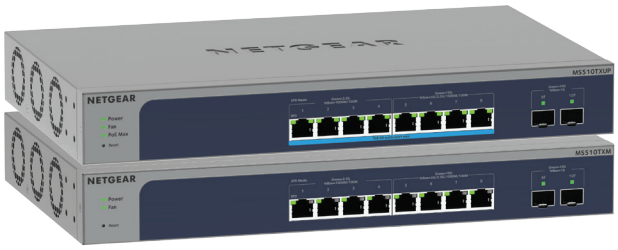
NETGEAR®
BUSINESS

Data Sheet | **MS510TXM, MS510TXUP**

8-Port Multi-Gigabit/10G Ethernet Smart Switch with 2 SFP+ Ports



#1 IN UNMANAGED & SMART SWITCHES

Elevate your business above the 1Gb barrier

As a leading provider of network equipment for SMBs, NETGEAR® understands the importance of providing a great choice of speed and power that can support the business's needs to keep up with the growth of network speed, virtualization, cloud-based services and applications like VoIP, video streaming and IP surveillance, whether in the hospitality, catering, education or retail domains. Also, the increase in speeds for WiFi 6 Access Points now imply the need for faster speeds in the network.

The MS510TXM and MS510TXUP 8-Port Multi-gig/10G switches with 2 SFP+ Ports join the NETGEAR Standalone Smart Switches family, adding multi-gigabit/10G speed, a high PoE budget for all PoE/PoE+ devices, and Ultra60 PoE++ support (295W total PoE budget for MS510TXUP) for deploying devices with multi-gig capabilities and speed, such as WiFi 6 Access Points (eg. WAX610 from NETGEAR), multi-gig or 10G NAS.

NETGEAR Smart Switches offer powerful Layer 2+/Lite L3 features, great PoE functionality, and enhanced performance and usability. They are purposely designed for modern applications and support BYOD which requires companies to have more bandwidth to ensure smooth network connectivity with no congestion.

Furthermore, in 2.5G or 5G speeds, there is no requirement to upgrade your cabling from Cat5E, allowing for savings in installation costs.

To empower the Wireless and PoE applications, NETGEAR Insight Remote/ Cloud Management is added to these two new switch models as an optional management mode. By activating the NETGEAR Insight Cloud management, the users will enable management features allowing businesses simpler configuration and deployment from anywhere using the NETGEAR Insight app from mobile devices or the Insight Cloud Portal from any device with a web browser.

Highlights

Temperature- and load-based fan-speed control combines accurate monitoring with minimized system acoustic noise, ideal for office enviornment. The MS510TXM and MS510TXUP support quiet rack mounting operation with a maximum of 25dB (MS510TXM) and 33 dBA (MS510TXUP) even at full power and 25°C (77°F) ambient.

More Powerful Switch with Multi-gigabit/10G Speed

- 4 x 1G/2.5G ports and 4 x multi-gig/10G ports
- 8 x Ultra60 PoE++ ports with 295W PoE budget (MS510TXUP only)
- 2 dedicated 10G SFP+ fiber uplink ports

Fast and flexible solution for SMB data, voice and video converged network

- Non-blocking switching with 140Gbps bandwidth
- Flexible rack-mounting option

Highlights

Ideal companion to your NETGEAR WAX610

- Connect and power your WAX610 with MS510TXUP
- Connect your WAX610PA with MS510TXM
- Manage all devices from a single dashboard with NETGEAR Insight

Powerful Connectivity and Security

- Advanced VLAN support for better network segmentation
- L2/L3/L4 access control lists (ACLs) for granular network access control including 802.1x port authentication
- Advanced per port PoE controls for remote power management of PoE powered devices including operation scheduling
- Advanced QoS (Quality of Service) for traffic prioritization including port-based, 802.1p and L2/L3/L4 DSCP-based
- Auto "denial-of-service" (DoS) prevention
- IGMP Snooping and Querier for multicast optimization
- Egress Rate limiting and priority queuing for better bandwidth allocation
- Port mirroring for network monitoring
- Energy Efficient Ethernet (IEEE 802.3az) for maximum power savings
- IPv6 management: IPv6 QoS, IPv6 ACL, IPv6 Multicast, and static and dynamic IPv6 address assignment
- Cable test to troubleshoot connection issues
- Easy-to-use Web browser-based management GUI available in English, German and Japanese
- SNMP v1, v2c, v3 and RMON remote monitoring

Fully-integrated cloud-manageable devices

- Optional NETGEAR Insight Remote/ Cloud Management on both switch models. Easily activated through the local device GUI.

Smart IT, not Big IT

- Easy to manage via web-based Management interface or Smart Control Center on Windows PC for multi-switch deployment
- NETGEAR Switch Discovery Tool (NSDT) to discover, register and access to the local browser interface to configure the switches

NETGEAR Quality and Reliability

- Worry-free Limited Lifetime Warranty*, online technical chat support and Next Business Day (NBD) replacement.

Hardware at a Glance

	FRONT					REAR	SIDE
Model Name	Form-Factor	1G/2.5G 1000BASE-T RJ-45 Copper Ports	1G/2.5G/5G/10G 1000BASE-T RJ-45 Copper Ports	10G SFP+ Uplink	Ultra60 PoE++ (60W/port) Ports (PoE Budget	Power Supply (PoE Budget)	Fans
MS510TXM	Rackmount	4	4	2	-	-	2 internal fans, fixed
MS510TXUP	Rackmount	4	4	2	8 (295W)	1 internal PSU, fixed	3 internal fans, fixed

Software at a Glance

LAYER 2+ / LAYER 3 LITE FEATURES							
Management	PoE Control Features	IPv4/IPv6 ACL and QoS	IPv4/IPv6 Multicast Filtering	VLANs	IEEE (802.3az) Energy Efficient Ethernet	Convergence	Link Aggregation
Web Browser-based GUI (HTTP/HTTPS), PC-Based Smart Control Center Utility (SCC), RMON, SNMP, NETGEAR Insight Cloud Management via mobile App and Insight Portal	PoE on/off, Dynamic PoE budget allocation, PoE power priority setting, PoE Power Usage Metering, PoE scheduling Uninterrupted PoE	L2, L3, L4 Ingress	IGMP Snooping, Querier	Static, Dynamic, VoIP, Voice, WiFi, Camera	Yes	LLDP-MED, RADIUS, 802.1X	LACP and Manual Static LAGs (up to 8 LAGs with max 8 members)

Performance at a Glance

Model Name	Packet Buffer	CPU	ACL	MAC Address Table ARP Table VLANs	Fabric	Latency (64-Byte Packet)	Multicast IGMP Group
MS510TXM MS510TXUP	2 MB	1GHz dual core 256MB RAM 64MB SPI FLASH	100 shared (ingress)	32K Max MAC 256 VLANs	140 Gbps line-rate	2.5G Copper: <5.903µsec 10G Copper: <2.420µsec 10G Fiber: < 1.257µsec	256

Features and Benefits

Hardware Features	
Fully-integrated Cloud-manageable Devices	Require no additional hardware (cloud keys, network portals, local servers, VPN or proxy appliances etc) to directly connect to the cloud and allow remote management. No additional hardware or software. Just switch to Insight Cloud Management mode through Web browser-based User Interface and go.
Multi-gig/10G 1000BASE-T Copper Ethernet and Ultra 60 PoE++ connections	Support high-density VoIP, Surveillance and Wi-Fi AP deployments, scalable for future growth. Never face the risk of running out of PoE ports.
10G 1000BASE-X SFP ports	Two dedicated 10 Gigabit SFP+ ports for aggregation to the network core. Support for Fiber and Copper modules.
Low Acoustics	Temperature- and load-based fan-speed control allow for quiet operation in both desktop or rack mount configuration.
Energy Efficient Ethernet (IEEE 802.3az)	Maximum power reduction for ongoing operation cost savings.
Desktop and rack-mount (kit available)	Flexible deployment on desktop and also support rackmount.
Ideal companion to your NETGEAR WAX610	• Connect and power your WAX610 with MS510TXUP • Connect your WAX610PA with MS510TXM • Manage all devices from a single dashboard with NETGEAR Insight
Software Features	
Remote setup, management, and monitoring anywhere, anytime, from your mobile device, PC, Mac, or tablet	Locally or remotely setup, configure, manage, monitor or even trouble-shoot your network from anywhere, anytime. Check network status, view dashboards for network health and activity, power cycle PoE ports, etc, and update firmware remotely. No need to be on-site, open up ports to your network, or VPN into it.
Auto-join and Configure (Zero-Touch Provisioning)	Additional Insight Managed devices added to the network automatically inherit settings and configuration.
Multi-site, Multi-network Single Pane-of-Glass View	View and configure multiple networks across multiple sites, all from one single app; NETGEAR Insight.
Comprehensive IPv6 Support for Management, ACLs and QoS	Build current network with future in mind. Ensure investment protection and a smooth migration to an IPv6-based network without switch replacement.
Robust security features: • 802.1x authentication (EAP) • Port-based security by locked MAC	Build a secured, converged network with all types of traffic by preventing external attacks and blocking malware while allowing secure access for authorized users.
Comprehensive QoS features: • Port-based or VLAN 802.1p-based prioritization • Layer 3-based (DSCP) prioritization • Port-based iegress rate limiting	Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.
Auto-VoIP, Auto-Voice VLAN	Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based on OUI bytes (default database and user-based OUIs) in the phone source MAC address, providing the best class of service to VoIP streams (both data and signaling) over other ordinary traffic by classifying traffic, and enabling correct egress queue configuration.

Software Features (continued)	
Auto-WiFi, Auto-Camera VLAN	Auto-WiFi VLAN and Auto-Camera VLAN allows the switch to forward packets with the inputed OUIs of Wireless APs and cameras in a special VLAN with priority settings of that VLAN automatically.
IGMP Snooping	Facilitate fast receiver joins and leaves for multicast streams. Save cost and improve network efficiency by ensuring multicast traffic only reaches designated receivers without the need of an extra multicast router.
Protected Ports	Ensure no exchange of unicast, broadcast, or multicast traffic between the protected ports on the switch, thereby improving the security of your converged network. This allows your sensitive phone phone conversations to stay private and your surveillance video clips can be forwarded to their designated storage device without leakage or alteration.
DHCP Snooping	Ensure IP address allocation integrity by only allowing DHCP messages from trusted DHCP servers and dropping malformed DHCP messages with a port or MAC address mismatch.
Dynamic VLAN Assignment (RADIUS)	IP phones and PCs can authenticate on the same port but under different VLAN assignment policies. Users are free to move around and enjoy the same level of network access regardless of their physical location on the network.
Link Aggregation (LACP)	Build up bigger bandwidth to support aggregated uplink/downlink traffic or to provide redundant link(s). Aggregate up to 8 ports for 8Gbps connections.
Loop Prevention and Auto-DoS Prevention	Detect and prevent (auto port shutdown) accidental network loops and protect against DoS attacks.
PoE Timer and Scheduling	Allows IT administrators to increase network security, better utilize network resources and conserve energy by scheduling or remotely controlling on/off of PoE ports.
Port Mirroring and Cable Test	Many-to-one port mirroring for better and quicker network diagnostics and troubleshooting. Cable test easily identifies bad Ethernet cables.
Dual Firmware Images	Dual firmware images for transparent firmware updates with minimum service interruption.
Firmware Updates from Cloud	Direct cloud-to-device firmware updates, initiated and/or scheduled using the Insight app, all from the palm of your hand, anytime, anywhere!

Simply Activate NETGEAR Insight Cloud Management to manage your network. Anytime. Anywhere.

By activating the NETGEAR Insight Cloud management, the users will enable fundamental management features allowing businesses simpler configuration and deployment from anywhere using the NETGEAR Insight app from mobile devices or the Insight Cloud Portal from any device with a web browser.

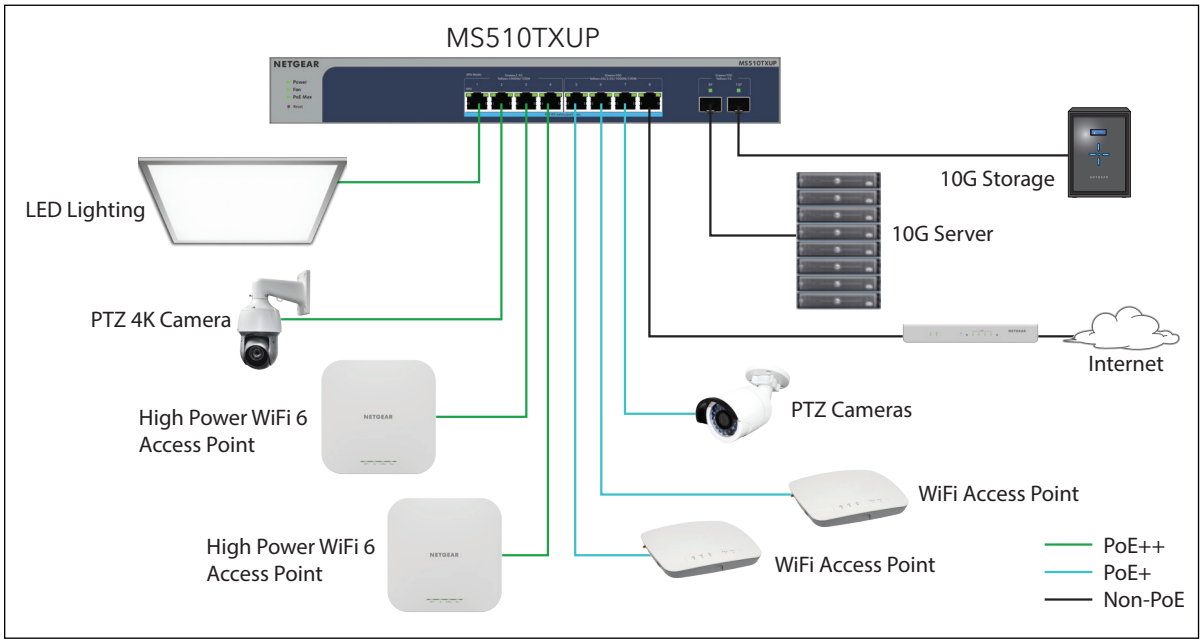
Unique advanced management features of these Insight Managed devices include:

- Remote monitoring and management with performance dashboards and troubleshooting features including remote reboot, port and PoE advanced configuration including remote enable/disable/power-cycle, PoE scheduling, and firmware updates with auto-schedule mode
- Single pane-of-glass multi-device, multi-network, and multi-site remote monitoring and notifications with the NETGEAR Insight app
- Full-fledged local or remote access for configuration, management, and monitoring on a larger display using your tablet, laptop, or desktop computer through the NETGEAR Insight Cloud Portal
- Configurable in-app and email alerts and notifications
- Auto-join and configure (zero-touch provisioning) for additional Insight Managed devices added to the network
- Centralized network configuration (policies) across Insight Managed Switches, Access Points, and ReadyNAS storage for VLANs, ACLs, QoS, LAGs, etc.
- Cloud-based network administration, monitoring, and firmware management

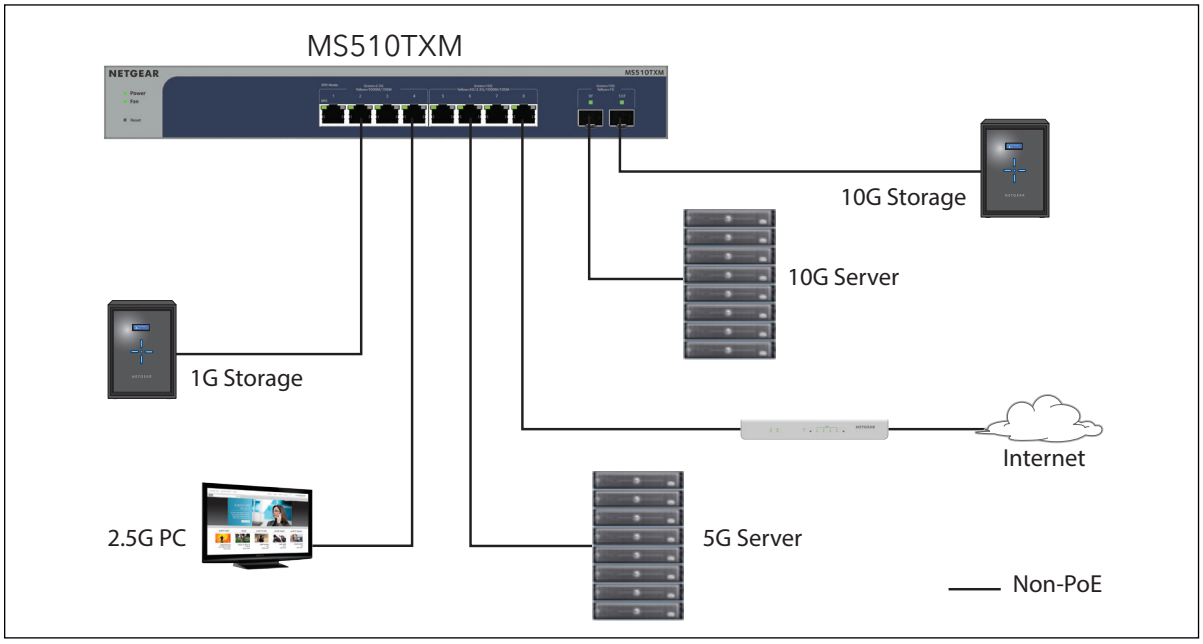
For more information about NETGEAR Insight-manageable device settings, please see at:
https://www.netgear.com/support/product/Insight.aspx

Application Sample

Get Multi-gigabit and 10G Speed to your business with more powerful PoE++



MS510TXUP Sample Connection Diagram



MS510TXM Sample Connection Diagram

Technical Specifications

Technical Specifications	MS510TXM	MS510TXUP
1G/2.5G Ethernet RJ-45 Copper ports (100M/1G/2.5G) - 1000BASE-T	4	4
Multi-gigabit/10G Ethernet RJ-45 Copper ports (100M/1G/2.5G/5G/10G) - 1000BASE-T	4	4
PoE / PoE+ / PoE++ ports	-	8 (60W/port)
10 Gigabit SFP+ (fiber) ports (1G/10G) - 1000BASE-X	2 (dedicated)	2 (dedicated)
Power Supply	Internal Power Supply	Internal Power Supply
LEDS		
Front (per device)	Power (with Cloud Mode Indicator), Fan, LED Mode	Power (with Cloud Mode Indicator), Fan, PoE Max, LED Mode
Front (per port)	Speed/Link/Activity	Speed/Link/Activity/PoE Status
Unified Network Management (Discovery, Setup, Monitoring, and Management) through NETGEAR Insight Cloud Management		
Discovery, setup, monitoring and management	NETGEAR Insight mobile app on phone or tablet; Insight Cloud Portal from PC, Mac, or tablet web browser	
Remote/Cloud management	Anywhere, anytime, from the palm of your hand using Insight mobile app or from any PC, Mac, or tablet web browser using the Insight Cloud Portal	
Centralized network configuration (policies)	Centralized network configuration (policies) across Insight Managed Switches, Wireless Access Points, and Business-class ReadyNAS Storage for VLANs, ACLs, QoS, and LAGs	
Device auto-join and configure (zero-touch provisioning	Additional Insight Managed devices added to the network automatically inherit the network configuration	
Multi-site, multi-network single pane-of-glass view	Manage multiple sites, locations, and networks in a single view using the Insight mobile app or Insight Cloud Portal	
Multi-switch, multi-port concurrent configuration for ACLs, VLANs, QoS, PoE, etc	Apply settings and policies on multiple ports across multiple switches all at the same time using the Port Config Wizard	
Performance Specifications		
CPU	1GHz dual core 256MB RAM 64MB SPI FLASH	
Packet buffer memory (Dynamically shared across only used ports)	2 MB	
Forwarding modes	Store-and-forward	
Bandwidth (non-blocking, full duplex)	140 Gbps	
Priority queues	8	
Priority queuing	Weighted Round Robin (WRR) and Strict Priority	
MAC Address database size (48-bit MAC addresses)	32K	
Multicast groups	256	
Number of VLANs	256	
Number of DHCP snooping bindings	256	

Performance Specifications	MS510TXM	MS510TXUP
Access Control Lists (ACLs)	100 shared for MAC, IP and IPv6 ACLs (ingress)	
Packet forwarding rate (64 byte packet size) (Mfps or Mpps)	14.8	
2.5 G Copper standard latency (µsec) (64-byte; 1518-byte; 9216-byte frames)	64-byte: 5.903 µsec 1518-bye: 6.040 µsec 9216-byte: 6.079 µsec	64-byte: 5.903 µsec 1518-bye: 6.040 µsec 9216-byte: 6.079 µsec
10G Copper Uplink latency (µsec) (64-byte; 1518-byte; 9216-byte frames)	64-byte: 2.420 µsec 1518-bye: 2.501 µsec 9216-byte: 2.499 µsec	64-byte: 2.420 µsec 1518-bye: 2.501 µsec 9216-byte: 2.499 µsec
10G SFP+ Fiber latency (µsec) (64-byte; 1518-byte; 9216-byte frames)	64-byte: 1.257 µsec 1518-bye: 1.337 µsec 9216-byte: 1.348 µsec	64-byte: 1.257 µsec 1518-bye: 1.337 µsec 9216-byte: 1.348 µsec
Jumbo frame support	10K	
Acoustic noise level @ 25° C (dBA) (ANSI-S10.12)	25 dBA	33 dBA
Mean Time Between Failures (MTBF) @ 25° C	1,059,519 hrs (121 yrs)	848,553 hrs (97 yrs)
POE Configuration		
Number of PoE (802.3af) / PoE+ (802.3at) / PoE++ (802.3bt) ports	-	8 PoE++
Total PoE power budget (watts)	-	295W
Advanced per-port PoE controls (enable/disable/power limit)	-	Yes
Advanced per-port PoE scheduling/timers	-	Yes
L2+/Lite L3 Services - Availability		
Broadcast, multicast, unknown unicast storm control	Yes	
IEEE 802.3ad - LAGs (LACP)	Yes	
IEEE 802.3x (full duplex and flow control)	Yes	
IEEE 802.1D Spanning Tree Protocol	Yes	
IEEE 802.1w Rapid Spanning Tree Protocol	Yes	
IEEE 802.1s Multiple Spanning Tree Protocol	Yes	
L2+/Lite L3 Services - Multicast Filtering		
IGMP snooping (v1, v2 and v3)	Yes	
MLD snooping support (v1 and v2)	Yes	
IGMP snooping querier	Yes	
Block unknown multicast	Yes	
Multicast groups	256	
DHCP Services		
DHCP client	Yes	
DHCP snooping	Yes	
Number of DHCP snooping bindings	256	

Link Aggregation	MS510TXM	MS510TXUP
IEEE 802.3ad - LAGs (LACP)	Yes	
Manual Static LAG	Yes	
# of Static or LACP LAGs # of members in each LAG	8 LAGs with max 8 members in each LAG	
Network Monitoring and Discovery Services		
802.1ab LLDP	Yes	
LLDP-MED	Yes	
SNMP	Yes, v1/v2c/v3	
RMON group 1, 2 ,3 ,9	Yes	
Network Security		
IEEE 802.1x	Yes	
Guest VLAN	Yes	
RADIUS-based VLAN assignment via .1x	Yes	
MAC-based .1x	Yes	
RADIUS accounting	Yes	
Access Control Lists (ACLs)	L2 / L3 / L4	
IP-based ACLs (IPv4 and IPv6)	Yes	
MAC-based ACLs	Yes	
TCP/UPD-based ACLs	Yes	
MAC lockdown	Yes	
MAC lockdown by the number of MACs	Yes	
Control MAC # Dynamic learned entries (per port)	4096	
Control MAC # static entries	48	
IEEE 802.1x RADIUS port access authentication/type	Yes	
Port-based security by locked MAC addresses	Yes	
Broadcast, multicast, unknown unicast storm control	Yes	
DoS attacks prevention	Yes	
Protected ports	Yes	
Quality of Service		
Port-based rate limiting	Yes, ingress and egress	
Port-based QoS	Yes	
Support for IPv6 fields	Yes	
DiffServ QoS	Yes, ingress	
IEEE 802.1p COS	Yes	
Destination MAC and IP	Yes	
IPv4 and v6 DSCP	IPv4 and IPv6	

Quality of Service	MS510TXM	MS510TXUP
TCP/UDP-based	Yes	
Weighted Round Robin (WRR)	Yes	
Strict priority queue technology	Yes	
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, manual or automatic assigment of VoIP phone traffic based on OUI bytes (default database and user-based OUIs) in the phone source MAC address to Voice VLAN associated with high priority QoS parameters	
Other Features		
Advanced per-port PoE controls (enable/disable/power limit)	Yes	
Advanced per-port PoE scheduling	Yes	
Loop detection & prevention	Yes	
DNS Client	Yes	
Option to enable/disable BPDU flooding when STP is disabled	Yes	
Option to enable/disable the flooding of EAPOL when 802.1x is disabled	Yes	
Management, Monitoring & Troubleshooting		
Cloud/Remote management	Yes	
Insight mobile app & Insight Cloud Portal management	Yes	
uPnP Discovery	Yes, activated by default	
Networking monitoring	Yes	
Data/performance logs	Yes	
Centralized network configuration/policies (network-centric management)	Yes	
Device auto-join and configure (zero-touch provisioning)	Yes	
Multi-site, multi-network single pane-of-glass view	Yes	
Multi-switch, multi-port concurrent configuration	Yes	
Network/global password (for all Insight Managed devices on a network)	Yes (per network/subnet via NETGEAR Insight mobile app and Insight Cloud Portal)	
Password management	Yes	
IP Access List	Yes	
Configurable management VLAN	Yes	
Admin access control via RADIUS and TACACS+	Yes	
IPv6 management	Yes	
SNTP client over UDP port 123	Yes	
Firmware upgrade direct from Cloud (via mobile device or Insight Cloud Portal)	Yes	
SNMP v1/v2c	Yes	
SNMP v3 with multiple IP addresses	Yes	

Management, Monitoring & Troubleshooting	MS510TXM	MS510TXUP
RMON group 1, 2, 3, 9	Yes	
Smart Control Center (SCC) for multi-switch management	Yes	
Port mirroring	Yes	
Many-to-one port mirroring	Yes	
Cable test utility	Yes	
Ping and tracerout client	Yes	
Local-only web browser-based management GUI	Yes	
HTTP/TLS Web-based access (version)	Yes (v1.2)	
HTTP firmware upload/download	Yes	
Dual software (firmware) image	Yes	
Memory and flash log	Yes	
Syslog (Server)	Yes	
Power Consumption		
Max power (worst case, all ports used, line-rate traffic) (Watts)	47.0 W	-
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)	-	380.00 W
Min power (link-down standby) (Watts)	23.90 W	31.50 W
Heat Dissipation (min w/o PoE and max with full PoE) (BTU/hr)	Max: 160.458 BTU/hr Min: 81.5946 BTU/hr	Max: 1294.5888 BTU/hr Min: 107.541 BTU/hr
Energy Efficient Ethernet (EEE) IEEE 802.3az	Yes (deactivated by default)	
Auto power down	-	-
Fan(s) (temperature- and load-based speed control)	2	3
Physical Specifications		
Dimensions (W x D x H)	330 x 206 x 43 mm (13.0 x 8.12 x 1.7 in)	330 x 206 x 43 mm (13.0 x 8.12 x 1.7 in)
Weight	2.08 kg (4.25 lb)	2.51 kg (5.53 lb)
Mounting options	Desktop, rack-mount	Desktop, rack-mount
Environmental Specifications		
Operating		
Operating Temperature	0° to 50°C (32° to 122°F)	0° to 50°C (32° to 122°F)
Humidity	95% maximum relative humidity (RH), non-condensing	
Altitude	10,000 ft (3,000 m) maximum	
Storage		
Storage Temperature	-20° to 70°C (– 4° to 158°F)	
Humidity (relative)	95% maximum relative humidity (RH), non-condensing	
Altitude	10,000 ft (3,000 m) maximum	

Warranty and Support	MS510TXM	MS510TXUP
Hardware Limited Warranty	Limited Lifetime*	
Next-Business-Day (NBD) Replacement	Limited Lifetime*	
Technical support via phone	90 days free from date of purchase*	
24x7 Online Chat Techinical support	Limited Lifetime*	
ProSUPPORT OnCall 24x7 Service Packs**	Category 1 PMB0311-10000S PMB0331-10000S PMB0351-10000S	
Insight	1-year Insight subscription included	
Package Content		
Smart Switch	✓	✓
Power Cord (localized to region of sale)	✓	✓
Mounting Kit	Rackmount	Rackmount
Rubber footpads for tabletop installation	✓	✓
Installation Guide	✓	✓

Ordering Information	
MS510TXM-100NAS	North America, Latin America
MS510TXM-100EUS	Europe
MS510TXM-100AJS	Asia Pacific
MS510TXUP-100NAS	North America, Latin America
MS510TXUP-100EUS	Europe
MS510TXUP-100AJS	Asia Pacific
Optional Modules, Software Licenses and Accessories	
AGM731F	FP Transceiver 1000BASE-SX (Short range, multimode)
AGM732F	SFP Transceiver 1000BASE-LX (Long range, single mode)
AGM734-10000S	SFP Transceiver 1000BASE-T Copper RJ45 GBIC
AXM761	SFP+ Transceiver 10GBASE-SR (Short range, multimode)
AXM762	SFP+ Transceiver 10GBASE-SR (Long range, single mode)
AXM764	SFP+ Transceiver 10GBASE-LR Lite (Long range lite, single mode)
AXC761	SFP+ DAC CABLE (1m)
AXC763	SFP+ DAC CABLE (3m)

*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.

**The NETGEAR OnCall 24x7 contract provides unlimited phone, chat and email technical support for your networking product.

† NETGEAR #1 in US Market Share according to NPD data for Unmanaged and Smart Switches, September 2019. NETGEAR #1 in Europe Market Share according to Context data for Unmanaged and Smart Switches, September 2019.

NETGEAR, Inc. 350 E. Plumeria Drive, San Jose, CA 95134-1911 USA, 1-888-NETGEAR (638-4327), E-mail: info@NETGEAR.com, www.NETGEAR.com

DS-MS510TXM/MS510TXUP-1Mar21