

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* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	6.2.0-31-generic	6.2.0-31-generic	6.5.0-41-generic	6.2.0-31-generic
BIOS Vendor	American Megatrends Inc.	American Megatrends Inc.	Intel Corporation	Intel Corporation
BIOS Version	1901	2301	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
NUMA nodes	1	1	2	2
Precision	INT8/FP32	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	4	10	32	32
Test Date	7/23/2024	7/23/2024	7/23/2024	7/23/2024
Power dissipation/socket, TDP in Watt	71	125	100	105
CPU Price on 7/23/2024, Prices may vary	\$249	\$594	\$1,011	\$1,572

CPU Inference Engines:	Xeon® Platinum 8270	Intel® Xeon® Silver 4316	Intel® Xeon® Platinum 8380	Intel® Xeon® Platinum 8490H
Motherboard	Intel Corporation / S2600STB	M50CYP2SB1U Coyote Pass	M50CYP2SB1U Coyote Pass	Intel Corporation / Archer City
CPU	Intel® Xeon® Platinum 8270 CPU @ 2.70GHz	Intel® Xeon® Silver 4316 CPU @ 2.30GHz	Intel® Xeon® Gold 8380 CPU @ 2.30GHz	Intel® Xeon® Gold 84890H CPU @ 1.9 GHz.
Hyper Threading	on	on	on	on
Turbo Setting	on	on	on	on
Memory	12 x 32 GB DDR4 2933MHz	16 x 16 GB DDR4 3200MHz	16 x 16 GB DDR4 3200MHz	16 x 16 GB DDR5 4800MHz
Operating System	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	6.5.0-41-generic	6.5.0-41-generic	6.5.0-41-generic	6.5.0-41-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation	Intel Corporation
BIOS Version	SE5C620.86B.02.01.0009.092820190230	SE5C620.86B.01.01.0006.2207150335	SE5C620.86B.01.01.0006.2207150335	EGSDREL1.SYS.9409.P31.2302280828
BIOS Release	9/28/2019	7/15/2022	7/15/2022	2/28/2023
NUMA nodes	2	2	2	2
Precision	INT8/FP32	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	52	40	80	120
Test Date	7/23/2024	7/23/2024	7/23/2024	7/23/2024
Power dissipation/socket, TDP in Watt	205	150	270	350
CPU Price on 7/23/2024, Prices may vary	\$8,477	\$1,137	\$9,359	\$17,000

CPU Inference Engines:	Xeon® Platinum 8580
Motherboard	Intel Corporation Archer City CRB
CPU	Intel® Xeon® Platinum 8580 CPU @ 2.0GHz
Hyper Threading	on
Turbo Setting	on
Memory	12 x 16 GB DDR5 5600MHz
Operating System	Ubuntu* 22.04.4 LTS
Kernel version	6.5.0-35-generic
BIOS Vendor	Intel Corporation
BIOS Version	EGSDREL1.SYS.1752.P05.2401050250
BIOS Release	1/5/2024
NUMA nodes	2
Precision	INT8/FP32
Number of concurrent inference requests	64
Test Date	7/23/2024
Power dissipation/socket, TDP in Watt	350
CPU Price on 7/23/2024, Prices may vary	\$10,710

CPU Inference Engines:	Elkhart Lake	Alder Lake N	Intel® Celeron® 6305E	Core i5-10500TE
Motherboard	Elkhart Lake DDR4 CRB	Alder Lake N DDR4 RVP	Intel Corporation / TigerLake U DDR4 SODIMM RVP	Gigabyte Technology Co., Ltd. / Z490 AORUS PRO AX
CPU	Intel® Atom x6425E @ 2.0GHz	12th Gen Intel® Atom™ x7425E @ 1.5 GHz	Intel® Celeron 6305E @ 1.80GHz	Intel® Core™ i5-10500TE CPU @ 2.30GHz
Hyper Threading	off	off	off	on
Turbo Setting	on	on	on	on
Memory	1 x 8 GB DDR4 3200MHz	1 x 4 GB DDR4 3200MHz	2 x 8 GB DDR4 3200MHz	2 x 16 GB DDR4 @ 2666 MHz
Operating System	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	6.5.0-41-generic	6.5.0-35-generic	6.5.0-41-generic	6.5.0-41-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation	American Megatrends Inc.
BIOS Version	SB_EHL.001.001.000.001.007.00015.R	EHLSFW11.R00.2512.A01.2012171339	TGLIFUI1.R00.4391.A03.2201140438	F21
BIOS Release	7/12/2023	12/17/2020	1/14/2022	11/23/2021
Batch size	1	1	1	1
Precision	INT8/FP32	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	4	4	2	6
Test Date	7/23/2024	7/23/2024	7/23/2024	7/23/2024
Power dissipation/socket, TDP in Watt	12	12	15	35
CPU Price on 7/23/2024, Prices may vary	\$67	\$58	\$107	\$214

CPU Inference Engines:	Core i3-8100	Core i5-8500	Core i7-8700T	Core i9-10900TE
Motherboard	Gigabyte Technology Co., Ltd. / Z390 UD	ASUSTeK COMPUTER INC. / PRIME Z370-A	ASUSTek Computer Inc Prime Z370-A	iEi / B595
CPU	Intel® Core™ i3-8100 CPU @ 3.60GHz	Intel® Core™ i5-8500 CPU @ 3.00GHz	Intel® Core™ i7-8700T CPU @ 2.40GHz	Intel® Core™ i9-10900TE CPU @ 1.80GHz
Hyper Threading	off	off	on	on
Turbo Setting	off	off	on	on
Memory	4 x 8 GB DDR4 2400MHz	2 x 16 GB DDR4 2666MHz	4 x 16 GB DDR4 2400MHz	2 x 8 GB DDR4 @ 2400 MHz
Operating System	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	6.2.0-31-generic	6.5.0-41-generic	6.5.0-41-generic	6.5.0-41-generic
BIOS Vendor	American Megatrends Inc.	American Megatrends Inc.	American Megatrends Inc.	American Megatrends Inc.
BIOS Version	F10	3004	2401	Z667AR10
BIOS Release	11/5/2021	7/12/2021	7/12/2019	7/15/2020
Batch size	1	1	1	1
Precision	INT8/FP32	INT8/FP32	INT8/FP32	INT8/FP32
Number of concurrent inference requests	4	6	6	10
Test Date	7/23/2024	7/23/2024	7/23/2024	7/23/2024
Power dissipation/socket, TDP in Watt	65	65	35	35
CPU Price on 7/23/2024, Prices may vary	\$117	\$192	\$303	\$488

CPU Inference Engines:	TGL-UP3	Core i5-13600K	Core i9-13900K	ADL-P
Motherboard	NUC11TNKv7	Intel Corporation NUC13SBBi5 / M89887-303	Intel Corporation Alder Lake Client Platform	NUC 12SNKi72
CPU	11th Gen Intel® Core™ i7-1185G7 @ 3.0GHz	Intel® Core™ i5-13600K CPU @ 3.5 GHz	Intel® Core™ i9-13900K CPU @ 3.0GHz	Intel® Core™ i7-12700H
Hyper Threading	on	on	on	on
Turbo Setting	on	on	on	on
Memory	2 x 32 GB DDR4 2667MHz	2 x 32 GB DDR5 4800MHz	2 x 32 GB DDR5 4800MHz	2 x 8 GB DDR4 3200MHz
Operating System	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	6.5.0-35-generic	6.5.0-41-generic	6.5.0-41-generic	6.5.0-27-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation	Intel Corporation
BIOS Version	TNTGLV57.9026.2020.0916.1340	SBRPL579.0053.2022.1125.0101	SBRPL579.0053.2022.1125.0101	SNADL357.0056.2022.1102.1218
BIOS Release	9/16/2020	11/25/2022	11/25/2022	11/2/2023
Batch size	1	1	1	1
Precision	INT8/FP16/FP32	INT8/FP32	INT8/FP32	INT8/FP16/FP32
Number of concurrent inference requests	4	14	24	14
Test Date	7/23/2024	7/23/2024	7/23/2024	7/23/2024
Power dissipation/socket, TDP in Watt	28	125	125	45
CPU Price on 7/23/2024, Prices may vary	\$426	\$329	\$599	\$502

CPU Inference Engines:	MTL-H	RPL-P	TGL-UP3
Motherboard	Intel Corporation CRB (Reef Ridge + Astral peak	NUC 13ANKi7	lel B622
CPU	Intel® Core™ Ultra 7-165H	Intel® Core™ i7-1360P	11th Gen Intel® Core™ i7-1185GRE @ 2.8GHz
Hyper Threading	on	on	on
Turbo Setting	on	on	on
Memory	2 x 16 GB DDR5 5600MHz	2 x 8 GB DDR4 3200MHz	1 x 16 GB DDR4 3200MHz
Operating System	Windows 11	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	10.0.22631 Build 22631	6.5.0-41-generic	6.5.0-41-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation
BIOS Version	MTLPEMI1.R00.3471.D56.2403181159	ANRPL357.0027.2023.0607.1754	B622AR02.BIN
BIOS Release	3/18/2024	6/7/2023	9/29/2021
Batch size	1	1	1
Precision	INT8/FP32	INT8/FP16/FP32	INT8/FP16/FP32
Number of concurrent inference requests	20	12	4
Test Date	7/23/2024	7/23/2024	7/23/2024
Power dissipation/socket, TDP in Watt	28	28	15
CPU Price on 7/23/2024, Prices may vary	\$460	\$480	\$490

GPU Inference Engines:	Data Center GPU	Data Center GPU	Intel® Dedicated Graphics Family GPU	Intel® Dedicated Graphics Family GPU
GPU	Flex-140	Flex-170	ARC™ 770M	ARC™ A570M
Connection	PCIe G4, 1x16	PCIe G4, 1x16	PCIe G4, 1x16	PCIe G4, 1x16
Batch size	1	1	1	1
Precision	FP16, INT8	FP16, INT8	FP16, INT8	FP16, INT8
Number of concurrent inference requests	Automatic	Automatic	Automatic	Automatic
Memory	12 GB DDR6, 336 GB/s	16 GB DDR6, 576 GB/s	16 GB DDR6, 512 GB/s	8 GB DDR6, 256 GB/s
HPC & AI	FP32, FP16, BF16, INT8, INT4	FP32, FP16, BF16, INT8, INT4	FP32, FP16, BF16, INT8, INT4	FP32, FP16, INT8, INT4
Form Factor	3/4L Full Height, Passively cooled	3/4L Full Height, Passively cooled	3/4L Full Height, Passively cooled	MXM actively cooled.
X ^e cores	16	32	32	16
EUs	256	512	512	256
Device ID	8086-56C0	8086-56C0	8086-5690	8086-5696
Test Date	7/23/2024	7/23/2024	7/23/2024	7/23/2024
TDP	75W	150 W	150 W	95W
Host Machine	Xeon® Platinum 8490H	Xeon® gold 6348	Core™ i7-12700H, Serpent Canyon	Core™ i7-13700, HP Envy
Motherboard	Intel corp Archer City	Intel corp M50CYP2SBSTD	Intel corp NUC 12SNKi72	HP Envy ATX HP 8B3B
CPU	Intel® Xeon® Platinum 8490H CPU @ 1.90GHz	Intel® Xeon® Gold 6348 CPU @ 2.60GHz	Intel® Core™ i7-12700H CPU @ 2.30GHz	Intel® Core™ i7-13700 CPU @ 2.10GHz
Hyper Threading	on	on	on	on
Turbo Setting	on	on	on	on
Memory	16 x 16 GB DDR5 4800MHz	16 x 16 GB DDR4 3200MHz	2 x 8 GB DDR4 3200MHz	2 x 16 GB DDR4 3200MHz
Operating System	Ubuntu* 22.04.4 LTS	Ubuntu 22.10	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	6.2.0-36-generic	5.19.0-46-generic	6.5.0-41-generic	6.5.0-41-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation	AMI
BIOS Version	EGSDREL1.SYS.9409.P31.2302280828	SE5C620.86B.01.01.0007.2210270543	SNADL357.0056.2022.1102.1218	F.21
BIOS Release	2/28/2023	10/27/2022	11/2/2022	10/24/2023

GPU Inference Engines:	Intel® Dedicated Graphics Family GPU	Intel® Dedicated Graphics Family GPU	Intel® Dedicated Graphics Family GPU
GPU	ARC™ A530M	ARC™ A370M	ARC™ A350M
Connection	PCIe G4, 1x16	PCIe G4, 1x16	PCIe G4, 1x16
Batch size	1	1	1
Precision	FP16, INT8	FP16, INT8	FP16, INT8
Number of concurrent inference requests	Automatic	Automatic	Automatic
Memory	4 GB DDR6, 224 GB/s	4 GB DDR6, 112 GB/s	4 GB DDR6, 112 GB/s
HPC & AI	FP32, FP16, INT8, INT4	FP32, FP16, INT8, INT4	FP32, FP16, INT8, INT4
Form Factor	MXM actively cooled.	MXM actively cooled.	MXM actively cooled.
X ^e cores	12	8	6
EUs	192	128	96
Device ID	8086-5697	8086-5693	8086-5694
Test Date	7/23/2024	7/23/2024	7/23/2024
TDP	95W	50W	35W
Host Machine	Core™ i7-13700, HP Envy	Core™ i7-13700, HP Envy	Core™ i7-13700, HP Envy
Motherboard	HP Envy ATX HP 8B3B	HP Envy ATX HP 8B3B	HP Envy ATX HP 8B3B
CPU	Intel® Core™ i7-13700 CPU @ 2.10GHz	Intel® Core™ i7-13700 CPU @ 2.10GHz	Intel® Core™ i7-13700 CPU @ 2.10GHz
Hyper Threading	on	on	on
Turbo Setting	on	on	on
Memory	2 x 16 GB DDR4 3200MHz	2 x 16 GB DDR4 3200MHz	2 x 16 GB DDR4 3200MHz
Operating System	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS	Ubuntu* 22.04.4 LTS
Kernel version	6.5.0-41-generic	6.5.0-41-generic	6.5.0-41-generic
BIOS Vendor	AMI	AMI	AMI
BIOS Version	F.21	F.21	F.21
BIOS Release	10/24/2023	10/24/2023	10/24/2023

OpenVINO™ Model Server Platform with Intel® Xeon® Platinum 8260M			OpenVINO™ Model Server Platform with Intel® Xeon® Gold 6238	
	Server Platform	Client Platform	Server Platform	Client Platform
Motherboard	Inspur YZMB-00882-104 NF5280M5	Intel® Server Board S2600WF R2224WFTZSR	Inspur, NF5280M5, MB: YZMB-00882-104	Inspur YZMB-00882-104 NF5280M5
Memory	Samsung 16 x 16GB @ 2666 MT/s DDR4	Hynix 16 x 16GB @ 2933 MT/s DDR4	Kingston 16 x 16GB @ 2933 MT/s DDR4	Samsung 16 x 16GB @ 2666 MT/s DDR4
CPU	Intel® Xeon® Platinum 8260M CPU @ 2.40GHz	Intel® Xeon® Gold 6252 CPU @ 2.10GHz	Intel(R) Xeon(R) Gold 6238M CPU @ 2.10GHz	Intel® Xeon® Platinum 8260M CPU @ 2.40GHz
Selected CPU Flags	Hyper Threading, Turbo Boost, DL Boost	Hyper Threading, Turbo Boost, DL Boost	Hyper Threading, Turbo Boost, DL Boost	Hyper Threading, Turbo Boost, DL Boost
CPU Thermal Design Power	162 W	150 W	140W	162 W
Operating System	Ubuntu 20.04.6 LTS	Ubuntu 20.04.6 LTS	Ubuntu 20.04.6 LTS	Ubuntu 20.04.6 LTS
Kernel Version	5.4.0-166-generic	5.4.0-81-generic	5.4.0-163-generic	5.4.0-166-generic
BIOS Vendor	American Megatrends Inc.	Intel® Corporation	American Megatrends Inc.	American Megatrends Inc.
BIOS Version & Release	4.1.16, date: 06/23/2020	SE5C620.86B.02.01, date: 03/26/2020	4.1.16, 06/23/2020	4.1.16, date: 06/23/2020
Docker Version	20.10.3	20.10.3	20.10.3	20.10.3
Network Speed	40 Gb/s		40 Gb/s	

OpenVINO™ Model Server Platform with Intel® Core™ i9-11900K			OpenVINO™ Model Server Platform with Intel® Core™ i7-11700K	
	Server Platform	Client Platform	Server Platform	Client Platform
Motherboard	Wortman AG, Gigabyte Technology Z590M	ASUSTeK COMPUTER INC. PRIME Z590-P	ASUSTeK COMPUTER INC. PRIME Z590-P	Wortman AG, Gigabyte Technology Z590M
Memory	Samsung 4 x 32GB @ 3200 MT/s DDR4	Kingston 2 x 32GB @ 2400 MT/s DDR4	Kingston 2 x 32GB @ 2400 MT/s DDR4	Samsung 4 x 32GB @ 3200 MT/s DDR4
CPU	Intel® Core™ i9-11900K CPU @ 3.50GHz	Intel® Core™ i3-10100 CPU @ 3.60GHz	Intel® Core™ i7-11700K CPU @ 3.60GHz	Intel® Core™ i9-11900K CPU @ 3.50GHz
Selected CPU Flags	Hyper Threading, Turbo Boost, DL Boost	-	Hyper Threading, Turbo Boost	Hyper Threading, Turbo Boost, DL Boost
CPU Thermal Design Power	125 W	65 W	125W	125 W
Operating System	Ubuntu* 22.04.6 LTS	Ubuntu 20.04.6 LTS	Ubuntu* 22.04.6 LTS	Ubuntu* 22.04.6 LTS
Kernel Version	5.15.0-47+prerelease6469.7	5.4.0-81-generic	5.15.0-87-generic	5.15.0-47+prerelease6469.7
BIOS Vendor	American Megatrends Inc.	American Megatrends Inc.	American Megatrends Inc.	American Megatrends Inc.
BIOS Version and Release Date	F7C, date: 08/04/2022	0407, date: 01/14/2021	1017, date: 07/12/2021	F7C, date: 08/04/2022
Docker Version	19.03.13	20.10.0	19.03.14	19.03.13
Network Speed	10 Gb/s		10 Gb/s	

OpenVINO™ Model Server Platform with Intel® Core™ i3-10100		
	Server Platform	Client Platform
Motherboard	ASUSTeK COMPUTER INC. PRIME Z590-P	ASUSTeK COMPUTER INC. PRIME Z590-P
Memory	Kingston 2 x 32GB @ 2400 MT/s DDR4	Kingston 2 x 32GB @ 2400 MT/s DDR4
CPU	Intel® Core™ i3-10100 CPU @ 3.60GHz	Intel® Core™ i7-11700K CPU @ 3.60GHz
Selected CPU Flags	-	Hyper Threading, Turbo Boost
CPU Thermal Design Power	65 W	125W
Operating System	Ubuntu 20.04.6 LTS	Ubuntu* 22.04.6 LTS
Kernel Version	5.4.0-81-generic	5.15.0-87-generic
BIOS Vendor	American Megatrends Inc.	American Megatrends Inc.
BIOS Version and Release Date	0407, date: 01/14/2021	1017, date: 07/12/2021
Docker Version	20.10.0	19.03.14
Network Speed	10 Gb/s	