NETGEAR®



Today's networks have increasing numbers of devices attached to them, both wired and wireless. As wired devices



Your Ports and Cables Where You Want Them

proliferate, it can be difficult to easily and neatly place networked ports where you want them.

NETGEAR® Gigabit Ethernet Click SwitchesTM address this issue with an innovative and thoughtful hardware design, including the flexible "Virtually AnywhereTM" 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.

Highlights

Hardware Highlights

- Unique Virtually Anywhere 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
- 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

- Limited Lifetime* 24/7 Technical Support
- Limited Lifetime* Next Business Day Replacement
- Limited Lifetime* Hardware Warranty









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

Virtually Anywhere[™] Click Mounting System









Horizontal/side mount

Horizontal/rear mount



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 Efficient Ethernet
Web Browser- based GUI (HTTP), PC-Based Pro- SAFE Plus Utility	Port-based, IEEE 802.1Q- based, Voice ¹ (¹GSS108EPP Only)	Port-based, IEEE 802.1p/ DSCP-based	Static LAG ² (GSS108EPP, GSS116E)	IGMP Snooping	Yes	Yes	Yes

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.

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	32Gbps line-rate	512KB	10Mbps: <110μs 100Mbps: <14.5μs 1000Mbps: <5.0μs	128	8K Entries (dynamic)	4 (WRR)	128	23.8 Mfps	up to 9K



Features and Benefits: Hardware Features	
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.
Features and Benefits: Software Features	
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.

Why Click Switches and Why from NETGEAR?

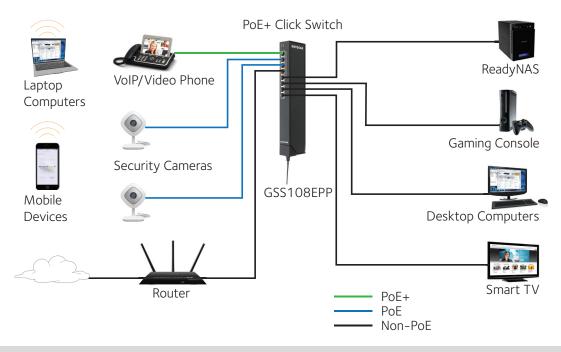
Why the NETGEAR Click Switch is the ideal upgrade from Unmanaged Switches for SMB networks:

- 1. "Virtually Anywhere" 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. Limited lifetime* warranty and lifetime support chat

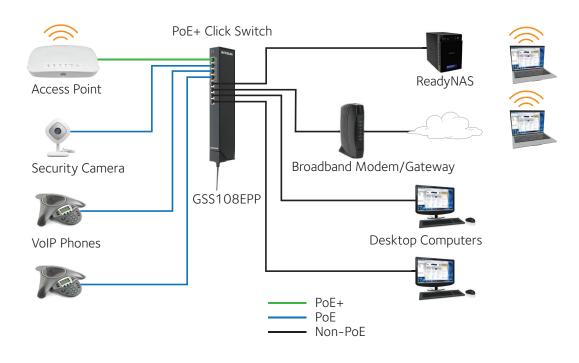


Example Application

GSS108EPP In a Home Environment



GSS108EPP In a Business Environment





Technical Specification

Technical Specifications	GSS108E	GSS108EPP	GSS116E
100M/1G/10G RJ-45 copper ports	8	8	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)	128KB	192KB	512KB
Forwarding modes		Store-and-forward	
Bandwidth (full-duplex fabric)	16Gbps	16Gbps	32Gbps
Priority queues	4	4	4
Priority queuing		Weighted Round Robin (WRR)	
MAC address database size (48-bit MAC addresses)	8K	4K	8K
Multicast groups	128	128	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)		0dB (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)	N/A	2 LAGs with max 4 members in each LAG	2 LAGs with max 8 members in each LAG
IEEE 802.3x (full duplex and flow control)		Yes	
L2 Services - Multicast Filtering			
IGMP snooping (v1, v2 and v3)		Yes	
IGMP snooping queries		No	
Block unknown multicast		Yes	
Static multicast router port		No	
L3 Services - DHCP			
DHCP Client	Yes	Yes	Yes



Link Aggregation	GSS108E	GSS108EPP	GSS116E
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 Services			
Broadcast, multicast, unknown unicast storm control	Yes	Yes	Yes
DoS attacks prevention	No	Yes	Yes
Quality of Service			
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 Ethernet IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.1Q VLAN Tagging IEEE 802.3x Full-Duplex Flow Control 	 IEEE 802.1p Class of Sen IEEE 802.3az Energy Effic IEEE 802.3af Power-Over IEEE 802.3at Power-Over IEEE 802.3ad Port Trunking 	cient Ethernet (EEE) r-Ethernet (PoE)	
Management			
Password management	Yes	Yes	Yes
Multiple Language GUI	No	No	Yes: English, Japanese German
ProSAFE Plus Configuration Utility (PCU) for multi-switch management	Yes	Yes	Yes
Firmware upgrade	-	TFTP (Plus Utility) / HTTP (Web Gl	(ال
Config file transfers (backup, restore)		Plus Utility or Web GUI	
Firmware upgrade through Plus Utility (TFTP)	Yes	Yes	Yes
Config download (to switch) through Plus Utility	Yes	Yes	Yes
Config upload (to server) through Plus Utility	Yes	Yes	Yes
Firmware upgrade through web GUI (HTTP)	Yes	Yes	Yes
Config download (to switch) through web GUI (HTTP)	Yes	Yes	Yes
Config upload (to server) through web GUI (HTTP)	Yes	Yes	Yes
Cable test utility	Yes	Yes	Yes
Port mirroring	Yes	Yes	Yes



Management	GSS108E	GSS108EPP	GSS116E
Many-to-one port mirroring	1	1	15
Mirroring port can still work normally?	Yes	Yes	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 \times D \times 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	Fixed internal PSU, 100-240VAC, 50-60Hz, 1.4A max	Fixed internal PSU, 100-240VAC, 50-60Hz, 1A max
	Power cord localized to country of sale	Power cord localized to country of sale	Power cord localized to country of sa
Max power (worst case, all ports used, line-rate traffic) (Watts)	4.2W (no USB charging) 20.2W (with USB charging)	5.3W (no PoE) 57.4W (with PoE max)	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	Yes	Yes
Short cable power reduction	Yes	Yes	Yes
Auto power-down	Yes	Yes	Yes
Fan(s)		None (Fanless)	
Environmental Specifications			
Operating			
Operating Temperature		0° to 40°C (32° to 104°F)	
Humidity	90% maxim	um relative humidity (RH), non-	-condensing
		10,000ft (3,000m) maximum	
Altitude			
Altitude Storage			
		-20° to 70°C (- 4° to 158°F)	
Storage	95% maxim	-20° to 70°C (- 4° to 158°F) um relative humidity (RH), non-	condensing





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Regulatory compliance			
		ED, UL, CB, CE, RCM, VCCI, C	
Warranty and Support	GSS108E	GSS108EPP	GSS116E
	1220	Limited Lifetime* Warranty	
		ed Lifetime* Online Technical me* Next-Business-Day (NBI	
	Category S1:	Category S1:	Category S2:
ProSUPPORT OnCall 24x7 Service Packs	PMB0S11-10000S	PMB0S11-10000S	PMB0S12-10000S
THOSE I CAN CHICAI 2 IAV SCIVICE I ACIO	PMB0S31-10000S PMB0S51-10000S	PMB0S31-10000S PMB0S51-10000S	PMB0S32-10000S PMB0S52-20000S
Package Contents	111111111111111111111111111111111111111	1 WB0331 100003	1 WB0332 200003
<u> </u>	F	lus Gigabit Ethernet Click Sw	itch
		er cord (localized to country	
All models		Virtually Anywhere Mounting	
	Ca	ble retaining/pole mounting Installation Guide	straps
Ordering Information		mstallation Guide	
GSS108E-100NAS	North America and Latin Am	erica	
GSS108E-100EUS	Europe and United Kingdon	n	
GSS108E-100JPS	Japan		
GSS108E-100AUS	Australia		
GSS108E-100PRS	China		
GSS108EPP-100NAS	North America and Latin Am	erica	
GSS108EPP-100EUS	Europe and United Kingdon	1	
GSS108EPP-100JPS	Japan		
GSS108EPP-100AUS	Australia		
GSS116E-100NAS	North America and Latin Am	erica	
GSS116E-100EUS	Europe and United Kingdon	1	
GSS116E-100JPS	Japan		
GSS116E-100AUS	Australia		
GSS116E-100PRS	China		



Ordering Information

Extended Support Contracts	
GSS108E & GSS108EPP Models:	
PMB0S11-10000S	1-Year OnCall 24x7 Support Plan***
PMB0S31-10000S	3-Year OnCall 24x7 Support Plan***
PMB0S51-10000S	5-Year OnCall 24x7 Support Plan***
GSS116E Model:	
PMB0S12-10000S	1-Year OnCall 24x7 Support Plan***
PMB0S32-10000S	3-Year OnCall 24x7 Support Plan***
PMB0S52-10000S	5-Year OnCall 24x7 Support Plan***

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DS-GSS108E/GSS108EPP/GSS116E-20Feb21

^{*}This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller, and covers unmodified hardware, fans and internal power supplies - not software or external power supplies, and requires product registration at https://www.netgear.com/business/registration within 90 days of purchase; see https://www.netgear.com/about/warranty for details. Intended for indoor use only.

^{**} 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 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 Smart Switches, September 2019. NETGEAR #1 in Europe Market Share according to Context data for Unmanaged and Plus Switches, September 2019.