

The NETGEAR® ProSafe® “Intelligent Edge” Gigabit L2+ Managed Switches consist of four switches with PoE+ connectivity, delivering a secure and flexible access layer in campus environments, warehouses and commercial buildings for convergence: Wireless access points, IP telephony, CCTV and video-surveillance.

#### Intelligent Edge

Combining superior resiliency and advanced security even far from the wiring closet, GSM5212P, GSM7212F, GSM7212P, and GSM7224P provide comprehensive Layer 2 and Lite Layer 3 switching, including 16K MAC table size, 64 routing interfaces and 16 static routes.

#### Unified Communications – Voice over IP

The NETGEAR ProSafe “Intelligent Edge” simplifies converged data deployments with state-of-the-art capabilities. CoS Layer 2 prioritization and DiffServ Layer 3 & 4 policies allow for 1Kbps ingress and egress TCP/UDP granularity. LLDP-MED (Media Endpoint Discovery) automatically configures IP phones QoS and VLAN settings.

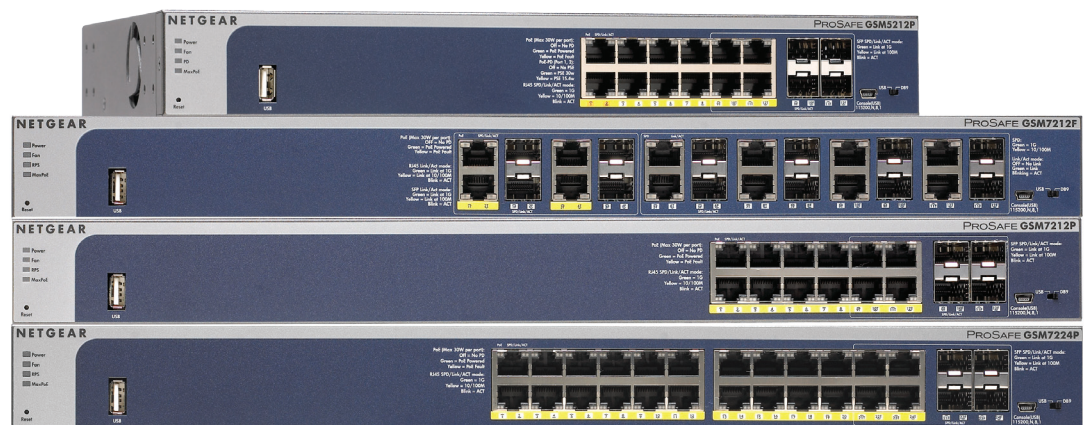
#### Unified Communications – Video Streams

IGMP filtering and querier ensure multicast streams are only delivered to interested receivers, preventing flooding even without a dedicated multicast router. When receivers are in different VLANs, Multicast VLAN registration (MVR) uses a dedicated multicast VLAN to forward multicast streams and avoid duplication for clients in different VLANs.

#### Outstanding Value

With its high-value price point, industry-standard command line interface (CLI) and single-pane-of-glass NMS200 management platform (mass-configuration support), NETGEAR ProSafe “Intelligent Edge” yields a high return on investment. All four switches are backed by the NETGEAR ProSafe Lifetime Hardware Warranty\*, ProSupport Lifetime 24x7 Advanced Technical Support\*, and 3-Year Next Business Day Onsite Hardware Replacement.\*\*

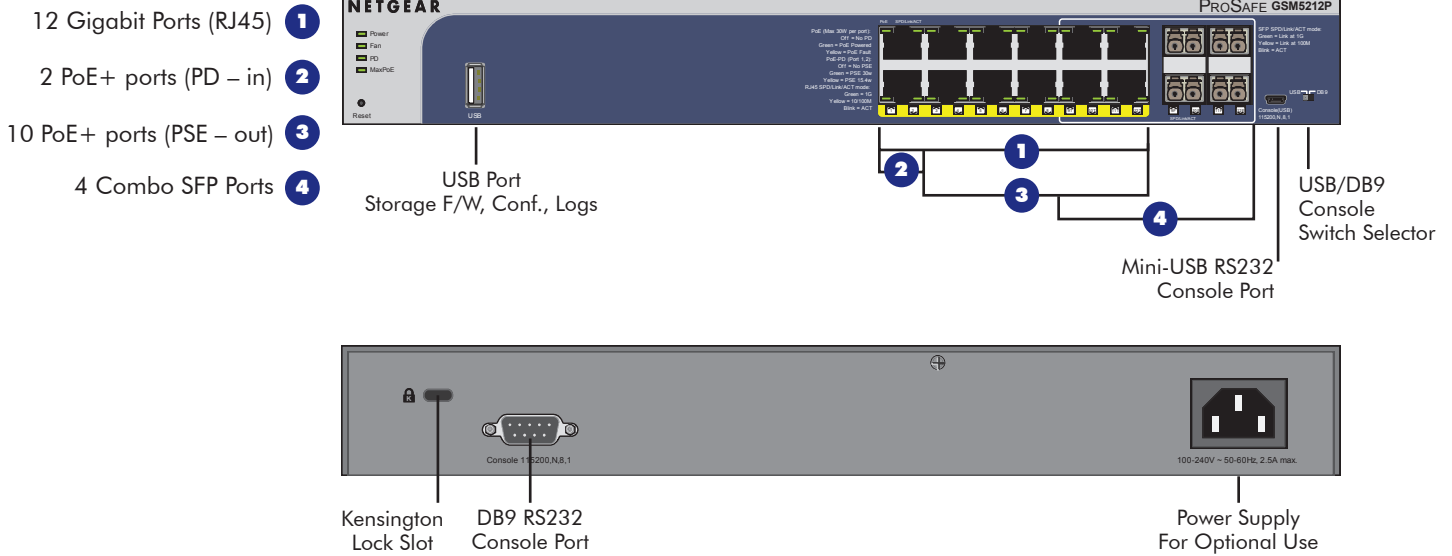
Models	Form Factor	Low Acoustics (Min <25°C – Max >40°C) Variable Speed Fans	Gigabit RJ45 10/100/1000	Shared SFP 100/1000	PoE+ Port Count	PoE+ Budget
GSM5212P	Desktop	Below typical acoustic office ambient: Min 19.8dB – Max 35.1dB	12	4	2 first ports: PoE+ in 10 other ports: PoE+ out	22W (Pass-Through) 125W (Power Supply)
GSM7212F	Rack mount	Min 30dB – Max 48dB	12	12	4 first ports: PoE+ out	150W
GSM7212P	Rack mount	Min 35.8dB – Max 50.3dB	12	4	12 ports PoE+ out	380W
GSM7224P	Rack mount	Min 33.8dB – Max 49.9dB	24	4	24 ports PoE+ out	380W



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# GSM5212P at a Glance



## PoE Pass-Through mode: powered by PoE

GSM5212P can draw power from the wiring closet when the aggregation switch delivers PoE power – more flexibility in challenging environments without outlet.

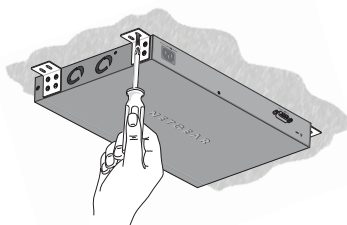
Simultaneously, GSM5212P is capable of powering PoE devices such as VoIP phones or other devices – redistributing PoE budget from the upstream switch such as GSM7212F, GSM7212P or GSM7224P.

The two first Gigabit ports are PoE/PoE+ input ports. The ten other Gigabit ports (Port 3 through 12) are standard PoE/PoE+ output ports.

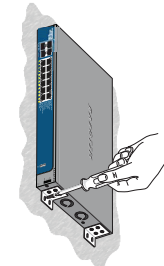
## Placement outside the wiring closet

For secure deployment in open areas (conference rooms, offices, class rooms, sales floor in retail stores, etc...), GSM5212P comes with a Wall Mount Kit with four brackets. As an option, a Rack Mount Kit is orderable.

### On or underneath shelves

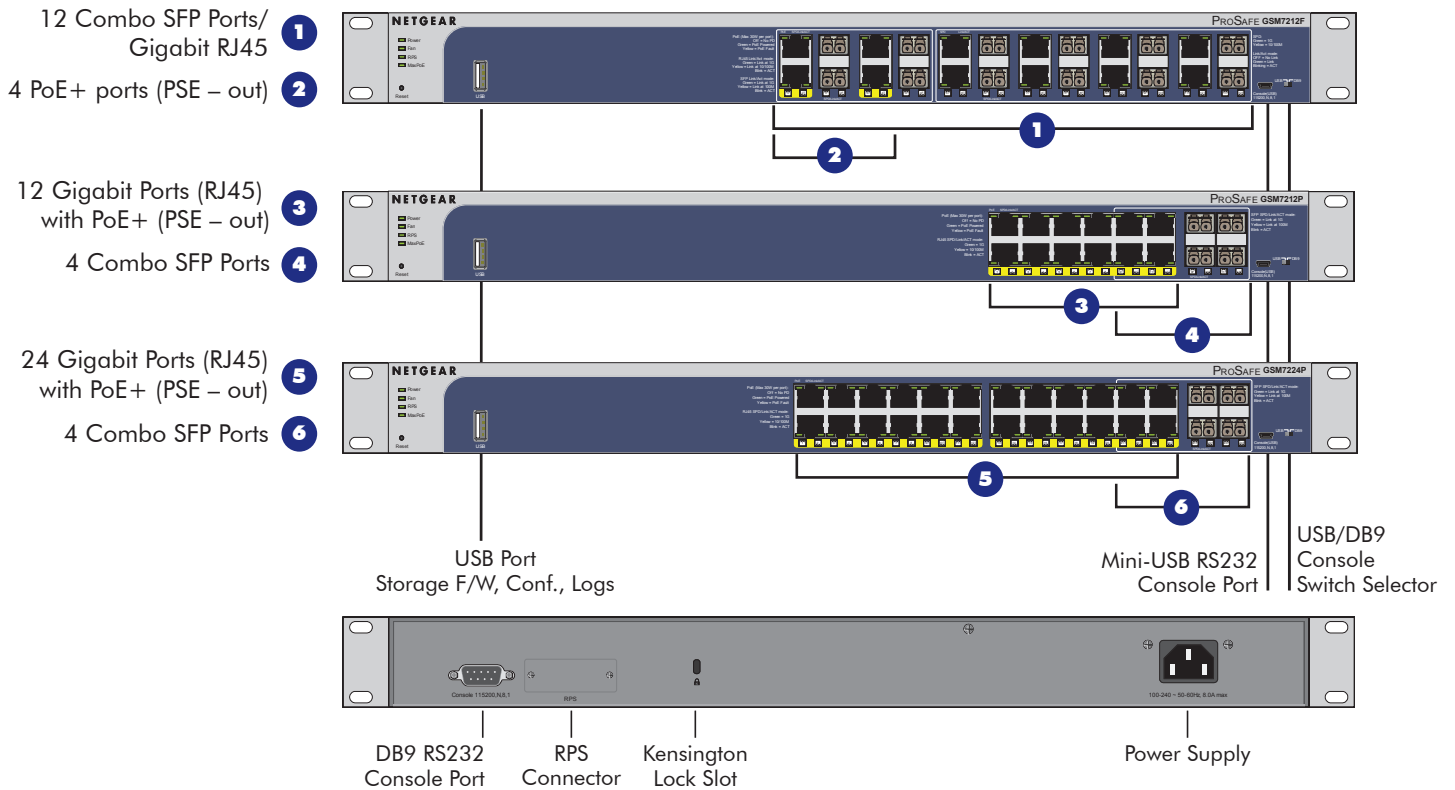


### On the wall



Powering Options	PoE Input for PD Ports	Functionality	PoE Budget (output) for PSE Ports
PoE Pass-Through (No AC Power)	PD Port 1: 15.4W input	<ul style="list-style-type: none"> <li>Low-power mode</li> <li>SFP ports, fans, USB ports not operational</li> </ul>	-
	PD Port 1: 30W input	<ul style="list-style-type: none"> <li>High-power mode</li> <li>All functions operational</li> </ul>	-
	PD Port 1: 15.4W input PD Port 2: 15.4W input	<ul style="list-style-type: none"> <li>Low-power mode</li> <li>SFP ports, fans, USB ports not operational</li> </ul>	Up to 13W Port 3 through 12
	PD Port 1: 30W input PD Port 2: 15.4W input	<ul style="list-style-type: none"> <li>High-power mode</li> <li>All functions operational</li> </ul>	Up to 13W Port 3 through 12
	PD Port 1: 30W input PD Port 2: 30W input	<ul style="list-style-type: none"> <li>High-power mode</li> <li>All functions operational</li> </ul>	Up to 22W Port 3 through 12
AC Power (Power Supply)	-	<ul style="list-style-type: none"> <li>High-power mode</li> <li>All functions operational</li> </ul>	Up to 125W Port 3 through 12

# GSM7212F, GSM7212P and GSM7224P at a glance



## Modules, accessories

### 420-10043-01 Rack mount kit for GSM5212P



- GSM5212P comes with a wall mount kit only
- The optional rack mount kit contains two brackets for standard 19" rack mount
- 5-year warranty
- Ordering part number: **420-10043-01**

### AGM731F/AGM732F Gigabit SFP GBIC



- Gigabit Ethernet fiber connectivity - LC duplex connector
- 5-year warranty
- AGM731F 1000SX "short reach multimode"
  - 50/125µm OM3 multimode: up to 550m
  - 62.5/125µm OM1 multimode: up to 275m
  - Ordering part number: **AGM731F**
- AGM732F 1000LX "long reach single or mode"
  - 9/125µm SMF single mode: up to 10 km
  - Ordering part number: **AGM732F**

### AFM735 Fast Ethernet SFP GBIC



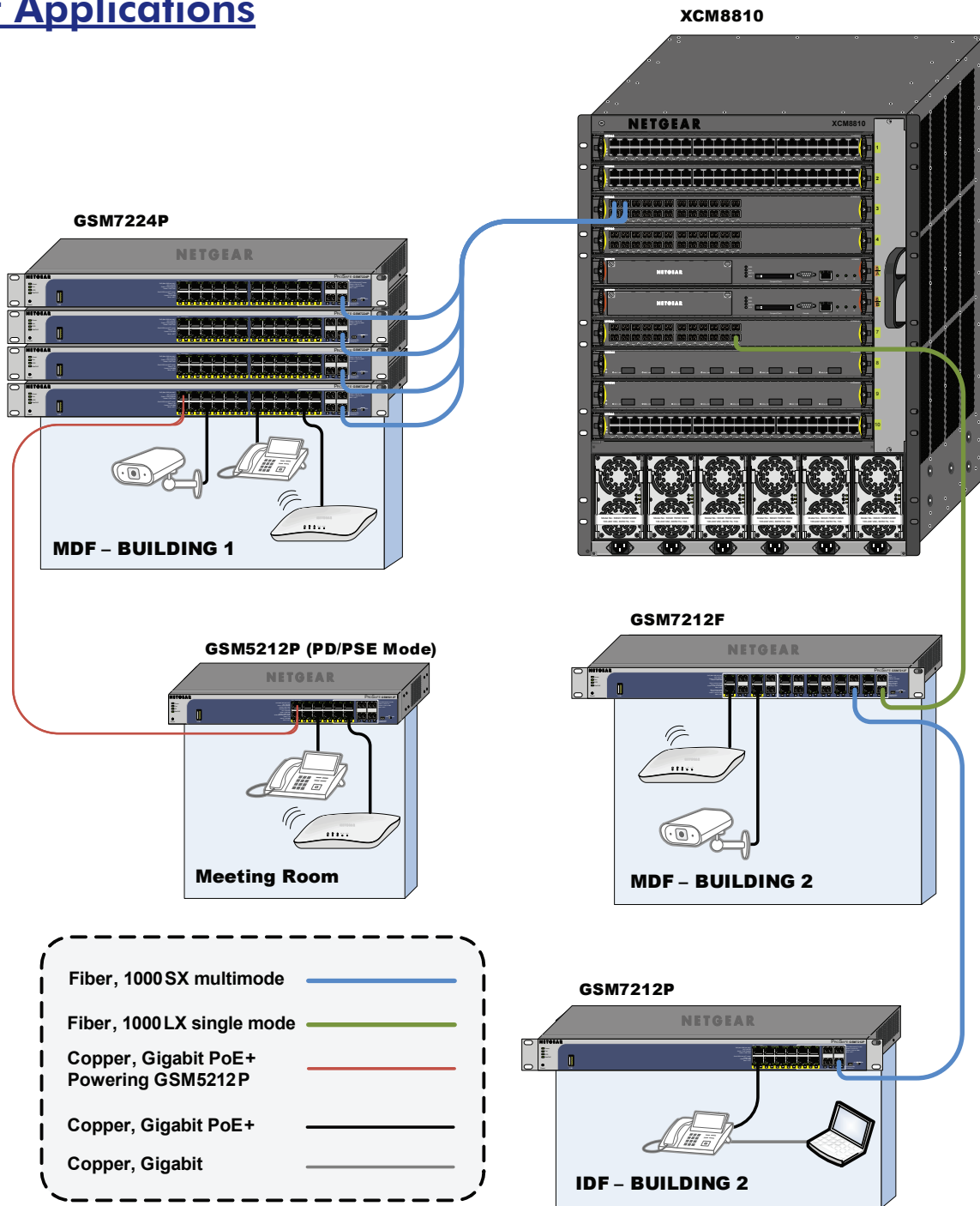
- Fast Ethernet fiber connectivity - LC duplex connector
- 5-year warranty
- AFM735 100BaseFX IEEE 802.3
  - 50/125µm or 62.5/125µm multimode: up to 2km
  - Ordering part number: **AFM735-10000S**

### RPS5412 Optimal Power® External Redundant Power Supply



- Optimal Power® RPS unit certified by NETGEAR
- Includes the DC power cable for the Switch RPS connector (rear)
- Provides seamless redundant power to the Switch for interruptible powering
- 3-year warranty
- Ordering part number: **RPS5412-100NAS** (Americas) **RPS5412-100EUS** (Europe) **RPS5412-100AJS** (Asia)

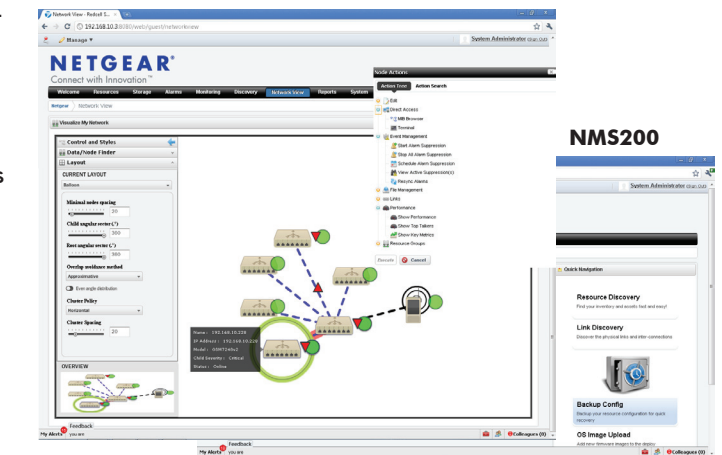
# Target Applications



These Fully Managed Switches are Lite L3 with PoE+ and complement GSM7224/GSM7248 Intelligent Edge with 64 IP interfaces for VLAN routing:

- Industry-standard CLI
- State-of-the-art L2/L3/L4 QoS and ACLs with 1Kbps ingress/egress for real-time Voice
- MVR (Multicast VLAN Registration) for IPTV and Video Surveillance streaming

**A single-pane-of-glass management platform – NMS200 – increases overall operational efficiency.**





TECHNICAL SPECIFICATIONS	GSM5212P	GSM7212F	GSM7212P	GSM7224P
<b>PHYSICAL INTERFACES</b>				
Front <ul style="list-style-type: none"> <li>• Auto-sensing RJ45 10/100/1000</li> <li>• Shared SFP Fiber 100/1000</li> <li>• USB (config/firmware/storage)</li> <li>• Mini-USB RS-232 for console</li> </ul> Rear <ul style="list-style-type: none"> <li>• Serial DB9 RS-232 for console</li> <li>• Redundant Power Supply</li> <li>• Kensington Lock Slot</li> <li>• Power Supply</li> </ul> Total <ul style="list-style-type: none"> <li>• Port Count</li> </ul>	12 ports 4 SFP ports 1 port 1 port  1 port PoE pass-through mode 1 slot 1 fixed PSU (optional use)	12 ports 12 SFP ports 1 port 1 port  1 port 1 connector for RPS 1 slot 1 fixed PSU	12 ports 4 SFP ports 1 port 1 port  1 port 1 connector for RPS 1 slot 1 fixed PSU	24 ports 4 SFP ports 1 port 1 port  1 port 1 connector for RPS 1 slot 1 fixed PSU
<b>POE</b>				
<ul style="list-style-type: none"> <li>• Number of PoE+ ports</li> <li>• PoE pass-through mode</li> <li>• Number of PD ports (PoE in)</li> <li>• Number of PSE ports (PoE out)</li> <li>• IEEE 802.3af (up to 15.4 Watts/port)</li> <li>• IEEE 802.3at (up to 30 Watts/port)</li> <li>• IEEE 802.3at Layer 2 (LLDP) method</li> <li>• IEEE 802.3at 2-event classification</li> <li>• PoE timer / schedule (week, days, hours)</li> </ul>	12 ports Yes 2 ports 10 ports Yes Yes Yes Yes Yes	4 ports No - 4 ports Yes Yes Yes Yes Yes	12 ports No - 12 ports Yes Yes Yes Yes Yes	24 ports No - 24 ports Yes Yes Yes Yes Yes
<b>TOTAL POE BUDGET</b>				
AC Power Mode <ul style="list-style-type: none"> <li>• Using built-in PSU</li> </ul> PoE Pass-Through Mode <ul style="list-style-type: none"> <li>• PD Port 1 (15.4W)</li> <li>• PD Port 1 (30W)</li> <li>• PD Port 1 (15.4W) Port 2 (15.4W)</li> <li>• PD Port 1 (30W) Port 2 (15.4W)</li> <li>• PD Port 1 (30W) Port 2 (30W)</li> </ul>	125 Watts  0 Watts 0 Watts 13 Watts 13 Watts 22 Watts	150 Watts  - - - - -	380 Watts  - - - - -	380 Watts  - - - - -
<b>PROCESSOR / MEMORY</b>				
<ul style="list-style-type: none"> <li>• Processor</li> <li>• System memory (RAM)</li> <li>• Packet buffer memory</li> <li>• Code storage (flash)</li> </ul>	BCM53003 @ 600 MHz 128 MB 12 Mb 32 MB	BCM53003 @ 600 MHz 128 MB 12 Mb 32 MB	BCM53003 @ 600 MHz 128 MB 12 Mb 32 MB	BCM53003 @ 600 MHz 128 MB 12 Mb 32 MB
<b>PERFORMANCE SUMMARY</b>				
<ul style="list-style-type: none"> <li>• Switching fabric</li> <li>• Throughput</li> <li>• Forwarding mode</li> <li>• Latency (64-byte frames, 10 to 100 Mbps)</li> <li>• Latency (64-byte frames, 1 Gbps)</li> <li>• Addressing</li> <li>• Address database size</li> <li>• Number of VLANs (IEEE 802.1Q)</li> <li>• Max number of Multicast groups for IGMP filtering</li> <li>• Max number of Multicast groups for MVR</li> <li>• Number of trunks (LAG)</li> <li>• Number of hardware queues for QoS</li> <li>• Number of static routes</li> <li>• Number of IP routing interfaces (port, VLAN)</li> <li>• Jumbo frame support</li> <li>• Min Acoustic noise (ANSI-S10.12) &lt; 25°C ambient</li> <li>• Max Acoustic noise (ANSI-S10.12) &gt; 40°C ambient</li> <li>• Heat dissipation</li> <li>• Mean time between failures (MTBF)</li> </ul>	24 Gbps 17.8 Mpps Store-and-forward <9.0µs <3.1µs 48-bit MAC address 16,000 MAC addresses 1,024 out of 4,093 VLAN IDs 1,024 256 12 trunks, 8-port per trunk 8 queues 16 64 up to 9K packet size 19.8 dB 35.1 dB 569 Btu/hr 766,618 hours (~87.5 yrs)	24 Gbps 17.8 Mpps Store-and-forward <9.0µs <3.1µs 48-bit MAC address 16,000 MAC addresses 1,024 out of 4,093 VLAN IDs 1,024 256 12 runks, 8-port per trunk 8 queues 16 64 up to 9K packet size 30 dB 48 dB 548 Btu/hr 670,956 hours (~76.6 yrs)	24 Gbps 17.8 Mpps Store-and-forward <9.0µs <3.1µs 48-bit MAC address 16,000 MAC addresses 1,024 out of 4,093 VLAN IDs 1,024 256 12 trunks, 8-port per trunk 8 queues 16 64 up to 9K packet size 35.8 dB 50.3 dB 1,543 Btu/hr 422,436 hours (~48.2 yrs)	48 Gbps 35.7 Mpps Store-and-forward <9.0µs <3.1µs 48-bit MAC address 16,000 MAC addresses 1,024 out of 4,093 VLAN IDs 1,024 256 12 trunks, 8-port per trunk 8 queues 16 64 up to 9K packet size 33.8 dB 49.9 dB 1,820 Btu/hr 394,619 hours (~45 yrs)



TECHNICAL SPECIFICATIONS	GSM5212P	GSM7212F	GSM7212P	GSM7224P
<b>L3 SERVICES – ROUTING (IPV4)</b>				
<ul style="list-style-type: none"> <li>• IPv4 static routing (Subnets, VLANs)</li> <li>• IP routes, total</li> <li>• IP interfaces (ports, VLAN)</li> <li>• Static routes</li> <li>• IP Source Guard</li> </ul>	Yes 64 64 16 Yes	Yes 64 64 16 Yes	Yes 64 64 16 Yes	Yes 64 64 16 Yes
<b>L3 SERVICES - DHCP (IPV4)</b>				
<ul style="list-style-type: none"> <li>• DHCP server (1,024 clients)</li> <li>• DHCP L2 relay</li> <li>• DHCP snooping</li> </ul>	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
<b>L3 SERVICES - MULTICAST (IPV4)</b>				
<ul style="list-style-type: none"> <li>• IGMP querier (v2)</li> </ul>	Yes	Yes	Yes	Yes
<b>L2 SERVICES – SWITCHING (IPV4/IPV6)</b>				
<ul style="list-style-type: none"> <li>• MAC Address table</li> <li>• ARP cache size</li> <li>• Proxy ARP</li> <li>• Dynamic ARP Inspection</li> </ul>	16,000 MAC 512 Yes Yes	16,000 MAC 512 Yes Yes	16,000 MAC 512 Yes Yes	16,000 MAC 512 Yes Yes
<b>L2 SERVICES – VLANS (IPV4/IPV6)</b>				
<ul style="list-style-type: none"> <li>• IEEE 802.1Q static VLAN</li> <li>• IEEE 802.1v Protocol VLAN</li> <li>• Port-based VLAN</li> <li>• MAC-based VLAN</li> <li>• IP subnet-based VLAN</li> <li>• Protocol-based VLAN</li> <li>• Voice VLAN</li> <li>• Guest/Unauthenticated VLAN (802.1x)</li> <li>• Auto VLAN Assignment via RADIUS</li> <li>• IEEE 802.1 Q-in-Q (Double-VLAN tagging)</li> <li>• GARP with GVRP/GMRP</li> <li>• Private VLAN groups</li> <li>• Multicast VLAN Registration (MVR)</li> </ul>	1,024 out of 4,093 VLAN IDs Yes Yes Yes Yes (128) Yes Yes Yes Yes Yes Yes Yes Yes Yes	1,024 out of 4,093 VLAN IDs Yes Yes Yes Yes (128) Yes Yes Yes Yes Yes Yes Yes Yes Yes	1,024 out of 4,093 VLAN IDs Yes Yes Yes Yes (128) Yes Yes Yes Yes Yes Yes Yes Yes Yes	1,024 out of 4,093 VLAN IDs Yes Yes Yes Yes (128) Yes Yes Yes Yes Yes Yes Yes Yes Yes
<b>L2 SERVICES - AVAILABILITY (IPV4/IPV6)</b>				
<ul style="list-style-type: none"> <li>• IEEE 802.3ad Link Aggregation (Static or LACP)</li> <li>• User selectable LAG hashing algorithm</li> <li>• IEEE 802.1D Spanning Tree Protocol</li> <li>• IEEE 802.1w Rapid Spanning Tree</li> <li>• IEEE 802.1s Multiple Spanning Tree</li> </ul>	12 trunks, 8-port per trunk Yes Yes Yes Yes	12 trunks, 8-port per trunk Yes Yes Yes Yes	12 trunks, 8-port per trunk Yes Yes Yes Yes	12 trunks, 8-port per trunk Yes Yes Yes Yes
<b>L2 SERVICES – MULTICAST (IPV4/IPV6)</b>				
Filtering <ul style="list-style-type: none"> <li>• IGMP v1, v2, v3 snooping support</li> <li>• IGMP querier mode support</li> <li>• MLD snooping support</li> <li>• Static Multicast filtering</li> </ul> MVR <ul style="list-style-type: none"> <li>• Multicast VLAN Registration</li> <li>• IGMP leave operating mode</li> <li>• MVR max Multicast groups</li> </ul>	Yes Yes Yes 1,024 multicast groups  Dynamic and Compatible Normal/immediate leave 256	Yes Yes Yes 1,024 multicast groups  Dynamic and Compatible Normal/immediate leave 256	Yes Yes Yes 1,024 multicast groups  Dynamic and Compatible Normal/immediate leave 256	Yes Yes Yes 1,024 multicast groups  Dynamic and Compatible Normal/immediate leave 256
<b>L2/L3/L4 SERVICES – QOS (IPV4/IPV6)</b>				
<ul style="list-style-type: none"> <li>• L2/L3/L4 QoS Policies</li> <li>• IEEE 802.1p Class of Service (CoS)</li> <li>• DiffServ QoS (RFC 2998)</li> <li>• Weighted round robin (WRR) queue technology</li> <li>• Strict priority queue technology</li> <li>• Rate limit in 1 Kbps increments</li> <li>• Ingress and Egress traffic</li> </ul>	MAC, IP, TCP/UDP ports Yes Yes Yes Yes Yes Yes	MAC, IP, TCP/UDP ports Yes Yes Yes Yes Yes Yes	MAC, IP, TCP/UDP ports Yes Yes Yes Yes Yes Yes	MAC, IP, TCP/UDP ports Yes Yes Yes Yes Yes Yes





TECHNICAL SPECIFICATIONS	GSM5212P	GSM7212F	GSM7212P	GSM7224P
<b>IETF RFC STANDARDS – SYSTEM FACILITIES</b>				
• RFC 2869 RADIUS Extensions	Yes	Yes	Yes	Yes
• RFC2869bis RADIUS support for Extensible Authentication Protocol (EAP)	Yes	Yes	Yes	Yes
• RFC 3164 The BSD Syslog Protocol	Yes	Yes	Yes	Yes
• RFC 3580 802.1X RADIUS usage guidelines (VLAN assignment via RADIUS, dynamic VLAN)	Yes	Yes	Yes	Yes
<b>IETF RFC STANDARDS – QOS</b>				
• RFC 2474 definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 headers	Yes	Yes	Yes	Yes
• RFC 2475 an architecture for differentiated services	Yes	Yes	Yes	Yes
• RFC 2597 Assured Forwarding PHB Group	Yes	Yes	Yes	Yes
• RFC 3246 An Expedited Forwarding PHB (Per-Hop Behavior)	Yes	Yes	Yes	Yes
• RFC 3260 New Terminology and Clarifications for DiffServ	Yes	Yes	Yes	Yes
• RFC 3289 Management Information Base for the Differentiated Services Architecture (read-only)	Yes	Yes	Yes	Yes
• Private MIBs for full configuration of DiffServ, ACL and CoS functionality	Yes	Yes	Yes	Yes
<b>IETF RFC STANDARDS – MANAGEMENT</b>				
• RFC 854 Telnet	Yes	Yes	Yes	Yes
• RFC 855 Telnet Option	Yes	Yes	Yes	Yes
• RFC 1155 SMI v1	Yes	Yes	Yes	Yes
• RFC 1157 SNMP	Yes	Yes	Yes	Yes
• RFC 1212 Concise MIB Definitions	Yes	Yes	Yes	Yes
• RFC 1867 HTML/2.0 Forms with file upload extensions	Yes	Yes	Yes	Yes
• RFC 1901 Community-based SNMP v2	Yes	Yes	Yes	Yes
• RFC 1908 Coexistence between SNMP v1 & SNMP v2	Yes	Yes	Yes	Yes
• RFC 2068 HTTP/1.1 protocol as updated by draft-ietf-http-v11-spec-rev-03	Yes	Yes	Yes	Yes
• RFC 2271 SNMP Framework MIB	Yes	Yes	Yes	Yes
• RFC 2295 Transparent Content Negotiation	Yes	Yes	Yes	Yes
• RFC 2296 Remote Variant Selection; RSVP/1.0 State Management “cookies” – draft-ietf-http-state-mgmt-05	Yes	Yes	Yes	Yes
• RFC 2576 Coexistence between SNMP v1, v2 and v3	Yes	Yes	Yes	Yes
• RFC 2578 SMI v2	Yes	Yes	Yes	Yes
• RFC 2579 Textual Conventions for SMI v2	Yes	Yes	Yes	Yes
• RFC 2580 Conformance statements for SMI v2	Yes	Yes	Yes	Yes
• RFC 3410 Introduction and Applicability Statements for Internet Standard Management Framework	Yes	Yes	Yes	Yes
• RFC 3411 An Architecture for Describing SNMP Management Frameworks	Yes	Yes	Yes	Yes
• RFC 3412 Message Processing & Dispatching	Yes	Yes	Yes	Yes
• RFC 3413 SNMP Applications	Yes	Yes	Yes	Yes
• RFC 3414 User-based Security Model	Yes	Yes	Yes	Yes
• RFC 3415 View-based Access Control Model	Yes	Yes	Yes	Yes
• RFC 3416 Version 2 of SNMP Protocol Operation	Yes	Yes	Yes	Yes
• RFC 3417 Transport Mappings	Yes	Yes	Yes	Yes
• RFC 3418 Management Information Base(MIB) for the Simple Network Management Protocol (SNMP)	Yes	Yes	Yes	Yes
• SSL 3.0 and TLS 1.0	Yes	Yes	Yes	Yes
- RFC 2246 The TLS Protocol, Version 1.0	Yes	Yes	Yes	Yes
- RFC 2818 HTTP over TLS	Yes	Yes	Yes	Yes
- RFC 2346 AES Ciphersuites for Transport Layer Security	Yes	Yes	Yes	Yes
• SSH 1.5 and 2.0	Yes	Yes	Yes	Yes
- RFC 4253 SSH Transport Layer Protocol	Yes	Yes	Yes	Yes
- RFC 4252 SSH Authentication Protocol	Yes	Yes	Yes	Yes
- RFC 4254 SSH Connection Protocol	Yes	Yes	Yes	Yes
- RFC 4251 SSH Protocol Architecture	Yes	Yes	Yes	Yes
- RFC 4716 SECSH Public Key File Format	Yes	Yes	Yes	Yes
- RFC 4419 Diffie-Hellman Group Exchange for SSH	Yes	Yes	Yes	Yes
- Transport Layer Protocol	Yes	Yes	Yes	Yes







TECHNICAL SPECIFICATIONS	GSM5212P	GSM7212F	GSM7212P	GSM7224P
<b>SUPPORTED MIBS</b>				
• NETGEAR-QOS-DIFFSERV-PRIVATE-MIB – NETGEAR Flex QoS DiffServ Private MIBs’ definitions	Yes	Yes	Yes	Yes
• LLDP-MIB – Management Information Base module for LLDP configuration, statistics, local system data and remote systems data components	Yes	Yes	Yes	Yes
• LLDP-EXT-DOT3-MIB – The LLDP Management Information Base extension module for IEEE 802.3 organizationally defined discovery information	Yes	Yes	Yes	Yes
• LLDP-EXT-MED-MIB – The LLDP Management Information Base extension module for TIA-TR41.4 Media Endpoint Discovery information	Yes	Yes	Yes	Yes
• TACACS-CLIENT-MIB – Management Information Base pertaining to TACACS+ client configuration.	Yes	Yes	Yes	Yes
<b>MANAGEMENT (IPV4/IPV6)</b>				
• SNMP v1, v2c, v3 with multiple IP addresses	Yes	Yes	Yes	Yes
• Port mirroring support (many-to-one)	Yes	Yes	Yes	Yes
• Flow-based mirroring	Yes	Yes	Yes	Yes
• Syslog	Yes	Yes	Yes	Yes
• File transfer (configuration, firmware)	HTTP, TFTP	HTTP, TFTP	HTTP, TFTP	HTTP, TFTP
• Secure file transfer (configuration, firmware)	HTTPS, SCP, SFTP	HTTPS, SCP, SFTP	HTTPS, SCP, SFTP	HTTPS, SCP, SFTP
• Runtime image download (TFTP)	Yes	Yes	Yes	Yes
• Port description	Yes	Yes	Yes	Yes
• sFlow®	Yes	Yes	Yes	Yes
• Web-based graphic user interface (GUI)	Yes	Yes	Yes	Yes
• Command Line interface (CLI)	Yes	Yes	Yes	Yes
• IPv6 Management	Yes	Yes	Yes	Yes
• Cable test utility	Yes	Yes	Yes	Yes
• SSLv3/TLSv1.0 Web security for the GUI	Yes	Yes	Yes	Yes
• Secure Shell (SSHv1, v2) for CLI	Yes	Yes	Yes	Yes
• Telnet sessions for management CPU (5 sessions)	Yes	Yes	Yes	Yes
• Configurable management VLAN	Yes	Yes	Yes	Yes
• Auto Install	Yes	Yes	Yes	Yes
• Admin access control via RADIUS or TACACS+	Yes	Yes	Yes	Yes
• Dual Image (firmware and configuration)	Yes	Yes	Yes	Yes
<b>PHYSICAL SPECIFICATIONS</b>				
• Dimensions (w x d x h) - mm	331 x 208 x 44 mm	440 x 257 x 44 mm	440 x 257 x 44 mm	440 x 257 x 44 mm
• Dimensions (w x d x h) - in	13.03 x 8.19 x 1.73 in	17.32 x 10.12 x 1.73 in	17.32 x 10.12 x 1.73 in	17.32 x 10.12 x 1.73 in
• Weight	2.596 kg (5.73 lb)	3.665 kg (8.08 lb)	4.021 kg (8.86 lb)	4.368 kg (9.63 lb)
<b>POWER CONSUMPTION</b>				
• Max AC Current (with max PoE)	1.72 A	1.67 A	4.79 A	5.59 A
• Max AC Watts (with max PoE)	166.6W	160.6W	452W	533W
• Heat dissipation	569 Btu/hr	548 Btu/hr	1,543 Btu/hr	1,820 Btu/hr
<b>ENVIRONMENTAL SPECIFICATIONS</b>				
<b>Operating</b>				
• Temperature	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)
• Humidity	90% maximum relative humidity, non-condensing	90% maximum relative humidity, non-condensing	90% maximum relative humidity, non-condensing	90% maximum relative humidity, non-condensing
• Altitude	10,000 ft (3,000 m) max	10,000 ft (3,000 m) max	10,000 ft (3,000 m) max	10,000 ft (3,000 m) max
<b>Storage</b>				
• Temperature	– 4° to 158°F (–20° to 70°C)	– 4° to 158°F (–20° to 70°C)	– 4° to 158°F (–20° to 70°C)	– 4° to 158°F (–20° to 70°C)
• Humidity	95% maximum relative humidity, non-condensing	95% maximum relative humidity, non-condensing	95% maximum relative humidity, non-condensing	95% maximum relative humidity, non-condensing
• Altitude	10,000 ft (3,000 m) max	10,000 ft (3,000 m) max	10,000 ft (3,000 m) max	10,000 ft (3,000 m) max
<b>ELECTROMAGNETIC EMISSIONS AND IMMUNITY</b>				
• CE mark, commercial	Yes	Yes	Yes	Yes
• FCC Part 15 Class A, VCCI Class A	Yes	Yes	Yes	Yes
• Class A EN 55022 (CISPR 22) Class A	Yes	Yes	Yes	Yes
• Class A C-Tick	Yes	Yes	Yes	Yes
• EN 50082-1	Yes	Yes	Yes	Yes
• EN 55024	Yes	Yes	Yes	Yes



TECHNICAL SPECIFICATIONS	GSM5212P	GSM7212F	GSM7212P	GSM7224P
<b>SAFETY</b>				
<ul style="list-style-type: none"> <li>• CE mark, commercial</li> <li>• CSA certified (CSA 22.2 #950)</li> <li>• UL listed (UL 1950)/cUL IEC 950/EN 60950</li> </ul>	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
<b>PACKAGE CONTENT</b>				
<ul style="list-style-type: none"> <li>• Switch</li> <li>• Power cord</li> <li>• Rubber footpads for tabletop installation</li> <li>• Rubber caps for the SFP sockets</li> <li>• Mounting kit</li> <li>• Mini-USB to USB cable for console</li> <li>• Resource CD</li> <li>• ProSafe NMS200 Network Management System DVD</li> </ul>	GSM5212P Yes Yes Yes Wall mount kit Yes Yes Yes	GSM7212F Yes Yes Yes Rack mount kit Yes Yes Yes	GSM7212P Yes Yes Yes Rack mount kit Yes Yes Yes	GSM7224P Yes Yes Yes Rack mount kit Yes Yes Yes
<b>WARRANTY AND SUPPORT</b>				
<ul style="list-style-type: none"> <li>• ProSafe Lifetime Warranty*</li> <li>• ProSupport Lifetime 24x7 Advanced Technical Support*</li> <li>• Next business day onsite hardware replacement**</li> </ul>	Lifetime Lifetime 3 years included**	Lifetime Lifetime 3 years included**	Lifetime Lifetime 3 years included**	Lifetime Lifetime 3 years included**
<b>MODULES &amp; ACCESSORIES</b>				
<ul style="list-style-type: none"> <li>• AFM735 (100BASE-FX SFP GBIC)</li> <li>• AGM731F (1000BASE-SX SFP GBIC)</li> <li>• AGM732F (1000BASE-LX SFP GBIC)</li> <li>• RPS5412 (Optimal Power® External Redundant Power Supply)</li> <li>• 420-10043-01 (Rack Mount Kit for GSM5212P)</li> </ul>	Yes Yes Yes No Yes	Yes Yes Yes Yes No	Yes Yes Yes Yes No	Yes Yes Yes Yes No
<b>ORDERING INFORMATION</b>				
<ul style="list-style-type: none"> <li>• Americas / Europe</li> <li>• Asia</li> </ul>	GSM5212P-100NES GSM5212P-100AJS	GSM7212F-100NES GSM7212F-100AJS	GSM7212P-100NES GSM7212P-100AJS	GSM7224P-100NES GSM7224P-100AJS
<b>PROSUPPORT SERVICE PACKS</b>				
<ul style="list-style-type: none"> <li>• XPressHW (3-year next-business day hardware replacement contract, applicable where next business day onsite hardware replacement is <u>not</u> available)</li> </ul>	Category 2: PRR0332	Category 2: PRR0332	Category 2: PRR0332	Category 2: PRR0332

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

\*\* 3-year Next business day onsite hardware replacement support included: see <http://onsite.netgear.com> for coverage, availability and terms and conditions.

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