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

Data Sheet

GC728X, GC728XP, GC752X, GC752XP



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 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. Onport LEDs for link/activity and PoE power¹ 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 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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Hardware at a Glance

			FRONT						SIDE
Model Name	Form-Factor	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

- \cdot 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

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

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Software at a Glance

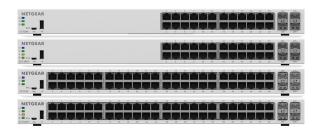
MANAG		LAYER 2+ / LAYER 3 LITE FEATURES							
Device Management	Network Management Features	IPv4/IPv6 ACL and QoS	IPv4/IPv6 Multicast Filtering	VLANs	Auto-VoIP, Auto-Video	Convergence	Link Aggregation/ Port Trunking	IPv4 & IPv6 Static Routing	
NETGEAR Insight mobile app or Insight Cloud Portal for local/remote/any- 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,	92Gbps line-rate	1G Copper: 3.200 μs	1.5 MB	68.5 Mfps		16K MAC			
GC728XP	512MB RAM		1G SFP: 1.720 μs			100	(dynamic)	IPv4: 32	8 (WRR)	512
GC752X	8MB SPI + 256	140Gbps	10G SFP+: 1.510 μs	1.5 MB	104.2 Mfps	(shared)	384 ARP/ 128 NDP	IPv6: 31	8 (VVRR)	512
GC752XP	NAND FLASH	line-rate					256 VLANs			

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 GC752X-100PRS (China)
GC752XP	GC752XP-100NAS	GC752XP-100EUS	GC752XP-100AJS



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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.

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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!
Multiple Language Local GUI	Product documentation and local-only web user interfaces are translated, giving you the ability to select your preferred language ² .

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.

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).

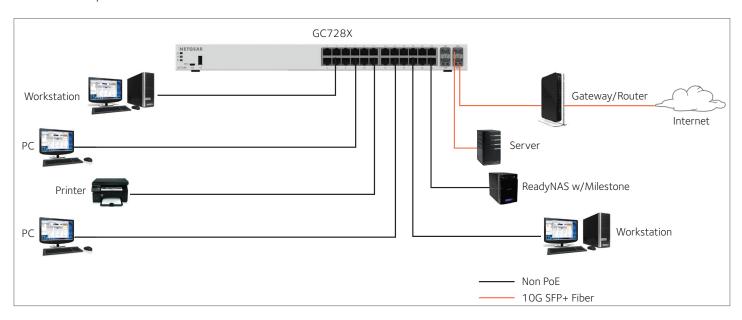
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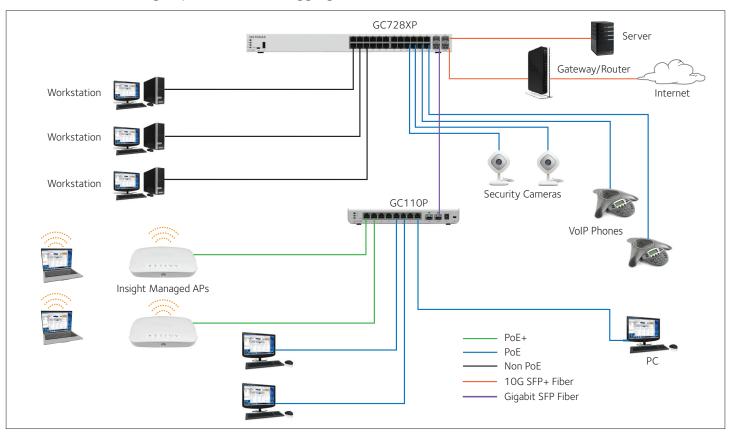
GC728X, GC728XP, GC752X, GC752XP

Example Applications

In a Business/Retail Environment



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



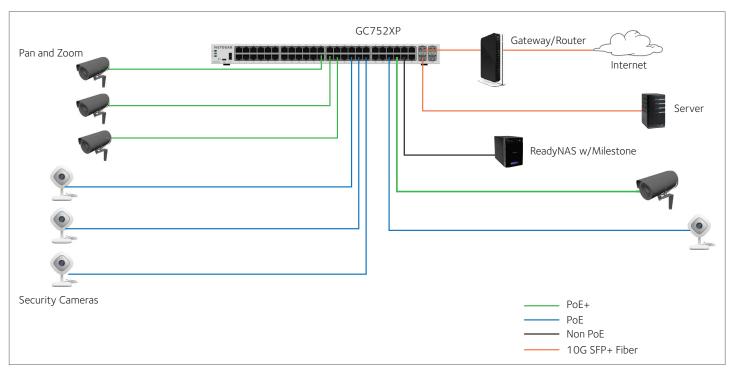
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GC728X, GC728XP, GC752X, GC752XP

Example Application

In a Security and Surveillance Environment





Large screen access via Insight Cloud Portal

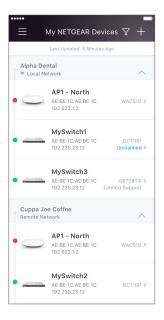








Network dashboard



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

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GC728X, GC728XP, GC752X, GC752XP

PRODUCT	GC728X	GC728XP	GC752X	GC752XP	
	g mmmg	[]	<u> </u>	<u> </u>	
Gigabit Ethernet RJ-45 Copper ports (10M/100M/1G) - 1000BASE-T	24		۷.	18	
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 (dec	dicated)	2 (dec	licated)	
10-Gigabit SFP+ (fiber) ports (1G/10G) - 10GBASE-X	2 (dec	dicated)	2 (dec	licated)	
USB port (for config file upload/backup & firmware updates)	Υ	'es	Υ	es es	
Micro-USB port (for debugging only)	Υ	'es	Y	'es	
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/Lii	nk/Activity	Speed/Link/Activity		
UNIFIED NETWORK MANAGEMENT (DISCOV	ERY, SETUP, MONITORII	NG, AND MANAGEMENT	Γ)		
Discovery, setup, monitoring and management	NETGEAR Insight mobile a	pp on phone or tablet; Insigh	t Cloud Portal from PC, Mac	or tablet web browser	
Remote/Cloud management	Anywhere, anytime, from browser using the Insight		Insight mobile app or from ar	ny PC, Mac, or tablet web	
Centralized network configuration (policies)		guration (policies) across Insi Storage for VLANs, ACLs, Qo	ght Managed Switches, Wire oS, and LAGs	less Access Points, and	
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		ingle Core, 512MB RAM, MB 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	i MB	1.5 MB		
	Store-and-forward		Store-and-forward		

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Bandwidth (non-blocking, full duplex)	920	Gbps	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 (d	ynamic)	16K (d	ynamic)	
Multicast groups	5	12	5	12	
Number of IPv4 static routes	3	32	3	2	
Number of IPv6 static routes	3	31	3	1	
Number of ARP/NDP cache entries	384 ARP	/ 128 NDP	384 ARP ,	/ 128 NDP	
Number of VLANs	2	56	2	56	
Number of DHCP snooping bindings	8	ЗК	8	sK	
Access Control Lists (ACLs)	100 shared for MA	C, IP and IPv6 ACLs	100 shared for MA	C, IP and IPv6 ACLs	
Packet forwarding rate (64 byte packet size) (Mfps or Mpps)	68	3.5	10	4.2	
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 9,216	o 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)	
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		Ye	es		
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 o	n protocols (SIP, H.323 and S	SCCP). Prioritzes traffic to a h	nigher queue.	

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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		Ye	25				
IEEE 802.3ad - LAGs (LACP)		Y€	es				
IEEE 802.3x (full duplex and flow control)		Ye	<u> </u>				
IEEE 802.1D Spanning Tree Protocol		Ye	es				
IEEE 802.1w Rapid Spanning Tree Protocol		Ye	es				
IEEE 802.1s Multiple Spanning Tree Protocol		Υє	es				
Layer 2 DHCP Relay		Υe	es				
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		Ye	es				
DHCP snooping	Yes						
Number of DHCP snooping bindings		8	K				
L3 SERVICES - ROUTING							
IPv4 static routes		3	2				
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 # of members in each LAG	24 LAGs with max 8 members in each LAG						

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PRODUCT	GC728X	GC728XP	GC752X	GC752XP				
NETWORK MONITORING AND DISCOVERY S	SERVICES							
802.1ab LLDP	Yes							
LLDP-MED		Yes						
SNMP		v1, v	2c, v3					
RMON group 1,2,3,9		Υ	es es					
NETWORK SECURITY								
IEEE 802.1x		Υ	es es					
Guest VLAN		γ	es					
RADIUS-based VLAN assignment via .1x		Υ	'es					
MAC-based .1x		Υ	es es					
RADIUS accounting		Υ	es es					
Access Control Lists (ACLs)		L2 / I	_3 / L4					
IP-based ACLs (IPv4 and IPv6)		Υ	es es					
MAC-based ACLs		Υ	'es					
TCP/UPD-based ACLs	Yes							
MAC lockdown	Yes							
MAC lockdown by the number of MACs		γ	'es					
Control MAC # Dynamic learned entries (per port)	4096							
Control MAC # static entries (per port)			18					
IEEE 802.1x RADIUS port access authentication/type	Yes (MD5, EAP, PEAP)							
Port-based security by locked MAC addresses		γ	'es					
Dynamic ARP inspection		Υ	'es					
Broadcast, multicast, unknown unicast storm control		Yes						
DoS attacks prevention		Υ	es es					
Protected ports		Υ	es es					
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		Υ	es es					

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

Data Sheet

GC728X, GC728XP, GC752X, GC752XP

Technical Specifications

PRODUCT	GC728X	GC728XP	GC752X	GC752XP		
Weighted Round Robin (WRR)	Yes					
Strict priority queue technology		Υ	es es			
Auto-VoIP VLAN / Auto-Voice VLAN	Yes, based on OUI by	ytes (default database and us	ser-based OUIs) in the phone	e source MAC address		
Auto-VoIP	Yes, based o	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	Υ	es es	Yes			

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	& TROUBL	ESHOOTING

-	
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

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)			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		Υ	es es		
SNMP v3 with multiple IP addresses	Yes				
RMON group 1,2,3,9	Yes				
Port mirroring		Υ	'es		
Many-to-one port mirroring	Yes				
Cable test utility		Υ	es es		
Ping and tracerout client	Yes				
Local-only web browser-based management GUI with multiple language support ²	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)		ted by default)		
Auto power down			Yes (deactivat	Yes (deactivated by default)	
Fan(s) (temperature- and load-based speed control)	1	2	1	3	

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

Data Sheet

GC728X, GC728XP, GC752X, GC752XP

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			top (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 hu	midity (RH), non-condensing		
Altitude		10,000 ft (3,0	00 m) maximum		
ELECTROMAGNETIC EMISSIONS AND IMMU	NITY 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		CCC 3D/ 1			
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				

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**	PMB031	1 (1 yr.)	PMB0312 (1 yr.)	
	PMB033	31 (3 yrs.)	PMB033	32 (3 yrs.)
	PMB035	51 (5 yrs.)	PMB035	52 (5 yrs.)

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).

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)
	Category 5e flat Ethernet cable (after 4/1/2019)
	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
GC752X-100PRS	China
GC752XP-100NAS	North America and Latin America
GC752XP-100EUS	Europe and United Kingdom

^{*} 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.

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

Data Sheet

GC728X, GC728XP, GC752X, GC752XP

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**

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