



RN104/RN102

ReadyNAS: Storage Made Easy

Photographs, video clips, songs, web sites, text messages... the types of data that enrich our lives can seem endless. With ReadyNAS you finally have an easy way to centralize, access and share your digital world. Way more than just simple storage for all your stuff, every ReadyNAS features unprecedented protection of your files, the ability to manage stored data from any web-enabled device and a library of add-ons that allow you to do more with your storage than you ever thought possible. Every networked attached storage (NAS) device from NETGEAR runs on the revolutionary ReadyNAS operating system.

Designed with ease-of-use in mind, new devices are discovered automatically through the cloud and feature a sleek, modern interface. Also, stored data is protected not only with automatic RAID configuration, but this ReadyNAS is the first to offer home users the continuous data protection of unlimited snapshots along with real-time anti-virus and native encryption. In addition to the confidence of knowing data is secure from virtually any threat, ReadyNAS features remote access innovations, seamless cloud-based file synchronization (ReadyDROP) and the ability to backup data from your Mac anywhere in the world when using Apple Time Machine®.

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

Key Features for the Home



- **ReadyCLOUD Set-up and File Management:** Online portal means no software to download or IP addresses to enter when getting started



- **Modern GUI:** Sleek, modern interface that puts the tools you need, where and when you need them



- **Genie+ Marketplace:** A platform for third party developers to deliver exciting, new applications for your ReadyNAS



- **ReadyDROP/Dropbox File Synchronization:** File synchronization across NAS/PC/Mac/mobile devices



- **ReadyDLNA Media Streaming:** Stream movies, music and photos to DLNA-enabled smart TV's and game consoles



- **Remote Backup for Time Machine®:** Remote or local file backup and recovery from Mac computers using the Apple Time Machine utility

Key Solutions for the Home



- **Personal Cloud:** Easily store, share and access all of your data from wherever you are and whenever you need it



- **Backup:** Easily store multiple copies of all your important files from Windows®, Mac® or Linux® computers



- **Media Server (music/video/photos):** Stream movies, music and photos throughout your home and to mobile devices when you are on-the-go



- **Expandable Platform (embedded, add-on and mobile apps):** Extend ReadyNAS functionality with an expanding library of software add-ons

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 Expansion 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)	2.12	4.70
ProSupport Service Packs Available	100 Series	
OnCall 24x7	1 year: PMB0311 3-year: PMB0331 5-year: PMB0351	
XpressHW Replacement	3-year: PRR0331 5-year: PRR0351	

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)
- ReadyDLNA supported playlist formats (pls, m3u)
- ReadyNAS Surveillance (free trial, license required) supports over 40 brands and 1000 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)

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

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

Remote Access Clients

- ReadyNAS Remote clients for Apple Mac OS X, Microsoft Windows, Android, Apple iOS (Remote file access and management client)
- VPN quality remote data transfer and management
- Simple remote access through ReadyNAS Remote (no firewall or router configuration needed)
- ReadyDROP file synchronization (sync folder on Mac/Windows to a folder on 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
- Encrypted Remote Replication
- 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
- eSATA Expansion
- Backup to external storage (USB/eSATA)
- USB One-Touch Copy
- Apple Time Machine support
- Remote Apple Time Machine backup and restore (over ReadyNAS Remote)
- ReadyNAS Vault Cloud backup (optional service)
- ReadyDROP file synchronization (sync folder on Mac/Windows to a folder on ReadyNAS)
- 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

File System & Transfer Protocols

- ReadyNAS OS 6
- 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)
- SSH File Transfer Protocol (SFTP)
- Web Authoring (WebDAV)
- Storage Array Network (iSCSI)
- File Synchronization (rsync)
- Local web file manager
- 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
- 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
- RAIDar local discovery agent (Windows/Mac)
- Save and restore system configuration (clone devices)
- Local event log
- Send events to SYSLOG server
- Connection reporting (SMB)
- Local Graphical User Interface (GUI) Languages: English, German, French, Japanese, Chinese, Russian, Swedish, Portuguese, Italian, Spanish, Polish, Czech, Dutch, Korean
- Genie+ marketplace integration to add productivity, media, backup, surveillance and other applications
- 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 (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+)

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
- Schedule power on/off
- 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 Hardware Warranty only covers hardware, fans, and internal power supplies, and does not include external power supplies or software. Hardware modifications or customization void the warranty. The warranty is only valid for the original purchaser and cannot be transferred.

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