ProSAFE® Gigabit Plus Switches

Data Sheet



Control and Configure Beyond Plug-and-Play Connectivity

Today's growing businesses rely more on their network to carry out missioncritical 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® ProSAFE® Gigabit Plus Switches meet this growing need by providing fundamental network features such as VLANs, QoS, and IGMP Snooping that will help optimize the performance of business networks. ProSAFE Plus switches come in a variety of configurations ranging from 5 port desktop to 24 port rackmount. Certain Plus switch 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. ProSAFE 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 PC-based Utility Tool
- VLAN support for traffic segmentation

- Quality of Service (QoS) for traffic prioritization
- Auto "denial-of-service" (DoS) prevention
- Troubleshoot connection issues via
- Loop detection and broadcast storm controls

cable test

- IGMP snooping v1, v2 and v3 support for multicast optimization
- Rate limiting for better bandwidth allocation

- Port mirroring for network monitoring
- Port trunking for bigger uplink bandwidth
- Jumbo frame support
- Energy Efficient Ethernet (IEEE802.3az) support for maxium power savings
- LIFETIME Hardware Warranty¹
- LIFETIME 24/7 Technical Support
- LIFETIME Next Business Day Replacement

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Hardware at a Glance

		FRC	DNT	REAR		
Model name	Form-Factor	10/100/1000 Base-T RJ45 ports	PoE 802.3af	Power Supply	PoE budget	
GS105E	Desktop	5	N/A	External Power Adapter	N/A	
GS105PE	Desktop	5	2	None - Requires power from a PoE switch	up to 22w	
GS108E	Desktop	8	N/A	External Power Adapter	N/A	
GS108PE	Desktop	8	4	External Power Adapter	45w	
GS116E	Desktop	16	N/A	External Power Adapter	N/A	
JGS516PE	Rackmount	16	8	Internal	85w	
JGS524E	Rackmount	24	N/A	Internal	N/A	
JGS524PE	Rackmount	24	12	Internal	100w	

Software at a Glance

Management	IP Multicast filtering	EEE (802.3az) Auto-EEE	VLANs	QoS	Port Trunking	Rate Limiting	Jumbo Frame Support
PC Utility Tool Web GUI	IGMP Snooping v1, v2 and v3	Yes	Port-based, IEEE802.1Q-based VLANs	Port-based, IEEE802.1p-based	Yes	Yes	Yes

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Features and Benefits

Hardware Features	Benefits
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 rackmount	Flexibile deployment for either desktop placement, undertable mount, wall mount as well as rackmount
Software Features	Benefits
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
Port Trunking	Build up a bigger bandwidth to support aggregated uplink traffic
Port Mirroring	For better and quicker network diagnotics and troubleshooting
Cable Test	Easily identify bad Ethernet cables

ProSAFE[®] Gigabit Plus Switches

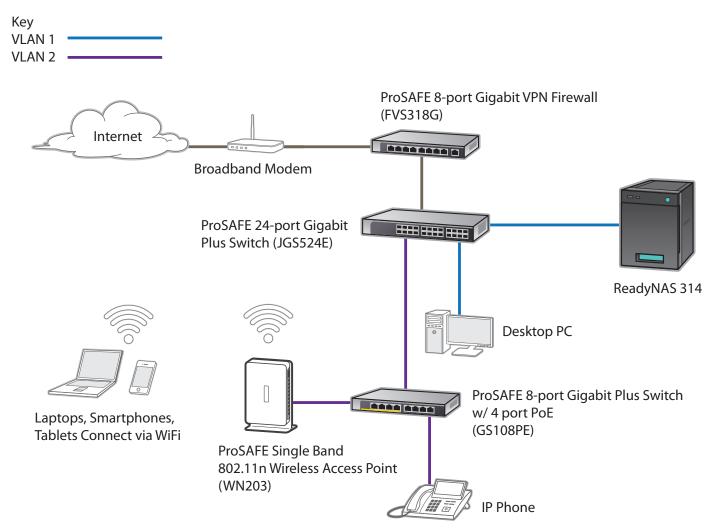
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Target Application

SMB Network Application

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



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Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
Gigabit ports	5	5	8	8	16	16	24	24
# of PoE ports	NA	2	NA	4	NA	8	NA	12
Total PoE Power budget (Watts)	NA	PoE pass-thru: 20W with AT in, 8W with AF in.	NA	45	NA	85	NA	100
Max MAC entries	8K	8K	4K	4K	16K	16K	16K	16K
Buffer size			192KB	192KB	6Mbit per system	6Mbit per system	6Mbit per system	6Mbit per system
Energy Efficient Enthernet (IEEE802.3az complaint)				Y	/es			
	Store-and-forward							
Forwarding modes				Store-an	d-forward			
Forwarding modes Bandwidth	10 Gbps	10 Gbps	16 Gbps	Store-an 16 Gbps	d-forward 32 Gbps	32 Gbps	48 Gbps	48 Gbps
	10 Gbps	10 Gbps			32 Gbps		48 Gbps	48 Gbps
Bandwidth Priority queuing	10 Gbps	10 Gbps		16 Gbps ghted Round Robi	32 Gbps		48 Gbps	48 Gbps
Bandwidth Priority queuing	10 Gbps 0	10 Gbps 0		16 Gbps ghted Round Robi	32 Gbps n (WRR), Strict or		48 Gbps 0	48 Gbps 24.4
Bandwidth Priority queuing Jumbo frame support Acoustic noise			We	16 Gbps ghted Round Robi up to 9K	32 Gbps n (WRR), Strict or packet size	both		
Bandwidth Priority queuing Jumbo frame support Acoustic noise (ANSI-S10.12) Mean Time Between Failures (MTBF)	0		0 We	16 Gbps ghted Round Robi up to 9K O	32 Gbps n (WRR), Strict or packet size O	24.5	0	24.4
Bandwidth Priority queuing Jumbo frame support Acoustic noise (ANSI-S10.12) Mean Time Between Failures (MTBF) L2 SERVICES - VLA VLAN	0		0 We	16 Gbps ghted Round Robi up to 9K O	32 Gbps n (WRR), Strict or packet size O	24.5	0	24.4
Bandwidth Priority queuing Jumbo frame support Acoustic noise (ANSI-S10.12) Mean Time Between	0 NS	0	We 0 2,525,259	16 Gbps ghted Round Robi up to 9K 0 1,242,392 32	32 Gbps n (WRR), Strict or packet size 0 504,993	both 24.5 840,354	0 243,476	24.4 643,506



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Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
L2 SERVICES - AVA	RVICES - AVAILABILITY							
Port Trunking	No	No	No	No	Yes	Yes	Yes	Yes
Number of LAGs & # of members	NA	NA	NA	NA	8 LAGs & 2 to 4 members			
L2 SERVICES - MUI	TICAST FILTER	ING						
IGMP Snooping (v1, v2 and v3)				Y	/es			
IGMP Snooping queries	No	No	No	No	Yes	Yes	Yes	Yes
Block unknown Multicast				Y	′es			
Supported Mulitcast groups	128	128	128	128	64	64	64	64
L3 SERVICES - DHC	CP							
DHCP Client				Υ	/es			
QUALITY OF SERVIO	CE (QOS)							
Rate limiting				Υ	/es			
DSCP	Yes	Yes	Yes	Yes	No	No	No	No
IEEE 802.1p COS				Y	/es			
Port-based VLAN				Y	′es			
TOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WRED (Weighted Deficit Round Robin)		Yes						
Strict Priority queue technology				Ŷ	/es			



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Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
IEEE NETWORK PROTOCOLS								
IEEE 802.3 Ethernet				IEEE 802.1p (Class of Service			
IEEE 802.3i 10BASE-T				IEEE 802	.3 af (PoE)			
IEEE 802.3u 100BASE-T				IEEE 802.1Q	VLAN Tagging			
IEEE 802.3ab 1000BASE-T				IEEE 802.3x full-	duplex flow contro	bl		
MANAGEMENT								
System Password				Y	és			
PC Utility				Y	′es			
Port Mirroring				Y	′es			
Max number of source ports allowed (many to 1)	4	4	7	7	15	15	23	23
Many to One Port Mirroring				Y	′es			
Cable Test utility				Y	′es			
FW Upgrade thru Plus Utility (TFTP)		Yes						
Config Download (to Switch) thru Plus Utility				Υ	/es			
Config Upload (to Server)				Y	és			



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Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
MISCELLANEOUS F	EATURES		1					
Loop Detection	Yes							
DoS Prevention				Ŷ	és			
Broadcast Storm Control				Ŷ	és			
Energy Efficient Ethernet (EEE)				Ŷ	'es			
LEDs								
Per port				Speed, Lir	nk, Activity			
Per device				Power, Fan and	PoE Power Status			
PHYSICAL SPECIFIC	ATIONS							
Dimensions	94x101x26	158x 105x27	158x101x29	158x101x29	286x 101x26	328x 169x43mm	328x 170x43	328x 169x43mn
Weight	0.27Kg	0.45Kg	0.51Kg	0.54Kg	0.84Kg	1.67 Kg	1.4Kg	1.84Kg
Fan	0	0	0	0	0	1	0	1
Power Consumption	(when all ports	used, line-rate t	raffic and max P	oE)				
Worst case, all ports used, line-rate traffic, max PoE	3	25	4.45	60	10	110	13.8	123
ENVIRONMENTAL S	PECIFICATIONS							
Operating								
Operating Temperature	0-50°C	0-50°C	0-40°C	0-40°C	0-50°C	0-50°C	0-50°C	0-50°C
Humidity			90% r	naximum relative l	numidity, non-con	densing		
Altitude	10,000 ft (3,000 m) maximum							
Storage								
Storage Temperature				– 4° to 158°F	(–20° to 70°C)			
Humidity			95% r	naximum relative ł	numidity, non-con	densing		
Altitude				10,000 ft (3,0	00 m) maximum			



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Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE
Electromagnetic Emissions and Immunity								
Certifications Class (including but not limited to CE mark, commercial, FCC Part 15, VCCI, EN55022 (CISPR 22), C-Tick, EN50082-1, EN55024, CCC)	В	В	В	A	A	A	A	A
Safety								
Certifications	CE mark, commercial CSA certified (CSA 22.2 #950) UL listed (UL 1950)/cUL IEC 950/EN 60950							
WARRANTY AND SUP	PORT							
Warranty	Lifetime on switch and 2-year on Power adapter	Lifetime	Lifetime on sw	itch and 2-year or	n Power adapter		Lifetime	
Technical Support			Lifetime Tec	h Support via cha	t, 90 day tech sup	port via email		
Next Business Day Replacement	Lifetime							
PACKAGE CONTENTS								
All models	ProSAFE® Gigabit Plus Switch Power cord or power adapter (depending on model; GS105PE has no power supply or power cord) Rack-mounting kit Quick Install Guide Resource CD with PC Utility software							

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Ordering Information

ORDERING INFORMATION	
G\$105E	
North America and Latin America	GS105E-200NAS
Europe	GS105E-200PES
Australia	GS105E-200AUS
United Kingdom	GS105E-200UKS
GS105PE	
Worldwide	GS105PE-10000S
GS108E	
North America and Latin America	GS108E-300NAS
Europe	GS108E-300PES
Australia	GS108E-300AUS
United Kingdom	GS108E-300UKS
China	GS108E-300PRS
GS108PE	
North America and Latin America	GS108PE-300NAS
Europe	GS108PE-300EUS
Asia Pacific	GS108PE-300AJS
China	GS108PE-300PRS
GS116E	
North America and Latin America	GS116E-200NAS
Europe	GS116E-200PES
Australia	GS116E-200AUS
United Kingdom	GS116E-200UKS
Japan	GS116E-200JPS
China	GS116E-200PRS

JGS516PE	
North America and Latin America	JGS516PE-100NAS
Europe	JGS516PE-100EUS
Asia Pacific	JGS516PE-100AJS
China	JGS516PE-100PRS
JGS524E	
North America and Latin America	JGS524E-200NAS
Europe	JGS524E-200EUS
Asia Pacific	JGS524E-200AJS
China	JGS524E-200PRS
JGS524PE	
North America and Latin America	JGS524PE-100NAS
Europe	JGS524PE-100EUS
Asia Pacific	JGS524PE-100AJS
China	JGS524PE-100PRS

24x7 Lifetime Advanced Technical Support includes Remote Diagnostics performed by our technical experts for prompt resolution of technical issues. Lifetime Next Business Day onsite hardware replacement support included: see http://onsite.netgear.com for coverage, availability and terms and conditions.

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