NETGEAR®
PROSAFE®

ProSafe® 24-port, and 48-port
Gigabit L3 Managed Stackable Switches
GSM7328Sv2, GSM7352Sv2

Data Sheet

Flexible, Stackable, Enterprise-class High-speed Switching!

NETGEAR's low-cost, stackable, Gigabit Ethernet switches deliver maximum throughput and flexibility where you need it — to high-speed, high-density workgroups at the edge of the network, in the backbone of growing networks or for bandwidth-thirsty file and application servers. The ProSafe GSM7328S and GSM7352S fully-managed switches deliver 24 and 48 ports of auto-sensing 10/100/1000 Mbps interfaces for high-density copper connectivity. Four hot-swappable small form-factor pluggable (SFP) Gigabit interfaces provide optional fiber connectivity for longer reach Gigabit Ethernet requirements. All switches have two 10 Gigabit Ethernet small form-factor pluggable (SFP+) interfaces and two high-speed, module bays offering modular expansion for 10 Gigabit Ethernet or 48 Gigabit Stacking connectivity. The non-blocking design of the switches delivers simultaneous, full wire-speed, low-latency throughput to all ports.

A full suite of Layer 3 switching functionality ensures reliable routing between VLANs and network segmentation where and when you need it, at no additional cost. By configuring the switches into a stack of up to 8 units across a 48 Gbps bi-directional ring, a high-density, single IP-addressable switch can be built.

Robust security features include IEEE 802.1x port-based authentication and access control lists, ensuring that only authorized users can access your network. Secure management of the switches is available through Secure Sockets Layer (SSLv3) for the Web GUI and Secured Shell (SSH) for command-line sessions or with SNMP v3 for network management software. For workgroup deployments in cost-sensitive organizations that require Layer 3 switching, additional Gigabit capacity, high-value price point, flexibility of stacking, and reduced maintenance requirements, NETGEAR's ProSafe Gigabit Layer 3 Stackable switches deliver the ideal access-edge solution.

With their high-value price point, flexible design, and reduced maintenance requirements, NETGEAR's ProSafe Gigabit Layer 3 Stackable switch solutions yield a high return on investment, and are ideal for delivering highly reliable, converged voice, video, and data services over a single network infrastructure.

Powerful

In desktop switching environments, wire-speed performance with full QoS control for all 10/100/1000 interfaces is critical. The 2 built-in 10 GE SFP+ slots and the 2 module bays for 10 GE or 48 Gigabit stacking connectivity provide unprecedented performance, whether you are stacking between switches, attaching servers or aggregating data to the core.

Easy to Use

Simplify and reduce IT staff workload and mean time-to-repair with intuitive, GUI-based device configuration, and an industry-standard command-line interface (CLI). The EZ-Config tool simplifies initial configuration steps to streamline the out-of-box set-up. For easy tracking of port usage, use the text-based port description to label how ports are used.
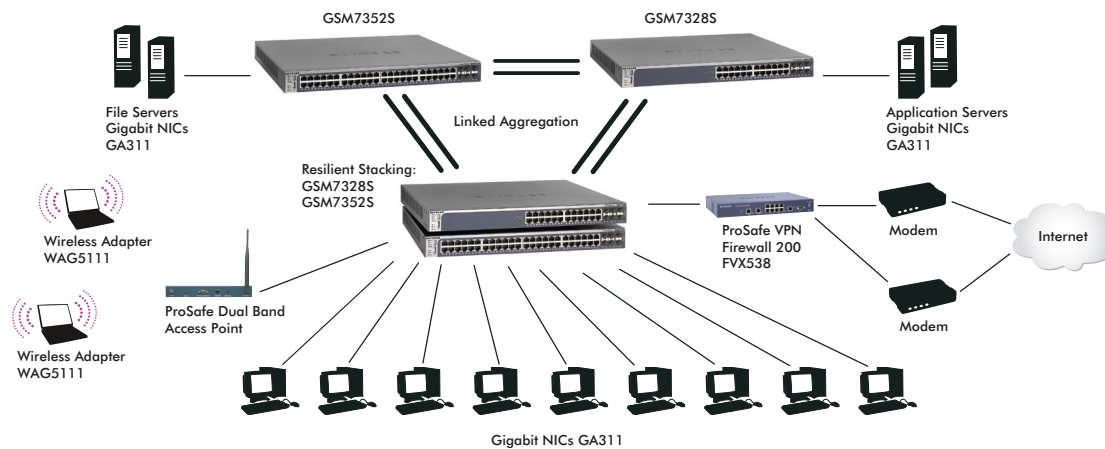
Flexible Stacking

Stacking capabilities allow you to build a single-IP unique logical device with up to eight switches utilizing intelligent bi-directional redundant stacking links. Stacking is flexible, it can either be via AX742 kit (48 Gigabit stacking short connectivity) or longer reach 10 GE fiber uplinks.

Non-stop Service

The new rev 2 hardware now comes with a removable power module as the switch's main power supply. In the event of a power supply failure, the switch will change to use the external RPS device for power, and the internal power module can be replaced without an RMA of the entire switch. This will avoid the problem of service disruption or down time due to power supply failure.

24/7
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WAG5111

Resilient Stacking:
GSM7328S
GSM7352S

ProSafe VPN
Firewall 200
FVX538

Modem

Internet

Wireless Adapter
WAG5111

ProSafe Dual Band
Access Point

Modem

Gigabit NICs GA311

Technical Specifications

• Physical Interfaces
– 24 or 48 RJ45 10/100/1000 ports with Auto-Uplink™
– 4 shared SFP ports for fiber Gigabit interfaces
– 2 built-in 10 Gigabit SFP+ ports
– 2 optional 10 Gigabit module bays
– RS-232 console
– USB port‡

• Layer 2 Services
– IEEE 802.1Q Static VLAN (Up to 4k VLAN ID)
– IEEE 802.1p Class of Service (CoS)
– IEEE 802.1D Spanning Tree Protocol
– IEEE 802.1v Protocol VLAN & Port VLAN
– Voice VLAN
– Guest VLAN
– IP subnet VLAN
– MAC-based VLAN
– IEEE 802.1 Q-in-Q
– IEEE 802.1w Rapid Spanning Tree
– IEEE 802.1s Multiple Spanning Tree
– IEEE 802.3ad Link Aggregation (Static or LACP) up to 48 trunks
– IEEE 802.1x Port Access Authentication
– IGMP v1, v2, v3 snooping support
– IGMP querier
– Network storm protection including broadcast, multicast and unicast traffic
– Static multicast filtering
– Port locking
– Ingress rate limit in 1 Kbps increments
– GARP/GVRP/GMRP
– DHCP snooping
– IP source guard
– Dynamic ARP inspection
– TACACS+
– LLDP
– LLDP-MED

– ISDP
– sFlow
– DoS
– Private group
– Protected port
– DHCP L2 relay
– MLD v1, v2 snooping‡

• Layer 3 Services
– VLAN routing
– Port routing
– RIP v1/v2 (RFC 1058, 2453)
– OSPF v2/v3 (RFC 1583, 2328)
– OSPF equal-cost multi-path (4 - ECMP routes)
– VRRP (RFC 2338, 2787) 64 instances
– Access control lists (ACL) - MAC, IP, TCP
– ACLs – 1,024 Global
– ACL over VLAN
– Dynamic ACL
– COS
– DiffServ QoS (RFC 2998)
– DNS Caching
– DHCP/BOOTP relay -primary and backup (RFC 3046, option 82)
– ICMP throttling
– DHCP v4/v6 server
– Captive portal
– Auto VoIP
– IP Helper
– PIM-DM (RFC 3973)‡
– PIM-SM (RFC 4601)‡
– IGMP v2,v3‡
– IGMP proxy‡
– DVMRP (RFC 1075)‡
– IPv6 unicast routing‡
– Neighbor discovery‡
– IPv6 tunnel‡
– OSFPv3 (RFC 2740)‡
– IPv6 PIM-SM‡
– IPv6 PIM-DM‡
– MLD (RFC 2710)‡
– MLD proxy‡
– DNSv6 (RFC 4472)‡

• Switch Management Specifications
– SNMP v1, v2c, v3 with multiple IP addresses
– RFC 1157, 1901-1910, 2574, 2575
– RFC 768 UDP
– UDP Relay
– RFC 854-859 telnet
– RFC 951 BOOTP
– RFC 1213 MIB II
– RFC 1757 RMON groups 1,2,3, and 9
– RFC 1215 SNMP traps
– RFC 1493 Bridge MIB
– RFC 1643 Ethernet Interface MIB
– RFC 1534 DHCP and BOOTP interoperation
– RFC 2131, 2132 DHCP and BOOTP
– RFC 2865 RADIUS (both switch and management access)
– RFC 2866 RADIUS accounting
– RFC 3580 VLAN assignment via RADIUS (Dynamic VLAN)
– Private enterprise MIB
– Port mirroring support
– Flow-based mirroring
– RFC 2030 Simple Network Time Protocol (SNTP)
– RFC 1027 Proxy ARP
– SYSLOG
– TFTP, SFTP, HTTP, SCP, or local USB flash firmware upgrade
– RFC 1519 CIDR
– Proxy ARP
– DNS lookup
– Port description
– Auto install
– IPv6 management
– Dual image‡

• Single IP Address Management (firmware version 7.3 or higher)
– Manage up to 48 fully managed switches
– Feature can be used with the following models:
  - FSM726E, FSM7226RS, FSM7250RS
  - FSM7328S, FSM7352S, FSM7328PS, FSM7352PS
  - GSM7224R, GSM7248R
  - GSM7328S, GSM7352S

**The features listed assume the switch is running 8.0 release or newer.
***IPv6 routing and IP multicast routing is available for v1 hardware with software license upgrade.
‡ v2 only

• Performance Specifications
– Forwarding modes: Store-and-forward
– GSM7328S: 144 Gbps; 107.1 Mpps
– GSM7352S: 192 Gbps; 285.7 Mpps
– Switch latency: < 6 us for 64-byte frames (10 G to 10 G)
  < 2 us for 64-byte frames (1 G to 1 G)
– System memory: 256 MB
– Packet buffer memory: 786 KB
– Code storage (flash): 32 MB
– Address database size: 8 K media access control (MAC) addresses
– Number of VLANs: 4 k
– Number of multicast groups: 1024
– Number of trunks: 64
– Number of queues: 8
– Number of routes: 480
– Jumbo frame support: up to 9 K packet size
– Acoustic noise:
  GSM7328S 44 dB
  GSM7352S 44 dB
– Heat dissipation:
  GSM7328S 260.49 BTU/hr
  GSM7352S 389.20 BTU/hr
– Mean time between failures (MTBF):
  GSM7328S: 211,069.9 hours (~24.1 years) at 25° C
  GSM7352S: 169,522.96 hours (~19.4 years) at 25° C
  GSM7328Sv2: 98,705.41hours (~11.3 years) at 55° C
  GSM7352Sv2: 83,550.17 hours (~9.5 years) at 55° C

• User Interfaces
– Command Line Interface (CLI) via console port
– Web-based management via embedded HTTP server protected with Secured Sockets Layer
– (SSLv3) or Transport Layer Security (TLS v1)
– Telnet remote login (5 sessions) securable with Secured Shell (SSH v1.5, v2)

• LEDs
– Per port: Speed, link, activity
– Per device: Power, fan status, stack ID, RPS, master

• Network Standards Compatibility
– IEEE 802.3i 10BASE-T
– IEEE 802.3u 100BASE-TX
– IEEE 802.3u 100BASE-FX*
– IEEE 802.3ab 1000BASE-T
– IEEE 802.3z 1000BASE-X
– IEEE 802.3x Flow Control
– IEEE 802.3ae 10000BASE-X
  *Tested with Fiberxon SFP Modules

• Physical Specifications
– Dimensions (w x d x h):
  440 x 391 x 43 mm
  (17.3 x 15.4 x 1.7 in)
– Weight:
  GSM7328Sv2: 6.3 kg (13.89 lb)
  GSM7352Sv2: 6.8 kg (14.99 lb)

• Environmental Specifications
– Operating temperature:
  GSM7328S/GSM7352S:
  0° to 50° C (32 to 122° F)
  Thermal sensor with SNMP trap settings
– Storage temperature: -20° to 70° C (-4 to 158° F)
– Operating humidity: 90% maximum relative humidity, non-condensing
– Storage humidity: 95% maximum relative humidity, non-condensing
– Operating altitude: 3,000 m (10,000 ft) maximum
– Storage altitude: 3,000 m (10,000 ft) maximum

• Electrical Specifications
– Power Consumption:
  -GSM7328S 65.64W maximum
  -GSM7352S 91.8W maximum

• Electromagnetic Emissions
– CE mark
– EN 55022 Class A - Emissions
– EN 55024 - Immunity
– FCC Part 15 Class A
– VCCI Class A
– C-Tick

• Electromagnetic Safety
– CE mark
– EN 60950-1
– UL/cUL 60950-1
– CB
– CCC

Warranty
– NETGEAR Lifetime Warranty†

GBICs
– AGM731F (SFP 1000BASE-SX LC)
– AGM732F (SFP 1000BASE-LX LC)
– AXM761 (SFP+ 10GBASE-SR LC)
– AXM762 (SFP+ 10GBASE-LR LC)
– AXM751 (XFP 10GBASE-SR LC)
– AXM752 (XFP 10GBASE-LR LC)

Modules
– AX742 (24 Gigabit Stacking Kit, comes with 2 modules and one stacking cable)
– AX741 (10 Gigabit XFP adapter module)
– AX743 (10 Gigabit SFP+ adapter module)
– APS135W (Extractable power module)‡

Package Contents
– ProSafe Gigabit L3 Managed Switch (GSM7328Sv2 or GSM7352Sv2)
– Null modem cable
– Rubber footpads
– Power cable
– Rack-mount kit
– Installation guide
– Resource CD-ROM
– Warranty/support information card

Ordering Information
• North America
– GSM7328S-200NAS
– GSM7352S-200NAS

• Europe
– GSM7328S-200EUS
– GSM7352S-200EUS

• Asia
– GSM7328S-200AJS
– GSM7352S-200AJS

ProSupport Service Packs Available
GSM7328S
• OnCall 24x7, Category 3
– PMB0333
• XPressHW, Category 3
– PRR0333-100
GSM7352S
• OnCall 24x7, Category 4
– PMB0334
• XPressHW, Category 4
– PRR0334-100

‡ v2 only