QNAP

QNAP TS-EC880U R2 NAS Rack (2U) Ethernet LAN Black i3-4150

Brand : QNAP

Product name : TS-EC880U R2

Product code: TS-EC880U-I3-8G-R2-US

i3-4150, 8GB DDR3 RAM, 8x 2.5/3.5", SATA, 6Gbps, 10Gbps SFP+, USB 3.0

QNAP TS-EC880U R2 NAS Rack (2U) Ethernet LAN Black i3-4150:

QNAP TS-EC880U R2, featuring the easy-to-use QTS operating system, provides a reliable and scalable NAS solution to fulfill data backup, file synchronization and remote access. The TS-EC880U R2 is 10GbE-ready, delivers exceptional performance, and supports cross-platform file sharing, comprehensive backup solutions, iSCSI and virtualization applications, and many practical business functions, making it the ideal choice for SMBs to secure important business data. It also includes abundant multimedia applications backed by its powerful hardware specifications.

- Built-in 10GbE, highly-efficient storage solution for HD video editing and sharing
- 3,700+ MB/s throughput and 400,000+ IOPS
- Two internal cache ports and up to 4 SSDs for caching
- Scalable design, up to 816TB raw capacity
- Virtualization-ready, centralized data storage, backup, sharing and disaster recovery

Storage		Performance	
Storage drive interface *	Serial ATA III, mSATA	Type *	NAS
Storage drive size	2.5/3.5"	Device class *	Large Enterprise Business
RAID support *	✓	Backup function *	✓
RAID levels	0, 1, 5, 6, 10, JBOD	Backup features	Cloud, iSCSI LUN
Hot-swap drive bays	✓	Buzzer	✓
Supported file systems	FAT32, HFS+, NTFS, ext3, ext4	Multilingual support	✓
Storage drives installed *	✗	Noise level	55.2 dB
Number of storage drives supported *	8	Web-based management	✓
		Access Control List (ACL)	✓
Installed storage drive type *	✗	On/off switch	✓
Supported storage drive types *	HDD & SSD	Built-in FTP server	✓
Processor		**Software**	
Processor manufacturer *	Intel	Operating system installed *	QNAP Turbo NAS System
Processor generation	4th gen Intel® Core™ i3	Linux operating systems supported	✓
Processor family *	Intel® Core™ i3		
Processor model *	i3-4150		Mac OS X 10.0 Cheetah, Mac OS X 10.1 Puma, Mac OS X 10.10 Yosemite, Mac OS X 10.11 El 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 Lion, Mac OS X 10.9 Mavericks
Processor frequency *	3.5 GHz	Mac operating systems supported	
Processor cores	2		
Processor threads	4		
Processor cache	3 MB		
L3 cache	3 MB		
Bus type	DMI		
CPU configuration (max)	1		
ECC supported by processor	✓		
PCI Express configurations	1x16, 2x8, 1x8+2x4		Windows Home Server 2011, Windows MultiPoint Server 2011, Windows SBS 2011 Essentials, Windows SBS 2011 Standard, Windows Server 2003, Windows Server 2003 R2, Windows Server 2003 x64, Windows Server 2008, Windows Server 2008 R2, Windows Server 2008 R2 x64, Windows Server 2008 x64, Windows Server 2012 R2 x64, Windows Server 2012 x64, Windows Server 2013, Windows Small Business Server 2003, Windows Small Business Server 2008, Windows Small Business Server 2011, Windows Small Business Server 2011 x64
PCI Express slots version	3.0		
Processor cache type	Smart Cache	Server operating systems supported	
Processor code	SR1PJ		
Processor codename	Haswell		
Processor lithography	22 nm		
Processor operating modes	32-bit, 64-bit		
Processor package size	37.5 x 37.5 mm		
Processor series	Intel Core i3-4100 Desktop series		
Processor socket	LGA 1150 (Socket H3)		
Scalability	1S		
Stepping	C0	**Power**	
		Power supply location	Built-in

Processor

System bus rate	5 GT/s
Tcase	72 °C
Thermal Design Power (TDP)	54 W
On-board graphics card model	Intel® HD Graphics 4400
Maximum internal memory supported by processor	32 GB
Memory bandwidth supported by processor (max)	25.6 GB/s
Conflict-Free processor	✓

Memory

Internal memory type	DDR3
Maximum RAM supported	32 GB
Memory slots	4
Internal memory *	8 GB
Flash memory	512 MB

Network

Ethernet LAN *	✓
Ethernet LAN data rates	10,100,1000,10000 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
Link aggregation	✓

Ports & interfaces

USB 2.0 ports quantity	4
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity	4
Fiber ports quantity	2
Fiber optic connector	SFP+
HDMI ports quantity	1
Ethernet LAN (RJ-45) ports *	4

Graphics

On-board graphics card base frequency	350 MHz
On-board graphics card dynamic frequency (max)	1150 MHz
On-board graphics card DirectX version	11.1
On-board graphics card ID	0x41E
Maximum on-board graphics card memory	1.024 GB
Number of displays supported (on-board graphics)	3

Design

Chassis type *	Rack (2U)
Cooling type *	Active
Product colour	Black
Number of fans	4 fan(s)
Fan diameter	6 cm
Drive bay locking	✓
LED indicators	✓

Power

Power supply unit (PSU) capacity	400 W
Redundant power supply (RPS) support	✓
Power consumption (typical)	133.88 W
Power consumption (sleep)	73.38 W
AC input voltage	100-240 V
AC input frequency	50 - 60 Hz

Weight & dimensions

Width *	442.5 mm
Depth *	530.5 mm
Height *	88 mm

Packaging content

Cables included	AC, LAN (RJ-45)
Quick installation guide	✓
Number of screws	64

Processor special features

Embedded options available	✗
Enhanced Intel SpeedStep Technology	✓
Execute Disable Bit	✓
Graphics & IMC lithography	22 nm
Idle States	✓
Intel 64	✓
Intel Enhanced Halt State	✓
Intel Small Business Advantage (SBA) version	1.00
Intel Stable Image Platform Program (SIPP)	✗
Intel Stable Image Platform Program (SIPP) version	0.00
Intel Trusted Execution Technology	✗
Intel TSX-NI	✗
Intel TSX-NI version	0.00
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® Clear Video HD Technology (Intel® CVT HD)	✓
Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Intel® InTru™ 3D Technology	✓
Intel® Quick Sync Video Technology	✓
Intel® Smart Cache	✓
Intel® Turbo Boost Technology	✗
Intel® Wireless Display (Intel® WiDi)	✓
Maximum number of PCI Express lanes	16
Thermal Monitoring Technologies	✓
Thermal solution specification	PCG 2013C
Memory channels supported by processor	Dual
Memory types supported by processor	DDR3-SDRAM

Operational conditions

Operating temperature (T-T)	0 - 40 °C
Operating relative humidity (H-H)	5 - 95%

Other features	
Processor ARK ID	77486