



ARAVision

Cheetah Racer 1U CPU Overclocked HFT Server

The ultimate craftsmanship of the air-flow cooling & thermal flow architecture

Key Features

- * Can effectively improve order & market making & cancel order speed
- * 8 CPU cores (8 P-cores & 0 E-cores), all P-cores frequency are optimized up to 5.8GHz, let the strategy trigger in the best state
- * 10 CPU cores (8 P-cores & 2 E-cores), all P-cores frequency are optimized for 5.6GHz, 2 E-cores for OS & back-ground processes
- * Excellent air-flow cooling and thermal flow only in 1U form
- * Most 2 x high-speed I/O slots for different AP designed architectures
- * Up to 70% ~ 90% performance than traditional general purposed server
- * Considerations for global environmental protection & sustainable use
- * The ultimate craftsmanship of the air-flow cooling & thermal flow architecture, with high performance and best ESG compliance



Cheetah Racer

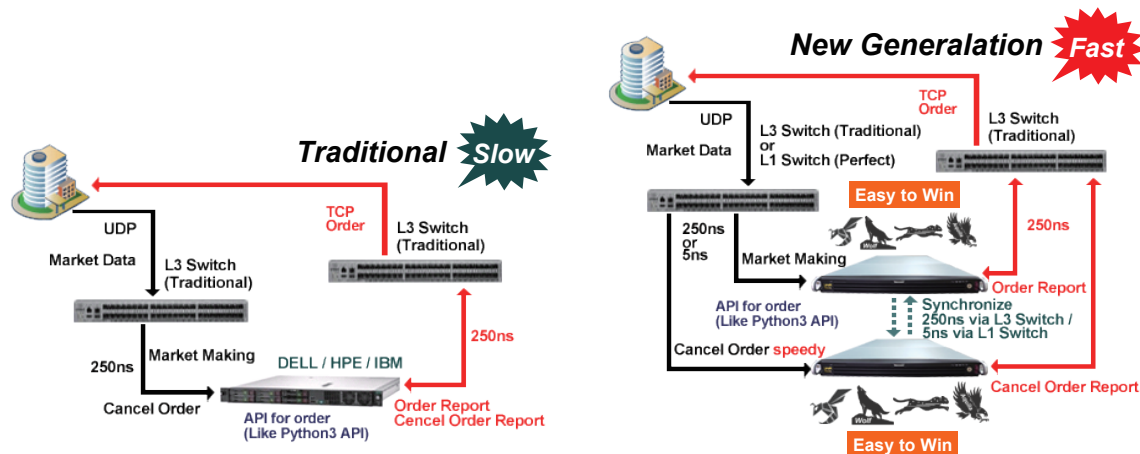
All with 8/10 physical cores, provide air-flow cooling 1U architecture

► Cheetah Racer-13K900 series

Racer-13K908 : all P-cores can be running at 5.7GHz cpu frequency we also can provide 5.8GHz, but 5.7GHz is much better via heavy test.

Racer-13K910 : all P-cores can be running at 5.6GHz cpu frequency 2 E-cores can be running at 4.3GHz cpu frequency

* We Provide L3 cache frequency up to 4800MHz stable, and memory frequency up to 5600MHz via DDR5 type (base freq. is 5200MHz)



We give you best





三階段壓力對應的高效頻率 (Linux 使用 Prime 95 進行 CPU 100% 使用率的壓力測試)

0. Less Loading : 僅有背景程序與程式執行 (可視為Idle狀態)

1. Light Loading : 少許或瞬間觸發下單之壓力狀態 (交易時段較常遇到的狀態)

2. Middle Loading : 量多或持續觸發下單之壓力狀態 (交易時段偶爾遇到的狀態)

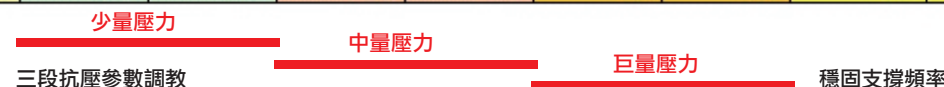
3. Heavy Loading : 密集且持續觸發下單之壓力狀態 (交易時段較少遇到的狀態)

Cheetah Racer 即便交易時段遇到巨大且密集的策略觸發, 仍可持續且穩定的運作

System BIOS Ver. 10.03	Edited:2023/3/3		MLC Test		Less Loading (None P95)		Light Loading P95		Middle Loading P95		Heavy Loading P95 (Bottom)		More Than 6hrs P95 (Bottom)	
	Setting	Cores	1st info (ns)	3rd info (ns)	P (GHz)	E (GHz)	P (GHz)	E (GHz)	P (GHz)	E (GHz)	P (GHz)	E (GHz)	P (GHz)	E (GHz)
Cheetah Racer-13K908	8P+0E	8	5.2 / 5.3	8.4	5.7	x	5.7	x	5.4	x	5.0	x	4.9	x
Cheetah Racer-13K910	8P+2E	10	5.3 / 5.4	8.4	5.6	4.3	5.6	4.2	5.2	4.0	4.9	3.8	4.8+	3.8

氣冷式散熱架構 極致工藝展現

The ultimate craftsmanship of the air-flow cooling & thermal flow architecture



Cheetah Racer

Form Factor	1U chassis with rail kit	HFT I/O Card	Solarflare X2522-25G-Plus or SFN8522-Plus ultra low latency NIC x1 (option for more)
Processor	Cheetah Racer-13K900 Series Intel Core i9-13900KF (Raptor Lake) 8P+16E cores 36MB cache base 3.0GHz CPU freq. x1 (All P-cores are 5.7GHz or 5.8GHz / 5.6GHz CPU frequency on air-flow cooling operation) Provide 2 models for different purpose choice : (1) Racer-13K908 : Pure 8P cores, total 8 cores (2) Racer-13K910 : 8P+2E cores, total 10 cores	Input / Output	ASPEED AST2600 Dedicated IPMI RJ45 LAN port x1 On-board with RJ45 LAN port x1 (1Gbps x1) * Option : Additional 1Gbps RJ45 LAN port x 1 USB 3.0 port x1 (Rear), USB 2.0 port x2 (Front) VGA port x1 * Option : COM port x1
Chipset	Intel Z690	Power Supply	750W high efficiency redundant PSU platinum level
Memory	64GB (32GBx2/16GBx4) DDR5-5200 LP DIMM (Max. 128GB)	OS	Preinstall optimized CentOS Linux 8 * Option : Red Hat Enterprise Linux 8.x, Windows Server 2022
Expansion Slots	PCI-E 3.0 x16 (x8 speed) slot x2 (* Option : PCI-E 3.0 x16 (x1 speed) slot x1) * Can be changed to PCI-E 4.0 x16 slot x2 (speed for x8/x8) for option in the future	Warranty	2 years hardware warranty (air-flow edition) 1 year on-side service. (limited in Taiwan)
SSD	500GB NVMe M.2 PCI-E SSD x1 (Max.1), * Option : M.2 SATA SSD board Kits (Max.2)		

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**



欲瞭解更多相關資訊, 歡迎與我們聯繫 : (02)2912-0128



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