TerraMasterF8 SSD Plus

An 8-Bay SSD NAS in the Palm of Your Hand

Datasheet

Introducingthe F8 SSD Plus, the industry's first custom-built, 8-bay, all-SSD NAS designed specifically for small businesses. Featuringan Intel Core 8-core, 8-thread CPU, it is the most robust palm-sized 8-bay NAS currently available, possesses superior processing speeds and is designed to be more compact than its competitors.

The F8 SSD Plus provides small business users withexceptional performance for virtualization, databases, and websites. Domestic users will benefit from its remarkable processing speed and near-silent operation as it provides the ultimate hardware solution for data backup and multimedia services.

The F8 SSD will fulfill any consumer requirements viaits combination of speed, power, and efficiency.

Unbridled Potential and Capabilities

Get ready to experience the F8 SSD Plus -high-performance hardware containingan Intel Core i3 8-core, 8-thread processor with a turbo frequency up to 3.8GHz. It featuresintegrated Intel UHD Graphics with a dynamic frequency of 1.25GHz, 32 execution units, 4K hardware decoding, and AES NI hardware encryption support.

This powerhouse is further enhanced by 16GB of lightning-fast DDR5 4800MHz memory and a 10Gbps Ethernet port to unlock a world of high-performance network connectivity.Its bespoke design is perfect for small business users seeking to address virtualization and database demands while simultaneously functioning as the perfect multimedia server for domestic users.

The F8 SSD Plus will unleash the full potential of your storage needs.

QuieterPerformancefor a Quieter Life

The F8 SSD Plus is renowned for its exceptional performance and its remarkable ability to operate at a much lower volume than standard devices. By employing SSDs as its storage medium, the F8 SSD Plus eliminates the noise generated by multiple mechanical hard drives.

The innovative active cooling design features upper and lower convection, and each SSD is equipped with a heatsink. Additionally, silent fans and other efficient cooling featuresensure the F8 SSD Plus maintains a low temperature and remains quiet, even under full load.

In standby mode, its noise level is virtually imperceptible (< 19dB) which provides an ultra-silent user experience. With its compact size and ultra-quiet operation, the F8 SSD Plus blendsseamlessly into any home environment, meeting your placement needs effortlessly.

The Smallest 8-Bay NAS, the Efficient Storage Anywhere

The F8 SSD Plus is a compact and lightweight design. Similar in size to the average paperback novel, it can be effortlessly integrated into any space including desks, bookshelves, and under-stairs areas. Its size, combined with its lightweight construction (comparable to two cell phones), makes it the ideal travel companion for everyone's global NAS needs.

A Practical Storage Solution with Endless Possibilities

The F8 SSD Plus impresses with its ability to house 8 M.2 NVMe 2280 (M key) SSDs, offering an exceptional storage capacity of up to 64TB (based on 8TB SSDs).

Multiple heat dissipation methods ensure stable and efficient SSD performance

The F8 SSD Plus utilizes an innovative convection active cooling design, with heat sinks added to each

SSD and multiple efficient heat dissipation tools such as silent fans added to ensure stable and efficient SSD performance even when the product is fully loaded.

The NAS storage capacity can be easily expanded

The USB3.2 10Gbps interface allows the F8 SSD Plus to easily connect to USB external storage devices for further expansion of storage space. Adding TerraMaster D8 Hybrid, for example, can add up to an extra 128 TB of storage space to meet a wide range of data storage needs.

Unlock the World with Exceptional Bandwidth Performance

The F8 SSD Plus features a 10GbE copper Ethernet port, delivering a stable 10Gbps high-speed bandwidth for the NAS system. In practical applications, the F8 SSD Plus demonstrates impressive performance with linear read-write speeds peaking at 1020MB/s and 4K random read-write speeds approaching300MB/s to ensure smooth image and video read-write capabilities.

Additionally, the F8 SSD Plus supports 4K video transcoding and is portable, making it ideal for film and television production, post-production in small audio-visual studios, and small-scale production teams. It also provides excellent random read-write performance for virtualization environments and database applications.

Tool-free Installation, Maximizing Convenience

The F8 SSD Plus features an integrated drawer-style design that hasseveral advantages over othermodels. Firstly, it allows users to quickly install SSDs (or expand memory)in undertwo minutes without the need for anytools. Secondly, the integrated design simplifies connectors and optimizes the layout of components, resulting in improvedperformance and reducedpower consumption. Finally, this design reduces the risks associated with moving the F8 SSD Plus which significantly enhances its portability.

Experience the Upgraded, Interactive, Modernized Operating System

The F8 SSD Plus is pre-loaded with the advanced TOS 6 operating system which features an upgraded user interaction design and a revitalizeduser interface. Enhanced security measures ensure robust data protection, while the introduction of over 40 new features and the refinement of over 370 details elevate the TNAS user experience to new heights. Experience the future of NAS operating systems with TOS 6 on the F8 SSD Plus.

Virtualization Tools to FacilitateEveryProject

By leveraging the robust virtualization tools within the TerraMaster operating system (TOS) and harnessing the swift response of SSDs, the F8 SSD Plus excels in virtualization implementation. Users can effortlessly manage containers or projects via the intuitive Docker Manager visualization tool while VirtualBox provides the tools for new business owners to virtualize any environment and launch their business quickly andcost-effectively.

Prioritize Digital Asset Protection for All

At TerraMaster, safeguarding user data is our top priority. TerraMaster has developed a suite of exceptionally effectivedata backup tools to comprehensively protect your digital assets. Our "TerraMasterFile System Snapshot (TFSS)" and "Snapshot" services providesnapshot capabilities - from volume to folder levels - which actively shield your data from ransomware risks. The intelligent offline backup feature of USB Copy provides an additionallayer of defense against malicious attacks. For a holistic backup approach, Duple Backup presentsa one-stop solution for implementing a 3-2-1 backup strategy across volumes, folders, and iSCSI LUN data.

Furthermore, TerraMaster's Centralized Backup solution is tailored to meet the custombackup requirementsof the commercial users by providingactive central management of backup tasks which cater to Windows workstations, file servers, and virtual machines. With TerraMaster,rest assured that your digital assets are thoroughly protected against unforeseen threats.

Effortless File SynchronizationAcross Every Device

By usingTerraMaster'sTerraSync service to transform theirNAS into a private cloud server and eliminate file access barriers, users can experience unrestricted access to personal or shared files from any location, at any time, and across multipleplatforms and devices. With TerraSync, synchronizing files seamlessly across devices has never been more straightforward.

CloudSync Simplifies Your Workflow

With TerraMaster'sCloudSync, users can seamlessly link their cloud storage and NAS for the synchronized sharing of data. CloudSync consolidates various mainstream cloud synchronization functions(including Google Drive, OneDrive, Amazon S3, Dropbox, Baidu, and Alibaba Cloud) which enables users to simplify their workflow by managing their cloud synchronization requirements within a single application.

OutstandingMultimedia Performance Across All Devices

Experience the F8 SSD Plus's formidable 4K video decoding prowess and seamless compatibility with the uPnP/DLNA protocol. When paired with TerraMaster's dedicated Multimedia Server application

(or third-party servers like Plex, Emby, and Jellyfin), it effortlessly streams videos to a myriad of multimedia devices including computers, smartphones, media players, and televisions. Enjoy uninterrupted and immersive viewing experiences at the touch of a button.

Versatile Storage Options, Configure as You Wish

The F8 SSD Plus provides a comprehensiverange of storage configurations, supporting various RAID types including Single, RAID 0, 1, 5, 6, and 10. Additionally, it introduces TerraMaster's innovative elastic array (TRAID/TRAID+) facilitating online capacity expansion, migration, and hot spare disk configuration within the array. Userscan create multiple storage spaces and select between ext4 or Btrfs file systems based on theirbusiness needs.For added flexibility, pair the F8 SSD Plus with the TerraMaster USB DAS disk array to seamlessly expand storage capacity as required.

Enables efficient post-productionteamwork

F8 SSD Plus provides a 10GbE network connection and a USB 3.2 10 Gbps external expansion to allow post-production teams to edit video files online directly from the NAS. It supports a range of different operating systems, including Windows, Mac OS, and Linux. Once the post-production team completes a video editing project on the F8 SSD Plus, the final file can be saved to an external USB DAS (such as the D4-320) to free up NAS storage space for the next project.

Rear Cover Illustration:

SN	Item	Description
①	Screws	Screws used to fix the casing
②	Power interface	DC 12V input
③	HDMI interface	For displaying the software codes or commands, not for video playing.
④	Network interface	10000M/2500M/1000M/100M bps network interface
⑤	USBhost type A (×2)	Use to connect USB storage device or USB wireless adaptor
⑥	USBhost type C (×1)	Use to connect USB storage device or USB wireless adaptor
⑦	Power switch	On: Power on Off: Power off
*	RESET	When the device is powered off, use a pin to continuously press and hold the RESET button on the back of the product. While keeping the RESET button pressed, briefly press the power button to start the device. Wait for approximately 30 seconds until you hear three consecutive "beep beep beep" sounds, then release the pin. Next, use the TNAS PC client software to perform a new search for the TNAS device and follow the client's instructions to restart the TOS system initialization process.

Specifications:

Processor	
Processor Model	Intel® i3 N305
Processor Architecture	X.86 64-bit
Processor Frequency	Max burst up to 3.8 GHz
CPU Single-Core Score	/
Hardware Encryption Engine	√
Hardware Transcoding Engine	H.264, H.265, MPEG-4, VC-1;maximum resolution: 4K (4096 x 2160); maximum frame rate per second (FPS): 60
Memory	
System Memory	16 GB DDR5 non-ECC SODIMM
Pre-installed Memory module	16 GB DDR5 non-ECC SODIMM (1x 16 GB)
Total Memory Slot Number	1 (DDR5 SODIMM)
Maximum Supported Memory	32 GB DDR5 non-ECC SODIMM
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	/
Compatible Drive types	/
	/
	/
Maximum Internal Raw Storage Capacity	64 TB (8 TB x8) (Capacity may vary by RAID types)
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	Btrfs, EXT4
External Drive	EXT3, EXT4, NTFS, FAT32, HFS+, BTRFS
External Ports	
RJ-45 1GbE Network Jack	/
RJ-45 2.5GbE Network Jack	/
RJ-45 10GbE Network Jack	1
SFP+ 10GbE Network Jack	/
USB3.2 Host Port	3(10Gbps)
USB2.0 Host Port	/
COM	/

HDMI	1
VGA	/
PCIe Slots	/
M.2 2280 NVMe Slot	8
Appearance	
Size (H*W*D)	177 x 60 x 140 mm
Packaging Size (H*W*D)	220 x 195 x 183 mm
Weight	Net Weight: 0.6Kg Gross Weight: 1.7 Kg
Others	
System Fan	50 x 50 x 10mm 2PCS
Fan Mode	Smart, High speed, Middle speed, Low speed
Noise Level	18.5 dB(A) （Using M.2 SSDs in standby mode; Test environment noise: 17.3dB(A); Test distance: 1m）
Power Supply	72 W
Redundancy Power Supply	/
AC Input Voltage	100V - 240V AC
Current Frequency	50/60 Hz, Single frequency
Power Consumption	45.0 W(Fully loaded Seagate 2TB M.2 SSDs in read/write state)
	9.0 W (Fully loaded Seagate 2TB M.2 SSDs in hibernation)
Limited warranty	2 years
Certificate	FCC, CE, CCC, KC
Environment	RoHS, WEEE
Temperature	
Working Temperature	0°C ~ 40°C (32°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	iOS14.0, Android 10.0 or later version
Storage Management	
Supported RAID Types	TRAID, TRAID+, Single, JBOD, RAID 0, RAID 1, RAID5, RAID 6, RAID 10
Maximum Internal Volume Number	256
Maximum iSCSI Target	128
Maximum iSCSI LUN	256
Volume Expansion with Larger HDDs	TRIAD,TRAID+, RAID 1,RAID5,RAID 6,RAID10
Volume Expansion by Adding a HDD	TRIAD, TRAID+, RAID5, RAID6
RAID Migration	√
SSD Cache	√
Hot Spare	√
SSD TRIM	√
Hard Drive S.M.A.R.T.	√
Seagate IHM	√
NVRAM write cache(BBU-protected)	/
Shared Folder Snapshot	√
LUN Snapshot	/
File Services	
File Protocol	SMB/AFP/NFS/FTP/SFTP/WebDAV
Maximum Concurrent SMB/AFP/FTP/SFTP Connections	512
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 Backup	√
Duple Backup	√
Centralized Backup	√
Snapshot	√
USB Backup	√
Cloud Sync	√
Time Machine Backup	√
File System Snapshot	√
TFM Backup	√
Networking	
TCP/IP	IPv4/IPv6
Protocols	CIFS/SMB, NFS, FTP, SFTP, HTTPS, SSH, iSCSI, SNMP
Link Aggregation	√
DLNA Compliance	√
VPN Client	√
VPN Server	√
Proxy Client	√
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	
AD Domain	√
LDAP Client	√
LDAP Server	/
Security	
Firewall Protection	√
Account Auto-block Protection	√
AES Volume and Shared Folder Encryption	√
Importable SSL certificate	√
Instant Alert via email, Desktop Notification, Beep	√
RSA 2048 Encryption（TOS 6.0）	√
PAM (Pluggable Authentication Modules)	√
OTP Authentication（TOS 6.0）	√

HyperLock File System（TOS 6.0）	√
Power Management	sales@terra-master.com
Power Resume	√
Scheduled Power On/Off	√
Wake up On LAN（WOL）	√
UPS Supported	√
Administration	
Multi-window, Multi-task System Management	√
Custom Desktop	√
Control Panel	√
Resource Monitor	√
Syslog	√
OS UI Language	English,German, French, Spanish, Italian, Magyar, Chinese,Japanese,Korean, Turkish, Portuguese, Russian
Applications	
Application Center	√
iSCSI Target	√
Terra Photos	√
TerraSync	√
Duple Backup	√
CloudSync	√
Centralized Backup	√
USB Backup	√
VPN Server	√
Transmission	√
qBittorent	√
Aria 2	√
Terra Search	√
Deduplication	√
Web Server	√
Clam Antivirus	√
EMBY	√
Multi Media Server	√
Plex Media Server	√
Docker Manager	√
Snapshot	√

Distributor

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