

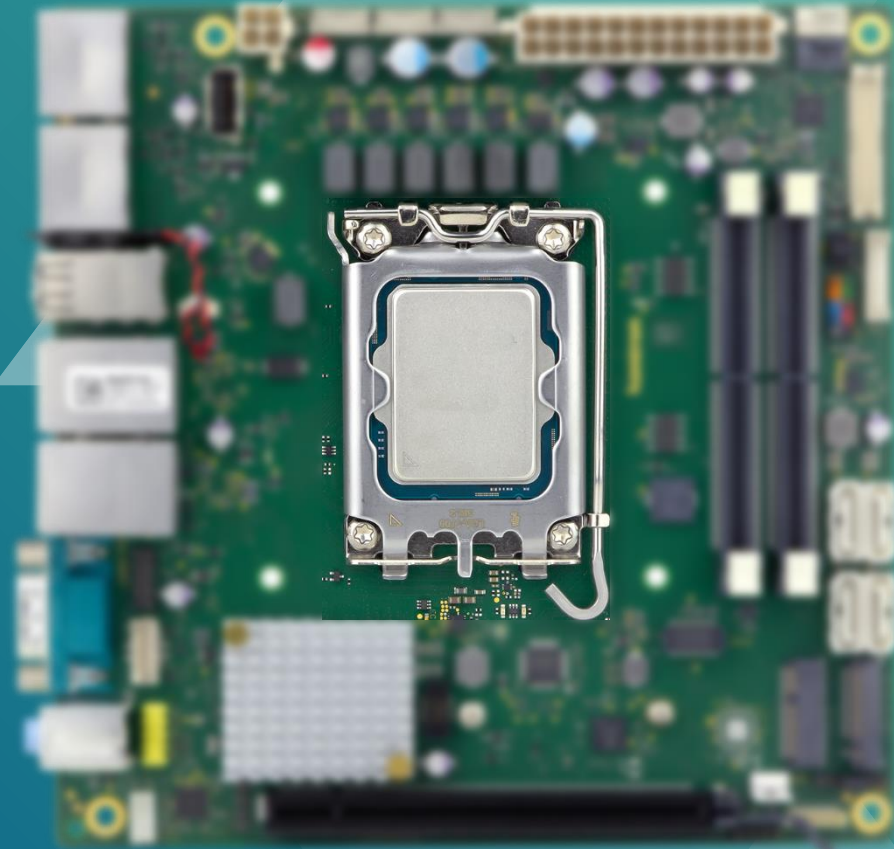
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Motherboard – Processor Compatibility

05/2025



Compatibility CPUxBoard list on FTP server

New location

The latest CPUxBoard compatibility list is available on Kontron File Server:

https://ftp.kontron.com/main.html?download&weblink=3cb83a90a99c51160d2aa1f1f34cc340&subfolder=Products/Motherboards/2_Component-Support-Lists&realfilename=Compatibility_CPU_x_Board.pdf

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ApprovedComponents-AVL_Motherboards_v25.1.zip	675.3 KB	2025-01-15 18:47:26	Download
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Compatibility_CPU_x_Board.pdf	2.3 MB	2025-03-20 13:32:10	Download

[Products/Motherboards/2_Component-Support-Lists](#)

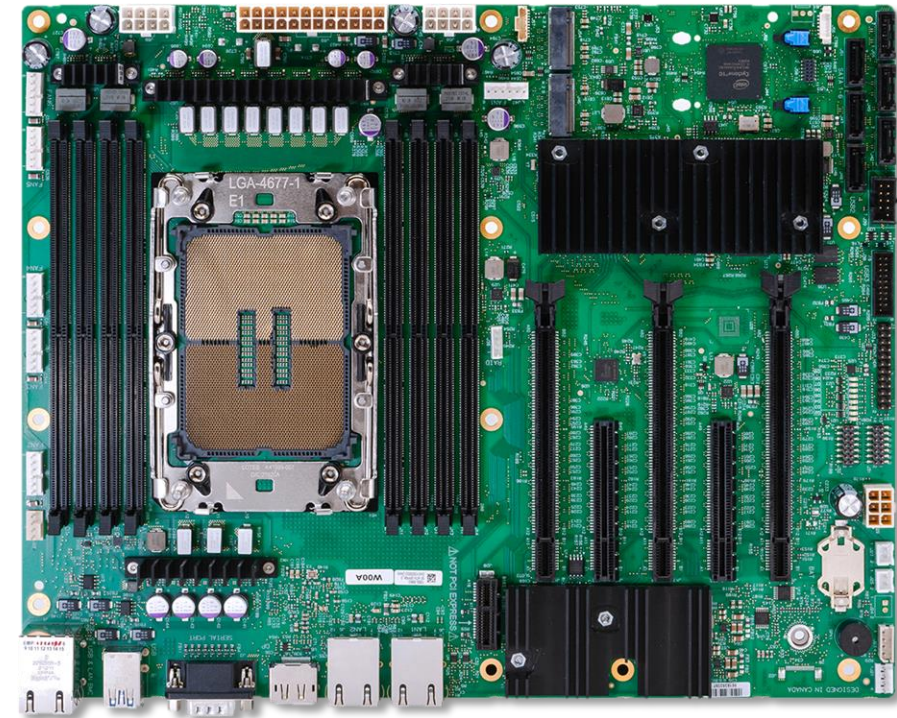
4th / 5th Gen Intel® Xeon® Scalable Processors LGA 4677

Sapphire Rapids / Emerald Rapids

K9051-C741 MOTHERBOARD CPU SUPPORT

The CPU compatibility list for ATX motherboard K9051-C741 is available on FTP server:

<https://ftp.kontron.com/main.html?download&webli nk=ea4be9197b6136fe1c72f2221c0cae3c&subfolder =Component-Support-Lists>



Intel® Core™ Processors LGA1700

Alder Lake-S, Raptor Lake-S (Refresh) (12th, 13th, 14th Gen)
Bartlett Lake-S (Series 2)

CPU X MOTHERBOARD: INTEL LGA1700 “BARTLETT LAKE-S”



CPU / Cores (P + E) ^{A)}											Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Power ⁸⁾	P-Core / E-Core Base Frequency	Max. P-Core Turbo Freq.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support ⁹⁾	ISM ¹⁾	iAMT Support	K383x ⁷⁾	K3841-Q ⁷⁾	K3842-Q ⁷⁾	K3843-B ⁷⁾	K3851-R ⁷⁾
Intel® Core™ Series 2 Hybrid Processor SKUs (Bartlett Lake-S)															
Core™ 7 series															
251TE 24-Core (8+16) (similar to Core i7)	Q1/25	45W		1.4GHz / 1GHz	5.4GHz	5600 / √	UHD Graphics770	√	√	√	y	y	y	y	y
251E 24-Core (8+16) (similar to Core i7)	Q1/25	65W		2.1GHz / 1.6GHz	5.6GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
Core™ 5 series															
221TE 14-Core (6+8) (similar to Core i5)	Q1/25	45W		1.8GHz / 1.3GHz	5.0GHz	4800 / √	UHD Graphics770	√	√	√	y	y	y	y	y
221E 14-Core (6+8) (similar to Core i5)	Q1/25	65W		2.7GHz / 2.1GHz	5.2GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
211TE 10-Core (6+4) (similar to Core i5)	Q1/25	45W		1.7GHz / 1.3GHz	5.0GHz	4800 / √	UHD Graphics770	√	√	√	y	y	y	y	y
211EF 10-Core (6+4) (similar to Core i5)	Q1/25	65W		2.7GHz / 2GHz	4.9GHz	4800 / √	--	√	√	√	y ⁴⁾	y	y	y	y
211E 10-Core (6+4) (similar to Core i5)	Q1/25	65W		2.7GHz / 2GHz	4.9GHz	4800 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
Core™ 3 series															
201TE 4-Core (4+0) (similar to Core i3)	Q1/25	45W		2.9GHz / --	4.6GHz	4800 / √	UHD Graphics770	√	√	√	y	y	y	y	y
201EF 4-Core (4+0) (similar to Core i3)	Q1/25	58W		3.6GHz / --	4.8GHz	4800 / √	--	√	√	√	y ⁴⁾	y	y	y	y
201E 4-Core (4+0) (similar to Core i3)	Q1/25	60W		3.6GHz / --	4.8GHz	4800 / √	UHD Graphics770	√	√	√	y	y	y	y	y

A) P= Performance-core / E = Efficient-core

1) Intel Standard Manageability

3) Appendix "F" = processor version w/o integrated graphics. The motherboards above are basically capable of running these processors

4) K3831-H/K3832-Q/K3833-Q/K3836-Q/R: Baseline CPU Support (Max. Turbo Power may be limited) 5) Appendix "E" = "Embedded" version (IOTG)

6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details

8) Max. supported Turbo Power per platform (hardware limited): K384x/51: max. 240W; K3831: max. 140W; K3832/33/36: max. 170W

9) RT support only available using R680E PCH

7) BIOS Revision ≥ 2.19.0x must be installed, otherwise
Bartlett Lake-S processor will not operate!

New: 05/2025

Bartlett Lake-S Hybrid added

CPU X MOTHERBOARD: INTEL LGA1700 “RPL-S REFRESH P-CORE”



CPU / Cores (P + E) ^{A)}												Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Power ⁸⁾	P-Core / E-Core Base Frequency	Max. P-Core Turbo Freq.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support	ISM ¹⁾	iAMT Support		K383x ⁷⁾	K3841-Q ⁷⁾	K3842-Q ⁷⁾	K3843-B ⁷⁾	K3851-R ⁷⁾
Intel® Core™ Processor P-Core only (Raptor Lake-S Refresh, 14th Gen)																
Core™ i9 series																
i9-14901KE 8-Core (8 + 0)	Q3/24	125W	240W	3.8GHz / --	5.8GHz	5600 / √	UHD Graphics770	√	√	√		n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-14901E 8-Core (8 + 0)	Q3/24	65W	219W	2.8GHz / --	5.6GHz	5600 / √	UHD Graphics770	√	√	√		y ⁴⁾	y	y	y	y
i9-14901TE 8-Core (8 + 0)	Q3/24	45W	106W	2.3GHz / --	5.5GHz	5600 / √	UHD Graphics770	√	√	√		y	y	y	y	y
Core™ i7 series																
i7-14701E 8-Core (8 + 0)	Q3/24	65W	219W	2.6GHz / --	5.4GHz	5600 / √	UHD Graphics770	√	√	√		y ⁴⁾	y	y	y	y
i7-14701TE 8-Core (8 + 0)	Q3/24	45W	106W	2.1GHz / --	5.2GHz	5600 / √	UHD Graphics770	√	√	√		y	y	y	y	y
Core™ i5 series																
i5-14501E 6-Core (6 + 0)	Q3/24	65W	219W	3.3GHz / --	5.2GHz	4800 / √	UHD Graphics770	√	√	√		y ⁴⁾	y	y	y	y
i5-14401E 6-Core (6 + 0)	Q3/24	65W	219W	3.0GHz / --	4.7GHz	4800 / √	UHD Graphics730	√	√	--		y ⁴⁾	y	y	y	y
i5-14501TE 6-Core (6 + 0)	Q3/24	45W	106W	2.2GHz / --	5.1GHz	4800 / √	UHD Graphics770	√	√	√		y	y	y	y	y
i5-14401TE 6-Core (6 + 0)	Q3/24	45W	106W	2.0GHz / --	4.5GHz	4800 / √	UHD Graphics730	√	√	--		y	y	y	y	y

A) P= Performance-core / E = Efficient-core

1) Intel Standard Manageability 2) The K-Processor Series are supported, but w/o overclocking features

3) Appendix "F" = processor version w/o integrated graphics. The motherboards above are basically capable of running these processors

4) K3831-H/K3832-Q/K3833-Q/K3836-Q/R: Baseline CPU Support (Max. Turbo Power may be limited) 5) Appendix "E" = "Embedded" version (IOTG)

6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details

8) Max. supported Turbo Power per platform (hardware limited): K384x/51: max. 240W; K3831: max. 140W; K3832/33/36: max. 170W

7) BIOS Revision ≥ 2.18.0x must be installed, otherwise

14th gen P-Core only processor will not be fully supported!

BIOS > R2.10.0 required for approved 14th gen processor support

Updated: 03/2025:
Typo corrected (i5)

P-Core Only models added

CPU X MOTHERBOARD: INTEL LGA1700 “RAPTOR LAKE-REFRESH”



CPU / Cores (P + E) ^{A)}											Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Power ⁸⁾	P-Core / E-Core Base Frequency	Max. P-Core Turbo Frequ.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support	ISM ¹⁾	iAMT Support	K383x ⁷⁾	K3841-Q ⁷⁾	K3842-Q ⁷⁾	K3843-B ⁷⁾	K3851-R ⁷⁾
Intel® Raptor Lake-S Refresh ^{14th} gen Core™															
Core™ i9 series															
i9-14900K 24-Core (8 + 16)	Q4/23	125W	240W	3.2GHz / 2.4GHz	5.6GHz	5600 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-14900KF ³⁾ 24-Core (8 + 16)	Q4/23	125W	240W	3.2GHz / 2.4GHz	5.6GHz	5600 / --	--	--	√	--	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-14900 24-Core (8 + 16)	Q1/24	65W	219W	2.0GHz / 1.5GHz	5.4GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i9-14900F ³⁾ 24-Core (8 + 16)	Q1/24	65W	219W	2.0GHz / 1.5GHz	5.4GHz	5600 / --	--	--	√	--	y ⁴⁾	y	y	y	y
i9-14900T 24-Core (8 + 16)	Q1/24	35W	106W	1.1GHz / 0.8GHz	5.1GHz	5600 / √	UHD Graphics770	√	√	√	y	y	y	y	y
Core™ i7 series															
i7-14700K 20-Core (8 + 12)	Q4/23	125W	240W	3.4GHz / 2.5GHz	5.5GHz	5600 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i7-14700KF ³⁾ 20-Core (8 + 12)	Q4/23	125W	240W	3.4GHz / 2.5GHz	5.5GHz	5600 / --	--	--	√	--	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i7-14700 20-Core (8 + 12)	Q1/24	65W	219W	2.1GHz / 1.5GHz	5.3GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i7-14700F ³⁾ 20-Core (8 + 12)	Q1/24	65W	219W	2.1GHz / 1.5GHz	5.3GHz	5600 / --	--	--	√	--	y ⁴⁾	y	y	y	y
i7-14700T 20-Core (8 + 12)	Q1/24	35W	106W	1.3GHz / 0.9GHz	5.0GHz	5600 / √	UHD Graphics770	√	√	√	y	y	y	y	y

A) P= Performance-core / E = Efficient-core

1) Intel Standard Manageability 2) The K-Processor Series are supported, but w/o overclocking features

3) Appendix "F" = processor version w/o integrated graphics. The motherboards above are basically capable of running these processors

4) K3831-H/K3832-Q/K3833-Q/K3836-Q/R: Baseline CPU Support (Max. Turbo Power may be limited) 5) Appendix "E" = "Embedded" version (IOTG)

6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details

8) Max. supported Turbo Power per platform (hardware limited): K384x/51: max. 240W; K3831: max. 140W; K3832/33/36: max. 170W

7) BIOS Revision 2.x.x must be installed, otherwise

14th gen processor will not operate!

BIOS > R2.10.0 required for approved 14th gen processor support

Updated Version: 02/2025

Max. Turbo power adjusted

CPU X MOTHERBOARD: INTEL LGA1700 “RAPTOR LAKE-REFRESH”



CPU / Cores (P + E) ^{A)}												Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Powers ⁸⁾	P-Core / E-Core Base Frequency	Max. P-Core Turbo Frequ.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support	ISM ^{B)}	iAMT Support		K383x ⁷⁾	K3841-Q ⁷⁾	K3842-Q ⁷⁾	K3843-B ⁷⁾	K3851-R ⁷⁾
Intel® Raptor Lake-S Refresh ^{14th} gen Core™																
Core™ i5 series																
i5-14600K 14-Core (6 + 8)	Q4/23	125W	181W	3.5GHz / 2.6GHz	5.3GHz	5600 / √	UHD Graphics770	--	√	√		n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i5-14600KF ³⁾ 14-Core (6 + 8)	Q4/23	125W	181W	3.5GHz / 2.6GHz	5.3GHz	5600 / --	--	--	√	--		n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i5-14600 14-Core (6 + 8)	Q1/24	65W	154W	2.7GHz / 2.0GHz	5.2GHz	5600 / √	UHD Graphics770	--	√	√		y ⁴⁾	y	y	y	y
i5-14500 14-Core (6 + 8)	Q1/24	65W	154W	2.6GHz / 1.9GHz	5.0GHz	4800 / √	UHD Graphics770	√	√	√		y ⁴⁾	y	y	y	y
i5-14400 10-Core (6 + 4)	Q1/24	65W	148W	2.5GHz / 1.8GHz	4.7GHz	4800 / --	UHD Graphics730	√	√	--		y ⁴⁾	y	y	y	y
i5-14400F ³⁾ 10-Core (6 + 4)	Q1/24	65W	148W	2.5GHz / 1.8GHz	4.7GHz	4800 / --	--	--	√	--		y ⁴⁾	y	y	y	y
i5-14600T 14-Core (6 + 8)	Q1/24	35W	92W	1.8GHz / 1.3GHz	5.1GHz	5600 / √	UHD Graphics770	--	√	√		y	y	y	y	y
i5-14500T 14-Core (6 + 8)	Q1/24	35W	92W	1.7GHz / 1.2GHz	4.8GHz	4800 / √	UHD Graphics770	√	√	√		y	y	y	y	y
i5-14400T 10-Core (6 + 4)	Q1/24	35W	82W	1.5GHz / 1.1GHz	4.5GHz	4800 / --	UHD Graphics730	√	√	--		y	y	y	y	y
Core™ i3 series																
i3-14100 4-Core (4 + 0)	Q1/24	60W	110W	3.5GHz / n.a.	4.7GHz	4800 / --	UHD Graphics730	√	√	--		y	y	y	y	y
i3-14100F ³⁾ 4-Core (4 + 0)	Q1/24	58W	110W	3.5GHz / n.a.	4.7GHz	4800 / --	--	--	√	--		y	y	y	y	y
i3-14100T 4-Core (4 + 0)	Q1/24	35W	69W	2.7GHz / n.a.	4.4GHz	4800 / --	UHD Graphics730	√	√	--		y	y	y	y	y
Intel® Processor 300 series																
300 2-Core (2 + 0)	Q1/24	46W	n.a.	3.9GHz / n.a.	n.a.	4800 / √	UHD Graphics710	--	√	--		y	y	y	y	y
300T 2-Core (2 + 0)	Q1/24	35W	n.a.	3.4GHz / n.a.	n.a.	4800 / √	UHD Graphics710	--	√	--		y	y	y	y	y

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6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details

8) Max. supported Turbo Power per platform (hardware limited): K384x/51: max. 240W; K3831: max. 140W; K3832/33/36: max. 170W

7) BIOS Revision 2.x.x must be installed, otherwise 14th gen processor will not operate!

BIOS > R2.10.0 required for approved 14th gen processor support

Updated Version: 02/2024

CPU X MOTHERBOARD: INTEL LGA1700 “RAPTOR LAKE”



CPU / Cores (P + E) ^{A)}											Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Power ⁸⁾	P-Core / E-Core Base Frequency	Max. P-Core Turbo Frequ.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support	ISM ¹⁾	iAMT Support	K383x	K3841-Q ⁷⁾	K3842-Q ⁷⁾	K3843-B ⁷⁾	K3851-R ⁷⁾
Intel® Raptor Lake-S ^{13th} gen Core™															
Core™ i9 series															
i9-13900KS 24-Core (8 + 16)	Q1/23	150W	240W	3.2GHz / 2.2GHz	5.4GHz	5600 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-13900K 24-Core (8 + 16)	Q4/22	125W	240W	3.0GHz / 2.2GHz	5.4GHz	5600 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-13900KF ³⁾ 24-Core (8 + 16)	Q4/22	125W	240W	3.0GHz / 2.2GHz	5.4GHz	5600 / --	--	--	√	--	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-13900 24-Core (8 + 16)	Q1/23	65W	219W	2.0GHz / 1.5GHz	5.2GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i9-13900E ⁵⁾ 24-Core (8 + 16)	Q1/23	65W	219W	1.8GHz / 1.3GHz	5.2GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i9-13900F ³⁾ 24-Core (8 + 16)	Q1/23	65W	219W	2.0GHz / 1.5GHz	5.2GHz	5600 / --	--	--	√	--	y ⁴⁾	y	y	y	y
i9-13900T 24-Core (8 + 16)	Q1/23	35W	106W	1.1GHz / 0.8GHz	5.1GHz	5600 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i9-13900TE ⁵⁾ 24-Core (8 + 16)	Q1/23	35W	106W	1.0GHz / 0.8GHz	5.0GHz	5600 / √	UHD Graphics770	√	√	√	y	y	y	y	y
Core™ i7 series															
i7-13700K 16-Core (8 + 8)	Q4/22	125W	240W	3.4GHz / 2.5GHz	5.3GHz	5600 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i7-13700KF ³⁾ 16-Core (8 + 8)	Q4/22	125W	240W	3.4GHz / 2.5GHz	5.3GHz	5600 / --	--	--	√	--	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i7-13700 16-Core (8 + 8)	Q1/23	65W	219W	2.1GHz / 1.5GHz	5.1GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i7-13700E ⁵⁾ 16-Core (8 + 8)	Q1/23	65W	219W	1.9GHz / 1.3GHz	5.1GHz	5600 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i7-13700F ³⁾ 16-Core (8 + 8)	Q1/23	65W	219W	2.1GHz / 1.5GHz	5.1GHz	5600 / --	--	--	√	--	y ⁴⁾	y	y	y	y
i7-13700T 16-Core (8 + 8)	Q1/23	35W	106W	1.4GHz / 1.0GHz	4.8GHz	5600 / √	UHD Graphics770	√	√	√	y	y	y	y	y
i7-13700TE ⁵⁾ 16-Core (8 + 8)	Q1/23	35W	106W	1.1GHz / 0.8GHz	4.8GHz	5600 / √	UHD Graphics770	√	√	√	y	y	y	y	y

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4) K3831-H/K3832-Q/K3833-Q/K3836-Q/R: Baseline CPU Support (Max. Turbo Power may be limited) 5) Appendix "E" = "Embedded" version (IOTG)

6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details

8) Max. supported Turbo Power per platform (hardware limited): K384x/51: max. 240W; K3831: max. 140W; K3832/33/36: max. 170W

7) BIOS Revision 2.x.x must be installed, otherwise

13th gen processor will not operate!

Updated Version: 02/2025

Max. Turbo power adjusted

CPU X MOTHERBOARD: INTEL LGA1700 “RAPTOR LAKE”



CPU / Cores (P + E) ^{A)}												Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Power ⁸⁾	P-Core / E-Core Base Frequency	Max. P-Core Turbo Freq.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support	ISM ^{B)}	iAMT Support		K383x	K3841-Q ⁷⁾	K3842-Q ⁷⁾	K3843-B ⁷⁾	K3851-R ⁷⁾
Intel® Raptor Lake-S ^{13th} gen Core™																
Core™ i5 series																
i5-13600K 14-Core (6 + 8)	Q4/22	125W	181W	3.5GHz / 2.6GHz	5.1GHz	5600 / √	UHD Graphics770	--	√	√		n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i5-13600KF ³⁾ 14-Core (6 + 8)	Q4/22	125W	181W	3.5GHz / 2.6GHz	5.1GHz	5600 / --	--	--	√	--		n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i5-13600 14-Core (6 + 8)	Q1/23	65W	154W	2.7GHz / 2.0GHz	5.0GHz	4800 / √	UHD Graphics770	--	√	√		y ⁴⁾	y	y	y	y
i5-13500 14-Core (6 + 8)	Q1/23	65W	154W	2.5GHz / 1.8GHz	4.8GHz	4800 / √	UHD Graphics770	√	√	√		y ⁴⁾	y	y	y	y
i5-13500E ⁵⁾ 14-Core (6 + 8)	Q1/23	65W	154W	2.4GHz / 1.5GHz	4.6GHz	4800 / √	UHD Graphics770	√	√	√		y ⁴⁾	y	y	y	y
i5-13400 10-Core (6 + 4)	Q1/23	65W	148W	2.5GHz / 1.8GHz	4.6GHz	4800 / --	UHD Graphics730	√	√	--		y ⁴⁾	y	y	y	y
i5-13400E ⁵⁾ 10-Core (6 + 4)	Q1/23	65W	148W	2.4GHz / 1.5GHz	4.6GHz	4800 / √	UHD Graphics730	√	√	--		y ⁴⁾	y	y	y	y
i5-13400F ³⁾ 10-Core (6 + 4)	Q1/23	65W	148W	2.5GHz / 1.8GHz	4.6GHz	4800 / --	--	--	√	--		y ⁴⁾	y	y	y	y
i5-13600T 14-Core (6 + 8)	Q1/23	35W	92W	1.8GHz / 1.3GHz	4.8GHz	4800 / √	UHD Graphics770	--	√	√		y	y	y	y	y
i5-13500T 14-Core (6 + 8)	Q1/23	35W	92W	1.6GHz / 1.2GHz	4.6GHz	4800 / √	UHD Graphics770	√	√	√		y	y	y	y	y
i5-13500TE ⁵⁾ 14-Core (6 + 8)	Q1/23	35W	92W	1.3GHz / 1.1GHz	4.5GHz	4800 / √	UHD Graphics770	√	√	√		y	y	y	y	y
i5-13400T 10-Core (6 + 4)	Q1/23	35W	82W	1.3GHz / 1.0GHz	4.4GHz	4800 / --	UHD Graphics730	--	√	--		y	y	y	y	y
Core™ i3 series																
i3-13100 4-Core (4 + 0)	Q1/23	60W	89W	3.4GHz / n.a.	4.5GHz	4800 / --	UHD Graphics730	√	√	--		y	y	y	y	y
i3-13100E ⁵⁾ 4-Core (4 + 0)	Q1/23	60W	89W	3.3GHz / n.a.	4.4GHz	4800 / √	UHD Graphics730	√	√	--		y	y	y	y	y
i3-13100F ³⁾ 4-Core (4 + 0)	Q1/23	58W	89W	3.4GHz / n.a.	4.5GHz	4800 / --	--	--	√	--		y	y	y	y	y
i3-13100T 4-Core (4 + 0)	Q1/23	35W	69W	2.5GHz / n.a.	4.2GHz	4800 / --	UHD Graphics730	√	√	--		y	y	y	y	y
i3-13100TE ⁵⁾ 4-Core (4 + 0)	Q1/23	35W	69W	2.4GHz / n.a.	4.1GHz	4800 / √	UHD Graphics730	√	√	--		y	y	y	y	y

A) P= Performance-core / E = Efficient-core

1) Intel Standard Manageability 2) The K-Processor Series are supported, but w/o overclocking features

3) Appendix "F" = processor version w/o integrated graphics. The motherboards above are basically capable of running these processors

4) K3831-H/K3832-Q/K3833-Q: Baseline CPU Support (Max. Turbo Power may be limited) 5) Appendix "E" = "Embedded" version (IOTG)

6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details

8) Max. supported Turbo Power per platform (hardware limited): K384x/51: max. 240W; K3831: max. 140W; K3832/33/36: max. 170W

7) BIOS Revision 2.x.x must be installed, otherwise 13th gen processor will not operate!

Updated Version: 09/2023

Realtime Support for further models added; max. memory speed corrected

CPU X MOTHERBOARD: INTEL LGA1700 “ALDER LAKE”



CPU / Cores (P + E) ^{A)}											Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Power ⁶⁾	P-Core / E-Core Base Frequency	Max. P-Core Turbo Frequ.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support	ISM ¹⁾	iAMT Support	K383x	K3841-Q	K3842-Q	K3843-B	K3851-R
Intel® Alder Lake-S ^{12th} gen Core™															
Core™ i9 series															
i9-12900KS 16-Core (8 + 8)	Q1/22	150W	241W	3.4GHz / 2.5GHz	5.2GHz	4800 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-12900K 16-Core (8 + 8)	Q4/21	125W	241W	3.2GHz / 2.4GHz	5.1GHz	4800 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-12900KF ³⁾ 16-Core (8 + 8)	Q4/21	125W	241W	3.2GHz / 2.4GHz	5.1GHz	4800 / --	--	--	√	--	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i9-12900 16-Core (8 + 8)	Q1/22	65W	202W	2.4GHz / 1.8GHz	5.0GHz	4800 / √	UHD Graphics770	--	√	√	y ⁴⁾	y	y	y	y
i9-12900E ⁵⁾ 16-Core (8 + 8)	Q1/22	65W	202W	2.3GHz / 1.7GHz	5.0GHz	4800 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i9-12900F ³⁾ 16-Core (8 + 8)	Q1/22	65W	202W	2.4GHz / 1.8GHz	5.0GHz	4800 / --	--	--	√	--	y ⁴⁾	y	y	y	y
i9-12900T 16-Core (8 + 8)	Q1/22	35W	106W	1.4GHz / 1.0GHz	4.8GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i9-12900TE ⁵⁾ 16-Core (8 + 8)	Q1/22	35W	106W	1.1GHz / 0.9GHz	4.8GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
Core™ i7 series															
i7-12700K 12-Core (8 + 4)	Q4/21	125W	190W	3.6GHz / 2.7GHz	4.9GHz	4800 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i7-12700KF ³⁾ 12-Core (8 + 4)	Q4/21	125W	190W	3.6GHz / 2.7GHz	4.9GHz	4800 / --	--	--	√	--	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i7-12700 12-Core (8 + 4)	Q1/22	65W	180W	2.1GHz / 1.6GHz	4.8GHz	4800 / √	UHD Graphics770	--	√	√	y ⁴⁾	y	y	y	y
i7-12700E ⁵⁾ 12-Core (8 + 4)	Q1/22	65W	180W	2.1GHz / 1.6GHz	4.8GHz	4800 / √	UHD Graphics770	√	√	√	y ⁴⁾	y	y	y	y
i7-12700F ³⁾ 12-Core (8 + 4)	Q1/22	65W	180W	2.1GHz / 1.6GHz	4.8GHz	4800 / --	--	--	√	--	y ⁴⁾	y	y	y	y
i7-12700T 12-Core (8 + 4)	Q1/22	35W	99W	1.4GHz / 1.0GHz	4.6GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i7-12700TE ⁵⁾ 12-Core (8 + 4)	Q1/22	35W	99W	1.4GHz / 1.0GHz	4.7GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
Core™ i5 series															
i5-12600K 10-Core (6 + 4)	Q4/21	125W	150W	3.7GHz / 2.8GHz	4.9GHz	4800 / √	UHD Graphics770	--	√	√	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i5-12600KF ³⁾ 10-Core (6 + 4)	Q4/21	125W	150W	3.7GHz / 2.8GHz	4.9GHz	4800 / --	--	--	√	--	n	y ²⁾	y ²⁾	y ²⁾	y ²⁾
i5-12600 6-Core (6 + 0)	Q1/22	65W	117W	3.3GHz / n.a.	4.8GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i5-12500 6-Core (6 + 0)	Q1/22	65W	117W	3.0GHz / n.a.	4.6GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i5-12500E ⁵⁾ 6-Core (6 + 0)	Q1/22	65W	117W	3.0GHz / n.a.	4.5GHz	4800 / √	UHD Graphics770	√	√	√	y	y	y	y	y
i5-12400 6-Core (6 + 0)	Q1/22	65W	117W	2.5GHz / n.a.	4.4GHz	4800 / --	UHD Graphics730	--	√	--	y	y	y	y	y
i5-12400F ³⁾ 6-Core (6 + 0)	Q1/22	65W	117W	2.5GHz / n.a.	4.4GHz	4800 / --	--	--	√	--	y	y	y	y	y
i5-12600T 6-Core (6 + 0)	Q1/22	35W	74W	2.1GHz / n.a.	4.6GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i5-12500T 6-Core (6 + 0)	Q1/22	35W	74W	2.0GHz / n.a.	4.4GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i5-12500TE ⁵⁾ 6-Core (6 + 0)	Q1/22	35W	74W	2.0GHz / n.a.	4.3GHz	4800 / √	UHD Graphics770	--	√	√	y	y	y	y	y
i5-12400T 6-Core (6 + 0)	Q1/22	35W	74W	1.8GHz / n.a.	4.2GHz	4800 / --	UHD Graphics730	--	√	--	y	y	y	y	y

A) P= Performance-core / E = Efficient-core
1) Intel Standard Manageability 2) The K-Processor Series are supported, but w/o overclocking features
3) Appendix "F" = processor version w/o integrated graphics. The motherboards above are basically capable of running these processors
4) K3831-H/K3832-Q/K3833-Q: Baseline CPU Support (Max. Turbo Power may be limited) 5) Appendix "E" = "Embedded" version (IOTG)
6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details
8) Max. supported Turbo Power per platform (hardware limited): K384x/51: max. 240W; K3831: max. 140W; K3832/33/36: max. 170W

CPU X MOTHERBOARD: INTEL LGA1700 “ALDER LAKE”



CPU / Cores (P + E) ^{A)}												Motherboard				
Processor Name	Launch	CPU Base Power	Max. Turbo Power	P-Core / E-Core Base Frequency	Max. P-Core Turbo Frequ.	max. DDR5 Speed ⁶⁾ / ECC	Integrated Graphics Core	Realtime Support	ISM ¹⁾	iAMT Support		K383x	K3841-Q	K3842-Q	K3843-B	K3851-R
Intel® Alder Lake-S ^{12th} gen Core™																
Core™ i3 series																
i3-12300 4-Core (4 + 0)	Q1/22	60W	89W	3.5GHz / n.a.	4.4GHz	4800 / --	UHD Graphics730	--	√	--		y	y	y	y	y
i3-12100 4-Core (4 + 0)	Q1/22	60W	89W	3.3GHz / n.a.	4.3GHz	4800 / --	UHD Graphics730	--	√	--		y	y	y	y	y
i3-12100E ⁵⁾ 4-Core (4 + 0)	Q1/22	60W	89W	3.3GHz / n.a.	4.2GHz	4800 / √	UHD Graphics730	√	√	--		y	y	y	y	y
i3-12100F ³⁾ 4-Core (4 + 0)	Q1/22	58W	89W	3.3GHz / n.a.	4.3GHz	4800 / --	--	--	√	--		y	y	y	y	y
i3-12300T 4-Core (4 + 0)	Q1/22	35W	69W	2.3GHz / n.a.	4.2GHz	4800 / --	UHD Graphics730	--	√	--		y	y	y	y	y
i3-12100T 4-Core (4 + 0)	Q1/22	35W	69W	2.2GHz / n.a.	4.1GHz	4800 / --	UHD Graphics730	--	√	--		y	y	y	y	y
i3-12100TE ⁵⁾ 4-Core (4 + 0)	Q1/22	35W	69W	2.2GHz / n.a.	4.0GHz	4800 / √	UHD Graphics730	--	√	--		y	y	y	y	y
Pentium® Gold G series																
Pent. Gold G7400 2-Core (2 + 0)	Q1/22	46W	n.a.	3.7GHz / n.a.	n.a.	4800 / --	UHD Graphics710	--	√	--		y	y	y	y	y
Pent. Gold G7400E ⁵⁾ 2-Core (2 + 0)	Q1/22	46W	n.a.	3.7GHz / n.a.	n.a.	4800 / √	UHD Graphics710	--	√	--		y	y	y	y	y
Pent. Gold G7400T 2-Core (2 + 0)	Q1/22	35W	n.a.	3.1GHz / n.a.	n.a.	4800 / --	UHD Graphics710	--	√	--		y	y	y	y	y
Pent. Gold G7400TE ⁵⁾ 2-Core (2 + 0)	Q1/22	35W	n.a.	3.1GHz / n.a.	n.a.	4800 / √	UHD Graphics710	--	√	--		y	y	y	y	y
Celeron® G series																
Cel. G6900 2-Core (2 + 0)	Q1/22	46W	n.a.	3.4GHz / n.a.	n.a.	4800 / --	UHD Graphics710	--	--	--		y	y	y	y	y
Cel. G6900E ⁵⁾ 2-Core (2 + 0)	Q1/22	46W	n.a.	3.4GHz / n.a.	n.a.	4800 / √	UHD Graphics710	--	--	--		y	y	y	y	y
Cel. G6900T 2-Core (2 + 0)	Q1/22	35W	n.a.	2.8GHz / n.a.	n.a.	4800 / --	UHD Graphics710	--	--	--		y	y	y	y	y
Cel. G6900TE ⁵⁾ 2-Core (2 + 0)	Q1/22	35W	n.a.	2.8GHz / n.a.	n.a.	4800 / √	UHD Graphics710	--	--	--		y	y	y	y	y

A) P= Performance-core / E = Efficient-core

1) Intel Standard Manageability 2) The K-Processor Series are supported, but w/o overclocking features

3) Appendix "F" = processor version w/o integrated graphics. The motherboards above are basically capable of running these processors

4) K3831-H/K3832-Q/K3833-Q: Baseline CPU Support (Max. Turbo Power may be limited) 5) Appendix "E" = "Embedded" version (IOTG)

6) Max. effective memory speed depends on motherboard model and installed processor. See related motherboard datasheet for details

Updated Version: 09/2023

Support for Celeron G-Series (G69xx) added

Intel® Core™ Processors LGA2066

Xeon-W, Skylake-X

CPU X MOTHERBOARD: INTEL LGA2066 / D3598-B

Processor Name	# Cores	UDIMM DDR4	RDIMM/LRDIMM DDR4	Processor PCIe Lanes	ECC Support	vPro Support	D3598-B1 iC422
XEON® W-22xx series (CascadeLake-W)							
XEON® W-2295	18	---	max. 2933	48	yes	yes	y ¹⁾
XEON® W-2275	14	---	max. 2933	48	yes	yes	y ¹⁾
XEON® W-2265	12	---	max. 2933	48	yes	yes	y ¹⁾
XEON® W-2255	10	---	max. 2933	48	yes	yes	y ¹⁾
XEON® W-2245	8	---	max. 2933	48	yes	yes	y ¹⁾
XEON® W-2235	6	---	max. 2933	48	yes	yes	y ¹⁾
XEON® W-2225	4	---	max. 2933	48	yes	yes	y ¹⁾
XEON® W-2223	4	---	max. 2666	48	yes	yes	y ¹⁾
XEON® W-21xx series (Skylake-W)							
XEON® W-2195	18	---	max. 2666	48	yes	yes	y
XEON® W-2175	14	---	max. 2666	48	yes	yes	y
XEON® W-2155	10	---	max. 2666	48	yes	yes	y
XEON® W-2145	8	---	max. 2666	48	yes	yes	y
XEON® W-2135	6	---	max. 2666	48	yes	yes	y
XEON® W-2133	6	---	max. 2666	48	yes	yes	y
XEON® W-2125	4	---	max. 2666	48	yes	yes	y
XEON® W-2123	4	---	max. 2666	48	yes	yes	y
XEON® W-2104	4	---	max. 2400	48	yes	yes	y
XEON® W-2102	4	---	max. 2400	48	yes	yes	y
Core™ X-series (KabyLake-X / SkyLake-X / CascadeLake-X)							n

CPU X MOTHERBOARD: INTEL LGA2066 / D3598-G

Processor Name	# Cores	UDIMM DDR4	RDIMM/LRDIMM DDR4	Processor PCIe Lanes	ECC Support	vPro Support	D3598-G1 iX299
Core™ X-series (CascadeLake-X)							
Core i9-10980XE	18	max. 2933	---	48	no	no	y ¹⁾
Core i9-10940X	14	max. 2933	---	48	no	no	y ¹⁾
Core i9-10920X	12	max. 2933	---	48	no	no	y ¹⁾
Core i9-10900X	10	max. 2933	---	48	no	no	y ¹⁾
Core™ X-series (Skylake-X)							
Core i9-9980XE	18	max. 2666	---	44	no	no	y
Core i9-9960X	16	max. 2666	---	44	no	no	y
Core i9-9940X	14	max. 2666	---	44	no	no	y
Core i9-9920X	12	max. 2666	---	44	no	no	y
Core i9-9900X	10	max. 2666	---	44	no	no	y
Core i9-9820X	10	max. 2666	---	44	no	no	y
Core i9-7980XE	18	max. 2666	---	44	no	no	y
Core i9-7960X	16	max. 2666	---	44	no	no	y
Core i9-7940X	14	max. 2666	---	44	no	no	y
Core i9-7920X	12	max. 2666	---	44	no	no	y
Core i9-7900X	10	max. 2666	---	44	no	no	y
Core i7-9800X	8	max. 2666	---	44	no	no	y
Core i7-7820X	8	max. 2666	---	28	no	no	y
Core i7-7800X	6	max. 2400	---	28	no	no	y
Core™ X-series (Kabylake-X)							
Core i7-7740X	4	max. 2666	---	16	no	no	n
Core i5-7640X	4	max. 2666	---	16	no	no	n
XEON® W-21xx series (Skylake-W) / W-22xx series (CascadeLake-W)							n

Intel® Core™ Processors LGA1151

Coffeelake-S (Refresh)

CPU X MOTHERBOARD: INTEL LGA1151 - COFFEELAKE REFRESH

Processor Name	Thermal Design Power (TDP)	max. supported Memory (DDR4)	Integrated Graphics Core	vPro™ Support	D3633-S D3634-S	D3641-S D3646-S	D3642-B D3643-H	D3644-B	D3654-B D3664-B	D3674-B
Minimum recommended BIOS version for CoffeeLake Refresh support ⁴⁾ →					≥ R1.6.0	≥ R1.6.0	≥ R1.6.0	≥ R1.6.0	≥ R1.18.0	≥ R1.16.0
Intel® CoffeeLake Refresh 9th gen Core™										
Core™ i9 series										
i9-9900KS 8-Core	127W	2666	UHD Graphics 630	no	n	n	n	n	n	n
i9-9900K (-F) ³⁾ 8-Core	95W	2666	UHD Graphics 630	yes	y ^{1) 2)}	y ^{1) 2)}	y ^{1) 2)}	y ^{1) 2)}	n	n
i9-9900 8-Core	65W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
i9-9900T 8-Core	35W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
Core™ i7 series										
i7-9700K (-F) ³⁾ 8-Core	95W	2666	UHD Graphics 630	yes	y ^{1) 2)}	y ^{1) 2)}	y ^{1) 2)}	y ^{1) 2)}	n	n
i7-9700 (-F) ³⁾ (-E) ⁵⁾ 8-Core	65W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
i7-9700T (-E) ⁵⁾ 8-Core	35W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
Core™ i5 series										
i5-9600K (-F) ³⁾	95W	2666	UHD Graphics 630	yes	y ^{1) 2)}	y ^{1) 2)}	y ^{1) 2)}	y ^{1) 2)}	n	n
i5-9500 (-F) ³⁾ (-E) ⁵⁾ / 9600	65W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
i5-9400 (-F) ³⁾	65W	2666	UHD Graphics 630	no	y	y	y	y	y	y
i5-9500T (-E) ⁵⁾ / 9600T	35W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
i5-9400T	35W	2666	UHD Graphics 630	no	y	y	y	y	y	y
Core™ i3 series										
i3-9350K (-F) ³⁾	91W	2400	UHD Graphics 630	no	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	n	n
i3-9300 / 9320	62W	2400	UHD Graphics 630	no	y	y	y	y	y	y
i3-9100 (-F) ³⁾ (-E) ⁵⁾	65W	2400	UHD Graphics 630	no	y	y	y	y	y	y
i3-9100T (-E) ⁵⁾ / 9300T	35W	2400	UHD Graphics 630	no	y	y	y	y	y	y
Pentium® Gold G series										
Pent. Gold G5620	54W	2400	UHD Graphics 630	no	y	y	y	y	y	y
Pent. Gold G5420	54-58W	2400	UHD Graphics 610	no	y	y	y	y	y	y
Pent. Gold G5600T	35W	2400	UHD Graphics 630	no	y	y	y	y	y	y
Pent. Gold G5420T	35W	2400	UHD Graphics 610	no	y	y	y	y	y	y
Celeron® G series										
Cel. G4930 / G4950	54W	2400	UHD Graphics 610	no	y	y	y	y	y	y
Cel. G4930T	35W	2400	UHD Graphics 610	no	y	y	y	y	y	y
Intel® CoffeeLake Refresh XEON® E-22xx series										
XEON E-2288G 8-Core	95W	2666 (ECC)	UHD Graphics P630	yes	n	y ²⁾	n	y ²⁾	n	n
XEON E-2278G (-E) ⁵⁾ (-L) ⁶⁾ 8-Core	80W	2666 (ECC)	UHD Graphics P630	yes	n	y	n	y	n	n
XEON E-22xxG (-E) ⁵⁾ 4/6-Core	up to 95W	2666 (ECC)	UHD Graphics P630	yes	n	y	n	y	n	n
XEON E-22xx 4-Core / 6-Core	up to 95W	2666 (ECC)	no	yes	n	y	n	y	n	n

Updated Version: 11/2019 (i9-9900KS added; "-E" and "-L" models add

- 1) The K-Processor Series are supported, but w/o overclocking features
- 2) 8-Core processors @ 95W TDP are supported; max. Turbo Mode may be slightly limited
- 3) Appendix "F" = processor version w/o integrated graphics. The mainboards above are basically capable of running these processors (no approval by Fujitsu)
- 4) Previous BIOS versions may enable boot of certain CFL-R processors
- 5) Appendix "E" = Embedded version. The mainboards above are basically capable of running these processors (no approval by Fujitsu)
- 6) Appendix "L" = Low Power version (35W TDP). The mainboards above are basically capable of running these processors (no approval by Fujitsu)

CPU X MOTHERBOARD: INTEL LGA1151 - COFFEELAKE

Processor Name	Thermal Design Power (TDP)	max. supported Memory Speed (DDR4)	Integrated Graphics Core	vPro™ Support	D3633-S D3634-S	D3641-S D3646-S	D3642-B D3643-H	D3644-B	D3654-B D3664-B	D3674-B
Intel® CoffeeLake 8th gen Core™										
Core™ i7 series										
i7-8700K	95W	2666	UHD Graphics 630	yes	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	n	n
i7-8700	65W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
i7-8700T	35W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
Core™ i5 series										
i5-8600K	95W	2666	UHD Graphics 630	yes	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	n	n
i5-8500 / 8600	65W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
i5-8400	65W	2666	UHD Graphics 630	no	y	y	y	y	y	y
i5-8500T / 8600T	35W	2666	UHD Graphics 630	yes	y	y	y	y	y	y
i5-8400T	35W	2666	UHD Graphics 630	no	y	y	y	y	y	y
Core™ i3 series										
i3-8350K	91W	2400	UHD Graphics 630	no	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	n	n
i3-8100 / 8300	65W	2400	UHD Graphics 630	no	y	y	y	y	y	y
i3-8100T / 8300T	35W	2400	UHD Graphics 630	no	y	y	y	y	y	y
Pentium® Gold G series										
Pent. Gold G5500 / G5600	54W	2400	UHD Graphics 630	no	y	y	y	y	y	y
Pent. Gold G5400	54-58W	2400	UHD Graphics 630	no	y	y	y	y	y	y
Pent. Gold G5500T	35W	2400	UHD Graphics 630	no	y	y	y	y	y	y
Pent. Gold G5400T	35W	2400	UHD Graphics 610	no	y	y	y	y	y	y
Celeron® G series										
Cel. G4900 / G4920	54W	2400	UHD Graphics 610	no	y	y	y	y	y	y
Cel. G4900T	35W	2400	UHD Graphics 610	no	y	y	y	y	y	y
Intel® CoffeeLake XEON® E-21xx series										
XEON E-21xxG 4-Core / 6-Core	up to 95W	2666 (ECC)	UHD Graphics P630	yes	n	y	n	y	n	n
XEON E-21xx 4-Core / 6-Core	up to 95W	2666 (ECC)	no	yes	n	y	n	y	n	n

1) The K-Processor Series are supported, but w/o overclocking features

Intel® Core™ Processors LGA1151

Skylake-S, Kabylake-S

CPU X MOTHERBOARD: INTEL LGA1151 - KABYLAKE

Processor Name	supported Memory Speed (DDR4)	Integrated Graphics Core	vPro™ Support	D3400-U/B2 D3410-B2	D3401-B2 D3402-B2	D3417-B2	D3474-B1	D3433-S2 D3434-S2	D3441-S2	D3446-S2
Intel® Skylake 6 th gen Core™				y ³⁾	y ³⁾	y ³⁾	y ³⁾	y ³⁾	y ³⁾	y ³⁾
Intel® Skylake XEON® E3-12xx V5				n	n	y ³⁾	n	n	n	y ³⁾
Intel® Kabylake 7 th gen Core™ :										
Core™ i7 series										
i7-7700 [-T]	2400	HD Graphics 630	yes	y	y	y	y	y	y	y
i7-7700 -K	2400	HD Graphics 630	no	y ²⁾	y ²⁾	y ¹⁾	y ²⁾	y ²⁾	y ²⁾	y ¹⁾
Core™ i5 series										
i5-7600 [-T]	2400	HD Graphics 630	yes	y	y	y	y	y	y	y
i5-7600 -K	2400	HD Graphics 630	no	y ²⁾	y ²⁾	y ¹⁾	y ²⁾	y ²⁾	y ²⁾	y ¹⁾
i5-7500 [-T]	2400	HD Graphics 630	yes	y	y	y	y	y	y	y
i5-7400 [-T]	2400	HD Graphics 630	no	y	y	y	y	y	y	y
Core™ i3 series										
i3-7350 -K	2400	HD Graphics 630	no	y ²⁾	y ²⁾	y ¹⁾	y ²⁾	y ²⁾	y ²⁾	y ¹⁾
i3-7320	2400	HD Graphics 630	no	y	y	y	y	y	y	y
i3-7300 [-T]	2400	HD Graphics 630	no	y	y	y	y	y	y	y
i3-7100 [-T]	2400	HD Graphics 630	no	y	y	y	y	y	y	y
i3-7101 [-TE / -E]	2133	HD Graphics 630	no	y	y	y	y	y	y	y
Pentium® G series										
Pent.- G4620	2400	HD Graphics 630	no	y	y	y	y	y	y	y
Pent.- G4600 [-T]	2400	HD Graphics 630	no	y	y	y	y	y	y	y
Pent.- G4560 [-T]	2400	HD Graphics 610	no	y	y	y	y	y	y	y
Celeron® G series										
Cel. - G3950	2400	HD Graphics 610	no	y	y	y	y	y	y	y
Cel. - G3930 [-T]	2400	HD Graphics 610	no	y	y	y	y	y	y	y
Intel® Kabylake XEON® E3-12xx V6 series										
XEON E3-12x5 V6	2400	HD Graphics P630	yes	n	n	y	n	n	n	y
XEON E3-12x0 V6	2400	no	yes	n	n	y	n	N	n	y

Last Update: 11/2017 1) The K-Processor Series are basically supported, but with limited TDP of 80W and no overclocking features 2) The K-Processor Series are basically supported, but with limited TDP of 65W and no overclocking features 3) All Kabylake mainboards D34xx-B2/S2 also support the Skylake processors as supported by D34xx-B1/S1; See page "Intel LGA 1151 - Skylake" for details

CPU X MOTHERBOARD: INTEL LGA1151 – SKYLAKE

Processor Name	supported Memory Speed (DDR4)	Integrated Graphics Core	vPro™ Support	D3400-A1/B1 D3410-B1	D3401-A1/B1 D3402-A1/B1	D3417-A1/B1	D3474-B1	D3433-S1 D3434-S1	D3441-S1 D3445-S1	D3446-S1
Intel® Kabylake 7 th gen Core™				n	n	n	y ³⁾	n	n	n
Intel® Kabylake XEON® E3-12xx V6				n	n	n	n	n	n	n
Intel® Skylake 6 th gen Core™ :										
Core™ i7 series										
i7-6700 [-T]	2133	HD Graphics 530	yes	y	y	y	y	y	y	y
i7-6700 -K	2133	HD Graphics 530	no	y ²⁾	y ²⁾	y ¹⁾	y ²⁾	y ²⁾	y ²⁾	y ¹⁾
i7-6700 -TE	2133	HD Graphics 530	yes	y	y	y	y	y	y	y
Core™ i5 series										
i5-6600 [-T]	2133	HD Graphics 530	yes	y	y	y	y	y	y	y
i5-6600 -K	2133	HD Graphics 530	no	y ²⁾	y ²⁾	y ¹⁾	y ²⁾	y ²⁾	y ²⁾	y ¹⁾
i5-6500 [-T]	2133	HD Graphics 530	yes	y	y	y	y	y	y	y
i5-6500 [-TE]	2133	HD Graphics 530	yes	y	y	y	y	y	y	y
i5-6400 [-T]	2133	HD Graphics 530	no	y	y	y	y	y	y	y
Core™ i3 series										
i3-6320	2133	HD Graphics 530	no	y	y	y	y	y	y	y
i3-6300 [-T]	2133	HD Graphics 530	no	y	y	y	y	y	y	y
i3-6100 [-T]	2133	HD Graphics 530	no	y	y	y	y	y	y	y
i3-6100 [-TE]	2133	HD Graphics 530	no	y	y	y	y	y	y	y
Pentium® G series										
Pent.- G4520	2133	HD Graphics 530	no	y	y	y	y	y	y	y
Pent.- G4500 [-T]	2133	HD Graphics 530	no	y	y	y	y	y	y	y
Pent.- G4400 [-T]	2133	HD Graphics 510	no	y	y	y	y	y	y	y
Pent.- G4400 [-TE]	2133	HD Graphics 510	no	y	y	y	y	y	y	y
Celeron® G series										
Cel. - G3920	2133	HD Graphics 510	no	y	y	y	y	y	y	y
Cel. - G3900 [-T]	2133	HD Graphics 510	no	y	y	y	y	y	y	y
Cel. - G3900 [-TE]	2133	HD Graphics 510	no	y	y	y	y	y	y	y
Intel® Skylake XEON® E3-12xx V5 series										
XEON E3-12x5 [L] V5; XEON E3-1268L V5	2133	HD Graphics P530	yes	N	n	y	n	n	n	y
XEON E3-12x0 [L] V5	2133	no	yes	N	n	y	n	n	n	y

Last Update: 11/2017 1) The K-Processor Series are basically supported, but with limited TDP of 80W and no overclocking features **2)** The K-Processor Series are basically supported, but with limited TDP of 65W and no overclocking features **3)** See page "Intel LGA 1151 - Kabylake" for details

Intel® Core™ Processors Archive

CPU X MOTHERBOARD: INTEL LGA1150

CPU					Boards						
Processor Name	"Haswell Refresh 2014"	supported Memory Speed (DDR3)	Integrated Graphics Core	vPro™ Support	D3220-A/B	D3221-A/B	D3222-A/B	D3230-A/B	D3240-B	D3231-S D3235-S D3236-S	D3243-S
Intel® <i>Broadwell</i> series (5 th gen Core™)					n	n	n	n	n	n	n
Core™ i7 series											
i7-4770 / 4771 [-S / -T]		1600	HD Graphics 4600	yes	y	y	y	y	y	y	y
i7-4770 -K		1600	HD Graphics 4600	no	y	y	y	y	y	y	y
i7-4765 [-T]		1600	HD Graphics 4600	yes	y	y	y	y	y	y	y
i7-4770 -TE		1600	HD Graphics 4600	yes	y	y	y	y	y	y	y
i7-4790 [-S / -T / -K]	X	1600	HD Graphics 4600	yes	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
i7-4785 -T	X	1600	HD Graphics 4600	yes	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
Core™ i5 series											
i5-4670 [-S / -T]		1600	HD Graphics 4600	yes	y	y	y	y	y	y	y
i5-4670 -K		1600	HD Graphics 4600	no	y	y	y	y	y	y	y
i5-4570 [-S / -T]		1600	HD Graphics 4600	yes	y	y	y	y	y	y	y
i5-4570 -TE		1600	HD Graphics 4600	yes	y	y	y	y	y	y	y
i5-4430 / 4440 [-S / -T]		1600	HD Graphics 4600	no	y	y	y	y	y	y	y
i5-4690 [-S / -T / -K]	X	1600	HD Graphics 4600	yes	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
i5-4590 [-S / -T]	X	1600	HD Graphics 4600	yes	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
i5-4460 [-S / -T]	X	1600	HD Graphics 4600	yes	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
Core™ i3 series											
i3-4330 / 4340 [-T]		1600	HD Graphics 4600	no	y	y	y	y	y	y	y
i3-4130 [-T]		1600	HD Graphics 4400	no	y	y	y	y	y	y	y
i3-4330 / 4340 -TE		1600	HD Graphics 4600	no	y	y	y	y	y	y	y
i3-4350 / 4360 / 4370 [-T]	X	1600	HD Graphics 4600	no	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
i3-4150 / 4160 / 4170 [-T]	X	1600	HD Graphics 4400	no	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
Pentium® G series											
Pent.- G3420 / G3430 [-T]		1600	HD Graphics	no	y	y	y	y	y	y	y
Pent.- G3220 [-T]		1333	HD Graphics	no	y	y	y	y	y	y	y
Pent.- G3320 -TE		1333	HD Graphics	no	y	y	y	y	y	y	y
Pent.- G3440 / G3450 / G3460 / G3470 [-T]	X	1600	HD Graphics	no	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
Pent.- G3240 / G3250 / G3258 / G3260 [-T]	X	1333	HD Graphics	no	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y
Celeron® G series											
Cel.- G1820 / G1830 [-T]		1333	HD Graphics	no	y	y	y	y	y	y	y
Cel.- G1820 -TE		1333	HD Graphics	no	y	y	y	y	y	y	y
Cel.- G1840 / G1850 [-T]	X	1333	HD Graphics	no	y ¹⁾	y ¹⁾	y ¹⁾	y ¹⁾	y	y ²⁾	y

Note: Haswell-based XEON processors (LGA1150) can be used on above mentioned mainboards, but there is no official support from Intel/Fujitsu! ECC is NOT supported by desktop chipsets!

Update: More "Haswell Refresh" processors and related details added 03/2015

1) BIOS ≥ R1.17.0 and ME-FW ≥ 9.1.0.1120 required for D322x-A/B and D3230-A/B & Haswell Refresh CPU
 2) BIOS ≥ R1.18.0 and ME-FW ≥ 9.1.0.1120 required for D323x-S & Haswell Refresh CPU
 2) To update the ME-FW to 9.1.0.1120 on D323x please use the Service Release BIOS 1.18.0.SR.1
 Note: D322x-B "GS ≥ 3" and D323x-S "GS ≥ 2" are "Haswell Refresh ready" ex factory!
 D3240-B and D3243-S are always "Haswell Refresh ready" ex factory!

CPU X MOTHERBOARD: INTEL LGA2011

CPU					Boards			
Processor Name	Codename	supported Memory	ECC Support	vPro Support	D3128-B1x	D3128-B2x	D3348-B1	D3348-B2
Core™ i7 series								
i7-69xx	Broadwell-E	DDR4 UDIMM	no	no	n	n	n	y
i7-6850K	Broadwell-E	DDR4 UDIMM	no	no	n	n	n	y
i7-6800K	Broadwell-E	DDR4 UDIMM	no	no	n	n	n	n 2)
i7-59xx	Haswell-E	DDR4 UDIMM	no	no	n	n	y	y
i7-58xx	Haswell-E	n.r.	no	no	n	n	n 2)	n 2)
i7-49xx	IvyBridge	DDR3	no	no	n	y	n	n
i7-48xx	IvyBridge	DDR3	no	no	n	y	n	n
i7-39xx	SandyBridge	DDR3	no	no	y	y	n	n
i7-38xx	SandyBridge	DDR3	no	no	y	y	n	n
XEON® E5-26xx series								
XEON® E5-26xx-V4	Broadwell-EP	DDR4 RDIMM/RDIMM 3DS	yes	yes	n	n	n	Y
XEON® E5-26xx-V3	Haswell-EP	DDR4 RDIMM/LRDIMM	yes	yes	n	n	Y	y
XEON® E5-26xx-V2	IvyBridge-EP	DDR3	yes	yes	n	y	n	n
XEON® E5-26xx	SandyBridge-EP	DDR3	yes	yes	y	y 1)	n	n
XEON® E5-16xx series								
XEON® E5-16xx-V4	Broadwell-EP	DDR4 RDIMM/RDIMM 3DS	yes	yes	n	n	n	y
XEON® E5-16xx-V3	Haswell-EP	DDR4 RDIMM/LRDIMM	yes	yes	n	n	y	y
XEON® E5-16xx-V2	IvyBridge-EP	DDR3	yes	yes	n	y	n	n
XEON® E5-16xx	SandyBridge-WS	DDR3	yes	yes	y	y 1)	n	n

1) Some SandyBridge processors (e.g. E5-1620) may require BIOS > R1.5.0 for full support on D3128-B2x!
(Service Release BIOS R1.5.0.SR1 available via OEM FTP)

2) D3348-B1: Core i7-5820K is NOT recommended. D3348-B2: Core i7-6800K and Core i7-5820K are NOT recommended.

As these processors offers less high speed lanes (28 instead 40), the PCIe Slots #3, #4 and #7 cannot be used if these CPU's are installed.

Updated Version
07/2016

CPU X MOTHERBOARD: INTEL LGA1155 (CORE I5/I7)



CPU				Boards						
Processor Name	supported Memory Speed (DDR3) ¹⁾	Integrated Graphics Core	vPro™ Support	D2990-A1	D2990-A3	D2991	D3171	D3061/D3062	D3161/D3162	D307x-S
Core™ i7 series										
i7-3770, i7-3770S, i7-3770T	1600/1333	HD Graphics 4000	yes	n	y	n	y	n	y	n
i7-3770K	1600/1333	HD Graphics 4000	no	n	y	n	y	n	y	n
i7-2600, i7-2600S	1333/1066	HD Graphics 2000	yes	y	y	y	y	y	y	y
i7-2600K, i7-2700K	1333/1066	HD Graphics 3000	no	y	y	y	y	y	y	y
Core™ i5 series										
i5-35xx, i5-3570T, i5-35xxS	1600/1333	HD Graphics 2500	yes	n	y	n	y	n	y	n
i5-3570K	1600/1333	HD Graphics 4000	no	n	y	n	y	n	y	n
i5-3475S	1600/1333	HD Graphics 4000	yes	n	y	n	y	n	y	n
i5-3470, i5-3470T, i5-3470S	1600/1333	HD Graphics 2500	yes	n	y	n	y	n	y	n
i5-3450, i5-3450S	1600/1333	HD Graphics 2500	no	n	y	n	y	n	y	n
i5-3335S	1600/1333	HD Graphics 4000	no	n	y	n	y	n	y	n
i5-3330, i5-3340, i5-3330S	1600/1333	HD Graphics 2500	no	n	y	n	n / y ²⁾	n	n / y ²⁾	n
i5-2500, i5-2500T, i5-2500S	1333/1066	HD Graphics 2000	yes	y	y	y	y	y	y	y
i5-2500K	1333/1066	HD Graphics 3000	no	y	y	y	y	y	y	y
i5-2405S	1333/1066	HD Graphics 3000	no	y	y	y	y	y	y	y
i5-2400, i5-2400S	1333/1066	HD Graphics 2000	yes	y	y	y	y	y	y	y
i5-2390T	1333/1066	HD Graphics 2000	yes	y	y	y	y	y	y	y
i5-2300, i5-2310, i5-2320	1333/1066	HD Graphics 2000	no	y	y	n / y ²⁾	n / y ²⁾	n / y ²⁾	n / y ²⁾	n / y ²⁾

Note: 1) Memory controller integrated in processor! 2) No official support by Intel, but tested by FTS

Update: 06/2013

CPU X MOTHERBOARD: INTEL LGA1155 (ENTRY PROCESSORS)



CPU				Boards						
Processor Name	supported Memory Speed (DDR3)	Integrated Graphics Core	vPro™ Support	D2990-A1	D2990-A3	D2991	D3171	D3061/D3062	D3161/D3162	D307x-S
Core™ i3 series										
i3-32x5	1600/1333	HD Graphics 4000	no	n	y	n	y	n	y	n
i3-32x0, i3-32x0T	1600/1333	HD Graphics 2500	no	n	y	n	y	n	y	n
i3-21x5	1333/1066	HD Graphics 3000	no	y	y	y	y	y	y	y
i3-21x0	1333/1066	HD Graphics 2000	no	y	y	y	y	y	y	y
i3-21xxT	1333/1066	HD Graphics 2000	no	y	y	y	y	y	y	y
Pentium® G series										
G8xx	1333/1066	HD Graphics	no	y	y	y	y	y	y	y
G860T	1333/1066	HD Graphics	no	y	y	y	y	y	y	y
G6xx	1066	HD Graphics	no	y	y	y	y	y	y	y
G6xxT	1066	HD Graphics	no	y	y	y	y	y	y	y
G21xx	1600/1333	HD Graphics	no	n	y	n	y	n	y	n
G21xxT	1600/1333	HD Graphics	no	n	y	n	y	n	y	n
G20xx	1333	HD Graphics	no	n	y	n	y	n	y	n
G20xxT	1333	HD Graphics	no	n	y	n	y	n	y	n
Celeron® G series										
G5xx	1066	HD Graphics	no	y	y	y	y	y	y	y
G5xxT	1066	HD Graphics	no	y	y	y	y	y	y	y
G4xx	1066	HD Graphics	no	y	y	y	y	y	y	y
G16xx	1066	HD Graphics	no	n	y	n	y	n	y	n

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