



RN104

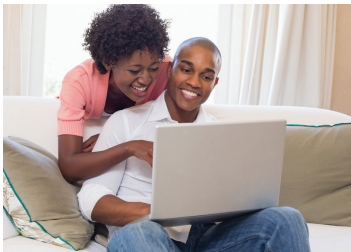
RN102

ReadyNAS: Complete protection for your photos, videos and files

If you love something, protect it. With ReadyNAS, your photos, videos and files are safe with 5 levels of protection. And with our new PC app, backing up and syncing your content has never been easier. Once your files are secure on your ReadyNAS you are ready to go. Ready to stream movies and music. Ready to share photos and files. Ready for everything.

- 5 levels of protection for all your photos, video and files
- Automatic backup and sync with the new ReadyCLOUD PC app
- Smartphone photo upload from free mobile app
- Uninterrupted streaming of movies and music with DLNA, iTunes® & Plex
- Anywhere cloud access and sharing from computers and mobile devices
- Hot swap and disk spin down
- 1.2Ghz processor and 512GB on board RAM for swift data transfers

Your files. Fully protected. Ready to go.



ADVANCED BACKUP AND SYNC

- Automatic backup with new PC App
- Sync folders between ReadyNAS® and PCs
- Time Machine® backup support for all the MACs® in your home
- On-the-go backup of photos from your phone



STREAM AND SHARE PHOTOS, MOVIES & MUSIC

- Powerful media server using Plex, iTunes® or DLNA®
- 1.2GHz high performance processor for uninterrupted streaming
- Drag and drop photos for easy saving and sharing
- Free mobile app for anywhere cloud access



5 LEVELS OF FILE PROTECTION

- Automatic RAID protects against disk failure
- Exclusive snapshot technology for file recovery
- Realtime anti-virus software protects against viruses and malware
- Bit rot protection defends against media degradation
- Free cloud backup for your most important files

ReadyNAS Desktop Model Comparison - 100 Series



	ReadyNAS 102	ReadyNAS 104
CPU	Marvell® Armada 370 1.2GHz	Marvell® Armada 370 1.2GHz
Memory	512MB	512MB
Drive Bays	2	4
Drive Types Supported	SATA/SSD 2.5" or 3.5"	SATA/SSD 2.5" or 3.5"
Hot Swappable Drives	Yes	Yes
Tool-less 3.5" Disk Installation	Yes	Yes
eSATA Ports	1	1
Total Solution Capacity Internal	8TB	16TB
Gigabit LAN Ports	1	2
USB Ports	One (1) USB 2.0, Two (2) USB 3.0	One (1) USB 2.0, Two (2) USB 3.0
Power Supply	12V, 5A External 60W; input 100-240V AC, 50/60Hz	12V, 7A External 90W; input 100-240V AC, 50-60Hz
BTU at Full Power Supply Utilization	31.7W	47W
Power Consumption: Operation	31W	45.6W
Power Consumption (Wake on LAN)	1.0W	1.4W
Power Consumption: Power Off	210mW	440mW
Chassis Warranty*	3 years	3 years
2-Line LCD Display	No	Yes
Fan (mm)	92	92
Dimensions DxWxH (mm)	220 x 101 x 142	223 x 134 x 205
Weight (kg)	2.03	4.02
ProSUPPORT Service Packs Available	100 Series	
OnCall 24x7	1-year: PMB0311 3-year: PMB0331	
XPressHW Replacement	3-year: PRR0331	



Technical Specifications

Media

- ReadyDLNA (UPnP DLNA Media Server)
 - ReadyDLNA streams to any compliant device including PS3/Xbox 360
 - 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, flv)
 - ReadyDLNA supported playlist formats (pls, m3u)
- ReadyNAS Surveillance (1-camera license included) supports over 85 brands and 2000 models of IP cameras
- ReadyNAS Surveillance supports up to 8 cameras (optional licenses required)
 - RNNVR01L (Optional 1-camera license)
 - RNNVR02L (Optional 2-camera license)
 - RNNVR04L (Optional 4-camera license)
- 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)

• ReadyCLOUD (cloud access to ReadyNAS)

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

• Hardware

- Floating Point CPU
- Flash: 128MB for OS
- Dual Gigabit Ethernet ports with link aggregation and failover (RN104 only)
- Programmable One-Touch USB Backup button

- Kensington Security Lock Feature
- LEDs: Power, Activity, Disk, Backup, LAN
- Power cord localized to country of sale
- Mean Time Between Failure (MTBF) Hours @ 40C: ReadyNAS 102 532,141
- Mean Time Between Failure (MTBF) Hours @ 40C: ReadyNAS 104 267,265

ReadyCLOUD Client Applications

- ReadyCLOUD client applications available for Apple Mac OS X, Microsoft Windows, Android, and Apple iOS
- VPN quality remote data transfer and management
- Simple and secure 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 & ReadyNAS
- Sync files/folders between multiple users & ReadyNAS
- Backup files/folders from PC to ReadyNAS

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
- Rsync (File Synchronization)
- 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 level support depends on number of drives/bays)
- RAID Global Hot Spare
- Backup to external storage (USB/eSATA)
- USB One-Touch Copy
- Apple Time Machine support
- Create virtual Time Machine targets per user
- Manage & monitor Time Machine usage per user
- Remote Apple Time Machine backup and

- restore (using ReadyCLOUD Mac client)
- ReadyNAS Vault Cloud backup. Free service tier with optional capacity upgrades
- 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
- Automatic protection & correction for degraded media

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 filesystem
- Microsoft Network (CIFS/SMB)
- 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
- Single volume size limit: 16TB
- Supported Web Browsers (Microsoft Internet Explorer 9+, Mozilla Firefox 14+, Google Chrome 20+, Apple Safari 5+)

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

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
- Virtual LAN (VLAN)
- SSH
- SNMP v2, v3
- Network Time Protocol (NTP)

Storage Area Networks (SAN), Virtualization

- Unlimited iSCSI LUN Snapshot
- Thin or Thick provision LUNs
- Multi-LUN per target
- LUN mapping
- LUN masking
- SPC-3 Persistent Reservation (iSCSI)
- MPIO (iSCSI)
- MC/S (iSCSI)
- Max # iSCSI Target: 256
- Max # iSCSI LUN: 256
- Max iSCSI LUN capacity 8TB
- VMware vSphere 5
- Citrix XenServer 6
- Windows Server 2008 Hyper-V
- Windows Server 2008 Failover Clustering
- Windows Server 2012

Management

- ReadyCLOUD cloud based discovery and management
- RAIIDar 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, 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 Vista (32/64-bit), 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 Explorer 9+, Mozilla Firefox 14+, Google Chrome 20+, Apple Safari 5+)

Accessories

- RTRAY05: Replacement/additional 3.5" or 2.5" disk drive tray

Add-on Applications

- One click installation of add-on applications directly through local GUI
- Applications 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, MySQL, VPN server, Syslog, Wordpress, Joomla, Media Wiki, and others.
- Application availability subject to change.
- Applications may impact overall performance
- Software Development Kit available for 3rd party developers

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
- Alerts (SMTP email, LCD, SNMP, syslog, local log)
- Auto-shutdown (hard drive, fan, UPS)
- Auto-restart on power recovery

Compliance

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

Environment

- Noise levels: <25dBA
- Operating Temperature: 0°-40° C
- Operating Humidity: 5-95% 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
- Certification: FCC Class B, CE Class B, RoHS, VCCI Class B

*The 3-Year Limited Warranty covers hardware, fans, and internal power supplies - not software or external power supplies. Warranty is only valid for the original purchaser, and modifications to product may void the warranty. See <http://www.netgear.com/about/warranty/> for details. Warranty for included drives is 3 years.

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