

TVS-AIh1688ATX-U7-32G

CPU	Intel Core Ultra 7, 20 (8P+12E) core, 20 Threads, up to 5.3GHz
CPU Architecture	64-bit x86
Graphic Processors	Intel® Graphics
Encryption Engine	Yes (AES-NI)
Hardware-accelerated Transcoding	Yes
Neural Processing Unit (NPU)	Yes
System Memory	32GB ECC UDIMM DDR5
Maximum Memory	192 GB (4 x 48 GB)
Memory Slot	4 x UDIMM DDR5 For dual-DIMM configurations, you must use a pair of identical DDR5 modules.
Flash Memory	5GB (Dual boot OS protection)
Drive Bay	12 x 3.5-inch SATA 6Gb/s, 3Gb/s + 4 x 2.5-inch U.2 NVMe Gen 4 x2 slots
Drive Compatibility	3.5-inch bays: 3.5-inch SATA hard disk drives 2.5-inch SATA hard disk drives 2.5-inch SATA solid state drives 2.5-inch bays: 2.5-inch U.2/SATA SSD
Hot-swappable	Yes
SSD Cache Acceleration Support	Yes
2.5 Gigabit Ethernet Port (2.5G/1G/100M)	2 (2.5G/1G/100M/10M)
5 Gigabit Ethernet Port (5G/2.5G/1G/100M)	Optional via an adapter
10 Gigabit Ethernet Port	2 x 10GBASE-T (10G/5G/2.5G/1G)

25 Gigabit Ethernet Port	Optional via an adapter
Wake on LAN (WOL)	Yes
Jumbo Frame	Yes
Thunderbolt Port	Optional via the QXP-T52P 2-port Thunderbolt 5 PCIe adapter Supports only Thunderbolt connections for Windows & Mac hosts and USB storage devices. Third-party Thunderbolt external storage devices are not supported.
PCIe Slot	3 Slot 1: PCIe Gen4 x16 Slot 2: PCIe Gen4 x4 Slot 3: PCIe Gen4 x4 Card dimensions for PCIe slot 1：260 x 111.15 x 37.52 mm / 10.25 x 4.38 x 1.48 inches. Card dimensions for PCIe slot 2：150 x 68.9 x 18.76 mm / 5.90 x 2.71 x 0.74 inches. Card dimensions for PCIe slot 3：150 x 68.9 x 18.76 mm / 5.90 x 2.71 x 0.74 inches. Wider cards can be installed if the next PCIe slot will not be used."
USB 3.2 Gen 2 (10Gbps) Port	3 x USB3.2 Gen2 Type-A 2 x USB3.2 Gen 2 Type-C
USB 4 port	2 x USB4 Type-C
HDMI™ Output	1, HDMI™ 2.1 (up to 4096 x 2160 @ 60Hz)
Form Factor	Tower
LED Indicators	System status, LAN, USB, Disk 1~16
LCD Display/ Button	Yes
Buttons	Power, Reset, USB Auto Copy
Dimensions (HxWxD)	11.59 × 14.56 × 12.59 inch
Weight (Net)	30.42 lbs
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	750W PSU, 100~240V
Power Consumption: Disk Standby Mode	97.036 W
Power Consumption: Operating Mode, Typical	130.83 W
Fan	System fan: 3 x 80mm, 12VDC CPU fan: 2 x 97mm, 12VDC
System Warning	Buzzer

Kensington Security Slot	Yes
Standard Warranty	5 years
Max. Number of Concurrent Connections (CIFS) - with Max. Memory	10000

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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