#### NETGEAR® BUSINESS





As a leading provider of network equipment for SMBs, NETGEAR® understands the importance of reliable and high performance networks that are SMB budget aware. With the growth of virtualization, cloud-based services and applications like VoIP, video streaming and IP surveillance, SMB networks need to extend beyond simple reliability to performance and security. The NETGEAR S350 Gigabit Smart Switch series is tailored to these essential network needs of your business; delivering unprecedented non-blocking Gigabit bandwidth and solid network security at an affordable cost.

The NETGEAR Smart S350 series consists of five switch models, including 8-, 24-

and 48-port Gigabit Ethernet switches and 8-, and 24-port Gigabit Ethernet PoE+ switches with 2 or 4 SFP ports for fiber uplinks, offering powerful Layer 2 features, enhanced performance and ease of use. They are purposely designed for converged networks where voice, video, data are all carried on a single network platform. Advanced features such as L2/L3/L4 Access Control Lists (ACLs), Quality of Service (QoS), Link Aggregation Control Protocol (LACP) and Spanning Tree Protocol (STP) will ensure a high-speed and highly secured network environment for your business.

The 8-port S350 series switch models are in small "desktop" form factors, which will not take much space to place. The 24- and

48-port models are also rack-mountable. All models include Kensington lock slot to physically secure your switch in open space. The fan-less 8-port models and 24port non-PoE model will operate silently, ideal for the noise-sensitive environment. The 24-port PoE+ model and 48-port model also work under 33dBA acoustic level. All NETGEAR S350 Series switches support IEEE 802.3az Energy Efficient Ethernet mode, caring power saving for your business. NETGEAR S350 Series is covered by a 5-year limited Hardware Warranty\* and extendable support\*\*, offering a worry-free user's experience at very affordable total cost of ownership.

#### Highlights

Flexible and cost-effective solution for SMB data, voice and video converged network

- 8/24/48 Gigabit 10/100/1000BASE-T RJ-45 ports
- 55W (GS310TP) or 190W (GS324TP)
   PoE budget across 8 or 24 Gigabit
   PoE+ ports (802.3at)
- Dedicated SFP fiber ports: 2 on GS310TP/ GS324T/GS324TP and 4 on GS348T
- Non-blocking switching with 16Gbps to 104Gbps line rate fabric
- Fan-less design on GS308T/GS310TP/ GS324T; GS324TP and GS348T has max acoustic noise level at 32.8dB and 26dB respectively under 25°C (77°F) ambient

## Powerful Connectivity and Security Features

- Advanced VLAN support for better network segmentation
- L2/L3/L4 Access control lists (ACLs) for granular network access control including 802.1x port authentication



#### Highlights

# Powerful Connectivity and Security Features (continued)

- 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
- Rate limiting and priority queuing for better bandwidth allocation
- Port mirroring for network monitoring
- Energy Efficient Ethernet (IEEE 802.3az) for maximum power savings
- Cable test to troubleshoot connection issues (except for GS324T/GS324TP)
- Easy-to-use Web browser-based management GUI available in English, German and Japanese
- SNMP v1, v2c, v3 and RMON remote monitoring

#### Smart IT, not Big IT

- Easy to manage via web-Based Management GUI or Smart Control Center (Windows PC required) for multi-switch deployment
- Smart Control Center, a powerful tool for multi-switch discovery, deployment, monitoring and firmware upgrade
- Network Management System (NMS300), allowing all NETGEAR business products to be deployed and managed through this single interface
- Dual firmware images, improving reliability and uptime to your network

#### **NETGEAR** quality and reliability

- Industry-leading 5-year Limited Hardware Warranty\*
- Minimal down-time with Next-BusinessDay Replacement Warranty
- Get 90-days Free Advanced Technical Support with device registration





#### Hardware at a Glance

			FRONT		REAR	SIDE
Model Name	Form-Factor	10/100/1000 Base-T RJ45 ports	1000BASE-X Fiber SFP Ports	PoE+ 802.3at Ports (Budget)	Power Supply	Fans
GS308T	Desktop	8			1 external PSU, DC 12V 1.0A	Fan-less
GS310TP	Desktop	8	2	8 PoE+ (55W)	1 external PSU, DC 54V 1.25A	Fan-less
GS324T	Rackmount	24	2		1 internal PSU, fixed	Fan-less
GS324TP	Rackmount	24	2	24 PoE+ (190W)	1 internal PSU, fixed	2 internal fans, fixed
GS348T	Rackmount	48	4		1 internal PSU, fixed	1 internal fan, fixed

#### Software at a Glance

	LAYER 2 FEATURES						
Management	IPv4 ACL and QoS	Pv4 Multicast Filtering	Auto-VOIP/ Auto Video	IEEE (802.3az) Energy Efficient Ethernet	MAC VLANs	Convergence Advanced Features	
Web Browser-based GUI (HTTP/HTTPS), PC-Based Smart Control Center Utility (SCC) RMON, SNMP	L2, L3, L4, ingress	IGMP Snoop- ing, Querier, Fast Leave, L2 Multicast Router	Yes	Yes	8K or 16K Max MAC 64 VLANs Static, Dy- namic, Voice	LLDP-MED RADIUS 802.1X LACP, STP, SNMP	

#### Performance at a Glance

Model Name	Packet buffer	CPU	ACLs	MAC Address Table ARP Table VLANs	Fabric	Latency (64-byte packets)	Multicast IGMP Groups	
GS308T		MIPS-4Kec 500MHz single core		8K MAC	16Gbps line-rate	1G Copper: <4.20µs	256	
GS310TP	512 KB	128MB DDR RAM 32MB FLASH		64 VLANs	20Gbps line-rate	1G Copper: < 4.20 μs; 1G Fiber: < 3.43 μs	230	
GS324T	312 NB	800MHz single core 512MB DDR RAM	100 shared		52Gbps	1G Copper: <3.86 μs		
GS324TP		2MB SPI NOR 128MB FLASH		16K MAC 64 VLANs	line-rate	1G Copper: <3.74 μs 1G Fiber: <2.90 μs	512	
GS348T	1.5MB	400MHz 512MB DDR RAM 128MB FLASH			104 Gbps line-rate	1G Copper: <2.86 μs 1G Fiber: <1.74 μs		



#### Features and Benefits

Hardware Features	
Dedicated SFP Fiber Uplinks	Dedicated SFP ports provides fiber uplinks without sacrificing any downlink Gigabit port. Up to 4 SFP ports provide not only redundant uplinks, but can also build dual redundancy by a trunked uplink with link aggregation and failover, the dual-redundancy, a powerful design for the network virtualization
PoE+ Support on all ports (GS310TP and GS324TP)	Flexible to plug-in or change into high-power PD devices on any port without worrying which one port to plug in and whether it will be running out of PoE+ ports.
Low Acoustics	Fan-less design on GS308T/GS310TP/GS324T, and maximum acoustic noise level at 32.8dB for GS324TP and 26dB for GS348T respectively at 25°C (77°F) ambient for quieter office environment
Energy Efficient Ethernet (IEEE 802.3az)	Maximum power reduction for ongoing operation cost savings.
Software Features	
Advanced per port PoE controls	Remote power management of PoE connected devices including operation scheduling (e.g. Wireless APs, IP security cameras, secure access door locks, IoT devices)
ACL filtering to permit or deny traffic based on	Provide granular network access control including L2/L3/L4 access control lists (ACLs).
Robust security features:  • 802.1x authentication (EAP)  • Port-based security by locked MAC  • DHCP Snooping	Build a secured, converged network with all types of traffic by preventing external attacks and blocking malware, while allowing secure access for authorized users with RADIUS 802.1x port authentication.
Comprehensive QoS features:  • Port-based or 802.1p-based prioritization  • Layer 3-based (DSCP) prioritization  • Port-based ingress and egress 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, and Auto-Video VLAN	Automatic Voice over IP prioritization (Auto-VoIP) simplifies most complex multi-vendor IP telephone deployments either based on protocols (SIP) or 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. Similarly, Auto-Video VLAN enables IGMP snooping to minimize broadcast streams.
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 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.
Dual Firmware Images	Dual firmware images for transparent firmware updates with minimum service interruption.



# Why is the NETGEAR S350 Series Gigabit Ethernet Smart Switch the right choice for SMBs?

As a leading provider of network equipment for SMBs, NETGEAR® understands the importance of reliable and high performance networks that are SMB budget aware. With the growth of virtualization, cloud-based services and applications like VoIP, video streaming and IP surveillance, SMB networks need to extend beyond simple reliability to performance and security. The NETGEAR S350 Gigabit Smart Switch series is tailored to these essential network needs of your business; delivering unprecedented non-blocking Gigabit bandwidth and solid network security at an affordable cost.

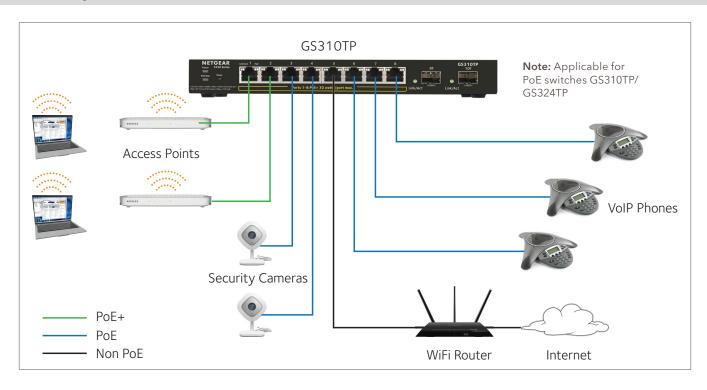
What you can expect from NETGEAR S350 Series Switches:

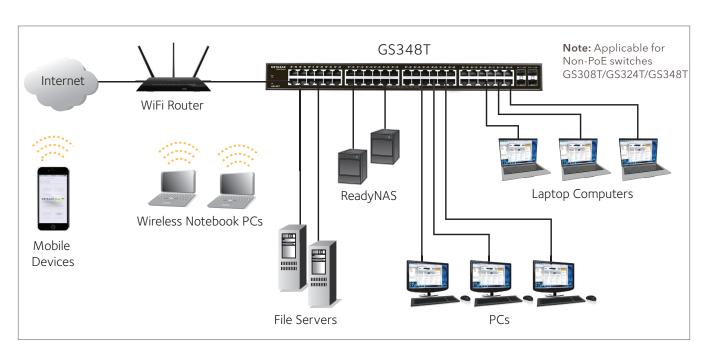
- One-wire installation with 8, 12 or 24 Gigabit ports with PoE+ options (55W or 190W PoE total budget), and 2 or 4 SFP ports options provide not only redundant uplinks, but also build dual redundancy by a trunked uplink with link aggregation and failover redundancy.
- Quiet and Cost-effective Smart Layer2 switches with essential business class network needs, ideal for voice, video and data convergence in office application
- Smart switch features include VLAN, ACL, QoS, IGMP Snooping, LACP Link aggregation, STP and SNMP for enhanced security
  and reliability
- Easy-to-use Web browser-based management GUI and full control through NETGEAR Smart Control Center, no need for an IT expert
- 5-year hardware warranty with Next Business Day replacement, 90-day free technical support



### **Example Application**

Network Convergence







10M/100M/1G RJ 45 copper ports   8						
### PoE + (PoE+ ports   8 PoE + (SSW)   24 PoE + (190W)   PoE budgety	Technical Specifications	GS308T	GS308T	GS324T	GS324TP	GS348T
Polity   P	10M/100M/1G RJ-45 copper ports	8	8	24	24	48
Performance Specification	PoE / PoE+ ports	-		-		-
	1G SFP (fiber) ports	-	2 (dedicated)	2 (dedicated)	2 (dedicated)	4 (dedicated
	Performance Specification					
Dynamically shared ácross only used ports    316/8   316/8   316/8   316/8   134/8   134/8   134/8   134/8   134/8   134/8   134/8   144   48   148/8   148	CPU	128MB RAM	128MB RAM	512MB RAM	512MB RAM	400MHz 512MB RAM 128MB FLAS
Sandwidth   16 Gbps   20 Gbps   52 Gbps   52 Gbps   104 Gpbs     Priority queues   8   8   4   4   8     Priority queuing   Weighted Round Robin (WRR) and Strict Priority     WAC address database size   8K   8K   16K   16K   16K     Walticast groups   256   256   512   512   512   512     Number of VLANs   64   64   64   64   64   64   64     Number of DHCP snooping bindings   8K   8K   8K   8K   8K   8K   8K   8	Packet buffer memory (Dynamically shared across only used ports)	512KB	512KB	512KB	512KB	1.5MB
Priority queuing  **MaC address database size addresses)**  **MAC addresses addresses)**  **MAC addresses addresses)**  **MAC addresses addresses addresses are assed onto the connecting VoIP phone using LLDP-MED.  **MAC addresses are addresses are assed onto the connecting VoIP phone using LLDP-MED.  **MAC addresses addresses are assed onto the connecting VoIP phone using LLDP-MED.  **MAC addresse addresses are assed onto the connecting VoIP phone using LLDP-MED.  **MAC addresse addresses are assed onto the connecting VoIP phone using LLDP-MED.  **MAC addresses are assed addresses are assed onto the connecting VoIP phone using LLDP-MED.  **MAC addresses are assed and server as a special part of the connecting VoIP phone using LLDP-MED.  **MAC addresses are assed and server as a special part of the connecting VoIP phone using LLDP-MED.  **MAC addresses are assed and server as a special part of the connecting VoIP phone using LLDP-MED.  **MAC addresses are assed and server as a special part of the connecting VoIP phone using LLDP-MED.  **MAC addresses**  **MAC addr	Forwarding modes			Store-and-forward		
New Notion   New Notice   N	Bandwidth	16 Gbps	20 Gbps	52 Gbps	52 Gbps	104 Gpbs
MAC address database size 48-bit MAC addresses)         8K         8K         16K         16K         16K           Multicast groups         256         256         512         512         512           Number of VLANs         64         64         64         64         64         64           Number of DHCP snooping bindings         8K	Priority queues	8	8	4	4	8
48-bit MAC addresses)  8K  8K  16K  16K  Wullticast groups  256  256  512  512  512  512  Number of VLANs  64  64  64  64  64  64  64  64  64  64	Priority queuing		Weighted Ro	und Robin (WRR) and	Strict Priority	
Number of VLANs  64 64 64 64 64 64 64 64 64 64 64 64 64	MAC address database size (48-bit MAC addresses)	8K	8K	16K	16K	16K
Number of DHCP snooping bindings 8K	Multicast groups	256	256	512	512	512
Access Control Lists (ACLs)  Packet forwarding rate 64 byte packet size) (Mpps)  11.9  14.8  38.6  38.6  38.6  77.3  Jumbo frame support (bytes)  10K  10K  10K  9216  Paccustic noise level @ 25°C (dBA) (ANSI-S10.12)  Pan-less  Fan-less  Fan-less  Fan-less  Fan-less  32.8dBA  26.0dBA  Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)  Pan-less  Pan-less  Fan-less  Fan-less  7.999,947 hrs  1,328,429 hrs  1,271,842 hr  1,284,29 hrs  1,28	Number of VLANs	64	64	64	64	64
Packet forwarding rate 64 byte packet size) (Mpps)  11.9  14.8  38.6  38.6  38.6  77.3  Jumbo frame support (bytes)  10K  10K  10K  9216  9216  9216  Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)  Fan-less  Fan-less  Fan-less  Fan-less  32.8dBA  26.0dBA  Mean Time Between Failures (MTBF) @ 25°C  2.957,592 hrs (337 yrs)  1.081,119 hrs (228 yrs)  1.081,119 hrs (228 yrs)  1.082,119 hrs (228 yrs)  1.082,119 hrs (337 yrs)  1.081,119 hrs (228 yrs)  1.082,119 hrs (337 yrs)  1.081,119 hrs (228 yrs)  1.082,119 hrs (338,429 hrs (152 yrs)  1.152,1482 hrs (152 yrs)  1.152,1482 hrs (152 yrs)  1.152,1482 hrs (123 yrs)  1.081,119 hrs (228 yrs)  1.081,119 hrs (129 yrs)  1.382,429 hrs (152 yrs)  1.271,842 hrs (123 yrs)  1.2860µs;  3.744µs;  2.860µs;  3.744µs;  2.860µs;  3.744µs;  2.860µs;  3.754µs  3.807µs  2.760µs  3.428µs;  2.899µs;  2.899µs;  2.899µs;  2.896µs;  1.740µs;  64-byte; 1518-byte; 9216-byte frames)  3.428µs;  3.400µs  2.860µs  2.937µs;  2.903µs;  1.720µs;  3.400µs  2.860µs  2.914µs  1.680µs  2.860µs  2.914µs  1.740µs;  3.466µs  2.903µs;  1.740µs;  3.466µs  2.903µs;  1.740µs;  3.466µs  2.890µs;	Number of DHCP snooping bindings	8K	8K	8K	8K	8K
64 byte packet size) (Mpps)  11.9  14.8  30.0  30.0  77.3  Jumbo frame support (bytes)  10K  10K  10K  9216  9216  9216  9216  9216  Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)  Fan-less  Fan-less  Fan-less  32.8dBA  26.0dBA  Mean Time Between Failures (MTBF) @ 25°C  2,957,592 hrs (337 yrs)  1,081,119 hrs 1,999,947 hrs 1,328,429 hrs 1,221,842 hrs (123 yrs)  11G Copper Latency (34.202μs; 3.995μs; 3.995μs; 3.858μs; 3.734μs; 2.860μs; 3.749μs; 2.920μs; 3.966μs 3.754μs 3.807μs 2.760μs  1G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)  3.428μs; 3.428μs; 2.899μs; 2.899μs; 2.899μs; 2.1740μs; 4.400μs 2.860μs 2.937μs; 2.903μs; 1.740μs; 4.400μs 2.860μs 2.914μs 1.680μs  2.860μs 2.914μs 1.680μs 2.860μs 2.914μs 2.860μs 2.860μs	Access Control Lists (ACLs)		100	shared for MAC (ing	ress)	
Acoustic noise level @ 25°C (dBA) (ANSI-S10.12) Fan-less Fan-less Fan-less Fan-less Fan-less 32.8dBA 26.0dBA Mean Time Between Failures (MTBF) @ 25°C 2,957,592 hrs (1,081,119 hrs 1,999,947 hrs (1,228 yrs) (152 yrs) (145 yrs)  IG Copper Latency 64-byte; 1518-byte; 9216-byte frames) 3,995μs; 3,995μs; 3,895μs; 3,749μs; 2,920μs; 3,966μs 3,749μs; 2,920μs; 3,966μs 3,754μs 3,807μs 2,760μs  IG Fiber Latency 64-byte; 1518-byte; 9216-byte frames) 3,428μs; 2,899μs; 2,896μs; 1,740μs; 3,666μs; 2,937μs; 2,903μs; 1,720μs; 3,400μs 2,860μs 2,914μs 1,680μs 2 Services - VLANs  EEE 802.1Q VLAN tagging Yes  P-based VLANs Yes  MAC-based VLANs Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address  Auto-Voice VLAN  Yes, based on protocols (SIP). Prioritzes traffic to a higher queue  Voice VLAN brone using LLDP-MED.	Packet forwarding rate (64 byte packet size) (Mpps)	11.9	14.8	38.6	38.6	77.3
Mean Time Between Failures (MTBF) @ 25°C	Jumbo frame support (bytes)	10K	10K	9216	9216	9216
(123yrs)   (123yrs)   (123yrs)   (123yrs)   (152 yrs)   (145 yr	Acoustic noise level @ 25°C (dBA) (ANSI-S10.12)	Fan-less	Fan-less	Fan-less	32.8dBA	26.0dBA
4.202µs; 3.868µs; 3.749µs; 2.920µs; 3.966µs 3.754µs 3.807µs 2.760µs  1G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)  2.899µs; 2.896µs; 1.740µs; 3.666µs; 2.937µs; 2.903µs; 1.720µs; 3.400µs 2.860µs 2.914µs 1.680µs  2.Services - VLANs  EEE 802.1Q VLAN tagging Yes  P-based VLANs Yes  MAC-based VLANs Yes  Auto-Voice VLAN Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address  Auto-VolP Yes, based on protocols (SIP). Prioritzes traffic to a higher queue  Voice VLAN ID or 802.1p priority, packets are passed onto the connecting VolP phone using LLDP-MED.	Mean Time Between Failures (MTBF) @ 25°C					1,271,842 hı (145 yrs)
3.666µs; 2.937µs; 2.903µs; 1.720µs; 64-byte; 1518-byte; 9216-byte frames)  3.666µs; 2.937µs; 2.903µs; 1.720µs; 1.680µs  2. Services - VLANs  EEE 802.1Q VLAN tagging  Yes  P-based VLANs  Yes  MAC-based VLANs  Yes  Auto-Voice VLAN  Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address  Auto-VolP  Yes, based on protocols (SIP). Prioritzes traffic to a higher queue  Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VolP phone using LLDP-MED.	1G Copper Latency (64-byte; 1518-byte; 9216-byte frames)	4.202µs;	4.202µs;	3.868µs;	3.749µs;	2.920µs;
P-based VLANs  MAC-based VLANs  Yes  MAC-based VLANs  Yes  Auto-Voice VLAN  Auto-Voice VLAN  Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address  Auto-VolP  Yes, based on protocols (SIP). Prioritzes traffic to a higher queue  Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VolP phone using LLDP-MED.	1G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)		3.666µs;	2.937µs;	2.903µs;	1.720µs;
P-based VLANs  MAC-based VLANs  Yes  Auto-Voice VLAN  Auto-Voice VLAN  Auto-VolP  Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address  Auto-VolP  Yes, based on protocols (SIP). Prioritzes traffic to a higher queue  Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VolP phone using LLDP-MED.	L2 Services - VLANs					
MAC-based VLANs  Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address  Auto-Voice VLAN  Yes, based on Protocols (SIP). Prioritzes traffic to a higher queue  Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.	IEEE 802.1Q VLAN tagging			Yes		
Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address  Auto-VoIP  Yes, based on protocols (SIP). Prioritzes traffic to a higher queue  Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.	IP-based VLANs			Yes		
Auto-VolP Yes, based on protocols (SIP). Prioritzes traffic to a higher queue  Voice VLAN Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VolP phone using LLDP-MED.	MAC-based VLANs			Yes		
Voice VLAN  Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.	Auto-Voice VLAN		bytes (default datab	ase and user-based	OUIs) in the phone so	ource
phone using LLDP-MED.	Auto-VoIP	•				
Auto-Video VLAN Yes	Voice VLAN			o priority, packets are	e passed onto the cor	nnecting VoIP
	Auto-Video VLAN			Yes		



L2 Services - Availability	GS308T	GS308T	GS324T	GS324TP	GS348T
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 Services - Multicast Filtering					
IGMP snooping (v1, v2, and v3)			Yes		
IGMP snooping querier			Yes		
DHCP Services					
DHCP client			Yes		
DHCP snooping			Yes		
Link Aggregation					
IEEE 802.3ad - LAGs (LACP)			Yes		
Manual Static LAG			Yes		
# of Static or LACP LAGs # of Members in each LAG		8 LAGs wi	th max 8 members i	in each LAG	
Network Monitoring and Discovery Services					
802.1ab LLDP			Yes		
SNMP			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 ingress	s	
IP-based ACLs (IPv4 and IPv6)			IPv4		
MAC-based ACLs			Yes		
TCP/UDP-based ACLs			Yes		
MAC lockdown			Yes		
MAC lockdown by the number of MACs			Yes		
Control MAC # Dynamic learned entries			4096		
Control MAC # Static entries			48		
IEEE 802.1x RADIUS port access authentication			Yes		
Port-based security by locked MAC addresses			Yes		



Network Security	GS308T	GS308T	GS324T	GS324TP	GS348T
Broadcast, multicast, unknown unicast storm control			Yes		
DoS attacks prevention			Yes		
Quality of Service (QoS)					
Port-based rate limiting	Ingress and egress	Ingress and egress	Egress	Egress	Egress
Port-based QoS			Yes		
DiffServ QoS			Yes		
IEEE 802.1p COS			Yes		
Destination MAC and IP			Yes		
IPv4 and v6 DSCP			Yes		
IPv4 and IPv6 ToS			Yes		
Weighted Round Robin (WRR)			Yes		
Strict priority queue technology			Yes		
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, based on OUI b	oytes (default databa	se and user-based O	Uls) in the phone sou	rce MAC address
Auto-VoIP	Yes, based on proto	cols SIP, H323 and S	CCP. Prioritzes traffic	to a higher queue	
Voice VLAN	Yes, based on either using LLDP-MED	r VLAN ID or 802.1p	priority, packets are p	passed onto the conn	ecting VoIP phone
Auto-Video VLAN	Yes				
IEEE Network Protocols					
• IEEE 802.3 Ethernet		• IEEE 802.3x Full-l	Duplex Flow Control		
• IEEE 802.3u 100BASE-T		• IEEE 802.1Q VLA			
• IEEE 802.3ab 1000BASE-T			DP with ANSI/TIA-105	57 (LLDP-MED)	
• IEEE 802.3af PoE		• IEEE 802.1p Clas		CTD)	
• IEEE 802.3at PoE+		•	nning Tree Protocol (S iple Spanning Tree (N		
• IEEE 802.3az Energy Efficient Ethernet (EEE)			id Spanning Tree (RS		
• IEEE 802.3ad Dynamic Link Aggregation (LACP)		•	OIUS Network Access		
• IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX					
Management					
Password management			Yes		
Configurable management VLAN			Yes		
Admin access control via RADIUS and TACACS+			Yes		
SNTP client over UDP port 123			Yes		
SNMP v1/v2c			Yes		
SNMP v3 with multiple IP addresses			Yes		
RMON group 1,2,3,9			Yes		
Port mirroring		`	Yes ingress and egres	ss	
Many-to-one port mirroring	8	10	26	26	52
Web browser-based graphical user interface (GUI)			Yes		



Smart Control Center (SCC) for multi-switch menagement   Yes   Y	Management	GS308T	GS308T	GS324T	GS324TP	GS348T
Ves	Smart Control Center (SCC) for multi-switch management			Yes		
TLS/HTTPS Web-based access (version)	Dual software (firmware) image			Yes		
File transfers (uploads, downloads)	Cable test utility	Yes	Yes	No	No	Yes
The process of the	TLS/HTTPS Web-based access (version)			Yes (v1.2)		
Speed, Link/	File transfers (uploads, downloads)			TFTP / HTTP		
Per port   Speed, Link/ Activity, or Poet in different mode or notice or n	HTTP upload/download (firmware)			Yes		
Per port   Speed, Link/ Activity, or Poet in different mode   Activity, or Poet in different mode   Activity, or Poet in different mode   Power, Fan, Poet   Power, Fan, Poet   Power, Fan, Poet Max   Power   Power, Fan, Poet Max   Power, Fan, Power, Fan	Syslog (RFC 3164)			Yes		
Per port   Speed, Link/ Activity   Activity, or PoE in different mode   Partity   Power, PoE Max   Power   Power, Pan, PoE Max   Power   Power, Fan, PoE Max   Power, Fan, Power,	LEDs					
Power   Powe	Per port		Activity, or PoE in different		Activity, or PoE in different	
158x101x30mm   236x101x30mm   328x169x43mm   330x206x43mm   440x206x43mm   (62x40x12in)   (93x40x12in)   (129x67x1.7in)   (130x81x1.7in)   (17.3x81x1.7in)	Per device	Power	Power, PoE Max	Power		Power, Fan
Commensions (W x D x H)	Physical Specifications					
Max power (worst case, all ports used, full POE, line-rate traffic) (Watts)   6.4W   69.3W   13.5W   229.9W   39.1W     Max power without POE (worst case, all ports used, full POE, line-rate traffic) (Watts)   16.3W     Max power without POE (worst case, all ports used, full POE, line-rate traffic) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumption (all ports link-down standby) (Watts)   16.3W     Iddle power consumpti	Dimensions (W x D x H)					440x206x43mm (17.3x8.1x1.7in)
Max power (worst case, all ports used, full PoE, ine-rate traffic) (Watts)  Max power without PoE (worst case, all ports used, full PoE, ine-rate traffic) (Watts)  Max power without PoE (worst case, all ports used, full ports link-down standby) (Watts)  15.1W  16.3W  ddle power consumption (all ports link-down standby) (Watts)  PoE, line-rate traffic) (Watts)  Max:  PoE, line-rate traffic) (BTU/hr)  Fan-less  Fan-less  Fan-less  Fan-less  Fan-less  Derating  Departing  Departing	Weight	•	9	9	Ū	•
line-rate traffic) (Watts)  Max power without PoE (worst case, all ports used, line-rate traffic) (Watts)  Also power without PoE (worst case, all ports used, line-rate traffic) (Watts)  Indele power consumption (all ports link-down standby) (Watts)  Heat Dissipation (worst case, all ports used, full PoE, line-rate traffic) (BTU/hr)  PoE, line-rate traffic) (BTU/hr)  Energy Efficient Ethernet (EEE) IEEE 802.3az  Fan-less  Fan-less  Fan-less  Fan-less  Fan-less  Pan-less	Power Consumption					
used, line-rate traffic) (Watts)  Iddle power consumption (all ports link-down standby) (Watts)  Lead Dissipation (worst case, all ports used, full Poet, line-rate traffic) (BTU/hr)  Lead Dissipation (worst case, all ports used, full Poet, line-rate traffic) (BTU/hr)  Lead Dissipation (worst case, all ports used, full Poet, line-rate traffic) (BTU/hr)  Lead Dissipation (worst case, all ports used, full Poet, line-rate traffic) (BTU/hr)  Lead BTU/hr  Lead B		6.4W	69.3W	13.5W	229.9W	39.1W
Standby) (Watts)  2.0W  3.3W  6.3W  11.1W  25.0W  Heat Dissipation (worst case, all ports used, full Poet, line-rate traffic) (BTU/hr)  22.02 BTU/hr  236.59 BTU/hr  46.09 BTU/hr  784.88 BTU/hr  148.24 BTU/hr  148.24 BTU/hr  Energy Efficient Ethernet (EEE) IEEE 802.3az  Yes (deactivated by default)  Fan  Fan-less  Fan-less  Fan-less  7an-less  Poperating  Operating  Operating  Operating temperature  O° to 40° C (32° to 104° F)  O° to 45° C (32° to 113° F)  Humidity (relative)  95% maximum relative humidity (RH), non-condensing  Altitude  Storage temperature  -20° to 70°C (-4° to 158°F)  Humidity (relative)  95% maximum relative humidity (RH), non-condensing			15.1W		16.3W	
PoE, line-rate traffic) (BTU/hr)  22.02 BTU/hr  236.59 BTU/hr  24.09 BTU/hr  784.88 BTU/hr  148.24 BTU/hr  Poe, line-rate traffic) (BTU/hr)  22.02 BTU/hr  236.59 BTU/hr  24.09 BTU/hr  784.88 BTU/hr  148.24 BTU/hr  148.24 BTU/hr  Poe, line-rate traffic) (BTU/hr)  Poe, line-rate		2.0W	3.3W	6.5W	11.1W	25.0W
Fan Fan-less Fan-less Fan-less 2 1  Environmental Specifications  Operating Operating temperature 0° to 40° C (32° to 104° F) 0° to 45° C (32° to 113° F)  Humidity (relative) 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	Heat Dissipation (worst case, all ports used, full PoE, line-rate traffic) (BTU/hr)					Max: 148.24 BTU/hr
Operating Operating temperature O° to 40° C (32° to 104° F) O° to 45° C (32° to 113° F) One to 45° C (3	Energy Efficient Ethernet (EEE) IEEE 802.3az		Yes	(deactivated by defa	ault)	
Operating temperature 0° to 40° C (32° to 104° F) 0° to 45° C (32° to 113° F)  Humidity (relative) 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	Fan	Fan-less	Fan-less	Fan-less	2	1
Operating temperature 0° to 40° C (32° to 104° F) 0° to 45° C (32° to 113° F)  Humidity (relative) 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	Environmental Specifications					
Humidity (relative)  95% maximum relative humidity (RH), non-condensing  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	Operating					
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	Operating temperature	0° to 40° C (3	32° to 104° F)	0°	° to 45° C (32° to 113°	'F)
Storage Storage temperature -20° to 70°C (-4° to 158°F) Humidity (relative) 95% maximum relative humidity (RH), non-condensing	Humidity (relative)		95% maximum re	elative humidity (RH)	, non-condensing	
Storage temperature -20° to 70°C (- 4° to 158°F)  Humidity (relative) 95% maximum relative humidity (RH), non-condensing	Altitude		10,0	00 ft (3,000 m) maxir	mum	
Humidity (relative)  95% maximum relative humidity (RH), non-condensing	Storage					
	Storage temperature		-20	)° to 70°C (- 4° to 158	8°F)	
Altitude 10,000 ft (3,000 m) maximum	Humidity (relative)		95% maximum re	elative humidity (RH)	, non-condensing	
	Altitude		10,0	00 ft (3,000 m) maxir	mum	



## Data Sheet | **GS308T, GS310TP, GS324T, GS324TP, GS348T** S350 Smart Switch Series

Electromagnetic Emissions and Immunity	GS308T	GS308T	GS324T	GS324TP	GS348T	
Certifications	CE: EN 55032:2012+AC:2013/CISPR 32:2012, EN 610003-2:2014, Class B, EN 61000-3-3:2013, EN 55024:2010  VCCI: VCCI-CISPR 32:2016, Class A  RCM: AS/NZS CISPR 32:2013 Class A  CCC: GB4943.1-2011; YD/T993-1998; GB/T9254-2008 (Class A)  FCC: 47 CFR FCC Part 15, Class A, ANSI C63.4:2014  ISED: ICES-003:2016 Issue 6, Class A, ANSI C63.4:2014  BSMI: CNS 13438 Class A					
Safety						
Certifications	UL listed (UL 1950) CE LVD: EN 60950 RCM (AS/NZS) 609	0/cUL IEC 950/EN 60 0-1:2006 + A11:2009 950.1:2015 oulsory Certificate): 0	9 + A1:2010 + A12:2		64-2008 (Class A)	
Warranty and Support						
Hardware Limited Warranty	5 years (switch) 2 years (power adapter)	5 years (switch) 2 years (power adapter)	5 years	5 years	5 years	
Technical support via phone		90 day	s free from date of pu	ırchase*		
Next-Business-Day (NBD) Replacement			5 years			
ProSUPPORT OnCall 24x7 Service Packs**  OnCall 24x7 extends the 90-day phone and email warranty entitled technical support for standard and advanced features to the length of the contract term.	Category S1: PMB0S11-10000S PMB0S31-10000S PMB0S51-10000S	Category S2: PMB0S12-10000S PMB0S32-10000S PMB0S52-10000S	Category S2: PMB0S12-10000S PMB0S32-10000S PMB0S52-10000S	Category 1: PMB0311-10000S PMB0331-10000S PMB0351-10000S	Category 1: PMB0311-10000S PMB0331-10000S PMB0351-10000S	
Package Contents						
Smart Switch	✓	✓	✓	✓	✓	
Power Adapter	✓	✓				
Power Cord (localized to region of sale)	✓	✓	✓	✓	✓	
Rackmount Kit			✓	✓	✓	
Rubber footpads for tabletop installation	✓	✓	✓	✓	✓	
Installation Guide	✓	✓	✓	✓	✓	



Ordering Information	
GS308T-100NAS	North America, Latin America
GS308T-100PES	Europe
GS308T-1001LS GS308T-100UKS	United Kingdom
GS308T-1000KS GS308T-100AUS	Asia Pacific
GS308T-100A03 GS308T-100JPS	
	Japan
GS308T-100INS	India
GS308T-100PRS	China
GS310TP-100NAS	North America, Latin America
GS310TP-100EUS	Europe
GS310TP-100AJS	Asia Pacific
GS310TP-100INS	India
GS310TP-100PRS	China
GS324T-100NAS	North America, Latin America
GS324T-100EUS	Europe
GS324T-100AJS	Asia Pacific
GS324T-100INS	India
GS324T-100PRS	China
GS324TP-100NAS	North America, Latin America
GS324TP-100EUS	Europe
GS324TP-100AJS	APAC
GS324TP-100INS	India
GS324TP-100PRS	China
GS348T-100NAS	North America, Latin America
GS348T-100EUS	Europe
GS348T-100AJS	APAC
GS348T-100INS	India
GS348T-100PRS	China
Optional Modules and Accessories	
AGM731F	SFP Transceiver 1000BASE-SX (Short range, multimode)
AGM732F	SFP Transceiver 1000BASE-LX (Long range, single mode)
AGM734-10000S	SFP Transceiver 1000BASE-T Copper RJ45 GBIC

<sup>\*</sup>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.

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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

<sup>\*\*</sup> The NETGEAR OnCall 24x7 contract provides unlimited phone and email technical support for your networking product. For ProSAFE products purchased prior to 06/2014, also includes next business-day hardware replacement.

<sup>†</sup> 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.