



TS-AI642-8G	
CPU	8-core ARM Cortex 64-bit Processor ( 4-core Cortex-A76 2.2 GHz + 4-core Cortex-A55 1.8 GHz )
CPU Architecture	64-bit ARM
Graphic Processors	ARM Mali-G610 MC4
Floating Point Unit	Yes
Encryption Engine	Yes
Hardware-accelerated Transcoding	Yes
Neural Processing Unit (NPU)	Yes
System Memory	8 GB on board (non-expandable)
	Note: Reserves some RAM for use as shared graphics memory.
Maximum Memory	8 GB
Flash Memory	4GB (Dual boot OS protection)
Drive Bay	6 x 3.5-inch SATA 6Gb/s
	The system is shipped without HDD.  For the HDD compatibility list, please visit <a href="https://www.qnap.com/compatibility/">https://www.qnap.com/compatibility/</a>
Drive Compatibility	3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives
Hot-swappable	Yes
SSD Cache Acceleration Support	Yes
Gigabit Ethernet Port (RJ45)	2
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	1 (2.5G/1G/100M/10M)

5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter
10 Gigabit Ethernet Port	Optional via an adapter
Wake on LAN (WOL)	Yes
Jumbo Frame	Yes
PCIe Slot	1 Slot 1: PCIe Gen 3 x2
USB 2.0 port	2
USB 3.2 Gen 1 port	2 x Type-A
IR Sensor	Yes (Optional QNAP RM-IR004 remote control)
HDMI™ Output	2, HDMI™ 1.4b
Form Factor	Tower
LED Indicators	Power/Status, LAN, USB, HDD1-6
Buttons	Power, USB copy, Reset
Dimensions (HxWxD)	165 × 235 × 226.5 mm
	Dimensions do not include foot pad (foot pad may be up to $30\mathrm{mm}$ / $1.18$ inches high depending on model)
Weight (Net)	4.4 kg
Weight (Gross)	4.4 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	120W adapter, 100-240V
Power Consumption: HDD Sleep Mode	14.005 W
Power Consumption: Operating Mode, Typical	33.33 W
	Tested with drives fully populated.
Fan	2 x 90mm, 12VDC
System Warning	Buzzer
Kensington Security Slot	Yes
Standard Warranty	3
Max. Number of Concurrent Connections (CIFS) - with Max. Memory	1,500

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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