NETGEAR® BUSINESS

Gigabit Ethernet Plus Switches

Control and Configure Beyond Plug-and-Play Connectivity

Today's growing businesses rely more on their network to carry out mission-critical business activities. Deployment of VoIP and IP surveillance needs the network intelligence to separate the voice and video traffic from data, and prioritize them accordingly. However, companies do not necessarily have more money or advanced training to deal with complex managed switches.

NETGEAR® Plus Switches meet this growing need by providing funda-mental network features such as VLANs, QoS, and IGMP Snooping that will help optimize the performance of business networks. Plus Switches come in a variety of configurations ranging from 5 port desktop to 48 port rack mount.

Some models support Power-over-Ethernet (PoE) and can power devices such as IP phones, IP surveillance cameras and wireless access points with just an Ethernet cable; perfect for low cost PoE deployments. Plus Switches are the perfect upgrade from the plug-and-play unmanaged switch, delivering essential networking features at a very affordable price.

Highlights

- Enable network configuration and management at the price point of Unmanaged Switches

- Gigabit connection delivers up to 2000 Mbps of dedicated, non-blocking bandwidth per port

- Simple, yet useful network set-up on top of plug-and-play connectivity

- Flexible management via easy-to-use web browser-based management GUI or using the PC-based Utility application

- Web Interface with multiple language option[1]

- VLAN support for traffic segmentation

- Quality of Service (QoS) for traffic prioritization

- Auto "denial-of-service" (DoS) prevention

- Troubleshoot connection issues via cable test

- Loop detection and broadcast storm controls

- IGMP snooping v1, v2 and v3 support for multicast optimization

- Rate limiting for better bandwidth allocation

- Port mirroring for network monitoring

- Link aggregation/port trunking for bigger uplink bandwidth (16-port and 24-port models support static manual LAGs only; GS750E supports static manual LAGs and LACP)

- Jumbo frame support

- Energy Efficient Ethernet (IEEE 802.3az) support for maxium power savings

- *Limited Lifetime Hardware Warranty (excludes external power adapters on applicable models)

- Lifetime 24/7 Chat Technical Support*

- Next-Business-Day Hardware Replacement*

[1] Option only available on the GS108Ev3, GS108PEv3, GS116Ev2, GS750E, JGS516PE, JGS524Ev2, JGS524PE, GS105Ev2 and GS105PE English, German, and Japanese are the current supported languages.

Hardware at a Glance

| Model Name | Form-Factor | FRONT | | REAR | INTERNAL |
		10/100/1000 Base-T RJ45 ports	PoE 802.3af Ports	Power Supply	PoE budget
GS105Ev2	Desktop	5	N/A	External Power Adapter	N/A
GS105PE	Desktop	5	2	NO POWER SUPPLY - must be powered from another PoE device	PoE pass-thru: 19W with 802.3at/7.9W with 802.3af input power
GS108Ev3	Desktop	8	N/A	External Power Adapter	N/A
GS108PEv3	Desktop	8	4	External Power Adapter	53W
GS116Ev2	Desktop	16	N/A	External Power Adapter	N/A
JGS516PE	Rack mount	16	8	Internal	85W
JGS524Ev2	Rack mount	24	N/A	Internal	N/A
JGS524PE	Rack mount	24	12	Internal	100W
GS750E	Rack mount	48 Copper and 2 SFP	N/A	Internal	N/A

Software at a Glance

Management	IP Multicast filtering	IEEE 802.3az Auto-EEE	VLANs	QoS	Port Trunking[2]	Rate Limiting	Jumbo Frame Support
PC Utility Tool Web GUI	IGMP Snooping v1, v2 and v3	Yes	Port-based, IEEE 802.1Q-based VLANs	Port-based, IEEE 802.1p-based	16-ports and larger	Yes	Yes

[2] GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE support static manual LAGs only. GS750E supports static manual LAGs and LACP.

Features and Benefits

Hardware Features	
All Gigabit models	Making Plus Switch an ideal upgrade for SMB network combining management capability with higher speed and better performance
PoE offerings in Plus Switches	With half of the ports capable of supporting PoE, these PoE Plus models are the most cost-efficient Gigabit Ethernet solution for converaged networks where PoE support is needed, but isn't necessary on all ports
Desktop and rack mount††	Flexibile deployment for either desktop placement, undertable mount, wall mount as well as rack mount
Software Features	
VLAN	Segment network into smaller groups for more secure and efficient use of network resources
QoS	For optimized network performance and better delivery of mission-critical traffic such as voice and video
IGMP Snooping	For improved network efficiency on delivering multicast traffic
Link Aggregation/Port Trunking[2]	Build up bigger bandwidth to support aggregated uplink traffic (16-port and larger models only)
Port Mirroring	For better and quicker network diagnostics and troubleshooting
Cable Test	Easily identify bad Ethernet cables
Multiple Language GUI	Product documentation and user interfaces are translated, giving you the ability to select your preferred language (English, German, and Japanese)[1]

[1] Option only available on the GS108Ev3, GS108PEv3, GS116Ev2, GS750E, JGS516PE, JGS524Ev2, JGS524PE, GS105Ev2 and GS105PE. English, German, and Japanese are the current supported languages.

[2] GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE support static manual LAGs only. GS750E supports static manual LAGs and LACP.
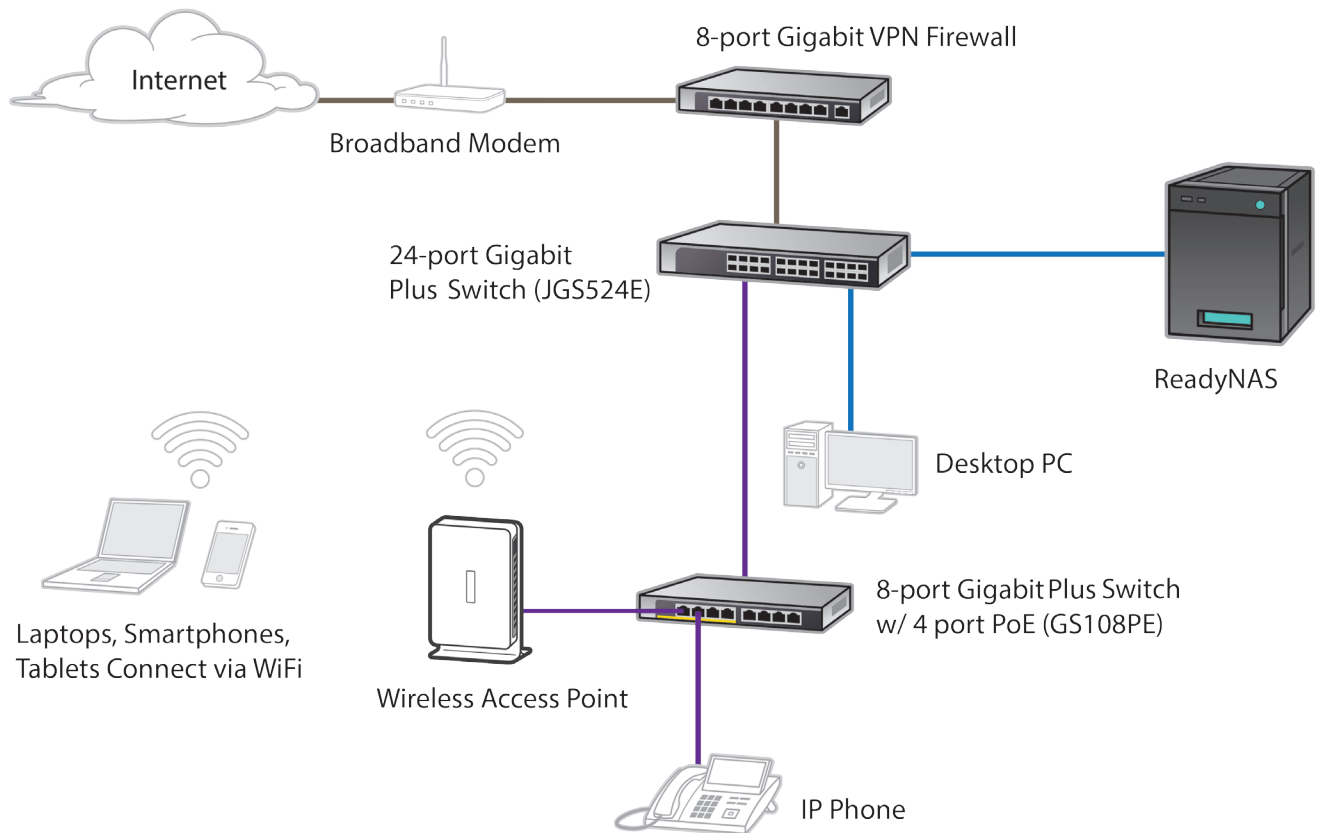
Example Application

SMB Network Application

Key
VLAN 1 ─────────
VLAN 2 ─────────

Internet

Broadband Modem

8-port Gigabit VPN Firewall

24-port Gigabit
Plus Switch (JGS524E)

ReadyNAS

Desktop PC

Laptops, Smartphones,
Tablets Connect via WiFi

Wireless Access Point

8-port Gigabit Plus Switch
w/ 4 port PoE (GS108PE)

IP Phone

Why the NETGEAR Gigabit Plus Switch is the ideal upgrade from Unmanaged Switches for SMB networks:

- Configurable with simple set-up
- Build multiple user groups
- Prioritize voice and video traffic
- Monitor and troubleshoot

Technical Specifications	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE	GS750E
Gigabit ports	5	5	8	8	16	16	24	24	48
Fiber ports	0	0	0	0	0	0	0	0	2 SFP
# of PoE ports	N/A	2	N/A	4	N/A	8	N/A	12	N/A
Total PoE power budget (watts)	N/A	PoE pass-thru: 19W with 802.3at/ 7.9W with 802.3af input power	N/A	53	N/A	85	N/A	100	N/A
Max MAC entries	2K	2K	4K	4K	16K	16K	16K	16K	16K
Buffer size	128KB	128KB	192KB	192KB	768KB	768KB	768KB	768KB	1.5MB
Energy Efficient Ethernet (IEEE 802.3az) compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Performance Specification									
Forwarding modes	Store-and-forward								
Bandwidth	10Gbps	10Gbps	16Gbps	16Gbps	32Gbps	32Gbps	48Gbps	48Gbps	100Gbps
Priority queuing	Weighted Round Robin (WRR)								
Jumbo frame support	Up to 9K packet size	Up to 9K packet size	Up to 9720 bytes	Up to 9720 bytes	Up to 9K packet size	Up to 9K packet size	Up to 9K packet size	Up to 9K packet size	Up to 9K packet size
Acoustic noise (dB) (ANSI-S10.12)	0	0	0	0	0	24.5	0	24.4	0
Mean Time Between Failures (MTBF) (hrs)	2,531,294	1,685,972	2,525,259	1,242,394	504,993	840,354	243,476	643,506	1,055,076
L2 Services - VLANs									
VLAN (# Supported)	64	64	32	32	100	100	100	100	4000
IEEE 802.1Q VLAN Tagging	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Port-based VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
L2 Services - Availability									
Link Aggregation/ Port Trunking2	No	No	No	No	Static Manual LAGs only	Static Manual LAGs only	Static Manual LAGs only	Static Manual LAGs only	Static and LACP
Number of Static Manual LAGs and # of members	N/A	N/A	N/A	N/A	8 LAGs and 2 to 4 members	8 LAGs and 2 to 4 members	8 LAGs and 2 to 4 members	8 LAGs and 2 to 4 members	8 LAGs and 2 to 8 members
L2 Services - Multicast Filtering									
IGMP Snooping (v1, v2 and v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Block unknown Multicast	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supported Mulitcast groups	128	128	128	128	64	64	64	64	128
L3 Services - DHCP									
DHCP client	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2 GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE support static manual LAGs only. GS750E supports static manual LAGs and LACP.

Quality of Service (QoS)	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE	GS750E
Rate limiting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DSCP	Yes	Yes	Yes	Yes	No	No	No	No	Yes
IEEE 802.1p COS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Port-based VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WRR (Weighted Round Robin)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Strict Priority Queue Technology	No	No	No	No	No	No	No	No	No
IEEE Network Protocols									
• IEEE 802.3 Ethernet • IEEE 802.3i 10BASE-T • IEEE 802.3u 100BASE-T			• IEEE 802.3ab 1000BASE-T • IEEE 802.1p Class of Service • IEEE 802.3af (PoE)				• IEEE 802.1Q VLAN Tagging • IEEE 802.3x Full-duplex Flow Control		
Management									
System Password	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Web browser-based management GUI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PC Utility	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Port Mirroring	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Multiple Language GUI	Yes: English, German, Japanese								
Max number of source ports allowed (many to 1)	4	4	7	7	15	15	23	23	47
Many-to-One Port Mirroring	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cable Test utility	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FW upgrade thru Plus Utility (TFTP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Config download (to Switch) thru Plus Utility	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Config upload (to Server)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Miscellaneous Features									
Loop Detection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Loop Prevention
DoS Prevention	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Broadcast Storm Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Energy Efficient Ethernet (EEE)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LEDs									
Per port	Speed, Link, Activity								
Per device	Power, Fan and PoE Power Status								

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Physical Specifications	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE	GS750E
Dimensions (mm)	94x100x27	158x100x27	158x101x29	158x101x29	286x101x26	328x170x43	328x170x43	328x170x43	440x204x43
Weight (kg)	0.25	0.47	0.50	0.54	0.84	1.67	1.40	1.84	3.25
Fan	0	0	0	0	0	1	0	1	0
Power Consumption (when all ports used, line-rate traffic and max PoE)									
Worst case, all ports used, line-rate traffic, max PoE (W)	2.6	22.0	4.5	60.0	10.0	110.0	13.8	123.0	30
Heat Dissipation Max/Standby (BTU/hr)	Max: 8.9 Min: 2.2	Max: 6.7 Min: 1.2	Max: 15.2 Min: 4.9	Max: 205.2 Min: 3.7	Max: 34.2 Min: 13.3	Max: 34.2 Min: 14.4	Max: 47.2 Min: 19.6	Max: 78.7 Min: 19.8	Max: 102.7 Min: 38.9
Environmental Specifications[2]									
Operating									
Operating temperature - Switch	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 104°F (0° to 40°C)	32° to 104°F (0° to 40°C)	32° to 104°F (0° to 40°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)	32° to 122°F (0° to 50°C)
Operating temperature - Adapter	32° to 104°F (0° to 40°C)								
Humidity	90% maximum relative humidity, non-condensing								
Altitude	10,000 ft (3,000 m) maximum								
Storage									
Storage temperature	– 4° to 158°F (–20° to 70°C)								
Humidity	95% maximum relative humidity, non-condensing								
Altitude	10,000 ft (3,000 m) maximum								
Electromagnetic Emissions and Immunity									
Certifications Class (including but not limited to CE, FCC Part 15, VCCI, RCM, KCC, EAC and CCC)	B	B	B	A	A	A	A	A	A
Safety									
Certifications	CB, CE LVD, CCC, EAC	CE LVD, EAC	CB, CE LVD, CCC, EAC	CB, CE LVD, CCC, EAC	CB, CE LVD, CCC, EAC	CB, CE LVD, CCC, EAC, UL 60950-1	CB, CE LVD, CCC, EAC, UL 60950-1	CB, CE LVD, CCC, EAC, UL 60950-1	CB, CE LVD, CCC, EAC, UL 60950-1
Warranty and Support									
Switch Warranty	Limited lifetime warranty*	Limited lifetime warranty*	Limited lifetime warranty*	Limited lifetime warranty*	Limited lifetime warranty*	Limited lifetime warranty*	Limited lifetime warranty*	Limited lifetime warranty*	Limited lifetime warranty*
Power Adapter Warranty	2 years		2 years	2 years	2 years				
Technical support	Limited Lifetime Tech Support via chat, 90-days free Technical Support via phone/chat/email.								
Next-Business-Day (NBD) Replacement	Limited lifetime*								
ProSUPPORT OnCall 24x7, Service Packs	Category S01 PMB0S11 (1 yr) PMB0S31 (3 yr) PMB0S51 (5 yr)	Category S01 PMB0S11 (1 yr) PMB0S31 (3 yr) PMB0S51 (5 yr)	Category S01 PMB0S11 (1 yr) PMB0S31 (3 yr) PMB0S51 (5 yr)	Category S01 PMB0S11 (1 yr) PMB0S31 (3 yr) PMB0S51 (5 yr)	Category S02 PMB0S12 (1 yr) PMB0S32 (3 yr) PMB0S52 (5 yr)	Category S02 PMB0S12 (1 yr) PMB0S32 (3 yr) PMB0S52 (5 yr)	Category S02 PMB0S12 (1 yr) PMB0S32 (3 yr) PMB0S52 (5 yr)	Category S02 PMB0S12 (1 yr) PMB0S32 (3 yr) PMB0S52 (5 yr)	Category 1 PMB0311 (1 yr) PMB0331 (3 yr) PMB0351 (5 yr)

[2] Do not use these devices outdoors. If you connect cables or devices that are outdoors to this device, see https://kb.netgear.com/000057103 for safety and warranty information

Package Contents

All models	Plus Switch
	Power cord or power adapter (depending on model; GS105PE has no power supply or power cord)
	Installation guide
	Rack mount kit (JGS516PE, JGS524Ev2, JGS524PE and GS750E only)

Ordering Information

GS105E		JGS516PE	
GS105E-200NAS	North America and Latin America	JGS516PE-100NAS	North America and Latin America
GS105E-200PES	Europe	JGS516PE-100EUS	Europe
GS105E-200AUS	Australia	JGS516PE-100AJS	Asia Pacific/Japan
GS105E-200UKS	United Kingdom	JGS516PE-100PRS	China
GS105E-200JPS	Japan	JGS516PE-100INS	India
GS105PE		**JGS524E**	
GS105PE-10000S	Worldwide	JGS524E-200NAS	North America and Latin America
GS108E		JGS524E-200EUS	Europe
GS108E-300NAS	North America and Latin America	JGS524E-200AJS	Asia Pacific/Japan
GS108E-300PES	Europe	JGS524E-200PRS	China
GS108E-300AUS	Australia	**JGS524PE**	
GS108E-300UKS	United Kingdom	JGS524PE-100NAS	North America and Latin America
GS108E-300PRS	China	JGS524PE-100EUS	Europe
GS108E-300INS	India	JGS524PE-100AJS	Asia Pacific/Japan
GS108E-300JPS	Japan	JGS524PE-100PRS	China
GS108PE		JGS524PE-100INS	India
GS108PE-300NAS	North America and Latin America	**GS750E**	
GS108PE-300EUS	Europe	GS750E-100NAS	North America and Latin America
GS108PE-300AJS	Asia Pacific/Japan	GS750E-100EUS	Europe
GS108PE-300PRS	China	GS750E-100AJS	Asia Pacific/Japan
GS108PE-300INS	India		
GS116E			
GS116E-200NAS	North America and Latin America		
GS116E-200PES	Europe		
GS116E-200AUS	Australia		
GS116E-200UKS	United Kingdom		
GS116E-200JPS	Japan		
GS116E-200PRS	China		

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