

Configuration	Intel® Xeon® E-2124G	Intel® Xeon® W1290P	Intel® Xeon® Silver 4216R	Intel® Xeon® Silver 4316
Motherboard	ASUS* WS C246 PRO	ASUS* WS W480-ACE	Intel® Server Board S2600STB	Intel Corporation / WilsonCity
CPU	Intel® Xeon® E-2124G CPU @ 3.40GHz	Intel® Xeon® W-1290P CPU @ 3.70GHz	Intel® Xeon® Silver 4216R CPU @ 2.20GHz	Intel® Xeon® Silver 4316 CPU @ 2.30GHz
Hyper Threading	OFF	ON	ON	ON
Turbo Setting	ON	ON	ON	ON
Memory	2 x 16 GB DDR4 2666MHz	4 x 16 GB DDR4 @ 2666MHz	12 x 32 GB DDR4 2666MHz	16 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	5.4.0-100-generic
BIOS Vendor	American Megatrends Inc.*	American Megatrends Inc.	Intel Corporation	Intel Corporation
BIOS Version	1901	2301	SE5C620.86B.02.01.0013.121520200651	WLYDCRB1.SYS.0021.P41.2109200451
BIOS Release	24-Sep-21	8-Jul-21	15-Dec-20	20-Sep-21
BIOS Settings	Select optimized default settings, save & exit	Select optimized default settings, save & exit	Select optimized default settings, change power policy to "performance", save & exit	Select optimized default settings, save & exit
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	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22
Rated maximum TDP/socket in Watt	71	125	125	150
CPU Price/socket in USD	228	539	1,002	1072
Sep 12, 2022, prices may vary				

Configuration	Intel® Xeon® Gold 5218T	Intel® Xeon® Platinum 8270	Intel® Core™ i9-12900K	Intel® Core™ i9-10900TE
Motherboard	Intel® Server Board S2600STB	Intel® Server Board S2600STB	Intel Corporation internal/ Reference Validation Platform	B595
CPU	Intel® Xeon® Gold 5218T CPU @ 2.10GHz	Intel® Xeon® Platinum 8270 CPU @ 2.70GHz	Intel® Core™ i9-12900K CPU @ 3.2GHz	Intel® Core™ i9-10900TE CPU @ 1.80GHz
Hyper Threading	ON	ON	ON	ON
Turbo Setting	ON	ON	ON	ON
Memory	12 x 32 GB DDR4 2666MHz	12 x 32 GB DDR4 2933MHz	4 x 8 GB DDR5 4800MHz	2 x 8 GB DDR4 @ 2400 MHz
Operating System	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.3 LTS	Ubuntu 20.04.3 LTS	Ubuntu 20.04.3 LTS
Kernel Version	5.3.0-24-generic	5.3.0-24-generic	5.15.0-1003-intel-iotg	5.4.0-42-generic
BIOS Vendor	Intel Corporation	Intel Corporation	Intel Corporation	American Megatrends Inc.*
BIOS Version	SE5C620.86B.02.01.0013.121520200651	SE5C620.86B.02.01.0013.121520200651	ADLSFWI1.R00.2277.A15.2108161015	Z667AR10.BIN
BIOS Release	15-Dec-20	15-Dec-20	16-Aug-21	15-Jul-20
BIOS Settings	Select optimized default settings, change power policy to "performance", save & exit	Select optimized default settings, change power policy to "performance", save & exit	Default Settings	Default Settings
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	ference requests Automatic	Automatic
Test Date	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22
Rated maximum TDP/socket in Watt	105	205	125	35
CPU Price/socket in USD	1442	7922	589	444
Sep 12, 2022, prices may vary				

Configuration	Intel® Core™ i9-12900HK	Intel® Core™ i7-8700T	Intel® Core™ i7-1185G7	Intel® Core™ i3-8100
Motherboard	Intel Corporation internal/ Reference Validation Platform	GIGABYTE* Z370M DS3H-CF	Intel Corporation internal/ Reference Validation Platform	GIGABYTE* Z390 UD
CPU	Intel® Core™ i9-12900HK	Intel® Core™ i7-8700T CPU @ 2.40GHz	Intel® Core™ i7-1185G7 @ 3.00GHz	Intel® Core™ i3-8100 CPU @ 3.60GHz
Hyper Threading	ON	ON	ON	OFF
Turbo Setting	ON	ON	ON	OFF
Memory	4 x 8 GB DDR4 4800MHz	4 x 16 GB DDR4 2400MHz	2 x 8 GB DDR4 3200MHz	4 x 8 GB DDR4 2400MHz
Operating System	Ubuntu 20.04.3	Ubuntu 20.04.3 LTS	Ubuntu 20.04.3 LTS	Ubuntu* 20.04.3 LTS
Kernel Version	5.15.0-1003-intel-iotg	5.4.0-42-generic	5.8.0-050800-generic	5.3.0-24-generic
BIOS Vendor	Intel Corporation	American Megatrends Inc.*	Intel Corporation	American Megatrends Inc.*
BIOS Version	ADLFWI1.R00.2411.A02.2110081023	F14c	TGLSFWI1.R00.4391.A00.2109201819	F8
BIOS Release	8-Oct-21	23-Mar-21	20-Sep-21	24-May-19
BIOS Settings	Default Settings	Select optimized default settings, set OS type to "other", save & exit	Default Settings	Select optimized default settings, set OS type to "other", save & exit
Batch size	Auto-batching	Auto-batching	Auto-batching	Auto-batching
Precision	INT8 / FP32	INT8	INT8	INT8 / FP32
Number of concurrent inference requests	Automatic	Automatic	Automatic	Automatic
Test Date	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22
Rated maximum TDP/socket in Watt	45	35	28	65
CPU Price/socket in USD	635	303	426	117
Sep 12, 2022, prices may vary				

Configuration	Intel® Core™ i5-8500	Intel® Core™ i5-10500TE	Intel Atom® x5-E3940	Intel Atom® x6425RE
Motherboard	ASUS* PRIME Z370-A	GIGABYTE* Z490 AORUS PRO AX	Intel Corporation internal/ Reference Validation Platform	Intel Corporation internal/ Reference Validation Platform
CPU	Intel® Core™ i5-8500 CPU @ 3.00GHz	Intel® Core™ i5-10500TE CPU @ 2.30GHz	Intel Atom® Processor E3940 @ 1.60GHz	Intel Atom® x6425RE Processor @ 1.90GHz
Hyper Threading	OFF	ON	OFF	OFF
Turbo Setting	ON	ON	ON	ON
Memory	2 x 16 GB DDR4 2666MHz	2 x 16 GB DDR4 @ 2666MHz	1 x 8 GB DDR3 1600MHz	2 x 4GB DDR4 3200MHz
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	5.4.0-42-generic	5.13.0-27-generic
BIOS Vendor	American Megatrends Inc.*	American Megatrends Inc.*	American Megatrends Inc.*	Intel Corporation
BIOS Version	3004	F21	5.12	EHLFWI1.R00.3273.A01.2106300759
BIOS Release	12-Jul-21	23-Nov-21	6-Sep-17	30-Jun-21
BIOS Settings	Select optimized default settings, save & exit	Select optimized default settings, set OS type to "other", save & exit	Default settings	Default settings
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	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22
Rated maximum TDP/socket in Watt	65	35	9.5	9
CPU Price/socket in USD	192	195	34	46
Sep 12, 2022, prices may vary				

Configuration	Intel® Celeron® 6305E
Motherboard	Intel Corporation internal/ Reference Validation Platform
CPU	Intel® Celeron® 6305E @ 1.80GHz
Hyper Threading	OFF
Turbo Setting	ON
Memory	2 x 8 GB DDR4 3200MHz
Operating System	Ubuntu 20.04.3 LTS
Kernel Version	5.13.0-1008-intel
BIOS Vendor	Intel Corporation
BIOS Version	TGLIFUI1.R00.4064.A02.2102260133
BIOS Release	26-Feb-21
BIOS Settings	Default settings
Batch size	Auto-batching
Precision	INT8 / FP32
Number of concurrent inference requests	Automatic
Test Date	13-Sep-22
Rated maximum TDP/socket in Watt	15
CPU Price/socket in USD	107
Sep 12, 2022, prices may vary	

Configuration	Intel® Neural Compute Stick 2	Intel® Vision Accelerator Design with Intel® Movidius™
VPU	1 X Intel® Movidius™ Myriad™ X MA2485	8 X Intel® Movidius™ Myriad™ X MA2485
Connection	USB 2.0/3.0	PCIe X4
Batch size	1	1
Precision	FP16	FP16
Number of concurrent inference requests	4	32
Rated maximum TDP/socket in Watt	2.5	30
CPU Price/socket in USD	103	1043
Sep 12, 2022, prices may vary		
Host Computer	Intel® Core™ i7	Intel® Core™ i5
Motherboard	ASUS* Z370-A II	Uzelinfo* / US-E1300
CPU	Intel® Core™ i7-8700 CPU @ 3.20GHz	Intel® Core™ i5-6600 CPU @ 3.30GHz
Hyper Threading	ON	OFF
Turbo Setting	ON	ON
Memory	4 x 16 GB DDR4 2666MHz	2 x 16 GB DDR4 2400MHz
Operating System	Ubuntu* 20.04.3 LTS	Ubuntu* 20.04.3 LTS
Kernel Version	5.0.0-23-generic	5.0.0-23-generic
BIOS Vendor	American Megatrends Inc.*	American Megatrends Inc.*
BIOS Version	411	5.12
BIOS Release	43364	43364
Test Date	44817	44817