

# ICON 3100-SM+

<b>26</b>	<b>4.7</b>	<b>512</b>
CPU	GHz	GB
<b>CORES</b>	<b>CLOCKSPEED</b>	<b>RAM</b>

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.



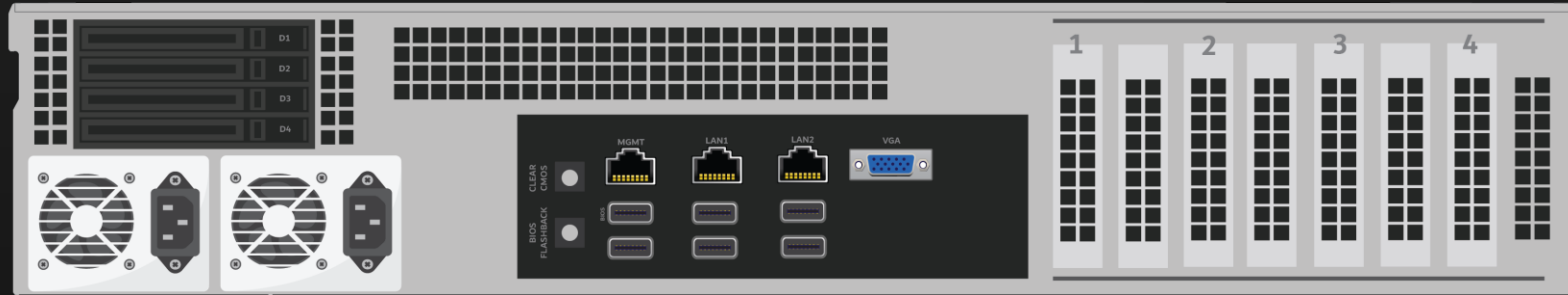
HTS-84715000  



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# ICON 3122-SM+

2U Vertical

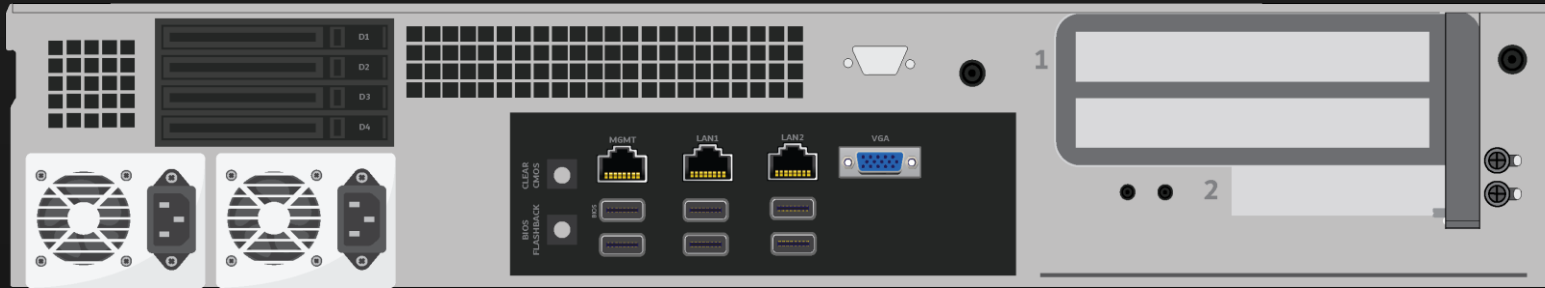


<b>CPU</b>	Intel® Xeon® w7-2595X
<b>CPU Frequency</b>	Up to 26 Cores @ 4.7GHz (all-core) SSE
<b>Cache</b>	48.75MB @ up to 3.2GHz
<b>Chipset</b>	W790
<b>RAM</b>	Up to 512GB of DDR5 ECC RDIMM Up to 192GB Overclocked ECC RDIMM
<b>PCIe</b>	Slot 1 - Physical x16, Electrical x16, HHFL Double Width Slot 2 - 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
<b>LAN</b>	2 x RJ45 Intel® X710 - 10Gb Ethernet 1 x RJ45 Dedicated IPMI LAN (AST 2600)
<b>Rear I/O</b>	1 x VGA 6 x USB Ports
<b>RAID</b>	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
<b>Storage</b>	4 x 2.5" SATA <b>OR</b> 2 x 2.5" NVMe hot-swap caddy 4 x M.2 Socket M

<b>OS Compatibility</b>	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
<b>Management Tools</b>	AMI SCE Redfish
<b>PSU</b>	2000W Dual Redundant (1+1) 230-240V~10A MAX. 60-50Hz
<b>Power Connectors</b>	IEC C15/C16
<b>Avg. Power Usage</b>	500W (Idle) 1000W (Load) Power draw based on synthetic load, not including add-in cards.
<b>Operating Temperature</b>	10°C - 27°C (50°F - 80°F)
<b>Dimensions</b>	System: 88 x 438 x 720mm (H x W x D) Boxed: 270 x 990 x 580mm (H x W x D)
<b>Chassis Weight</b>	System: 20KG Boxed: 25KG
<b>Rail Kit</b>	Premium or Short
<b>Certifications</b>	UKCA, CE
<b>Export Code</b>	HTS-84715000

# ICON 3123-SM+

2U Horizontal

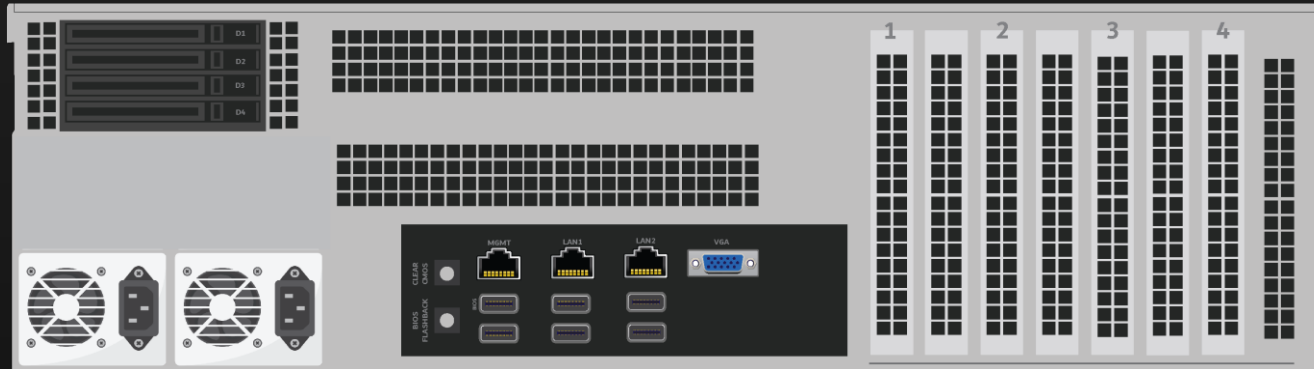


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<b>PCIe</b>	Slot 1 - Physical x16, Electrical x16, FHFL Double Width Slot 2 - Physical x16, Electrical x16, HHFL Double Width
<b>LAN</b>	2 x RJ45 Intel® X710 - 10Gb Ethernet 1 x RJ45 Dedicated IPMI LAN (AST 2600)
<b>Rear I/O</b>	1 x VGA 6 x USB Ports
<b>RAID</b>	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
<b>Storage</b>	4 x 2.5" SATA <b>OR</b> 2 x 2.5" NVMe hot-swap caddy 4 x M.2 Socket M

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<b>Operating Temperature</b>	10°C - 27°C (50°F - 80°F)
<b>Dimensions</b>	System: 88 x 438 x 720mm (H x W x D) Boxed: 270 x 990 x 580mm (H x W x D)
<b>Chassis Weight</b>	System: 20KG Boxed: 25KG
<b>Rail Kit</b>	Premium or Short
<b>Certifications</b>	UKCA, CE
<b>Export Code</b>	HTS-84715000

# ICON 3132-SM+

3U Vertical



<b>CPU</b>	Intel® Xeon® w7-2595X
<b>CPU Frequency</b>	Up to 26 Cores @ 4.7GHz (all-core) SSE
<b>Cache</b>	48.75MB @ up to 3.2GHz
<b>Chipset</b>	W790
<b>RAM</b>	Up to 512GB of DDR5 ECC RDIMM Up to 192GB Overclocked ECC RDIMM
<b>PCIe</b>	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
<b>LAN</b>	2 x RJ45 Intel® X710 - 10Gb Ethernet 1 x RJ45 Dedicated IPMI LAN (AST 2600)
<b>Rear I/O</b>	1 x VGA 6 x USB Ports
<b>RAID</b>	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
<b>Storage</b>	4 x 2.5" SATA OR 2 x 2.5" NVMe hot-swap caddy 4 x M.2 Socket M

<b>OS Compatibility</b>	Minimum - RHEL 7.8+ Recommended - RHEL 9.1+
<b>Management Tools</b>	AMI SCE Redfish
<b>PSU</b>	2000W Dual Redundant (1+1) 230-240V~ 10A MAX. 60-50Hz
<b>Power Connectors</b>	IEC C15/C16
<b>Avg. Power Usage</b>	500W (Idle) 1000W (Load) Power draw based on synthetic load, not including add-in cards.
<b>Operating Temperature</b>	10°C - 27°C (50°F - 80°F)
<b>Dimensions</b>	System: 132 x 438 x 720mm (H x W x D) Boxed: 270 x 990 x 580mm (H x W x D)
<b>Chassis Weight</b>	System: 25KG Boxed: 30KG
<b>Rail Kit</b>	Premium or Short
<b>Certifications</b>	UKCA, CE
<b>Export Code</b>	HTS-84715000

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# Specification Comparison

	ICON 3122-SM+	ICON 3123-SM+	ICON 3132-SM+
<b>Form Factor</b>	2U	2U	3U
<b>Dimensions</b> (H x W x D)	88 x 438 x 720mm	88 x 438 x 720mm	132 x 438 x 720mm
<b>PCIe Compatibility</b>	4* x16 (Physical) HHFL	1* x16 (Physical) FHFL 1* x16 (Physical) HHFL	4* x16 (Physical) FHFL
<b>PCIe Orientation</b>	Vertical	Horizontal	Vertical
<b>PSU</b>	2000W	2000W	2000W
<b>Clock Speed</b>	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