Smart Managed Plus Gigabit Ethernet Click Switches

Data Sheet

GSS108E/GSS108EPP/GSS116E





Your Ports and Cables Where You Want Them

Today's networks have increasing numbers of devices attached to them, both wired and wireless. As wired devices proliferate, it can be difficult to easily and neatly place networked ports where you want them.

NETGEAR® Gigabit Ethernet Click Switches™ address this issue with an innovative and thoughtful hardware design, including the flexible "Virtually Anywhere™" Click mounting system. The new Gigabit Ethernet Click Switches are Gigabit Ethernet switches with an industry-first, bracket mounting system for easy installation. Available in either 8-port (PoE and non-PoE) or 16-Gigabit port configurations, their slim design and internal power supplies enables you to organize wires, secure cables, eliminate bulky power adapters, and improve the overall appearance of wiring closets, training facilities, lab benches, conference rooms, and entertainment centers that require multiple connected devices.

Hardware Highlights

- Unique Virtually AnywhereTM Click mounting system for flexible placement options
- Cable management with provided retaining strap
- Multi-directional power cable to optimize placement
- Internal power supply to eliminate power brick
- 2 USB ports for quick access to charging tablets or smartphones (GSS108E only)
- 4 PoE/PoE+ ports to power up Phones, Access Points, IP cameras (GSS108EPP only)
- Turn LED lights ON/OFF for non-distracting operation in dark environments such as next to a TV
- · All models are fanless for silent operation

 Reinforced plastic (GSS108E) or metal case (GSS108EPP, GSS116E) for rugged durability

Software Highlights

- · VLAN support for traffic segmentation
- Quality of Service (QoS) for traffic prioritization
- Auto Denial-of-Service (DoS) prevention (GSS108EPP and GSS116E only)
- Advanced per-port PoE controls (GSS108EPP only)
- Loop detection and broadcast storm controls
- IGMP snooping v1, v2 and v3 support for multicast optimization
- Rate limiting for better bandwidth allocation

- $\boldsymbol{\cdot}$ Port mirroring for network monitoring
- Port trunking for bigger uplink bandwidth. (GSS116E and GSS108EPP only)
- · Jumbo frame support
- Energy Efficient Ethernet (IEEE 802.3az) support for maxium power savings
- Troubleshoot connection issues via cable test
- Web Interface with multiple language option**

Industry Leading Warranty







- · LIFETIME 24/7 Technical Support
- LIFETIME Next Business Day Replacement
- ProSAFE® LIFETIME Hardware Warranty*

Virtually Anywhere™ Click Mounting System



Vertical/side mount



Vertical/rear mount



Horizontal/side mount



Horizontal/rear mount

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Hardware at a Glance

Model name	Form-Factor	10M/100M/1G Copper Ports	Internal Power Supply	USB Charging Ports	PoE/PoE+ ports	Case Material	Fans
GSS108E	Click Switch Virtually Anywhere™	8	Yes	2 ports 10W maximum per port 15W maximum total	N/A	Plastic	Fanless
GSS108EPP	Click Switch Virtually Anywhere	8	Yes	N/A	4 PoE+ (47W budget)	Metal	Fanless
GSS116E	Click Switch Virtually Anywhere	16	Yes	N/A	N/A	Metal	Fanless



- 8 x Gigabit Ethernet Copper Ports
- 2 x USB charging ports



• 16 x Gigabit Ethernet Copper Ports



- 8 x Gigabit Ethernet Copper Ports
- 4 x PoE/PoE+ capable ports

Software at a Glance

Management	VLANs	QoS	Port Trunking (Manual LAG)	IP Multicast Filtering	Rate Limiting & Priority Queueing	Jumbo Frame Support	IEEE (802.3az) Energy Effiecient Ethernet
Web Browser-based GUI (HTTP), PC-Based ProSAFE Plus Utility	Port-based, IEEE 802.1Q-based, Voice¹ (¹GSS108EPP Only)	Port-based, IEEE 802.1p/DSCP- based	Static LAG ² (GSS108EPP, GSS116E)	IGMP Snooping	Yes	Yes	Yes

Performance at a Glance

Model name	Fabric	Packet Buffer	Latency (Max Connection Speed)	VLANS	MAC Address Table	Priority Queues	Multicast IGMP Group	Packet Forwarding Rate (64 byte)	Jumbo Frames (bytes)
GSS108E	16Gbps line-rate	128KB	10Mbps: <79µs 100Mbps: <9.4µs 1000Mbps: <3.2µs	64	8K Entries (dynamic)	4 (WRR)	128	11.9 Mfps	up to 9K
GSS108EPP	16Gbps line-rate	192KB	10Mbps: < 77µs 100Mbps: <8.9µs 1000Mbps: <2.6µs	64	4K Entries (dynamic)	4 (WRR)	128	11.9 Mfps	up to 9K
GSS116E	16Gbps line-rate	512KB	10Mbps: <110µs 100Mbps: <14.5µs 1000Mbps: <5.0µs	128	8K Entries (dynamic)	4 (WRR)	128	23.8 Mfps	up to 9K

² Varies based on model. GSS108EPP supports 2 LAGs with max 4 members in each LAG. GSS116E supports 2 LAGs with max 8 members in each LAG.

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GSS108E/GSS108EPP/GSS116E

Features and Benefits

Hardware Features	Benefits
Click Mounting System	The innovative 1-2-3-4 mounting system gives you the flexibility to place the Gigabit Ethernet Click Switch in locations where other switches will not go. Whether it's directly on a wall, strapped to a pole, under the meeting table in a conference room or in a server closet, vertical or horizontal, flat or perpendicular, the Gigabit Ethernet Click Switch's unique mounting system allow you to control exactly how and where your ports and cables are deployed.
Easy Cable Management	Multi-directional power cable can be routed outwards or to suit most any mounting needs. Ethernet cables can be strapped to the bracket or mounting surface using the provided retaining strap.
PoE/PoE+ support (GSS108EPP only)	Power-Over-Ethernet (PoE) option available for powering IP Security Cameras, VOIP phones, wireless access points, and other PD-powered devices.
	4 PoE+ ports (47W total)) allows connection of up to 4 PoE/PoE+ (802.3af and 802.3at) devices and 4 additional non-PoE devices.
USB Charging ports (GSS108E only)	The GSS108E features two conveniently placed USB ports for users to charge their smartphones and tablets.
Software Features	Benefits
Port-based and 802.1Q-based VLANs	Segment network into smaller groups for more secure and efficient use of network resources.
Comprehensive QoS features: Port-based or 802.1p-based prioritization Layer 3-based (DSCP) prioritization Port-based ingress and egress rate limiting	Advanced controls for optimized network performance and better delivery of mission-critical traffic such as voice and video. Ingress and egress rate limiting allows for bandwidth shaping for mitigating network resources constraints or for optimizing guest access bandwidth on the network.
IGMP Snooping	For improved network efficiency on delivering multicast traffic. Save cost and improve network efficiency by ensuring multicast traffic only reaches designated receivers without the need of an extra multicast router.
Port trunking/Link Aggregation (Static Manual LAGs) (GSS116E/GSS108EPP only)	Build up bigger bandwidth to support aggregated uplink/downlink traffic or to provide redundant link(s) using Static Manual LAGs.
Advanced per-port PoE Controls (GSS108EPP Only)	Advanced per-port PoE controls for remote power management of PoE connected devices (eg. Wireless AP, IP security cameras, LED lighting, door locks, IoT devices)
Voice VLAN (GSS108EPP Only)	The feature enables auto assignment of voice traffic (based on OUI) to a special VLAN (AKA Voice VLAN), allowing the assignment of special QoS parameters to that traffic, and tagging the port automatically, giving it high priority services. Voice VLAN must be enabled on a per port basis.
Loop detection and auto-DoS prevention (GSS108EPP and GSS116E only)	Detect accidental network loops and protect against DoS attacks.
Port Mirroring	For better and quicker network diagnostics and troubleshooting.
Energy Efficient Ethernet (IEEE 802.3az)	For maximum power savings and reduced energy costs.
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.

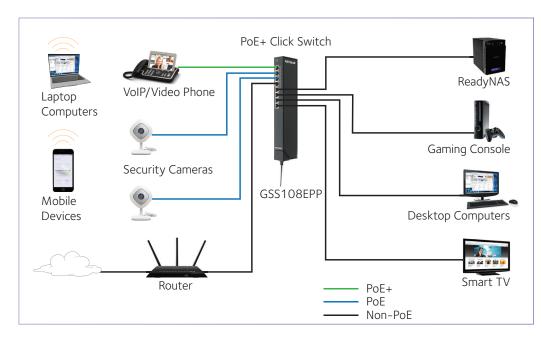
Smart Managed Plus Gigabit Ethernet Click Switches

Data Sheet

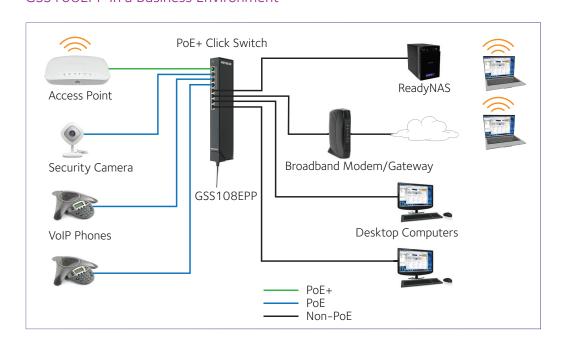
GSS108E/GSS108EPP/GSS116E

Example Application

GSS108EPP In a Home Environment



GSS108FPP In a Business Environment



Why Click Switches and Why from NETGEAR?

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

- "Virtually AnywhereTM" mounting system gets your PoE+ ports where you need them
- 2. 4-way placement of switch vertical, horizontal, flat or perpendicular
- 3. 4 PoE+ (802.3at or 802.3af) and 4 non-PoE ports for flexible deployment (GSS108EPP only)
- 4. Fanless silent operation and Energy Efficient Ethernet
- 5. Lifetime limited warranty and lifetime support chat

Smart Managed Plus Gigabit Ethernet Click Switches

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GSS108E/GSS108EPP/GSS116E

	-				
Product	GSS108E	GSS108EPP	GSS116E		
100M/1G/10G RJ-45 copper ports		3	16		
PoE/PoE+ ports	N/A	4 PoE+ (47W PoE Budget)	N/A		
USB charging ports	2 ports 10W maximum per port 15W maximum total	N/A	N/A		
PERFORMANCE SPECIFICATION					
Packet buffer memory (Dynamically shared across only used ports)	128КВ	192KB	512KB		
Forwarding modes		Store-and-forward			
Bandwidth (full-duplex fabric)	16Gbps	16Gbps	32Gbps		
Priority queues		4			
Priority queuing		Weighted Round Robin (WRR)			
MAC address database size (48-bit MAC addresses)	8K	4K	8K		
Multicast groups	128				
Number of VLANs	64	64	128		
Packet forwarding rate (64 byte packet size) (Mfps or Mpps)	11.9Mfps	11.9Mfps	23.8Mfps		
Speed/Latency	10Mbps: <79µs 100Mbps: <9.4µs 1000Mbps: <3.2µs	10Mbps: < 77µs 100Mbps: <8.9µs 1000Mbps: <2.6µs	10Mbps: <110µs 100Mbps: <14.5µs 1000Mbps: <5.0µs		
Jumbo frame support		Up to 9K packet size			
Acoustic noise level @ 25° C (dBA) (ANSI-S10.12)		OdB (Fanless)			
Mean Time Between Failures (MTBF) @ 25° C	1,031,177 hours	1,494,913 hours	721,479 hours		
L2 SERVICES - VLANS					
IEEE 802.1Q VLAN tagging		Yes			
Port-based VLANs (physical)	Yes				
L2 SERVICES - AVAILABILITY					
Broadcast, multicast, unknown unicast storm control		Yes			
Link Aggregation/Port Trunking (Static Manual LAGs only)	NI/A		2 LAGs with max 8 members in each LAG		
IEEE 802.3x (full duplex and flow control)		Yes			
L2 SERVICES - MULTICAST FILTERING					

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GSS108E/GSS108EPP/GSS116E

Product	GSS108E	GSS108EPP	GSS116E		
IGMP snooping queries	No				
Block unknown multicast		Yes			
Static multicast router port		No			
L3 SERVICES - DHCP					
DHCP client		Yes			
LINK AGGREGATION					
Static Manual LAGs (Port Trunking)	No	Yes	Yes		
# of Static LAGs/# of members in each LAG	N/A	2 LAGs with max 4 members in each LAG	2 LAGs with max 8 members in each LAG		
NETWORK MONITORING AND DISCOVERY S	ERVICES				
Broadcast, multicast, unknown unicast storm control		Yes			
DoS attacks prevention	No	Yes	Yes		
QUALITY OF SERVICE (QOS)					
Port-based rate limiting		Ingress and egress			
Port-based QoS		Yes			
IEEE 802.1p COS		Yes			
IPv4 DSCP	Yes				
IPv4 ToS	Yes				
TCP/UDP-based	No				
Weighted Round Robin (WRR)	Yes				
Strict Priority queue technology		No			
Voice VLAN	N/A Yes, based on OUI bytes in the phone source MAC address		N/A		
IEEE NETWORK PROTOCOLS					
IEEE 802.3 EthernetIEEE 802.3u 100BASE-TXIEEE 802.3ab 1000BASE-TIEEE 802.1Q VLAN Tagging	IEEE 802.3x Full-Duplex Flow Cont IEEE 802.1p Class of Service IEEE 802.3az Energy Efficient Ether	• IEEE 802.3at Pov	wer-Over-Ethernet (PoE) wer-Over-Ethernet (PoE+) rt Trunking (Static Manual LAG Only)		
MANAGEMENT					
Password management		Yes			
Multiple Language GUI	No	No	Yes: English, Japanese, German		
ProSAFE Plus Configuration Utility (PCU) for multi-switch management	Yes				
Firmware upgrade	TFTP (Plus Utility) / HTTP (Web GUI)				
Config file transfers (backup, restore)	Plus Utility or Web GUI				
Firmware upgrade through Plus Utility (TFTP)	Yes				
Config download (to switch) through Plus Utility Yes					
Config upload (to server) through Plus Utility		Yes			

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GSS108E/GSS108EPP/GSS116E

Product	GSS108E	GSS108EPP	GSS116E			
Firmware upgrade through web GUI (HTTP)	Yes					
Config download (to switch) through web GUI (HTTP)	Yes					
Config upload (to server) through web GUI (HTTP)	Yes					
Cable test utility	Yes					
Port mirroring		Yes				
Many-to-one port mirroring	1	1 1				
Mirroring port can still work normally?		Yes				
LEDs						
Per port	Speed, Link, Activity	Speed, Link, Activity (all) PoE Status (Ports 1~4)	Speed, Link, Activity			
Per device	Power	Power, PoE Max	Power			
POE CONFIGURATION						
Number of PoE/PoE+ ports	N/A	4 PoE+ (802.3at)	N/A			
Total PoE power budget (watts)	N/A	47W	N/A			
PHYSICAL SPECIFICATIONS						
Dimensions (W x D x H)	305 x 65 x 35mm (12 x 2.6 x 1.4in)	305 x 65 x 35mm (12 x 2.6 x 1.4in)	407 x 70 x 36mm (16 x 2.8 x 1.4in)			
Weight	2.80kg (6.17lb)	3.20kg (7.07lb)	1.30kg (2.87lb)			
POWER CONSUMPTION						
Power Supply	Fixed internal PSU, 100-240VAC, 50-60Hz, 1A max Power cord	Fixed internal PSU, 100-240VAC, 50-60Hz, 1.4A max Power cord	Fixed internal PSU, 100-240VAC, 50-60Hz, 1A max Power cord			
Max power (worst case, all ports used, line-rate traffic) (Watts)	localized to country of sale 4.2W (no USB charging) 20.2W (with USB charging)	localized to country of sale 5.3W (no PoE) 57.4W (with PoE max)	localized to country of sale 8.4W			
Min power (link-down standby) (Watts)	1.2W	1.65W	3W			
Heat Dissipation (max and min) (BTU/hr)	Max: 14.36 BTU/hr (no USB charging) Max: 69.08 BTU/hr (with USB charging) Min: 4.1 BTU/hr	Max: 195.79 BTU/hr Min: 5.63 BTU/hr	Max: 28.73 BTU/hr Min: 10.26 BTU/hr			
Energy Efficient Ethernet (EEE) IEEE 802.3az		Yes				
Short cable power reduction		Yes				
Auto power-down		Yes				
Fan(s)	None (Fanless)					

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GSS108E/GSS108EPP/GSS116E

Product	GSS108E	GSS108EPP	GSS116E			
ENVIRONMENTAL SPECIFICATIONS						
Operating						
Operating Temperature		'0° to 40°C (32° to 104°F)				
Humidity	90% maximum relative humidity (RH), non-condensing					
Altitude		10,000ft (3,000m) maximum				
Storage						
Storage Temperature	−20° to 70°C (− 4° to 158°F)					
Humidity (relative)	95% ma	aximum relative humidity (RH), non-co	ondensing			
Altitude		10,000ft (3,000m) maximum				
ELECTROMAGNETIC EMISSIONS AND IMMU	NITY CERTIFICATIONS					
Certifications		47 CFR FCC Part 15, SubpartB, Class ICES-003:2016 Issue 6, ClassB ANSI C63.4:2014	В			
	EN 55022:2010 + AC:2011, Class A EN 55024:2010 EN 61000-3-2:2014, Class A EN 6100-3-3:2013					
	AS/NZS CISPR 22:2009 + A1:2010, Class B					
	VCCI V-3/2015.04, Class B					
	V-4/2012.4					
	Russia EAC mark					
	Korea KC mark					
	CNS 13438					
Electromagnetic Compliance (Class A or B)		Class B				
SAFETY CERTIFICATIONS						
Certifications	CB mark, commercial					
	IEC 60950-1:2005(ed.2) + A1:2009 + A2:2013					
	UL/cUL Listed (UL 60950-1)/CAN/CSA C22.2 No. 60960-1-07					
	EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013					
	IEC	IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013				
	AS/NZS 60950.1:2015					
MADDANITY AND CLIDDODT		Russia EAC mark				
WARRANTY AND SUPPORT		Dra CAEE Lifeting Manual #				
		ProSAFE Lifetime Warranty*				
	1:5.4	Lifetime Online Technical Support*	ament			
DraCLIDDODT On Call 24-7 Consider Design		me Next-Business-Day (NBD) Replac				
ProSUPPORT OnCall 24x7 Service Packs	Category ¹	: PMB0311 PMB0331 PMB0351	Category S2: PMB0S12-10000S PMB0S32-10000S PMB0S52-20000S			

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GSS108E/GSS108EPP/GSS116E

Ordering Information

PACKAGE CONTENTS					
All models	Smart Managed Plus Gigabit Ethernet Click Switch				
	Power cord (localized to country of sale)				
	Virtually Anywhere™ Mounting Kit				
	Cable retaining/pole mounting straps				
	Quick Install Guide				
ORDERING INFORMATION					
GSS108E-100NAS	North America and Latin America				
GSS108E-100EUS	Europe and United Kingdom				
GSS108E-100JPS	Japan				
GSS108E-100AUS	Australia				
GSS108E-100PRS	China				
GSS108EPP-100NAS	North America and Latin America				
GSS108EPP-100EUS	Europe and United Kingdom				
GSS108EPP-100JPS	Japan				
GSS108EPP-100AUS	Australia				
GSS116E-100NAS	North America and Latin America				
GSS116E-100EUS	Europe and United Kingdom				
GSS116E-100JPS	Japan				
GSS116E-100AUS	Australia				
GSS116E-100PRS	China				
EXTENDED SUPPORT CONTRACTS					
GSS108E & GSS108EPP Models:					
PMB0S11-10000S	1-Year OnCall 24x7 Support Plan***				
PMB0S11-10000S	3-Year OnCall 24x7 Support Plan***				
PMB0S31-10000S	5-Year OnCall 24x7 Support Plan***				
GSS116E Model:					
PMB0S12-10000S	1-Year OnCall 24x7 Support Plan***				
PMB0S12-10000S	3-Year OnCall 24x7 Support Plan***				
PMB0S32-10000S	5-Year OnCall 24x7 Support Plan***				

^{*} 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. 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.

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^{**} Option currently available only on the GSS116E. English, German, and Japanese are the current supported languages.

^{***} The NETGEAR OnCall 24x7 contract provides unlimited phone and email technical support for your networking product. For ProSAFE products purchased prior to 06/2014, also includes Next-Business-Day (NBD) hardware replacement.

[†] 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.

REPRESENTADO EN MÉXICO POR TELSA MAYORISTA

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