#### **Gigabit Ethernet Smart Managed Plus Switches**

Data Sheet





#### 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® Smart Managed 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. Smart Managed Plus Switches come in a variety of configurations ranging from 5 port desktop to 48 port rackmount. 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. Smart Managed 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<sup>1</sup>

- 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
- $\cdot$  Rate limiting for better bandwidth allocation

- $\boldsymbol{\cdot}$  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
- LIFETIME Limited Hardware Warranty\* (excludes external power adapters on applicable models)
- · LIFETIME 24/7 Chat Technical Support\*
- · LIFETIME Next-Business-Day Replacement\*







Page 2 Models at a glance
Page 3 Feature and benefit
Page 4 Target application
Page 5- 9 Technical specifications
Page 10 Ordering information

<sup>&</sup>lt;sup>1</sup> Option only available on the GS108Ev3, GS108PEv3, GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE. English, German, and Japanese are the current supported languages.

## Gigabit Ethernet Smart Managed Plus Switches

Data Sheet

#### Hardware at a Glance

		FRC	DNT	REAR	INTERNAL
Model name	Form-Factor	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	Rackmount	16	8	Internal	85W
JGS524Ev2	Rackmount	24	N/A	Internal	N/A
JGS524PE	Rackmount	24	12	Internal	100W
GS750E	Rackmount	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 <sup>2</sup>	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

 $<sup>^2</sup>$  GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE support static manual LAGs only. GS750E supports static manual LAGs and LACP.

## **Gigabit Ethernet Smart Managed Plus Switches**

Data Sheet

#### **Features and Benefits**

Hardware Features	Benefits
All Gigabit models	Making Smart Managed Plus Switch an ideal upgrade for SMB network combining management capability with higher speed and better performance
PoE offerings in Smart Managed Plus Switches	With half of the ports capable of supporting PoE, these PoE Smart Managed 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 <sup>††</sup>	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
Link Aggregation/Port Trunking <sup>2</sup>	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 <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Option only available on the GS108Ev3, GS108PEv3, GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE. English, German, and Japanese are the current supported languages.

<sup>&</sup>lt;sup>2</sup> GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE support static manual LAGs only. GS750E supports static manual LAGs and LACP.

### **Gigabit Ethernet Smart Managed Plus Switches**

Data Sheet

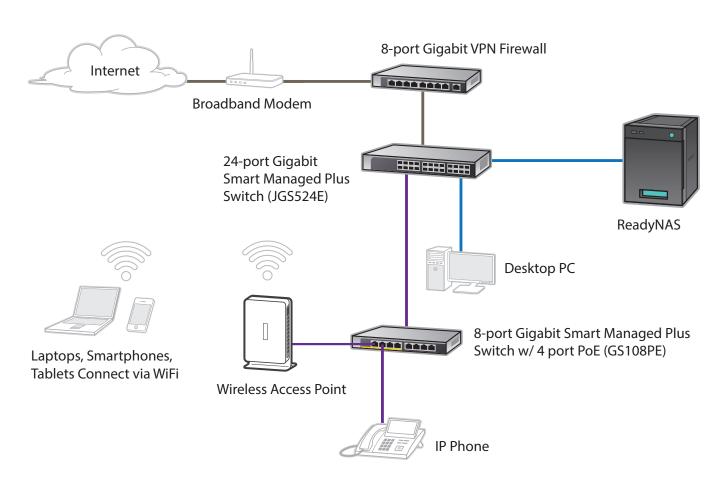
#### **Target Application**

#### SMB Network Application

Why the NETGEAR Gigabit Smart Managed 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





# Gigabit Ethernet Smart Managed Plus Switches

Data Sheet

PRODUCT SPECIF	ICATIONS								
Product	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								
PERFORMANCE S	SPECIFICATIO	N							
Forwarding modes				S	tore-and-forwa	rd			
Bandwidth	10Gbps	10Gbps	16Gbps	16Gbps	32Gbps	32Gbps	48Gbps	48Gbps	100Gbps
Priority queuing				Weigh	ted Round Robin	(WRR)			
Jumbo frame support	Up to 9K	packet size	Up to 9	720 bytes	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 - VI	LANS								
VLAN (# Supported)	64	64	32	32	100	100	100	100	4000
IEEE 802.1Q VLAN Tagging		Yes							
Port-based VLAN					Yes				

## Gigabit Ethernet Smart Managed Plus Switches

Data Sheet

Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE	GS750E	
L2 SERVICES - AVAILABILITY										
Link Aggregation/ Port Trunking <sup>2</sup>	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					
L2 SERVICES - N	NULTICAST FIL	TERING								
IGMP Snooping (v1, v2 and v3)					Yes					
Block unknown Multicast					Yes					
Supported Mulitcast groups	128	128	128	128	64	64	64	64	128	
L3 SERVICES - D	НСР									
DHCP client					Yes					
QUALITY OF SER	VICE (QOS)									
Rate limiting					Yes					
DSCP	Yes	Yes	Yes	Yes	No	No	No	No	Yes	
IEEE 802.1p COS		Yes								
Port-based VLAN	Yes									
TOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
WRR (Weighted Round Robin)		Yes								
Strict Priority Queue Technology					No					

<sup>&</sup>lt;sup>2</sup> GS116Ev2, JGS516PE, JGS524Ev2, and JGS524PE support static manual LAGs only. GS750E supports static manual LAGs and LACP.

# Gigabit Ethernet Smart Managed Plus Switches

Data Sheet

Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE	GS750E
IEEE NETWORK P	ROTOCOLS								
• IEEE 802.3 Ethernet • IEEE 802.3ab 1000BASE-T • IEEE 802.1Q VLAN Tagging								gging	
• IEEE 802.3i 10BAS	E-T		• IEEE 802	.1p Class of Serv	ice	· IEEE	802.3x Full-dupl	ex Flow Control	
• IEEE 802.3u 100B	ASE-T		• IEEE 802	2.3af (PoE)					
MANAGEMENT									
System Password					Yes				
Web browser- based manage- ment GUI					Yes				
PC Utility					Yes				
Port Mirroring					Yes				
Multiple Language GUI	No	No	Yes English, German, Japanese	Yes English, German, Japanese	Yes English, German, Japanese	Yes English, German, Japanese	Yes English, German, Japanese	Yes English, German, Japanese	No
Max number of source ports allowed (many to 1)	4	4	7	7	15	15	23	23	47
Many-to-One Port Mirroring					Yes				
Cable Test utility					Yes				
FW upgrade thru Plus Utility (TFTP)					Yes				
Config download (to Switch) thru Plus Utility		Yes							
Config upload (to Server)	Yes								
MISCELLANEOUS	S FEATURES								
Loop Detection	Yes Loop Preven						Loop Prevention		
DoS Prevention	Yes								
Broadcast Storm Control		Yes							
Energy Efficient Ethernet (EEE)		Yes							

## **Gigabit Ethernet Smart Managed Plus Switches**

Data Sheet

Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE	GS750E	
LEDs										
Per port		Speed, Link, Activity								
Per device				Power, F	an and PoE Pow	er Status				
PHYSICAL SPECII	FICATIONS									
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 CONSUM	1PTION (WHE	N ALL PORTS	USED, LINE-F	RATE TRAFFIC A	AND MAX POE	<u> </u>		,		
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	
ENVIRONMENTAI	L SPECIFICATI	ONS <sup>2</sup>								
Operating										
Operating temperature	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)				
Humidity				90% maximum r	elative humidity,	, non-condensin	9			
Altitude		10,000 ft (3,000 m) maximum								
Storage										
Storage temperature		– 4° to 158°F (–20° to 70°C)								
Humidity				95% maximum r	elative humidity	, non-condensin	g			
Altitude				10,000	) ft (3,000 m) m	naximum				

<sup>&</sup>lt;sup>2</sup> 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

# Gigabit Ethernet Smart Managed Plus Switches

Data Sheet

Product	GS105Ev2	GS105PE	GS108Ev3	GS108PEv3	GS116Ev2	JGS516PE	JGS524Ev2	JGS524PE	GS750E	
Electromagnetic Emissions and Immunity										
Certifications Class (including but not limited to CE, FCC Part 15, VCCI, RCM, KCC, EAC and CCC)	В	В	В	А	А	А	A	А	А	
Safety										
Certifications	CB, CE LVD, CCC, EAC	CE LVD, EAC	C	B, CE LVD, CCC, E	AC	(	CB, CE LVD, CCC,	EAC, UL 60950-	-1	
WARRANTY AND S	UPPORT									
Warranty	Switch: Lifetime limited warranty* Power adapter: 2 years	Lifetime limited warranty*		Lifetime limited v ower adapter: 2 ye	-	Lifetime limited warranty*				
Technical support			Lifeti	me Tech Support*	' via chat, 90 da	y tech support \	via email			
Next-Business-Day (NBD) Replacement					Lifetime*					
ProSUPPORT OnCall 24x7, Service Packs	Category S01 PMB0S11 (1 yr.) PMB0S31 (3 yrs.) PMB0S51 (5 yrs.)				PMBOS12 (1 yr.) PMB PMBOS32 (3 yrs.) (1 PMBOS52 (5 yrs.) PMB (3				Category 1 PMB0311 (1 yr.) PMB0331 (3 yrs.) PMB0351	
									(5 yrs.)	
PACKAGE CONTENTS										
All models  Smart Managed Plus Switch Power cord or power adapter (depending on model; GS105PE has no power supply or power cord) Quick Install Guide Rackmount kit (JGS516PE, JGS524Ev2, JGS524PE and GS750E only)										

### **Gigabit Ethernet Smart Managed Plus Switches**

Data Sheet

#### **Ordering Information**

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

JGS516PE  North America and Latin America  Europe  Asia Pacific/Japan  China India	JGS516PE-100NAS JGS516PE-100EUS JGS516PE-100AJS JGS516PE-100PRS JGS516PE-100INS
JGS524E  North America and Latin America  Europe  Asia Pacific/Japan  China	JGS524E-200NAS JGS524E-200EUS JGS524E-200AJS JGS524E-200PRS
JGS524PE North America and Latin America Europe Asia Pacific/Japan China India	JGS524PE-100NAS JGS524PE-100EUS JGS524PE-100AJS JGS524PE-100PRS JGS524PE-100INS
GS750E  North America and Latin America  Europe  Asia Pacific/Japan	GS750E-100NAS GS750E-100EUS GS750E-100AJS

NETGEAR and the NETGEAR logo are trademarks of NETGEAR, Inc. in the United States and/or other countries. Other brand names mentioned herein are for identification purposes only and may be trademarks of their respective holder(s). Information is subject to change without notice. © 2018 NETGEAR, Inc. All rights reserved.

<sup>\*</sup> This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller, and modifications to product may void the warranty; covers hardware, fans, and internal power supplies—not software or external power supplies; see http://www.netgear.com/about/warranty/ for details. 2-year warranty on power adapters on applicable models. Lifetime technical support includes basic phone support for 90 days from purchase date and lifetime online chat support when purchased from a NETGEAR authorized reseller.

<sup>\*\*</sup> The NETGEAR OnCall 24x7 contract provides unlimited phone and email technical support for your networking product. For products purchased prior to 06/2014, also includes next business day hardware replacement.

<sup>†</sup> NETGEAR #1 in US Market Share according to NPD data for Unmanaged and Web/Smart Switches, June 2018. NETGEAR #1 in Europe Market Share according to Context data for Unmanaged and Web/Smart Switches, June 2018.

 $<sup>\</sup>dagger\dagger$  Only JGS516PE, JGS524Ev2, JGS524PE, and GS750E are rack-mountable.

#### REPRESENTADO EN MÉXICO POR TELSA MAYORISTA

Oriente 65A No. 2848, Asturias, Cuauhtémoc, 06850, CDMX, México Tels.: +52 (55) 5740 2142 / 5740 0606 • ventas@telsa.com.mx • www.telsa.com.mx Síguenos en: Twitter.com/TelsaMayorista • Facebook.com/TelsaMexico

