NETGEAR® PROSAFE®

ProSafe® 52-port Gigabit Stackable Smart Switch
GS752TXS

Data Sheet

Industry's First Smart Switch with 10-Gigabit Connectivity

An ideal companion to the rapidly emerging class of 10-gigabit servers, the NETGEAR® ProSafe® 52-port Gigabit Stackable Smart Switch is the industry's first smart switch with 10-gigabit connectivity – delivering maximum throughput in SMB networks for demanding tasks such as data replication and backup, virtualization, video on demand and high-volume transaction processing. At less than half the cost of a managed switch, the ProSafe 52-Port Gigabit Smart Switch provides 48 gigabit ports for connecting devices to the network, along with four 10GE SFP+ ports for stacking or uplink to servers. As many as six switches can be stacked for a total of 288 network ports, with full redundancy for unsurpassed reliability. The GS752TXS offers a rich enterprise-class feature set, including advanced traffic management and security, yet can be easily configured and monitored through a web-based graphical user interface.

Enterprise-Class Features

With a rich set of Layer 2 management features, the GS752TXS is efficient, secure and ready for the future. Static routing allows for segmentation of the network, with internal routing through the switch – reserving the router for external traffic routing only, making the entire network more efficient. Dynamic VLAN assignment increases security by imposing consistent policy and user credentials across the network, regardless of where users connect. Support for MLD Snooping greatly increase network efficiency by forwarding multicast traffic to designated hosts only, rather than flooding multicast packets across all ports. The GS752TXS also comes with full IPv6 support, comprehensive security and advanced multicast management.

Scalability and Reliability

The GS752TXS is a scalable solution that grows with a business. Starting with a single switch, the stack can grow to six switches with a total of 288 network ports. Two out of the four 10-gigabit SFP+ ports on each switch can be used to create the stack, a single logical unit with up to 40 Gbps of stacking backplane that can be configured and managed as one switch – speeding up deployment while simplifying administration and maintenance. The stacked switches can be spread across multiple physical locations, by taking advantage of SFP+ fiber-optic connectivity, making the GS752TXS an ideal solution for remote and branch offices. All four 10GE ports can be used for network uplinks to servers and storage devices, or split with two ports for local or distant stacking and two ports for uplinks and link aggregation. Auto failover creates a safety net so that if one switch in the stack fails, all the other switches will be intact.

Flexible Management Options

As a "smart" switch, IT administrators can decide how to manage the GS752TXS. Individual switches can be managed through a simple browser-based graphical user interface. The GS752TXS can also be managed through SNMP software for compatibility with existing SNMP-based consoles. For larger networks, NETGEAR's Smart Control Center, is a free Windows-based application for discovering, configuring and upgrading multiple smart switches across the network. For networks including network devices from NETGEAR such as switches, wireless access points and NAS, the NETGEAR Network Management System (NMS-200) can help manage them all from a single console for extensive visibility, granular control and seamless automation across the entire network.

Like all NETGEAR ProSafe Smart Switches, the GS752TXS is backed by the NETGEAR ProSafe Lifetime Warranty†, and 1-Year ProSupport 24x7 Advanced Technical Support*.

24/7 TECHNICAL SUPPORT*

1-888-NETGEAR (638-4327)
Email: info@NETGEAR.com

NETGEAR Green

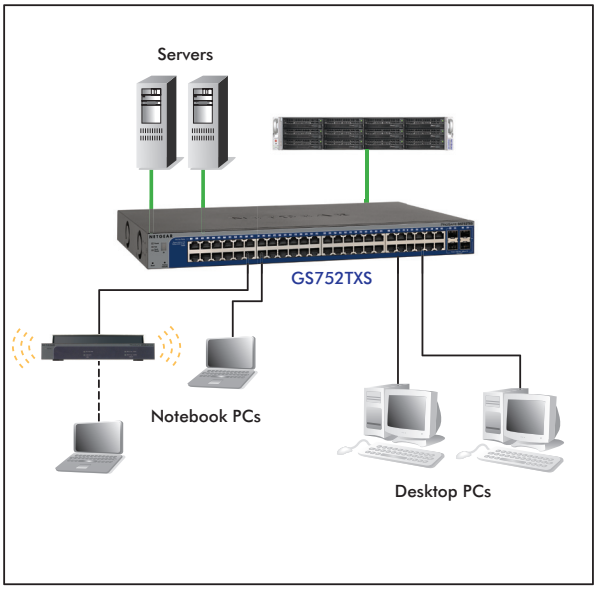
NETGEAR PROSAFE LIFETIME WARRANTY*

1-year Tech Support

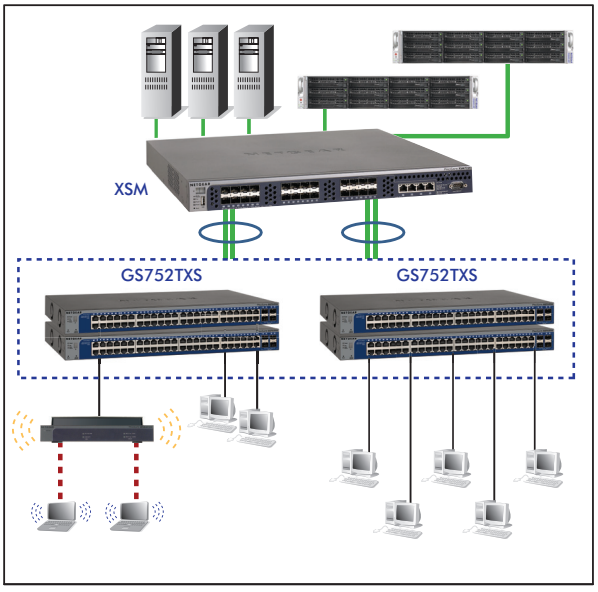
Features at a Glance

Hardware Main Features	Benefits
10-gigabit connectivity	• Fully exploits the power of 10GE servers • Supports high-bandwidth applications such as data backup and replication, virtualization, video on demand and high-volume transaction processing
Stack up to six switches	• Scalable switching that grows with the enterprise • Auto failover creates a safety net so that if one switch in the stack fails, all other switches will be intact
Four 10GE SFP+ stacking/uplink ports	• Up to 40 Gbps of stacking backplane • Fiber-optic connections allow stacked switches to be placed in multiple physical locations, supporting remote or branch offices
Software Main Features	**Benefits**
• Dynamic VLAN assignment	• Increases security by imposing consistent policy and user credentials across the network, regardless of where users connect
• MLD snooping	• Increases network efficiency by forwarding multicast traffic to designated hosts only, rather than flooding multicast packets across all ports
• Full support for IPv6	• Protects IT investment by future-proofing the network for the next generation of applications and extensions
• DHCP snooping	• Prevent access layer attacks such as DHCP server attacks, ARP man-in-the-middle attacks and IP/MAC spoofing attacks by using IP-to-MAC binding information
• Protected ports	• Increases security by isolating specific ports from communicating with other ports on the same switch • Prevents an attacker from scanning a system to gain valuable services and information
• NETGEAR Network Management System (NMS200)	• Extensive visibility, granular control and seamless automation across the network for a range of NETGEAR products including switches, wireless infrastructure and network-attached storage

Small Business Application



Mid-size Business Application



10GE link GE link Wireless link

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
- IEEE802.3aq (10GEBASE-LRM)
- IEEE802.3ae (10GEbase Ethernet)
- IEEE802.3az (EEE)

• Interfaces

- 48 10/100/1000 Mbps switching ports
- 4-10GEbps SFP+ slots (port 49~52) to support 10GEbps optical module and 1G optical module
  - Port 51 and port 52 can be used as the stacking ports or as uplink ports.
- Auto-sensing and auto-negotiating capabilities for all copper ports
- Auto Uplink™ on all ports to make the right connection

• Administrative Switch Management

- IEEE 802.1Q VLAN (256 groups, Static)
- IEEE 802.1p Class of Service (CoS)
- 8 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)
- IEEE 802.1x Dynamic VLAN Assignment
- HTTPS/SSL: Secure HTTP GUI
- RADIUS accounting
- Layer 3 (DSCP) Quality of Service (QoS)
- TACACS+
- Port-based security by locked MAC addresses
- TCP/UDP-based priority mapping
- GMP snooping v1, v2, v3
- MLD Snooping
- ACLs (MAC, IPv4, IPv6 and TCP/UDP based)
- Storm control for broadcast, multicast and unknown unicast packets
- Port-based ingress/egress rate limiting
- SNTP
- DNS
- DoS and Auto DoS prevention
- IPv6 management, multicast and QoS
- Static Routing
- DHCP Snooping
- Green Features: Lower power consumption during link-down or idle mode or with shorter cable length.
- Protocol and MAC based VLAN
- RMON group 1, 2, 3, 9
- Private Enterprise MIB
- Port mirroring – many-to-one
- IEEE 802.3ab LLDP
- LLDP-MED
- Protected ports
- Cable test
- Smart Control Center discovery
- Web-based configuration
- Configuration backup/restore
- Password access control
- Firmware upgradeable

• Performance Specifications

- Forwarding modes: Store-and-forward
- Bandwidth: 176 Gbps
- Stack up to 6 switches for 300 ports per stack
- Stacking bandwidth: 20 Gbps
- Network latency: Less than 20 microseconds for 64-byte frames in store-and-forward mode for 1000 Mbps to 1000 Mbps transmission
- Buffer memory: 2 MB
- 128Mbytes system DDR SDRAM (32Mbx16).
- 32Mbytes flash memory.
- Address database size: 16K media access control (MAC) addresses per system
- Addressing: 48-bit MAC address
- 256 VLANs; Maximum VLAN id is 4093
- 7 802.1p traffic classes
- 8 LAGs
- 32 static routes
- 15 routed VLANs
- 1024 ARP Cache entries
- 7 queues used for DiffServ
- 100 ACLs (IPv4/IPv6)
- 8K DHCP snooping binding
- 1024 DHCP static entries
- Mean time between failures (MTBF): – 256,119 hours (~29.3 years) at 25 °C – 90,993 hours (~10.3 years) at 55 °C

• LEDs

- Unit: Power, master, stack ID, FAN
- Per port: Link, speed, activity

• Power Supply

- Max Power consumption: 77W
- 100-240V AC/50-60 Hz universal input

• Physical Specifications

- Dimensions: (h x w x d): 43 x 440 x 257 mm (1.69 x 17.32 x 10.13 in)
- Weight: 4.50 kg (9.92 lb)

• Environmental Specifications

- Operating temperature: 32° to 104° F (0° to 50° C)
- Storage temperature: -4° to 158° F (-20° to 70° C)
- Operating humidity: 95% 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

• Electromagnetic Compliance

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

• Safety

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

System Requirements

- Category 5 UTP Network cables or better
- Network card for each PC
- Network software (e.g., Windows7)

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® 52-Port Gigabit Stackable Smart Switch with 10GE uplinks
- Rubber footpads
- Power cord
- Rack-mount kit
- Resource CD installation guide
- Warranty/support information card

Modules

- AXM761 ProSafe 10GEBASE-SR SFP+ GBIC
- AXM762 ProSafe 10GEBASE-LR SFP+ GBIC
- AXM763 ProSafe 10GEBASE-LRM SFP+ GBIC
- AXC761 1m Direct Attach SFP+ Cable
- 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

Ordering Information

- North America: GS752TXS-100NAS
- Europe: GS752TXS -100EUS
- Asia/Japan: GS752TXS -100AJS

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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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