NETGEAR 300 Series Gigabit Ethernet Unmanaged Switches with PoE provide easy, reliable, and affordable network connectivity for home and small offices. With these unmanaged plug-and-play switches, you can expand your network connections to multiple devices instantly.

The unmanaged switches provide power and data from a single Ethernet (CAT-5e) cable to devices such as IP cameras, VoIP/Internet-based phones, wireless access points, etc. The majority of these models also support PoE power auto-balance and allocation feature.

NETGEAR’s unique PoE technology automatically balances the PoE power based on the device needs independent of PoE class detected. These switches deliver the power the device needs, at the most granular level.

Outstanding power flexibility with NETGEAR’s exclusive FlexPoE

The GS308PP, GS316P, and GS316PP support NETGEAR’s exclusive FlexPoE upgradeable PoE power feature. Powered by the industry’s first flexible PoE+ integrated technology, you can increase or decrease the PoE budget by simply purchasing a new NETGEAR FlexPoE power supply, effectively futureproofing small business networks and budgets. With NETGEAR’s exclusive FlexPoE, these two switches help businesses cost effectively increase their power budget to expand their network as needed.

All ports support PoE/PoE+ up to 30W per port, which makes them the perfect switches for deploying Wireless APs, Pan/Tilt/Zoom and fixed IP Cameras, VoIP Phones, access-limited security door locks or any other IoT PoE-powered devices.

The GS308PP, GS316P, and GS316PP have copper Gigabit Ethernet PoE+ ports featuring NETGEAR FlexPoE power. The GS308PP ships with 83W◊ of PoE budget, GS316P ships with 115W◊, and the GS316PP features an astounding 183W◊ of PoE power budget.

Should you need more power in the future, rather than replacing the entire switch, with NETGEAR FlexPoE, you can just purchase the optional NETGEAR FlexPoE EPS130W Power Adapter, which will boost the PoE budget of your GS308PP and with the EPS200W Power Adapter, which will boost the PoE budget of your GS316P.
Highlights

- Auto-MDI/MDIX eliminates the need for crossover cables
- LED indicators for ease of use
- Energy-efficient technology for power savings
- Fanless design for silent operation
- Auto-negotiation for automatic connection at the highest common speed between switch and an end device
- Non-blocking switching architecture for maximum throughput at wire speed
- Plug-and-play; no setup required
- Durable and rugged metal case
- Desktop or wall-mountable (based on specific model)
- Ideal for small office and home networks
- Standards-based technology ensures interoperability with any standards-based devices in the existing network
- 802.3af and 802.3at Power Over Ethernet (PoE and /PoE+, depending on specific model) for IP cameras, VoIP/Internet-based phones, wireless access points.

Small Office/Home Office Network Diagram

Expanding Wired Connectivity for SOHO Networks

Increase or decrease your PoE budget anytime by simply upgrading your switch Power Supply, without having to purchase a new switch. Future-proof your PoE budget with GS308PP or GS316P. And if you have power-hungry devices and directly need a high power PoE switch, buy G316PP. This unique combination from NETGEAR Business makes these switches the most adaptive in the market.

The following table describes the Accessory Power Adapters which are sold separately:

<table>
<thead>
<tr>
<th>Switch Model</th>
<th>Power Adapter Model</th>
<th>Power Adapter Wattage</th>
<th>PoE+ Power Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS308PP (Comes w/90W PA)</td>
<td>EPS90W</td>
<td>90W</td>
<td>83W</td>
</tr>
<tr>
<td></td>
<td>EPS130W</td>
<td>130W</td>
<td>123W</td>
</tr>
<tr>
<td>GS316P (Comes w/130W PA)</td>
<td>EPS90W</td>
<td>90W</td>
<td>76W</td>
</tr>
<tr>
<td></td>
<td>EPS130W</td>
<td>130W</td>
<td>115W</td>
</tr>
<tr>
<td></td>
<td>EPS200W</td>
<td>200W</td>
<td>183W</td>
</tr>
<tr>
<td>GS316PP (Comes w/200W PA)</td>
<td>EPS90W</td>
<td>90W</td>
<td>76W</td>
</tr>
<tr>
<td></td>
<td>EPS130W</td>
<td>130W</td>
<td>115W</td>
</tr>
<tr>
<td></td>
<td>EPS200W</td>
<td>200W</td>
<td>183W</td>
</tr>
</tbody>
</table>
### Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>GS305Pv2</th>
<th>GS305PP</th>
<th>GS308P</th>
<th>GS308PP</th>
<th>GS316P</th>
<th>GS316PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/100/1000Mbps Ports (Auto Uplink)</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Enclosure</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
</tr>
<tr>
<td>Connector Type</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
<td>Metal</td>
</tr>
<tr>
<td>Form Factor</td>
<td>Desktop or wall-mountable</td>
<td>Desktop or wall-mountable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power On/Off Switch</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### PoE Configuration

- **802.3af PoE Ports**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 4
  - GS305PP: 4
  - GS308P: 4
  - GS308PP: 8
  - GS316P: 16
  - GS316PP: 16

- **802.3at PoE+ Ports**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 4
  - GS305PP: 4
  - GS308P: N/A
  - GS308PP: 8
  - GS316P: 16
  - GS316PP: 16

- **PoE Max Power Per Port**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: Up to 30W
  - GS305PP: Up to 30W
  - GS308P: Up to 15.4W
  - GS308PP: Up to 30W
  - GS316P: Up to 30W
  - GS316PP: Up to 30W

- **Total PoE Power Budget**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 63W
  - GS305PP: 83W
  - GS308P: 53W
  - GS308PP: 83W
  - GS316P: 115W
  - GS316PP: 183W

- **PoE auto-balance**: Yes Yes No Yes Yes Yes

### Power Consumption

- **DC Input/Power In**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 54V, 1.25A
  - GS305PP: 54V, 1.66A
  - GS308P: 48V, 1.25A
  - GS308PP: 54V, 1.66A
  - GS316P: 54V, 2.4A
  - GS316PP: 54V, 3.7A

- **Power Consumption (Max and Standby)**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 67.5W/1.4W
  - GS305PP: 88.89W/1.55W
  - GS308P: 60.0W/0.28W
  - GS308PP: 87.9W/1.23W
  - GS316P: 127.9W/2.68W
  - GS316PP: 195.9W/2.67W

- **Heat Dissipation (Max and Standby) (BTU/Hr)**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 230.32BTU/4.78BTU
  - GS305PP: 304BTU/5.3BTU
  - GS308P: 205.20BTU/0.96BTU
  - GS308PP: 300.6BTU/3.69BTU
  - GS316P: 437.42BTU/9.18BTU
  - GS316PP: 669.9BTU/9.14BTU

### Performance Specification

- **Bandwidth (Non-Blocking)**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 10 Gbps
  - GS305PP: 10 Gbps
  - GS308P: 16 Gbps
  - GS308PP: 16 Gbps
  - GS316P: 32 Gbps
  - GS316PP: 32 Gbps

- **Packet Buffer Memory**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 128 KB
  - GS305PP: 128 KB
  - GS308P: 192 KB
  - GS308PP: 192 KB
  - GS316P: 1MB
  - GS316PP: 1MB

- **Jumbo Frame Support**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 9,216 bytes
  - GS305PP: 9,216 bytes
  - GS308P: 9,720 bytes
  - GS308PP: 9,216 bytes
  - GS316P: 9,216 bytes
  - GS316PP: 9,216 bytes

- **Queue WRR (Weighted Round Robin) Ratio**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 1:3:5:7:8:10:12:15
  - GS305PP: 1:2:4:8
  - GS308P: 1:3:5:7:8:10:12:15

- **Forwarding Rate (using 64-byte packets) - 1000Mbps Port**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 1,448,000 pps
  - GS305PP: 1,448,000 pps
  - GS308P: 1,448,000 pps
  - GS308PP: 1,448,000 pps
  - GS316P: 1,448,000 pps
  - GS316PP: 1,448,000 pps

- **Latency (using 64-byte packets) - 1000Mbps Port (average)**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: < 2.4 µsec
  - GS305PP: < 2.6 µsec
  - GS308P: < 3.0 µsec
  - GS308PP: < 3.0 µsec
  - GS316P: < 3.7 µsec
  - GS316PP: < 3.7 µsec

- **MAC Address Table Size**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 2K
  - GS305PP: 2K
  - GS308P: 4K
  - GS308PP: 4K
  - GS316P: 4K
  - GS316PP: 4K

- **Auto MDI/MDI-X Cable Detection**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: Yes
  - GS305PP: Yes
  - GS308P: Yes
  - GS308PP: Yes
  - GS316P: Yes
  - GS316PP: Yes

- **Auto-sensing Half/Full Duplex Switched Ports**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: Yes
  - GS305PP: Yes
  - GS308P: Yes
  - GS308PP: Yes
  - GS316P: Yes
  - GS316PP: Yes

- **Mean Time Between Failures (MTBF) @ 25° C**: GS305Pv2 GS305PP GS308P GS308PP GS316P GS316PP
  - GS305Pv2: 4,105,494 hours
  - GS305PP: 3,222,482 hours
  - GS308P: 2,244,211 hours
  - GS308PP: 2,752,476 hours
  - GS316P: 2,362,192 hours
  - GS316PP: 2,362,192 hours

### LEDs

- **Per port**
  - Speed, Link/Activity (Left), Ports 1-4: PoE Power (Right)
  - Speed, Link/Activity (Left), PoE Power (Right)

- **Per device**
  - Power, PoE Max
## Quality of Service (QoS)

<table>
<thead>
<tr>
<th>Feature</th>
<th>GS305Pv2</th>
<th>GS305PP</th>
<th>GS308P</th>
<th>GS308PP</th>
<th>GS316P</th>
<th>GS316PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>802.1P Based (CoS) Supported</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Honors DSCP (DiffServ) Tags</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Efficient Ethernet (EEE) IEEE 802.3az compliant</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Auto Power Down</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Short Cable Detection</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Fan/Fanless</td>
<td>Fanless</td>
<td>Fanless</td>
<td>Fanless</td>
<td>Fanless</td>
<td>Fanless</td>
<td>Fanless</td>
</tr>
</tbody>
</table>

## Physical Specifications

### Dimensions (W x D x H)

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions (W x D x H)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS305Pv2</td>
<td>158 x 101 x 29 mm (6.2 x 4.0 x 1.1 in)</td>
<td>0.39 kg (0.87 lb)</td>
</tr>
<tr>
<td>GS305PP</td>
<td>158 x 101 x 29 mm (6.2 x 4.0 x 1.1 in)</td>
<td>0.41 kg (0.90 lb)</td>
</tr>
<tr>
<td>GS308P</td>
<td>158 x 101 x 29 mm (6.2 x 4.0 x 1.1 in)</td>
<td>0.46 kg (1.02 lb)</td>
</tr>
<tr>
<td>GS308PP</td>
<td>236 x 102 x 27 mm (9.3 x 4.0 x 1.1 in)</td>
<td>0.6 kg  (1.32 lb)</td>
</tr>
<tr>
<td>GS316P</td>
<td>286 x 102 x 27 mm (11.3 x 4.0 x 1.1 in)</td>
<td>0.88 kg (1.94 lb)</td>
</tr>
<tr>
<td>GS316PP</td>
<td>286 x 102 x 27 mm (11.3 x 4.0 x 1.1 in)</td>
<td>0.88 kg (1.94 lb)</td>
</tr>
</tbody>
</table>

## Environmental Specifications

### Operating

- **Temperature**: 0° to 40°C (32° to 104°F)
- **Humidity**: 90% maximum relative humidity (RH), non-condensing
- **Altitude**: 10,000 ft (3,000 m) maximum

### Storage

- **Temperature**: -20° to 70°C (-4° to 158°F)
- **Humidity (relative)**: 95% maximum relative humidity (RH), non-condensing

### Electromagnetic Emissions and Immunity

<table>
<thead>
<tr>
<th>Certification</th>
<th>GS305Pv2</th>
<th>GS305PP</th>
<th>GS308P</th>
<th>GS308PP</th>
<th>GS316P</th>
<th>GS316PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE Mark</td>
<td>CE Mark</td>
<td>CE Mark</td>
<td>CE Mark</td>
<td>CE Mark</td>
<td>CE Mark</td>
<td>CE Mark</td>
</tr>
</tbody>
</table>

### IEEE Network Protocols

- IEEE 802.3ab 1000BASE-T Gigabit Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3i 10BASE-T Ethernet
- IEEE 802.3x Flow Control
- IEEE 802.1p Priority QoS (all models)
- IEEE 802.3 CSMA/CD
- 802.3az Energy Efficient Ethernet
**Warranty and Support * **

<table>
<thead>
<tr>
<th>GS305Pv2</th>
<th>GS305PP</th>
<th>GS308P</th>
<th>GS308PP</th>
<th>GS316P</th>
<th>GS316PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Except China</td>
<td>3-year Warranty</td>
<td>3-year Warranty</td>
<td>3-year Warranty</td>
<td>3-year Warranty</td>
<td>3-year Warranty</td>
</tr>
<tr>
<td>China</td>
<td>1-year Warranty</td>
<td>1-year Warranty</td>
<td>1-year Warranty</td>
<td>1-year Warranty</td>
<td>1-year Warranty</td>
</tr>
<tr>
<td>Power Adapter Warranty</td>
<td>2-years</td>
<td>2-years</td>
<td>2-years</td>
<td>2-years</td>
<td>2-years</td>
</tr>
<tr>
<td>Technical Support (online, phone)</td>
<td>90 days free from date of purchase</td>
<td>90 days free from date of purchase</td>
<td>90 days free from date of purchase</td>
<td>90 days free from date of purchase</td>
<td>90 days free from date of purchase</td>
</tr>
</tbody>
</table>

### ProSUPPORT Category

<table>
<thead>
<tr>
<th>ProSUPPORT OnCall 24x7 Service Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category S1</td>
</tr>
<tr>
<td>PMB0S11-10000S</td>
</tr>
<tr>
<td>(1 yr)</td>
</tr>
<tr>
<td>PMB0S31-10000S</td>
</tr>
<tr>
<td>(3 yrs)</td>
</tr>
<tr>
<td>PMB0S51-10000S</td>
</tr>
<tr>
<td>(5 yrs)</td>
</tr>
</tbody>
</table>

**Package Contents**

- NETGEAR Gigabit Ethernet Unmanaged Switch
- Power adapter/cord (localized to the country of sale)
- Rubber footpads for desktop installation
- Wallmount kit
- Installation Guide

**Optional Modules and Accessories**

- EPS90W: 90W External Power Adapter
- EPS130W: 130W External Power Adapter
- EPS200W: 200W External Power Adapter

**Technical Specifications for Accessory Power Adapters**

- Power Adapter Warranty: 2-years
- Technical Support: 90 days of free technical support
- ProSUPPORT Contract Option: No
- Auto-applied contracts: No

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1. NETGEAR FlexPoE power - interchangeable external power adapter allows for increasing or decreasing your PoE budget at any time with optional NETGEAR FlexPoE power adapters.

2. Actual SKU availability may vary per region. Please check the local website for product availability.

3. 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; see http://www.netgear.com/about/warranty/ for details. 24/7 basic technical support provided for 90 days from purchase date when purchased from a NETGEAR authorized reseller.

4. Maximum PoE power supplied is 15.4W per port, but not to exceed 53W total power supplied across all PoE connected devices.

5. 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 Smart Switches, September 2019.

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DS-300Series_Unmanaged PoE-29Jun20