



### 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 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 policies 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 provisioning) 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 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 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 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 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 29dB @ 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 33dB @ 25°C / 77°F ambient)

### Software at a Glance

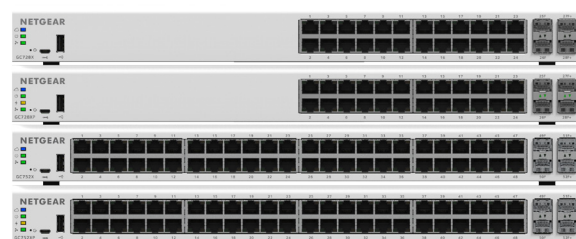
| MANAGEMENT  |  | LAYER 2+ / LAYER 3 LITE FEATURES |                               |   |                       |                          |   |                            |
|---|--|----------------------------------|-------------------------------|---|-----------------------|--------------------------|---|----------------------------|
| 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/anywhere management from your mobile device, PC, Mac, or tablet<br><br>Local web browser-based management GUI, SNMP, RMON<br><br>IPv4 & IPv6 management | Centralized network configuration (policies)<br><br>Auto-join & configure (zero-touch provisioning)<br><br>Multi-site, multi-network single pane-of-glass view<br><br>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<br><br>(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,<br><br>512MB RAM<br><br>8MB SPI + 256 NAND FLASH | 92Gbps line-rate     | 1G Copper: 3.200 μs<br><br>1G SFP: 1.720 μs     | 1.5 MB        | 68.5 Mfps                        | 100 (shared) | 16K MAC (dynamic)                     | IPv4: 32<br><br>IPv6: 31    | 8 (WRR)         | 512                   |
| GC728XP    |   | 140Gbps line-rate    | 10G SFP+: 1.510 μs                              | 1.5 MB        | 104.2 Mfps                       |              | 384 ARP/128 NDP                       |                             |                 |                       |
| GC752X     |   |                      |   |               |                                  |              | 256 VLANs                             |                             |                 |                       |
| 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<br>GC752X-100PRS (China) |
| GC752XP    | GC752XP-100NAS | GC752XP-100EUS | GC752XP-100AJS                         |



### 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 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   | 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.   |

| 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 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> .  |

### Why Insight Managed Smart Cloud Switches?

NETGEAR is revolutionizing unified, centralized network management with its 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.

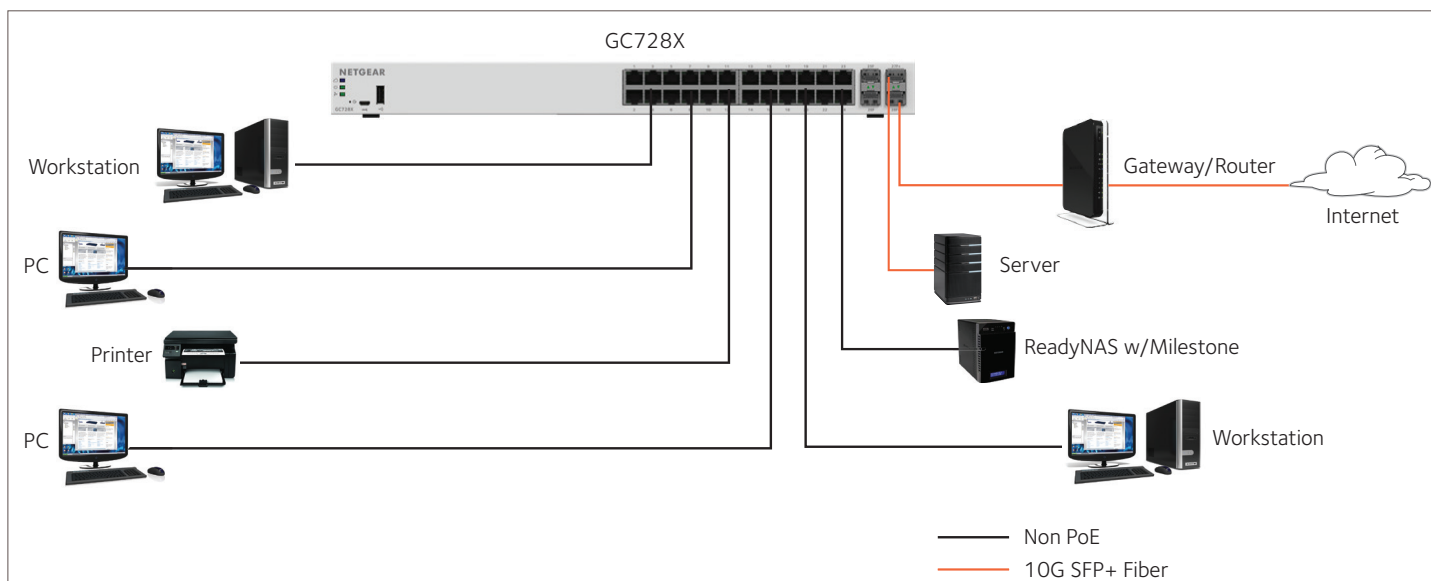
- Ideal for SMBs, offices, retail stores, education, healthcare, owner-operated businesses, etc.
- IT expert or no networking experience at all: Insight Managed Smart Cloud Switches let you focus on your business, not maintaining your network.
- Know immediately if and when your network is not running 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.

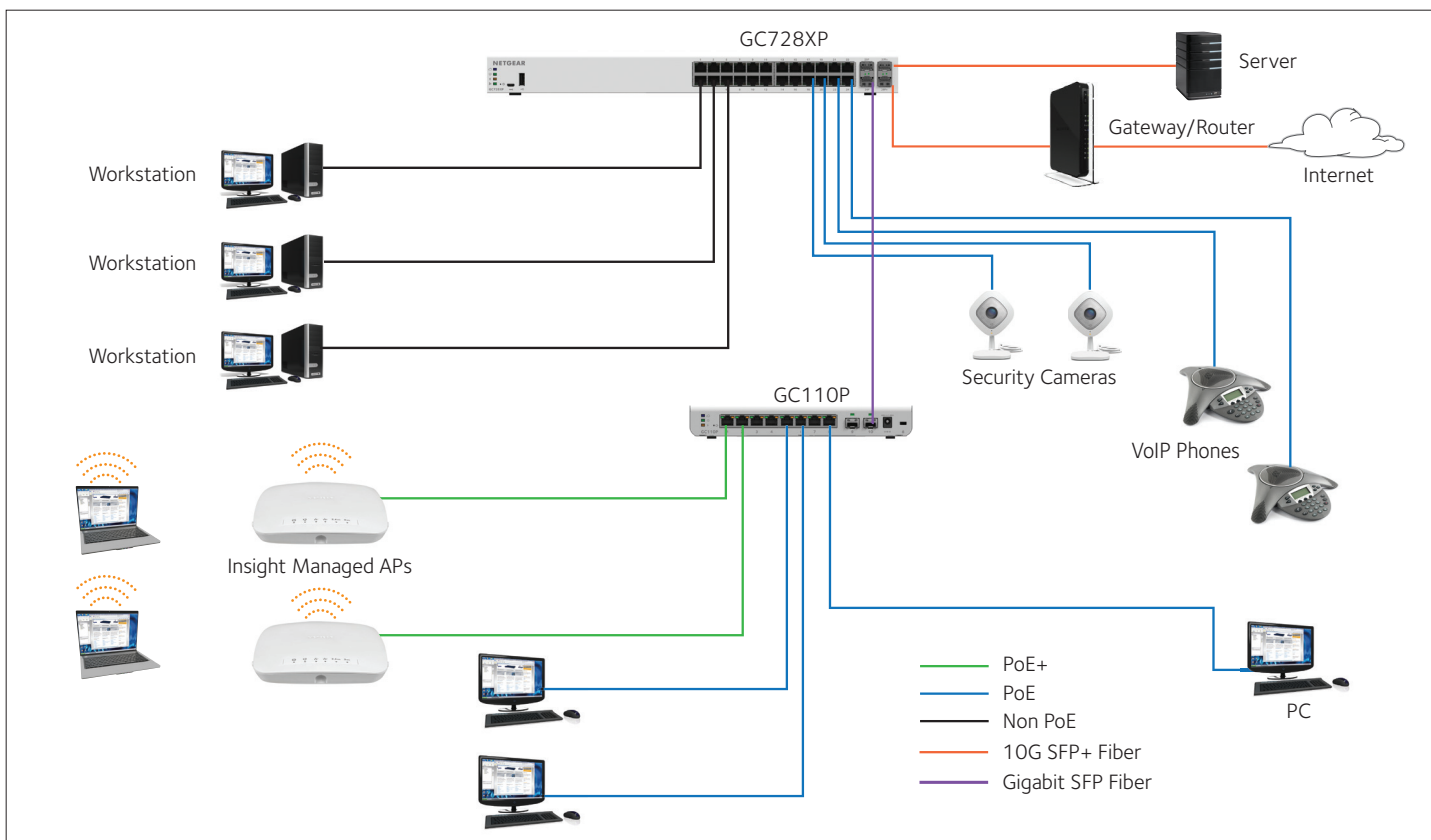
<sup>2</sup> English, German, and Japanese are the current supported languages in the local-only web GUI. The Insight mobile app and Insight Cloud Portal support local languages per the device used (phone or computer browser).

### Example Applications

#### In a Business/Retail Environment



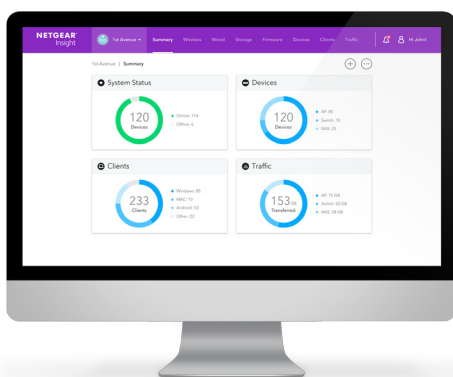
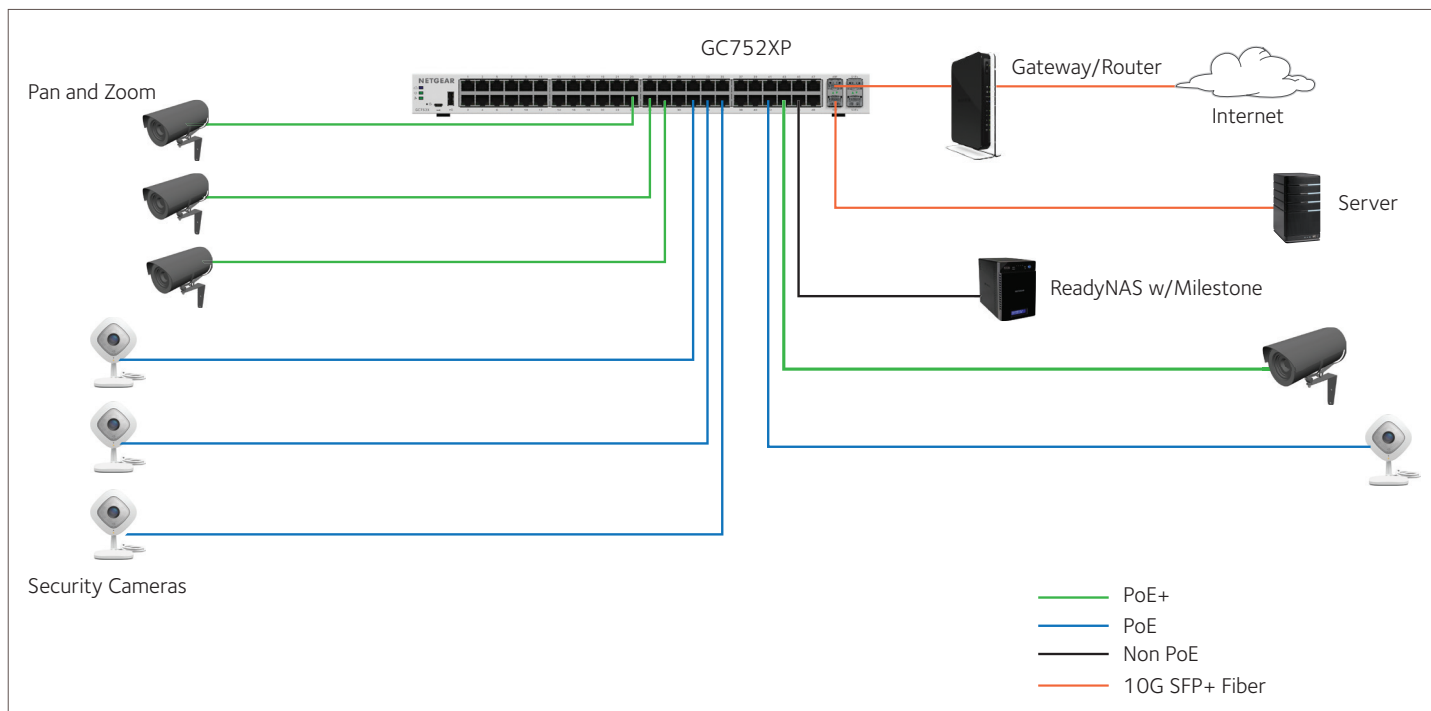
#### In a Small Office/Workgroup Environment (Aggregation/Core Switch)





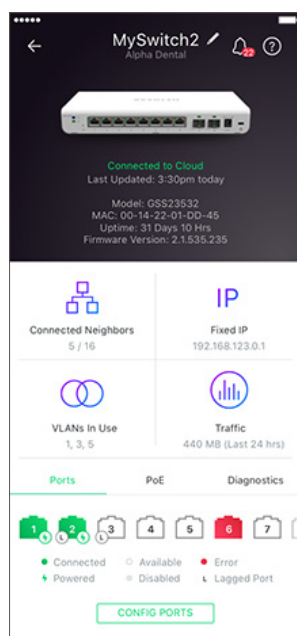
### Example Application

#### In a Security and Surveillance Environment

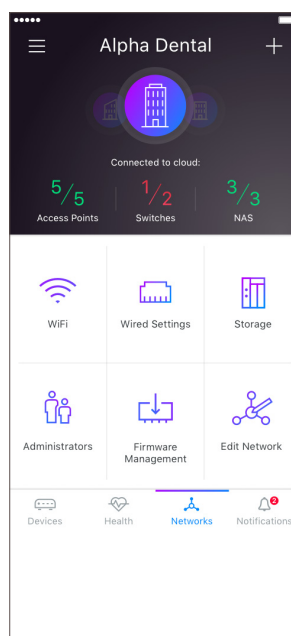


Large screen access via  
Insight Cloud Portal

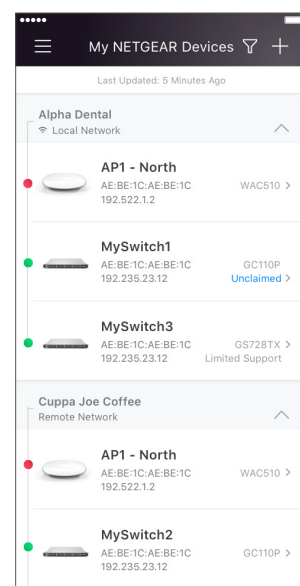
**NETGEAR®**  
Insight



Port configuration and monitoring







Network dashboard



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

### 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<br>100-240VAC ~<br>50-60Hz, 1A Max  | Internal<br>100-240VAC ~<br>50-60Hz, 10A Max                                       | Internal<br>100-240VAC ~<br>50-60Hz, 1.5A Max                                       | Internal<br>100-240VAC ~<br>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   |  | 1.5 MB  |   |
| Forwarding modes   | Store-and-forward  |  | Store-and-forward   |   |



### 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 / 128 NDP  |                      | 384 ARP / 128 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<br>1518-byte: 3.160 µsec<br>9216-byte: 3.140 µsec                          |                      | 64-byte: 3.200 µsec<br>1518-byte: 3.160 µsec<br>9216-byte: 3.140 µsec |                      |
| 1G SFP Fiber latency (64-byte; 1518-byte; 9216-byte frames)                            | 64-byte: 1.720 µsec<br>1518-byte: 1.740 µsec<br>9216-byte: 1.740 µsec                          |                      | 64-byte: 1.720 µsec<br>1518-byte: 1.740 µsec<br>9216-byte: 1.740 µsec |                      |
| 10G SFP+ Fiber latency (64-byte; 1518-byte; 9216-byte frames)                          | 64-byte: 1.510 µsec<br>1518-byte: 1.520 µsec<br>9216-byte: 1.510 µsec                          |                      | 64-byte: 1.510 µsec<br>1518-byte: 1.520 µsec<br>9216-byte: 1.510 µsec |                      |
| Jumbo frame support  | Up to 9,216 packet size  |                      | 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)  | 629,962 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/detection method protocol) | N/A  | Yes                  | N/A   | Yes                  |
| Advanced per-port PoE scheduling   | N/A  | Yes                  | N/A   | Yes                  |
| <b>L2 SERVICES - VLANs</b>   |  |                      |   |                      |
| 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.          |                      |   |                      |

### 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 / NDP cache (number of entries)       | 384 ARP / 128 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<br># of members in each LAG | 24 LAGs with max 8 members in each LAG   |         |        |         |

### 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                  |         |        |         |

### 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). 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  |         |            |         |
| 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  |  |         |            |         |
| <div><div><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></div><div><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></div></div> |  |         |            |         |
| 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  |         |            |         |

### Technical Specifications

| PRODUCT  | GC728X   | GC728XP                                  | GC752X                                  | GC752XP                                   |
|--|--|--|---|---|
| Multi-switch, multi-port concurrent configuration  | Yes  |  |   |   |
| Network/global password<br>(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  |  |   |   |
| 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<br>(min w/o PoE and max with full PoE) (BTU/hr)                                   | Min: 46.58 BTU/hr<br>Max: 62.95 BTU/hr   | Min: 86.94 BTU/hr<br>Max: 1491.45 BTU/hr | Min: 84.43 BTU/hr<br>Max: 149.72 BTU/hr | Min: 134.58 BTU/hr<br>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) (temperature- and load-based speed control)   | 1  | 2  | 1                                       | 3   |

### Technical Specifications

| PRODUCT   | GC728X  | GC728XP              | GC752X                                     | GC752XP                                     |
|---|---|----------------------|--|---|
| PHYSICAL SPECIFICATIONS                               |   |                      |  |   |
| Dimensions (W x D x H)                                | 440 x 224 x 44 mm<br>(17.3 x 8.8 x 1.7 in)                        |                      | 440 x 224 x 44 mm<br>(17.3 x 8.8 x 1.7 in) | 440 x 320 x 44 mm<br>(17.3 x 12.6 x 1.7 in) |
| Weight  | 2.81 kg<br>(6.19 lb)  | 3.79 kg<br>(8.36 lb) | 3.16 kg<br>(6.97 lb)                       | 4.79 kg<br>(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   |                      |  |   |

### Technical Specifications

| PRODUCT                                | GC728X  | GC728XP | GC752X  | GC752XP |
|--|---|---------|---|---------|
| <b>WARRANTY AND SUPPORT</b>            |   |         |   |         |
| 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.)<br>PMB0331 (3 yrs.)<br>PMB0351 (5 yrs.) |         | PMB0312 (1 yr.)<br>PMB0332 (3 yrs.)<br>PMB0352 (5 yrs.) |         |

<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.

### Ordering Information

|                             |  |
|-----------------------------|--|
| <b>PACKAGE CONTENTS</b>     |  |
| 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)   |
|                             | Category 5e flat Ethernet cable (after 4/1/2019)   |
|                             | Rack-mounting kit  |
|                             | Rubber footpads for tabletop installation  |
|                             | Quick install guide  |
| <b>ORDERING INFORMATION</b> |  |
| 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  |



### Ordering Information

|                                  |   |
|----------------------------------|---|
| GC752XP-100AJS                   | Japan, Asia Pacific, and Australia                              |
| 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**                               |

\*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.

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

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## NETGEAR®

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