

Powerful 24-port and 48-port Gigabit switches with 4 dedicated 10G SFP+ uplinks and Remote/Cloud Management option - Select your new network engine!





As a leading provider of network equipment for businesses, NETGEAR® understands the importance of providing a great choice of PoE port counts and power budgets that can adapt to your business' needs, whether in the hospitality, catering, education or retail domains.

The Gigabit Ethernet Switches with 4 SFP+ Ports join the NETGEAR Smart switches with Cloud family, adding full 24 and 48 port PoE+ and PoE++ support for organizations that deploy high-density PoE devices and require a powerful interconnect link between access and aggregation.

Organizations who buy infrastructure for the long term and want future proofing for the unforeseeable can now select a switch with a PoE power budget of 190W and 420W over 24-port, or 380W and 640W over 48-port providing more headroom. Temperature- and load-based fan-speed control combines accurate monitoring with minimized system acoustic noise: the 24-port models support quiet rack mounting operation with a maximum of 30.5dBA even at full PoE power with traffic on all ports and 25°C (77°F) ambient. Following the same measurements, the 52-port models are rated at no more than 37.3dBA.

#### Highlights

The NETGEAR Gigabit Ethernet Switches with 4 SFP+ Ports with Remote/Cloud Management provides a great value, with configurable L2 network features like VLANs and PoE operation scheduling, allowing SMB customers to deploy PoE-based VoIP phones, IP cameras, video-over-IP endpoints and Wireless access points simply and securely. Advanced features such as IPv4/IPv6 Layer 3 static routing, LACP link aggregation, DiffServ QoS, Private VLANs, Multicast VLAN Registration and Spanning Tree will satisfy even the most advanced small business networks.

#### Key features include:

- Non PoE versions: 24 and 48 Gigabit Ethernet ports on GS728TXv3 and GS752TXv3.
- PoE+ version: Full 24-port and 48-port PoE+ with 190W and 380W total PoE budget on GS728TXPv3 and GS752TXPv3.
- PoE++ version: GS728TXUPv3 supports 8-port PoE++ (up to 60W/port) and 16-port PoE+ with a total of 420W PoE budget; GS752TXUPv3 supports 16-port PoE++ (up to 60W/port) and 32-port PoE+ with 640W total PoE budget.
- 4 Dedicated 10G SFP+ ports, not only providing high-speed fiber uplinks, but also uplink redundancy and failover, improving reliability and availability for the network
- Quiet rack mounting operation with 26.80dBA to 37.3dBA at 25°C (77°F) ambient
- Layer 3 static routing with 32 routes (IPv4 and IPv6) for interVLAN local routing



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- PoE Self-healing supported on GS728TXUPv3 and GS752TXUPv3 that allows for PoE auto-recovery of the connected power devices when they become unresponsive or stop working properly
- Advanced VLAN and Private VLAN support for better network segmentation
- L2/L3/L4 access control lists (ACLs) for granular network access control including 802.1x port authentication
- Advanced per port PoE controls for remote power management of PoE connected devices including operation scheduling (e.g. Wireless APs, IP security cameras, LED lighting, secure access door locks, IoT devices...)
- Advanced QoS (Quality of Service) for traffic prioritization including port-based, 802.1p and L2/L3/L4 DSCP-based
- Auto "denial-of-service" (DoS) prevention
- IGMP Snooping and Querier for multicast optimization
- Multicast VLAN Registration (MVR) for larger L2 multicast networks and AV over IP deployment
- Dynamic ARP for increased security targeting a class of Man in the Middle attack

- Rate limiting and priority queuing for better bandwidth allocation
- Port mirroring for network monitoring
- Energy Efficient Ethernet (IEEE 802.3az) for maximum power savings
- Cable test to troubleshoot connection issues
- SNMP v1, v2c, v3 and RMON remote monitoring

## Build a future-proof network with NETGEAR:

- Solid performance with non-blocking architecture, 16K MAC addresses, 256 VLANs, 100 shared (ingress) ACLs and 512 Multicast groups
- Comprehensive IPv6 supporting management, QoS, ACL and routing, ensuring investment protection and a smooth migration to IPv6-based network

## Fully-integrated cloud-manageable devices

 Remote/Cloud Management capability with NETGEAR Insight. Instantly activate NETGEAR Insight Cloud management from the web GUI, for simpler configuration and deployment from anywhere using the NETGEAR Insight app on mobile devices or the Insight Cloud portal through a web browser

#### Smart IT, not Big IT

- Easy-to-use Web browser-based management GUI
- Dual firmware images improve reliability and uptime to your network
- Text-based Lite Command-line Interface (CLI)

#### **NETGEAR** quality and reliability

- Worry-free NETGEAR Limited Lifetime Warranty\*, online technical chat support and Next Business Day (NBD) replacement
- 90-days Free 24x7 Advanced Technical Phone Support\*\*













#### Hardware at a Glance

|             |                     |                                     | FRONT                              |  | REAR                  | SIDE                   |
|-------------|---------------------|-------------------------------------|------------------------------------|--|-----------------------|------------------------|
| Model Name  | Form-Factor         | 10/100/<br>1000BASE-T<br>RJ45 Ports | 1000/10GBASE-X<br>Fiber SFP+ ports | PoE+ 802.3at and PoE++<br>802.3bt Type 3 Ports<br>(Budget) | Power Supply          | Fans                   |
| GS728TXv3   | Rack mount, Desktop | 24                                  | 4                                  | Non-PoE  | 1 internal PSU, fixed | 1 internal fan, fixed  |
| GS728TXPv3  | Rack mount, Desktop | 24                                  | 4                                  | 24 PoE+ (190W)   | 1 internal PSU, fixed | 2 internal fans, fixed |
| GS728TXUPv3 | Rack mount, Desktop | 24                                  | 4                                  | 16 PoE+, 8 PoE++ (420W)                                    | 1 internal PSU, fixed | 2 internal fans, fixed |
| GS752TXv3   | Rack mount, Desktop | 48                                  | 4                                  | Non-PoE  | 1 internal PSU, fixed | 2 internal fans, fixed |
| GS752TXPv3  | Rack mount, Desktop | 48                                  | 4                                  | 48 PoE+ (380W)   | 1 internal PSU, fixed | 2 internal fans, fixed |
| GS752TXUPv3 | Rack mount, Desktop | 48                                  | 4                                  | 32 PoE+, 16 PoE++ (640W)                                   | 1 internal PSU, fixed | 2 internal fans, fixed |

### Software at a Glance

|  | LAYER 2+ / LAYER 3 LITE FEATURES |                                     |                         |   |  |                                |                                  |  |  |  |
|--|----------------------------------|-------------------------------------|-------------------------|---|--|--------------------------------|----------------------------------|--|--|--|
| Management   | IPv4/IPv6<br>ACL and QoS         | IPv4/IPv6<br>Multicast<br>Filtering | Auto-VoIP<br>Auto-Video | IEEE (802.3az) Energy<br>Efficient Ethernet | VLANs  | Convergence                    | IPv4 & IPv6<br>Static<br>Routing |  |  |  |
| Web browser-based GUI<br>(HTTP/HTTPS),<br>NETGEAR Insight mobile<br>app or Insight Cloud Portal<br>for local or remote<br>management<br>Text-based Lite Command-<br>line Interface (CLI)<br>RMON, SNMP | L2, L3, L4,<br>ingress           | IGMP and MLD<br>Snooping            | Yes                     | Yes   | Static, Dynamic,<br>Voice, MAC,<br>Protocol-based,<br>and Private VLAN<br>GARP, GVRP,<br>MVR, Auto-<br>Camera and<br>Auto-WiFi | LLDP-MED,<br>RADIUS,<br>802.1X | Yes                              |  |  |  |

### Performance at a Glance

| Model Name  | Packet<br>buffer | CPU                      | ACLs       | MAC Address<br>Table ARP<br>Table VLANs | Fabric        | Latency (Max<br>Connection Speed)                              | Static Routes<br>(IPv4 & IPv6) | Multicast<br>IGMP<br>Group |
|-------------|------------------|--------------------------|------------|---|---------------|--|--------------------------------|----------------------------|
| GS728TXv3   |                  |                          |            |   | 128 line-rate |  |                                |                            |
| GS728TXPv3  |                  | 800MHz ARM<br>A55 Single |            |   | 128 line-rate |  |                                |                            |
| GS728TXUPv3 | 1 EMD            | Core                     | 100 shared | 16K MAC<br>512 ARP<br>256 VLANs         | 128 line-rate | 1G Copper:<5.575μs<br>1G Fiber: <5.149μs<br>10G Fiber <2.124us | IPv4: 32                       | 512                        |
| GS752TXv3   | 1.5MB            | 512MB DDR<br>RAM         | 100 shared |   | 176 line-rate |  | IPv6: 32                       | 512                        |
| GS752TXPv3  |                  | 64MB FLASH               |            |   | 176 line-rate |  |                                |                            |
| GS752TXUPv3 |                  |                          |            |   | 176 line-rate |  |                                |                            |



### Features and Benefits

| Hardware Features  |   |
|--|---|
| 1000BASE-T Copper Ethernet PoE+ connections  | Support high-density VoIP, Surveillance and Wi-Fi AP deployments, scalable for future growth. Never face the risk of running out of PoE ports.  |
| 1000/10GBASE-X Fiber SFP+ ports  | Four dedicated 10G SFP+ ports for aggregation to the network core. Support for Fiber and Copper modules. Can also build dual redundancy by a trunked uplink with link aggregation and failover.   |
| Great choice of PoE port counts and PoE power budgets that can adapt to the business's needs   | Up to 640W budget available across 24 or 48 Gigabit PoE+ (802.3at) and PoE++ (802.3bt) ports - Connect multiple power demanding devices to your network with a single wire for power and connectivity.  |
| Low Acoustics  | Temperature-based fan-speed control minimizes system acoustic noise in any environment starting at 26.80dBA at 25°C (77°F) ambient.   |
| Energy Efficient Ethernet (IEEE 802.3az)   | Maximum power reduction for onging operational cost savings.  |
| Software Features  |   |
| Fully-integrated Cloud-manageable Devices  | Require no additional hardware (cloud keys, network portals, local servers, VPN or proxy appliances etc) to directly connect to the cloud and allow remote management. No additional hardware or software. Just switch to Insight Cloud management mode through Web browser-based user interface and go.  |
| Text-based Lite Command-line Interface (CLI)   | Provide a text-based way to manage and monitor the system. The CLI can be accessed by using a direct serial connection, or by using a remote logical connection with telnet or SSH.   |
| Comprehensive IPv6 Support for Management, ACL 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 authentication (EAP)  • Port-based security by locked MAC  • ACL filtering to permit or deny traffic based on MAC and IP addresses | 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:  • Port-based or 802.1p-based prioritization  • Layer 3-based (DSCP) prioritization  • Port-based ingress and egress rate limiting         | Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video.  |
| 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) 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. |



| Software Features (continued)  |  |
|--|--|
| Auto-WiFi, Auto-Camera VLAN  | Auto-WiFi VLAN and Auto-Camera VLAN allows the switch to forward packets with the inputed OUIs of Wireless APs and cameras in a special VLAN with priority settings of that VLAN automatically.  |
| IGMP (IPv4) and MLD (IPv6) Snooping and<br>Querier modes with Fast Leave | 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 and Dynamic ARP Inspection                                 | 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. Use the DHCP snooping bindings database per port and per VLAN to drop incoming packets that do not match any binding and to enforce source IP/MAC addresses for malicious users traffic elimination. |
| 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   |
| PoE Self-healing (GS728TXUPv3 and GS752TXUPv3 only)                      | Allows for PoE auto-recovery of the connected power devices when they become unresponsive or stop working properly.  |
| Loop Prevention and Auto-DoS Prevention                                  | Detect and prevent (auto port shutdown) accidental network loops and protect against DoS attacks.  |
| 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.   |
| 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.  |
| Dual Firmware Images   | Dual firmware images for transparent firmware updates with minimum service interruption.   |
| 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 app, all from the palm of your hand, anytime, anywhere.  |



## **NETGEAR®**

# Simply activate NETGEAR Insight Cloud management to manage your network. Anytime. Anywhere.

Activating NETGEAR Insight Cloud management enables users to experience simpler configuration and deployment from anywhere using the NETGEAR Insight app from mobile devices or the Insight Cloud portal from any device with a web browser.

Unique advanced management features of these Insight managed devices include:

- Remote monitoring and management with performance dashboards and troubleshooting features including remote
  reboot, port and PoE advanced configuration including remote enable/disable/power-cycle, PoE scheduling, and firmware
  updates with auto-schedule mode
- Single pane-of-glass multi-device, multi-network, and multi-site remote monitoring and notifications with the NETGEAR Insight app
- Full-fledged local or remote access for configuration, management, and monitoring on a larger display using your tablet, laptop, or desktop computer through the NETGEAR Insight Cloud portal
- Configurable in-app and email alerts and notifications
- Auto-join and configure (zero-touch provisioning) for additional Insight managed devices added to the network
- Centralized network configuration (policies) across Insight managed switches, and access points for VLANs, ACLs, QoS, LAGs, etc.
- Cloud-based network administration, monitoring, and firmware management

For more information about NETGEAR Insight-manageable device settings, please see at: https://www.netgear.com/support/product/Insight.aspx

# TOTAL NETWORK SOLUTION

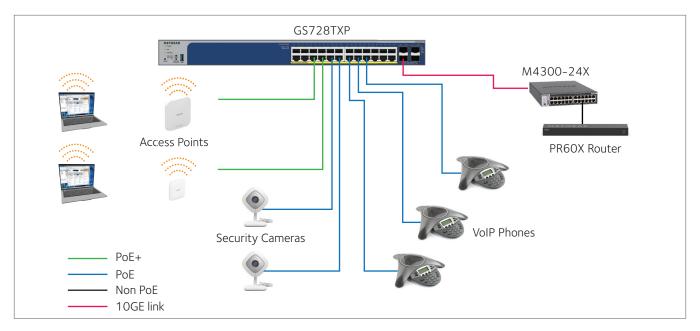
As a part of NETGEAR's Total Network Solution, this product is compatible with a wide range of routers, access points and switches that can be remotely managed through the Insight Remote Cloud Management platform.

Find out more: www.netgear.com/total



#### **Target Application**

#### **Network Convergence**



Within small and medium-sized organizations – especially in the hospitality, catering, education, and retail industries – there is growing deployment of VoIP phones, IP security cameras, video-over-IP endpoints, proximity sensors, LED lighting, secure access door locks, and other IoT devices. The dense proximity of these devices requires network switches capable of supporting PoE so a network manager can add power-hungry devices to the network with a single wire for power and connectivity. Wave 2 802.11ac wireless access points and pan-tilt-zoom HD surveillance cameras with features such as night vision and built-in motion tracking also require PoE+ (802.3at) and PoE++ (802.3bt), increasing the power demands on PoE switches.

The new 24-port and 48-port NETGEAR Smart switches support dense deployments of these modern high-power PoE devices. They offer powerful Layer 2 and Lite Layer 3 (static routing) features for IPv4 and IPv6 with enhanced performance and a focus on usability within SMB environments:

- 190W (GS728TXPv3) PoE budget across 24 Gigabit PoE+ ports
- 380W (GS752TXPv3) PoE budget across 48 Gigabit PoE+ ports
- 420W (GS728TXUPv3) PoE budget across 8 Gigabit PoE++ ports and 16 Gigabit PoE+ ports
- 640W (GS752TXUPv3) PoE budget across 16 Gigabit PoE++ ports and 32 Gigabit PoE+ ports
- 4 dedicated Gigabit SFP+ fiber ports for aggregation to the network core
- Quiet rack mounting operation with 26.80dBA to 36.6dBA max at 25°C (77°F) ambient
- Layer 3 static routing with 32 routes (IPv4 and IPv6) for interVLAN local routing
- IGMP Snooping, IGMP Querier and IGMP Fast Leave for multicast optimization
- Include VLANs, Private VLAN, PoE scheduling, ACLs, DiffServ, LACP, MVR and STP
- Easy-to-use Web browser-based management GUI No need for an IT expert
- Limited Lifetime\* Warranty, Next Business Day replacement, Tech support





| Technical Specifications   | GS728TXv3           | GS728TXPv3                    | GS728TXUPv3                             | GS752TXv3                  | GS752TXPv3                     | GS752TXUPv3                              |
|--|---------------------|-------------------------------|---|----------------------------|--------------------------------|--|
| 10M/100M/1G RJ-45 copper ports   | 24                  | 24                            | 24                                      | 48                         | 48                             | 48                                       |
| PoE / PoE+ ports   | Non-PoE             | 24 PoE+<br>(190W PoE budget)  | 24 PoE+<br>8 PoE++<br>(420W PoE budget) | Non-PoE                    | 48 PoE+<br>(380W PoE budget)   | 48 PoE+<br>16 PoE++<br>(640W PoE budget) |
| 10G SFP+ (fiber) ports   | 4 (dedicated)       | 4 (dedicated)                 | 4 (dedicated)                           | 4 (dedicated)              | 4 (dedicated)                  | 4 (dedicated)                            |
| USB port (for config file upload/backup & firmware updates)                      | Yes                 | Yes                           | Yes                                     | Yes                        | Yes                            | Yes                                      |
| Unified Network Management (Dis  | covery, Setup, Moni | toring, And Managen           | nent)                                   |                            |                                |  |
| Discovery, setup, monitoring and management                                      |                     | NETGEAR Insight mobile a      | pp on phone or tablet; Insi             | ight Cloud portal from Po  | C, Mac, or tablet web brow     | ser                                      |
| Remote/Cloud management  | Anywhere, anytime,  | from the palm of your hand    | d using Insight mobile app              | or from any PC, Mac, or    | tablet web browser using t     | he Insight Cloud portal                  |
| Centralized network configuration (policies)                                     | Centralized net     | work configuration (policie   | es) across Insight Managed              | switches, and wireless ac  | ccess points for VLANs, AC     | Ls, QoS, and LAGs                        |
| Device auto-join and configure (zero-touch provisioning)                         |                     | Additional Insight Manage     | ed devices added to the ne              | etwork automatically inhe  | erit the network configuration | on                                       |
| Multi-site, multi-network single pane-of-<br>glass view                          | Mai                 | nage multiple sites, location | ns, and networks in a single            | view using the Insight m   | nobile app or Insight Cloud    | l Portal                                 |
| Multi-switch, multi-port concurrent configuration for ACLs, VLANs, QoS, PoE, etc | Apply               | settings and policies on m    | nultiple ports across multipl           | e switches all at the same | e time using the Port Confi    | g Wizard                                 |
| Performance Specification  |                     |                               |   |                            |                                |  |
| CPU  |                     |                               | 800MHz ARM A                            | A55 Single Core            |                                |  |
| Packet buffer memory (Dynamically shared across only used ports)                 |                     |                               | 1.5                                     | MB                         |                                |  |
| Forwarding modes   |                     |                               | Store-and                               | d-forward                  |                                |  |
| Bandwidth  | 128 Gbps            | 128 Gbps                      | 128 Gbps                                | 176 Gbps                   | 176 Gbps                       | 176 Gbps                                 |
| Priority queues  |                     |                               |   | 8                          |                                |  |
| Priority queuing   |                     |                               | Weighted Rou                            | nd Robin (WRR)             |                                |  |
| MAC address database size (48-bit MAC addresses)                                 |                     |                               | 10                                      | 6K                         |                                |  |
| Multicast groups   |                     |                               | 5                                       | 12                         |                                |  |
| Number of IPv4 static routes   |                     |                               | 3                                       | 32                         |                                |  |
| Number of IPv6 static routes   |                     |                               | 3                                       | 2                          |                                |  |
| Number of VLANs  |                     |                               | 2                                       | 56                         |                                |  |
| Number of ARP cache entries  |                     |                               | 512                                     | ARP                        |                                |  |
| Number of DHCP snooping bindings   |                     |                               | 2                                       | 56                         |                                |  |
| Access Control Lists (ACLs)  |                     |                               | 100 shared for MAC, IP                  | and IPv6 ACLs (ingress)    |                                |  |
| Packet forwarding rate (64 byte packet size) (Mpps)                              | 83.52               | 95.24                         | 83.52                                   | 130.94                     | 130.94                         | 130.94                                   |
| Jumbo frame support (bytes)  |                     |                               | Up to 10K                               | packet size                |                                |  |
| Acoustic noise level @ 25°C (dBA)<br>(ANSI-S10.12)                               | 29dBA               | 26.8dBA                       | 30.5dBA                                 | 32.5dBA                    | 36.6dBA                        | 37.3dBA                                  |





| Performance Specification                                     | GS728TXv3                         | GS728TXPv3                    | GS728TXUPv3                       | GS752TXv3                         | GS752TXPv3                    | GS752TXUPv3                     |
|---|-----------------------------------|-------------------------------|-----------------------------------|-----------------------------------|-------------------------------|---------------------------------|
| Mean Time Between Failures (MTBF) @ 25°C                      | 382,249 hours                     | 1,252,990 hours               | 286,168 hours                     | 346,910 hours                     | 1,296,949 hours               | 191,643 hours                   |
| 100M Copper Latency (64-byte;<br>1518-byte; 9216-byte frames) | 15.075μs; 131.795μs;<br>747.635μs | 8.379µs;8.658µs;<br>8.871µs   | 15.075µs; 131.795µs;<br>747.635µs | 15.155µs; 131.875µs;<br>747.635µs | 9.891µs;9.444µs;<br>9.617µs   | 15.155µs; 131.875µ<br>747.635µs |
| IG Copper Latency (64-byte; 1518-byte;<br>9216-byte frames)   | 5.575µs; 17.605µs;<br>79.317µs    | 4.008µs;4.398µs;<br>4.701µs   | 5.575µs; 17.605µs;<br>79.317µs    | 5.572μs; 17.620μs;<br>79.317μs    | 3.910µs;4.319µs;<br>4.411µs   | 5.572µs; 17.620µs<br>79.317µs   |
| IG Fiber Latency (64-byte; 1518-byte;<br>2216-byte frames)    | 3.767µs; 15.815µs;<br>77.525µs    | 5.149µs; 6.462µs;<br>11.181µs | 3.767µs; 15.815µs;<br>77.525µs    | 3.755µs; 15.805µs;<br>77.515µs    | 5.149µs; 6.462µs;<br>11.181µs | 3.755µs; 15.805µs<br>77.515µs   |
| 10G Fiber Latency (64-byte; 1518-byte;<br>2216-byte frames):  | 1.912µs; 3.120µs;<br>9.277µs      | 2.124µs; 2.157µs;<br>2.175µs  | 1.912µs; 3.120µs;<br>9.277µs      | 1.900µs; 3.105µs;<br>9.280µs      | 1.900µs; 3.105µs;<br>9.280µs  | 1.900µs; 3.105µs;<br>9.280µs    |
| .2 Services - VLANs   |                                   |                               |                                   |                                   |                               |                                 |
| EEE 802.1Q VLAN tagging                                       |                                   |                               | ١                                 | 'es                               |                               |                                 |
| P-based VLANs   |                                   |                               | )                                 | ⁄es                               |                               |                                 |
| MAC-based VLANs   |                                   |                               | )                                 | ⁄es                               |                               |                                 |
| Auto-VoIP VLAN / Auto-Voice VLAN                              |                                   | Yes, based on OUI byt         | es (default database and u        | ser-based OUIs) in the pho        | ne source MAC address         | 3                               |
| Auto-VoIP   |                                   | Yes,                          | based on protocols (SIP). F       | rioritzes traffic to a higher o   | queue                         |                                 |
| /oice VLAN  | Yes, ba                           | sed on either VLAN ID o       | r 802.1p priority, packets a      | re passed onto the connec         | ting VoIP phone using L       | LDP-MED                         |
| Auto-Video VLAN   |                                   |                               | \                                 | ⁄es                               |                               |                                 |
| Auto WiFi VLAN and Auto Camera VLAN                           |                                   |                               | Yes, based o                      | n inputed OUIs                    |                               |                                 |
| GARP with GVRP  |                                   |                               | \                                 | es es                             |                               |                                 |
| Private VLAN  | Yes                               |                               |                                   |                                   |                               |                                 |
| .2 Services - Availability                                    |                                   |                               |                                   |                                   |                               |                                 |
| Broadcast, multicast, unknown unicast<br>storm control        |                                   |                               | ١                                 | ⁄es                               |                               |                                 |
| EEE 802.3ad - LAGs (LACP)                                     |                                   |                               | ١                                 | 'es                               |                               |                                 |
| EEE 802.3x (full duplex and flow control)                     |                                   |                               | Y                                 | 'es                               |                               |                                 |
| EEE 802.1D Spanning Tree Protocol                             |                                   |                               | ١                                 | 'es                               |                               |                                 |
| EEE 802.1w Rapid Spanning Tree<br>Protocol                    |                                   |                               | ١                                 | es es                             |                               |                                 |
| EEE 802.1s Multiple Spanning Tree<br>Protocol                 |                                   |                               | ١                                 | ⁄es                               |                               |                                 |
| ayer 2 DHCP Relay   |                                   |                               | `                                 | ⁄es                               |                               |                                 |
| .2 Services - Multicast Filtering                             |                                   |                               |                                   |                                   |                               |                                 |
| GMP snooping (v1, v2 and v3)                                  |                                   |                               | `                                 | 'es                               |                               |                                 |
| MLD snooping support (v1 and v2)                              |                                   |                               | ١                                 | 'es                               |                               |                                 |
| GMP snooping querier (v2)                                     |                                   |                               | `                                 | 'es                               |                               |                                 |
| MLD snooping querier (v1)                                     |                                   |                               | Y                                 | ′es                               |                               |                                 |
| Multicast VLAN Registration (MVR)                             |                                   |                               |                                   | es es                             |                               |                                 |
| .3 Services - DHCP  |                                   |                               |                                   |                                   |                               |                                 |
| DHCP client   |                                   |                               |                                   | 'es                               |                               |                                 |
| or o                      |                                   |                               |                                   |                                   |                               |                                 |
| DHCP snooping   |                                   |                               | \                                 | ⁄es                               |                               |                                 |



| L3 Services - Routing                         | GS728TXv3 | GS728TXPv3 | GS728TXUPv3          | GS752TXv3           | GS752TXPv3 | GS752TXUPv3 |
|---|-----------|------------|----------------------|---------------------|------------|-------------|
| IPv4 static routing                           |           |            | 3:                   | 2                   |            |             |
| IPv6 static routing                           |           |            | 3:                   | 2                   |            |             |
| VLAN routing                                  |           |            | Ye                   | s                   |            |             |
| Host ARP table (number of entries)            |           |            | 512.                 | ARP                 |            |             |
| ICMP Router Discovery Protocol (IRDP)         |           |            | Ye                   | s                   |            |             |
| Number of IP VLAN interfaces (routed VLANs)   |           |            | 1!                   | 5                   |            |             |
| Link Aggregation                              |           |            |                      |                     |            |             |
| IEEE 802.3ad - LAGs (LACP)                    |           |            | Ye                   | S                   |            |             |
| Manual LAG                                    |           |            | Ye                   | S                   |            |             |
| # of LAGs / # of members in each LAG          |           |            | 16 LAGs with max 8 m | nembers in each LAG |            |             |
| Network Monitoring and Discovery              | Services  |            |                      |                     |            |             |
| 802.1ab LLDP                                  |           |            | Ye                   | S                   |            |             |
| SNMP  |           |            | v1, v2               | 2, v3               |            |             |
| RMON group 1,2,3,9                            |           |            | Ye                   | S                   |            |             |
| Network Security                              |           |            |                      |                     |            |             |
| IEEE 802.1x                                   |           |            | Ye                   | s                   |            |             |
| Guest VLAN                                    |           | Yes        |                      |                     |            |             |
| RADIUS-based VLAN assignment via .1x          |           |            | Y€                   | s                   |            |             |
| MAC-based .1x                                 |           |            | Y€                   | s                   |            |             |
| RADIUS accounting                             |           |            | Y€                   | s                   |            |             |
| Access Control Lists (ACLs)                   |           |            | L2/L3                | 3 / L4              |            |             |
| IP-based ACLs (IPv4 and IPv6)                 |           |            | Y€                   | s                   |            |             |
| MAC-based ACLs                                |           |            | Ye                   | s                   |            |             |
| TCP/UDP-based ACLs                            |           |            | Y€                   | s                   |            |             |
| MAC lockdown                                  |           |            | Ye                   | s                   |            |             |
| MAC lockdown by the number of MACs            |           |            | Y€                   | s                   |            |             |
| Control MAC # Dynamic learned entries         |           |            | 163                  | 84                  |            |             |
| Control MAC # static entries                  |           |            | 25                   | 6                   |            |             |
| IEEE 802.1x RADIUS port access authentication |           |            | Ye                   | s                   |            |             |
| Port-based security by locked MAC addresses   |           |            | Υє                   | S                   |            |             |
| Dynamic ARP inspection                        |           |            | Ye                   | S                   |            |             |
| Broadcast, unicast, multicast DoS protection  |           |            | Υe                   | S                   |            |             |
| DoS attacks prevention                        |           |            | Ye                   | S                   |            |             |
| Network storm protection, DoS                 |           |            | Υe                   | S                   |            |             |
| Broadcast, unicast, multicast DoS protection  |           |            | Ye                   | s                   |            |             |
| DoS attacks prevention                        |           |            | Υe                   | S                   |            |             |



# Gigabit Ethernet Switches with 4 SFP+ Ports

| Quality of Service (QoS)   | GS728TXv3 | GS728TXPv3  | GS728TXUPv3   | GS752TXv3                      | GS752TXPv3              | GS752TXUPv3 |
|--|-----------|---|---|--------------------------------|-------------------------|-------------|
| Port-based rate limiting   |           |   | Yes ingress   | and egress                     |                         |             |
| Port-based QoS   |           |   | Ye  | es                             |                         |             |
| Support for IPv6 fields  |           |   | Ye  | es                             |                         |             |
| DiffServ QoS   |           |   | Yes in  | gress                          |                         |             |
| IEEE 802.1p COS  |           |   | Ye  | es                             |                         |             |
| Destination MAC and IP   |           |   | Ye  | es                             |                         |             |
| IPv4 and v6 DSCP   |           |   | Ye  | es                             |                         |             |
| IPv4 and IPv6 ToS  |           |   | Ye  | es                             |                         |             |
| TCP/UDP-based  |           |   | Ye  | es                             |                         |             |
| Weighted Round Robin (WRR)   |           |   | Ye  | es                             |                         |             |
| Strict priority queue technology   |           |   | Ye  | es                             |                         |             |
| Auto-VoIP VLAN / Auto-Voice VLAN   |           | Yes, based on OUI bytes   | (default database and us  | er-based OUIs) in the phon     | e source MAC address    |             |
| Auto-VoIP  |           | Yes, ba   | ased on protocols (SIP). Pr   | ioritzes traffic to a higher q | ueue                    |             |
| Voice VLAN   | Yes, base | ed on either VLAN ID or 8   | 02.1p priority, packets are   | e passed onto the connecti     | ng VoIP phone using LLD | P-MED       |
| Auto-Video VLAN  |           |   | Ye  | es                             |                         |             |
| IEEE Network Protocols   |           |   |   |                                |                         |             |
| <ul> <li>IEEE 802.3 Ethernet</li> <li>IEEE 802.3u 100BASE-T</li> <li>IEEE 802.3ab 1000BASE-T</li> <li>IEEE 802.3af PoE</li> <li>IEEE 802.3at PoE+</li> <li>IEEE 802.3az Energy Efficient Ethernet (EEE)</li> <li>IEEE 802.3ad Trunking (LACP)</li> <li>IEEE 802.3z Gigabit Ethernet 1000BASE-SX/L</li> </ul> | x         | • IEEE 802.1p Class of S • IEEE 802.1D Spanning • IEEE 802.1s Multiple S • IEEE 802.1w Rapid Sp | gging<br>ith ANSI/TIA-1057 (LLDP-1<br>Service<br>g Tree (STP)<br>Spanning Tree (MSTP) | MED)                           |                         |             |
| Management, Monitoring & Troublesh   | ooting    |   |   |                                |                         |             |
| Cloud/Remote management  |           |   | Y€  | es                             |                         |             |
| Insight mobile app & Insight Cloud Portal management   |           |   | Ye  | es                             |                         |             |
| uPnP Discovery   |           |   | Ye  | es                             |                         |             |
| Lite Command-line Interface (CLI)  |           | Yes (Refer to I   | ite CLI Manual on NETGE   | EAR Support page of the sv     | vitch model)            |             |
| Networking monitoring  |           |   | Ye  | es                             |                         |             |
| Data/performance logs  |           |   | Ye  | es                             |                         |             |
| Centralized network configuration/policies (network-centric management)  |           |   | Ye  | es                             |                         |             |
| Device auto-join and configure (zero-touch provisioning)   |           |   | Ye  | es                             |                         |             |
| Multi-site, multi-network single pane-of-<br>glass view  |           |   | Ye  | es                             |                         |             |
| Multi-switch, multi-port concurrent configuration  |           |   | Ye  | es                             |                         |             |
| Network/global password (for all Insight<br>Managed devices on a network)  |           | Yes (per network  | :/subnet via NETGEAR Ins  | ight mobile app and Insigh     | nt Cloud portal)        |             |



| Management, Monitoring & Troubleshooting  | GS728TXv3                         | GS728TXPv3                                  | GS728TXUPv3                                 | GS752TXv3                           | GS752TXPv3                                   | GS752TXUPv3                                  |
|---|-----------------------------------|---|---|-------------------------------------|--|--|
| Password management   |                                   |   | Ye  | es                                  |  |  |
| Configurable management VLAN  |                                   |   | Ye  | es                                  |  |  |
| Admin access control via RADIUS and TACACS+   |                                   |   | Ye  | es                                  |  |  |
| IPv6 management   |                                   |   | Ye  | es                                  |  |  |
| SNTP client over UDP port 123   |                                   |   | Ye  | es                                  |  |  |
| SNMP v1/v2c   |                                   |   | Ye  | es                                  |  |  |
| SNMP v3 with multiple IP addresses  |                                   |   | Ye  | es                                  |  |  |
| RMON group 1,2,3,9  |                                   |   | Ye  | es                                  |  |  |
| Port mirroring  |                                   |   | Yes ingress                                 | and egress                          |  |  |
| Many-to-one port mirroring  | 28                                | 28  | 28  | 52                                  | 52   | 52   |
| Web browser-based graphical user interface (GUI)                                    |                                   |   | Ye  | es                                  |  |  |
| Dual software (firmware) image  |                                   |   | Ye  | es                                  |  |  |
| Cable test utility  |                                   |   | Ye  | es                                  |  |  |
| TLS/HTTPS Web-based access (version)  |                                   |   | Yes (v1.2                                   | and v1.3)                           |  |  |
| File transfers (uploads, downloads)   |                                   |   | TFTP /                                      | HTTP                                |  |  |
| HTTP upload/download (firmware)   | Yes                               |   |   |                                     |  |  |
| Syslog (RFC 3164)   |                                   |   | Ye  | es                                  |  |  |
| USB port for firmware and config upload/download                                    |                                   |   | Ye  | es                                  |  |  |
| LEDs  |                                   |   |   |                                     |  |  |
| Per port  |                                   |   | Speed, Link, Activity; or                   | r PoE in different mode             |  |  |
| Per device  |                                   |   | Power, Far                                  | n, PoE Max                          |  |  |
| Physical Specifications   |                                   |   |   |                                     |  |  |
| Dimensions  | 440x257x43mm<br>(17.3x10.1x1.7in) | 440 x 257 x 43 mm<br>(17.3 x 10.1 x 1.7 in) | 440 x 257 x 43 mm<br>(17.3 x 10.1 x 1.7 in) | 440×257×43 mm<br>(17.3×10.1×1.7 in) | 440 x 316 x 43.2mm<br>(17.3 x 12.4 x 1.7 in) | 440 x 316 x 43.2mn<br>(17.3 x 12.4 x 1.7 in) |
| Weight  | 3.08kg (6.79 lb)                  | 3.78kg (8.32lb)                             | 3.86kg (8.51lb)                             | 3.53kg (7.78 lb)                    | 5.03 kg (11.08 lb)                           | 4.79kg (10.56 lb)                            |
| Power Consumption (when all ports   | used, line-rate traffi            | c and max PoE)                              |   |                                     |  |  |
| Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)         |                                   | 231W  | 502W  |                                     | 436W   | 763W   |
| Max power without PoE (worst case, all ports used, line-rate traffic) (Watts)       | 26W                               | 29W   | 27W   | 43W                                 | 51W  | 47W  |
| Iddle power consumption (all ports link-<br>down standby) (Watts)                   | 8W                                | 20W   | 14W   | 16W                                 | 28W  | 24W  |
| Heat Dissipation (worst case, all ports used, full PoE, line-rate traffic) (BTU/hr) | 87.43 BTU/hr                      | 772.9 BTU/hr                                | 1711.38 BTU/hr                              | 146.19 BTU/hr                       | 1474.02 BTU/hr                               | 2600.13 BTU/hr                               |
| Energy Efficient Ethernet (EEE) IEEE<br>802.3az                                     |                                   |   | Yes (deactivat                              | ed by default)                      |  |  |
| Fan   | 1                                 | 2   | 2   | 2                                   | 2  | 2  |
|   |                                   |   |   |                                     |  |  |



# Gigabit Ethernet Switches with 4 SFP+ Ports

| Environmental Specifications   | GS728TXv3  | GS728TXPv3   | GS728TXUPv3  | GS752TXv3  | GS752TXPv3   | GS752TXUPv3  |
|--|--|--|--|--|--|--|
| Operating  |  |  |  |  |  |  |
| Operating Temperature  |  |  | 0° to 50°C (32                                       | 2° to 122°F)   |  |  |
| Humidity   |  | 91   | 0% maximum relative hum                              | idity (RH), non-condensing                           | 9  |  |
| 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                              | ımidity, non-condensing                              |  |  |
| Altitude   |  |  | 10,000 ft (3,000                                     | m) maximum   |  |  |
| Electromagnetic Emissions and Imm  | nunity   |  |  |  |  |  |
| Certifications   |  | CE   | , FCC Class A, RCM, ICES C                           | Class A, VCCI, KC, BSMI, UI                          | <b>CA</b>  |  |
| Safety   |  |  |  |  |  |  |
| Certifications   |  |  | CB, CE, CSA, F                                       | RCM, KC, BSMI  |  |  |
| Warranty and Support   |  |  |  |  |  |  |
| Hardware Limited Warranty  |  |  | Limited L  | ifetime*   |  |  |
| Technical Support via Phone and Email*   |  |  | 90 d   | ays  |  |  |
| Limited Lifetime* 24x7 Online Chat<br>Technical Support  |  |  | Limited L  | ifetime*   |  |  |
| Limited Lifetime* Next-Business-Day<br>(NBD)<br>Replacement  |  |  | Limited L  | ifetime*   |  |  |
| ProSUPPORT OnCall 24x7 Service<br>Packs**  | Category 1:  | Category 1:  | Category 2:  | Category 1:  | Category 1:  | Category 2:  |
| OnCall 24x7 extends the 90-day phone<br>and email warranty entitled technical sup-<br>port for standard and advanced features<br>to the length of the contract term. | PMB0311 (1 yr)<br>PMB0331 (3 yrs)<br>PMB0351 (5 yrs) | PMB0311 (1 yr)<br>PMB0331 (3 yrs)<br>PMB0351 (5 yrs) | PMB0312 (1 yr)<br>PMB0332 (3 yrs)<br>PMB0352 (5 yrs) | PMB0311 (1 yr)<br>PMB0331 (3 yrs)<br>PMB0351 (5 yrs) | PMB0311 (1 yr)<br>PMB0331 (3 yrs)<br>PMB0351 (5 yrs) | PMB0312 (1 yr)<br>PMB0332 (3 yrs)<br>PMB0352 (5 yrs) |
| Package Contents   |  |  |  |  |  |  |

Smart Switch

AC Power cord with C13 connector (localized to region of sale)

Brackets and screws for rack mounting  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$ 

Rubber footpads for tabletop installation

Rubber protection caps, which are already installed in the SFP sockets

Installation guide

All models





| Ordering Information |                                  |
|----------------------|----------------------------------|
| GS728TX              |                                  |
| GS728TX-300AUS       | Australia                        |
| GS728TX-300EUS       | Europe, including United Kingdom |
| GS728TX-300INS       | India                            |
| GS728TX-300JPS       | Japan                            |
| G\$728TX-300KO\$     | South Korea                      |
| GS728TX-300NAS       | North America, Latin America     |
| GS728TX-300PES       | Middle East                      |
| GS728TX-300PRS       | China                            |
| GS728TX-300TWS       | Taiwan                           |
| GS728TX-300UKS       | Hong Kong                        |
| GS728TXP             |                                  |
| GS728TXP-300AUS      | Australia                        |
| GS728TXP-300EUS      | Europe, including United Kingdom |
| GS728TXP-300INS      | India                            |
| GS728TXP-300JPS      | Japan                            |
| GS728TXP-300KOS      | South Korea                      |
| GS728TXP-300NAS      | North America, Latin America     |
| GS728TXP-300PES      | Middle East                      |
| GS728TXP-300PRS      | China                            |
| GS728TXP-300TWS      | Taiwan                           |
| GS728TXP-300UKS      | Hong Kong                        |
| GS728TXUP            |                                  |
| GS728TXUP-300AUS     | Australia                        |
| GS728TXUP-300EUS     | Europe, including United Kingdom |
| GS728TXUP-300INS     | India                            |
| GS728TXUP-300JPS     | Japan                            |
| GS728TXUP-300KOS     | South Korea                      |
| GS728TXUP-300NAS     | North America, Latin America     |
| GS728TXUP-300PES     | Middle East                      |
| GS728TXUP-300PRS     | China                            |
| GS728TXUP-300TWS     | Taiwan                           |
| GS728TXUP-300UKS     | Hong Kong                        |





| GS752TX          |                                  |
|------------------|----------------------------------|
| GS752TX-300AUS   | Australia                        |
| GS752TX-300EUS   | Europe, including United Kingdom |
| GS752TX-300INS   | India                            |
| GS752TX-300JPS   | Japan                            |
| GS752TX-300KOS   | South Korea                      |
| GS752TX-300NAS   | North America, Latin America     |
| GS752TX-300PES   | Middle East                      |
| GS752TX-300PRS   | China                            |
| GS752TX-300TWS   | Taiwan                           |
| GS752TX-300UKS   | Hong Kong                        |
| GS752TXP         |                                  |
| GS752TXP-300AUS  | Australia                        |
| GS752TXP-300EUS  | Europe, including United Kingdom |
| GS752TXP-300INS  | India                            |
| GS752TXP-300JPS  | Japan                            |
| GS752TXP-300KOS  | South Korea                      |
| GS752TXP-300NAS  | North America, Latin America     |
| GS752TXP-300PES  | Middle East                      |
| GS752TXP-300PRS  | China                            |
| GS752TXP-300TWS  | Taiwan                           |
| GS752TXP-300UKS  | Hong Kong                        |
| GS752TXUP        |                                  |
| GS752TXUP-300AUS | Australia                        |
| GS752TXUP-300EUS | Europe, including United Kingdom |
| GS752TXUP-300INS | India                            |
| GS752TXUP-300JPS | Japan                            |
| GS752TXUP-300KOS | South Korea                      |
| GS752TXUP-300NAS | North America, Latin America     |
| GS752TXUP-300PES | Middle East                      |
| GS752TXUP-300PRS | China                            |
| GS752TXUP-300TWS | Taiwan                           |
| GS752TXUP-300UKS | Hong Kong                        |
|                  |                                  |



# Gigabit Ethernet Switches with 4 SFP+ Ports

| Optional Modules, Software Licenses and Accessories |   |
|---|---|
| AGM731F   | SFP Transceiver 1000BASE-SX (Short range, multimode)            |
| AGM732F   | SFP Transceiver 1000BASE-LX (Long range, single mode)           |
| AGM734-10000S                                       | SFP Transceiver 1000BASE-T Copper RJ45 GBIC                     |
| AXM761  | SFP+ Transceiver 10GBASE-SR (Short range, multimode)            |
| AXM762  | SFP+ Transceiver 10GBASE-LR (Long range, single mode)           |
| AXM763  | SFP+ Transceiver 10GBASE-LRM (Long range, multimode)            |
| AXM764  | SFP+ Transceiver 10GBASE-LR Lite (Long range lite, single mode) |
| AXM765v2  | 10GBASE-T SFP+ RJ45 Transceiver (80m)                           |
| AXC761  | SFP+ DAC CABLE (1m)   |
| AXC763  | SFP+ DAC CABLE (3m)   |

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<sup>&#</sup>x27;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 at https://www.netgear.com/business/registration within 90 days of purchase; see https://www.netgear.com/about/warranty for details. Intended for indoor use only.

<sup>\*\*</sup>The NETGEAR OnCall 24x7 contract provides unlimited phone and email technical support for your networking product. For ProSAFE products purchased prior to 06/2014, also includes next-business-day hardware replacement.

<sup>†</sup>NETGEAR #1 in US Market Share according to NPD data for Unmanaged and Smart Switches, September 2019. NETGEAR #1 in Europe Market Share according to Context data for Unmanaged and Smart Switches, September 2019.