# NETGEAR®

## Nighthawk™ X8—AC5300 Smart WiFi Router

### The Next Wave in WiFi

**5.3Gbps WiFi Speeds**

**Industry's First Active Antennas**

The Nighthawk X8 AC5300 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 5.3Gbps. 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 5.3Gbps, 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 capability allows you to simultaneously stream to multiple devices at the same time.

# NETGEAR®

**Nighthawk™ X8—AC5300 Smart WiFi Router**

Data Sheet

R8500

## Speed

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

**5.3Gbps**—The fastest combined WiFi speed for uninterrupted streaming

**TRI-BAND WIFI**—Up to 1000 + 2166 + 2166[†]

**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 CAPABLE[‡]**—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 & printer via two (2) USB ports: 1 USB 3.0 & 1 USB 2.0 port

**ONE SUPERSPEED 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

# NETGEAR®

## 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. Now includes remote access to manage your network away from home.

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

**WIFI & POWER ON/OFF**—Convenient power savings

**VPN SUPPORT**—Secure access to your home network when away from home

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

## Security

Maintain the highest 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**—Highest level wireless security with WPA/WPA2

**OPEN SOURCE SUPPORT**—Download open source firmware from www.myopenrouter.com

**PERSONAL FTP SERVER**—Customized free URL to create FTP server
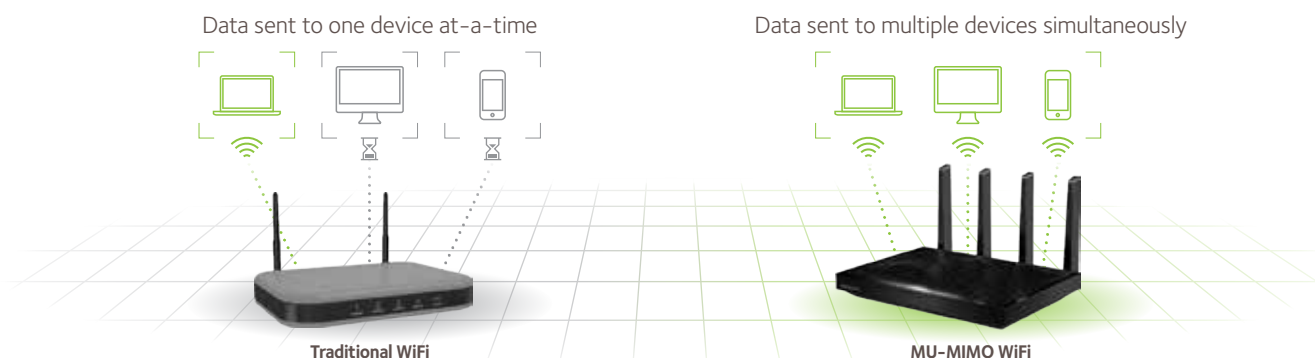
**VPN SUPPORT**—Secure access to your home network when away from home

## 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.

### Enjoy simultaneous streaming with MU-MIMO

Data sent to one device at-a-time

Data sent to multiple devices simultaneously

**Traditional WiFi**

**MU-MIMO WiFi**

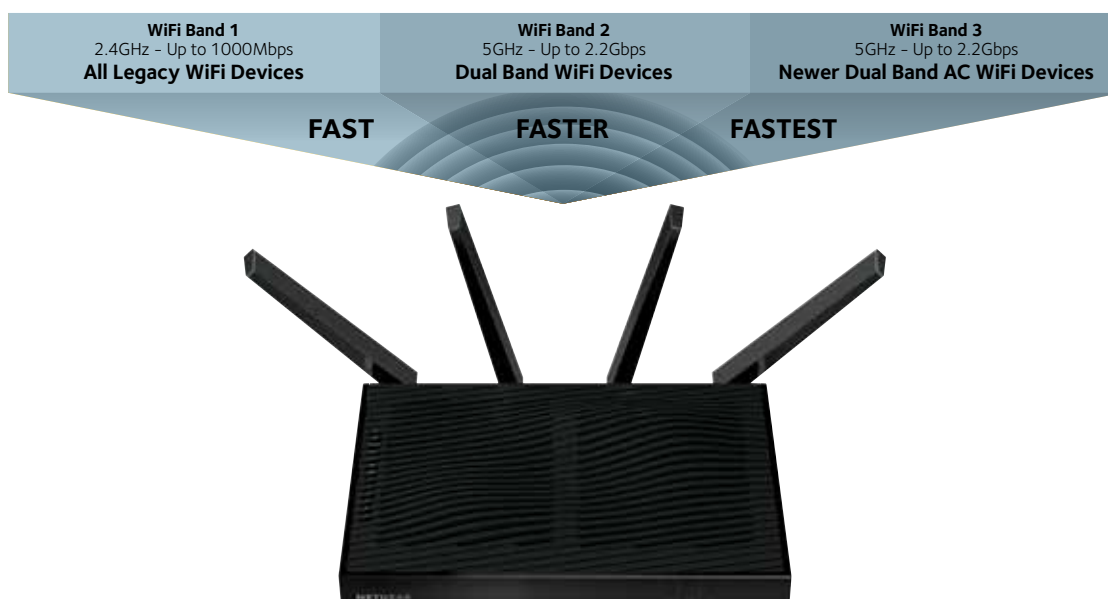‡MU-MIMO feature requires firmware upgrade. MU-MIMO firmware upgrade not currently available for this product, but currently anticipated to be released before the end of 2015. MU-MIMO capability requires both router and client device to support MU-MIMO. Please see www.netgear.com/mumimo for more details.

## Tri-Band WiFi

The Nighthawk X8 AC5300 Smart WiFi Router with breakthrough Tri-Band WiFi technology delivers a massive combined wireless speed of up to 5.3Gbps. 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.
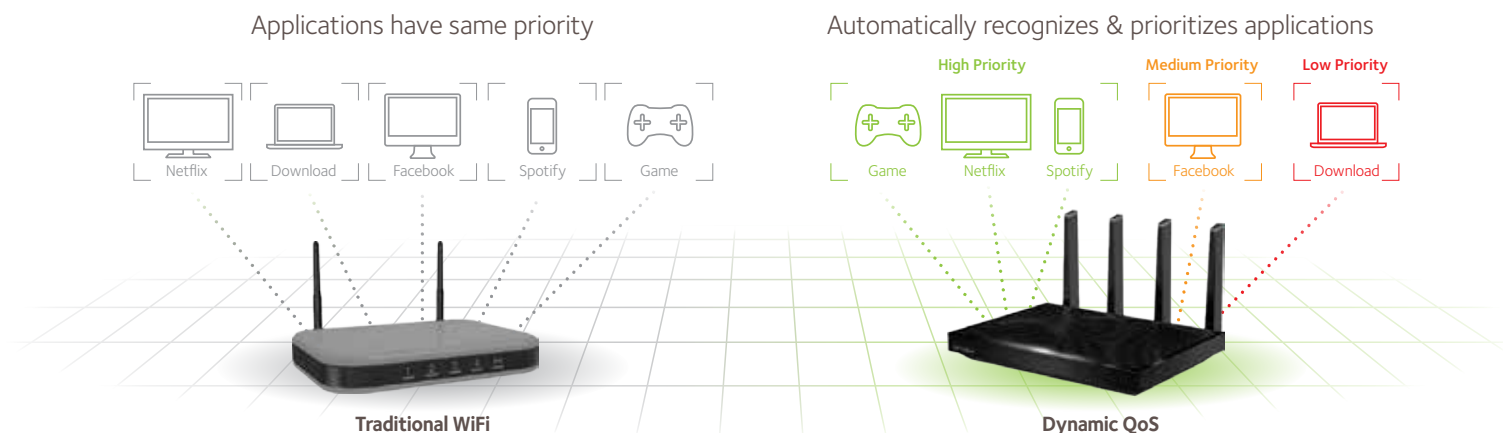
### Tri-Band WiFi provides 3 dedicated WiFi Bands

| **WiFi Band 1** | **WiFi Band 2** | **WiFi Band 3** |
|---|---|---|
| 2.4GHz – Up to 1000Mbps | 5GHz – Up to 2.2Gbps | 5GHz – Up to 2.2Gbps |
| **All Legacy WiFi Devices** | **Dual Band WiFi Devices** | **Newer Dual Band AC WiFi Devices** |
| **FAST** | **FASTER** | **FASTEST** |

## 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.

Applications have same priority

Netflix    Download    Facebook    Spotify    Game

**Traditional WiFi**

Automatically recognizes & prioritizes applications

High Priority    Medium Priority    Low Priority

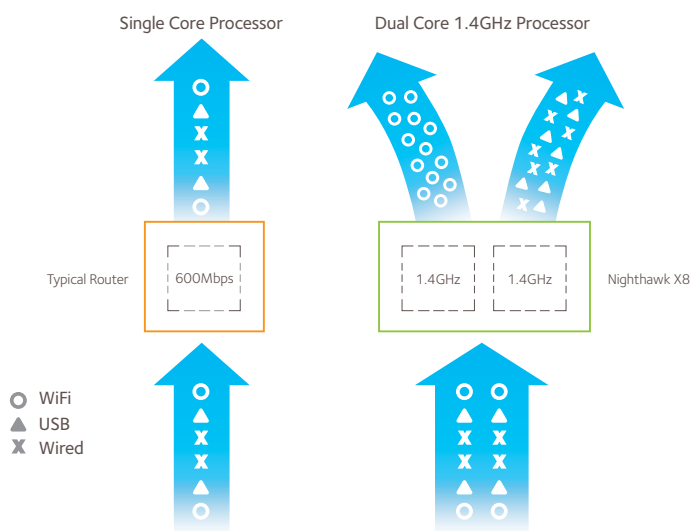Game    Netflix    Spotify    Facebook    Download

**Dynamic QoS**

## 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 dual USB interfaces 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 5.3Gbps.

Single Core Processor          Dual Core 1.4GHz Processor

Typical Router    600Mbps          1.4GHz    1.4GHz    Nighthawk X8
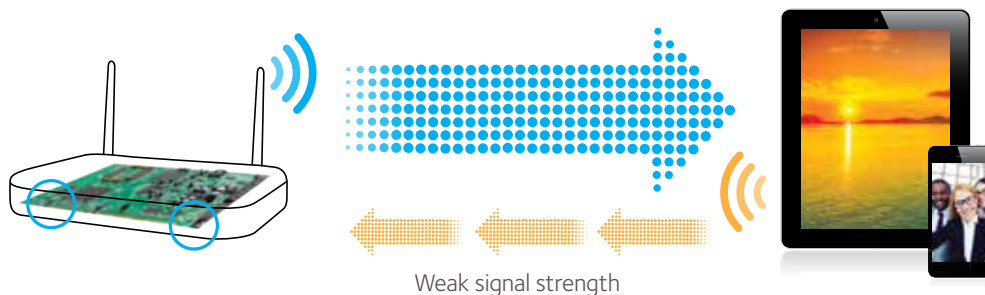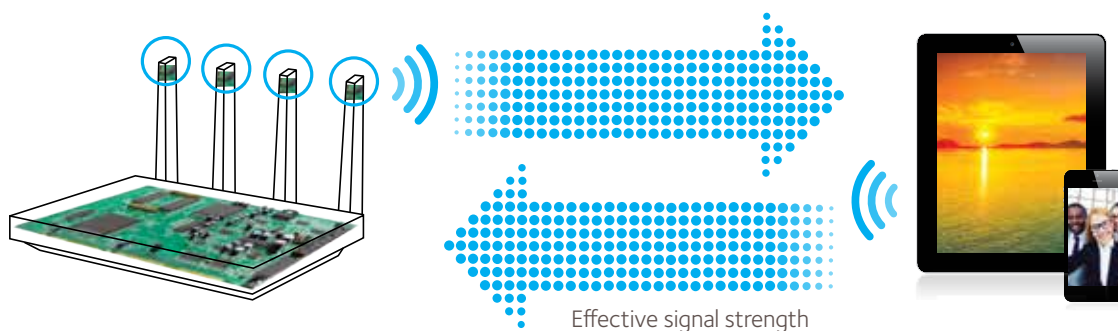
○ WiFi
▲ USB
✕ Wired

## 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.

Weak signal strength

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

Effective signal strength

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

# BEAMFORMING+

**For more
reliable connections.**

## 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. The result is a stronger, faster, more reliable connection that is locked in even when the device is moved around the home.

- Focuses WiFi 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

- Designed for home environments to support multiple WiFi device connections for highest quality

- Extends WiFi coverage, reduces deadpots, & boosts signal strength

- Implicit & Explicit Beamforming boosts speed, reliability & range for both 2.4 & 5GHz WiFi devices

## NETGEAR genie®—HOME NETWORKING SIMPLIFIED

NETGEAR genie makes getting the most out of your home network fun & easy. Installation is almost effortless – just by opening a browser, genie helps you setup your NETGEAR WiFi Router & connect all of your WiFi devices. Genie also allows you to easily monitor, connect & control your home network from a PC, Mac, tablet or smartphone. With NETGEAR genie you can share & stream music or videos, diagnose & repair network issues, set up parental controls & more.

- Home network manager

- Makes any printer AirPrint® compatible to print from an iPad® or iPhone®

- MyMedia™—Find & play media files in your network

- EZ Mobile Connect—Scan QR code to connect to your home network

- Turbo Transfer—Quickly transfer files within your home network across various devices 40% faster than normal file transfers

- For PC, Mac®, iPhone®, iPad®, & Android™ devices

- Now with 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.

## 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 X8. 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
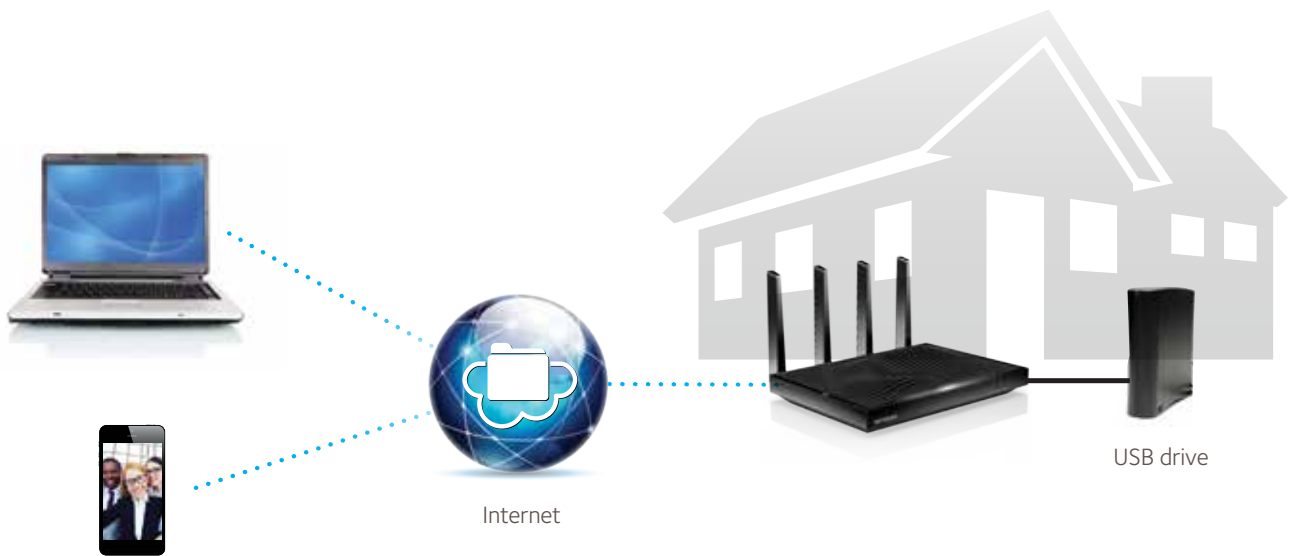- Safeguard all your precious data, photos, videos



ReadySHARE Vault: Free software for automatic incremental backup for all Windows PC in your home.

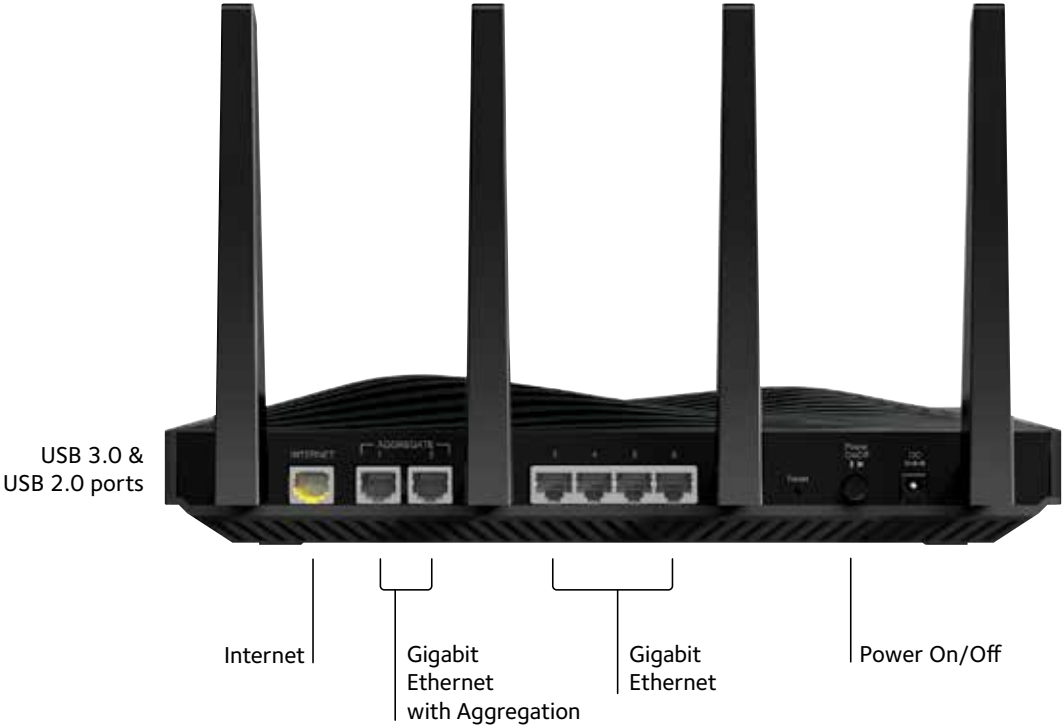## ReadyCLOUD® USB Access—Access Your Files Wherever, Whenever

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

USB drive

Internet

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

# NETGEAR®

## Connection Diagram

USB 3.0 &
USB 2.0 ports

Internet

Gigabit
Ethernet
with Aggregation

Gigabit
Ethernet

Power On/Off

## PACKAGE CONTENTS

- Nighthawk X8 AC5300 Router (R8500)
- 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 (1680 g)

## 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 capable‡—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—secure remote access to your home network & Internet
- 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

- AC5300† WiFi
- Band 1: 1000 Mbps @2.4GHz 1024QAM
- 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 1024QAM support
- IEEE® 802.11 a/n/ac 5GHz1024QAM 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
- Two (2) USB ports: 1 USB 3.0 & 1 USB 2.0 port
- IPv6 Support (Internet Protocol Version 6)
- On/Off LED light switch

## SYSTEM REQUIREMENTS

- Microsoft® Windows 7, 8, 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
- 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/about/warranty/

## SUPPORT

- 24/7 basic technical phone support for 90 days from date of purchase

telsa®
*La Alternativa en Conectividad*
Más de 30 años de experiencia en soluciones de TIC

Tel.: (55) 5740 2142
(55) 5740 4630
comercial@telsa.com.mx
www.telsa.com.mx
f /TelsaMexico  @TelsaMayorista

Supports Windows 10

Mac

NETGEAR Green™

NETGEAR, Inc. 350 E. Plumeria Drive, San Jose, CA 95134-1911 USA, 1-888-NETGEAR (638-4327), E-mail: info@NETGEAR.com, www.NETGEAR.com          D-R8500-2