

ACE 3100-RZ

16

CPU
CORES

5.4

GHz
CLOCKSPEED

192

GB
RAM

The Blackcore ACE range is an overclocked, liquid-cooled server platform for AMD CPUs. Generating ultimate performance for low latency use cases.

The 3100-RZ series focuses on AMD Ryzen 9950X and boasts 16 Cores overclocked 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 more cache, or reliability of overclocked ECC RAM.



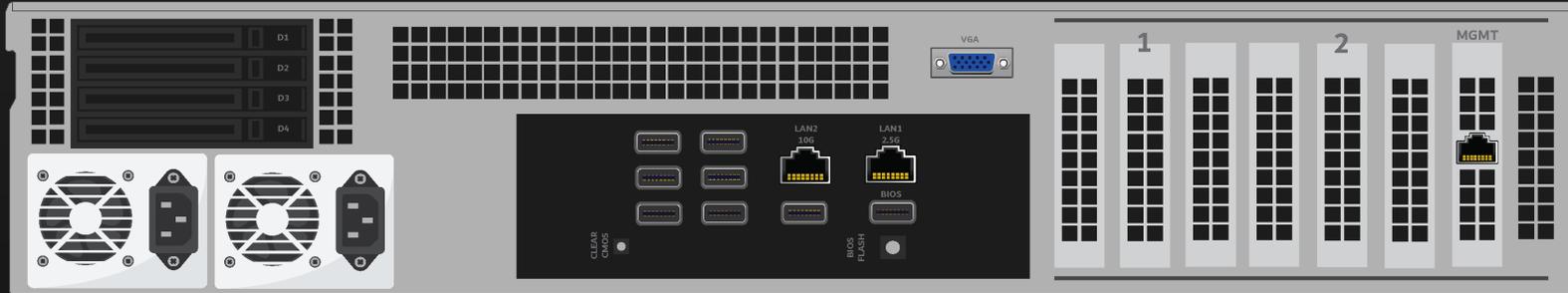
HTS-84715000  

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ACE 3120-RZ

2U Vertical

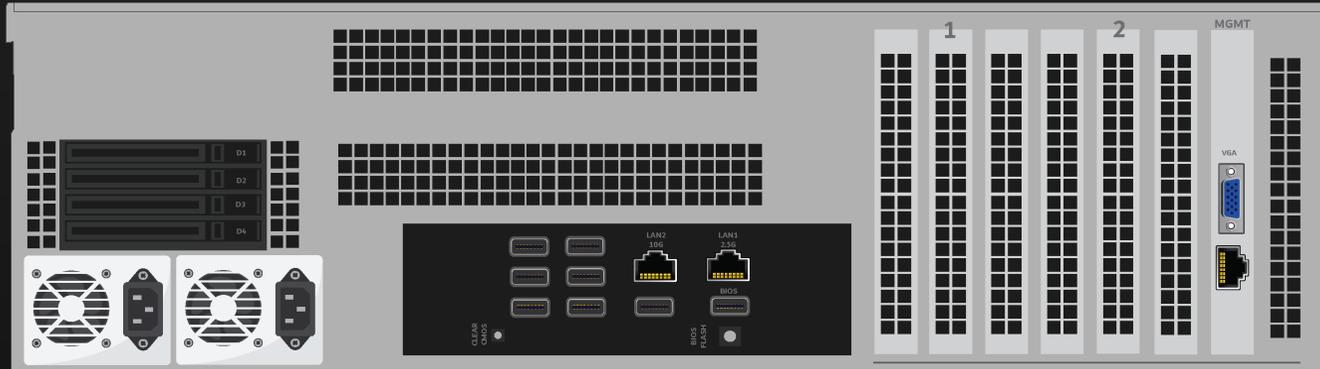


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|----------------------|--|
| CPU | AMD Ryzen 9950X |
| CPU Frequency | up to 16 Cores @ 5.4GHz (SSE) |
| Cache | 64 MB |
| Chipset | AM5 |
| RAM | Up to 192GB DDR5 ECC UDIMM |
| PCIe | Slot 1 - x16 (Physical) / x16 (Electrical) - HHHH *Only x8 Electrical if Slot 2 populated Slot 2 - x16 (Physical) / x8 (Electrical) - HHHH |
| 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) 400W (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 | Premium or Short |
| Certifications | UKCA, CE |
| Export Code | HTS-84715000 |

ACE 3130-RZ

3U Vertical



| | |
|----------------------|--|
| CPU | AMD Ryzen 9950X |
| CPU Frequency | up to 16 Cores @ 5.4GHz [SSE] |
| Cache | 64 MB |
| Chipset | AM5 |
| RAM | Up to 192GB DDR5 ECC UDIMM |
| 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] 400W [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-RZ | 3130-RZ |
|---------------------------|-------------------------------------|-------------------------------------|
| 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 | 9950X Stock | 9950X Blackcore |
|---|----------------|--------------------|
| mlc -r --latency_matrix (ns) [Lower is better] | 92.6 | 66.2 |
| PCIe Latency - slot1 (ns) [Lower is better] | 423 | 410 |
| C2C Lat - Local CCD (avg. ns) [Lower is better] | 43 | 43 |
| C2C Lat - Remote CCD (avg. ns) [Lower is better] | 177 | 165 |
| All-core Clock-speed (SSE, GHz) [Higher is better] | 4.7 | 5.4 |
| Peak IPC (prime95, SSE) [Higher is better] | 4.5 | 5.2 |