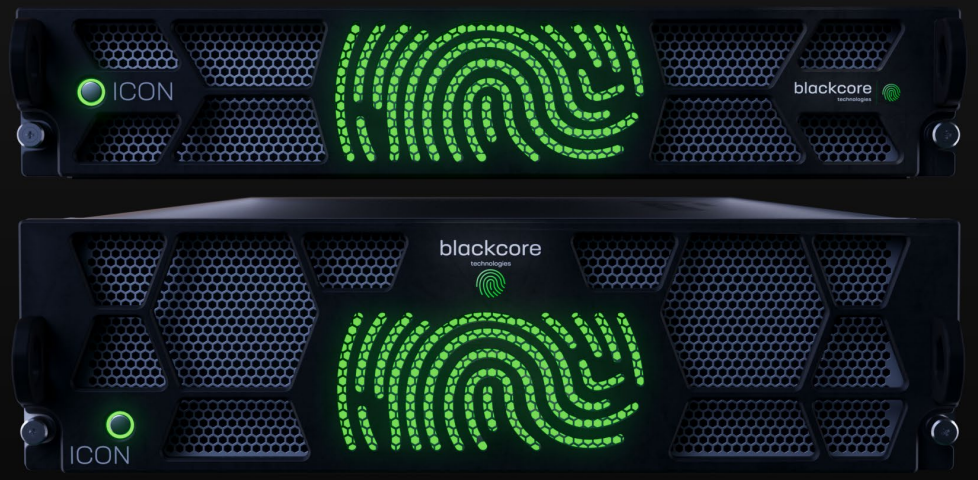
ICON 3100-SM+

blackcore technologies

26	4.7	512
CPU CORES	GHz CLOCKSPEED	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® Xeon® w7-2595X - based on the popular "Sapphire Rapids" architecture - this is a refresh to our incredibly popular "SPR-M" system and features two additional CPU cores. This is the perfect mid-core-count system that excels in most electronic trading scenarios.



HTS-84715000

intel XEON w7

intel partner Titanium

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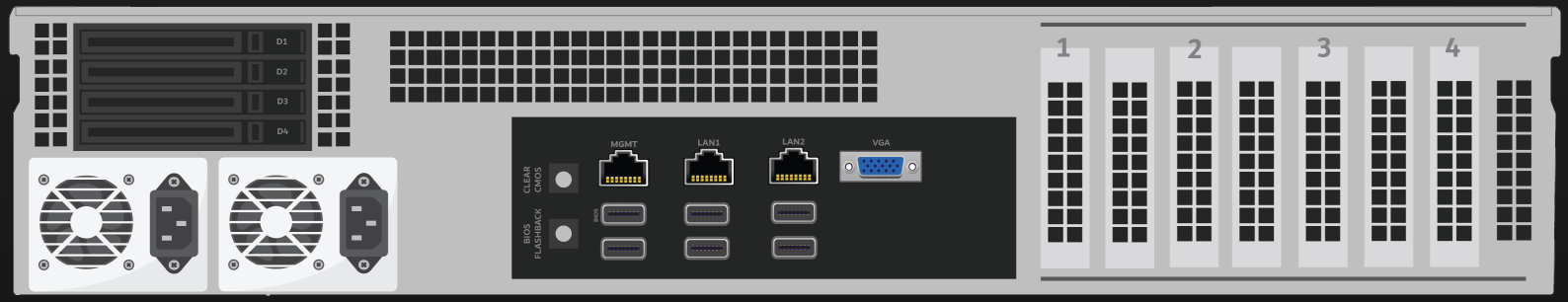
ICON 3122-SM+

2U Vertical

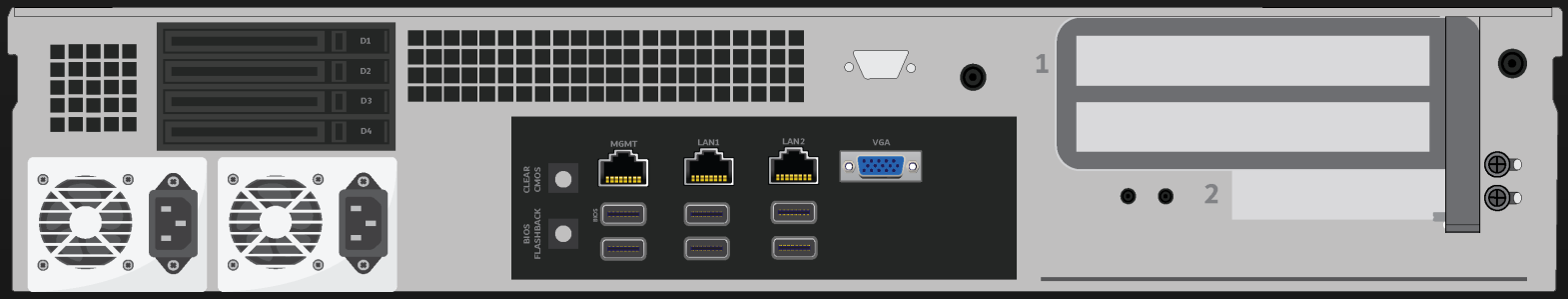


CPU	Intel® Xeon® w7-2595X
CPU Frequency	Up to 26 Cores @ 4.7GHz (all-core) SSE
Cache	48.75MB @ up to 3.2GHz
Chipset	W790
RAM	Up to 512GB of DDR5 ECC RDIMM Up to 384GB Overclocked ECC RDIMM
PCIe	Slot 1 - Physical x16, Electrical x16, HHFL Double Width Slot 2 - Physical x16, Electrical x16, HHFL Double Width Slot 3 - Physical x16, Electrical x16, HHFL Double Width Slot 4 - Physical x16, Electrical x16, HHFL Single Width
LAN	2 x RJ45 Intel® X710 - 10Gb Ethernet 1 x RJ45 Dedicated IPMI LAN (AST 2600)
Rear I/O	1 x VGA 6 x USB Ports
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 1 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	500W (Idle) 1000W (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

ICON 3123-SM+

2U Horizontal



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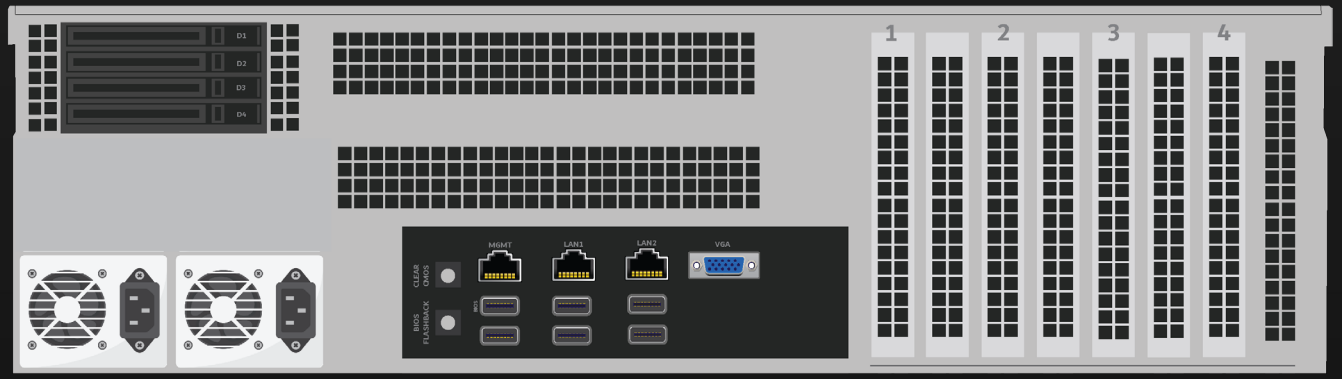
Cache	48.75MB @ up to 3.2GHz
Chipset	W790
RAM	Up to 512GB of DDR5 ECC RDIMM Up to 384GB Overclocked ECC RDIMM
PCIe	Slot 1 - Physical x16, Electrical x16, FHFL Double Width Slot 2 - Physical x16, Electrical x16, HHFL Double Width
LAN	2 x RJ45 Intel® X710 - 10Gb Ethernet 1 x RJ45 Dedicated IPMI LAN (AST 2600)
Rear I/O	1 x VGA 6 x USB Ports
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 1 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	500W (Idle) 1000W (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

ICON 3132-SM+

3U Vertical



CPU	Intel® Xeon® w7-2595X
CPU Frequency	Up to 26 Cores @ 4.7GHz (all-core) SSE
Cache	48.75MB @ up to 3.2GHz
Chipset	W790
RAM	Up to 512GB of DDR5 ECC RDIMM Up to 384GB Overclocked ECC RDIMM
PCIe	Slot 1 - Physical x16, Electrical x16, FHFL Double Width Slot 2 - Physical x16, Electrical x16, FHFL Double Width Slot 3 - Physical x16, Electrical x16, FHFL Double Width Slot 4 - Physical x16, Electrical x16, FHFL Single Width
LAN	2 x RJ45 Intel® X710 - 10Gb Ethernet 1 x RJ45 Dedicated IPMI LAN (AST 2600)
Rear I/O	1 x VGA 6 x USB Ports
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 1 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	500W (Idle) 1000W (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 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

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Specification Comparison

	ICON 3122-SM+	ICON 3123-SM+	ICON 3132-SM+
Form Factor	2U	2U	3U
Dimensions (H x W x D)	88 x 438 x 720mm	88 x 438 x 720mm	132 x 438 x 720mm
PCIe Compatibility	4* x16 (Physical) HHFL	1* x16 (Physical) FHFL 1* x16 (Physical) HHFL	4* x16 (Physical) FHFL
PCIe Orientation	Vertical	Horizontal	Vertical
PSU	2000W	2000W	2000W
Clock Speed	Up to 26 Cores @ 4.7GHz (SSE)	Up to 26 Cores @ 4.7GHz (SSE)	Up to 26 Cores @ 4.7GHz (SSE)

Benchmarks

128GB. 4.18 Kernel	2595X Stock	2595X Blackcore
mlc -r --latency_matrix (ns) [Lower is better]	102.3	73.5
L2->L2 HIT (ns) [Lower is better]	62.3	46.1
PCIe Latency - slot1 (ns) [Lower is better]	432	404
All-core Clock-speed (SSE, GHz) [Higher is better]	3.5	4.8
Peak IPC (prime95, SSE, per thread) [Higher is better]	2.3	4.9

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