



The Next Wave in WiFi

**5Gbps
WiFi Speeds**

**Industry's First
Active Antennas**

The Nighthawk X8 AC5000 Smart WiFi Router is the next wave in WiFi. Tri-Band WiFi and Quad Stream performance boosts X8's combined wireless speeds to up to 5Gbps. Four external Active Antennas plus four internal antennas amplify WiFi range. Six Gigabit Ethernet ports means even more wired devices can connect and with Port Aggregation 2 ports can combine to double maximum wired speeds.



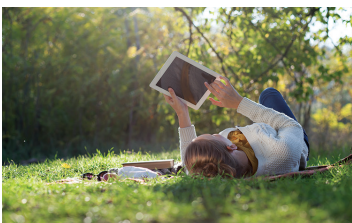
Fastest Tri-Band WiFi Router

Nighthawk X8 not only delivers the fastest total WiFi speeds of up to 5Gbps, but also uses Smart Connect to ensure all of your WiFi devices like smart phones, tablets, and laptops connect at the fastest possible speed. Load Balancing distributes WiFi devices amongst the WiFi bands for the most effective use of the 5GHz WiFi bands.



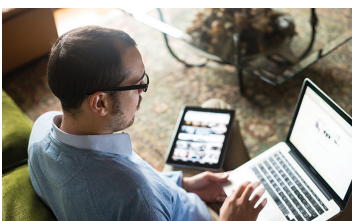
Dynamic Quality of Service (QoS)

Reduce buffering and lag while gaming or streaming. Dynamic QoS automatically recognizes different applications and devices and intelligently allocates bandwidth to the most important activities in your home.



Industry's First Active Antennas

Nighthawk X8 is the first to introduce Active Antennas. With four internal antennas and four external antennas, the X8 will enhance weak signals and reduce interference. Active Antennas help improve WiFi performance by amplifying WiFi signals in the antenna itself, this avoids signal loss during transmission and noise insertion from the router board. Enjoy better WiFi range, performance and fewer dead-spots with this patent pending Active Antenna technology.



Twice the Wired Speed

Six Gigabit Ethernet LAN ports allows you to connect even more wired devices. Two of six Gigabit Ethernet ports can be aggregated to double the connection speed to a Network Attached Storage (NAS) device for 4K HD streaming or fast backups of multiple WiFi devices simultaneously.



Quad Stream WiFi with Multi-User MIMO (MU-MIMO)

Fastest WiFi for all devices! Quad Stream on all three WiFi bands gives you the fastest WiFi speeds combined with MU-MIMO allows you to simultaneously stream to multiple devices at the same time.

Speed

Get the fastest combined WiFi currently available & enjoy a blazing-fast, lag-free WiFi experience for gaming, video streaming or surfing.



5Gbps—The fastest combined WiFi speed for uninterrupted streaming



TRI-BAND WIFI—Up to 600+2166+2166Mbps†



QUAD STREAM—Up to four data streams per WiFi band maximizes connection speed



SMART CONNECT—Designates slower and faster devices to separate WiFi bands for best wireless speed



MU-MIMO*—Go faster by simultaneously streaming to multiple devices



GIGABIT WIFI—Next-generation WiFi now at Gigabit speeds



GIGABIT WIRED—Six Gigabit Ethernet LAN ports with the ability to aggregate two ports for faster file transfers



DYNAMIC QoS—Intelligently prioritizes video streaming & gaming

WiFi Range

Got range? Homes come in all shapes and sizes and Nighthawk X8 Smart WiFi Router's 4 external and 4 internal antennas provide WiFi coverage no matter where you connect in your home.



FOUR ACTIVE ANTENNAS—Enhance weak signal and reduce interference with a patent pending design



ULTIMATE RANGE—WiFi coverage throughout very large homes

Sharing

With NETGEAR, sharing across your network is fun and easy, anything from accessing stored data, media, photos & music to wireless printing.



READYCLOUD® USB ACCESS—Enjoy personal & secure cloud access to USB storage anytime, anywhere



READYSHARE® USB ACCESS—Wirelessly access & share USB hard drive or printer via USB 3.0 port—Up to 10x faster than USB 2.0



READYSHARE VAULT—Free software for automatic PC backup to a USB hard drive connected to the router



DLNA®—Find & play your media on DLNA TVs & game consoles



READYSHARE PRINTER—Wirelessly access & share a USB printer

Reliable Connections

There's nothing more frustrating than lost connections! With NETGEAR's advanced features & best-in-class technology, you'll reduce interference & enjoy more reliable WiFi connectivity.



SIMULTANEOUS TRI-BAND—More & faster WiFi connections for all devices



BEAMFORMING+—Boosts speed, reliability, & range of WiFi connections for 2.4 & 5GHz

Ease Of Use

Start enjoying your new device faster than ever. NETGEAR wants to make sure installation and management is simple & easy, so you can connect quickly & make sure you stay that way!



EASY INSTALL—Easy setup for iPad®, tablets, smartphones & computers



NETGEAR GENIE® APP—Personal dashboard to monitor, control & repair your home network. Includes remote access to manage your network away from home



VOICE CONTROL—Using Amazon Alexa™, control your home network with voice commands



PUSH 'N' CONNECT—Easy push button WiFi connections (WPS)



WIFI & POWER ON/OFF—Convenient power savings



VPN SUPPORT—OpenVPN Connect app on iOS and Android® allows remote secure access to the home network



LED ON/OFF Button—Easily turn LEDs on or off

Security

Maintain high security across your network to ensure your privacy & family is safe while online. Whether it's preventing phishing & spyware or just limiting access for kids & guests, NETGEAR has you covered.



ENHANCED PARENTAL CONTROLS—Manage web site access by family member & device



GUEST NETWORK ACCESS—Separate & secure access for guests



SECURE WIFI CONNECTIONS—High level wireless security with WPA/WPA2



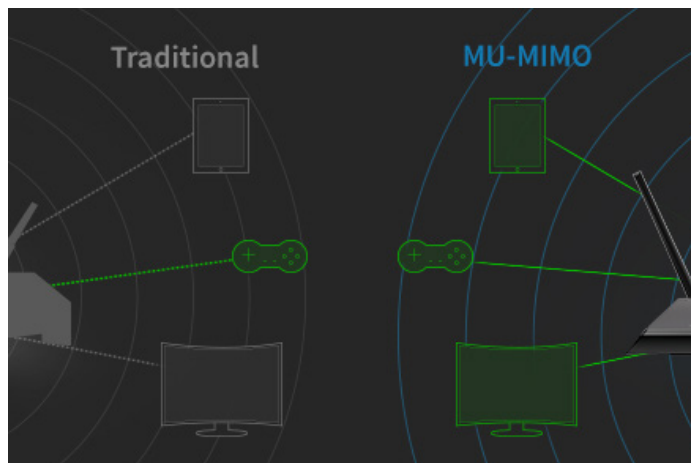
PERSONAL FTP SERVER—Customized free URL to create FTP server



VPN SUPPORT—OpenVPN Connect app on iOS and Android® allows remote secure access to the home network

Multi-User MIMO (MU-MIMO*)

Using Multi-User MIMO technology, NETGEAR routers can stream data to multiple devices simultaneously. With MU-MIMO, your WiFi network can deliver faster throughput to every MU-MIMO connected device. That means faster downloads and smoother streaming for your devices.



**MU-MIMO capability requires both router and client device to support MU-MIMO.

Tri-Band WiFi

The Nighthawk X8 AC5000 Smart WiFi Router with breakthrough Tri-Band WiFi technology delivers a massive combined wireless speed of up to 5Gbps. X8 optimizes WiFi performance by intelligently assigning every device to the fastest WiFi band possible and doing so allows devices to connect at their maximum speed. Load Balancing distributes WiFi devices ensuring usage of both the 5GHz WiFi bands. Even if everyone and everything in the home that's connected to the Internet is streaming, gaming, working, playing, socializing or updating at the same time, the X8 won't miss a beat—you'll enjoy seamless clarity and zero lag.

Tri-Band WiFi provides 3 dedicated WiFi Bands
Optimized speeds for all WiFi devices



Dynamic Quality of Service (QoS)

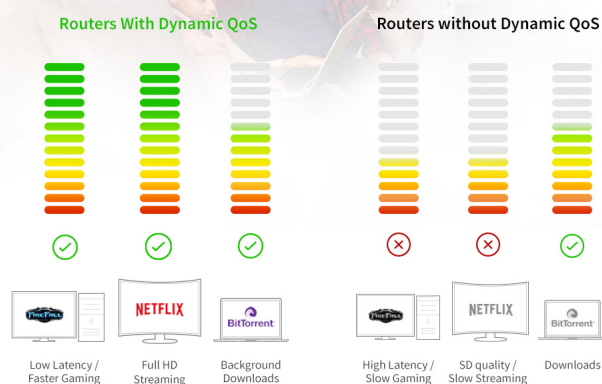
If you like gaming and streaming videos, then you can benefit from Dynamic Quality of Service (QoS).

Dynamic QoS automatically prioritizes bandwidth to latency sensitive applications like online gaming and video streaming by recognizing application and device information as well as bandwidth needs. Dynamic QoS will also ensure that lower priority applications like file downloads will never get completely stopped.

DYNAMIC QUALITY OF SERVICE

Prioritizes traffic based on devices and applications.

Allocate available bandwidth to keep optimal experiences intact across applications and devices.

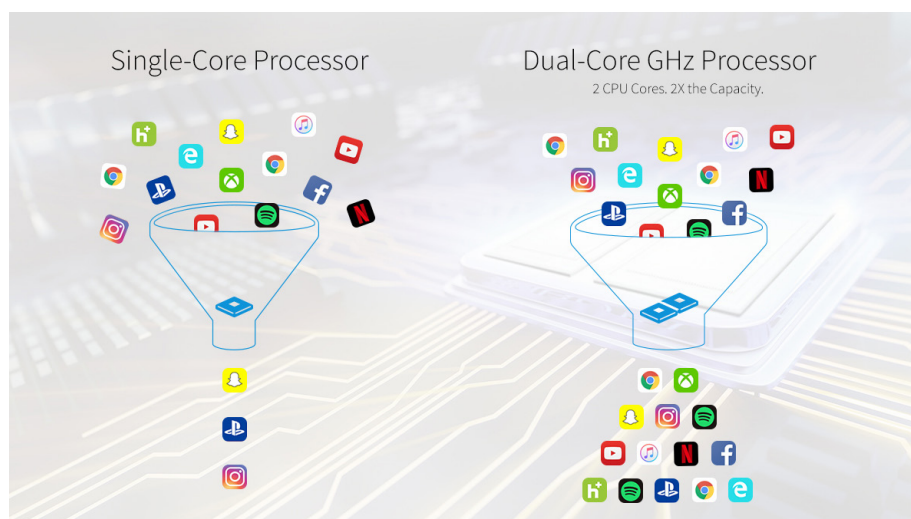


Powerful Dual Core 1.4GHz processor for faster processing

Basic WiFi routers use simple single core processors to connect WiFi devices to the Internet.

Nighthawk X8 delivers Tri-band WiFi, quad-stream performance on each band, Multi-User MIMO capable, has 6 Gigabit LAN ports with Port Aggregation, and USB interface to connect external USB storage. Using a single core processor would cause severe performance issues as various processes compete for CPU power.

That's why the X8 utilizes a powerful 1.4GHz dual core processor to separate processes and prioritize high-performance WiFi connections to get maximum combined WiFi speeds of up to 5Gbps.



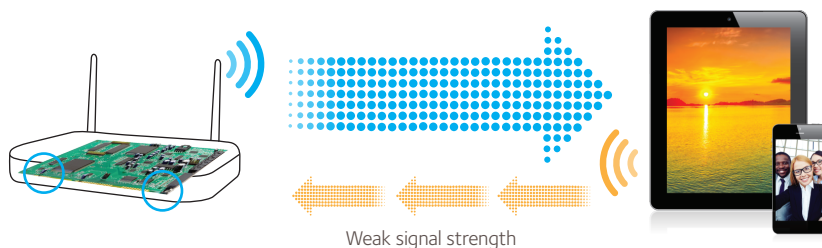
Active Antennas



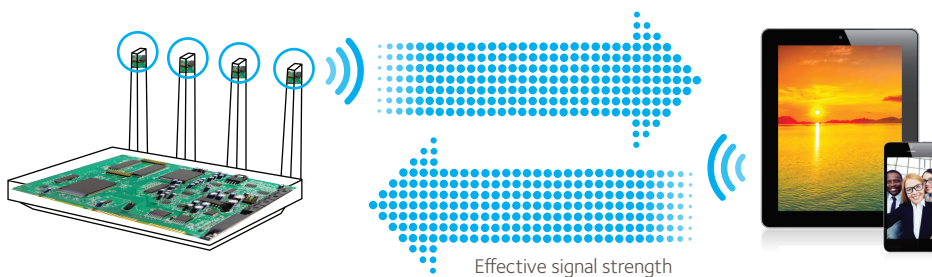
Each new generation of routers grows more powerful than the last, delivering stronger WiFi signals with greater range. At the same time, the WiFi signals on mobile devices are not getting more powerful. This difference in WiFi performance – a strong WiFi signal from the router and weaker ones from mobile devices – reduces overall WiFi range and speed.

To meet this challenge, NETGEAR developed the industry's first Active Antennas technology. NETGEAR moved the WiFi amplifiers from their usual location, on the router's motherboard, up to the top of the antennas.

Active antennas help improve WiFi performance by amplifying signals in the antenna itself. Thereby avoiding any signal loss during transmission between antenna and router board, as well as avoiding any noise insertion from the router board components. This provides cleaner and stronger receive signals for amplification from your mobile devices.



Traditional WiFi router has harder time receiving weaker mobile device signals.



Nighthawk X8 Active antennas compensate for weaker mobile device signals and effectively improve signal strength.

ReadySHARE® Vault—Automatic backup for Window PCs

ReadyShare Vault is a free app that provides automatic, continuous backup of Windows PCs to the USB hard drive connected to the Nighthawk X6S. The app has a wonderfully simple interface with intuitive backup settings—simply setup and forget and be assured that all your data on various home PCs in the home network is being continuously backed up. Never worry about losing your data again.

- Easy single click setup to back up the Window PCs on the home network
- Automatic, continuous incremental backup of all the changes
- Easily restore deleted files by going back to older snapshots
- Safeguard all your precious data, photos, videos

BEAMFORMING+—FOR MORE RELIABLE CONNECTIONS

Unlike typical WiFi routers that just blast the WiFi signals in all directions, with Beamforming+ the router & device communicate with each other, so the router can directly beam the WiFi signal to the device. Boosting speed, reliability, and range for both Implicit and Explicit 2.4 & 5GHz WiFi devices, the result is a stronger, faster, more reliable connection that is locked in even when the device is moved around the home.

- WiFi Signal Focus—Focuses signals from the wireless router to WiFi devices like smartphones, tablets & laptops
- Automatic Signal Management—Checks with your device to keep WiFi signal at its optimal strength
- Device Connections—Designed for home environments to support multiple WiFi device connections for highest quality
- WiFi Coverage—Reduces dead spots, & boosts signal strength

NETGEAR genie®—HOME NETWORKING SIMPLIFIED

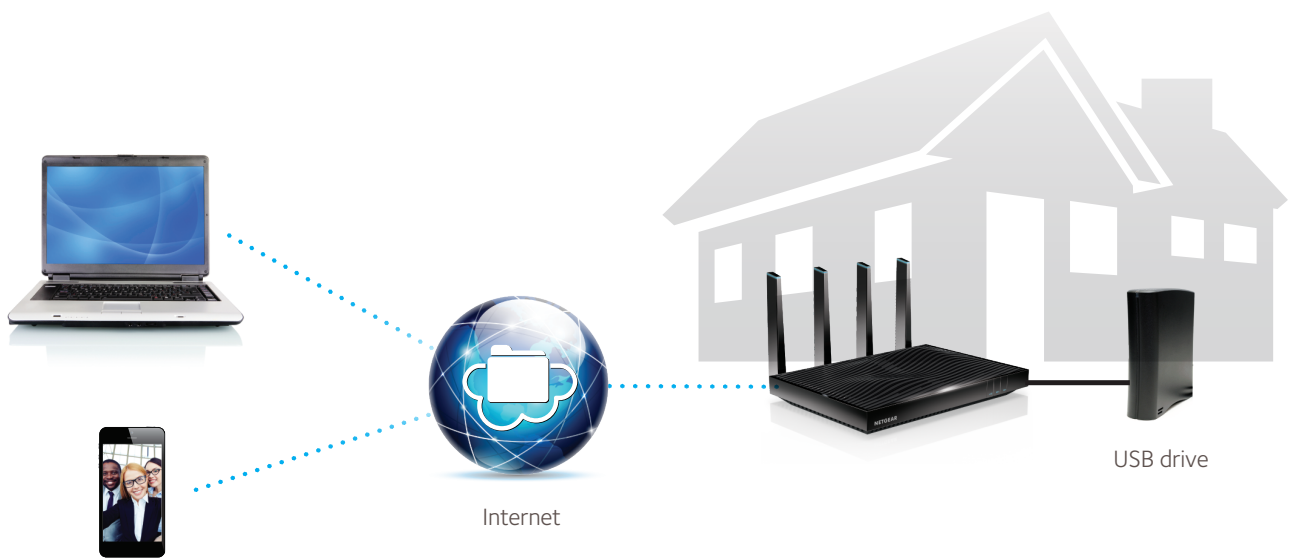
NETGEAR genie® makes getting the most out of your home network fun & easy. NETGEAR genie® allows you to easily monitor, connect & control your home network from an iPhone®, iPad® or Android® devices. With NETGEAR genie® you can share & stream music or videos, diagnose & repair network issues, set up parental controls & more.

- Network Map—Allow or block access to your network using real-time map of connected devices
- Traffic Meter—Track your internet data usage
- My Media®—Find & play media files in your network
- EZ Mobile Connect—Scan QR code to connect to your home network
- For iPhone®, iPad® or Android® devices
- Remote access to manage your network away from home. View the network map, block WiFi devices, set up guest WiFi & manage Parental Controls—anytime, anywhere.

ReadyCLOUD® USB Access—Access Your Files Wherever, Whenever

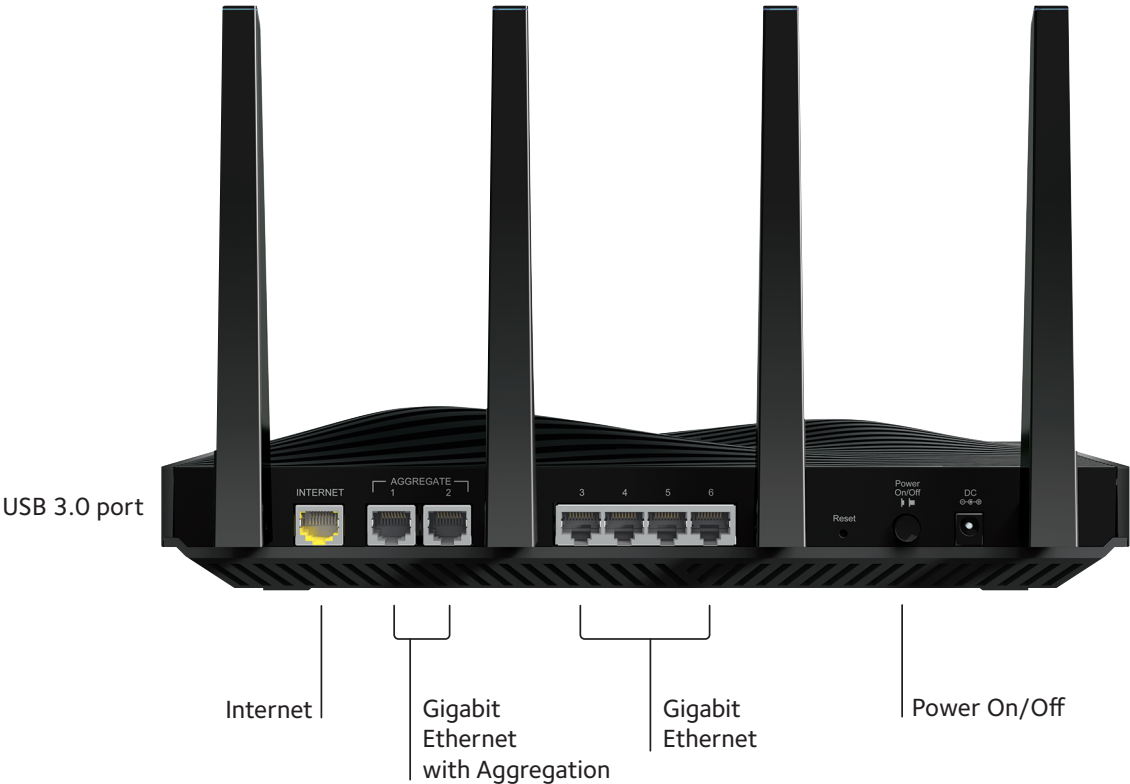
Access and share your files via secure, personal cloud storage with NETGEAR ReadyCLOUD® USB Access. Once you've connected your USB drive to your NETGEAR Nighthawk X8 and uploaded all your favorite files, you can enjoy the convenience and accessibility anytime & anywhere you have an Internet connection. No fees, storage limitations, or privacy concerns of cloud storage services. Using the ReadyCLOUD mobile app or web portal, you'll now have anytime, anywhere access to your USB drive at home... it's that easy!

- Setup your and access ReadyCLOUD via the web portal <http://readycloud.netgear.com/>
- Download mobile app for Android <https://play.google.com/store/apps/details?id=com.netgear.readycloud&hl=en>
- Download mobile app for iOS <https://itunes.apple.com/us/app/readycloud/id700730254?mt=8>



With ReadyCLOUD, remotely access your files stored at home through the browser or smartphone app.

Connection Diagram



Nighthawk® X8—AC5000 Smart WiFi Router

Data Sheet

R8300

PACKAGE CONTENTS

- Nighthawk X8 AC5000 Router (R8300)
- Ethernet cable
- Quick start guide
- Power adapter

PHYSICAL SPECIFICATIONS

- Dimensions: 12.44 x 10.39 x 2.40 in (316 x 264 x 61 mm)
- Weight: 3.70 lb (1.68 kg)

KEY FEATURES

- Smart Connect intelligently selects the fastest WiFi band for every device
- Load Balancing distributes WiFi devices ensuring usage of both 5GHz WiFi bands
- MU-MIMO[†]—Simultaneous streaming of data for multiple devices
- Dynamic QoS prioritizes network traffic by application & device
- ReadyCLOUD® USB Access—Personal & secure cloud access to USB storage anytime, anywhere
- ReadySHARE® Vault—PC software for automatic backup to USB hard drive connected to the router
- DLNA® server to find & play your media on TVs & game consoles
- VPN support—OpenVPN Connect app on iOS and Android® to allow remote secure access to the home network
- Enhanced Parental Controls to manage web filtering & accessibility by profiles or devices
- NETGEAR® genie® home network manager includes remote access to manage your network away from home

TECHNICAL SPECIFICATIONS

- AC5000[†] WiFi
 - Band 1: 600Mbps @2.4GHz – 64QAM
 - Band 2: 2166 Mbps @5GHz – 1024QAM
 - Band 3: 2166 Mbps @5GHz – 1024QAM
- Simultaneous TriBand WiFi Tx/Rx 4x4 (2.4GHz) + 4x4 (5GHz) + 4x4 (5GHz)
- IEEE® 802.11 b/g/n 2.4GHz 64QAM support
- IEEE® 802.11 a/n/ac 5GHz 1024QAM support
- Powerful dual core 1.4GHz processor
- Memory: 128 MB flash and 512 MB RAM
- Eight (8) high-performance antennas with high-powered amplifiers
 - Four (4) external Active Antennas enhance weak signals and reduce interference for best WiFi performance (patent pending)
 - 4 internal antennas
- Implicit & Explicit Beamforming for 2.4 & 5GHz bands
- Seven (7) 10/100/1000 Mbps Gigabit Ethernet ports: 1 WAN & 6 LAN
- Dual Gigabit Ethernet Port Aggregation
- One (1) USB 3.0 port
- IPv6 Support (Internet Protocol Version 6)
- On/Off LED light switch

SYSTEM REQUIREMENTS

- Microsoft® Windows 7, 8, 10, Vista®, XP®, 2000, Mac OS®, UNIX®, or Linux®
- Microsoft® Internet Explorer® 5.0, Firefox® 2.0, Safari® 1.4, Google Chrome™ 11.0 browsers or higher

SECURITY

- Customized free URL to set up personal FTP server
- OpenVPN Connect app on iOS and Android® to allow remote secure access to the home network
- VPN support—secure remote access
- Guest network access—separate & secure
- WiFi Protected Access® (WPA/WPA2—PSK)
- Double firewall protection (SPI and NAT)
- Denial-of-service (DoS) attack prevention

WARRANTY

- www.netgear.com/warranty

SUPPORT

- 90-day complimentary technical support*



This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller.

* 90-day complimentary technical support following purchase from a NETGEAR authorized reseller.

† Maximum wireless signal rate derived from IEEE 802.11 specifications. Actual data throughput and wireless coverage will vary and may be lowered by network and environmental conditions, including network traffic volume and building construction.

‡ MU-MIMO capability requires both router and client device to support MU-MIMO.

NETGEAR makes no representations or warranties about this product's compatibility with future standards. Performance Mode requires 1024QAM support on WiFi client for 5GHz. Up to 2166/600 Mbps wireless speeds possible when connecting to other 2166 @5GHz 802.11ac/600 @2.4GHz Mbps devices.

Intended for indoor use only.

NETGEAR, the NETGEAR Logo, ReadySHARE, ReadyCLOUD, and NETGEAR genie, are trademarks of NETGEAR, Inc. Mac and the Mac logo are trademarks of Apple Inc. Any other trademarks mentioned herein are for reference purposes only. ©2017 NETGEAR, Inc.