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?

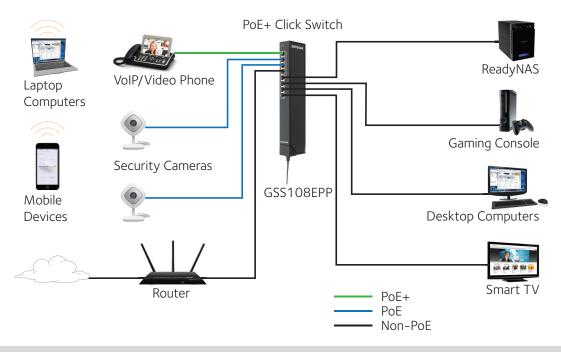
Why the NETGEAR Click Switch is the ideal upgrade from Unmanaged Switches for SMB networks:

- 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

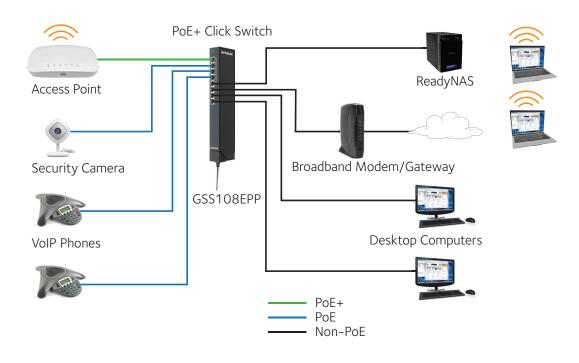


Example Application

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 |





| De sulatan i agnanlian - | | | |
|---|---|---|----------------------------------|
| 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.