QGX-One

A smart and silent Workstation

Designed and built around its cooling solution, Q G X - O n e presents a shared radiator between the motherboard and the graphic card. With a capacity of 19 liters, QGX-One optimizes volumes and reduces empty spaces at their strict minimum.

The solution is the only one to propose a fan-less integrated cooling solution able to deliver a power worthy of the greatest. By pooling electronic cards it can run passively without cooling.

Combining compactness and adaptability, QGX-One has M.2' and SSD 2.5" dedicated slots. For the most extreme configurations, QGX-One can be upgraded with one optional 120 mm or 140 mm fan and is fully customizable.

KEY ADVANTAGES

Powerful	Compact	Silent

Standard components	Unique design

KEY BENEFITS

- Save 30-50% on power
- Zero-20 Decibel
- Zero Dust trap
- Cooling is in the heart
- High grade build
- Copper cold plate with heat pipes and high grade aluminium heat sinks

KEY APPLICATIONS

- CCTV Analytics, Video Analytics
- 2D Software
- Quiet Enviroment Research and many more

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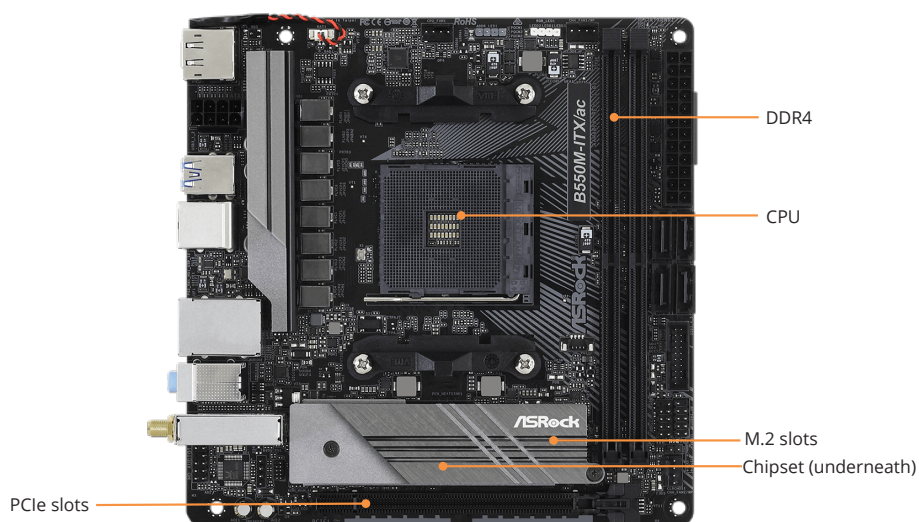
Technical Supplements

Heatsink
The heatsink is composed on aluminium fins. Its larger area facilitates the heat transfer into the air. The bigger the area, the better the thermal performance. Integrated in a SFF, it offers the largest heat dissipation area of the market.

Heat Exchanger
The heat exchangers are composed of copper plates inside which heat pipes are integrated. In contact with the electronic cards' chip, these heat exchangers enable heat to be quickly transferred from the electronics through the heatsink, thanks to heat pipes. QGX-One has 2 heat exchangers (1 for the CPU, 1 for the GPU). Each of them integrates 6 heat pipes whose diameters and lengths have been optimized for optimum heat transfer.

Heat Pipe
Heat pipes are sealed copper tubes inside which a fluid transfers the heat thanks to a phase change. In contact with the heat exchangers, the fluid vaporises inside the tube whilst absorbing the heat produced by the chip. The vapor moves towards the other end of the tube where it condensates into liquid whilst transferring the heat to the heatsink. The liquid goes back to the hot source, thanks to a capillary structure, to start a new cycle.

Specifications

Motherboard	ASRock B550M-ITX/ac
Processor	AMD Ryzen™ 5 5600X - 6 cores / 12 threads / 3.7- 4.6GHz 32MB cache TDP 65W or AMD Ryzen™ 7 5800X - 8 cores / 16 threads / 3.8-4.7GHz 32MB cache TDP 105W
Memory	2x 16GB DDR4 (32GB in total)
Storage	Up to 16TB with 4x SSD 2.5" NAND SATA III R/W: 560/530MBs Up to 4TB, via 2x M.2 slots
GPU	ZOTAC GEFORCE RTX 3060 (12GB RAM) GPUs up to 180W 3x display port 1.4a 1x HDMI 2.1
Power Consumption	450W 80+ platinum
I/O	7x USB ports (1x USB 3.2 Gen2, 3x USB 3.2 Gen1, 2x USB 2.0, 1x USB Type-C) 1x RJ-45 Ethernet Port 2,5GbE 1x Display port 1.2 1x HDMI 2.1 port 3x Audio ports
Cooling	Passive and Dual air cooling Heatsink *Options:* *internal: 120 / 140 mm fan slot* *External: 200mm with mechanical add-on*
OS compatible	Licence Windows 10 Pro 64 Bits - OEM
Dimensions	205 mm (L) x 215 mm (W) x 430 mm (H)
Warranty	2 years

Asrock B550M-ITX/ac