NETGEAR®

ReadyNAS 3220/4220 Series Network Attached Storage (NAS)

Data Sheet

RN3220/RN4220



RN3220/RN4220

ReadyNAS: Storage Made Easy

Application data, virtual images, client files, email... the types of data central to running a successful business can seem endless. With ReadyNAS® you finally have an advanced and easy-to-use solution for centralizing, securing and controlling access to your digital assets. Way more than just simple unified (NAS and SAN) storage for your company, ReadyNAS allows you to do more than you ever thought you could afford by pairing the latest in performance with innovative efficiency technologies such as unlimited snapshots, thin provisioning and cloud-managed replication.

Every networked attached storage (NAS) device from NETGEAR runs on the revolutionary ReadyNAS operating system. This custom-built OS protects stored data with XRAID2™ automatic expansion and offers continuous data protection with unlimited snapshots. Real-time anti-virus and native encryption come standard while 10GbE ports are an option for certain 2U models.

Designed specifically for the unique needs of business users, ReadyNAS devices utilize proprietary ReadyCLOUD™ technology for cloud-based discovery, provisioning and ongoing management. In addition, these devices are virtualization-ready with iSCSI support, thin provisioning capability and certification with VMware® and Microsoft®.

These days, your data is your world. With ReadyNAS, protecting and accessing that world has never been easier. ReadyNAS — Storage Made EASY.

Key Business Features

- **Automatic Backup & Sync:** Using the ReadyCLOUD app for PC, scheduled protection is easier than ever before
- **Bit Rot Protection:** A proprietary technology protecting your files from unplanned degradation
- **Unlimited Snapshots:** Unlimited data snapshot capability for on-box protection and flexible data recovery
- **XRAID2 & Instant Provisioning:** Easily expand capacity and feel confident knowing that data is always protected
- **Cloud-managed Replication:** Maintain data sets in multiple locations or ensure protection of data from remote or branch office locations
- **iSCSI and Thin Provisioning:** Powerful tools for a businesses taking advantage of virtual infrastructures
- **Anti-virus & Encryption:** Keep data protected from outside threats and safe from prying eyes
- **Modern GUI and ReadyCLOUD Management:** Sleek, modern interface that puts the tools you need, where and when you need them

Key Business Solutions

- **File Server:** Unified storage platform for sharing files between Windows, Mac and Linux-based computers
- **Backup:** RAID redundancy with automatic expansion and unlimited data snapshots for point-in-time restore
- **Disaster Recovery:** Cloud-managed replication for maintaining multiple sets of data and performing easy restores in case of disaster
- **Virtualization:** Thin provisioning, iSCSI support and certified with VMware and Microsoft

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ReadyNAS Desktop Model Comparison - Rackmount





Hardware	ReadyNAS 3220	ReadyNAS 4220S	ReadyNAS 4220X
CPU	Intel® Ivy Bridge i3-3220v2 Dual Core 3.3GHz	Intel® Ivy Bridge Xeon E3-1225v2 Quad Core 3.2Ghz	Intel® Ivy Bridge Xeon E3-1225v2 Quad Core 3.2Ghz
Memory	4GB ECC	8GB ECC	8GB ECC
Drive Bays	12	12	12
Drive Types Supported	SATA/SDD 2.5" or 3.5"	SATA/SDD 2.5" or 3.5"	SATA/SDD 2.5" or 3.5"
Hot Swappable Drives	Yes	Yes	Yes
eSATA Ports	2	2	2
Gigabit LAN Ports	4	4	4
10Gbps LAN Optical SFP+	0	2	0
10Gbps LAN Copper 10GBase-T	0	0	2
USB Ports	1 x USB 2.0, 2 x USB 3.0	1 x USB 2.0, 2 x USB 3.0	1 x USB 2.0, 2 x USB 3.0
Power Supply	Dual Redundant Internal 550 W; input 100-240V AC, 50-60Hz	Dual Redundant Internal 550 W; input 100-240V AC, 50-60Hz	Dual Redundant Internal 550 W; input 100-240V AC, 50-60Hz
Chassis Warranty	5 years including 5 years Next Business Day hardware replacement	5 years including 5 years Next Business Day hardware replacement	5 years including 5 years Next Business Day hardware replacement
Fan (mm)	3 x 80	3 x 80	3 x 80
Dimensions DxWxH (mm)	707 x 445 x 88	707 x 445 x 88	707 x 445 x 88
Weight (kg)	11.96	11.96	11.96
Software and Functionality	**ReadyNAS 3220**	**ReadyNAS 4220S**	**ReadyNAS 4220X**
Cloud-discovery, Setup and Management	Yes	Yes	Yes
Data Protection with Unlimited Snapshots	Yes	Yes	Yes
Web-managed Replication for Disaster Recovery	Yes	Yes	Yes
Real-time Antivirus	Yes	Yes	Yes
iSCSI and Thin Provisioning	Yes	Yes	Yes

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Technical Specifications

Data Protection (Backup & Replication)

- Unlimited block-based snapshots for continuous data protection
- Restore Snapshots to any point in time
- Restore Snapshot data from local admin GUI, ReadyCLOUD, or native Windows File Explorer
- Scheduled and manual snapshots
- File Synchronization (rsync)
- Encrypted Remote Replication
- Data compression
- Cloud managed Remote Replication (ReadyNAS to ReadyNAS). No licenses required for ReadyNAS OS 6 devices.
- AES 256-bit volume based encryption
- X-RAID2 (automatic single volume online expansion)
- Single Disk, JBOD
- RAID Levels: 0, 1, 5, 6, 10
- RAID Global Hot Spare
- Backup to external storage (USB/eSATA)
- Apple Time Machine support
- Remote Apple Time Machine backup and restore (over ReadyNAS Remote)
- ReadyNAS Vault™ Cloud backup (optional service)
- Dropbox™ file synchronization (requires Dropbox account)
- Real-time Anti-Virus scanning using signature and heuristic algorithms. (No end-user licenses required) Protection for viruses, malware, worms, and Trojans.
- Bitrot automatic detection & correction for degraded media

Storage Area Networks (SAN), Virtualization

- Unlimited iSCSI LUN Snapshot
- Thin or thick provision LUNs
- Multi-LUN per target
- LUN mapping and masking
- SPC-3 Persistent Reservation (iSCSI)
- MPIO and MC/S (iSCSI)
- Max # iSCSI Target: 256
- Max # iSCSI LUN: 256
- VMware vSphere 5
- Citrix XenServer 6
- Windows Server 2008 Hyper-V
- Windows Server 2008 Failover Clustering
- Windows Server 2012 R2

ReadyCLOUD (cloud access to ReadyNAS)

- ReadyCLOUD portal based data access and management
- Upgrade firmware remotely
- VPN quality remote data transfer and management
- Share data with friends & co-workers directly from portal
- Share file via email link

ReadyCLOUD Client Applications

- ReadyCLOUD client applications for Apple OS X, Microsoft Windows, Android, and Apple iOS
- VPN quality remote data transfer and management
- Simple remote access through ReadyCLOUD client (no firewall or router configuration needed)
- Sync files/folders between PC (Mac/Windows) & ReadyNAS
- Sync files/folders between multiple PCs and ReadyNAS
- Sync files/folders between multiple users & ReadyNAS
- Backup files/folders from PC to ReadyNAS

File System & Transfer Protocols

- ReadyNAS OS 6.2 or later
- Linux 3.x
- Internal File System: BTRFS
- External File System: EXT3, EXT4, NTFS, FAT32, HFS+
- Copy-on-write file system
- Microsoft Network (CIFS/SMB 3)
- Apple OS X (AFP 3.3)
- Linux/Unix (NFS v3)
- Internet (HTTP)
- Secure Internet (HTTPS)
- File Transfer Protocol (FTP)
- FTP over SSL / TLS (explicit)
- FTP Passive mode with port range setup
- FTP Bandwidth control
- FTP Anonymous
- FTP Transfer Log
- Secure Shell (SSH)
- Web Authoring (WebDAV)
- Storage Array Network (iSCSI)
- File Synchronization (rsync)
- Local web file manager

Users/Groups:

- Max # Users: 8192
- Max # User Groups: 8192
- Max # Share Folder: 1024
- Max # Concurrent Connections: 1024
- Share Folder Level ACL Support
- Advanced Folder Permissions with Subfolder ACL support for CIFS/SMB, AFP, FTP
- Microsoft Active Directory (AD) Domain Controller Authentication
- Local access list
- ReadyCLOUD based ACL
- Domain user login via CIFS/SMB, AFP, FTP

Management

- ReadyCLOUD cloud based discovery and management
- RAIDar local discovery agent (Windows/Mac)
- Save and restore system configuration (clone devices)
- Local event log
- Connection reporting (SMB)
- Local Graphical User Interface (GUI) Languages: English, German, French, Japanese, Chinese (Traditional & Simplified), Russian, Swedish, Portuguese, Italian, Spanish, Polish, Czech, Dutch, Korean
- Unicode support
- Volume Management
- Thin provision Shares and LUNs
- Instant Provisioning/Expansion with data protection
- Restore to factory default
- Supported Operating Systems (Microsoft Windows, 7 (32/64-bit), 8/8.1 (32/64-bit), Microsoft Windows Server 2008 R2/2012, Apple OS X, Linux/Unix, Solaris, Apple iOS, Google Android)
- Supported Web Browsers (Microsoft Internet Exploer 9+, Mozilla Firefox 14+, Google Chrome 20+, Apple Safari 5+)

System Monitoring

- Device capacity, performance, resource and health monitoring
- Bad block scan
- Hard Drive S.M.A.R.T.
- File System Check
- Disk Scrubbing
- Disk Defragment
- Volume balance
- Alerts (SMTP email, LCD, SNMP, local log)
- Auto-shutdown (hard drive, fan, UPS)
- Auto-restart on power recovery

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Technical Specifications

Networking Protocols

- TCP/IP
- IPv4
- Next-generation Internet Protocol (IPv6)
- Static IP Address
- Dynamic IP Address
- Multiple IP Settings
- DHCP Client
- UPnP Discovery
- Bonjour Discovery
- Link Aggregation IEEE 802.3ad
- Port Trunking (balanced round robin, active backup, balance xor, broadcast, 802.3ad link aggregation LACP, transmit load balancing, adaptive load balancing)
- Hash Types IEEE 802.3ad LACP or XOR (Layer 2, Layer3, Layer 4)
- Jumbo Frames
- Static routes
- Secure Shell (SSH)
- Simple Network Management Protocol v2, v3
- Network Time Protocol (NTP)

Media

- ReadyDLNA (UPnP DLNA Media Server)
- ReadyDLNA streams to any compliant device including Playstation and Xbox
- ReadyDLNA mobile clients for remote media streaming (iOS, Android)
- ReadyDLNA supported music formats (wav, wma, pcm, ogg, mp3, m4a, flac, aac)
- ReadyDLNA supported photo formats (jpg, jpeg)
- ReadyDLNA supported video formats (3gp, mp4, wmv, xvid, vob, ts, tivo, mts, mpeg, mpg, mp4, mov, mkv, m4v, m4p, m2t, m2ts, flv, flc, fla, divx, avi, asf)
- ReadyDLNA supported playlist formats (pls, m3u)
- ReadyNAS Surveillance (free trial, license required) supports over 70 brands and 1600 models of IP cameras
- iTunes Server
- iTunes supported audio formats (mp3, m4a, m4p, wav, aif)
- iTunes supported video formats (m4v, mov, mp4)
- iTunes supported playlist formats (m3u, wpl)
- TiVo Archiving
- Plex Media Server streams to DLNA and Plex clients (mobile, desktop, Google TV, Roku, Samsung & LG TVs)

Hardware

- Floating Point CPU
- Flash: 256MB for OS
- 12 Hot Swappable Drive Bays
- Drive Types Supported: SATA/SSD 2.5" or 3.5"
- Two eSATA ports
- One USB 2.0 & Two USB 3.0 ports
- Total solution capacity: 48TB
- Quad Gigabit Ethernet ports with link aggregation and failover
- LEDs: Power, System, LANx4
- Three 80mm fans
- Dimensions (DxWxH): 707mm x 445mm x 88mm
- Weight: 11.96 kg
- Dual 550 watt redundant power supplies
- Power cord localized to country of sale
- Rackmount sliding rail included

Compliance

- ENGR 10049 EST Environmental Stress Test Guideline
- ENGR 10045 EVT Engineering Validation Test Guideline
- ENGR 10048 CVT Compliance Validation Test Guideline
- ENGR 10046 System Validation Test Guideline
- ENGR 10023 HALT Accelerated Life Test Guideline
- ENGR 10036 CDG Component Derating Guideline

Environment

- Noise levels: <30dBA @ 30C
- Operating Temperature: 0-40C
- Operating Humidity: 20-80% relative humidity, non-condensing
- Smart Fan
- Scheduled Power on/off
- UPS Support
- Network UPS with SNMP Management
- Wake on LAN
- Hard drive disk spin down
- Auto-power on (after shutdown)
- AC Input Power Voltage 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Power Consumption (Operation/Wake on LAN) RN3220: 92/1.0 watts
- Power Consumption (Operation/Wake on LAN) RN4220S: 163/2.9 watts
- Power Consumption (Operation/Wake on LAN) RN4220X: 168/0.9 watts
- Certification: FCC Class A, CE Class A, RoHS, VCCI Class A
- MTBF: 159,519 hours

ProSUPPORT

- ProSUPPORT: OnCall 24x7 (1-year: PMB0314, 3-year: PMB0334, 5-year: PMB035)

Accessories

- RN10G2SFP: Replacement PCIe 10G SFP+ module (RN4220 only)
- RN10G2C: Replacement PCIe 10GBaseT module (RN4220 only)
- RTRAY04: Replacement/additional 3.5" or 2.5" hard drive tray
- RFAN04: Replacement 80mm fan
- RRAIL03: Replacement/additional sliding rack mount rail
- RPSU02: Replacement/additional 550W power supply unit
- RMEM02: Replacement 4GB memory module (RN3220 only)
- RMEM03: Replacement 8GB memory module (RN4220 only)

Add-on Applications

- One click installation of add-on applications directly through local GUI
- Application available for productivity, media, backup, surveillance, and many others
- NETGEAR applications include Surveillance, Photo Sharing, Advanced configuration tools
- Partner applications include BitTorrent Sync, Plex, Memeo, DVBlink
- Community applications include Transmission, ownCloud, Qbittorrent, mqSQL, VPN server, Syslog, Wordpress, joomla, Media Wiki, and others
- Application availability subject to change
- Applications may impact overall performance
- Software Development Kit (SDK) available for 3rd party developers



INDUSTRY-LEADING 5-YEAR HARDWARE WARRANTY

5-year next-business-day replacement,
90 day 24x7 phone support, lifetime chat support



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