



# QNAP TS-h686 NAS Tower Intel® Xeon® D D-1602 8 GB DDR4 16 TB HDD QuTS hero Black



**Brand :** QNAP

**Product code:** TS-H686-D1602-8G/16TB-REDPLUS

**Product name :** TS-h686

Intel Xeon D-1602 (2x 2.5GHz), 8GB DDR4, 5GB Flash, 4x 2.5"/3.5" + 2x 2.5", 2x M.2, 4x 2.5G RJ-45, 3x USB 3.2 Gen1

QNAP TS-h686. Type: NAS. Chassis type: Tower. Device class: Home & Home Office. Processor family: Intel® Xeon® D, Processor model: D-1602, Processor frequency: 2.5 GHz. Internal memory: 8 GB, Internal memory type: DDR4. Total installed storage capacity: 16 TB, Installed storage drive type: HDD. Operating system installed: QuTS hero

Storage		Performance	
Storage drive capacity *	4 TB	Backup function *	✓
Storage drive interface *	Serial ATA II, Serial ATA III	Backup features	Cloud, iSCSI LUN
Supported storage drive interfaces	M.2, Serial ATA II, Serial ATA III	Buzzer	✓
Storage drive sizes supported	2.5,3.5,M.2	Multilingual support	✓
Number of M.2 (M & B) slots	2	Noise level	18.6 dB
RAID support *	✓	Snapshot	✓
RAID levels	0, 1, 5, 6, 10, 50, 60, JBOD	Management protocols	SNMP 2/3
Online RAID migration	✓	Web-based management	✓
Online RAID expansion	✓	Security algorithms	256-bit AES, AES, FIPS 140-2, HTTPS, SSH, SSL/TLS
RAID rebuild	✓	Access Control List (ACL)	✓
Hot-swap drive bays	✓	Reset button	✓
Supported file systems	FAT32, HFS+, NTFS, ZFS, exFAT, ext3, ext4	On/off switch	✓
Storage drives installed *	✓	Built-in FTP server	✓
Total installed storage capacity *	16 TB	Browser supported	Safari, Chrome, Internet Explorer, Firefox
Number of storage drives installed *	4	System log	✓
Number of storage drives supported *	6	Hot spare	✓
Installed storage drive type *	HDD	S.M.A.R.T. support	✓
Supported storage drive types *	HDD & SSD	Share folder	CIFS/SMB
Bad block scan	✓	Universal Plug and Play (UPnP)	✓
Disk roaming	✓	USB copy function	✓
Processor		Software	
Processor manufacturer *	Intel	Operating system installed *	QuTS hero
Processor family *	Intel® Xeon® D	Operating system version	h5.0.0
Processor model *	D-1602	Windows operating systems supported	Windows 10, Windows 7, Windows 8
Processor frequency *	2.5 GHz	Linux operating systems supported	CentOS 7.0, Ubuntu 14.04, openSUSE 12.1, openSUSE 12.2
Processor boost frequency	3.2 GHz	Mac operating systems supported	Mac OS X 10.10 Yosemite, Mac OS X 10.11 El Capitan, Mac OS X 10.12 Sierra, Mac OS X 10.13 High Sierra, Mac OS X 10.14 Mojave, Mac OS X 10.15 Catalina, Mac OS X 10.15.3 Catalina, Mac OS X 11.0 Big Sur, Mac OS X 12.0 Monterey, Mac OS X 13.0 Ventura
Processor cores	2		
Processor threads	4		
Processor cache	3 MB		
CPU configuration (max)	1		
Memory			
Internal memory *	8 GB		
Internal memory type	DDR4		

<b>Memory</b>		<b>Software</b>	
Maximum RAM supported	128 GB	Server operating systems supported	Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016, Windows Server 2019
Memory slots	4		
Memory form factor	UDIMM		
ECC	✓		
Flash memory	5000 MB	<b>Power</b>	
<b>Network</b>		Power supply location	Built-in
Ethernet LAN *	✓	Power supply unit (PSU) capacity	250 W
Ethernet LAN data rates	10,100,1000,2500 Mbit/s	Number of power supply units	1
DHCP client	✓	Power consumption (typical)	61.115 W
DHCP server	✓	AC input voltage	100 - 240 V
Jumbo frames support	✓	Fan voltage	12 V
iSCSI support	✓	<b>Weight &amp; dimensions</b>	
Wake-on-LAN ready	✓	Width *	224.9 mm
Dynamic DNS (DDNS)	✓	Depth *	319.8 mm
<b>Ports &amp; interfaces</b>		Height *	231.9 mm
USB port *	✓	<b>Packaging content</b>	
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity	3	Cables included	AC, LAN (RJ-45)
Ethernet LAN (RJ-45) ports *	4	Power cables quantity	1
PCI Express x8 (Gen 3.x) slots	2	Number of screws	24
<b>Design</b>		Drive tray key included	✓
Chassis type *	Tower	<b>Processor special features</b>	
Cooling type *	Active	Embedded options available	✗
Product colour	Black	Enhanced Intel SpeedStep Technology	✓
Number of fans	2 fan(s)	Execute Disable Bit	✓
Fan diameter	9 cm	Idle States	✓
Fan diameter 2	9.7 cm	Intel 64	✓
LED indicators	HDD, LAN, SSD, Status, USB	Intel QuickAssist Technology	✗
Built-in display	✗	Intel Trusted Execution Technology	✓
Cable lock slot	✓	Intel TSX-NI	✓
Cable lock slot type	Kensington	Intel Virtualization Technology (VT-x)	✓
<b>Performance</b>		Intel Virtualization Technology for Directed I/O (VT-d)	✓
Type *	NAS	Intel VT-x with Extended Page Tables (EPT)	✓
Device class *	Home & Home Office	<b>Operational conditions</b>	
		Operating temperature (T-T)	0 - 40 °C
		Operating relative humidity (H-H)	5 - 95%
		Storage temperature (T-T)	-20 - 70 °C
		Storage relative humidity (H-H)	5 - 95%
		<b>Logistics data</b>	
		Harmonized System (HS) code	84714100

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