NETGEAR®
BUSINESS

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 networ 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-Insight Cloud Portal from your PC, Mac, setup and is reliable, so they can focus or tablet, you can quickly discover, on their business, not their network. To setup, monitor and manage these that end, NETGEAR is introducing our switches from anywhere in the world! most versatile and easy-to-manage With their remote cloud manageability, switches ever, NETGEAR Smart switches sleek design silent or whisper-quiet with optional remote/cloud operation, they are the most versatile management. switches in the market for any environment. Whether at home, out The Smart switches with optional rk fice or on a business trip, you can still remote/cloud management are the firs of manage and monitor your network as if switches from NETGEAR with anywhere the configur a t ion and management . Using either the NETGEAR Insight app on your mobile device or tablet, or the 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 nseettuwpo, rksm anage, and monitor your from anywhere, anytime, from the palm of yfooru r hand on your phone or tablet! Or, a larger screen experience, you can use th Maec sight Cloud Portal from your PC, l n or tablet web browser.

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 privisioning) 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 max1 LEDs for quick status monitoring. On-port LEDs for link/activity and PoE power1 allow for por t-specific connec tivit y 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 t wo dedic ated 1G SFP fiber por t s, and two dedicated 10G SFP+ fiber ports for maximum connec tivit y. 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).

D e dic a te d Gigabi t SFP and 10 G SFP+ por t s provide fiber uplinks for ser ver 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 controls1 (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**

[1] On PoE models only (GC728XP, GC752XP)

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

Hardware at a Glance

				FRONT					REAR	SIDE
Model Name GC728X	Form-Factor	LEDs (System)	Gigabit Copper (RJ-45) Ports	1G SFP Fiber Ports	10G SFP+ Fiobretrs	PoE/PoE+ Ports (Budget)	LEDs (Per Port)	Power Supply	Fans	
	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 dfans, fixed	
GC752X	Rackmount, Desktop	Cloud, Power, Fan	48	2 (dedicated)	2 (dedicated)	N/A	Speed/Link/Activity	1 internal PSU, fixed	1 internal dfan, 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 dfans, 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 L2, L3, L4 Ingress	IPv4/IPv6 Multicast Filtering	VLANs	Auto-VoIP, Auto-Video	Convergence	Link Aggregation/ Port Trunking LACP and	IPv4 & IPv6 Static Routing
Local web browser-based management GUI, SNMP, RMON Optional NETGEAR Insight mobile app or Insight Cloud Portal for elo management from Maocb,i le can remote/anywher ycoun device, PC, 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	IGMP and MLD Snooping	Static, Dynamic, Voice, Video, MAC, Protocol-based, and Private	Yes	LLDP-MED, RADIUS, 802.1X	Manual Static LAGs (up to 24 LAGs with max 8 mem-bers)	Yes	

Performance at a Glance

Model Name	CPU & Memory	Fabric (Full-duplex)	Latency (64-byte Packet @ Max Connection Speed)	Packet Buf fer	Packet Forwarding Rate (64-byte)	ACLs	MAC Address Table ARP/NDP Table VL ANs	Static Routes (IPv4 & IPv6)	Priority Qeues	Mul-ticast IGMP Groups
GC728X GC728XP GC752X GC752XP	400 MHz Cortex-A9 Single Core, 512MB RAM 8MB SPI + 256 NAND FLASH	92Gbps line-rate	1G Copper: 3.200 µs 1G SFP: 1.720 µs 10G SFP+: 1.510 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
		140Gbps line-rate		1.5 MB	104.2 Mfps					

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) con-nections (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 troubleshooti
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 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 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 replace-ment.
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.

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 language2.

[2] 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).

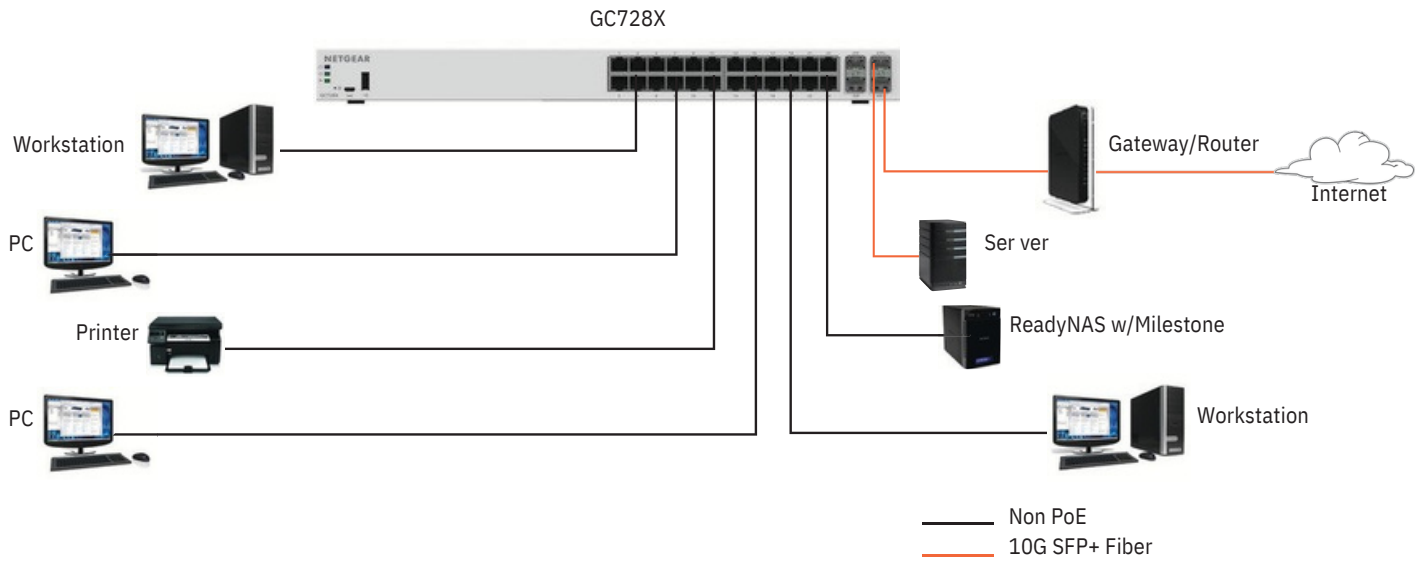# Why Smart switches with optional remote/cloud management?

NE TGE AR is revolutionizing unified, centralized net work management with it 's new line of Smar t switches with optional remote management and Wireless Access Points, all managed from the palm of your hand, anytime, anywhere, on your phone or tablet the NETGEAR Insight mobile app. Or, for a larger screen experience, from your PC, Mac, or tablet web browser using the Insight 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

net works.

• 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.
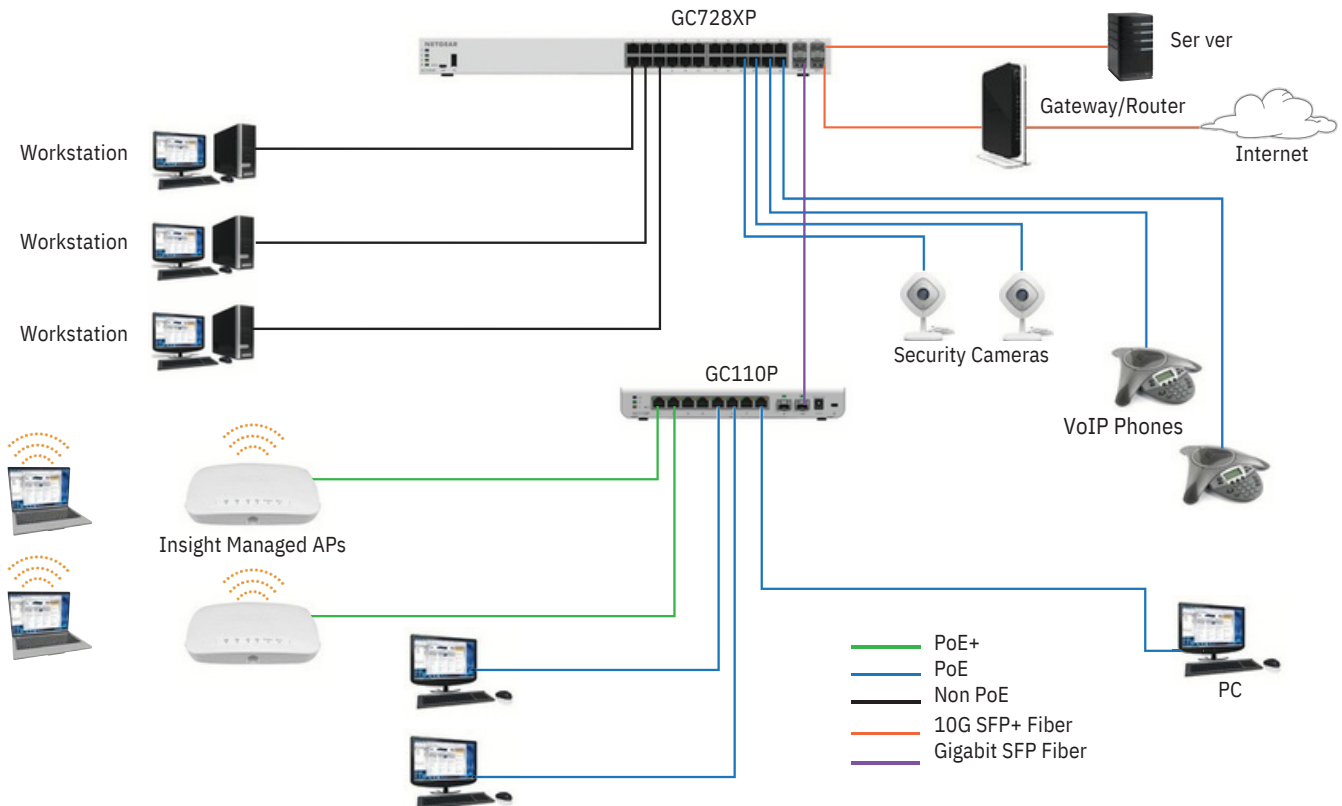
Within small and medium-sized organizations, there is growing adoption of PoE devices such as VoIP phones, IP security cameras, wireless access points, proximity sensors, LED lighting, door locks, and other IoT devices that require network switches capable of supp or t ing dens e Po E ins t alla t ions . W irele s s ac c e s s p oin t s and pan - t il t-zo om H D c amer as using Wave 2 8 02.11ac W PoE+ power (802.3at), increasing the power demands on PoE switches. With a generous power budget of 390W (GC728XP) and 505 (GC752XP), the PoE versions are designed to meet the current and future needs of wireless converged networks.

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

Example Application

In A Business/ Retail Environment

GC728X

Workstation

PC

Printer

PC

Gateway/Router

Internet

Ser ver

ReadyNAS w/Milestone

Workstation

— Non PoE
— 10G SFP+ Fiber

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

GC728XP

Ser ver

Gateway/Router

Internet

Workstation

Workstation

Workstation

Security Cameras

GC110P

VoIP Phones

Insight Managed APs

PC

— PoE+
— PoE
— Non PoE
— 10G SFP+ Fiber
— Gigabit SFP Fiber

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

Example Application

In A Security and Surveillance Environment

GC752XP

Pan and Zoom

Gateway/Router

Internet

Ser ver

ReadyNAS w/Milestone

Security Cameras

— PoE+
— PoE
— Non PoE
— 10G SFP+ Fiber
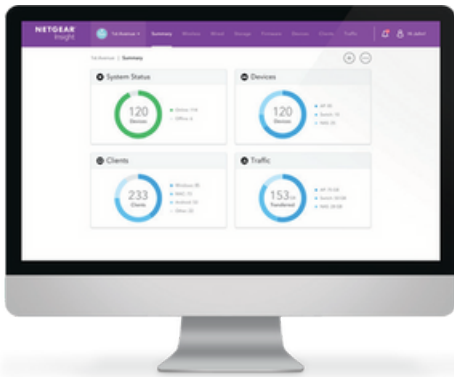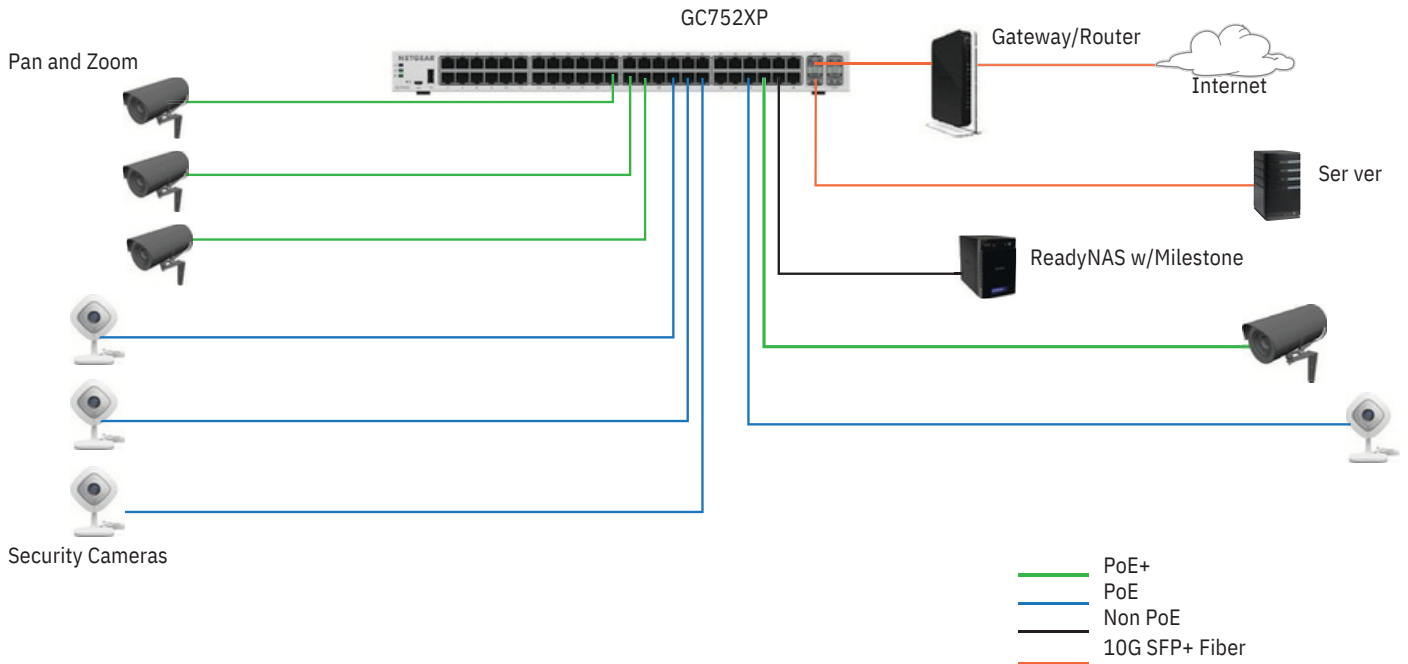
Large screen access via
Insight Cloud Portal

NETGEAR®
Insight
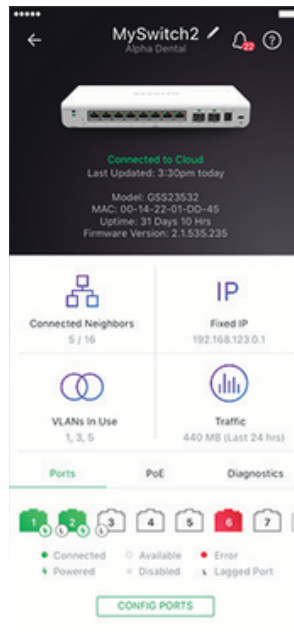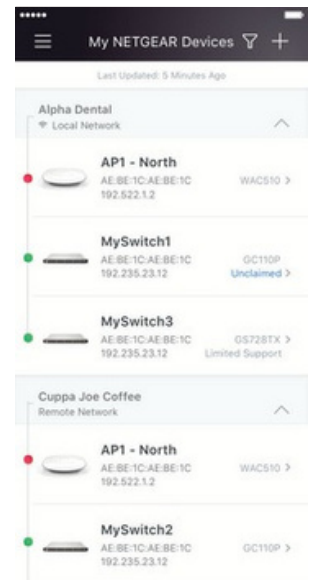

Port configuration
and monitoring

Network dashboard

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

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)		
LEDs				
System LEDs (per device)	Cloud/Internet Connection, Power, Fan Status	Cloud/Internet Connection, Power, PoE Max, Fan tus Sta	Cloud/Internet Connection, Power, Fan Status	Cloud/Internet Connection, 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

Unified Network Management (Discovery, Setup, Monitoring, And 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) Device auto-join and configure (zero-touch provisioning)	Centralized network configuration (policies) across Insight Switches, Wireless Access Points, and Business-class ReadyNAS Storage for VLANs, ACLs, QoS, and LAGs 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 Specification	
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 Bandwidth (non-blocking, full duplex)	GC728X	GC728XP	GC752X	GC752XP
Priority queues Priority queuing	92Gbps	92Gbps	140Gbps)	140Gbps
MAC Address database size (48-bit MAC addresses)	8	8	8	8
Bandwidth (non-blocking, full duplex)	Weighted Round Robin (WRR) and Strict Priority			
Priority queues	16K (dynamic)	16K (dynamic)	16K (dynamic)	16K (dynamic)
Priority queuing	92Gbps	92Gbps	140Gbps)	140Gbps
MAC Address database size (48-bit MAC addresses)	92Gbps	92Gbps	140Gbps)	140Gbps
Multicast Gro 512 ups	92Gbps	92Gbps	140Gbps)	140Gbps
Number of IPv4 static routes	92Gbps	92Gbps	140Gbps)	140Gbps
Number of IPv6 static routes	512			
Number of ARP/NDP cache entries	32			
Number of VLANs	31			
Number of DHCP snooping bindings	384 ARP / 128 NDP			
Access Control Lists (ACLs)	256			
Packet forwarding rate (64 byte packet size) (	8K			
Mfps or Mpps)	100 shared for MAC, IP and IPv6 ACLs			
1G Copper latency (μsec) (64-byte; 1518-byte; 9216-byte frames)	68.5	68.5	104.2	104.2
	64-byte: 3.200 μsec 1518-bye: 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)
POE Configuration				
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			

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 Voice VLAN		Yes, based on protocols (SIP, H.323 and SCCP). Prioritzes traffic to a higher queue.		
Auto-Video VLAN		Yes, based on either VLAN ID or 802.1p priority, packets are passed onto the connecting VoIP phone using LLDP-MED.		
Private VLAN		Yes		
L2 Services - Availability		Yes		
Broadcast, multicast, unknown unicast storm control				
IEEE 802.3ad - LAGs (LACP)		Yes		
IEEE 802.3x (full duplex and flow control)				
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		Yes		
IGMP snooping (v1, v2 and v3)		Yes		
MLD snooping support (v1 and v2)				
IGMP snooping queries		Yes		
Block unknown multicast		Yes		
Multicast VLAN Registration (MVR)		Yes		
Multicast groups		Yes		
L3 Services - DHCP		No		
DHCP client		512		
DHCP snooping				
Number of DHCP snooping bindings				
L3 Services - Routing		Yes		
IPv4 static routes		Yes		
IPv6 static routes		8K		
VLAN routing				
Host ARP table / NDP cache (number of entries)		32		
ICMP Router Discovery Protocol (IRDP)		31		
Number of IP VLAN interfaces (routed VLANs)		Yes		
		384 ARP / 128 NDP		
		Yes		
		15		

Link Aggregation	GC728X	GC728XP	GC752X	GC752XP
IEEE 802.3ad - LAGs (LACP)		Yes		
Manual Static LAG		Yes		
# of Static or LACP LAGs # of members in each LAG		24 LAGs with max 8 members in each LAG		
Network Monitoring and Discovery Services				
802.1ab LLDP		Yes		
LLDP-MED		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)		Yes		
IP-based ACLs (IPv4 and IPv6)		L2 / L3 / L4		
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)		Yes		
Control MAC # static entries (per port)		4096		
IEEE 802.1x RADIUS port access authentication/type		48		
Port-based security by locked MAC addresses		Yes (MD5, EAP, PEAP)		
Dynamic ARP inspection		Yes		
Broadcast, multicast, unknown unicast storm control		No		
DoS attacks prevention		Yes		
Protected ports		Yes		
Quality of Service (QoS)		Yes		
Port-based rate limiting				
Port-based QoS				
Support for IPv6 fields		Yes, egress		
DiffServ QoS		Yes		
IEEE 802.1p COS		Yes		
Destination MAC and IP		Yes, ingress		
		Yes		
		Yes		

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). Prioritzes 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		

Other Features				
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

IEEE Network Protocols

• I E E E 8 0 2 . 3 E t h e r n e t
• I E E E 8 0 2 . 3 u 1 0 0 B A S E -T
• I E E E 8 0 2 . 3 a b 1 0 0 0 B A S E -T
• IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX
• IEEE 802.3ae 10-Gigabit Ethernet Over Fiber (10GBASE-SR, 10GBASE-LR, 10GBASE-LRM, 10GBASE-ER, 10GBASE-LX4)
• IEEE 802.3af PoE (GC728XP/GC752XP only)
• IEEE 802.3at PoE+ (GC728XP/GC752XP only)
• I E E E 8 0 2 . 3 a d T r u n k i n g (L A C P)

• IEEE 802.3az Energy Efficient Ethernet (EEE)

• I E E E 8 0 2 . 3 x F u l l D u p l e x F l o w C o n t r o l
• I E E E 8 0 2 . 1 A B L L D P w i t h A N S I / T I A - 1 0 5 7 (LL
• IEEE 802.1Q VLAN Tagging
• IEEE 802.1p Class of Service
• IEEE 802.1D Spanning Tree (STP)
• IEEE 802.1s Multiple Spanning Tree (MSTP)
• IEEE 802.1w Rapid Spanning Tree (RSTP)
• IEEE 802.1x RADIUS Network Access Control

Management, Monitoring & Troubleshooting

Cloud/Remote management	
Insight mobile app & Insight Cloud Portal management	Yes
uPnP Discovery	Yes
Bonjour Discovery	Yes
Networking monitoring	Yes
Data/performance logs Centralized network configuration/policies (network-centric management)	Yes
	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 ManageYde s (per network/subnet via NETGEAR Insight mobile app and Insight Cloud devices on a network)				
Password management		Portal)		
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 support2		Yes		
SSL/HTTPS Web-based access (version)		Yes (v3)		
TLS Web-based access (version)				
TFTP/HTTP firmware upload/download		Yes (v1.0)		
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		
Power Consumption		Yes		
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)				
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
	N/A	437.1 W	N/A	623.6 W
Min power (link-down standby) (Watts)	13.7 W		25.3 W	39.4 W
Heat Dissipation (min w/o PoE and max with full PoE) (BTU/hr)		25.5 W		
	Min: 46.58 BTU/hr	Min: 86.94 BTU/hr	Min: 84.43 BTU/hr	Min: 134.58 BTU/hr
	Max: 62.95 BTU/hr	Max: 1491.45 BTU/hr	Max: 149.72 BTU/hr	Max: 2127.64 BTU/hr

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 Mounting options	2.81 kg (6.19 lb)	3.79 kg (8.36 lb)	3.16 kg (6.97 lb)	4.79 kg (10.56 lb)
Environmental Specifications				
Operating	Rackmount, desktop (kits included)			
Operating Temperature				
Humidity				
Altitude	-0° to 50°C (32° to 122°F)			
Storage	90% maximum relative humidity (RH), non-condensing			
Storage Temperature	10,000 ft (3,000 m) maximum			
Humidity				
Altitude	–20° to 70°C (– 4° to 158°F)			
Electromagnetic Emissions and Immunity Certifications	95% maximum relative humidity (RH), non-condensing			
	10,000 ft (3,000 m) maximum			
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			

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) PMB0331 (3 yrs) PMB0351 (5 yrs)		PMB0312 (1 yr) PMB0332 (3 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

[2] 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 sof t ware or ex ternal power supplies, and requires produc t regis tration using the Insight mobile app or Insight Cloud por t al 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
PMB0331-10000S	Plan** 3-Year OnCall 24x7
PMB0351-10000S	Support Plan** 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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