

ICON 3100-RL+

8

CPU
CORES

5.9

GHz
CLOCKSPEED

128

GB
RAM

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

Featuring the Intel® Core™ i9 processor 14900KS, this is the fastest ever all-core Blackcore overclocked server, specializing in extreme ultra-low latency for rapid response tick-to-trade workloads.

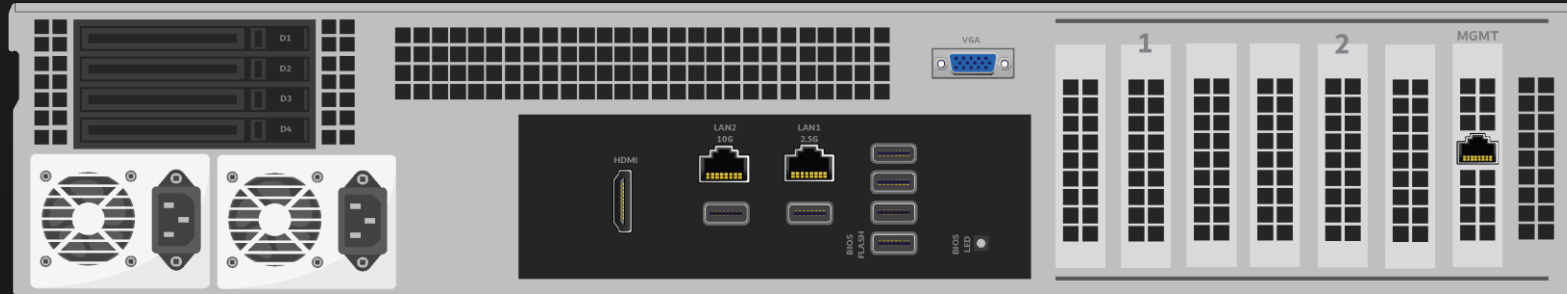


HTS-84715000  

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ICON 3122-RL+

2U Vertical

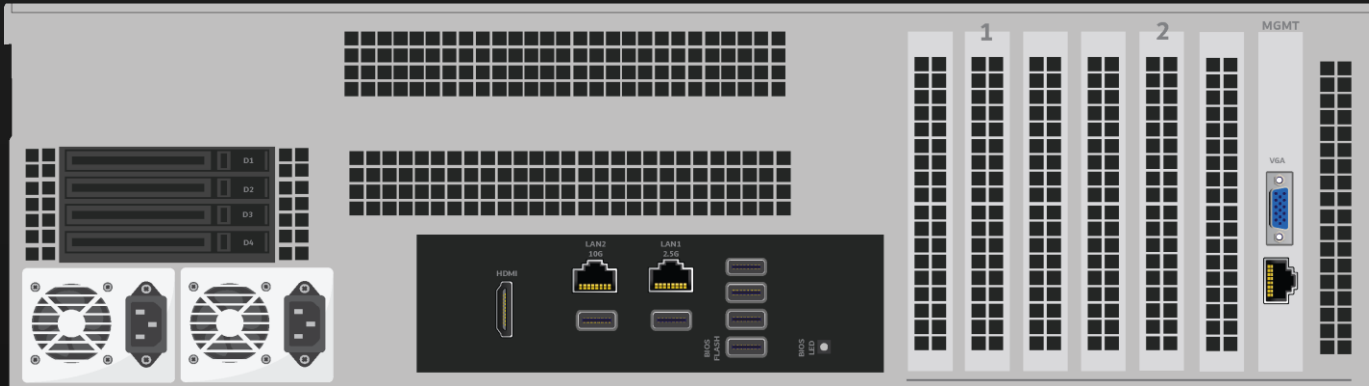


CPU	Intel® Core™ i9 processor 14900KS
CPU Frequency	Up to 8 P-Cores @ 5.9GHz [SSE] Up to 8 E-Cores @ 4.3GHz [SSE]
Cache	36MB @ up to 5.0GHz
Chipset	Z790
RAM	Up to 128GB DDR5 OC UDIMM
PCIe	Slot 1 - x16 (Physical) / x16 (Electrical) - HHHL *Only x8 Electrical if Slot 2 populated Slot 2 - x16 (Physical) / x8 (Electrical) - HHHL
LAN	1* RJ45 2.5GBe - Intel® 1* RJ45 10Gbe - Marvell® AQtion 1* RJ45 1GBe - Dedicated IPMI (AST 2600)
Rear I/O	6* 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 4 x M.2 Socket M

OS Compatibility	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
Management Tools	AMI SCE Redfish
PSU	2000W Dual Redundant (1+1) 230-240V~ 10A MAX. 60-50Hz
Power Connectors	IEC C15/C16
Avg. Power Usage	300W (Idle) 600W (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 990 x 580mm (H x W x D)
Chassis Weight	System: 20KG Boxed: 25KG
Rail Kit	Premium or Short
Certifications	UKCA, CE
Export Code	HTS-84715000

ICON 3132-RL+

3U Vertical



CPU	Intel® Core™ i9 processor 14900KS
CPU Frequency	Up to 8 P-Cores @ 5.9GHz (SSE) Up to 8 E-Cores @ 4.3GHz (SSE)
Cache	36MB @ up to 5.0GHz
Chipset	Z790
RAM	Up to 128GB DDR5 OC UDIMM
PCIe	Slot 1 - x16 (Physical) / x16 (Electrical) - FHFL *Only x8 Electrical if Slot 2 populated Slot 2 - x16 (Physical) / x8 (Electrical) - FHFL
LAN	1* RJ45 2.5GBe - Intel® 1* RJ45 10Gbe - Marvell® AQtion 1* RJ45 10Be - Dedicated IPMI (AST 2600)
Rear I/O	6* 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 4 x M.2 Socket M

OS Compatibility	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
Management Tools	AMI SCE Redfish
PSU	2000W Dual Redundant (1+1) 230-240V~ 10A MAX. 60-50Hz
Power Connectors	IEC C15/C16
Avg. Power Usage	300W (Idle) 600W (Load) Power draw based on synthetic 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 990 x 580mm (H x W x D)
Chassis Weight	System: 20KG Boxed: 25KG
Rail Kit	Premium or Short
Certifications	UKCA, CE
Export Code	HTS-84715000

Specification Comparison

	ICON 3122-RL+	ICON 3132-RL+
Form Factor	2U	3U
Dimensions (H x W x D)	88 x 438 x 720mm	132 x 438 x 720mm
PCIe Compatibility	2* x16 (Physical) HHFL	2* x16 (Physical) FHFL
PCIe Orientation	Vertical	Vertical
PSU	2000W	2000W
Clock Speed	Up to 8 P-Cores @ 5.9GHz (SSE) Up to 8 E-Cores @ 4.3GHz (SSE)	Up to 8 P-Cores @ 5.9GHz (SSE) Up to 8 E-Cores @ 4.3GHz (SSE)

Benchmarks

64GB, 4.18 Kernel	14900KS Stock	14900KS - P-Core Only Blackcore	14900KS - P-Core + E-Core Blackcore
m1c -r --latency_matrix (ns) [Lower is better]	89.3	61.6	62.1
L2->L2 HIT (ns) [Lower is better]	32-34	31.2	34
PCIe Latency - slot1 (ns) [Lower is better]	423	415	415
All-core Clock-speed (SSE, GHz) [Higher is better]	P-Core = 5.5 E-Core = 4.2	P-Core = 5.9	P-Core = 5.8 E-Core = 4.3
Peak IPC (prime95, SSE) [Higher is better]	P-Core = 3.7 E-Core = 2.4	P-Core = 4.9	P-Core = 4.6 E-Core = 2.4