX long range single mode LC duplex connector
and the second second	up to 275m (902 ft)	OM3: up to 550m (1,804 ft)	up to 10km (6.2 miles)
May 1	AGM731F (1 unit)	OM4: up to 1,000m (3,280 ft)	AGM732F (1 unit)
<ul> <li>Fits into M4250 SFP+ and SFP interfaces</li> </ul>		AGM731F (1 unit)	

AGM734 1000BASE-T RJ45 SFP (Gigabit)	Ordering information <ul> <li>Worldwide: AGM734-10000S</li> <li>Warranty: 5 years</li> </ul>	A LEAST 3	<ul> <li>Fits into M4250 SFP+ and SFP interfaces</li> <li>1 port Gigabit RJ45</li> <li>Supports only 1000Mbps full-duplex mode</li> <li>Up to 100m (328 ft) with Cat5 RJ45 or better</li> <li>Conveniently adds 1G copper connectivity to M4250 fiber interfaces</li> </ul>
AXM765 10GBASE-T RJ45 SFP+ (10 Gigabit)	Ordering information <ul> <li>Worldwide: AXM765-10000S</li> <li>Warranty: 5 years</li> </ul>	W ACE	<ul> <li>Fits into M4250 SFP+ interfaces</li> <li>1 port 10GBASE-T RJ45</li> <li>Copper connectivity up to 30 m (98 feet) distance</li> <li>CAT6a or better wiring required for 10GBASE-T up to 30 meters</li> </ul>

• Conveniently adds 10G copper connectivity to M4250 fiber interfaces



## Accessories

## Direct Attach Cables for M4250 series

ORDERING INFORMATION		SFP+ to SFP+	
WORLDWIDE: SEE TABLE BELOW WARRANTY: 5 YEARS	1 meter (3.3 ft)	3 meters (9.8 ft)	5 meters (16.4 ft)
10 Gigabit DAC	<b>AXC761</b> 10GSFP+ Cu (passive) SFP+ connectors	AXC763 10GSFP+ Cu (passive) SFP+ connectors	AXC765 10GSFP+ Cu (active) SFP+ connectors
	AXC761-10000S (1 unit)	AXC763-10000S (1 unit)	AXC765-10000S (1 unit)
	7 meters (23.0 ft)	10 meters (32.8 ft)	15 meters (49.2 ft)
A MARKE	AXC767	AXC7610	AXC7615
	10GSFP+ Cu (active) SFP+ connectors	10GSFP+ Cu (active) SFP+ connectors	10GSFP+ (duplex fiber optic) SFP+ connectors
	AXC767-10000S (1 unit)	AXC7610-10000S (1 unit)	AXC7615-10000S (1 unit)
	20 meters (65.6 ft)		
	AXC7620 10GSFP+ (duplex fiber optic) SFP+ connectors		
	AXC7620-10000S (1 unit)		
• Fits into M4250 SFP+ interfaces			



\*\* This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller and modifications to product may void the warranty; covers hardware, fans and internal power supplies - not software or external power supplies See http://www.netgear.com/about/warranty/ for details. Lifetime technical support includes basic phone support for 90 days from purchase date and lifetime online chat support when purchased from a NETGEAR authorized reseller.

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