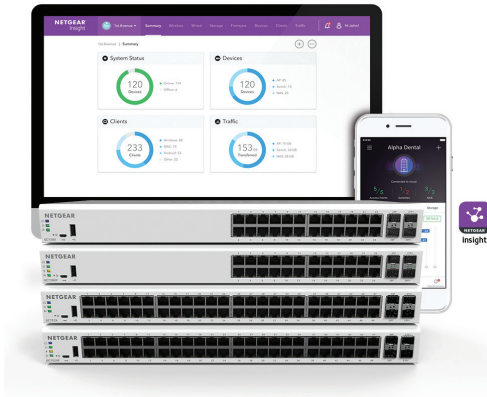


## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management



Experience the most versatile and easy to manage Advanced Smart switches in the market

As a leading provider of network equipment for SMBs, NETGEAR® understands the importance of reliable and high performance networks. 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 simpler management and remote monitoring to ensure your network is “always up”. NETGEAR also understands that small business owners shouldn’t have to understand networking and IT;

they need a network that’s easy-to-setup and is reliable, so they can focus on their business, not their network. To that end, NETGEAR is introducing our most versatile and easy-to-manage switches ever, NETGEAR Smart switches with optional remote/cloud management.

The Smart switches with optional remote/cloud management are the first switches from NETGEAR with anywhere configuration and management.

Using either the NETGEAR Insight app on your mobile device or tablet, or the

Insight Cloud Portal from your PC, Mac, or tablet, you can quickly discover, setup, monitor and manage these switches from anywhere in the world! With their remote cloud manageability, sleek design silent or whisper-quiet operation, they are the most versatile switches in the market for any environment. Whether at home, out of the office or on a business trip, you can still manage and monitor your network as if you were right there.

## Innovative features for the most versatile and easy-to-manage switches in the market

### Your network. Anytime. Anywhere.

The NETGEAR Smart switches with optional remote/cloud management fundamentally change the way you think of networks and IT. Using the NETGEAR Insight app with select Smart switches with optional remote/cloud management and Wireless Access Points provides:

- Instant in-app discovery & set-up

- Local or remote configuration and monitoring from your mobile device, PC, Mac or tablet
- Centralized network configuration polices with auto-join and configure (zero-touch provisioning)
- Multi-site/remote network management and monitoring with single pane-of-glass view
- Multi-switch/multi-port concurrent configuration using the Port Config Wizard

### Remote monitoring and management from the palm of your hand!

With the NETGEAR Insight app, you can setup, manage, and monitor your networks from anywhere, anytime, from the palm of your hand on your phone or tablet! Or, for a larger screen experience, you can use the Insight Cloud Portal from your PC, Mac, or tablet web browser.

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

### Network-centric configuration and management

NETGEAR Smart switches with optional remote/cloud management and Wireless Access Points using the NETGEAR Insight app allow for cross-device automated configuration of VLANs, QoS, ACLs, and LAGs. Auto-join and configure (zero-touch provisioning) allows for additional devices added seamlessly.

### Fully-integrated cloud-manageable devices

NETGEAR Smart switches with optional remote/cloud management are fully-integrated, cloud-manageable, plug-and-play devices. Just connect to your network and without any setup, they're passing traffic. For configuration setup, management, and monitoring, you can use the Insight mobile app on your mobile device or the Insight Cloud Portal from your PC, Mac, or tablet web browser. No additional cloud controller, appliance, network manager, or on-premise cloud server necessary.

### Clean, sleek silent (or whisper-quiet) designs

Select Smart switches with optional remote/cloud management have a modern, clean design, with at-a-glance cloud, power, fan, and PoE max<sup>1</sup> LEDs for quick status monitoring. On-port LEDs for link/activity and PoE power<sup>1</sup> allow for port-specific connectivity monitoring.

### Connectivity options for every environment

GC728X and GC728XP have 24 copper Gigabit Ethernet ports; GC752X and GC752XP have 48 copper Gigabit Ethernet ports. All models also have two dedicated 1G SFP fiber ports, and two dedicated 10G SFP+ fiber ports for maximum connectivity. On PoE+ models (GC728XP and GC752XP), all Gigabit Ethernet copper ports support PoE or PoE+, with a PoE power budget of 390W (GC728XP) and 505W (GC752XP). Dedicated Gigabit SFP and 10G SFP+ ports provide fiber uplinks for server interconnects or across long distances, or can be used to build dual redundancy by a trunked uplink with link aggregation and failover.

### Build a future-proof network with NETGEAR Smart switches

- Extensive L2+/L3 Lite switching features including static routing
- Comprehensive IPv6 management, QoS and ACL support, ensuring investment protection and a smooth migration to IPv6-based networking
- Advanced QoS with IPv4/IPv6 ingress traffic filtering (ACLs) and prioritization (QoS)
- Dynamic VLAN assignment for easy user authentication and location independent access to network
- Strong PoE+ power budgets of 390W (GC728XP) and 505W (GC752XP) have the flexibility to serve power-hungry devices such as 11ac and 11ax Wireless APs, VoIP voice and video phones, security/surveillance cameras including PTZ, and other IoT devices
- Advanced per-port PoE controls<sup>1</sup> (set specific power budget per port in addition to automatic class-defined) and PoE scheduling

### NETGEAR quality and reliability

- Industry-leading 5-year Limited Hardware Warranty\*
- Minimal down-time with Next-Business-Day Replacement Warranty
- Get deployment assistance with 90-days Free Advanced Technical Support\*\*



<sup>1</sup> On PoE models only (GC728XP, GC752XP)

### Hardware at a Glance

Model Name	Form-Factor	FRONT						REAR	SIDE
		LEDs (System)	Gigabit Copper (RJ-45) Ports	1G SFP Fiber Ports	10G SFP+ Fiber Ports	PoE/PoE+ Ports (Budget)	LEDs (Per Port)	Power Supply	Fans
GC728X	Rackmount, Desktop	Cloud, Power, Fan	24	2 (dedicated)	2 (dedicated)	N/A	Speed/Link/Activity	1 internal PSU, fixed	1 internal fan, fixed
GC728XP	Rackmount, Desktop	Cloud, Power, PoE Max, Fan	24	2 (dedicated)	2 (dedicated)	24 PoE+ (390W)	Speed/Link/Activity, PoE	1 internal PSU, fixed	2 internal fans, fixed
GC752X	Rackmount, Desktop	Cloud, Power, Fan	48	2 (dedicated)	2 (dedicated)	N/A	Speed/Link/Activity	1 internal PSU, fixed	1 internal fan, fixed
GC752XP	Rackmount, Desktop	Cloud, Power, PoE Max, Fan	48	2 (dedicated)	2 (dedicated)	48 PoE+ (505W)	Speed/Link/Activity, PoE	1 internal PSU, fixed	3 internal fans, fixed



**GC728X: 28-Port Gigabit Ethernet Smart Switch w/2 SFP and 2 SFP+ 10G Fiber Ports**

- 24 x 1000BASE-T Copper ports supporting 1G/100M speeds
- 2 x 1000BASE-X Dedicated SFP Fiber ports
- 2 x 10GBASE-X Dedicated SFP+ Fiber ports supporting 10G/1G speeds
- Max 28dB @ 25°C / 77°F ambient



**GC728XP: 28-Port Gigabit Ethernet PoE+ Smart Switch w/2 SFP and 2 SFP+ 10G Fiber Ports**

- 24 x 1000BASE-T PoE+ Copper ports supporting 1G/100M speeds
- 2 x 1000BASE-X Dedicated SFP Fiber ports
- 2 x 10GBASE-X Dedicated SFP+ Fiber ports supporting 10G/1G speeds
- 390W PoE budget (max 39dB @ 25°C / 77°F ambient)



**GC752X: 52-Port Gigabit Ethernet Smart Switch w/2 SFP and 2 SFP+ 10G Fiber Ports**

- 48 x 1000BASE-T Copper ports supporting 1G/100M speeds
- 2 x 1000BASE-X Dedicated SFP Fiber ports
- 2 x 10GBASE-X Dedicated SFP+ Fiber ports supporting 10G/1G speeds
- Max 29dB @ 25°C / 77°F ambient



**GC752XP: 52-Port Gigabit Ethernet PoE+ Smart Switch w/2 SFP and 2 SFP+ 10G Fiber Ports**

- 48 x 1000BASE-T PoE+ Copper ports supporting 1G/100M speeds
- 2 x 1000BASE-X Dedicated SFP Fiber ports
- 2 x 10GBASE-X Dedicated SFP+ Fiber ports supporting 10G/1G speeds
- 505W PoE budget (max 33dB @ 25°C / 77°F ambient)

Smart Gigabit Ethernet/10G SFP+ Switches  
with optional Remote Management

Software at a Glance

MANAGEMENT		LAYER 2+ / LAYER 3 LITE FEATURES						
Device Management	Network Management Features	IPv4/IPv6 ACL and QoS	IPv4/IPv6 Multicast Filtering	VLANs	Auto-VoIP, Auto-Video	Convergence	Link Aggregation/ Port Trunking	IPv4 & IPv6 Static Routing
Local web browser-based management GUI, SNMP, RMON Optional NETGEAR Insight mobile app or Insight Cloud Portal for local/remote/anywhere management from your mobile device, PC, Mac, or tablet IPv4 & IPv6 management	Centralized network configuration (policies) Auto-join & configure (zero-touch provisioning) Multi-site, multi-network single pane-of-glass view Multi-switch/multi-port concurrent configuration	L2, L3, L4 Ingress	IGMP and MLD Snooping	Static, Dynamic, Voice, Video, MAC, Protocol-based, and Private	Yes	LLDP-MED, RADIUS, 802.1X	LACP and Manual Static LAGs (up to 24 LAGs with max 8 members)	Yes

Performance at a Glance

Model Name	CPU & Memory	Fabric (Full-duplex)	Latency (64-byte Packet @ Max Connection Speed)	Packet Buffer	Packet Forwarding Rate (64-byte)	ACLs	MAC Address Table ARP/NDP Table VLANs	Static Routes (IPv4 & IPv6)	Priority Queues	Multicast IGMP Groups
GC728X	400 MHz Cortex-A9 Single Core, 512MB RAM	92Gbps line-rate	1G Copper: 3.200 µs	1.5 MB	68.5 Mfps	100 (shared)	16K MAC (dynamic) 384 ARP/128 NDP 256 VLANs	IPv4: 32 IPv6: 31	8 (WRR)	512
GC728XP			1G SFP: 1.720 µs							
GC752X	8MB SPI + 256 NAND FLASH	140Gbps line-rate	10G SFP+: 1.510 µs	1.5 MB	104.2 Mfps					
GC752XP										

## 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, no software or server to setup; nothing. Just connect and go.
1000BASE-T Copper Ethernet PoE+ (802.3at) connections (GC728XP/GC752XP)	Connect multiple power demanding devices to your network with a single wire for power and connectivity. Support high-density VoIP, Surveillance and Wi-Fi AP deployments, scalable for future growth. Never face the risk of running out of PoE ports or PoE power budget with power budgets of 390W (GC728XP) and 505W (GC752XP).
1000BASE-X SFP ports	Two dedicated Gigabit SFP ports provide fiber uplinks without sacrificing any downlink copper Gigabit Ethernet port, and across long distances. Support for Fiber and Copper modules.
10GBASE-X SFP+ ports	Two dedicated 10-Gigabit SFP+ fiber ports provide flexibility to uplink to 10G-capable core or aggregation switches that support fiber links. Backward compatible to Gigabit fiber. Support copper or fiber modules.
Cloud, Power, PoE (GC728XP/GC752XP only), and Fan LEDs	Quickly confirm switch has power and is connected to the cloud/internet, fan is operating normally or not, and if max PoE budget has been reached.
USB Port	Quickly and conveniently upgrade or restore firmware, load or backup configuration files, or download system log files for troubleshooting.
Micro-USB Debug Port	Only for use when directed by customer support for troubleshoot
Low Acoustics	Temperature-based fan-speed control minimizes system acoustic noise in any environment as low as 28dB at 25°C (77°F) ambient.
Energy Efficient Ethernet (IEEE 802.3az)	Maximum power reduction for ongoing operation cost savings.
Rackmount or Desktop	Flexible deployment in standard 19" rack using the included rackmount kit or on desktop using included rubber feet.
Kensington Lock Slot	Prevent theft, removal, or tampering when used for desktop deployment.
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 troubleshoot 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 of the network.
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.
IPv4 & IPv6 Static Routing	A simple way to provide segmentation of the network with internal routing through the switch - reserving the router for external traffic routing only, making the entire network more efficient.
Robust Security Features (802.1x, ACLs, MAC Authentication)	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 (802.1p, DSCP, Rate-limiting)	Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

Software Features (continued)	
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, H.323 and SCCP) 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 and MLD 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.
Private VLAN	Private VLANs help reduce broadcast with added security.
Port Trunking/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.
Firmware Updates from Cloud	Direct cloud-to-device firmware updates, initiated and/or scheduled using the Insight mobile app or Insight Cloud Portal, all from the palm of your hand, anytime, anywhere!
Multiple Language Local GUI	Product documentation and local-only web user interfaces are translated, giving you the ability to select your preferred language <sup>2</sup> .

<sup>2</sup> English, German, and Japanese are the current supported languages in the local-only web GUI. The Insight mobile app and Insight Cloud Portal support local languages per the device used (phone or computer browser).

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

### Why Smart switches with optional remote/cloud management?

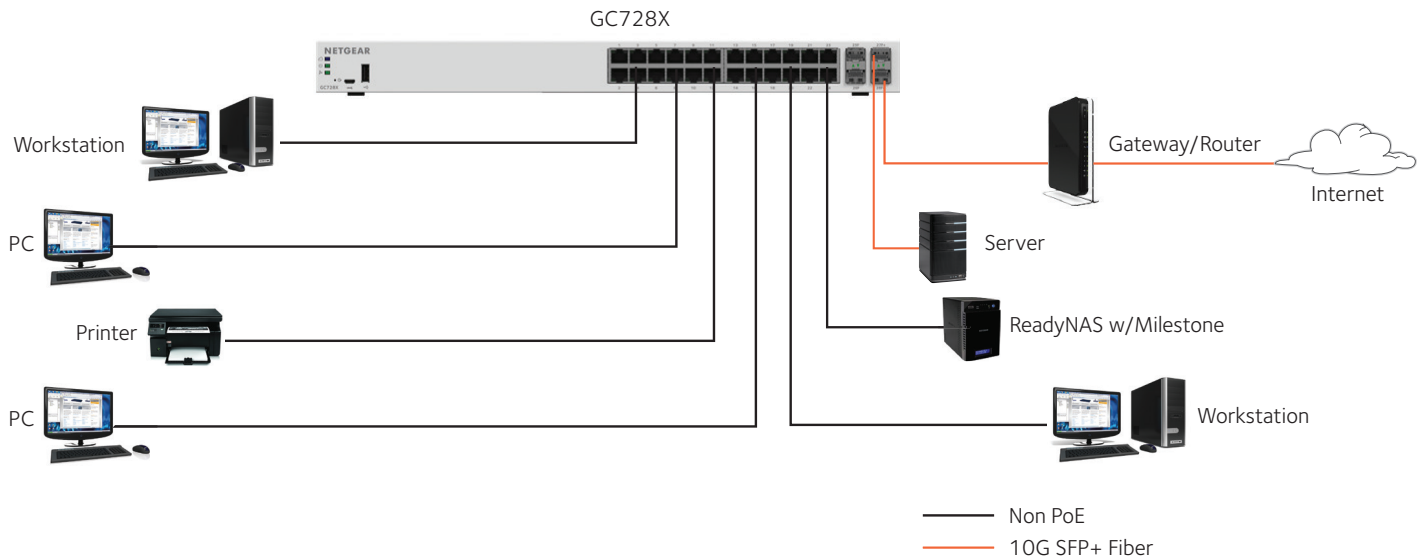
NETGEAR is revolutionizing unified, centralized network management with its new line of Smart switches with optional remote/cloud management and Wireless Access Points, all managed from the palm of your hand, anytime, anywhere, on your phone or tablet using the NETGEAR Insight mobile app. Or, for a larger screen experience, from your PC, Mac, or tablet web browser using the Insight Cloud Portal.

- Ideal for SMBs, offices, retail stores, education, healthcare, owner-operated businesses, etc.
- IT expert or no networking experience at all: Smart switches with optional remote/cloud management let you focus on your business, not maintaining your network.
- Know immediately if and when your network is not running perfectly; not after you've already lost business or suffered significant down-time.
- Advanced L2+/L3 Lite network features such as IPv4/IPv6 management, VLANs, DiffServ QoS, LACP Link Aggregation, Spanning Tree, Static Routing, advanced per-port PoE controls and PoE scheduling will satisfy even the most advanced small business networks.
- Fundamentally change and simplify network usability for easier and smoother deployment of voice, video, and WLAN on the same converged platform.
- Industry-leading 5-year warranty on switches, 5-year Next-Business-Day (NBD) replacement, and 90-days free technical support\*\* for peace-of-mind. Extended ProSUPPORT service plans available for purchase.

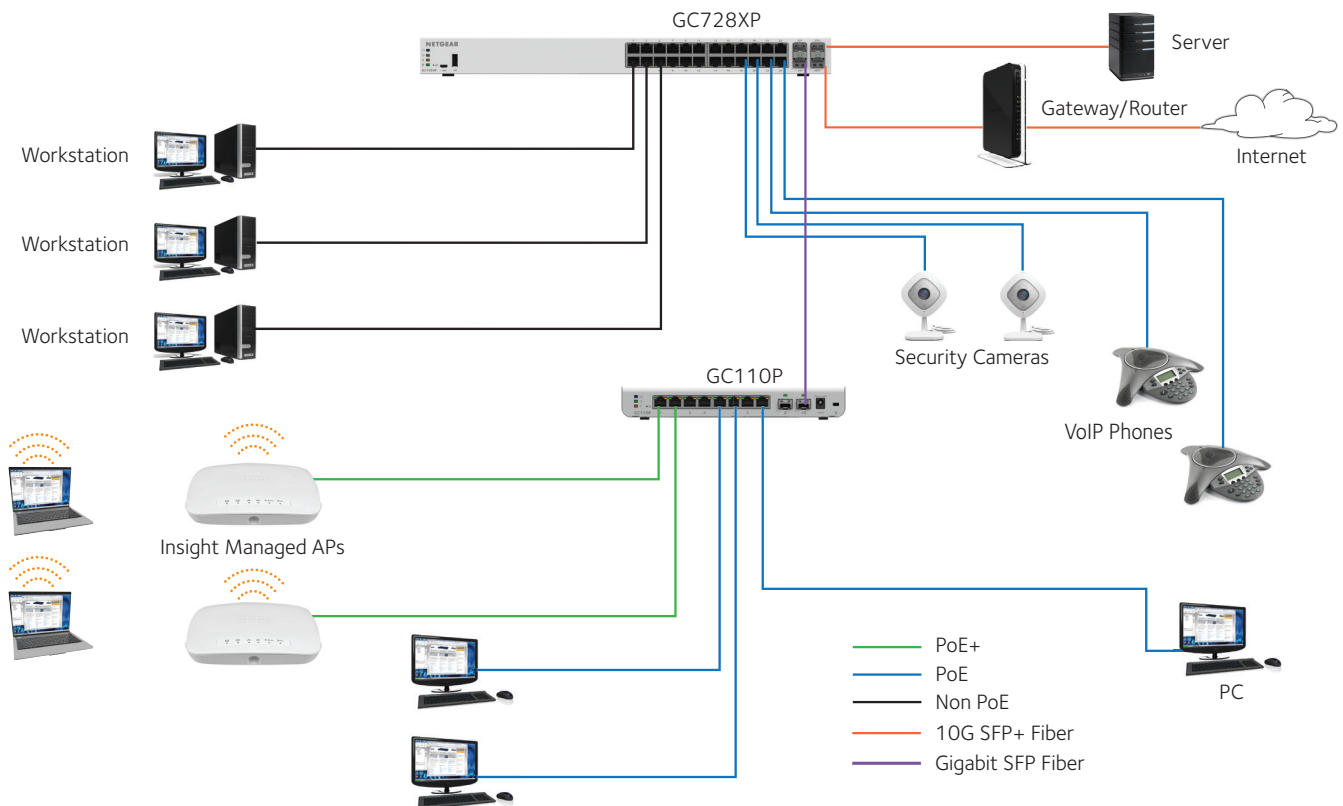
Within small and medium-sized organizations, there is growing adoption of PoE devices such as VoIP phones, IP security cameras, wireless access points, proximity sensors, LED lighting, door locks, and other IoT devices that require network switches capable of supporting dense PoE installations. Wireless access points and pan-tilt-zoom HD cameras using Wave 2 802.11ac Wi-Fi also require PoE+ power (802.3at), increasing the power demands on PoE switches. With a generous power budget of 390W (GC728XP) and 505W (GC752XP), the PoE versions are designed to meet the current and future needs of wireless converged networks.

### Example Application

#### In A Business/ Retail Environment



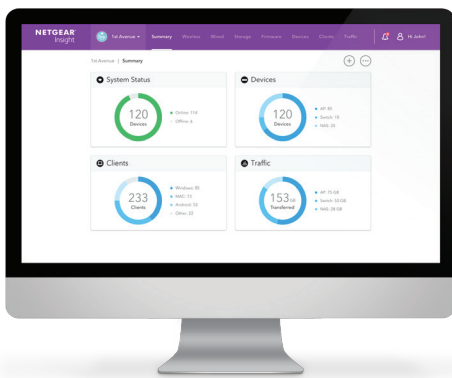
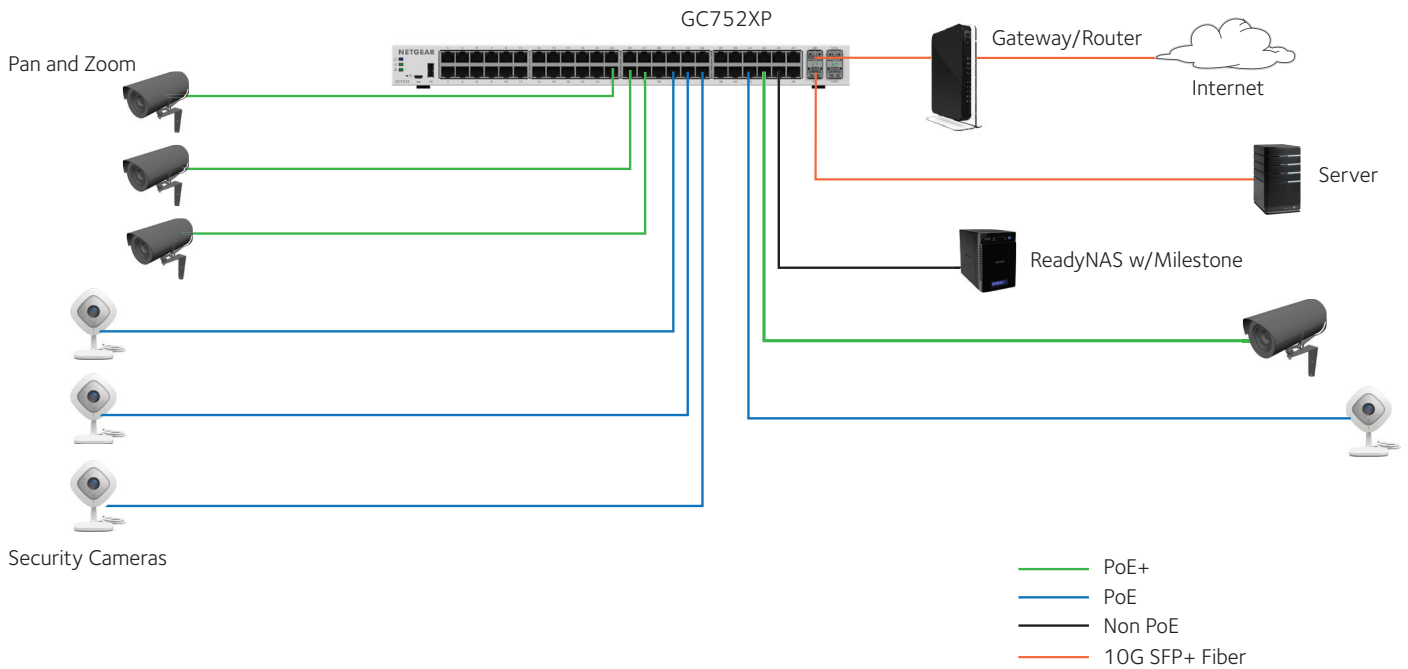
#### In a Small Office/Workgroup Environment (Aggregation/Core Switch)





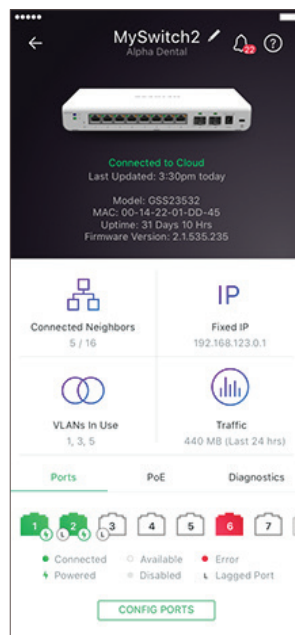
### Example Application

#### In A Security and Surveillance Environment

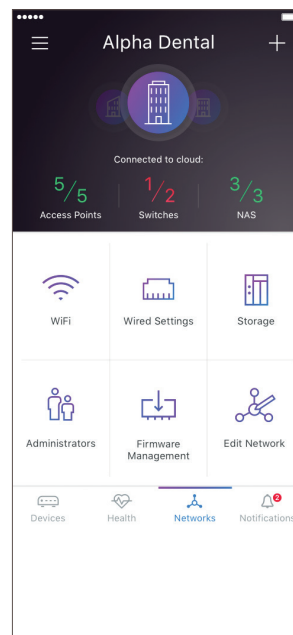


Large screen access via Insight Cloud Portal

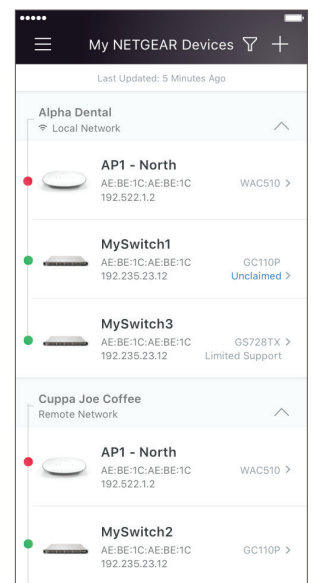
**NETGEAR<sup>®</sup>**  
Insight



Port configuration and monitoring



Network dashboard



Single pane-of-glass view of multiple networks/locations

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

Technical Specifications	GC728X	GC728XP	GC752X	GC752XP
Gigabit Ethernet RJ-45 Copper ports (10M/100M/1G) - 1000BASE-T	24	24	48	48
PoE/PoE+ ports	N/A	24 PoE+ (390W PoE budget)	N/A	48 PoE+ (505W PoE budget)
Gigabit SFP (fiber) ports (100M/1G) - 1000BASE-X	2 (dedicated)	2 (dedicated)	2 (dedicated)	2 (dedicated)
10-Gigabit SFP+ (fiber) ports (1G/10G) - 10GBASE-X	2 (dedicated)	2 (dedicated)	2 (dedicated)	2 (dedicated)
USB port (for config file upload/backup & firmware updates)	Yes	Yes	Yes	Yes
Micro-USB port (for debugging only)	Yes	Yes	Yes	Yes
Power Supply	Internal 100-240VAC ~ 50-60Hz, 1A Max	Internal 100-240VAC ~ 50-60Hz, 10A Max	Internal 100-240VAC ~ 50-60Hz, 1.5A Max	Internal 100-240VAC ~ 50-60Hz, 10A Max
Kensington Lock		Yes (rear)		
<b>LEDs</b>				
System LEDs (per device)	Cloud/Internet Connection, Power, Fan Status	Cloud/Internet Connection, Power, PoE Max, Fan Status	Cloud/Internet Connection, Power, Fan Status	Cloud/Internet Connection, Power, PoE Max, Fan Status
Ethernet (Copper) Port LEDs (per port)	Speed/Link/Activity	Speed/Link/Activity (left), PoE Power (right)	Speed/Link/Activity	Speed/Link/Activity (left), PoE Power (right)
SFP/SFP+ (Fiber) Port LEDs (per port)	Speed/Link/Activity	Speed/Link/Activity	Speed/Link/Activity	Speed/Link/Activity
<b>Unified Network Management (Discovery, Setup, Monitoring, And Management)</b>				
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 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			
<b>Performance Specification</b>				
CPU	400 MHz Cortex-A9 Single Core, 512MB RAM, 8MB SPI + 256MB NAND FLASH			
Packet buffer memory (Dynamically shared across only used ports)	1.5 MB			
Forwarding modes	Store-and-forward			

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

Performance Specification	GC728X	GC728XP	GC752X	GC752XP
Bandwidth (non-blocking, full duplex)	92Gbps	92Gbps	140Gbps)	140Gbps
Priority queues	8	8	8	8
Priority queuing	Weighted Round Robin (WRR) and Strict Priority			
MAC Address database size (48-bit MAC addresses)	16K (dynamic)	16K (dynamic)	16K (dynamic)	16K (dynamic)
Bandwidth (non-blocking, full duplex)	92Gbps	92Gbps	140Gbps)	140Gbps
Priority queues	92Gbps	92Gbps	140Gbps)	140Gbps
Priority queuing	92Gbps	92Gbps	140Gbps)	140Gbps
MAC Address database size (48-bit MAC addresses)	92Gbps	92Gbps	140Gbps)	140Gbps
Multicast Gro 512 ups				512
Number of IPv4 static routes				32
Number of IPv6 static routes				31
Number of ARP/NDP cache entries				384 ARP / 128 NDP
Number of VLANs				256
Number of DHCP snooping bindings				8K
Access Control Lists (ACLs)	100 shared for MAC, IP and IPv6 ACLs			
Packet forwarding rate (64 byte packet size) (Mfps or Mpps)	68.5	68.5	104.2	104.2
1G Copper latency (µsec) (64-byte; 1518-byte; 9216-byte frames)				64-byte: 3.200 µsec 1518-byte: 3.160 µsec 9216-byte: 3.140 µsec
1G SFP Fiber latency (µsec) (64-byte; 1518-byte; 9216-byte frames)				64-byte: 1.720 µsec 1518-byte: 1.740 µsec 9216-byte: 1.740 µsec
1G SFP Fiber latency (µsec) (64-byte; 1518-byte; 9216-byte frames)				64-byte: 1.510 µsec 1518-byte: 1.520 µsec 9216-byte: 1.510 µsec
Jumbo frame support	Up to 9,216 packet size			
Acoustic noise level @ 25° C (dBA) (ANSI-S10.12)	28dBA	39dBA	29dBA	33dBA
Mean Time Between Failures (MTBF) @ 25° C	1,874,356 hrs (214 yrs)	2629,962 hrs (72 yrs)	1,360,115 hrs (155 yrs)	455,682 hrs (50 yrs)
<b>POE Configuration</b>				
Number of PoE (802.3af) / PoE+ (802.3at) ports	N/A	24 PoE+	N/A	48 PoE+
Total PoE power budget (watts)	N/A	390 W	N/A	505 W
Advanced per-port PoE controls (enable/disable/power limit)	N/A	Yes	N/A	Yes
Advanced per-port PoE scheduling/timers	N/A	Yes	N/A	Yes
IEEE 802.3ad - LAGs (LACP)	Yes			

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

L2 Services - VLANs	GC728X	GC728XP	GC752X	GC752XP
IEEE 802.1Q VLAN Tagging			Yes	
IP-based VLANs			Yes	
MAC-based VLANs			Yes	
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address			
Auto-VoIP	Yes, based on protocols (SIP, H.323 and SCCP). Prioritizes traffic to a higher queue.			
Voice VLAN	Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.			
Auto-Video VLAN			Yes	
Private VLAN			Yes	
L2 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	
Layer 2 DHCP Relay			Yes	
L2 Services - Multicast Filtering				
IGMP snooping (v1, v2 and v3)			Yes	
MLD snooping support (v1 and v2)			Yes	
IGMP snooping queries			Yes	
Block unknown multicast			Yes	
Multicast VLAN Registration (MVR)			No	
Multicast groups			512	
L3 Services - DHCP				
DHCP client			Yes	
DHCP snooping			Yes	
Number of DHCP snooping bindings			8K	
L3 Services - Routing				
IPv4 static routes			32	
IPv6 static routes			31	
VLAN routing			Yes	
Host ARP table / NDP cache (number of entries)			384 ARP / 128 NDP	
ICMP Router Discovery Protocol (IRDP)			Yes	
Number of IP VLAN interfaces (routed VLANs)			15	

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

Link Aggregation	GC728X	GC728XP	GC752X	GC752XP
IEEE 802.3ad - LAGs (LACP)			Yes	
Manual Static LAG			Yes	
# of Static or LACP LAGs	24 LAGs with max 8 members in each LAG			
# of members in each LAG				
<b>Network Monitoring and Discovery Services</b>				
802.1ab LLDP			Yes	
LLDP-MED			Yes	
SNMP			v1, v2c, v3	
RMON group 1,2,3,9			Yes	
<b>Network Security</b>				
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/UDP-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 (per port)			48	
IEEE 802.1x RADIUS port access authentication/type			Yes (MD5, EAP, PEAP)	
Port-based security by locked MAC addresses			Yes	
Dynamic ARP inspection			No	
Broadcast, multicast, unknown unicast storm control			Yes	
DoS attacks prevention			Yes	
Protected ports			Yes	
<b>Quality of Service (QoS)</b>				
Port-based rate limiting			Yes, egress	
Port-based QoS			Yes	
Support for IPv6 fields			Yes	
DiffServ QoS			Yes, ingress	
IEEE 802.1p COS			Yes	
Destination MAC and IP			Yes	

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

Quality of Service (QoS)	GC728X	GC728XP	GC752X	GC752XP
IPv4 and v6 DSCP			Yes	
IPv4 and IPv6 ToS			No	
TCP/UDP-based			Yes	
Weighted Round Robin (WRR)			Yes	
Strict priority queue technology			Yes	
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, based on OUI bytes (default database and user-based OUIs) in the phone source MAC address			
Auto-VoIP	Yes, based on protocols (SIP, H.323 and SCCP). Prioritizes traffic to a higher queue.			
Voice VLAN	Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.			
Auto-Video VLAN			Yes	
<b>Other Features</b>				
Advanced per-port PoE controls (enable/disable/power limit)	N/A	Yes	N/A	Yes
Advanced per-port PoE scheduling	N/A	Yes	N/A	Yes
Loop detection & prevention	Yes (both)	Yes (both)	Yes (both)	Yes (both)
DNS Client	Yes	Yes	Yes	Yes
Option to enable/disable BPDU flooding when STP is disabled	Yes	Yes	Yes	Yes
Option to enable/disable the flooding of EAPOL when 802.1x is disabled	Yes	Yes	Yes	Yes
<b>IEEE Network Protocols</b>				
<ul style="list-style-type: none"> <li>• IEEE 802.3 Ethernet</li> <li>• IEEE 802.3u 100BASE-T</li> <li>• IEEE 802.3ab 1000BASE-T</li> <li>• IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX</li> <li>• IEEE 802.3ae 10-Gigabit Ethernet Over Fiber (10GBASE-SR, 10GBASE-LR, 10GBASE-LRM, 10GBASE-ER, 10GBASE-LX4)</li> <li>• IEEE 802.3af PoE (GC728XP/GC752XP only)</li> <li>• IEEE 802.3at PoE+ (GC728XP/GC752XP only)</li> <li>• IEEE 802.3ad Trunking (LACP)</li> <li>• IEEE 802.3az Energy Efficient Ethernet (EEE)</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE 802.3x Full-Duplex Flow Control</li> <li>• IEEE 802.1Q VLAN Tagging</li> <li>• IEEE 802.1AB LLDP with ANSI/TIA-1057 (LLDP-MED)</li> <li>• IEEE 802.1p Class of Service</li> <li>• IEEE 802.1D Spanning Tree (STP)</li> <li>• IEEE 802.1s Multiple Spanning Tree (MSTP)</li> <li>• IEEE 802.1w Rapid Spanning Tree (RSTP)</li> <li>• IEEE 802.1x RADIUS Network Access Control</li> </ul>			
<b>Management, Monitoring &amp; Troubleshooting</b>				
Cloud/Remote management			Yes	
Insight mobile app & Insight Cloud Portal management			Yes	
uPnP Discovery			Yes	
Bonjour Discovery			Yes	
Networking monitoring			Yes	
Data/performance logs			Yes	
Centralized network configuration/policies (network-centric management)			Yes	

## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

Management, Monitoring & Troubleshooting	GC728X	GC728XP	GC752X	GC752XP
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 update direct from Cloud (via mobile device or Insight Cloud Portal)			Yes	
SNMP v1/v2c			Yes	
SNMP v3 with multiple IP addresses			Yes	
RMON group 1,2,3,9			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 with multiple language support <sup>2</sup>			Yes	
SSL/HTTPS Web-based access (version)			Yes (v3)	
TLS Web-based access (version)			Yes (v1.0)	
TFTP/HTTP firmware upload/download			Yes	
Dual software (firmware) image			Yes	
Memory and flash log			Yes	
Syslog (RFC 3164)			Yes	
USB port for firmware updates, configuration settings upload/backup, and system log file downloads			Yes	
Micro-USB port (for debugging only)			Yes	
<b>Power Consumption</b>				
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)	18.5 W	47.1 W	43.9 W	118.6 W
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)	N/A	437.1 W	N/A	623.6 W
Min power (link-down standby) (Watts)	13.7 W	25.5 W	25.3 W	39.4 W
Heat Dissipation (min w/o PoE and max with full PoE) (BTU/hr)	Min: 46.58 BTU/hr Max: 62.95 BTU/hr	Min: 86.94 BTU/hr Max: 1491.45 BTU/hr	Min: 84.43 BTU/hr Max: 149.72 BTU/hr	Min: 134.58 BTU/hr Max: 2127.64 BTU/hr

Smart Gigabit Ethernet/10G SFP+ Switches  
with optional Remote Management

Power Consumption	GC728X	GC728XP	GC752X	GC752XP
Energy Efficient Ethernet (EEE) IEEE 802.3az	All models - Yes, deactivated by default			
Auto power down	All models - Yes, deactivated by default			
Fan(s) (temperature- and load-based speed control)	1	2	1	3
Physical Specifications				
Dimensions (W x D x H)	440 x 224 x 44 mm (17.3 x 8.8 x 1.7 in)	440 x 224 x 44 mm (17.3 x 8.8 x 1.7 in)	440 x 320 x 44 mm (17.3 x 12.6 x 1.7 in)	
Weight	2.81 kg (6.19 lb)	3.79 kg (8.36 lb)	3.16 kg (6.97 lb)	4.79 kg (10.56 lb)
Mounting options	Rackmount, desktop (kits included)			
Environmental Specifications				
Operating				
Operating Temperature	-0° to 50°C (32° to 122°F)			
Humidity	90% 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	95% maximum relative humidity (RH), non-condensing			
Altitude	10,000 ft (3,000 m) maximum			
Electromagnetic Emissions and Immunity Certifications				
Certifications	CE Mark, Commercial EN55032:2012+AC:2013, Class A EN55024:2010+A1:2015 EN61000-3-2:2014, Class A EN61000-3-3:2013 VCCI-CISPR 32:2016, Class A RCM, AS/NZS CISPR 32:2015 CLASS A 47 CFR FCC Part 15, Subpart B, Class A ICES-003:2016 Issue 6, Class A BSMI CNS13438, Class A KCC KN32 / KN35 CCC GB/T 9254-2008			
Safety Certifications				
Certifications	CB Mark, Commercial EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 UL 60950-1, 2nd, 2014 and CAN/CSA C22.2 No. 60950-1-07, 2nd, 2014 IEC 60950-1:2005 (ed.2) + Am 1:2009 + Am 2:2013 RCM, AS/NZS 60950.1:2015 BSMI CNS14336-1 KCC K60950-1 CCC GB4943.1-2011			



## Smart Gigabit Ethernet/10G SFP+ Switches with optional Remote Management

Warranty and Support	GC728X	GC728XP	GC752X	GC752XP
Hardware Limited Warranty	5 years	5 years	5 years	5 years
Next-Business-Day (NBD) Replacement	5 years	5 years	5 years	5 years
Technical support (online, phone)	90 days free from date of purchase*			
ProSUPPORT OnCall 24x7 Service Packs**	PMB0311 (1 yr)		PMB0312 (1 yr)	
	PMB0331 (3 yrs)		PMB0332 (3 yrs)	
	PMB0351 (5 yrs)		PMB0352 (5 yrs)	

Package Contents
All models

NETGEAR Smart 28-Port or 52-Port Gigabit Ethernet Switch with 2 SFP and 2 SFP+ 10G Fiber Ports

AC power cord (localized to country of sale)

Category 5e flat Ethernet cable (after 4/1/2019)

Rackmount kit

Rubber footpads for tabletop installation

Installation guide

Ordering Information	
GC728X-100NAS	North America and Latin America
GC728X-100EUS	Europe and United Kingdom
GC728X-100AJS	Japan, Asia Pacific, and Australia
GC728XP-100NAS	North America and Latin America
GC728XP-100EUS	Europe and United Kingdom
GC728XP-100AJS	Japan, Asia Pacific, and Australia
GC752X-100NAS	North America and Latin America
GC752X-100EUS	Europe and United Kingdom
GC752X-100AJS	Japan, Asia Pacific, and Australia
GC752X-100PRS	China
GC752XP-100NAS	North America and Latin America
GC752XP-100EUS	Europe and United Kingdom
GC752XP-100AJS	Japan, Asia Pacific, and Australia

<sup>2</sup> English, German, and Japanese are the current supported languages in the local-only web GUI. The Insight mobile app and Insight Cloud Portal support local languages per the device used (phone or computer browser).

\*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 using the Insight mobile app or Insight Cloud portal within 90 days of purchase; see <https://www.netgear.com/about/warranty> for details. Intended for indoor use only.

**Optional Modules and Accessories**

AGM731F-10000S	SFP Transceiver 1000BASE-SX (Short range, multimode)
AGM732F-10000S	SFP Transceiver 1000BASE-LX (Long range, single mode)
AGM734-10000S	SFP Transceiver 1000BASE-T Copper RJ45 GBIC
AXM761-10000S	SFP+ Transceiver 10GBASE-SR (Short range, multimode)
AXM762-10000S	SFP+ Transceiver 10GBASE-LR (Long range, single mode)
AXM763-10000S	SFP+ Transceiver 10GBASE-LRM (Long range, multimode)
AXM764-10000S	SFP+ Transceiver 10GBASE-LR Lite (Long range lite, single mode)
AXM765-10000S	SFP+ Transceiver 10GBASE-T (SFP+ Copper RJ-45 GBIC)
AXC761-10000S	SFP+ DAC CABLE (1m)
AXC763-10000S	SFP+ DAC CABLE (3m)

**Extended Support Contracts**

GC728X/GC728XP Models:

PMB0311-10000S	1-Year OnCall 24x7 Support Plan**
PMB0331-10000S	3-Year OnCall 24x7 Support Plan**
PMB0351-10000S	5-Year OnCall 24x7 Support Plan**

GC752X/GC752XP Models:

PMB0312-10000S	1-Year OnCall 24x7 Support Plan**
PMB0332-10000S	3-Year OnCall 24x7 Support Plan**
PMB0352-10000S	5-Year OnCall 24x7 Support Plan**

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

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