ACE 3100-RZX

16 CPU CORES

5.4 GHz CLOCKSPEED

192 GB RAM

128 MB CACHE

The Blackcore ACE range is an overclocked, liquid-cooled server platform for AMD CPUs. Generating ultimate performance for low latency use cases.
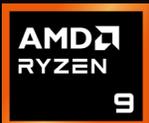
The 3100-RZX utilizes the AMD Ryzen 9950X3D CPU which boasts an additional 64MB of L3 Cache, totalling 128MB, split over 2* CCDs with a total of 16 cores. All overclocked to 5.4GHz. The series features 2U and 3U variations with DDR5 ECC support.

Perfect for low core count workloads that benefit from high frequency, but need **even** more cache, or the reliability of overclocked ECC RAM.
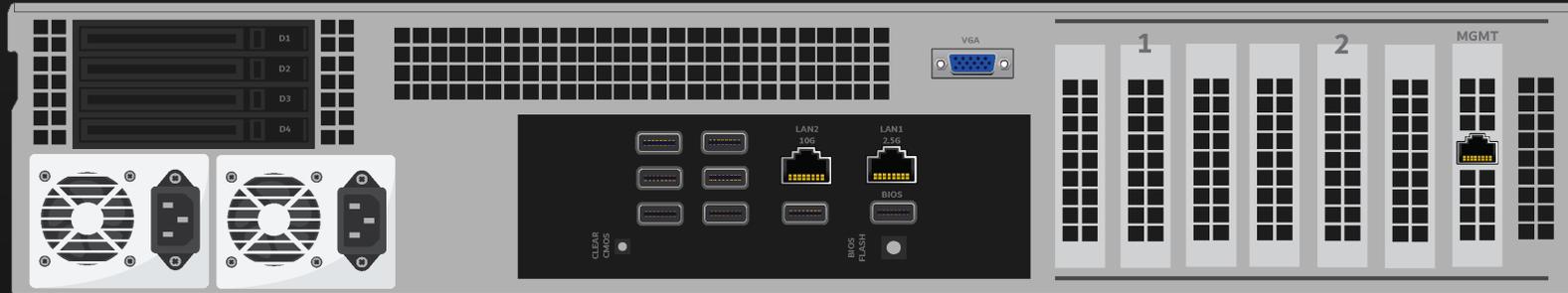
HTS-84715000
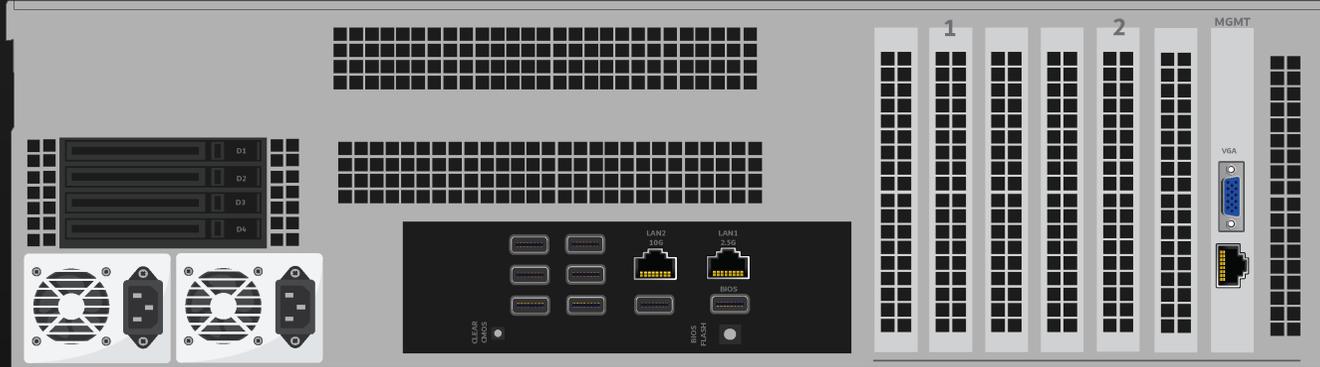
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AMD RYZEN 9

ACE 3120-RZX

2U Vertical

CPU	AMD Ryzen 9950X3D
CPU Frequency	up to 16 Cores @ 5.4GHz (SSE)
Cache	128 MB
Chipset	AM5
RAM	Up to 128GB DDR5 ECC UDIMM (Overclocked)
PCIe	Slot 1 - x16 (Physical) / x16 (Electrical) - HHFL *Only x8 Electrical if Slot 2 populated Slot 2 - x16 (Physical) / x8 (Electrical) - HHFL
LAN	1* RJ45 10GBe - Marvell 1* RJ45 2.5GBE - Intel 1* RJ45 1GBe - Dedicated IPMI (AST 2500)
Rear I/O	4* USB 3.0 1* VGA
RAID	Onboard RAID 0, 1, 5, 10 Optional Hardware RAID 0,00,1,10 - no cache Optional Hardware RAID 0,00,1,10,5,6,60 - 4GB cache
Storage	4 x 2.5" SATA OR 2 x 2.5" NVMe hot-swap caddy 3 x M.2 Socket M

OS Compatibility	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
Management Tools	AMI SCE Redfish
PSU	1300W Dual Redundant (1+1) 200-240V~ 8A MAX. 60-50Hz
Power Connectors	IEC C13/C14
Avg. Power Usage	150W (Idle) 500W (Load) Power draw based on synthetic load, not including add-in cards.
Operating Temperature	10°C - 27°C (50°F - 80°F)
Dimensions	System: 88 x 438 x 720mm (H x W x D) Boxed: 270 x 580 x 990mm (H x W x D)
Chassis Weight	System: 20KG Boxed: 25KG
Rail Kit	Drop in
Certifications	UKCA, CE
Export Code	HTS-84715000

ACE 3130-RZX

3U Vertical

CPU	AMD Ryzen 9950X3D
CPU Frequency	up to 16 Cores @ 5.4GHz (SSE)
Cache	128 MB
Chipset	AM5
RAM	Up to 128GB DDR5 ECC UDIMM (Overclocked)
PCIe	Slot 1 - x16 (Physical) / x16 (Electrical) - FHFL D. Wide *Only x8 Electrical if Slot 2 populated Slot 2 - x16 (Physical) / x8 (Electrical) - FHFL
LAN	1* RJ45 10GBe - Marvell 1* RJ45 2.5GBE - Intel 1* RJ45 1GBe - Dedicated IPMI (AST 2500)
Rear I/O	2* USB 3.0 1* VGA
RAID	Onboard RAID 0, 1, 5, 10 Optional Hardware RAID 0,00,1,10 - no cache Optional Hardware RAID 0,00,1,10,5,6,60 - 4GB cache
Storage	4 x 2.5" SATA OR 2 x 2.5" NVMe hot-swap caddy 3 x M.2 Socket M

OS Compatibility	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
Management Tools	AMI SCE Redfish
PSU	1300W Dual Redundant (1+1) 200-240V~ 8A MAX. 60-50Hz
Power Connectors	IEC C13/C14
Avg. Power Usage	150W (Idle) 500W (Load) Power draw based on average load, not including add-in cards.
Operating Temperature	10°C - 27°C (50°F - 80°F)
Dimensions	System: 132 x 438 x 720mm (H x W x D) Boxed: 270 x 580 x 990mm (H x W x D)
Chassis Weight	System: 25KG Boxed: 30KG
Rail Kit	Premium or Short
Certifications	UKCA, CE
Export Code	HTS-84715000

Specification Comparison

	3120-RZX	3130-RZX
Form Factor	2U	3U
Dimensions (H x W x D)	88 x 438 x 720mm	132 x 438 x 720mm
PCIe Compatibility	2 * Half Height PCIe x16 (physical)	2 * Full Height PCIe x16 (physical)
PSU	1300W	1300W
Clock Speed	5.4GHz	5.4GHz

Benchmarks

32GB. 4.18 Kernel	9950X3D Stock	9950X3D Blackcore
mlc -r --latency_matrix (ns) [Lower is better]	93.2	66.2
PCIe Latency - slot1 (ns) [Lower is better]	415	409
C2C Lat - Local CCD (avg. ns) [Lower is better]	43	43
C2C Lat - Remote CCD (avg. ns) [Lower is better]	177	160
All-core Clock-speed (SSE, GHz) [Higher is better]	4.5	5.4
Peak IPC (perf, prime95 smallFFT, SSE) [Higher is better]	2.3	4.25

"Stock" is AMD's default specification with no adjustments. This includes HT on.