

| 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* 22.04.3 LTS | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS |
| Kernel version | 6.2.0-31-generic | 6.2.0-31-generic | 6.2.0-39-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 |
| Batch size | 1 | 1 | 1 | 1 |
| Precision | INT8/FP32 | INT8/FP32 | INT8/FP32 | INT8/FP32 |
| Number of concurrent inference requests | 4 | 10 | 32 | 32 |
| Test Date | 2/9/2024 | 2/9/2024 | 2/9/2024 | 2/9/2024 |
| Power dissipation/socket, TDP in Watt | 71 | 125 | 100 | 105 |
| CPU Price on 2/9/2024, 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* 22.04.3 LTS | Ubuntu* 22.04.2 LTS | Ubuntu* 22.04.2 LTS | Ubuntu* 22.04.2 LTS |
| Kernel version | 6.2.0-39-generic | 6.2.0-39-generic | 6.2.0-39-generic | 6.2.0-36-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 |
| Batch size | 1 | 1 | 1 | 1 |
| Precision | INT8/FP32 | INT8/FP32 | INT8/FP32 | INT8/FP32 |
| Number of concurrent inference requests | 52 | 40 | 80 | 120 |
| Test Date | 2/9/2024 | 2/9/2024 | 2/9/2024 | 2/9/2024 |
| Power dissipation/socket, TDP in Watt | 205 | 150 | 270 | 350 |
| CPU Price on 2/9/2024, 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 | 16 x 32 GB DDR5 4800MHz |
| Operating System | Ubuntu* 22.04.3 LTS |
| Kernel version | 5.15.0-91-generic |
| BIOS Vendor | Intel Corporation |
| BIOS Version | EGSDCRB1.SYS.0107.D52.2311070228 |
| BIOS Release | 11/7/2023 |
| Batch size | 1 |
| Precision | INT8/FP32 |
| Number of concurrent inference requests | 120 |
| Test Date | 2/9/2024 |
| Power dissipation/socket, TDP in Watt | 350 |
| CPU Price on 2/9/2024, Prices may vary | \$10,700 |

| CPU Inference Engines: | Intel® N200 | Elkhart Lake | Alder Lake N | Intel® Celeron® 6305E |
|---|--------------------------------------|---------------------------------------|--|---|
| Motherboard | Intel Corporation / Alder Lake N RVP | Elkhart Lake DDR4 CRB | Alder Lake N DDR4 RVP | Intel Corporation / TigerLake U DDR4 SODIMM RVP |
| CPU | Intel® N200 @ 1.0 GHz | 11th Gen Intel® Atom™ x6425E @ 2.0GHz | 12th Gen Intel® Atom™ x7425E @ 1.5 GHz | Intel® Celeron 6305E @ 1.80GHz |
| Hyper Threading | off | off | off | off |
| Turbo Setting | on | on | on | on |
| Memory | 1 x 8 GB LPDDR5 4800MHz | 2 x 8 GB DDR4 3200MHz | 1 x 4 GB DDR4 3200MHz | 2 x 8 GB DDR4 3200MHz |
| Operating System | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.2 LTS | Ubuntu* 22.04.2 LTS | Ubuntu* 22.04.3 LTS |
| Kernel version | 6.2.0-39-generic | 5.15.0-1045-intel-iotg | 5.15.0-1045-intel-iotg | 6.2.0-39-generic |
| BIOS Vendor | Intel Corporation | Intel Corporation | Intel Corporation | Intel Corporation |
| BIOS Version | ADLNFWI1.R00.3301.A01.2208031342 | EHLSFWI1.R00.2512.A01.2012171339 | EHLSFWI1.R00.2512.A01.2012171339 | TGLIFUI1.R00.4391.A03.2201140438 |
| BIOS Release | 8/3/2022 | 12/17/2020 | 12/17/2020 | 1/14/2022 |
| Batch size | 1 | 1 | 1 | 1 |
| Precision | INT8/FP32 | INT8/FP32 | INT8/FP32 | INT8/FP32 |
| Number of concurrent inference requests | 4 | 4 | 4 | 2 |
| Test Date | 2/9/2024 | 2/9/2024 | 2/9/2024 | 2/9/2024 |
| Power dissipation/socket, TDP in Watt | 6 | 12 | 12 | 15 |
| CPU Price on 2/9/2024, Prices may vary | \$80 | \$67 | \$58 | \$107 |

| CPU Inference Engines: | Core i3-8100 | Core i5-8500 | Core i7-8700T | Core i5-10500TE |
|---|---|--------------------------------------|-------------------------------------|---|
| Motherboard | Gigabyte Technology Co., Ltd. / Z390 UD | ASUSTeK COMPUTER INC. / PRIME Z370-A | ASUSTek Computer Inc Prime Z370-A | Gigabyte Technology Co., Ltd. / Z490 AORUS PRO AX |
| CPU | Intel® Core™ i3-8100 CPU @ 3.60GHz | Intel® Core™ i5-8500 CPU @ 3.00GHz | Intel® Core™ i7-8700T CPU @ 2.40GHz | Intel® Core™ i5-10500TE CPU @ 2.30GHz |
| 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 16 GB DDR4 @ 2666 MHz |
| Operating System | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS |
| Kernel version | 6.2.0-31-generic | 6.2.0-39-generic | 6.2.0-39-generic | 6.2.0-36-generic |
| BIOS Vendor | American Megatrends Inc. | American Megatrends Inc. | American Megatrends Inc. | American Megatrends Inc. |
| BIOS Version | F10 | 3004 | 2401 | F21 |
| BIOS Release | 11/5/2021 | 7/12/2021 | 7/12/2019 | 11/23/2021 |
| Batch size | 1 | 1 | 1 | 1 |
| Precision | INT8/FP32 | INT8/FP32 | INT8/FP32 | INT8/FP32 |
| Number of concurrent inference requests | 4 | 6 | 6 | 6 |
| Test Date | 2/9/2024 | 2/9/2024 | 2/9/2024 | 2/9/2024 |
| Power dissipation/socket, TDP in Watt | 65 | 65 | 35 | 35 |
| CPU Price on 2/9/2024, Prices may vary | \$117 | \$192 | \$303 | \$214 |

| CPU Inference Engines: | Core i9-10900TE | TGL-UP3 | Core i9-12900TE | Core i5-13600K |
|---|---------------------------------------|--|---------------------------------------|---|
| Motherboard | iEi / B595 | iEi B622 | iEi Corporation baseboard Z667 | Intel Corporation NUC13SBBi5 / M89887-303 |
| CPU | Intel® Core™ i9-10900TE CPU @ 1.80GHz | 11th Gen Intel® Core™ i7-1185GRE @ 2.80GHz | Intel® Core™ i9-12900TE CPU @ 1.10GHz | Intel® Core™ i5-13600K CPU @ 3.5 GHz |
| Hyper Threading | on | on | on | on |
| Turbo Setting | on | on | on | on |
| Memory | 2 x 8 GB DDR4 @ 2400 MHz | 2 x 16 GB DDR4 3200MHz | 2 x 16 GB DDR4 2400MHz | 2 x 32 GB DDR5 4800MHz |
| Operating System | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.6 LTS |
| Kernel version | 6.2.0-36-generic | 6.2.0-39-generic | 6.2.0-31-generic | 6.2.0-31-generic |
| BIOS Vendor | American Megatrends Inc. | AMI | AMI | Intel Corporation |
| BIOS Version | Z667AR10 | B622AR02 | Z667AR10 | SBRPL579.0053.2022.1125.0101 |
| BIOS Release | 7/15/2020 | 9/29/2021 | 7/15/2020 | 11/25/2022 |
| Batch size | 1 | 1 | 1 | 1 |
| Precision | INT8/FP32 | INT8/FP32 | INT8/FP32 | INT8/FP32 |
| Number of concurrent inference requests | 10 | 4 | 10 | 14 |
| Test Date | 2/9/2024 | 2/9/2024 | 2/9/2024 | 2/9/2024 |
| Power dissipation/socket, TDP in Watt | 35 | 15 | 35 | 125 |
| CPU Price on 2/9/2024, Prices may vary | \$488 | \$490 | \$544 | \$329 |

| CPU Inference Engines: | Core i9-13900K | ADL-P | RPL-P | MTL-H |
|---|--|------------------------------|------------------------------|--|
| Motherboard | Intel Corporation Alder Lake Client Platform | NUC 12SNKi72 | NUC13ANKi7 | Intel Corporation CRB (Reef Ridge + Astral peak) |
| CPU | Intel® Core™ i9-13900K CPU @ 3.0GHz | Intel® Core™ i7-12700H | Intel® Core™ i7-1360P | Intel® Core™ Ultra 7-165H |
| Hyper Threading | on | on | on | on |
| Turbo Setting | on | on | on | on |
| Memory | 2 x 32 GB DDR5 4800MHz | 2 x 8 GB DDR4 3200MHz | 2 x 8 GB DDR4 3200MHz | 2 x 16 GB DDR5 5600MHz |
| Operating System | Ubuntu* 22.04.6 LTS | Ubuntu* 22.04.3 LTS | Ubuntu* 22.04.3 LTS | Windows 11 |
| Kernel version | 6.2.0-31-generic | 6.2.0-31-generic | 6.2.0-39-generic | 10.0.22631 Build 22631 |
| BIOS Vendor | Intel Corporation | Intel Corporation | Intel Corporation | Intel Corporation |
| BIOS Version | SBRPL579.0053.2022.1125.0101 | SNADL357.0056.2022.1102.1218 | ANRPL357.0027.2023.0607.1754 | MTLPEM11.R00.3323.D53.2310240712 |
| BIOS Release | 11/25/2022 | 11/2/2023 | 6/7/2023 | 10/24/2023 |
| Batch size | 1 | 1 | 1 | 1 |
| Precision | INT8/FP32 | INT8/FP32 | INT8/FP32 | INT8/FP32 |
| Number of concurrent inference requests | 24 | 14 | 12 | 20 |
| Test Date | 2/9/2024 | 2/9/2024 | 2/9/2024 | 2/9/2024 |
| Power dissipation/socket, TDP in Watt | 125 | 45 | 28 | 28 |
| CPU Price on 2/9/2024, Prices may vary | \$599 | \$502 | \$480 | \$460 |

| GPU Inference Engines: | Data Center GPU | Data Center GPU | Intel® Dedicated Graphics Family GPU |
|---|---|--------------------------------------|--------------------------------------|
| GPU | Flex-140 | Flex-170 | ARC™ 770M |
| Connection | PCIe G4, 1x16 | PCIe G4, 1x16 | PCIe G4, 1x16 |
| Batch size | Automatic | Automatic | Automatic |
| Precision | FP16, INT8 | FP16, INT8 | FP16, INT8 |
| Number of concurrent inference requests | Automatic | Automatic | Automatic |
| Memory | 12 GB DDR6, 336 GB/s | 16 GB DDR6, 576 GB/s | 16 GB DDR6, 512 GB/s |
| HPC & AI | FP32, FP16, BF16, INT8, INT4 | FP32, FP16, BF16, INT8, INT4 | FP32, FP16, BF16, INT8, INT4 |
| Form Factor | 3/4L Full Height, Passively cooled | 3/4L Full Height, Passively cooled | 3/4L Full Height, Passively cooled |
| X ^e cores | 16 | 32 | 32 |
| EUs | 256 | 512 | 512 |
| Device ID | 8086-56C0 | 8086-56C0 | 8086-5690 |
| Test Date | 2/9/2024 | 2/9/2024 | 2/9/2024 |
| TDP | 75W | 150 W | 150 W |
| Host Machine | Xeon® Platinum 8490H | Xeon® gold 6348 | Core™ i7-12700H, Serpent Canyon |
| Motherboard | Intel corp Archer City | Intel corp M50CYP2SBSTD | Intel corp NUC 12SNKi72 |
| CPU | Intel® Xeon® Platinum 8490H CPU @ 1.90GHz | Intel® Xeon® Gold 6348 CPU @ 2.60GHz | Intel® Core™ i7-12700H CPU @ 2.30GHz |
| Hyper Threading | on | on | on |
| Turbo Setting | on | on | on |
| Memory | 16 x 16 GB DDR5 4800MHz | 16 x 16 GB DDR4 3200MHz | 2 x 8 GB DDR4 3200MHz |
| Operating System | Ubuntu* 22.04.2 LTS | Ubuntu 22.10 | Ubuntu 22.04.6 LTS |
| Kernel version | 6.2.0-36-generic | 5.19.0-46-generic | 6.2.0-31-generic |
| BIOS Vendor | Intel Corporation | Intel Corporation | Intel Corporation |
| BIOS Version | EGSDREL1.SYS.9409.P31.2302280828 | SE5C620.86B.01.01.0007.2210270543 | SNADL357.0056.2022.1102.1218 |
| BIOS Release | 2/28/2023 | 10/27/2022 | 11/2/2022 |

| 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, NF5280M5, MB: YZMB-00882-104 |
| 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 | Kingston 16 x 16GB @ 2933 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(R) Xeon(R) Gold 6238M CPU @ 2.10GHz |
| 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 | 140W |
| 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, 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™ i7-11700K 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 | Hyper Threading, Turbo Boost, DL Boost |
| CPU Thermal Design Power | 125 W | 125W | 125W | 125 W |
| Operating System | Ubuntu* 22.04.6 LTS | Ubuntu* 22.04.6 LTS | Ubuntu* 22.04.6 LTS | Ubuntu* 22.04.6 LTS |
| Kernel Version | 5.15.0-47+prerelease6469.7 | 5.15.0-87-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 | 1017, date: 07/12/2021 | 1017, date: 07/12/2021 | F7C, date: 08/04/2022 |
| Docker Version | 19.03.13 | 19.03.14 | 19.03.14 | 19.03.13 |
| Network Speed | 10 Gb/s | | 10 Gb/s | |

| OpenVINO™ Model Server Platform with Intel® Core™ i3-10100K | | |
|---|-------------------------------------|--------------------------------------|
| | 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 | |