QNAP

QNAP TVS-682 NAS Tower Ethernet LAN Black i3-6100

Brand: QNAP Product code: TVS-682-I3-8G-US

Product name: TVS-682

Intel Core i3-6100 , 32GB DDR4, 2 x 2.5"/M.2 SSD, 4 x 2.5"/3.5", USB 3.0, LAN, HDMI, 7.7 kg QNAP TVS-682. Supported storage drive types: HDD & SSD, Storage drive interface: M.2, Serial ATA III, Storage drive size: 2.5/3.5". Processor family: Intel® Core $^{\text{tot}}$ i3, Processor manufacturer: Intel, Processor model: i3-6100. Internal memory: 8 GB, Internal memory type: DDR4, Maximum RAM supported: 64 GB. Ethernet LAN data rates: 10,1000 Mbit/s, Supported network protocols: CIFS/SMB, AFP (v3.3), NFS(v3), FTP, FTPS, SFTP, TFTP, HTTP(S), Telnet, SSH, iSCSI, SNMP, SMTP, and.... On-board graphics card base frequency: 350 MHz, On-board graphics card dynamic frequency (max): 1050 MHz, On-board graphics card ID: 0x1912











Storage		Software	
Storage drive interface *	M.2, Serial ATA III	Operating system installed *	QNAP Turbo NAS System
Storage drive size	2.5/3.5"	Operating system version	4.2
RAID support *	✓		Windows 10 Education, Windows 10
RAID levels	0, 1, 2, 3, 4, 5, 6, JBOD		Education x64, Windows 10 Enterprise, Windows 10 Enterprise
Hot-swap drive bays	✓		x64, Windows 10 Home, Windows
Supported file systems	FAT32, HFS+, NTFS, ext3, ext4		10 Home x64, Windows 10 Pro,
Storage drives installed *	×		Windows 10 Pro x64, Windows 7 Enterprise, Windows 7 Enterprise
Number of storage drives supported	8		x64, Windows 7 Home Basic,
Installed storage drive type *	x		Windows 7 Home Basic x64,
Supported storage drive type *	HDD & SSD	Windows operating systems supported	Windows 7 Home Premium, Windows 7 Home Premium x64, Windows 7 Professional, Windows 7
3 71	1100 & 330		
Processor			Professional x64, Windows 7 Starter, Windows 7 Starter x64,
Processor manufacturer *	Intel		Windows 7 Ultimate, Windows 7
Processor generation	6th gen Intel® Core™ i3		Ultimate x64, Windows 8, Windows
Processor family *	Intel® Core™ i3		8 Enterprise, Windows 8 Enterprise x64, Windows 8 Pro, Windows 8 Pro
Processor model *	i3-6100		x64, Windows 8 x64, Windows 8.1,
Processor frequency *	3.7 GHz		Windows 8.1 Enterprise, Windows 8.1 Enterprise x64, Windows 8.1
Processor cores	2		Pro, Windows 8.1 Pro x64, Windows
Processor threads	4		8.1 x64
Processor cache	3 MB	Linux operating systems supported	✓
Bus type	DMI3		Mac OS X 10.0 Cheetah, Mac OS X
CPU configuration (max)	1		10.1 Puma, Mac OS X 10.10 Yosemite, Mac OS X 10.11 El
ECC supported by processor	√		Capitan, Mac OS X 10.2 Jaguar, Mac OS X 10.3 Panther, Mac OS X 10.4 Tiger, Mac OS X 10.5 Leopard, Mac OS X 10.6 Snow Leopard, Mac OS X 10.7 Lion, Mac OS X 10.8 Mountain
FSB Parity	1.16 1.0 (2.4 2.0	Mac operating systems supported	
PCI Express clots version	1x16, 1x8+2x4, 2x8 3.0		
PCI Express slots version Processor cache type	L3		
Processor code	SR2HG		Lion, Mac OS X 10.9 Mavericks
Processor codename	Skylake		Windows Server 2003, Windows Server 2008, Windows Server 2008
Processor lithography	14 nm	Server operating systems supported	R2, Windows Server 2012, Windows
Processor operating modes	64-bit		Server 2012 R2
Processor package size	37.5 x 37.5 mm	Other operating systems supported	Android
Processor series	Intel Core i3-6100 series	Power	
Processor socket	LGA 1151 (Socket H4)	Power supply location	Built-in
Scalability	1S	Power supply unit (PSU) capacity	250 W
Stepping	S0	Number of power supply units	1

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Processor		Weight & dimensions	
System bus rate	8 GT/s	Width *	224.9 mm
Tcase	65 °C	Depth *	319.8 mm
Thermal Design Power (TDP)	51 W	Height *	231.9 mm
On-board graphics card model	Intel® HD Graphics 530	Weight	7.7 kg
Maximum internal memory supported by processor	64 GB	Package weight	9.5 kg
Memory bandwidth supported by		Packaging content	
processor (max)	34.1 GB/s	Cables included	AC, LAN (RJ-45)
Conflict-Free processor	√	Quick installation guide	✓
Memory		Processor special features	
Internal memory type	DDR4	Embedded options available	1
Maximum RAM supported	64 GB	Enhanced Intel SpeedStep	
Memory slots	4	Technology	V
Internal memory *	8 GB	Execute Disable Bit	✓
Flash memory	512 MB	Graphics & IMC lithography	14 nm
Network		Idle States	✓
	,	Intel 64	✓
Ethernet LAN *	10 1000 Mh;h/-	Intel Clear Video Technology	✓
Ethernet LAN data rates	10,1000 Mbit/s	Intel Demand Based Switching	×
Wi-Fi DHCP client	X	Intel Dual Display Capable	×
DHCP server	√	Technology Intel Enhanced Halt State	√
Jumbo frames support	4	Intel Fast Memory Access	×
iSCSI support	1	Intel FDI Technology	x
Wake-on-LAN ready	1	Intel Flex Memory Access	x
Wake-off-Law ready	CIFS/SMB, AFP (v3.3), NFS(v3), FTP,	Intel Identity Protection Technology	
Supported network protocols	FTPS, SFTP, TFTP, HTTP(S), Telnet, SSH, iSCSI, SNMP, SMTP, and SMSC	version Intel Rapid Storage Technology	1.00
Link aggregation	✓	Intel Secure Key Technology version	
Ports & interfaces		Intel Small Business Advantage	
USB 3.2 Gen 1 (3.1 Gen 1) Type-A		(SBA) version	1.00
ports quantity HDMI ports quantity	3	Intel Stable Image Platform Program (SIPP)	×
Ethernet LAN (RJ-45) ports *	4	Intel Stable Image Platform Program (SIPP) version	0.00
Graphics		Intel Trusted Execution Technology	×
On-board graphics card base	250 MH	Intel TSX-NI	×
frequency	350 MHz	Intel TSX-NI version	0.00
On-board graphics card dynamic frequency (max)	1050 MHz	Intel Virtualization Technology (VT-x)	1
On-board graphics card DirectX version	12.0	Intel Virtualization Technology for Directed I/O (VT-d)	✓
On-board graphics card OpenGL version	4.4	Intel VT-x with Extended Page Tables (EPT)	✓
On-board graphics card ID Maximum on-board graphics card	0x1912	Intel® AES New Instructions (Intel® AES-NI)	✓
memory Number of displays supported (on-	1.7 GB	Intel® Anti-Theft Technology (Intel® AT)	×
board graphics)	3	Intel® Clear Video HD Technology (Intel® CVT HD)	✓
Design		Intel® Clear Video Technology for	
Chassis type *	Tower	Mobile Internet Devices (Intel CVT for MID)	✓
Cooling type *	Active	Intel® Hyper Threading Technology	
Product colour	Black	(Intel® HT Technology)	✓
Number of fans	1 fan(s)	Intel® Identity Protection	1
Fan diameter	8 cm	Technology (Intel® IPT)	•
LED indicators	HDD, SSD, Status	Intel® Insider™	√
Performance		Intel® InTru™ 3D Technology	✓
Type *	NAS	Intel® My WiFi Technology (Intel® MWT)	X
Device class *	Small & Medium Business	Intel® OS Guard	1
Backup function *	√	Intel® Quick Sync Video Technology	·
Backup features	Cloud, iSCSI LUN	Intel® Secure Key	✓
Buzzer	1	•	

Performance		Processor special features	
Multilingual support Noise level Management protocols Web-based management Share folder access right management	✓ 20.5 dB DDNS, SNMP v2/v3 ✓ 128-bit AES, 256-bit AES, FIPS	Intel® Small Business Advantage (Intel® SBA) Intel® Smart Cache Intel® Turbo Boost Technology Intel® Wireless Display (Intel® WiDi) Maximum number of PCI Express lanes	✓ ✓ × ✓
Access Control List (ACL) Reset button On/off switch Built-in UPnP AV media server Built-in FTP server System log	et button If switch In UPnP AV media server In FTP server In FTP server In FTP server In FTP server	Thermal Monitoring Technologies Thermal solution specification Memory channels supported by processor Memory types supported by processor Memory voltage supported by processor	PCG 2015C Dual DDR3L-SDRAM, DDR4-SDRAM 1.35 V
Hot spare Password authentication		Operational conditions	
S.M.A.R.T. support	,	Operating temperature (T-T) Operating relative humidity (H-H)	0 - 40 °C 5 - 95%
		Other features	
		Digital Living Network Alliance (DLNA) certified	✓
		Processor ARK ID	90729

