

Powerful Gigabit Smart Switches Supporting both Stacking and PoE



The ProSafe® Gigabit Stackable Smart PoE (Power over Ethernet) Switches are specifically designed for growing small and mid-sized businesses (SMB) with advanced network needs for the support of multiple “new-world” applications: Voice over IP (VoIP), a unified wired/wireless network, IP surveillance, converged video and data network and much more. It delivers the scalability, flexibility, reliability, and performance the SMB customers need in an affordable and easy-to-manage package.

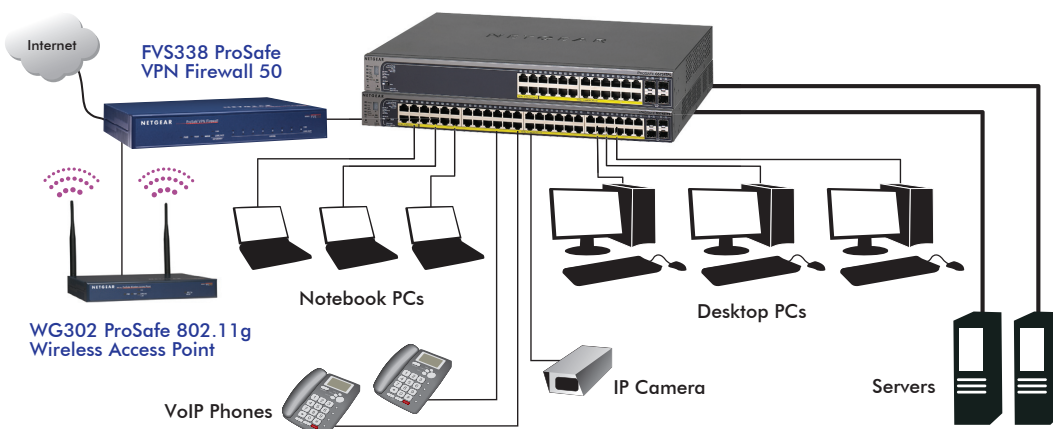
Each ProSafe Gigabit Stackable Smart PoE Switch comes with 24 or 48 10/100/1000 Mbps ports and four shared SFP ports. All ports support standards-based PoE and as a first in the industry, they also support IEEE 802.3at-based PoE+ on the first 4 ports of each switch, capable of providing up to 30W of power to higher-powered PoE devices such as dual-band N Wireless access points, videophones and IP cameras with pan/tilt/zoom capabilities. Coupled with auto-voice VLAN feature, the switch greatly reduces the complexity of VoIP deployment, and makes it easy for SMBs to implement and manage a VoIP system on their network.

The stacking feature on these switches provides the SMB with uncompromised performance, scalability and ease of network management. The only Gigabit Smart Stackable switches in the industry, they can be stacked through dedicated high-speed stacking ports (HDML-based) with an aggregate 20 Gbps bandwidth, ensuring that the traffic between the stacked switches won't be compromised. Customers can scale up to 6 switches in one stack, and all of them can be easily configured and managed as one switch. Businesses can add switches to the stack as their network expands without making a big upfront investment at the beginning. Meanwhile, the stack's redundancy and hot-swappable capability help boost network resiliency. Under the same Gigabit Stackable Smart Switch family, the GS724TPS and GS748TPS switches can be stacked together with GS724TS and GS748TS.

These switches come with a complete suite of advanced features such as access control lists (ACL), 802.1x port authentication, enhanced QoS, rate limiting and IGMP snooping, among others, to provide SMB businesses with more robust security, higher quality of service and high availability.

An intuitive, Web browser interface provides simple yet comprehensive management, making it extremely simple to deploy and manage the advanced features, in order to realize the potential of a converged network and deliver lower total cost of ownership.

GS724TPS 24-port Gigabit Stackable PoE Smart Switch
 GS748TPS 48-port Gigabit Stackable PoE Smart Switch



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1-year
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Scalability and High Availability

Each ProSafe Gigabit Stackable Smart PoE Switch comes with 2 dedicated high-speed stacking ports on the rear of the switch providing 20 Gbps of bandwidth, allowing you to stack up to six switches or 288 10/100/1000 Mbps ports – and easily manage them all with a single IP address.

This stacking technology also provides several high-availability features to ensure business continuity:

- **Resiliency:** Due to redundant stacking port connections, there is an automatic fail-over in case any switch in the stack fails, with rapid reconfiguration, thus preventing network downtime.
- **Hot-swappable:** All switches in the stack are hot-swappable, and can be integrated or removed without disrupting the network.

Full-featured, Flexible Power over Ethernet (PoE)

With a total power budget of 192 Watts for the GS724TPS and 384 Watts for the GS748TPS, customers can choose to connect up to 48 802.3af IP-based devices in their network. Power-over-Ethernet (PoE) helps you optimize the installation and power management of network devices such as wireless access points (AP), Voice over IP (VoIP) phones, and IP-based surveillance cameras, and free your network deployment from restrictions of power outlet proximity using a standard Cat 5 cable. In addition, as the first in the industry, the first 4 ports on GS724TPS and GS748TPS also support PoE+, the IEEE 802.3at-based technology, providing up to 30 Watts of power for your high-powered PoE devices such as videophones, RFID readers, access control systems, etc. To facilitate power management, the switches are equipped with auto power budgeting functions, thus allowing the users flexibility in power management. Users can allocate the power by priorities, monitor power consumption and get alerts when power usage reaches a threshold.

Advanced Security

These switches also provide advanced features that provide more robust security to SMBs. These include:

- 802.1x for authentication
- ACL filtering to permit or deny traffic based on MAC and/or IP addresses

Advanced Quality of Service (QoS)

Priority queuing ensures high-priority traffic gets delivered efficiently, even during congestion from high traffic bursts. Companies implementing network telephony or video conferencing, for example, need to be able to prioritize such voice and video traffic and other real-time applications over less latency-sensitive traffic to ensure reliability and quality. The ability to prioritize traffic ensures quality of latency-sensitive services and applications despite increasing traffic loads.

The ProSafe Gigabit Stackable Smart Switches provide an extensive set of QoS features:

- 802.1p-based prioritization
- Layer 3-based (DSCP) prioritization
- Rate-limiting

“Smart” Management Features

Manage all ProSafe Gigabit Stackable Smart Switches as though they were one unit from an easy-to-use Web console that can be used to configure all features, as well as monitor and troubleshoot. These switches also have SNMP (v1, 2 and 3) to collect and track data to monitor the network health, as well as manage devices, and more easily enforce critical IT controls and policies. SNMP v2c is most commonly deployed, as it provides better reporting capabilities than SNMP v1. Companies interested in more robust security may opt for SNMP v3, which provides data encryption.

All ProSafe Gigabit Stackable Smart Switches provide world-class reliability with a NETGEAR Lifetime Warranty and optional ProSupport Maintenance Packages. These switches are optimized for ProSafe Network Management Software (NMS100) and work with other SNMP-based management software.

Like all NETGEAR ProSafe Smart Switches, the GS724TPS and GS748TPS are backed by the NETGEAR ProSafe Lifetime Warranty[†], and 1-Year ProSupport 24x7 Advanced Technical Support*.

** Optional modules include AGM731F ProSafe® 1000BASE-SX SFP GBIC, AGM732F ProSafe® 1000BASE-LX SFP GBIC, AGM733 ProSafe® 1000BASE-ZX SFP GBIC

Technical Specifications

• Network Protocol and Standards Compatibility

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X
- IEEE 802.3x full-duplex flow control

• Interfaces

- GS724TPS: 24 10/100/1000 Mbps switching ports
- GS748TPS: 48 10/100/1000 Mbps switching ports
- 4 Built-in shared SFP Gigabit Ethernet fiber ports for 100/1000 Mbps connectivity
- 2 HDMI ports on the rear of the unit – used for stacking only
- Auto-sensing and auto-negotiating capabilities for all copper ports
- Auto Uplink™ on all ports to make the right connection

• Administrative Switch Management

- IEEE 8021.Q VLAN (128 groups, Static)
- IEEE 802.1p Class of Service (CoS)
- 4 hardware queues
- Port-based QoS
- IEEE 802.3ad Static or Dynamic Link Aggregation (LACP)
- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1w Rapid Spanning Tree Protocol
- IEEE 802.1s Multiple Spanning Tree Protocol
- SNMP v1, v2c, v3
- RFC 1213 MIB II
- RFC 1643 Ethernet Interface MIB
- RFC 1493 Bridge MIB
- RFC 2131 DHCP client
- IEEE 802.1x (RADIUS)
- RADIUS accounting
- Layer 3 (DSCP) Quality of Service (QoS)
- TACACS+
- TCP/UDP-based priority mapping
- IGMP snooping
- Port-based security by locked MAC addresses
- MAC and IP address ACL

- Storm control for broadcast, multicast and unknown unicast packets
- Port-based ingress/egress rate limiting
- STNP
- RMON group 1, 2, 3, 9
- Private Enterprise MIB
- Port mirroring – many-to-one
- IEEE 802.3ab LLDP
- LLDP-MED
- Protected ports
- Cable test
- Web-based configuration
- Configuration backup/restore
- Password access control
- Firmware upgradeable

• Performance Specifications

- Forwarding modes: Store-and-forward
- Bandwidth: 48 Gbps for GS724TPS, 96 Gbps for GS748TPS
- Stacking up to 6 switches or 288 ports per stack
- Stacking bandwidth: 20 Gbps
- Network latency: Less than 3 microseconds for 64-byte frames in store-and-forward mode for 1000 Mbps to 1000 Mbps transmission
- Buffer memory:
 - GS724TPS: 2 Mb
 - GS748TPS: 6 Mb
- Address database size: 8,000 media access control (MAC) addresses per system
- Addressing: 48-bit MAC address
- Mean time between failures (MTBF):
 - GS724TPS: 116,000 hours (~13 years) at 25° C
 - GS748TPS: 143,890 hours (~16 years) at 25° C

• LEDs

- Unit: Power, fan, stack master, stack ID, PoE max, LED mode
- Per port: Link, speed, activity, stack

• Power Supply

- Power consumption: 235W for GS724TPS, 530W for GS748TPS
- 100-240V AC/50-60 Hz universal input
- PoE Budget:
 - GS724TPS: 192 Watts
 - GS748TPS: 384 Watts

• Physical Specifications

- Dimensions: (h x w x d):
 - GS724TPS: 43 x 440 x 310 mm (1.7 x 17.32 x 12.2 in)
 - GS748TPS: 43 x 440 x 431 mm (1.7 x 17.32 x 17 in)
- Weight:
 - GS724TPS: 4.92 kg (10.824 lb)
 - GS748TPS: 7.284 kg (16.025 lb)

• Environmental Specifications

- Operating temperature: 32° to 122° F (0° to 50° C)
- Storage temperature: -4° to 158° F (-20° to 70° C)
- Operating humidity: 90% maximum relative humidity, non-condensing
- Storage humidity: 95% maximum relative humidity, non-condensing
- Operating altitude: 10,000 ft (3,000 m) maximum
- Storage altitude: 10,000 ft (3,000 m) maximum
- Acoustic noise:
 - GS724TPS: 46 dBA
 - GS748TPS: 43 dBA

• Electromagnetic Compliance

- CE mark, commercial
- FCC Part 15 Class A
- VCCI Class A
- EN 55022 (CISPR 22),
- EN 55024 (CISPR 24)
- C-Tick
- CCC

• Safety

- CE mark, commercial
- CUL 60950 (Listed)/EN 60950 (Low Voltage Directive)
- CB
- CCC

System Requirements

- Category 5 UTP Network cables or better
- Network card for each PC
- Network software (e.g., Windows®)

Warranty and Support

- ProSafe Lifetime Warranty†
- ProSupport 24x7 Advanced Technical Support, 1 year (included)*

ProSupport™ Service Packs Available

- XPressHW, Category 2: PRR0332 (3-year next-business day hardware replacement contract)
- OnCall 24x7, Category 2: PMB0332 (3-year Advanced Technical Support contract, including Remote Diagnostics performed by our technical experts for prompt resolution of technical issues, and next-business day hardware replacement)

Package Contents

- ProSafe 24 or 48-port Gigabit Smart Stackable PoE Switch (GS724TPS or GS748TPS)
- Rubber footpads
- Power cord
- One stacking cable
- HDMI stacking cable
- Rack-mount kit
- Resource CD installation guide
- Warranty/support information card

Modules

- AGM731F ProSafe 1000BASE-SX SFP GBIC: Module with LC connectors for 50um or 62.5um multi-mode fiber cable
- AGM732F ProSafe 1000BASE-LX SFP GBIC: Module with LC connectors for 9um single-mode fiber cable
- AGM733 ProSafe 1000BASE-ZX SFP GBIC: Module with LC connectors for 9um single-mode fiber cable

Ordering Information**• GS724TS**

- North America: GS724TPS-100NAS
- Europe: GS724TPS-100EUS
- Asia & Japan: GS724TPS-100AJS

• GS748TS

- North America: GS748TPS-100NAS
- Europe: GS748TPS-100EUS
- Asia & Japan: GS748TPS

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* 1-year 24x7 Advanced Technical Support includes Remote Diagnostics performed by our technical experts for prompt resolution of technical issues.

† Lifetime warranty for product purchased after 05/01/2007. For product purchased before 05/01/2007, warranty is 3 years.

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