



## ES1686dc-R2-2142IT-96G

CPU	Intel® Xeon® D-2142IT 8-core 1.90 GHz processor (burst up to 3.0 GHz) per controller
CPU Architecture	64-bit x86
Floating Point Unit	Yes
Encryption Engine	Yes (AES-NI)
System Memory	48 GB RDIMM DDR4 ECC (4 x 4 GB+4 x 8GB) per controller
Maximum Memory	512 GB (8 x 64GB)
Memory Slot	8 x R-DIMM/LR-DIMM DDR4  IMPORTANT: You can only use one type of dual in-line memory module (DIMM) at a time. Do not use registered DIMM (RDIMM) with load-reduction DIMM (LRDIMM) memory.
Flash Memory	4GB (Dual boot OS protection)
Drive Bay	16 x 3.5-inch  SAS 12Gb/s, backward-compatible to SAS 6Gb/s
Drive Compatibility	3.5-inch bays: 3.5-inch SAS hard disk drives 2.5-inch SAS hard disk drives 2.5-inch SAS solid state drives
Hot-swappable	Yes
SSD Cache Acceleration Support	Yes Read cache only
Cache for Copy To Flash (C2F)	1 per each controller (64GB M.2 SSD)
Gigabit Ethernet Port (RJ45)	3 for each controller (assign one for remote management)
10 Gigabit Ethernet Port	4 x 10GbE SFP+ for each controller
Wake on LAN (WOL)	Yes

Jumbo Frame	Yes
PCIe Slot	<p>2 per controller  Slot 1: PCIe Gen 3 x8 (CPU)  Slot 2: PCIe Gen 3 x8 (CPU)</p> <p>Card dimensions for PCIe slot 1~Slot 2 : 215 x 68.9 x 18.76 mm / 8.46 x 2.71 x 0.74 inches.  Wider cards can be installed if the next PCIe slot will not be used.</p>
USB 3.2 Gen 1 port	<p>2 per each controller</p> <p>Note: The USB ports are for engineering purpose only. No external devices such as storage drives or UPS are supported.</p>
Form Factor	3U Rackmount
LED Indicators	<p>System Power LED (Green): on/off  System Status (Green/ Orange): in operation, system errors, low power, degraded RAID mode, memory failure, fan/power supply failure, system/disk temperature too high, storage pool reaching threshold value, system performing take-over, power supply unit unplugged  LCD Status Display (Two-digit number): Status of JBOD connection</p>
Buttons	Power, Reset
Dimensions (HxWxD)	132 × 446.2 × 587.75 mm
Weight (Net)	30.22 kg
Weight (Gross)	34.92 kg
Operating Temperature	0 - 40 °C (32°F - 104°F)
Storage Temperature	-20 - 70°C (-4°F - 158°F)
Relative Humidity	5-95% RH non-condensing, wet bulb: 27°C (80.6°F)
Power Supply Unit	Redundant/ Hot Swap Power Vin:90~264VAC;700W
Power Consumption: Operating Mode, Typical	<p>500.87 W</p> <p>Tested with drives fully populated.</p>
Fan	Hot-swappable fan module (60*60*38mm; 16000RPM/12v/2.8A x 3)
System Warning	Buzzer
Standard Warranty	5
Max. Number of Concurrent Connections (CIFS) - with Max. Memory	10000

Safety Standard

FCC Class A (USA only)  
CE Mark ( EN55022 Class A, EN55024)  
EN60950  
BSMI  
VCCI  
CB  
LVD

Note: Use only QNAP memory modules to maintain system performance and stability. For NAS devices with more than one memory slot, use QNAP modules with identical specifications and refer to the hardware user manual to install compatible QNAP memory modules.

Warning: Using unsupported modules may degrade performance, cause errors, or prevent the operating system from starting. QNAP reserves the right to replace partial parts or accessories if the original is no longer available from its manufacturer/supplier. Any replacement would be fully tested and verified to meet strict compatibility and stability guidelines and will deliver identical performance to the original.

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