

CPU Inference Engines:	Xeon® 2124G	Xeon® W1290P	Xeon® Silver 4216R	Xeon® Gold 5218T
Motherboard	ASUSTeK COMPUTER INC. / WS C246 PRO	ASUSTeK COMPUTER INC. / Pro WS W480-ACE	Intel Corporation / S2600STB	Intel Corporation / S2600STB
CPU	Intel® Xeon® E-2124G CPU @ 3.40GHz	Intel® Xeon® W-1290P CPU @ 3.70GHz	Intel® Xeon® Silver 4216R CPU @ 2.20GHz	Intel® Xeon® Gold 5218T CPU @ 2.10GHz
Hyper Threading	off	on	on	on
Turbo Setting	on	on	on	on
Memory	2 x 16 GB DDR4 2666MHz	4 x 16 GB DDR4 @ 2666 MHz.	12 x 32 GB DDR4 2666MHz	12 x 32 GB DDR4 2666MHz
Operating System	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.3 LTS
Kernel version	5.4.0-42-generic	5.4.0-42-generic	5.3.0-24-generic	5.3.0-24-generic
BIOS Vendor	American Megatrends Inc.	American Megatrends Inc.	Intel Corporation	Intel Corporation
BIOS Version	1901	2302	SE5C620.86B.02.01.0013.121520200651	SE5C620.86B.02.01.0013.121520200651
BIOS Release	9/24/2021	7/8/2021	12/15/2020	12/15/2020
Batch size	Auto-batching	Auto-batching	Auto-batching	Auto-batching
Precision	INT8/FP32	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	Automatic	Automatic	Automatic	Automatic
Test Date	12/13/2022	12/13/2022	12/13/2022	12/13/2022
Power dissipation/socket, TDP in Watt	<a href="#">71</a>	<a href="#">125</a>	<a href="#">125</a>	<a href="#">105</a>
CPU Price on 12/13/2022, Prices may vary	<a href="#">\$249</a>	<a href="#">\$594</a>	<a href="#">\$1,002</a>	<a href="#">\$1,572</a>

CPU Inference Engines:	Xeon® Platinum 8270	Intel® Xeon® Platinum 6336Y	Intel® Xeon® Platinum 6448Y	Core i3-8100
Motherboard	Intel Corporation / S2600STB	Intel Corporation / Whitley E63448-400	Intel Corporation / Archer City	Gigabyte Technology Co., Ltd. / Z390 UD
CPU	Intel® Xeon® Platinum 8270 CPU @ 2.70GHz	Intel(R) Xeon(R) Gold 6336Y CPU @ 2.40GHz	Intel(R) Xeon(R) Gold 6448Y CPU @ 2.10GHz	Intel® Core™ i3-8100 CPU @ 3.60GHz
Hyper Threading	on	on	on	off
Turbo Setting	on	on	on	off
Memory	12 x 32 GB DDR4 2933MHz	8 x 16 GB DDR4 3200MHz	16 x 16 GB DDR5 4800MHz	4 x 8 GB DDR4 2400MHz
Operating System	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.5 LTS	Ubuntu* 22.04.1 LTS	Ubuntu* 20.04.3 LTS
Kernel version	5.3.0-24-generic	5.15.47+prerelease4158	5.15.0-058-generic	5.4.0-42-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation	American Megatrends Inc.
BIOS Version	SE5C620.86B.02.01.0009.092820190230	SE5C6200.86B.0027.P15.2205121306	EGSDCRB1.SYS.9207.P03.2211041115	F8
BIOS Release	9/28/2019	5/12/2022	11/4/2022	5/24/2019
Batch size	Auto-batching	Auto-batching	Auto-batching	Auto-batching
Precision	INT8/FP32	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	Automatic	Automatic	Automatic	Automatic
Test Date	12/13/2022	12/13/2022	1/14/2023	12/13/2022
Power dissipation/socket, TDP in Watt	<a href="#">205</a>	<a href="#">185</a>	<a href="#">225</a>	<a href="#">65</a>
CPU Price on 12/13/2022, Prices may vary	<a href="#">\$8,477</a>	<a href="#">\$2,339</a>	<a href="#">\$3,583</a>	<a href="#">\$117</a>

CPU Inference Engines:	Core i5-8500	Core i5-10500TE	Core i7-8700T	Core i9-12900K
Motherboard	ASUSTeK COMPUTER INC. / PRIME Z370-A	Gigabyte Technology Co., Ltd. / Z490 AORUS PRO AX	Gigabyte Technology Co., Ltd. / Z370M DS3H-CF	Intel Corporation Alder Lake Client Platform
CPU	Intel® Core™ i5-8500 CPU @ 3.00GHz	Intel® Core™ i5-10500TE CPU @ 2.30GHz	Intel® Core™ i7-8700T CPU @ 2.40GHz	Intel® Core™ i9-12900K CPU @ 2.40GHz
Hyper Threading	off	on	on	on
Turbo Setting	on	on	on	on
Memory	2 x 16 GB DDR4 2666MHz	2 x 16 GB DDR4 @ 2666 MHz	4 x 16 GB DDR4 2400MHz	4 x 8 GB DDR5 4800MHz
Operating System	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.3 LTS	Ubuntu* 22.04.1 LTS
Kernel version	5.4.0-42-generic	5.4.0-42-generic	5.4.0-42-generic	5.15.0-56-generic
BIOS Vendor	American Megatrends Inc.	American Megatrends Inc.	American Megatrends Inc.	American Megatrends Inc.
BIOS Version	3004	F21	F14c	ADLSFW11.R00.2257.A01.2106221245
BIOS Release	7/12/2021	11/23/2021	3/23/2021	6/22/2021
Batch size	Auto-batching	Auto-batching	Auto-batching	Auto-batching
Precision	INT8/FP32	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	Automatic	Automatic	Automatic	Automatic
Test Date	12/13/2022	12/13/2022	12/13/2022	12/13/2022
Power dissipation/socket, TDP in Watt	<a href="#">65</a>	<a href="#">35</a>	<a href="#">35</a>	<a href="#">165</a>
CPU Price on 12/13/2022, Prices may vary	<a href="#">\$192</a>	<a href="#">\$214</a>	<a href="#">\$303</a>	<a href="#">\$658</a>

CPU Inference Engines:	Core i9-10900TE	TGL-UP3	Atom x5-E3940	Intel® Atom® x6425RE
Motherboard	iEi / B595	NUC11TNBi7		Intel Corporation / ElkhartLake LPDDR4x T3 CRB
CPU	Intel® Core™ i9-10900TE CPU @ 1.80GHz	11th Gen Intel(R) Core(TM) i7-1165G7 @ 2.80GHz	Intel(R) Atom(TM) Processor E3940 @ 1.60GHz	Intel Atom(R) x6425RE Processor @ 1.90GHz
Hyper Threading	on	on	off	off
Turbo Setting	on	on	on	on
Memory	2 x 8 GB DDR4 @ 2400 MHz	2 x 32 GB DDR4 3200MHz	1 x 8 GB DDR3 1600MHz	2 x 4 GB LPDDR4 3200MHz
Operating System	Ubuntu* 18.04 LTS	Ubuntu* 20.04.5 LTS	Ubuntu* 20.04.3 LTS	Ubuntu 18.04.5 LTS
Kernel version	5.8.0-05-generic	5.15.0-53-generic	5.4.0-42-generic	5.8.0-050800-generic
BIOS Vendor	American Megatrends Inc.	Intel Corporation	American Megatrends Inc.	Intel Corporation
BIOS Version	Z667AR10	TNTGL357.0042.2020.1221.1743	5.12	EHLFSW11.R00.3382.A06.2109291614
BIOS Release	7/15/2020	12/21/2020	9/6/2017	9/29/2021
Batch size	1	Auto-batching	Auto-batching	Auto-batching
Precision	INT8	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	5	Automatic	Automatic	Automatic
Test Date	12/13/2022	12/13/2022	12/13/2022	12/13/2022
Power dissipation/socket, TDP in Watt	<a href="#">35</a>	<a href="#">28</a>	<a href="#">9.5</a>	<a href="#">12</a>
CPU Price on 12/13/2022, Prices may vary	<a href="#">\$544</a>	<a href="#">\$469</a>	<a href="#">\$34</a>	<a href="#">\$67</a>

CPU Inference Engines:	Intel® Celeron® 6305E	Core i5-13600K	Core i9-12900K
Motherboard	Intel Corporation / TigerLake U DDR4 SODIMM RVP	Intel Corporation NUC13SBBi5 / M89887-303	Intel Corporation Alder Lake Client Platform
CPU	Intel(R) Celeron(R) 6305E @ 1.80GHz	Intel® Core™ i5-13600K CPU @ 3.5 GHz	Intel® Core™ i9-13900K CPU @ 3.0GHz
Hyper Threading	off	on	on
Turbo Setting	on	on	on
Memory	2 x 8 GB DDR4 3200MHz	2 x 32 GB DDR5 4800MHz	2 x 32 GB DDR5 4800MHz
Operating System	Ubuntu 20.04.5 LTS	Ubuntu* 22.04.6 LTS	Ubuntu* 22.04.6 LTS
Kernel version	5.15.0-53-generic	5.15.0-67-generic	5.15.0-67-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation
BIOS Version	TGLIFUI1.R00.4391.A03.2201140438	SBRPL579.0053.2022.1125.0101	SBRPL579.0053.2022.1125.0101
BIOS Release	1/14/2022	11/25/2022	11/25/2022
Batch size	Auto-batching	Auto-batching	Auto-batching
Precision	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	Automatic	Automatic	Automatic
Test Date	12/13/2022	3/17/2023	3/17/2023
Power dissipation/socket, TDP in Watt	<a href="#">15</a>	<a href="#">125</a>	<a href="#">125</a>
CPU Price on 4/7/2023, Prices may vary	<a href="#">\$118</a>	<a href="#">\$574</a>	<a href="#">\$329</a>

GPU Inference Engines:	Data Center GPU	GPU Inference Engines:	Discrete GPU	Discrete GPU
GPU	Flex-170	GPU	Arc A40 Pro	Arc A50 Pro
Connection	PCIe G4, 1x16	Connection	PCIe G4, 1x16	PCIe G4, 1x16
Precision	FP32, INT8	Precision	INT8/FP16	INT8/FP16
Number of concurrent inference requests	Automatic	Number of concurrent inference requests	Automatic	Automatic
Memory	16 GB DDR6 0.7 TB/s	Memory	6 GB GDDR6, 16 Gbps, 1550 MHz	6 GB GDDR6, 16 Gbps, 2050 MHz
HPC & AI	FP32, FP16, BF16, INT8, INT4	Encode / Decode	H.264, H.265, AV1, VP9 Bitstrm	H.264, H.265, AV1, VP9 Bitstrm
Form Factor	3/4L Full Heighth, Passively cooled	Form Factor	3/4L Full Heighth, Passively cooled	3/4L Full Heighth, Passively cooled
Cache L3	16 MB	I/O spec	4 Displs, HDMI (4K), DP (8K)	4 Displs, HDMI (4K), DP (8K)
EUs	512	EUs	128	128
Device ID	8086-56C0	Device ID	8086-56B1	8086:56B1
Test Date	12/13/2022	Test Date	3/27/2023	3/27/2023
TBP	<a href="#">150 W</a>	TBP	<a href="#">50W</a>	<a href="#">75</a>
GPU Price on 12/20/2022, Prices may vary	<a href="#">\$1,925</a>	GPU Price on 06/16/2023, Prices may vary	<a href="#">n/a</a>	<a href="#">n/a</a>
Host Machine	CYP M50CYP2SBSTD	Host Machine	NUC13RNGi9	NUC13RNGi9
Motherboard	Intel Corporation Coyote Pass M50CYP2SBSTD	Motherboard	NUC13SBBi9, M58736-302	NUC13SBBi9, M58736-302
CPU	Intel® Xeon® Gold 6338 CPU @ 2.00GHz	CPU	Intel® Core™ i9-13900K	Intel® Core™ i9-13900K
Hyper Threading	on	Hyper Threading	on	on
Turbo Setting	on	Turbo Setting	on	on
Memory	16 x 16 GB DDR4 3200MHz	Memory	2 x 16 GB DDR5 @ 4800 MT/s	2 x 16 GB DDR5 @ 4800 MT/s
Operating System	Ubuntu 22.04.1 LTS	Operating System	Ubuntu 22.04.2 LTS	Ubuntu 22.04.2 LTS
Kernel version	5.15.47+prerelease4056	Kernel version	5.17.0-1020-oem	5.17.0-1020-oem
BIOS Vendor	Intel Corporation	BIOS Vendor	Intel Corp.	Intel Corp.
BIOS Version	SE5C6200.86B.0020.P41.2109300305	BIOS Version	SBRPL579.0047.2022.1006.1728	SBRPL579.0047.2022.1006.1728
BIOS Release	2/16/2022	BIOS Release	10/6/2022	10/6/2022

GPU Inference Engines:	Discrete GPU	Discrete GPU
GPU	Arc A750	Arc A770
Connection	PCIe G4, 1x16	PCIe G4, 1x16
Precision	INT8/FP16	INT8/FP16
Number of concurrent inference requests	Automatic	Automatic
Memory	8 GB GDDR6	16 GB GDDR6
Encode / decode	H.264, H.265, AV1, VP9 Bitstrm	H.264, H.265, AV1, VP9 Bitstrm
Form Factor	3/4L Full Heighth, Passively cooled	3/4L Full Heighth, Passively cooled
I/O spec	4 Displs, HDMI (4K), DP (8K)	4 Displs, HDMI (4K), DP (8K)
EUs	448	512
Device ID	8086:56A1	8086:56A0
Test Date	3/27/2023	3/27/2023
TBP	<a href="#">225</a>	<a href="#">225</a>
GPU Price on 06/16/2023, Prices may vary	<a href="#">\$249</a>	<a href="#">\$340</a>
Host Machine	NUC13RNGi9	NUC13RNGi9
Motherboard	NUC13SBBi9, M58736-302	NUC13SBBi9, M58736-302
CPU	Intel® Core™ i9-13900K	Intel® Core™ i9-13900K
Hyper Threading	on	on
Turbo Setting	on	on
Memory	2 x 16 GB DDR5 @ 4800 MT/s	2 x 16 GB DDR5 @ 4800 MT/s
Operating System	Ubuntu 22.04.2 LTS	Ubuntu 22.04.2 LTS
Kernel version	5.17.0-1020-oem	5.17.0-1020-oem
BIOS Vendor	Intel Corp.	Intel Corp.
BIOS Version	SBRPL579.0047.2022.1006.1728	SBRPL579.0047.2022.1006.1728
BIOS Release	10/6/2022	10/6/2022