



## Aquila & Aquila-3D 1U CPU Overclocked HFT Server

### Key Features

- \* Born for major purposed applications and dedicated trading system
- \* Best liquid-cooled designed, all CPU cores up to 4.7+GHz (16 cores)
- \* Best liquid-cooled designed, all CPU cores up to 4.9+GHz (12 cores)
- \* AMD CPU based, offer the largest L3 cache (more than Intel) for using
- \* Excellent liquid-cooled and thermal flow only in 1U form
- \* Most 2 x high-speed I/O slots for different AP designed architectures
- \* Up to 60% ~80% performance than traditional general purposed server
- \* Considerations for global environmental protection & sustainable use
- \* Liquid-cooled model downgrade to air-flow cooling model for IT using
- \* Provide downgrade to air-flow cooling model suite when need & apply



### Aquila Avenger Series :

- **Aquila Avenger Z3R5950X (16 cores)** all cores can up to 4.7+GHz  
All cores up to 4.7+GHz, Infinity Fabric 3600MHz, L3 cache 64MB  
Memory frequency at least 3600MHz
- **Aquila Avenger Z3R5900X (12 cores)** all cores can up to 4.9+GHz  
All cores up to 4.9+GHz, Infinity Fabric 3600MHz, L3 cache 64MB  
Memory frequency at least 3600MHz
- **Aquila Avenger-3D Z3D5800X (8 cores)** all cores can up to 4.8GHz  
All cores up to 4.8GHz, Infinity Fabric 3600MHz, L3 cache 96MB  
Memory frequency at least 3600MHz

*Note : AMD lock PBO2 OC for this CPU, we take manual way for this freq.*



### AMD DIE MCM : from Zen2 to Zen3 (Info is from AMD website)

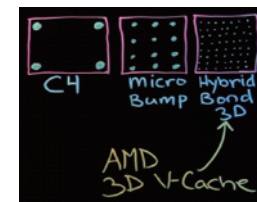
The Zen 3 architecture integrates 8 CCXs into one CCD, and the common access to a cache zone is better than the Zen2 architecture.

### AMD 3D V-Cache™ Technology (Aquila Avenger-3D only)

The access time of programs and data in the cache is about 8~10ns, but it must be at least 10 times in the memory. AMD CPU with Zen3 or Zen3+, has massive L3 cache capacity, which can achieve higher execution efficiency.

AMD opens a new era, providing more L3 cache capacity to the CPU. 3D V-Cache™ Technology is a new innovation, opening a new horizon of massive CPU cache.

ARAVision also adjusts and optimizes the cache frequency, and effectively applies it in the HFT field.



Our products are available in both air-cooled and liquid-cooled models for trading options. When the liquid-cooled model is no longer used, it can be easily replaced with an air-cooled architecture by purchasing a few kits. In addition, our overclocked servers It only needs 750W to operate, saving electricity and carbon emissions, allowing your business to easily meet global ESG standards.

We give you best 風水

## Aquila Avenger



<b>Form Factor</b>	1U chassis with rail kit
<b>Processor</b>	<b>Aquila Avenger (Z3R5950X)</b> AMD Ryzen 5950X (Zen3) 16 cores 64MB L3 cache base 3.4GHz CPU freq. x1 (All cores are 4.7+GHz CPU frequency via PBO2 & on liquid-cooled operation) <b>Aquila Avenger (Z3R5900X)</b> AMD Ryzen 5900X (Zen3) 12 cores 64MB L3 cache base 3.7GHz CPU freq. x1 (All cores are 4.9+GHz CPU frequency via PBO2 & on liquid-cooled operation)
<b>Chipset</b>	AMD X570
<b>Memory</b>	64GB (16GBx4) DDR4-3600 EXPO OC UDIMM (Max. 128GB)
<b>Expansion Slots</b>	PCI-E 3.0 x16 Slot x2 (Speed for x16/x8)
<b>SSD</b>	500GB NVMe M.2 PCI-E SSD x1 (Max.2), M.2 SATA SSD board Kits (Max.2, optional)
<b>HFT I/O Card</b>	Solarflare X2522-25G-Plus or SFN8522-Plus ultra low latency NIC x1 (option for max.2)
<b>Input / Output</b>	ASPEED AST2500 Dedicated IPMI RJ45 LAN port x1 On-board with RJ45 LAN port x1 (1Gbps x1) * Option : Additional 1Gbps RJ45 LAN port x 1 USB 2.0 port x1 (Rear), USB 2.0 port x2 (Front) VGA port x1 * Option : COM port x1
<b>Power Supply</b>	750W high efficiency redundant PSU platinum level
<b>OS</b>	Preinstall optimized RHEL 8.x Linux OS * Option : Windows Server 2019 / 2022
<b>Warranty</b>	2 years hardware warranty 1 year on-side service. (limited in Taiwan)

## Aquila Avenger-3D



<b>Form Factor</b>	1U chassis with rail kit
<b>Processor</b>	<b>Aquila Avenger-3D (Z3D5800X)</b> AMD Ryzen 5800X3D (Zen3 3D V-Cache) 8 cores 96MB (32MB+64MB) L3 cache base 3.4GHz CPU freq. x1 (All cores are manual setting as 4.8GHz CPU frequency on liquid-cooled operation)
<b>Chipset</b>	AMD X570
<b>Memory</b>	64GB (16GBx4) DDR4-3600 EXPO OC UDIMM (Max. 128GB)
<b>Expansion Slots</b>	PCI-E 3.0 x16 Slot x2 (Speed for x16/x8)
<b>SSD</b>	500GB NVMe M.2 PCI-E SSD x1 (Max.2), M.2 SATA SSD board Kits (Max.2, optional)
<b>HFT I/O Card</b>	Solarflare X2522-25G-Plus or SFN8522-Plus ultra low latency NIC x1 (option for max.2)
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<b>Power Supply</b>	750W high efficiency redundant PSU platinum level
<b>OS</b>	Preinstall optimized RHEL 8.x Linux OS * Option : Windows Server 2019 / 2022
<b>Warranty</b>	2 years hardware warranty 1 year on-side service. (limited in Taiwan)

已取得多國專利

中華民國(臺灣)專利 Patents of Republic of China (Taiwan)  
專利號碼 (Patent No.): 發明第 **I777641** 號、新型第 **M618657** 號、新型第 **M620968** 號  
中華人民共和國新型專利 Patents of P.R.O.C (China)  
專利號碼 (Patent No.): **ZL 2022 2 0562480.0**、**ZL 2022 2 0538828.2**

德國新型專利 Patents of Germany  
專利號碼 (Patent No.): **20 2022 103 531**  
日本新型專利 Patents of Japan  
專利號碼 (Patent No.): **3242001**、**3242002**



欲瞭解更多相關資訊，歡迎與我們連繫：(02)2912-0128



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