

## Expanding Wired Connectivity for desktop PoE SOHO Networks

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 provides 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 supports 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.

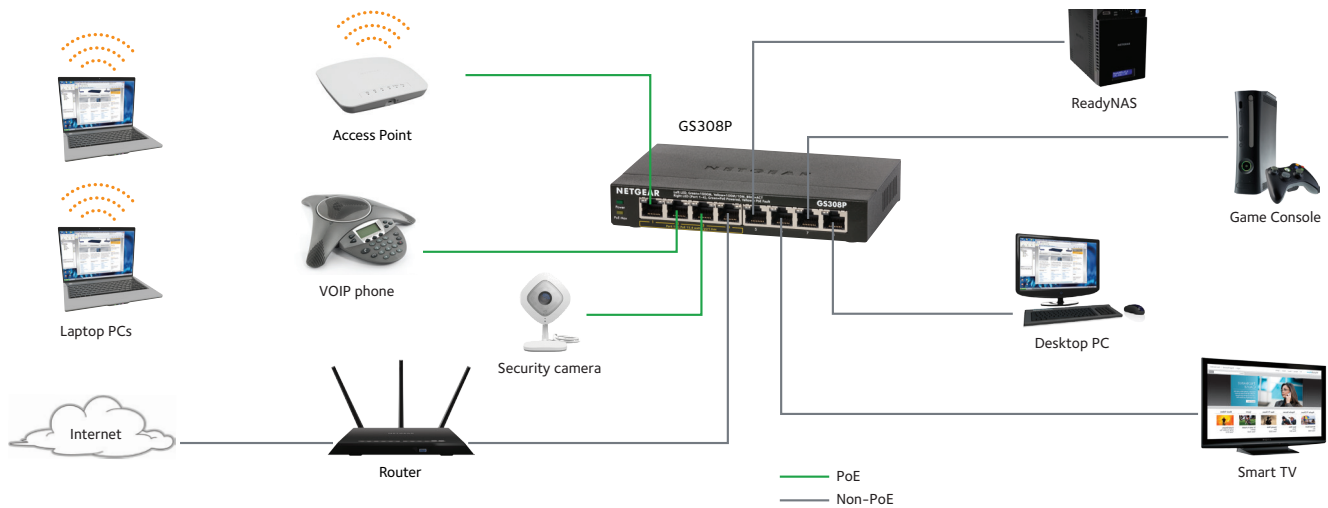
The GS308PP, GS316P, and GS316PP have copper Gigabit Ethernet PoE+ ports featuring NETGEAR FlexPoE power. The GS308PP ships with 83W<sup>§</sup> of PoE budget, GS316P ships with 115W<sup>§</sup>, and the GS316PP features an astounding 183W<sup>§</sup> of PoE power budget.

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) 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 GS316PP. 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:

Switch Model	Power Adapter Model	Power Adapter Wattage	PoE+ Power Wattage
GS308PP (Comes w/90W PA)	EPS90W	90W	83W
	EPS130W	130W	123W
	EPS200W	200W	183W
GS316P (Comes w/130W PA)	EPS90W	90W	76W
	EPS130W	130W	115W
	EPS200W	200W	183W
GS316PP (Comes w/200W PA)	EPS90W	90W	76W
	EPS130W	130W	115W
	EPS200W	200W	183W

## SOHO Gigabit Ethernet Unmanaged Switches with PoE

Features	GS305P	GS305PP	GS308P	GS308PP	GS316P	GS316PP
10/100/1000Mbps Ports (Auto Uplink)	5	5	8	8	16	16
Enclosure	Metal	Metal	Metal	Metal	Metal	Metal
Connector Type	Metal	Metal	Metal	Metal	Metal	Metal
Form Factor	Desktop or wall-mountable			Desktop or wall-mountable		
Power On/Off Switch	No	No	No	No	No	No
<b>Performance Specification</b>						
Bandwidth (Non-Blocking)	10 Gbps	10 Gbps	16 Gbps	16 Gbps	32 Gbps	32 Gbps
Packet Buffer Memory (Dynamically shared across only used ports)	128 KB	128 KB	192 KB	192 KB	1MB	1MB
Jumbo Frame Support	9,216 bytes	9,216 bytes	9,720 bytes	9,216 bytes	9,216 bytes	9,216 bytes
Queue WRR (Weighted Round Robin) Ratio	1:3:5:7:8:10:12:15		1:2:4:8		1:3:5:7:8:10:12:15	
Forwarding Rate (using 64-byte packets) - 1000Mbps Port	1,448,000 pps	1,448,000 pps	1,448,000 pps	1,448,000 pps	1,448,000 pps	1,448,000 pps
Latency (using 64-byte packets) - 1000Mbps Port (average)	< 2.6 μsec	< 2.6 μsec	< 3.0 μsec	< 3.0 μsec	< 3.7 μsec	< 3.7 μsec
MAC Address Table Size	2K	2K	4K	4K	4K	4K
Auto MDI/MDI-X Cable Detection	Yes	Yes	Yes	Yes	Yes	Yes
Auto-sensing Half/Full Duplex Switched Ports	Yes	Yes	Yes	Yes	Yes	Yes
Mean Time Between Failures (MTBF) @ 25° C	3,222,482 hours	6,710,127 hours	2,244,211 hours	2,752,476 hours	2,362,192 hours	2,362,192 hours
<b>LEDs</b>						
Per port	Speed, Link/Activity (Left), Ports 1-4: PoE Power (Right)	Speed, Link/Activity (Left), Ports 1-4: PoE Power (Right)	Speed, Link/Activity (Left), Ports 1-4: PoE Power (Right)	Speed, Link/Activity (Left), PoE (Right)	Speed, Link/Activity (Left), PoE (Right)	Speed, Link/Activity (Left), PoE (Right)
Per device	Power, PoE Max	Power, PoE Max	Power, PoE Max	Power, PoE Max	Power, PoE Max	Power, PoE Max
<b>Quality of Service (QoS)</b>						
802.1P Based (CoS) Supported	Yes	Yes	Yes	Yes	Yes	Yes
Honors DSCP (DiffServ) Tags	No	No	No	Yes	Yes	Yes
<b>POE Configuration</b>						
802.3af PoE Ports	Ports 1-4	Ports 1-4	Ports 1-4	8	16	16
802.3at PoE+ Ports	None	Ports 1-4	None	8	16	16
PoE Max Power Per Port	Up to 15.4W	Up to 30W	Up to 15.4W	Up to 30W	Up to 30W	Up to 30W
Total PoE Power Budget**	Up to 55W	Up to 83W	Up to 53W	83W (with 90W PA) 123W (with 130W PA)	76W (with 90W PA) 115W (with 130W PA) 183W (with 200W PA)	76W (with 90W PA) 115W (with 130W PA) 183W (with 200W PA)
PoE auto-balance	Yes	Yes	No	Yes	Yes	Yes

## SOHO Gigabit Ethernet Unmanaged Switches with PoE

Power Consumption	GS305P	GS305PP	GS308P	GS308PP	GS316P	GS316PP
DC Input/Power In	48V, 1.25A	54V, 1.66A	48V, 1.25A	54V, 1.66A (90W PA)	54V, 2.4A (130W PA)	54V, 3.7A (200W PA)
Power Consumption (Max and Standby)	60W/0.96W	88.89W/ 1.55W	60.0W/ 0.28W	87.9W/ 1.23W	127.9W/ 2.68W	195.9 W/ 2.67W
Heat Dissipation (Max and Standby) (BTU/Hr)	205.2 BTU / 3.28 BTU	304BTU/ 5.3BTU	205.20 BTU/ 0.96 BTU	300.6 BTU/ 3.69BTU	437.42 BTU/ 9.18BTU	669.9 BTU/ 9.14BTU
<b>Energy Efficiency</b>						
Energy Efficient Ethernet (EEE) IEEE 802.3az compliant	Yes	Yes	Yes	Yes	Yes	Yes
Auto Power Down	No	No	Yes	Yes	Yes	Yes
Short Cable Detection	Yes	Yes	Yes	Yes	Yes	Yes
Fan/Fanless	Fanless	Fanless	Fanless	Fanless	Fanless	Fanless
<b>Physical Specifications</b>						
Dimensions (W x D x H)	158 x 101 x 29 mm (6.2 x 4.0 x 1.1 in)	158 x 101 x 29 mm (6.2 x 4.0 x 1.1 in)	158 x 101 x 29 mm (6.2 x 4.0 x 1.1 in)	236 x 102 x 27 mm (9.3 x 4 x 1.1 in)	286 x 102 x 27 mm (11.3 x 4 x 1.1 in)	286 x 102 x 27 mm (11.3 x 4 x 1.1 in)
Weight	0.41 kg (0.90 lb)	0.41 kg (0.90 lb)	0.46 kg (1.02 lb)	0.6 kg (1.32 lb)	0.88 kg (1.94 lb)	0.88 kg (1.94 lb)
<b>Environmental Specifications</b>						
<b>Operating</b>						
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					
<b>Storage</b>						
Storage Temperature	-20° to 70°C (-4° to 158°F)					
Humidity (relative)	95% maximum relative humidity (RH), non-condensing					
<b>Electromagnetic Emissions and Immunity</b>						
Certifications	CE Mark, FCC Part 15 Class B, IC Class B, RCM, VCCI	CE Mark, FCC Part 15 Class B, IC Class B, RCM, CCC, VCCI	CE Mark, FCC Part 15 Class A, IC Class A, RCM, CCC, VCCI, KC	CE Mark, FCC Part 15 Class A, IC Class A, RCM, VCCI, BSMI, KC	CE Mark, FCC Part 15 Class A, IC Class A, RCM, VCCI, BSMI, KC	CE Mark, FCC Part 15 Class A, IC Class A, RCM, VCCI, BSMI, KC
<b>Bandwidth (Non-Blocking)</b>						
Certifications	CB, CE LVD	CB, CE LVD, CCC	CB, CE LVD, CCC	CB, CE LVD	CB, CE LVD	CB, CE LVD

## SOHO Gigabit Ethernet Unmanaged Switches with PoE

IEEE Network Protocols	GS305P	GS305PP	GS308P	GS308PP	GS316P	GS316PP
<ul style="list-style-type: none"> <li>IEEE 802.3ab 1000BASE-T Gigabit Ethernet</li> <li>IEEE 802.3u 100BASE-TX Fast Ethernet</li> <li>IEEE 802.3i 10BASE-T Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>IEEE 802.3x Flow Control</li> <li>IEEE 802.1p Priority QoS (all models)</li> </ul>			<ul style="list-style-type: none"> <li>IEEE 802.3 CSMA/CD</li> <li>802.3az Energy Efficient Ethernet</li> </ul>		

Warranty and Support *						
All Except China	3-year Warranty					
China	1-year Warranty					
Technical Support (online, phone)	90 days free from date of purchase					
ProSUPPORT Category	Category S1	Category S2	Category S2	Category S2	Category S2	Category 1
	PMB0S11-10000S (1 yr)	PMB0S12-10000S (1 yr)	PMB0S12-10000S (1 yr)	PMB0S12-10000S (1 yr)	PMB0S12-10000S (1 yr)	PMB0S11-10000S (1 yr)
ProSUPPORT OnCall 24x7 Service Plan	PMB0S31-10000S (3 yrs)	PMB0S32-10000S (3 yrs)	PMB0S32-10000S (3 yrs)	PMB0S32-10000S (3 yrs)	PMB0S32-10000S (3 yrs)	PMB0S31-10000S (3 yrs)
	PMB0S51-10000S (5 yrs)	PMB0S52-10000S (5 yrs)	PMB0S52-10000S (5 yrs)	PMB0S52-10000S (5 yrs)	PMB0S52-10000S (5 yrs)	PMB0S51-10000S (5 yrs)

Package Contents	
All Models	NETGEAR Gigabit Ethernet Unmanaged Switch Power adapter (localized to the country of sale) Rubber footpads for desktop installation Wall mount 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		GS308PP	GS316P	GS316PP
Power Adapter Warranty			2-years	
Technical Support			90 days of free technical support	
ProSUPPORT Contract Option			No	
Auto-applied contracts			No	

<sup>§</sup> NETGEAR FlexPoE power - interchangeable external power adapter allows for increasing or decreasing your PoE budget at any time with optional NETGEAR FlexPoE power adapters.

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

\* 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.

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

<sup>†</sup> 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.

NETGEAR and the NETGEAR Logo are trademarks and/or registered trademarks of NETGEAR, Inc. and/or its subsidiaries 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). ©NETGEAR, Inc. All Rights reserved.

NETGEAR, Inc. 350 E. Plumeria Drive, San Jose, CA 95134-1911 USA, 1-888-NETGEAR (638-4327), E-mail: [info@NETGEAR.com](mailto:info@NETGEAR.com), [www.NETGEAR.com](http://www.NETGEAR.com)