

TS-h2490FU-7232P-64G



Cena	44 943,89 zł
Dostępność	Oczekujemy
Numer katalogowy	QNA_TSH2490FU7232P64G
Kod producenta	TS-h2490FU-7232P-64G
Kod EAN	4713213518397
Producent	QNAP
Pamięć RAM	64GB
Porty 1GbE RJ-45	2
Port 10 GbE	4

Opis produktu



QNAP TS-h2490FU-7232P-64G

QNAP TS-h2490FU-7232P-64G został stworzony na potrzeby zapewnienia niezwykle wydajności i wysokiej oszczędności kosztów. Wyposażony w 24 wnetki na SSD U.2 NVMe Gen 3 x4 SSD model TS-h2490FU zapewnia do 472K/205K IOPS losowego odczytu/zapisu o ultra niewielkich opóźnieniach. Oparty na systemie ZFS system operacyjny QuTS hero obsługuje liniową deduplikację danych i kompresję na potrzeby redukcji zużycia w zakresie we/wy oraz zużycia pamięci masowej SSD, co znacznie wydłuża czas eksploatacji dysków SSD przy wyższym wskaźniku ceny do wydajności dla macierzy pamięci masowej all-flash. W połączeniu z niemal nieograniczoną funkcją migawek, funkcją SnapSync w czasie rzeczywistym oraz możliwościami rozbudowy pamięci masowej do poziomu petabajtów, model TS-h2490FU stanowi idealne rozwiązanie w przypadku zastosowań obejmujących intensywne we/wy, dla których ważne są niewielkie opóźnienia, i pozwala wyeliminować wąskie gardła w zakresie produktywności w nowoczesnych centrach danych i w zadaniach wirtualizacji oraz krytycznych dla celu zadaniach tworzenia kopii zapasowych/przywracania danych.

Cechy wyjątkowe dysku sieciowego TS-h2490FU-7232P-64G:

- Liniowa deduplikacja danych i kompresja, nadmiarowa alokacja puli oraz TRIM pozwalają na maksymalne zwiększenie wydajności i długości eksploatacji SSD.
- Gniazda PCIe Gen 4 umożliwiają instalację kart 10GbE/25GbE/40GbE/100GbE, kart QM2 lub kart Fibre Channel w celu zwiększenia wydajności zastosowań.
- Możliwość nawiązywania wielu połączeń 25GbE SFP28 i 2,5GbE RJ45 przyspiesza wirtualizację, intensywny dostęp do plików i duże zadania związane z tworzeniem kopii zapasowych/przywracaniem danych.
- Obsługa pamięci masowej wirtualizacji i hosting maszyn wirtualnych oraz aplikacji kontenerowych.
- Konstrukcja umożliwiająca rozbudowę w miarę rozwoju firmy poprzez podłączanie obudów do rozbudowy SAS 12 Gb/s, aby uzyskać pojemność pamięci masowej na poziomie petabajtów.
- Brama pamięci masowej w chmurze umożliwiają zastosowania w chmurze hybrydowej, dodatkowo umożliwiając rezerwację pamięci podręcznej na serwerze NAS, zapewniając dostęp do danych w chmurze z niewielkimi opóźnieniami.

Podstawowe funkcje **serwera QNAP** dla rozwiązań biznesowych:

Dostęp do danych z pracy oraz z dowolnego miejsca na świecie.



System QNAP zapewnia szybki, a przede wszystkim bezpieczny sposób na udostępnianie danych każdemu i wszędzie. Dzięki aplikacji File Station oraz wbudowanemu **serwerowi VPN** można przeszukiwać, organizować i przenosić pliki pomiędzy QNAP, a dowolnym urządzeniem w sieci. Udostępnianie plików dla każdej platformy Windows, MAC czy Linux.



Rozszerzenie funkcjonalności TS-h2490FU-7302P-128G dzięki wirtualizacji.

Aplikacja **Virtualization Station** przekształca model **TS-h2490FU** w NAS typu dwa-w-jednym, mogący działać jako NAS typu wszystko-w-jednym oraz jako platforma wirtualizacji obsługująca różne **systemy operacyjne** i umożliwiającą szybkie tworzenie, importowanie i eksportowanie maszyn wirtualnych, tworzenie migawek i wykonywanie operacji na pulpicie w przeglądarce internetowej.

Obsługa standardu 25GbE.



Model TS-h2490FU zapewnia niespotykaną wcześniej łączność sieciową dzięki dwóm, dwuportowym, fabrycznie zainstalowanym kartom **25GbE SFP28 SmartNIC** (które korzystają z serii Broadcom NetXtreme®-E Series BCM57414, Mellanox® ConnectX®-4 Lx lub SmartNIC na tym samym poziomie).

Innowacyjny system QTS hero.



Niezależnie od tego, gdzie przechowujesz swoje wrażliwe dane, nieuczciwe osoby zawsze próbują wykorzystać słabości systemu. Na pomoc przychodzi system QTS hero z systemem plików ZFS. System plików ZFS zapewnia integralność oraz bezpieczeństwo danych, elastyczność i niezawodność a co ważne dostępność wszystkich aplikacji QTS.

Dowiedz się więcej na temat systemu QNAP QTShero:



Specyfikacja sprzętowa

Procesor	8-rdzeniowy/16-wątkowy procesor AMD EPYC™ 7232P/7252 o taktowaniu do 3,2 GHz
	Architektura procesora 64-bitowy x86
	Mechanizm szyfrowania Tak (AES-NI)
	Pamięć systemowa 64 GB RDIMM DDR4 ECC (8 x 8 GB)
	Maksymalna pojemność pamięci 4 TB (16 x 256 GB)
	Gniazdo pamięci 16 x RDIMM DDR4
	Pamięć flash 5GB (ochrona systemu operacyjnego przed podwójnym roz
	Wnęka dysków 24 dyski 2,5-calowe U.2 PCIe NVMe
	System jest dostarczany bez dysku SSD.
	Lista zgodności dysków SSD znajduje się na stronie https://
	2,5-calowe dyski SSD U.2 NVMe Gen 3 x4
	Kompatybilność dysków Tak
	Wymieniany podczas pracy Tak
	Obsługa przyspieszenia pamięci podręcznej Tak
	SSD Tak
	SR-IOV Tak
	Port 2,5 Gigabit Ethernet (2,5G/1G/100M) 2 (2,5G/1G/100M/10M)
	Port 25 Gigabit sieci Ethernet 4 porty 25GbE SFP28 SmartNIC
	Wake on LAN (WOL) Tylko port 2,5GbE
	Ramka Jumbo Tak
	Gniazdo PCIe 5
	Gniazdo 1: PCIe Gen4 x4
	Gniazdo 2: PCIe Gen4 x8 lub x4
	Gniazdo 3: PCIe Gen4 x4
	Gniazdo 4: PCIe Gen4 x8
	Gniazdo 5: PCIe Gen4 x16 lub x8
	*Gniazda 4 i 5 są fabrycznie instalowane z kartami sieciowymi
	wydajność, gniazda należy zarezerwować dla kart 25GbE.
	**Gniazdo 2 zapewnia tryb PCIe Gen4 x8 w przypadku niekie
	Gen4 x4 w przypadku korzystania z gniazda 3.
	***Gniazdo 5 zapewnia szerokość PCIe Gen4 x16 w przypa
	szerokość PCIe Gen4 x8 w przypadku korzystania z gniazda
	Wymiary kart dla gniazda PCIe 1 225 x 68,9 x 28,76 mm /
	Wymiary kart dla gniazda PCIe 2 225 x 68,9 x 18,76 mm /
	Wymiary kart dla gniazda PCIe 3 225 x 68,9 x 18,76 mm /
	Wymiary kart dla gniazda PCIe 4 225 x 68,9 x 39,08 mm /
	Wymiary kart dla gniazda PCIe 5 225 x 68,9 x 18,76 mm /

Port USB 3.2 Gen 1	W przypadku niekorzystania z następnego gniazda PCIe mo
Kształt	2
Wskaźniki LED	Do montażu stelażowego
Przyciski	Dysk twardy, stan, 10 GbE, LAN, stan portów rozszerzeń pa
Wymiary (wys. x szer. x gł.)	Zasilanie, reset
Waga (netto)	88,3 × 480,97 × 510,23 mm
Waga (brutto)	15,2 kg
Temperatura robocza	21,86 kg
Temperatura przechowywania	0-40°C
Wilgotność względna	-20-70°C
Zasilacz	5-95% bez kondensacji, temperatura mokrego termometru
	1100W PSU (x2), 100-240Vac,
	Maks. moc w watach:
	1100 W przy 200-240Vac
	850 W przy 100-240Vac
Pobór mocy: Tryb pracy, typowy	277,64 W
	Testy wykonane przy całkowicie zapełnionych dyskach.
Wentylator	4 x 60mm, 12VDC
Ostrzeżenie systemowe	Brzęczyk
Standardowa gwarancja	5
Maks. liczba połączeń współbieżnych (CIFS)	10 000
— z maks. pojemnością pamięci	

Specyfikacja oprogramowania

Operating System	QTS 5.1.0
Supported Client Operating Systems	1. Apple Mac OS 10.10 or later 2. Ubuntu 14.04, CentOS 7, RHEL 6.6, SUSE 12 or later Linux 3. IBM AIX 7, Solaris 10 or later UNIX 4. Microsoft Windows 7, 8, 10 and 11
Supported Browsers	1. Apple Safari (latest version) 2. Google Chrome (latest version) 3. Microsoft Edge (latest version) 4. Mozilla Firefox (latest version)
Supported Languages	Chinese (Traditional & Simplified), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazil), Romanian, Russian, Spanish, Swedish, Thai, and Turkish
Storage Pool	Ok
SED Storage Pool	Ok
Maximum Pool size	308 TB
Maximum number of storage pool	128
Volume Type	Thick, Thin, Static
Maximum volume size	250 TB
	Note: At least 4 GB RAM is required.
Maximum number of volume	128
Maximum shared folder size	250 TB
Maximum number of shared folder	512
JBOD Expansion	Ok
VJBOD / VJBOD Cloud	Ok
iSCSI Service	Ok
Fibre Channel Service	Ok
LUN Type	Thick, Thin
File-based iSCSI LUN	Ok
Block-based iSCSI LUN	Ok
Maximum LUN size	250 TB
	Note: At least 4 GB RAM is required.
Maximum number of targets LUN	128
LUN feature	1. LUN Mapping (LUN can be moved between iSCSI and FC) 2. LUN Masking 3. WWPN Aliases Import/Export

Auto Tiering	Ok
RAID Type	4. FC Port Group Requires minimum 2GB memory. 1. 8-bay (and more): JBOD, Single, RAID 0, 1, 5, 6, 10, 50, 60 2. 6-bay: JBOD, Single, RAID 0, 1, 5, 6, 10, 50 3. 4-bay: JBOD, Single, RAID 0, 1, 5, 6, 10 4. 2-bay: JBOD, Single, RAID 0, 1
RAID Group	To ensure data security, system stability, and storage performance, the maximum number of drives for a single RAID group is now 16 (applicable to RAID 5, RAID 6, RAID TP, and subgroups of RAID 50 and RAID 60). Nevertheless, users can combine multiple RAID groups into a large storage pool that contains more than 16 drives, using RAID 50, RAID 60, or RAID 10 as the RAID configuration. This enhancement will only be applied to new RAID groups. All existing RAID groups and storage systems will not be affected.
RAID Level Migration	Ok
RAID Expansion (by adding Disk)	Ok
RAID Expansion (by replacing bigger Disks)	Ok
Storage Pool Expansion (by adding RAID Group)	Ok
RAID Hot Spare	Global, Local
RAID Sync/Rebuild/Scrubbing	Ok
Internal drive	EXT4
External drive	EXT3, EXT4, NTFS, FAT32, HFS+, and exFAT (optional for ARM model)
	Note: To use exFat in certain models you must purchase an exFAT driver license from License Center.
Disk, Enclosure Locate	Ok
Disk S.M.A.R.T. Scan	Ok
Disk S.M.A.R.T. Data Migration	Ok
Ironwolf Health Management	Ok
Secure Erase	Ok
SSD Trim	Ok
SSD Life Estimation	Ok
Disk Roaming	Ok
Disk Standby	Ok
Volume Snapshot	Ok
LUN Snapshot	Ok
Maximum Snapshot (Per System)	Check maximum number of snapshots of your NAS
Maximum Snapshot (Per Volume / LUN)	Check maximum number of snapshots of your NAS
Minimum Snapshot Interval	5 minutes
Snapshot Retention Policy	Ok
Self-serve Snapshot Recovery	Ok
Application Consisted Snapshot	Ok
Snapshot Full Clone	Ok
Snapshot Replica / Vault	Ok
SSD read-only Cache	Ok
SSD read-write cache	Ok
SSD write-only cache	Ok
SSD Cache Maximum Size	Check your QNAP NAS cache capacity and RAM requirements
SSD Cache RAID	0, 1, 5, 6, 10
SSD profiling tool	Ok
External Device Management	Ok
Mount Smart Phone (MTP)	Ok
External RAID Device (QNAP so on) Management (External Device Mode)	Ok
External RAID Device (QNAP so on) Management (NAS Mode)	Ok
File Server	1. File sharing across Windows, Mac, and Linux/UNIX 2. Microsoft networking (CIFS/SMB) 3. Apple networking (AFP) 4. NFS version 3/4 services
FTP Server	1. QuFTP

	2. FTP, SFTP and TFTP protocols
	3. FTP over SSL/TLS (explicit FTPS)
	4. FXP support
Maximum FTP connection	1024
File Station (Web)	Ok
Object Storage	Ok
Local user account	4,096
Local group account	512
Domain user/group account	200,000
Domain Security	Ok
Domain Controller	Ok
Shared folder permission	Ok
Advanced folder permission	Ok, (AFP, CIFS/SMB, FTP, and File Station)
Windows ACL	Ok, (CIFS/SMB)
User quota	Ok
Group quota	Ok
Folder quota	Ok, (Snapshot shared folder)
Home folder	Ok
Resource Monitor	Ok
SNMP	V2, V3
Network recycle bin	1. Recover files deleted using AFP, CIFS/SMB, and File Station 2. Automatic cleanup and file type filter
System Log & Notification Center	Log recording: 3,000 event per second
Smart Fan	Ok
Schedule on/off	Ok
Internet protocol	IPv4, IPv6
Virtual Switch	Ok
Port trunking	Ok, (7 modes)
VLAN	Ok
DHCP Server	Ok
DDNS (Dynamic Domain Name Service)	Ok
Network access protection with auto-blocking	SSH, Telnet, HTTP(S), FTP, CIFS/SMB, and AFP
Security Counselor	Ok
Malware Remover	Ok
AES 256-bit Volume Encryption validated by FIPS 140-2 CAVP	Ok
2-step verification	Ok
Allow/Deny List	Ok
Access Protection	Ok
Service binding	Ok
Firewall	Ok
VMware vSphere Ready	Ok
Windows Server certificated	Ok
Citrix Ready	Ok
vSphere Web Client Plug-in	Ok
VMware vSphere VAAI for iSCSI	Ok
VMware vSphere VAAI for NAS	Ok
Windows ODX	Ok
Windows/VMware Snapshot Agent	Ok
HTTP/HTTPS Connections	TLS 1.0/1.1/1.2/1.3
Supports WebDAV Connection	Ok
Supports Virtual Hosts	32
Qsync	Ok
	Note: At least 1 GB RAM is required.
[Qsync] Management Mode	User customization, Central
[Qsync] Qsync client supported platforms	Windows, macOS, Ubuntu, Android, and iOS
[Qsync] Maximum number of version control	64
HybridMount	Ok
	Note: At least 1 GB RAM is required.
[HybridMount] File Cloud Gateway	Concurrent Connections = 20 Upload & 20 Download
[HybridMount] Network Drive Mount	Ok
[HybridMount] Free cloud gateway sessions	2
HBS (Hybrid Backup Sync)	Ok

		Note: At least 1 GB RAM is required.
[HBS (Hybrid Backup Sync)] NAS to NAS backup	Ok	
[HBS (Hybrid Backup Sync)] Cloud Backup	Ok	
[HBS (Hybrid Backup Sync)] Cloud Sync	Ok	
[HBS (Hybrid Backup Sync)] 2-way and Active Sync	Ok	
[HBS (Hybrid Backup Sync)] Backup Deduplication	Ok	
[HBS (Hybrid Backup Sync)] Apple Time Machine Backup	Ok	
[HBS (Hybrid Backup Sync)] External drive backup	Ok	
[HBS (Hybrid Backup Sync)] Maximum number of backup job	400	
Hyper Data Protector	Ok	
Boxafe	Ok	
		Note: At least 4 GB RAM is required.
[Boxafe] Office 365 Backup	Ok	
[Boxafe] Google Workspace Backup	Ok	
[Boxafe] Full-text search	Ok	
Qsirch	Ok	
		Note: This feature is supported by all QNAP NAS devices with at least 2 GB of memory
[Qsirch] Previews	Photos, music, videos, PDFs, Gmail, and others	
[Qsirch] Integrate Mac Finder	Ok	
[Qsirch] Advanced picture search	Ok	
[Qsirch] Search filters	Ok	
QuMagie	Ok	
		Note: At least 1 GB RAM is required.
[QuMagie] Browse photos	Ok	
[QuMagie] Virtual and smart albums	Ok	
[QuMagie] AI-assisted photo management	People, things, places, and others	
Antivirus (free)	Ok	
McAfee (License)	Ok	
QVPN Service	Ok	
		Note: At least 1 GB RAM is required.
[QVPN Service] Remote Access	PPTP, L2TP/IPSec, OpenVPN, WireGuard, QBelt (QNAP proprietary)	
[QVPN Service] Supported utility and mobile app	Windows, macOS, iOS, and Android	
[QVPN Service] Supported maximum clients	100	
LDAP Server	Ok	
RADIUS	Ok	
SQL server	Ok	
License Center	Ok	
Multimedia Console	Ok	
Photo Station	Ok	
Music Station	Ok	
Video Station	Ok	
Download Station	Ok	
Notes Station	Ok	
Qfiling	Ok	
Media Streaming add-on	Ok	
QmailAgent	Ok	
QuWAN	Ok	
DA Driver Analyzer	Ok	
Q'center	Ok	
		Note: The application is available in the App Center and in virtual appliance marketplaces (VMware vSphere ESXi and Microsoft Hyper-V).
Q'center Server	Ok	
Q'center Agent	Ok	
Connect to Q'center	Ok	

Virtualization Station	Ok
[Virtualization Station] Supports Virtual machine instances	Note: At least 4 GB RAM is required. Windows, Linux, Unix, and Android
[Virtualization Station] VM importing, exporting, cloning, snapshot capturing, backup, and restoration	All function is Fine.
[Virtualization Station] Virtual switches	Can create a virtual switch
[Virtualization Station] GPU pass-through	Not support GPU
[Virtualization Station] Suggested number of virtual machine instances	32
	The actual number of virtual machine instances may vary by the memory installed on NAS (e.g. 1 VM= 1 thread for 1 vCPU and 1GB memory). Please expend memory if needed.
Container Station	Ok
[Container Station] Supported type	Note: At least 1 GB RAM is required. LXC/LXD and Docker
[Container Station] Docker Hub Registry	Note: LXD has been supported after Container Station 2.4
[Container Station] Container importing and exporting	Ok
[Container Station] Console mode	Ok
Linux Station	Ok
[Linux Station] Supports Ubuntu versions	Notification: At least 4 GB RAM is required. 18.04, and 20.04
Linux Station Center	Ok
QVR Pro	Ok
	Note: At least 4 GB RAM is required. The maximum number of channels supported varies by NAS model, network configuration, and camera settings. For more information, visit https://www.qnap.com/go/qvr-nas-selector .
[QVR Pro] Recording Technique	Index database based
[QVR Pro] License Type	Perpetual
[QVR Pro] User-defined trigger events	Ok
[QVR Pro] Metadata	Ok
[QVR Pro] QVR Pro Client (Desktop)	Windows, macOS, and QNAP HybridDesk Station
[QVR Pro] QVR Pro Client (Mobile)	Android and iOS
[QVR Pro] Recording camera streams	H.264
[QVR Pro] Free built-in camera channels	8
QVR Elite	Ok
	Note: At least 1 GB RAM is required. The maximum number of channels supported varies by NAS model, network configuration, and camera settings. For more information, visit https://www.qnap.com/go/qvr-nas-selector .
[QVR Elite] Recording Technique	Standard MP4 file based
[QVR Elite] License Type	Subscription-based
[QVR Elite] User-defined trigger events	Ok
[QVR Elite] QVR Pro Client (Desktop)	Windows, macOS, and QNAP HybridDesk Station
[QVR Elite] QVR Pro Client (Mobile)	Android and iOS
[QVR Elite] Recording camera streams	H.264
[QVR Elite] Free built-in camera channels	2
QVR Pro Client	
[QVR Pro Client] Dynamic View Layout	
[QVR Pro Client] Windows	
[QVR Pro Client] Mac	
[QVR Pro Client] HybridDesktop	
[QVR Pro Client] iOS	
[QVR Pro Client] Android	
QVR Center	
[QVR Center] Log management	Note: At least 4 GB RAM is required.
[QVR Center] Central monitoring across	

multiple servers
QVR Guard

[QVR Guard] Failover design
[QVR Guard] Viewing task details
[QVR Guard] Automatic switch between
Standby and Takeover modes
QVR Human
QVR Face

Note: At least 4 GB RAM is required.

The maximum number of channels supported varies by NAS
model, network configuration, and camera settings. For more
information,
visit <https://www.qnap.com/solution/qvr-face/en-us/>

QVR DoorAccess

Operating System	QuTS hero h5.1.0
Supported Client Operating Systems	1. Apple Mac OS 10.10 or later 2. Ubuntu 14.04, CentOS 7, RHEL 6.6, SUSE 12 or later Linux 3. IBM AIX 7, Solaris 10 or later UNIX 4. Microsoft Windows 7, 8, 10, and 11
Supported Browsers	Show more... 1. Apple Safari (latest version) 2. Google Chrome (latest version) 3. Microsoft Edge (latest version) 4. Mozilla Firefox (latest version)
Supported Languages	Chinese (Traditional & Simplified), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazil), Romanian, Russian, Spanish, Swedish, Thai, and Turkish
Storage Pool	
SED Storage Pool	
Maximum Pool size	5 PB
Maximum number of storage pool	128
Shared Folder Type	Thick, Thin
Maximum shared folder size	5 PB
Maximum number of shared folder	128
JBOD Expansion	
VJBOD / VJBOD Cloud	
iSCSI Service	
Fibre Channel Service	
LUN Type	Thick, Thin
Block-based iSCSI LUN	
Maximum LUN size	1024 TB
Maximum number of targets LUN	128
RAID Type	1. 8-bay (and more): Single, RAID 0 (Stripe), 1, 5, 6, 10, 50, 60, Triple Mirror, Triple Parity 2. 6-bay: Single, RAID 0 (Stripe), 1, 5, 6, 10, 50, Triple Mirror, Triple Parity 3. 4-bay: Single, RAID 0 (Stripe), 1, 5, 6, 10, Triple Mirror, Triple Parity 4. 3-bay: Single, RAID 0 (Stripe), 1, 5, Triple Mirror, Triple Parity
RAID Group	Show more... To ensure data security, system stability, and storage performance, the maximum number of drives for a single RAID group is now 16 (applicable to RAID 5, RAID 6, RAID TP, and subgroups of RAID 50 and RAID 60). Nevertheless, users can combine multiple RAID groups into a large storage pool that contains more than 16 drives, using RAID 50, RAID 60, or RAID 10 as the RAID configuration. This enhancement will only be applied to new RAID groups. All

	existing RAID groups and storage systems will not be affected.
RAID Expansion (by replacing bigger Disks)	
Storage Pool Expansion (by adding RAID Group)	
RAID Hot Spare	Global, Local
RAID Sync/Rebuild/Scrubbing	
End-to-End data integrity	
Silent error detection and self-healing	
Internal drive	ZFS
External drive	EXT3, EXT4, NTFS, FAT32, HFS+, and exFAT
Disk, Enclosure Locate	
Disk S.M.A.R.T. Scan	
Disk S.M.A.R.T. Data Migration	
Ironwolf Health Management	
Secure Erase	
SSD Trim	
SSD Life Estimation	
Disk Roaming	
Disk Standby	
Shared Folder Snapshot	
LUN Snapshot	
Maximum Snapshot (Per System)	Check maximum number of snapshots of your NAS
Maximum Snapshot (Per Volume / LUN)	Check maximum number of snapshots of your NAS
Minimum Snapshot Interval	1 minute
Snapshot Retention Policy	
Self-serve Snapshot Recovery	
Application Consisted Snapshot	
Snapshot Full Clone	
Snapshot Instant Clone	
Snapshot Replica / Vault	
SSD read-only Cache	
SSD read & write log cache	
SSD dedicated ZIL cache	
SSD Cache Maximum Size	Check your QNAP NAS cache capacity and RAM requirements
SSD Cache RAID	0, 1, 10 (journal)
External Device Management	
Mount Smart Phone (MTP)	
External RAID Device (QNAP so on)	
Management (External Device Mode)	
External RAID Device (QNAP so on)	
Management (NAS Mode)	
File Server	1. File sharing across Windows, Mac, and Linux/UNIX 2. Microsoft networking (CIFS/SMB) 3. Apple networking (AFP) 4. NFS version 3/4 services
FTP Server	1. FTP, SFTP and TFTP protocols 2. FTP over SSL/TLS (explicit FTPS) 3. FXP support
Maximum FTP connection	1024
Shared Folder Data Compression	
Shared Folder Data Deduplication	
Shared Folder WORM	
File Station (Web)	
Object Storage	
Local user account	16,000
Local group account	512
Domain user/group account	200,000
Domain Security	
Domain Controller	
Shared folder permission	
Windows ACL	
User quota	
Group quota	
Folder quota	
Home folder	
Resource Monitor	

SNMP	V2, V3
Network recycle bin	1. Recover files deleted using AFP, CIFS/SMB, and File Station 2. Automatic cleanup and file type filter
System Log & Notification Center	Log recording: 3,000 event per second
Smart Fan	
Schedule on/off	
Internet protocol	IPv4, IPv6
Virtual Switch	
Port trunking	, (7 modes)
VLAN	
DHCP Server	
DDNS (Dynamic Domain Name Service)	
Network access protection with auto-blocking	SSH, Telnet, HTTP(S), FTP, CIFS/SMB, and AFP
Security Counselor	
Malware Remover	
AES 256-bit Folder Encryption validated by FIPS 140-2 CAVP	
2-step verification	
Allow/Deny List	
Access Protection	
Service binding	
Firewall	
VMware vSphere Ready	
Windows Server certificated	
Citrix Ready	
vSphere Web Client Plug-in	
VMware vSphere VAAI for iSCSI	
VMware vSphere VAAI for NAS	
Windows ODX	
Windows/VMware Snapshot Agent	
HTTP/HTTPS Connections	TLS 1.0/1.1/1.2/1.3
Supports WebDAV Connection	
Supports Virtual Hosts	32
Qsync	
	Note: At least 1 GB RAM is required.
[Qsync] Management Mode	User customization, Central
[Qsync] Qsync client supported platforms	Windows, macOS, Ubuntu, Android, and iOS
[Qsync] Maximum number of version control	64
HybridMount	
	Note: At least 1 GB RAM is required.
[HybridMount] File Cloud Gateway	Concurrent Connections = 80 Upload & 80 Download
[HybridMount] Network Drive Mount	
[HybridMount] Free cloud gateway sessions	2
HBS (Hybrid Backup Sync)	
	Note: At least 1 GB RAM is required.
[HBS (Hybrid Backup Sync)] NAS to NAS backup	
[HBS (Hybrid Backup Sync)] Cloud Backup	
[HBS (Hybrid Backup Sync)] Cloud Sync	
[HBS (Hybrid Backup Sync)] 2-way and Active Sync	
[HBS (Hybrid Backup Sync)] Backup Deduplication	
[HBS (Hybrid Backup Sync)] Apple Time Machine Backup	
[HBS (Hybrid Backup Sync)] External drive backup	
[HBS (Hybrid Backup Sync)] Maximum number of backup job	400
Hyper Data Protector	
Boxafe	

[Boxafe] Office 365 Backup [Boxafe] Google Workspace Backup [Boxafe] Full-text search Qsirch	Note: At least 4 GB RAM is required.
[Qsirch] Previews [Qsirch] Integrate Mac Finder [Qsirch] Advanced picture search [Qsirch] Search filters QuMagie	Note: This feature is supported by all QNAP NAS devices with at least 2 GB of memory Photos, music, videos, PDFs, Gmail, and others
[QuMagie] Browse photos [QuMagie] Virtual and smart albums [QuMagie] AI-assisted photo management Antivirus (free) McAfee (License) QVPN Service	Note: At least 1 GB RAM is required. People, things, places, and others
[QVPN Service] Remote Access [QVPN Service] Supported utility and mobile app [QVPN Service] Supported maximum clients LDAP Server RADIUS SQL server License Center Multimedia Console Photo Station Music Station Video Station Download Station Notes Station Qfiling Media Streaming add-on QmailAgent QuWAN DA Driver Analyzer Q'center	Note: At least 1 GB RAM is required. PPTP, L2TP/IPSec, OpenVPN, QBelt (QNAP proprietary) Windows, macOS, iOS, and Android 100
Q'center Server Q'center Agent Connect to Q'center Virtualization Station	Note: The application is available in the App Center and in virtual appliance marketplaces (VMware vSphere ESXi and Microsoft Hyper-V).
[Virtualization Station] Supports Virtual machine instances [Virtualization Station] VM importing, exporting, cloning, snapshot capturing, backup, and restoration [Virtualization Station] Virtual switches [Virtualization Station] GPU pass-through [Virtualization Station] Suggested number of virtual machine instances	Note: At least 4 GB RAM is required. Windows, Linux, Unix, and Android All function is Fine. Can create a virtual switch GPU function is fine 32 The actual number of virtual machine instances may vary by the memory installed on NAS (e.g. 1 VM= 1 thread for 1 vCPU and 1GB memory). Please expend memory if needed.
Container Station	

[Container Station] Supported type	Note: At least 1 GB RAM is required. LXC/LXD and Docker
[Container Station] Docker Hub Registry [Container Station] Container importing and exporting [Container Station] Console mode Linux Station	Note: LXD has been supported after Container Station 2.4
[Linux Station] Supports Ubuntu versions Linux Station Center QVR Elite	Notification: At least 4 GB RAM is required. 16.04, 18.04, and 20.04
[QVR Elite] Recording Technique [QVR Elite] License Type [QVR Elite] User-defined trigger events [QVR Elite] QVR Pro Client (Desktop) [QVR Elite] QVR Pro Client (Mobile) [QVR Elite] Recording camera streams [QVR Elite] Free built-in camera channels [QVR Elite] Expandable camera channels QVR Center	Note: At least 1 GB RAM is required. The maximum number of channels supported varies by NAS model, network configuration, and camera settings. For more information, visit https://www.qnap.com/go/qvr-nas-selector . Standard MP4 file based Subscription-based Windows, macOS, and QNAP HybridDesk Station Android and iOS H.264 2 Developing
[QVR Center] Log management [QVR Center] Central monitoring across multiple servers	Note: At least 4 GB RAM is required.

Zawartość opakowania

TS-h2490FU
 Kabel Ethernet x 1
 Przewód zasilający x 2
 Śruba z łbem płaskim x 96 (dla dysku twardego 2,5 cala)
 Skrócona instrukcja instalacji (QIG)