NETGEAR®

Nighthawk® SX10 Gaming 10-Gigabit/Multi-Gigabit Switch

Data Sheet

Nighthawk® SX10 Gaming Switch

Unleash your gaming potential

The ultimate gaming experience just got faster. NETGEAR introduces the Nighthawk SX10 Pro Gaming Switch.

Unleash your gaming potential with faster speeds, higher performance and best technology. At gaming conventions or LAN centers there are hundreds of devices trying to connect to the network. Even at home with multiple gaming consoles, 4K video streaming, and constant high-speed web surfing throughout the home, wireless networks are fully loaded and struggle to provide a reliable, lag-free connection.

The SX10 Switch tackles this by providing 10G speeds, powerful & intuitive gaming dashboard, and Quality of Service (QoS). Its sleek design and easy set up will impress your friends. Gain the competitive edge with seamless screen time for more gaming victories.

Unlock High Speeds with 10G

10G is 10x faster than 1G. Support all new multi-gig devices with the power they deserve.
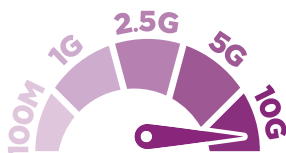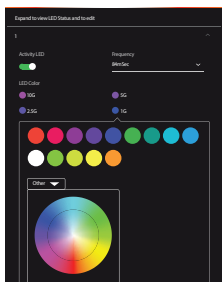
Powerful & Intuitive Gaming Dashboard

Control latency and reduce lag spikes. Optimized for gaming, limit bandwidth access per device with just a click.
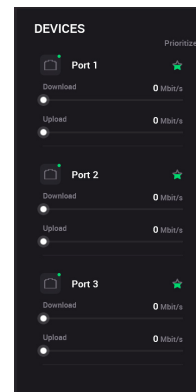
Fully Customizable RGB LED Controls

Personalize every LED for better visibility or match your gaming set-up

One-Click Setup

Mobile-optimized GUI and "One-click" per-configured settings for all media needs.

NETGEAR®

Truly Gaming Features

RGB LED customization for the high demands of the gaming world

Get lag-free performance, an advanced gaming dashboard and cutting-edge

GAMING DASHBOARD—Get real-time insight on performance and configuration

CUSTOMIZABLE RGB LED CONTROLS—Personalize every light on your switch for better visibility

LOW LATENCY—Experience the smoothest gaming & fastest action

AUTO-DIAGNOSTICS—Instant troubleshooting to get back into the game faster

High Performance

Ultra-high performance for high demanding gaming and media streaming for the home.

Offload high-bandwidth applications/stress from your wireless network ensuring the best performance and experience for gaming, media streaming, etc.

2x 10G/Multi-Gig Ethernet—Increase speeds and expand the bandwidth of your network

8x Gigabit Ethernet LAN Ports -Connect more wired devices for fast action gaming parties

Up to 20Gbps LAG—Ability to aggregate Gigabit or 10-Gig/Multi-Gig ports for faster speeds

Glitch-free streaming - 4K UHD streaming with multicasting support

Easy to Configure - One-Click Setup

Fast set up and configuration. Choose between low latency gaming, high priority media streaming, standard LAN networking, port aggregation or your own customizable user-defined modes.

Pre-optimized settings for Gaming and Streaming

Mobile-optimized Graphical User Interface (GUI)

One-click user-defined configurations

3 Levels of traffic prioritization

Port rate-limiting

Sleek Design

100% Premium Aluminum housing for durability and looks

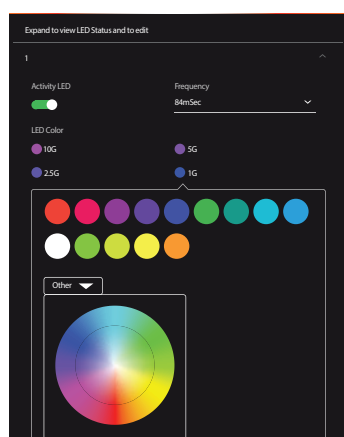Premium metal case and NETGEAR quality

Port LED On/Off

Ultimate Gaming Dashboard

Control latency and reduce lag spikes. See real-time per port bandwidth usage on the upgraded gaming dashboard. Be able to identify bottleneck traffic quickly and block out devices consuming precious bandwidth or set up rate limits, all with one click. Either way you'll have ultimate control to get back to world domination.
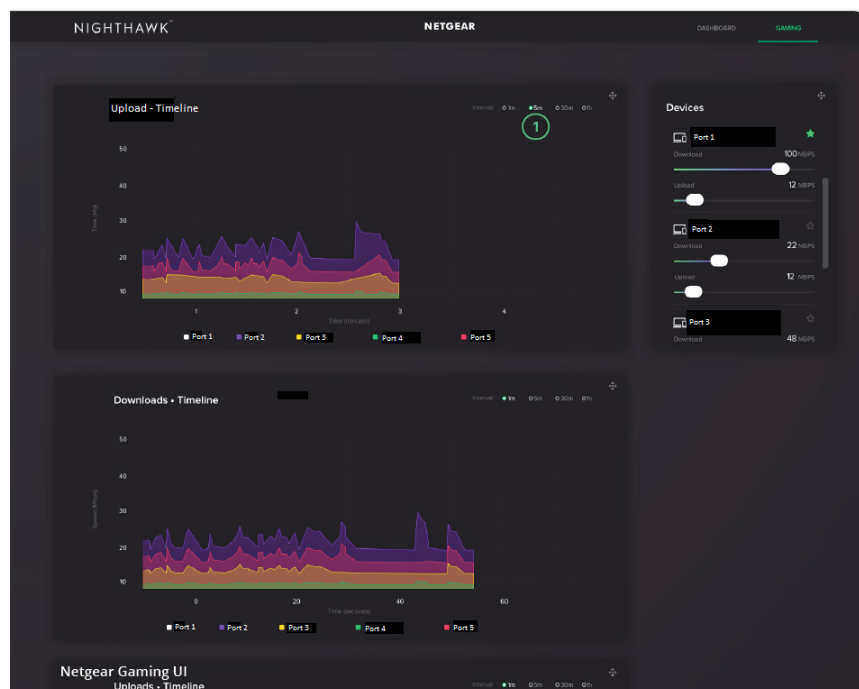
Customizable RGB LED Controls
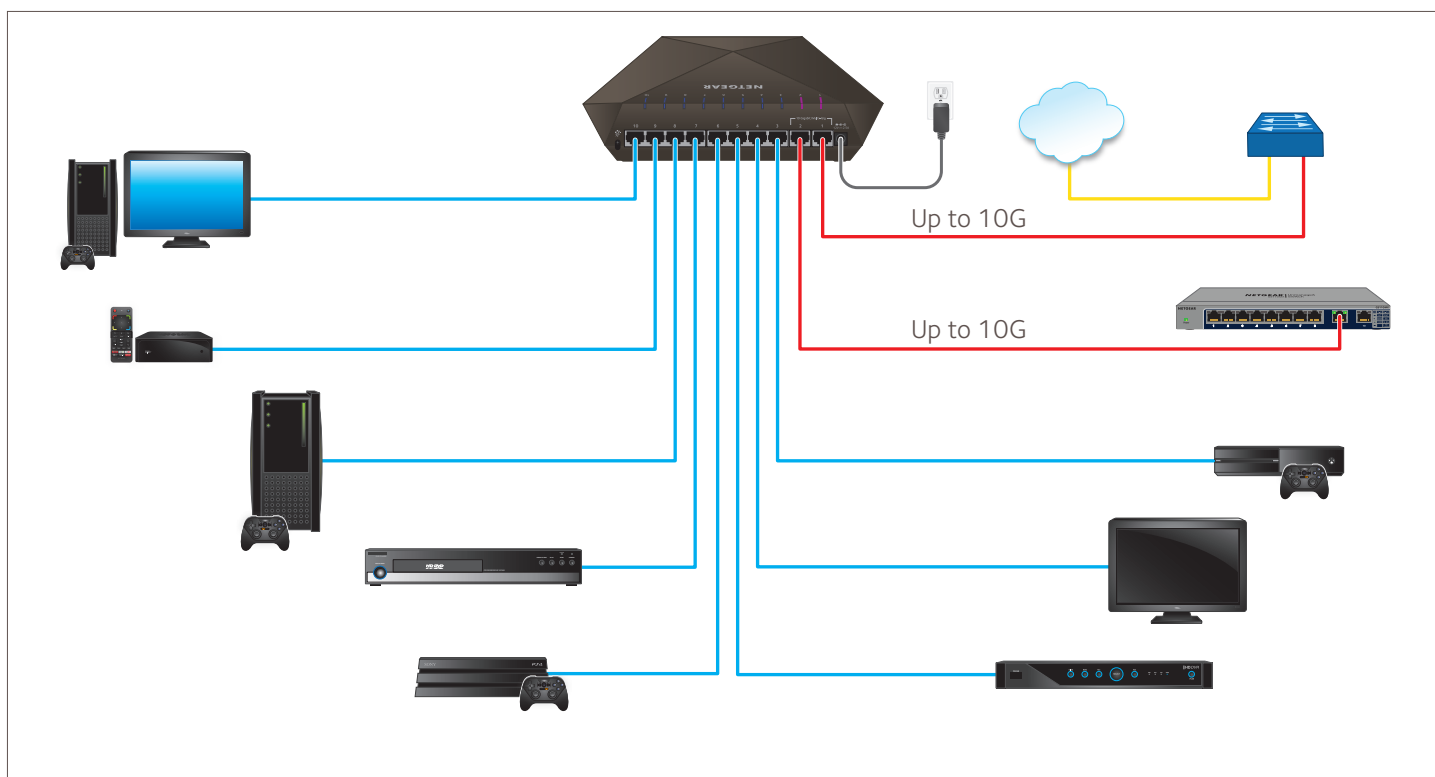
Enjoy industry-first customizable RGB LED controls. Color code and customize every speed with a different color on each port or group for even easier management. Also, adjust the brightness and frequency to your liking. Its sleek and sexy design makes it the perfect fit for any modern home or Gaming King. Impress others with its futuristic design and easily match your gaming set-up.

Nighthawk® SX10 Gaming 10-Gigabit/Multi-Gigabit Switch

Connection Diagram

Up to 10G

Up to 10G

Hardware view

LED On/Off	Gigabit Ethernet Ports	10 Gigabit/Multi-Gigabit Ethernet Ports	Power Socket
	1G	**10G**	
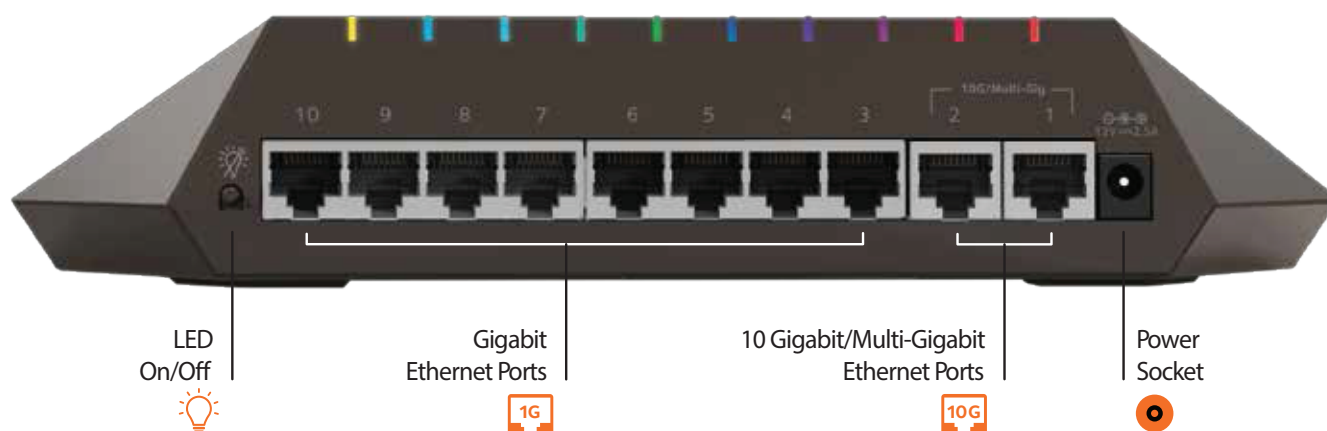
Technical Specifications

PRODUCT SPECIFICATIONS	
Product	**GS810EMX**
Gigabit ports	8
10-Gigabit/Multi-Gigabit Ports	2
LED on/off (Port and Power)	Yes
PERFORMANCE SPECIFICATION	
Packet buffer memory (Dynamically shared across only used ports)	2MB
Forwarding modes	Store-and-forward
Bandwidth	56Gbps
Priority queues	8
Priority queuing	Weighted Round Robin (WRR)
MAC address database size (48-bit MAC addresses)	16K
Multicast groups	128
Packet forwarding rate (64 byte packet size) (Mfps or Mpps)	41.664Mfps
Speed/Latency	10Mbps: <76.9µs 100Mbps: <9.6µs 1000Mbps: <3.2µs

IEEE STANDARDS SUPPORTED	
• IEEE 802.3i (10Base-T) • IEEE 802.3u (100Base-TX) • IEEE 802.3u (1000Base-T) • IEEE802.3an (10GBase-T)	• IEEE 802.3az (EEE) • IEEE 802.3bz (mGig) • IEEE 802.3x Full-Duplex Flow Control • IEEE 802.1p Class of Service

MANAGEMENT	
Password management	Yes
Web browser-based graphical user interface (GUI)	Yes
Mobile-optimized GUI	Yes
Firmware upgrade	HTTP (Web GUI)
Configuration/switch settings (backup, restore)	Web GUI
One-click optimized setup	Yes
Preset modes	Default/Customized
Default preset modes	Gaming (Optimizes Port 10 for a gaming device and Port 1 for Uplink) Media Streaming (Optimizes Port 9 for a media streaming device) Standard Preset(All ports have equal priorization)

Technical Specifications

Customizable preset modes	2
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
GAMING DASHBOARD	
Upload/Download Speed	Per-Device
Timeline Configurable	5m, 30m, 1h, 10h
Rate Limiting	Per-Port
Port Priority	8-levels
Port Blocking	Yes
L2 SERVICES – VLANS	
VLAN Supported	64
Port-based VLANs (physical)	Yes
IEEE 802.1Q VLAN Tagging	Yes
QUALITY OF SERVICE (QOS)	
Port-based rate limiting	Ingress and egress
Port-based QoS	Yes
IEEE 802.1p CoS (Class of Service)	Yes
IPv4 DSCP	Yes
Per port rate limiting rates	1/5/10/50/100/500 Mbits
Predefined port priority queues	Low (P0) Low (P1) Normal (P2) Normal (P3) Medium (P4) Medium (P5) High (P6) High (P7)
Weighted Round Robin (WRR)	Yes
L2 SERVICES – MULTICAST FILTERING	
IGMP snooping (v1, v2 and v3)	Yes
IGMP snooping querier	No
Block unknown multicast	Yes
Static multicast router port	Yes

Technical Specifications

L3 SERVICES – DHCP	
DHCP Client	Yes
LINK AGGREGATION	
Static Manual LAGs (Port Trunking)	Yes
LACP	Yes
# Static/Dynamic of members in each LAG	4 LAG with max 8 members in each LAG
LEDs	
Per port	Link/Activity
Per device	Power
Customizable Settings	Port LEDs: Per port and Per speed. Power LED: Yes
RGB Colors	RBG (1 Million colours)
Brigthness	Off: 0% to 100% by slide bar
Frequency	Highest/High/Medium/Low/Lowest
PreSet modes	Yes
Per device	Power
PHYSICAL SPECIFICATIONS	
Dimensions (W x D x H)	268 x 203 x 93 mm (10.6 x 8 x 3.7 in)
Weight	1.515 kg (3.34 lbs)
POWER CONSUMPTION	
Power Supply	External PSU, 12VDC, 2.5A max Power supply localized to country of sale
Max power (worst case, all ports used, line-rate traffic) (Watts)	14.19W
Min power (link-down standby) (Watts)	5.54W
Heat Dissipation (max and min) (BTU/hr)	Max: 48.45 BTU/hr Min: 18.93 BTU/hr
Energy Efficient Ethernet (EEE) IEEE 802.3az	Yes (deactivated by default)
ENVIRONMENTAL SPECIFICATIONS	
Operating	
Operating temperature	0° to 40°C (32° to 104°F)
Humidity (relative)	90% maximum relative humidity (RH), non-condensing
Altitude	10,000 ft (3,000 m) maximum
Storage	
Storage temperature	-40° to 70°C (-40° to 158°F)
Humidity (relative)	95% maximum relative humidity (RH), non-condensing
Altitude	10,000 ft (3,000 m) maximum

Technical Specifications

SAFETY CERTIFICATIONS	
Certifications	CB, CE LVD, EAC, AU/NZ
WARRANTY AND SUPPORT	
Limited Warranty	Industry-leading 3 year warranty
Support	90-day complimentary technical support following purchase from a NETGEAR authorized reseller
PACKAGE CONTENTS	
All Models	Nighthawk SX10 Gaming 10-Gigabit/Multi-Gigabit Switch (GS810EMX)
	AC power adapter (localized to country of sale)
	Quick Installation Guide (QIG)
	Web links to documentation and downloads (Europe-only)
ORDERING INFORMATION	
GS810EMX-100NAS	North America, Latin America
GS810EMX-100PES	Europe
GS810EMX-100UKS	United Kingdom
GS810EMX-100JPS	Asia Pacific
GS810EMX-100AUS	Australia

* 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. Technical support includes basic phone support for 90 days from purchase date and online chat support when purchased from a NETGEAR authorized reseller.

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