TerraMaster U4-423

4-Bay High Performance NAS

Datasheet

The U4-423 adopts 1U Rackmount case with a depth of only 360mm (14.17 inches) weighs merely 3.2kgs, which saves a lot of space. It features simple installation without any rail, it is applicable to most 2-column cabinets and wall-mounted small cabinets, and can be used in a machine room, storage room, staircase, office along with a plethora of other places. suitable for small office users. With a high-quality silent fan and specially optimized internal structure, the U4-423 maintains relatively low noise level when working conditions at full load.

Excellent Performance

This is a high-performance storage solution for iSCSI virtual storage and database service for SMB users. It uses an Intel Celeron N5105/5095 quad-core processor with 2.0 GHz and maximum turbo to 2.9 GHz. It is integrated with a GPU graphics card, AES NI hardware encryption, and equipped with two 2.5 GbE interfaces and 4 GB DDR4 dual-channel memory (expandable up to 32 GB).

The Ideal Choice for SMB' Data Management

The U4-423 can deal with high-load workflow and a high level of concurrent user access. Rapid document storage and management are facilitated by high-speed document retrieval, efficient transmission performance, and rich TerraMaster disaster backup and recovery solutions.

Higher Transmission Speed

The U4-423 is configured with two 2.5 GbE interfaces, supporting 2.5 GbE high-speed network bandwidth. The transmission speed can reach 283 MB/s (Seagate IronWolf 18TB x 4, RAID 0) . Link Aggregation provides a network bandwidth up to 5 Gb, thus providing a cost-effective solution for multi-user and high-concurrent file access.

High Speed Network and Flexible Extension

The U4-423 is configured with two 2.5 GbE interfaces. Link Aggregation provides a network bandwidth up to 5 Gb. The built-in M.2 NVMe slot realizes SSD cache acceleration and significantly increases the storage efficiency of the disk array. To meet performance enhancement expansion requirements, the memory can be extended to as large as 32 GB.

Small-sized Compact Design

Structural optimization has remarkably reduced the space occupied by the U4-423, thus realizing product miniaturization. By adopting both vertical and horizontal designs, the U4-423 better satisfies the usage requirements of small-sized business users with limited space.

Very Quiet

It is essential that a desktop NAS is very quiet. The U4-423 has a high-quality silent fan and optimized internal structure, which increases the equipment's internal wind pressure and

reduces the working temperature of the hard disk. This remarkably reduces resonance between the equipment components and the hard disk, so even in a full-load working environment, the U4-423 maintains a low-noise performance.

Flexible Configuration and Management of Disk Arrays

The U4-423 supports rich RAID types, which can be selected based on your data access and data protection level requirements. Hot Spare can be configured for the disk array and any of the following array types can be chosen according to the number of hard disks: Single, RAID 0, 1, 5, 6, 10. To reduce the risk of material loss and ensure important materials are kept, the U4-423 supports online capacity expansion and online migration of RAID array.

Across-Platform File Management and Sharing

Supporting most of file services (SMB, AFP, SFTP/FTP, iSCSI, NFS, and WebDAV), the U4-423 can fully satisfy file management requirements in different network environments. TerraMaster's web file management tool, File Manager, is easily operated with visualized interfaces, while its classification and search functions can make it simple to organize and share data.

Enhance the Safety of your Data with a Superior File System

Superior storage technology and optimized snapshot technology are the cornerstones of the Btrfs file system, which is what TerraMaster's U4-423 relies on for advanced data protection, the prevention of data corruption, and minimal maintenance expenses. This file system promotes high data integrity while promoting flexibility and efficiency in the areas of data protection and recovery. The Btrfs file system features data recovery capabilities at the file or folder level for faster data recovery and greater flexibility for businesses.

Virtualization Storage Solutions

TerraMaster iSCSI supports VMware vSphere and Windows Hyper-V virtualization storage solutions. The simple management interface enhances working efficiency and optimizes calculation efficiency, as well as facilitating the shunt of storage operations.

Multiple Backup Solutions

Integrated with multiple backup applications, the U4-423 uses visual user interfaces and reliable storage technologies to protect your precious data.

Centralized Backup: Backups for virtual machines, employees' PCs, and file servers are managed centrally, facilitating the rapid restoration of data after an incident.

Duple Backup: To provide several offsite backup versions, Duple Backup offers advanced data protection by backing up files to another remote TNAS, file server, or cloud drive.

Snapshot: Take continuous snapshots of your folders or iSCSI LUNs by enabling snapshot schedule. When a disaster occurs, it can roll back to points-in-time and restore to the last backup, ensuring your data is well protected.

CloudSync: Back up your data to a mainstream cloud drive to provide remote backup versions, making your data more secure.

Striving to Satisfy Small and Medium-sized Businesses

Business users can easily build file storage servers, mail servers, web servers, FTP servers, MySQL databases, CRM systems, Node.js, and Java virtual machines, as well as a host of other commercial applications.

Panel Illustration:
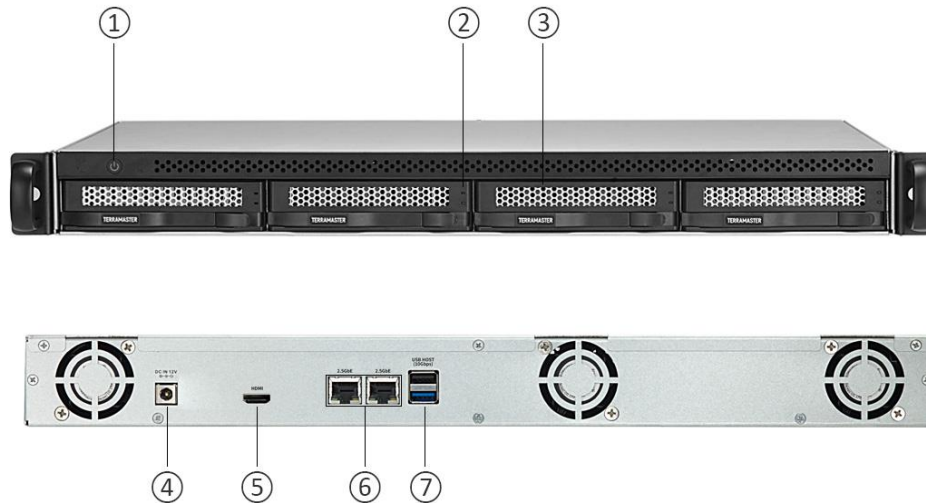
SN	Item	Item
①	Power switch/Power indicator	On: Power on Off: Power off
②	Hard drive indicator	Green: Normal operation status Green (flickering): Reading/writing data Off: No hard drive detected
③	Hard drive tray	3.5" SATA HDD; 2.5" SATA HDD; 2.5" SATA SSD

Rear Cover Illustration:

SN	Item	Description
③	Power interface	DC 12V input
⑤	HDMI interface	For displaying the software codes or commands, not for video playing.
⑥	Network interface	2.5G/1000M/100M bps network interface
⑦	USB 3.1 host (×2)	Use to connect USB storage device or USB wireless adaptor

Specifications:

Hardware	
Processor	
Processor Model	Intel® Celeron® N5105/N5095
Processor Architecture	X.86 64-bit
Processor Frequency	Quad Core 2.0 GHz (Max burst up to 2.9 GHz)
Hardware Encryption Engine	√
Hardware Transcoding Engine	H.265 (HEVC), MPEG-4 Part 2, MPEG-2, VC-1; maximum resolution: 4K (4096 x 2160); maximum frame rate per second (FPS): 60
Memory	
System Memory	4GB
Pre-installed Memory module	1
Total Memory Slot Number	2
Maximum Supported Memory	32 GB (16 GB + 16 GB)
Note	TerraMaster reserves the right to replace memory modules with the same or higher frequency based on supplier's product life cycle status. Rest assured that the compatibility and stability have been strictly verified with the same benchmark to ensure identical performance.
Storage	
Disk Slot Number	4
Compatible Drive types	3.5" SATA HDD
	2.5" SATA HDD
	2.5" SATA SSD
Maximum Internal Raw Storage Capacity	80TB (20TB x 4) (Capacity may vary by RAID types)
Max Single Volume	108TB
Drive Hot Swap	√
Note	. Hard drive vendors will release their latest models of hard drives, and Maximum internal raw storage capacity may be adjusted accordingly. . The maximum single volume size is not directly related to the maximum raw capacity.
File System	
Internal Drive	EXT4, BTRFS
External Drive	EXT3, EXT4, NTFS, FAT32, HFS+
External Ports	
RJ-45 2.5GbE Network Jack	2

USB 3.1 Port	2 (Type-A USB 3.1 Gen2)
HDMI	1
M.2 NVMe Slot	1 (PCIe3.0 x2)
Appearance	
Size	440 x 360x 45 mm
Packaging Size	545 x 453 x 95 mm
Weight	Net Weight: 4.2 Kg Gross Weight: 6.1 Kg
Others	
System Fan	40 x 40 x 28mm 3PCS
Fan Mode	Smart, High speed, Middle speed, Low speed
Noise Level	32.4 dB(A) (Fully loaded Seagate 4TB ST4000VN008 hard drive(s) in idle state)
Power Supply	90 W
AC Input Voltage	100V - 240V AC
Current Frequency	50/60 Hz, single frequency
Power Consumption	35.2 W (Fully loaded Seagate 4TB ST4000VN008 hard drive(s) in read/write state)
	13.9 W (Fully loaded Seagate 4TB ST4000VN008 hard drive(s) in hibernation)
Limited warranty	2 years
Certificate	FCC, CE, CCC, KC
Environment	RoHS, WEEE
Temperature	
Working Temperature	5°C ~ 40°C (40°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C (-5°F ~ 140°F)
Relative Humidity	5% ~ 95% RH
Package Contents	
	Host unit (x1)
	Power cord (x1)
	Power Adapter(x1)
	RJ-45 network cable (x1)
	Quick Installation Guide (x1)
	Limited Warranty Note(x1)
	Screws (a few)

TOS Features	
OS Supported	
Supported Client OS	Windows OS, Mac OS, Linux OS
Supported Web Browsers	Google Chrome 97.0.xxxx, Mozilla Firefox 9.3,Apple Safari 12.1 ; Microsoft Edge 99.0.xx or later version.
Supported mobile OS	iOS 12.0, Android 9.0 or later version
Storage Management	
Supported RAID Types	TRAID, Single, JBOD, RAID 0, RAID 1, RAID5, RAID 6, RAID10
Maximum Internal Volume Number	256
Maximum iSCSI Target	128
Maximum iSCSI LUN	128
Volume Expansion with Larger HDDs	TRAID, RAID 1, RAID5, RAID 6, RAID10
Volume Expansion by Adding a HDD	/
RAID Migration	√
SSD Cache	√
Hot Spare	√
SSD TRIM	√
Hard Drive S.M.A.R.T.	√
Seagate IHM	√
NVRAM write cache(BBU-protected)	/
WORM(Write Once Read Many)	/
Shared Folder Snapshot	√
LUN Snapshot	/
Storage QoS For Shared Folder	/
File Services	
File Protocol	SAMBA/AFP/NFS/FTP/WebDAV
Maximum Concurrent SAMBA/AFP/FTP Connections	500
Windows Access Control List (ACL) Integration	√
NFS Kerberos Authentication	√
Account & Shared Folder	
Maximum local user's account number	2048
Maximum local group number	512
Maximum shared folders number	512
Maximum shared folders syncing tasks	8
Backup	

Rsync Server	√
Rsync Backup	√
Schedule Backup	√
USB Device Backup	√
Cloud Sync	√
Time Machine Server	√
File System Gluster	/
Networking	
TCP/IP	IPv4/6
Protocols	CIFS/SAMBA, NFS, FTP, TFTP, HTTPS, SSH, iSCSI, SNMP, SMTP
Link Aggregation	√
DLNA Compliance	√
VPN Client	√
VPN Server	√
Proxy lient	√
Proxy Server	/
UPnP/Bonjour Discovery	√
TNAS.online Remote Access	√
DDNS	√
Access Right Management	
Batch users creation	/
Import/Export users	√
User Quota Management	√
Local user access control for CIFS/SAMBA and FTP	√
Domain Authentication	
Microsoft Active Directory	√
LDAP Client	√
LDAP Server	/
SSO	√
Security	
Firewall Protection	√
Account Auto-block Protection	√
AES Volume and Shared Folder Encryption	√
Importable SSL certificate	√
Instant Alert via email, SMS, Beep	√

Power Management	
Automatic Power On After Power Recovery	√
Scheduled Power On/Off	√
Wakeup On LAN	√
UPS Supported	√
Administration	
Multi-window, Multi-task System Management	√
Custom Desktop	√
Control Panel	√
Resource Monitor	√
Sys log	√
OS UI Language	English, German, French, Spanish, Italian, Magyar, Chinese, Japanese, Korean, Turkish, Portuguese, Russian
Applications	
Application Center	√
Mail Server	√
Web Server	√
Clam Antivirus	√
Download	√
Multi Media Server	√
Docker	√
Plex Media Server	√
Snapshot	√

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