NETGEAR®

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Experience the most versatile and easy to manage 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 Insight Managed Smart Cloud switches.

The Insight Managed Smart Cloud Gigabit Ethernet Switches 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 your Smart Cloud 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 Insight Managed Smart Cloud Switches fundamentally change the way you think of networks and IT. Using the NETGEAR Insight app with Insight Managed Smart Cloud Switches 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.

Network-centric configuration and management
NETGEAR Insight Managed Switches 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 Insight Managed switches 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
Insight Managed switches 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 power[1] 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 Insight Managed 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 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**

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

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Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

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 Insight Managed Smart Cloud 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+ Insight Managed Smart Cloud 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 Insight Managed Smart Cloud 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 25dB @ 25°C / 77°F ambient

GC752XP: 52-Port Gigabit Ethernet PoE+ Insight Managed Smart Cloud 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 30dB @ 25°C / 77°F ambient)
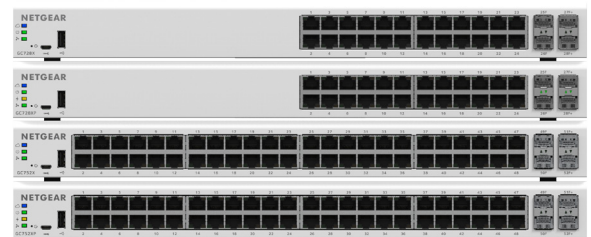
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Software at a Glance

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
NETGEAR Insight mobile app or Insight Cloud Portal for local/remote/any-where management from your mobile device, PC, Mac, or tablet Local web browser-based management GUI, SNMP, RMON 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 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/ 256 NDP 256 VLANs	IPv4: 32 IPv6: 31	8 (WRR)	512
GC728XP										
GC752X		140Gbps line-rate		2.0 MB	104.2 Mfps					
GC752XP										

Ordering Information

MODEL NAME	AMERICAS	EUROPE	ASIA PACIFIC & AUSTRALIA
GC728X	GC728X-100NAS	GC728X-100EUS	GC728X-100AJS
GC728XP	GC728XP-100NAS	GC728XP-100EUS	GC728XP-100AJS
GC752X	GC752X-100NAS	GC752X-100EUS	GC752X-100AJS
GC752XP	GC752XP-100NAS	GC752XP-100EUS	GC752XP-100AJS

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches   Data Sheet

Features and Benefits

Hardware Features	Benefits
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 troubleshooting.
Low Acoustics	Temperature-based fan-speed control minimizes system acoustic noise in any environment as low as 25 dB 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	Benefits
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.

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches   Data Sheet

Software Features	Benefits
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!

## Why Insight Managed Smart Cloud Switches?

NETGEAR is revolutionizing unified, centralized network management with it's new line of Insight Managed Smart Cloud Switches 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: Insight Managed Smart Cloud Switches 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.
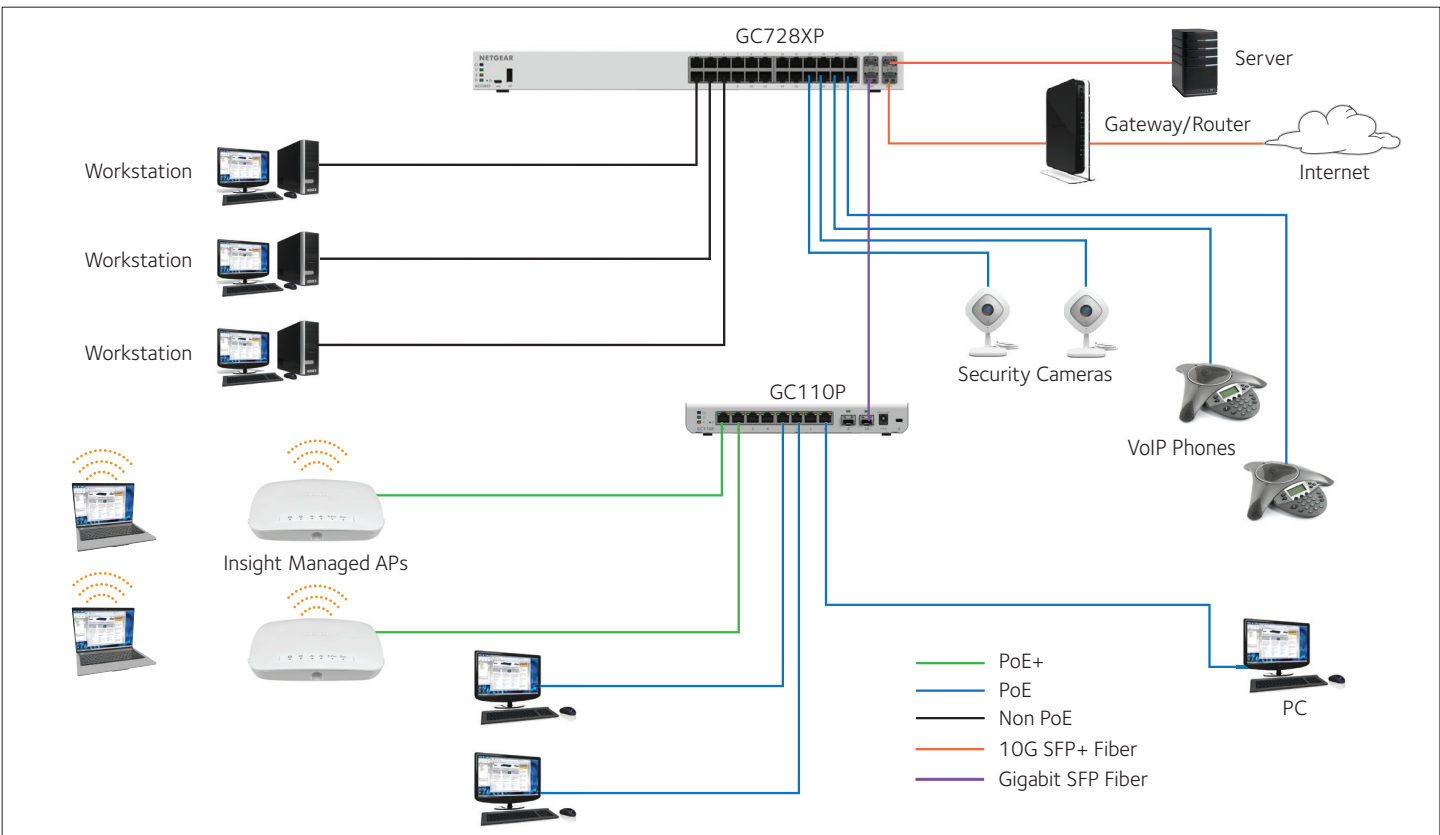
Within small and medium-sized organizations, there is growing adoption of PoE devices such as VoIP phones, IP security cameras, wireless access points, proximity sensors, LED lighting, door locks, and other IoT devices that require network switches capable of supporting dense PoE installations. Wireless 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.

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches   Data Sheet

Example Applications

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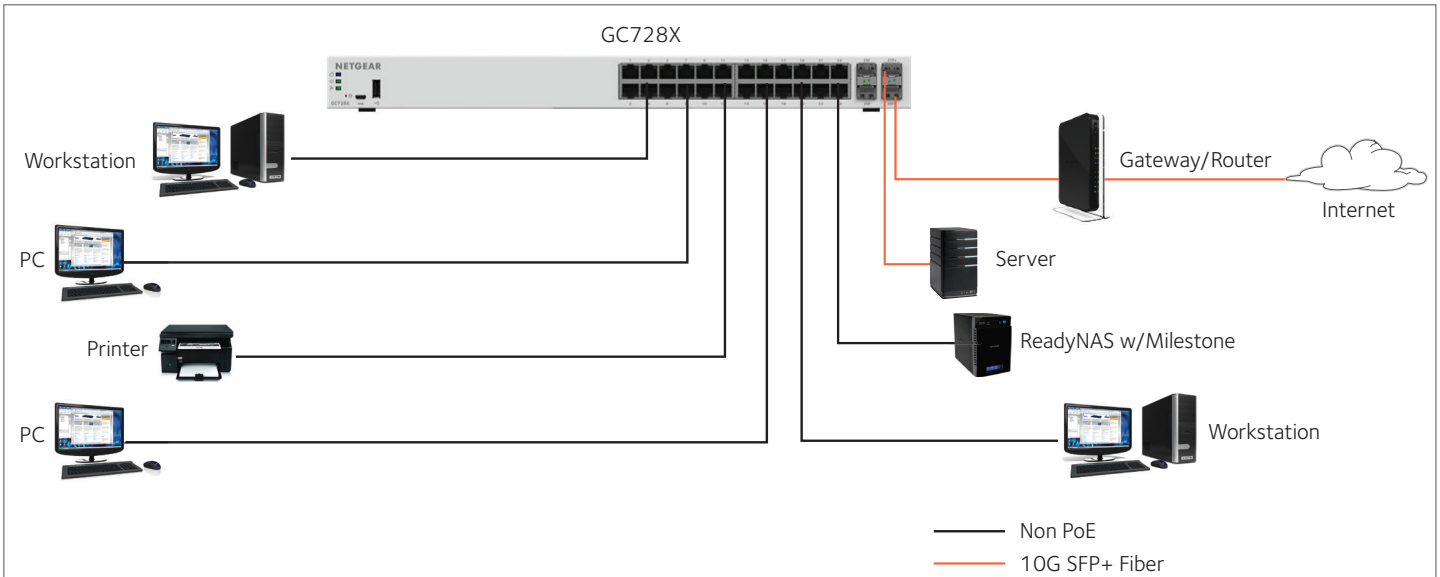
In a Small Office/Workgroup Environment (Aggregation/Core Switch)

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Data Sheet

Example Application

In a Security and Surveillance Environment

Legend:
- PoE+ (green)
- PoE (blue)
- Non PoE (black)
- 10G SFP+ Fiber (orange)

Diagram labels: GC752XP, Gateway/Router, Internet, Server, ReadyNAS w/Milestone, Pan and Zoom, Security Cameras
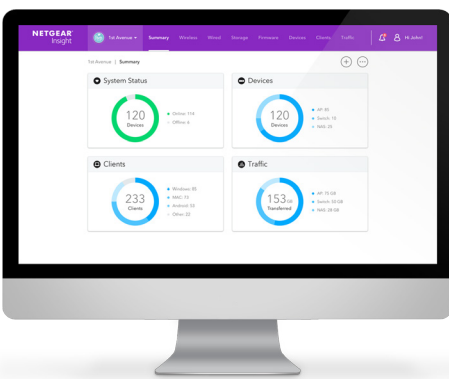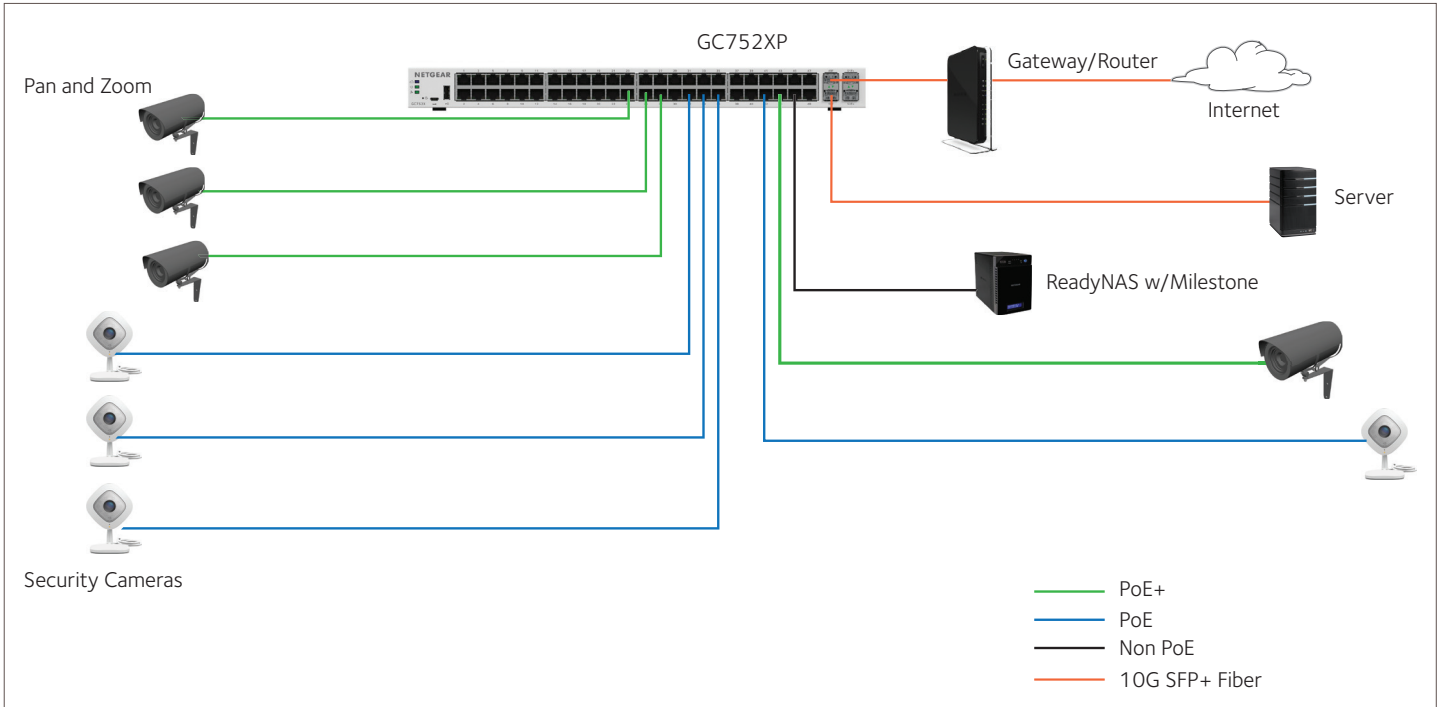
Large screen access via Insight Cloud Portal
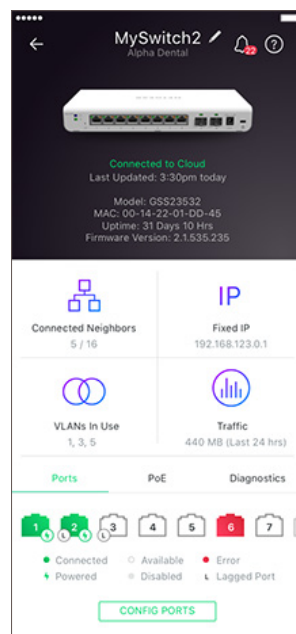
Port configuration and monitoring

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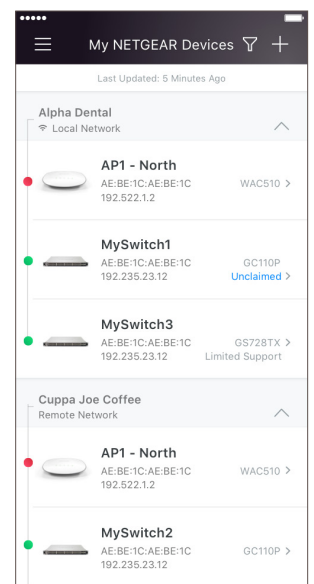
Single pane-of-glass view of multiple networks/locations

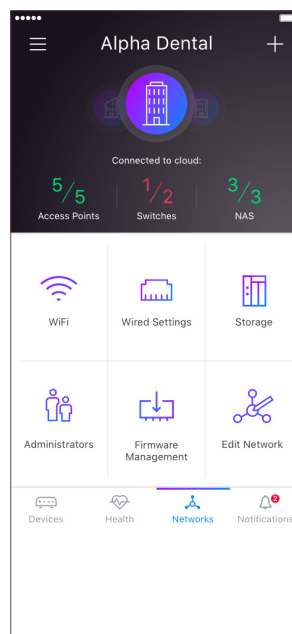**Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches**   Data Sheet

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP
Gigabit Ethernet RJ-45 Copper ports (10M/100M/1G) - 1000BASE-T	24		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)	
10-Gigabit SFP+ (fiber) ports (1G/10G) - 10GBASE-X	2 (dedicated)		2 (dedicated)	
USB port (for config file upload/backup & firmware updates)	Yes		Yes	
Micro-USB port (for debugging only)	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 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	
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)	Centralized network configuration (policies) across Insight Managed Switches, Wireless Access Points, and Business-class ReadyNAS Storage for VLANs, ACLs, QoS, and LAGs			
Device auto-join and configure (zero-touch provisioning)	Additional Insight Managed devices added to the network automatically inherit the network configuration			
Multi-site, multi-network single pane-of-glass view	Manage multiple sites, locations, and networks in a single view using the Insight mobile app or Insight Cloud Portal			
Multi-switch, multi-port concurrent configuration for ACLs, VLANs, QoS, PoE, etc	Apply settings and policies on multiple ports across multiple switches all at the same time using the Port Config Wizard			
PERFORMANCE SPECIFICATION				
CPU	400 MHz Cortex-A9 Single Core, 512MB RAM, 8MB SPI + 256MB NAND FLASH		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		2.0 MB	
Forwarding modes	Store-and-forward		Store-and-forward	

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Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP
Bandwidth (non-blocking, full duplex)	92Gbps		140Gbps	
Priority queues	8		8	
Priority queuing	Weighted Round Robin (WRR) and Strict Priority		Weighted Round Robin (WRR) and Strict Priority	
MAC Address database size (48-bit MAC addresses)	16K (dynamic)		16K (dynamic)	
Multicast groups	512		512	
Number of IPv4 static routes	32		32	
Number of IPv6 static routes	31		31	
Number of ARP/NDP cache entries	384 ARP / 256 NDP		384 ARP / 256 NDP	
Number of VLANs	256		256	
Number of DHCP snooping bindings	8K		8K	
Access Control Lists (ACLs)	100 shared for MAC, IP and IPv6 ACLs		100 shared for MAC, IP and IPv6 ACLs	
Packet forwarding rate (64 byte packet size) (Mfps or Mpps)	68.5		104.2	
1G Copper latency (64-byte; 1518-byte; 9216-byte frames)	64-byte: 3.200 µsec 1518-bye: 3.160 µsec 9216-byte: 3.140 µsec		64-byte: 3.200 µsec 1518-bye: 3.160 µsec 9216-byte: 3.140 µsec	
1G SFP Fiber latency (64-byte; 1518-byte; 9216-byte frames)	64-byte: 1.720 µsec 1518-byte: 1.740 µsec 9216-byte: 1.740 µsec		64-byte: 1.720 µsec 1518-byte: 1.740 µsec 9216-byte: 1.740 µsec	
10G SFP+ Fiber latency (64-byte; 1518-byte; 9216-byte frames)	64-byte: 1.510 µsec 1518-byte: 1.520 µsec 9216-byte: 1.510 µsec		64-byte: 1.510 µsec 1518-byte: 1.520 µsec 9216-byte: 1.510 µsec	
Jumbo frame support	Up to 9K packet size		Up to 9K packet size	
Acoustic noise level @ 25° C (dBA) (ANSI-S10.12)	28 dBA	39 dBA	25 dBA	30 dBA
Mean Time Between Failures (MTBF) @ 25° C	1,874,356 hrs (214 yrs)	629,962 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/detection method protocol)	N/A	Yes	N/A	Yes
Advanced per-port PoE scheduling	N/A	Yes	N/A	Yes
L2 SERVICES – VLANS				
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). Prioritzes traffic to a higher queue.			

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP
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)	Yes			
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 (number of entries)	384 ARP / 256 NDP			
ICMP Router Discovery Protocol (IRDP)	Yes			
Number of IP VLAN interfaces (routed VLANs)	15			
LINK AGGREGATION				
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			

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Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Data Sheet

GC728X, GC728XP, GC752X, GC752XP

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP
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)	L2 / L3 / L4			
IP-based ACLs (IPv4 and IPv6)	Yes			
MAC-based ACLs	Yes			
TCP/UPD-based ACLs	Yes			
MAC lockdown	Yes			
MAC lockdown by the number of MACs	Yes			
Control MAC # Dynamic learned entries (per port)	4096			
Control MAC # static entries (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	Yes			
Broadcast, multicast, unknown unicast storm control	Yes			
DoS attacks prevention	Yes			
Protected ports	Yes			
QUALITY OF SERVICE (QOS)				
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			
IPv4 and v6 DSCP	Yes			
IPv4 and IPv6 ToS	Yes			
TCP/UDP-based	Yes			

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Data Sheet

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP
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)	
DNS Client	Yes		Yes	
Option to enable/disable BPDU flooding when STP is disabled	Yes		Yes	
Option to enable/disable the flooding of EAPOL when 802.1x is disabled	Yes		Yes	
IEEE NETWORK PROTOCOLS				

IEEE NETWORK PROTOCOLS

- IEEE 802.3 Ethernet
- IEEE 802.3u 100BASE-T
- IEEE 802.3ab 1000BASE-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)
- IEEE 802.3ad Trunking (LACP)
- IEEE 802.3az Energy Efficient Ethernet (EEE)

- IEEE 802.3x Full-Duplex Flow Control
- IEEE 802.1Q VLAN Tagging
- IEEE 802.1AB LLDP with ANSI/TIA-1057 (LLDP-MED)
- 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	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			
Device auto-join and configure (zero-touch provisioning)	Yes			
Multi-site, multi-network single pane-of-glass view	Yes			

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Data Sheet

GC728X, GC728XP, GC752X, GC752XP

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP
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	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			
POWER CONSUMPTION				
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
Energy Efficient Ethernet (EEE) IEEE 802.3az	Yes (deactivated by default)		Yes (deactivated by default)	
Auto power down	Yes (deactivated by default)		Yes (deactivated by default)	
Fan(s)	1	2	1	3

Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Data Sheet

GC728X, GC728XP, GC752X, GC752XP

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP
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)		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 (relative)	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			

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Insight Managed Gigabit Ethernet/10G SFP+ Smart Cloud Switches

Data Sheet

GC728X, GC728XP, GC752X, GC752XP

Technical Specifications

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

Ordering Information

PACKAGE CONTENTS	
All models	NETGEAR Insight Managed 28-Port or 52-Port Gigabit Ethernet Smart Cloud Switch with 2 SFP and 2 SFP+ 10G Fiber Ports
	AC power cord (localized to country of sale)
	Rack-mounting kit
	Rubber footpads for tabletop installation
	Quick install 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
GC752XP-100NAS	North America and Latin America
GC752XP-100EUS	Europe and United Kingdom
GC752XP-100AJS	Japan, Asia Pacific, and Australia

Ordering Information

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**