QNAP

QNAP TS-453BU NAS Rack (1U) Intel® Celeron® J3455 HDD QNAP Turbo System Aluminium, Black

Brand : QNAP

Product name : TS-453BU

Product code: TS-453BU-2G-40TB-GLD

40TB (Western Digital Gold), Intel Apollo Lake J3455 (1.5/2.3GHz), 2GB DDR3L, Gigabit LAN
QNAP TS-453BU. Type: NAS. Chassis type: Rack (1U). Processor family: Intel® Celeron®, Processor model: J3455, Processor frequency: 1.5 GHz. Installed storage drive type: HDD. Operating system installed: QNAP Turbo System

Storage

Storage drive interface *	Serial ATA III
RAID support *	✔
RAID levels	0, 1, 5, 6, 10, 50, 60, JBOD
Online RAID migration	✔
Online RAID expansion	✔
Hot-swap drive bays	✔
Supported file systems	HFS+, exFAT, ext3, ext4
Storage drives installed *	✔
Number of storage drives supported *	4
Installed storage drive type *	HDD
Supported storage drive types *	HDD & SSD
Bad block scan	✔

Processor

Processor manufacturer *	Intel
Processor family *	Intel® Celeron®
Processor model *	J3455
Processor frequency *	1.5 GHz
Processor boost frequency	2.3 GHz
Processor cores	4
Processor threads	4
Processor cache	2 MB
CPU configuration (max)	1
ECC supported by processor	✘
PCI Express configurations	1x2+2x1, 4x1
PCI Express slots version	2.0
Processor cache type	Smart Cache
Processor code	SR2Z9
Processor codename	Apollo Lake
Processor lithography	14 nm
Processor operating modes	64-bit
Processor package size	24 x 31 mm
Processor socket	BGA 1296
Stepping	B1
Tjunction	105 °C
Thermal Design Power (TDP)	10 W

Software

Linux operating systems supported	✔
Mac compatibility	✔
Mac operating systems supported	Mac OS X 10.7 Lion, Mac OS X 10.8 Mountain Lion, Mac OS X 10.9 Mavericks
Server operating systems supported	Windows Server 2003, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016

Power

Power supply location	Built-in
Power supply unit (PSU) capacity	250 W
Number of power supply units	1
Redundant power supply (RPS) support	✘
Power consumption (typical)	31.5 W
Power consumption (HDD standby)	21.3 W
AC input voltage	100 - 240 V
AC input frequency	50 - 60 Hz
Fan voltage	12 V

Weight & dimensions

Width *	439 mm
Depth *	499 mm
Height *	44 mm
Weight	6.53 kg
Package weight	9.47 kg

Packaging content

Cables included	AC, LAN (RJ-45)
Quick installation guide	✔

Processor special features

Embedded options available	✔
Enhanced Intel SpeedStep Technology	✔
Execute Disable Bit	✔
Idle States	✔
Intel 64	✔

Processor

On-board graphics card model	Intel® HD Graphics 500
Maximum internal memory supported by processor	8 GB
Conflict-Free processor	✔

Memory

Maximum RAM supported	8 GB
Memory slots	2
Memory form factor	SO-DIMM
Flash memory	4096 MB

Network

Ethernet LAN *	✔
Ethernet LAN data rates	10,100,1000 Mbit/s
Wi-Fi	✘
DHCP client	✔
DHCP server	✔
Jumbo frames support	✔
iSCSI support	✔
Wake-on-LAN ready	✔
Supported network protocols	CIFS/SMB, AFP (v3.3), NFS(v3), FTP, FTPS, SFTP, TFTP, HTTP(S), Telnet, SSH, iSCSI, SNMP, SMTP, SMSC
Dynamic DNS (DDNS)	✔

Ports & interfaces

USB port *	✔
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity	4
HDMI ports quantity	1
HDMI version	1.4b
Ethernet LAN (RJ-45) ports *	4

Graphics

On-board graphics card base frequency	250 MHz
On-board graphics card burst frequency	750 MHz
On-board graphics card dynamic frequency (max)	750 MHz
Maximum on-board graphics card memory	8 GB
Number of displays supported (on-board graphics)	3

Design

Chassis type *	Rack (1U)
Cooling type *	Active
Product colour	Aluminium, Black
Number of fans	2 fan(s)
Fan diameter	4 cm
LED indicators	HDD, LAN, Status, USB

Performance

Type *	NAS
Backup function *	✔
Backup features	Cloud, iSCSI LUN
Buzzer	✔
Multilingual support	✔
Number of users	4096 user(s)
Noise level	38.6 dB
Management protocols	SNMP
Web-based management	✔
Share folder access right management	✔
Security algorithms	256-bit AES, FIPS 140-2, HTTPS, SSH

Processor special features

Intel Clear Video Technology	✔
Intel Enhanced Halt State	✔
Intel Identity Protection Technology version	1.00
Intel Rapid Storage Technology	✘
Intel Secure Boot	✔
Intel Secure Boot Technology version	1.00
Intel Secure Key Technology version	1.00
Intel Small Business Advantage (SBA) version	0.00
Intel Smart Connect Technology	✘
Intel Smart Connect Technology version	0.00
Intel Smart Response Technology version	0.00
Intel Stable Image Platform Program (SIPP)	✘
Intel Stable Image Platform Program (SIPP) version	0.00
Intel Trusted Execution Technology	✘
Intel Virtualization Technology (VT-x)	✔
Intel Virtualization Technology for Directed I/O (VT-d)	✔
Intel VT-x with Extended Page Tables (EPT)	✔
Intel® AES New Instructions (Intel® AES-NI)	✔
Intel® Anti-Theft Technology (Intel® AT)	✘
Intel® Clear Video HD Technology (Intel® CVT HD)	✔
Intel® Clear Video Technology for Mobile Internet Devices (Intel CVT for MID)	✔
Intel® High Definition Audio (Intel® HD Audio)	✔
Intel® Hyper Threading Technology (Intel® HT Technology)	✘
Intel® Identity Protection Technology (Intel® IPT)	✔
Intel® Insider™	✘
Intel® InTru™ 3D Technology	✘
Intel® OS Guard	✘
Intel® Quick Sync Video Technology	✔
Intel® Secure Key	✔
Intel® Small Business Advantage (Intel® SBA)	✘
Intel® Smart Response Technology	✘
Intel® Turbo Boost Technology	✘
Intel® Wireless Display (Intel® WiDi)	✘
Maximum number of PCI Express lanes	6
Number of execution units	12
Thermal Monitoring Technologies	✔
UART	✔
Memory channels supported by processor	Dual
Memory types supported by processor	DDR3L, LPDDR3-SDRAM, LPDDR4-SDRAM

Operational conditions

Operating temperature (T-T)	0 - 40 °C
Operating relative humidity (H-H)	0 - 95%

Performance		Other features	
Reset button	✔	Processor ARK ID	95594
On/off switch	✔		
Built-in iTunes server	✔		
Built-in FTP server	✔		
Browser supported	Microsoft Internet Explorer 10+, Google Chrome, Mozilla Firefox, Apple Safari 7+		
System log	✔		
Hot spare	✔		
S.M.A.R.T. support	✔		
Share folder	512		

Software	
Operating system installed *	QNAP Turbo System
Operating system version	4.3
Windows operating systems supported	Windows 10, Windows 10 Education, Windows 10 Education x64, Windows 10 Enterprise, Windows 10 Enterprise x64, Windows 10 Home, Windows 10 Home x64, Windows 10 IOT Core, Windows 10 Pro, Windows 10 Pro x64, Windows 7, Windows 7 Enterprise, Windows 7 Enterprise x64, Windows 7 Home Basic, Windows 7 Home Basic x64, Windows 7 Home Premium, Windows 7 Home Premium x64, Windows 7 Professional, Windows 7 Professional x64, Windows 7 Starter, Windows 7 Starter x64, Windows 7 Ultimate, Windows 7 Ultimate x64, Windows 7 x64, Windows 8, Windows 8 Enterprise, Windows 8 Enterprise x64, Windows 8 Pro, Windows 8 Pro x64, Windows 8 x64