

### High-speed, Layer 3 Managed Gigabit Switching



Now you can enjoy full Layer 3, Gigabit functionality at an affordable price. The NETGEAR Managed Gigabit Switches provides maximum throughput and flexibility for demanding networks, with all the Layer 3 features you expect. These 10/100/1000 switches addresses today's high-performance requirements, while providing the control you need — and the future-proofing you want. The GSM7312 and GSM7324 are ideal as a backbone for 10/100 switches, Gigabit servers, or as the robust core of a demanding, all-Gigabit network.

The GSM7312 and GSM7324 can be used to inexpensively off-load routers that are segmenting your network and lay the groundwork for new IP-based services. Layer 3 routing combined with L2/L3/L4 Quality of Service, bandwidth provisioning and access control features enable Voice over IP (VoIP) telephony, video conferencing, and other cost-saving applications.

The GSM7312 and GSM7324 Layer 3 Managed Gigabit Switches provides both Layer 2 and Layer 3 managed switching functionality. Their high-performance design offers a comprehensive set of features:

- Routing: IPv4 routing at wire speed, with up to 512 routes per unit; VRRP (IP redundancy), ICMP, RIP I and RIP II, OSPF, and DHCP/BOOTP relay
- Switching: Port trunking, broadcast storm protection, extensive VLAN support, IGMP snooping, Rapid Spanning Tree, and link aggregation
- Quality of Service: DiffServ, access control lists, and bandwidth provisioning using L2, L3, and L4 information.

Very affordable, the GSM7312 and GSM7324 provide the connection flexibility of 12 or 24 Copper Gigabit ports, or up to 12 small form-factor pluggable (SFP) modules, sold separately.

#### Robust

The GSM7312 and GSM7324 provide powerful, non-blocking data routing and forwarding via 12 or 24 Gigabit Ethernet ports. All ports have copper Gigabit Ethernet, with each port offering optional hot-swappable SFP GBIC slots, for fiber connections.

#### Easier Network Management

The GSM7312 and GSM7324 are simple to set up and use, with an intuitive browser interface for easy configuration. Choose from two management interface options – an easy-to-follow, browser-based interface, and a command line interface, available through console or telnet. Configuration files can be loaded and saved using TFTP, reducing the need for on-site administration.

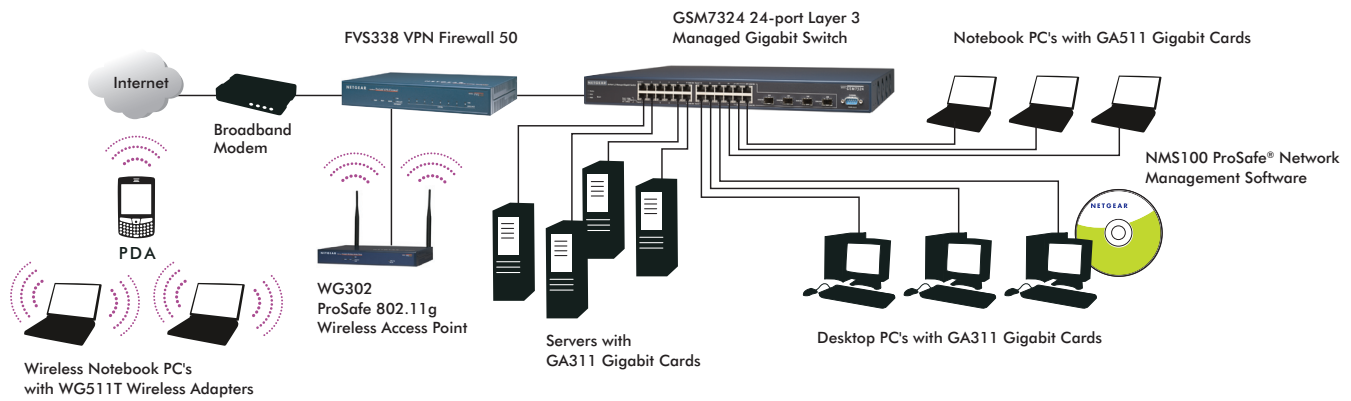
#### Versatile

A comprehensive set of Layer 3 features provides strong functionality in any network. For example, RIP routing for smaller networks and OSPFv2 routing for larger, more complex networks. The GSM7312 and GSM7324 helps maximize your network capabilities — and your return on investment.

#### Cost-effective

These switches are also competitively priced to boost your network throughput without blowing your budget. Designed in a 1U form factor, this complete package comes equipped with a rack-mounting kit, terminal cable, and power cord.





## Technical Specifications

### • Network Protocol and Standards Compatibility

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX
- IEEE 802.3z 1000BASE-SX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3x flow control
- IEEE 802.3ad (LACP)
- IEEE 802.1v Protocol VLAN & Port VLAN
- IEEE 802.1w Rapid Spanning Tree
- IEEE 802.3s Multiple Spanning Tree
- IEEE 802.1x port-based security

### • Management Specifications

- IEEE 802.1Q static VLAN
- IEEE 802.1p Class of Service (CoS)
- IEEE 802.1D Spanning Tree Protocol
- RFC 768 UDP
- RFC 854-859 telnet
- RFC 1058 RIP
- IGMP snooping support
- Port mirroring support
- RFC 1157 SNMP
- RFC 1757 RMON groups 1,2,3, and 9
- RFC 1534 DHCP and BootP interoperation
- RFC 1583 OSPF v2
- RFC 2131, 2132 DHCP and BootP
- RFC 2236 IGMP v2
- RFC 2328 OSPF v2
- RFC 2338, 2787 VRRP
- RFC 2453 RIP v2
- RFC 2998 DiffServ
- Private Enterprise MIB
- Broadcast storm protection

### • System Parameters

- Number of VLANs: 228
- Maximum VLAN ID: 4069
- Number of 802.1p traffic classes: 8
- Number of trunks: 6
- Dynamic routes: 512
- Number of routed VLANs: 128
- Access Control Lists (ACL): MAC, IP
- ACLs: 100 entries - 8 rules per ACL
- Number of queues used for DiffServ: 8

### • User Interfaces

- Command Line Interface (CLI)
- Web-based management via web browser
- Telnet remote login

### • Physical Interfaces

#### GSM7312:

- 12 RJ-45 connectors for 10BASE-T, 100BASE-TX, and 1000BASE-T (Auto Uplink™ on all ports)
- 12 small form-factor pluggable (SFP) slots for fiber SFP GBIC modules
- RS-232 console port

#### GSM7324:

- 24 RJ-45 connectors for 10BASE-T, 100BASE-TX, and 1000BASE-T (Auto Uplink™ on all ports)
- 4 small form-factor pluggable (SFP) slots for fiber SFP GBIC modules
- RS-232 console port

### • LEDs

- Per port: Speed, link, activity
- Per device: Power, fan status

### • Performance Specifications

- Forwarding modes: Store-and-forward
- Bandwidth:
  - GSM7312: 24 Gbps; 35.7 Mpps
  - GSM7324: 48 Gbps; 71.4 Mpps
- Switch latency: < 20 μs for 64-byte frames
- System memory: 128 MB
- Packet buffer memory (embedded memory per port):
  - GSM7312 - 122 KB
  - GSM7324 - 2 MB
- Code storage (flash): 16 MB
- Addressing: 48-bit MAC address
- Acoustic noise: (ANSI-S10.12) 60 dB
- Heat dissipation:
  - GSM7324: 276.53 BTU/hr
  - GSM7312: 175.82 BTU/hr
- Mean time between failures (MTBF): 166,600 hours (~ 19 years)
- MAC addresses: 16,128

### • Physical Specifications

- GSM7132 Dimensions (w x d x h): 440 x 258 x 43 mm (17.32 x 10.16 x 1.7 in) Weight: 3.97 kg (8.75 lb)
- GSM7324 Dimensions (w x d x h): 440 x 385 x 43 mm (17.32 x 15.16 x 1.7 in) Weight: 5.5 kg (12 lb)

#### • Environmental Specifications

- Operating temperature: 0° to 40° C (32° to 104° F)
- 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

#### • Power Consumption

- GSM7324 max power consumption = 81W AC
- GSM7312 max power consumption = 51.3W AC

#### • Safety

- CE mark, commercial
- CSA certified (CSA 22.2 #950)
- TUV licensed (EN 60950)
- UL listed (UL 1950)/CUL
- IEC 950/EN 60950

#### • Electromagnetic Emissions

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

#### • Electromagnetic Immunity

- EN 50082-1
- EN 55024

#### Warranty

- NETGEAR Lifetime Warranty†

#### Modules

- ProSafe AGM731F 1000BASE-SX SFP GBIC
- ProSafe AGM732F 1000BASE-LX SFP GBIC
- ProSafe AGM733 1000BASE-ZX SFP GBICz

#### Package Contents

- Managed Gigabit Switch (GSM7312 or GSM7324)
- Null modem cable
- Rack-mount kit
- Installation guide
- Resource CD
- Warranty/support information card

#### Ordering Information

- GSM7312:
  - North America: GSM7312NA
  - Europe: GSM7312EU
  - Asia: GSM7312AU
  - Japan: GSM7312JP
- GSM7324:
  - North America: GSM7324NA
  - Europe: GSM7324EU
  - Asia: GSM7324AU
  - Japan: GSM7324JP

#### ProSupport Service Packs Available

##### GSM7312

- **OnCall 24x7, Category 2**
  - PMB0332
- **XPressHW, Category 2**
  - PRR0332-100

##### GSM7324

- **OnCall 24x7, Category 3**
  - PMB0333
- **XPressHW, Category 3**
  - PRR0333-100

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\*Free basic installation support provided for 90 days from date of purchase. Advanced product features and configurations are not included in free basic installation support; optional premium support available.

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

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