

**Up to 48 Switches Can Be Managed Via a Single IP Address!**

NETGEAR delivers wirespeed Gigabit performance and a full set of Layer 2 management features, as well as static routing with unsurpassed affordability. This next-generation, high-speed switch delivers maximum throughput where you need it — to high-performance workgroups at the edge of the network, or as a backbone for Fast Ethernet switches and high-speed servers in demanding small networks. The non-blocking design offers full Gigabit throughput simultaneously to all 24 or 48 10/100/1000 ports to ensure reliable performance. Flexible fiber connectivity is enabled through four combination small form-factor pluggable (SFP)\*\* gigabit interfaces. Layer 2 management functionality delivers reliability, control, and availability. Static routing enables inter-VLAN routing and provides a faster network and more effective bandwidth management. Access control lists (L2-L4) provide robust security, while L2-L4 based QoS provides enhanced traffic management capabilities. The cost-effective NETGEAR ProSafe 24- and 48-port Gigabit L2 Managed Switch creates a more productive — and future-proof — network. With increasing bandwidth requirements from applications such as voice, video, database management, and other services that slow throughput and response time, you can unleash your network and enable maximum productivity with Gigabit Ethernet for today's high-performance environments.

Multiple NETGEAR fully managed switches can be managed via a single IP address. Optimize bandwidth, security, and control with full Layer 2 management capabilities. Network administrators can use any combination of these features to ensure uptime, availability, bandwidth and throughput.

**Powerful**

Full 24 or 48 10/100/1000 ports and a non-blocking design provide wire speed throughput and maximum bandwidth for the most demanding network environments. Small form-factor pluggable (SFP) modules deliver choice in 1000BASE-SX, 1000BASE-LX or 1000BASE-ZX (70Km) optics. The Layer 2 management features optimize bandwidth throughout the network — delivering Gigabit performance to systems, applications, and services. Take advantage of forwarding rates up to 71.4 million pps, and a switching capacity of 96 Gbps.

**Easy to Use**

Move up to Gigabit power in minutes. Use either of these solutions as a managed switch out of the box — just plug and play! All ports are auto-negotiating and support Auto Uplink™ technology. Choose from two easy-to-use management interface options — Web interface or a command line interface available through console or telnet. Comprehensive remote administration capabilities reduce the need for on-site administration. Easy to troubleshoot — built-in testing capability locates cable-related network problems. Additionally, up to 48 switches can be managed via a single IP address using the Web GUI interface.

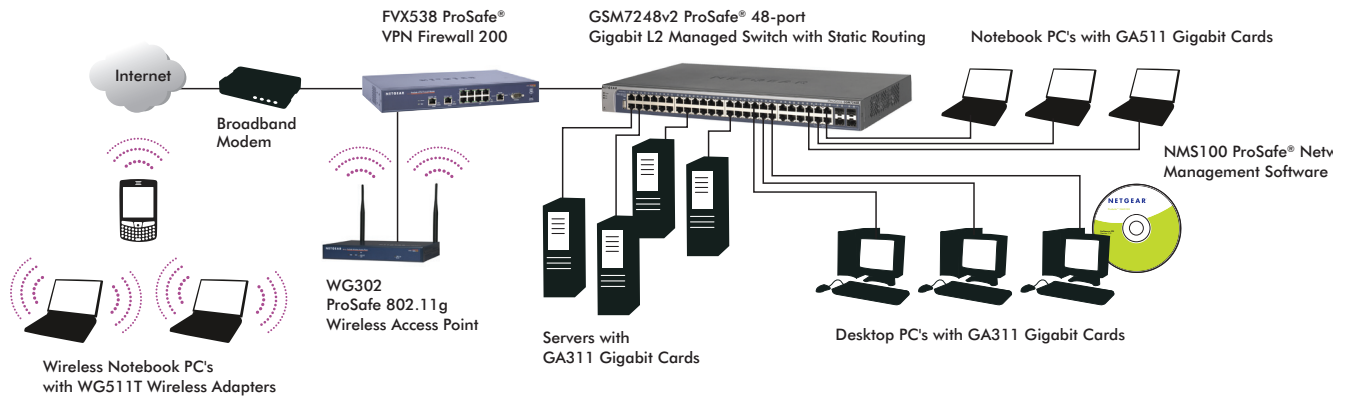
**Manageable**

Meet your management needs with SNMP (v1, v2c and v3), RMON, Command Line Interface (CLI) and completely redesigned Web-based GUI, ProSafe Control Center. Advanced features include up to 512 VLANs, DiffServ traffic prioritization and 802.1p (QoS) for Voice over IP services (VoIP), broadcast storm protection, RADIUS, 802.1x, port trunking, Rapid Spanning Tree, and link aggregation. In addition, L2-L4 based ACLs provide robust security, while static routing enables inter-VLAN routing for effective bandwidth management. Full Layer 2 implementation allows you to configure your network for maximum performance, reliability, and availability. Manageable with any popular SNMP-based management software, but optimized for NETGEAR ProSafe Network Management Software NMS100.

**Outstanding**

These products offer Layer 2 management and full Gigabit power at a compelling price. Use at the edge to improve workgroup connections, or at the core to upgrade a Gigabit Ethernet backbone — now you can afford the power your network deserves. Like all NETGEAR products, everything you need is in the box — including rack-mount kit, power and serial cables, and more.





## Technical Specifications

### • Physical Interfaces

- RJ-45 Connectors for 10BASE-T, 100BASE-TX, and 1000BASE-T (Auto Uplink™ on all ports):  
**GSM7224v2 24 ports**  
**GSM7248v2 48 ports**
- Small form-factor pluggable (SFP) modules for fiber Gigabit Ethernet interfaces:  
**GSM7224v2 4 slots**  
**GSM7248v2 4 slots**
- RS-232 console port

### • Layer 2 Services

- IEEE 802.1Q static VLAN (1024)
- IEEE 802.1p Class of Service (CoS)
- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1v Protocol VLAN & Port VLAN and MAC-based VLAN
- Voice VLAN
- Guest VLAN
- IP subnet-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 (LACP)
- IEEE 802.1x port access authentication
- IGMP v1, v2, v3 snooping support
- IGMP querier
- Static multicast filtering
- Ingress rate limit in 1 Kbps increments
- Weighted round robin (WRR) queue technology
- MLD v1, v2 snooping

### • Layer 3 Services

- Static routing
- ARP

### • Security

- Access Control Lists (ACL) - MAC, IP, TCP
- ACLs: L2/L3/L4
- Network storm protection including broadcast multicast and unicast traffic
- Protected ports
- MAC filtering
- Private group
- CoS
- Diffserv QoS (RFC 2998)
- IEEE 802.1x port access authentication
- Port security
- DoS
- DHCP snooping
- IP Source Guard
- Dynamic ARP inspection
- RADIUS (RFC 2865)
- RADIUS accounting (RFC 2866)
- TACACS+

### • Switch Management Specifications

- SNMP v1, v2c, v3 with multiple IP addresses
- RFC 1157, 1902-1907
- 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
- Private Enterprise MIB
- Port mirroring support (many-to-one)

- DHCP/BOOTP relay-primary and backup (RFC 3046, option 82)
- RFC 2030 Simple Network Time Protocol (SNTP)
- DHCP server
- DHCP L2 relay
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
- DHCP relay (with backup servers)
- GARP/GVRP/GMRP
- SYSLOG
- TFTP, SFTP, HTTP, SCP, or local USB flash firmware upgrade
- Port description
- RFC 1519 CIDR
- Proxy ARP
- DNS lookup

### • 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, GSM7328FS, GSM7352S
  - FSM726v3
  - GSM7224v2
  - GSM7248v2

### • Performance Specifications

- Forwarding modes: Store-and-forward
- Bandwidth:
  - GSM7224v2: 48 Gbps; 35.7 Mpps
  - GSM7248v2: 96 Gbps; 71.4 Mpps
- Switch latency: 20 us for 64-byte frames (1 G to 1 G)

- System memory: 128 MB
- Packet buffer memory:  
GSM7224v2: max support 0.75 MB  
buffer memory  
GSM7248v2: max support 1.5 MB  
buffer memory
- Code storage (flash): 32 MB
- Address database size: 8 K media  
access control (MAC) addresses
- Number of VLANs: 1024 (1-4093)
- Number of trunks: 64
- Number of queues: 8
- Number of static route: 32
- Number of routed VLANs: 32
- Number of ARP entries: 480
- Number of ACL rules: 224
- Jumbo frame support: up to 9 K  
packet size
- Acoustic noise:  
GSM7224v2: 38.6 dB  
GSM7248v2: 48.8 dB
- Heat dissipation:  
GSM7224v2: 131.439 BTU/hr  
GSM7248v2: 244.101 BTU/hr
- Mean time between failures (MTBF):  
GSM7224v2: 239,032 hours  
(~27 years) GSM7248v2: 162,303  
hours (~19 years)
- **User Interfaces**
  - Command Line Interface (CLI) via  
console port (5 sessions)
  - Web-based management via  
embedded HTTP server protected with  
Secure Sockets Layer
  - (SSLv3) or Transport Layer Security  
(TLS v1)
  - Telnet remote login (5 sessions)  
securable with Secure Shell  
(SSH v1.5, v2)
- **LEDs**
  - Per port: Speed, link, activity  
Per device: Power, fan, RPS status
- **Network Standards Compatibility**
  - IEEE 802.3i 10BASE-T
  - IEEE 802.3u 100BASE-TX, 100BASE-FX
  - IEEE 802.3ab 1000BASE-T
  - IEEE 802.3z 1000BASE-X
  - IEEE 802.3x flow control

#### • Physical Specifications

- Dimensions (w x d x h):  
440 x 205 x 43 mm  
(17.3 x 8.1 x 1.6 in)
- Weight:  
GSM7224v2: 3.65 kg (8.03 lb)  
GSM7248v2: 4.15 kg (9.13 lb)

#### • Environmental Specifications

- Operating temperature: 0° to 55° C  
(32° to 131° 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

#### • Electrical Specifications

- Power consumption:  
GSM7224v2 38.5W maximum  
GSM7248v2 71.5W maximum
- Redundant power supply  
input: 12V

#### • 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

#### Warranty

- NETGEAR Lifetime Warranty†

#### Modules

- ProSafe AGM731F 1000BASE-SX  
SFP GBIC
- ProSafe AGM732F 1000BASE-LX  
SFP GBIC
- ProSafe AGM733 1000BASE-ZX  
SFP GBIC
- 100FX SFP LC transceiver

#### Package Contents

- ProSafe Gigabit L2 Managed Switch  
(GSM7224v2 or GSM7248v2)
- Null modem cable
- Rubber footpads
- Power cable
- Rack-mount kit
- Installation guide
- Resource CD-ROM
- Warranty/support information card

#### Ordering Information

##### • North America

- GSM7224-200NAS
- GSM7248-200NAS

##### • Europe

- GSM7224-200EUS
- GSM7248-200EUS

##### • Asia

- GSM7224-200AJS
- GSM7248-200AJS

#### ProSupport Service Packs Available

##### GSM7224v2

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

##### GSM7248v2

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

## NETGEAR®

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\*Basic technical support provided for 90 days from date of purchase.

†Lifetime warranty for product purchased after 05/01/2007. For product purchased before 05/01/2007, warranty is 5 years.