The Intel x86 Microarchitectures Map

Version 1.1

8086 (1978, 3 µm)
Alternative Names: iAPX 86
Series: 8086, 8088 (cheaper)

80186 (1982, 3 µm)
Alternative Names: iAPX 186
Series : 80186, 80188 (cheaper)

80286 (1982, 1.5 µm)
Alternative Names: iAPX 286
Series: 80286

80386 (1985, 1.5 to 1 µm)
Alternative Names: 386, i386
Series:
- Launch: i386DX
- Cheaper: i386SX
- Lower-power: i386SL, 80376, i386EX, i386CXSA, i386SXSA, i386CXSB

80486 (1989, 1 to 0.6 µm)
Alternative Names: 486, i486
Series:
- Launch: i486DX
- Cheaper: i486SX, i486SX-S, i487SX
- Lower-power: i386SL, i486DX-S, i486GX
- Higher-performance: i486DX2, i486DX2-S, i486SX2, IntelDX4, i486DX2WB, IntelDX4WB
- Compatibility: RapidCAD

Quark (2013, 32 m)
Series:
- Microprocessors: Quark X1000 (Clanton)
- Microcontrollers: Quark D1000 (Silver Butte), Quark D2000 (Mint Valley), Quark SE C1000 (Atlas Peak)

32-bit Bonnell (2008, 45 nm) and **32-bit Saltwell** (2011, 32 nm)
Alternative Names: BNL
Series:
- Mobile: Atom Z500 (Silverthorne), Atom Z600 (Lincroft), Atom Z2000 (Penwell and Cloverview), Atom N270 (Diamondville), Atom N280 (Diamondville)
- System-on-chip: Atom E600 (Tunnel Creek and Stellarton)

Variant: **64-bit Bonnell** (2008, 45 nm) and **64-bit Saltwell** (2011, 32 nm)
Alternative Names: BNL
Series:
- Desktop: Atom 230 (Diamondville), Atom 330 (Diamondville), Atom D400 (Pineview), Atom D500 (Pineview), Atom D2000 (Cedarview)
- Mobile: Atom N400 (Pineview), Atom N500 (Pineview), Atom N2000 (Cedarview)
- Server: Atom S12x0 (Centerton), Atom S12x9 (Briarwood)

Silvermont (2013, 22 nm) and **Airmont** (2015, 14 nm)
Alternative Names: SLM
Series:
- Desktop: Celeron J1000 (Bay Trail-D), Celeron J3000 (Braswell)
- Desktop higher-performance: Pentium J2000 (Bay Trail-D),), Pentium J3000 (Braswell)
- Mobile: Celeron N2800 (Bay Trail-M), Celeron N2900 (Bay Trail-M), Atom Z3600 (Bay Trail-T), Atom Z3400 (Merrifield), Celeron N3100 (Braswell), Celeron N3000 (Braswell), Atom x3-C3130 (SoFIA, 28 nm)
- Mobile high-performance: Pentium 3500 (Bay Trail-M), Atom Z3700 (Bay Trail-T), Atom Z3500 (Moorefield), Pentium N3700 (Braswell), Atom x3-C3200 (SoFIA, 28 nm), Atom x3-C3400 (SoFIA, 28 nm), Atom x5-E8000 (Braswell), Atom x5-Z8000 (Cherry Trail-T) , Atom x7-Z8000 (Cherry Trail-T)
- Server: Atom C2xx0 (Avoton)
- Network infrastructure: Atom C2xx8 (Rangeley)
- Industrial: Atom E3800 (Bay Trail-I)

Tremont (2020, 10 nm)
Series: Atom P (Snow Ridge, SNR)

P5 (1993, 0.80 to 0.35 µm)
Alternative Names: Pentium, 80586, 586, i586
Series:
- Desktop/Server: P5, P54C
- Desktop/Server higher-performance: P54CQS, P54CS
- Mobile: P54C, P54LM
- Compatibility: Pentium OverDrive

Variant: **P55C** (1997, 0.28 to 0.25 µm)
Alternative Names: Pentium MMX
Series:
- Desktop/Server: P55C
- Mobile: P55LM (Mobile Pentium MMX), Tillamook (Mobile Pentium MMX)
- Compatibility: P54CTB

Larrabee (Cancelled, 45 to 32 nm)
Alternative Names: LRB
Series: None

Variant: **Knights Ferry** (Prototype, 45 nm)
Alternative Names: KNF
Series: None

Variant: **Knights Corner** (2011, 22 nm)
Alternative Names: KNC
Series: Xeon Phi 3100, Xeon Phi 5100, Xeon Phi 7100

Knights Landing (2016, 14 nm)
Alternative Names: KNL
Series: Xeon Phi x200

Variant: **Knights Hill** (Cancelled, 10 nm)
Alternative Names: KNH
Series: None

Variant: **Knights Mill** (2017, 14 nm)
Alternative Names: KNM
Series: Xeon Phi 72x5

Goldmont (2016, 14 nm)
Alternative Names: GLM
Series:
- Desktop: Celeron J3455 (Apollo Lake), Celeron J3455 (Apollo Lake)
- Desktop higher-performance: Pentium J4205 (Apollo Lake)
- Mobile: Celeron N3450 (Apollo Lake), Celeron N3350 (Apollo Lake)
- Mobile high-performance: Pentium N4200 (Apollo Lake)
- Server: Atom C3000 (Denverton)
- Industrial: Atom x5-E3930, Atom x7-E3930, Atom x5-A3930, Atom x7-A3930 (all are based on the Apollo Lake platform)

Goldmont Plus (2017, 14 nm)
Alternative Names: GLP
Series:
- Desktop: Celeron J4105 (Gemini Lake), Celeron J4105 (Gemini Lake)
- Desktop higher-performance: Pentium Silver J5005 (Gemini Lake)
- Mobile: Celeron N4100 (Gemini Lake), Celeron N4000 (Gemini Lake)
- Mobile high-performance: Pentium Silver N5000 (Gemini Lake)

P6 (1995, 0.50 to 0.35 µm)
Alternative Names: i686
Series: Pentium Pro (used in desktops and servers)

Variant: **Klamath** (1997, 0.35 µm)
Alternative Names: Pentium II, PII
Series: Klamath (used in desktops)

Variant: **Deschutes** (1998, 0.25 to 0.18 µm)
Alternative Names: Pentium II, PII
Series:
- Desktop: Deschutes, Pentium II Overdrive (Deschutes for compatiblity)
- Desktop lower-performance: Covington (Celeron), Mendocino (Celeron)
- Mobile: Tonga, Dixon
- Mobile lower-performance: Mendocino (Celeron)
- Server: Drake (Xeon)

Variant: **Pentium III** (1999, 0.25 to 0.13 µm)
Alternative Names: PIII
Series:
- Desktop: Katmai
- Desktop higher-performance: Coppermine, Coppermine T, Tualatin
- Desktop lower-performance: Coppermine-128 (Celeron), Tualatin-256 (Celeron), KC 733 (Coppermine-128 for Xbox)
- Mobile: Coppermine, Tualatin
- Mobile lower-performance: Coppermine-128 (Celeron), Coppermine T (Celeron), Tualatin-256 (Celeron)
- Server: Tanner (Xeon), Cascades (Xeon)

Pentium M (2003, 130 to 90 nm)
Series:
- Mobile: Banias
- Mobile higher-performance: Dothan, Dothan 533
- Mobile lower-performance: Banias-512 (Celeron), Shelton (Celeron), Dothan-1024 (Celeron), Dothan-512 (Celeron), A100 (Stealey)

Variant: **Enhanced Pentium M** (2006, 65 nm)
Alternative Names: Yonah
Series:
- Mobile: Core Solo T1000, Core Solo U1000
- Mobile higher-performance: Core Duo T2000, Core Duo LV L2000, Core Duo ULV U2000
- Mobile lower-performance: Yonah-512 (Celeron), Yonah-1024 (Celeron), Sossaman (Celeron), Pentium Dual-Core T2000
- Server: Sossaman (Xeon), Merom MP (Xeon)

NetBurst (2000 , 180 to 130 nm)
Alternative Names: Pentium 4, Pentium IV, P4
Series:
- Desktop: Willamette (180 nm)
- Desktop higher-performance: Northwood Pentium 4 (130 nm), Northwood B Pentium 4 HT (130 nm), Northwood C Pentium 4 HT (130 nm), Gallatin (Pentium 4 Extreme Edition 130 nm)
- Desktop lower-performance: Willamette-128 (Celeron), Northwood-128 (Celeron)
- Mobile: Northwood Pentium 4-M (130 nm), Northwood Mobile Pentium 4 (130 nm), Northwood Pentium 4 HT (130 nm)
- Mobile lower-performance: Northwood-256 (Celeron)
- Server: Foster (Xeon, 180 nm), Foster-MP (Xeon, 180 nm), Prestonia (Xeon, 130 nm), Prestonia B (Xeon, 130 nm)
- Server higher-performance: Gallatin (Xeon, 130 nm), Gallatin-MP (Xeon, 130 nm)

Variant: **32-bit Prescott** (2004, 90 nm)
Alternative Names: Pentium 4 90 nm
Series:
- Desktop: Pentium 4 2.40A, Pentium 4 2.66A, Pentium 4 2.80, Pentium 4 2.80A, Pentium 4 HT 2.8E, Pentium 4 HT 3.0E, Pentium 4 HT 3.2E (except SL7QB), Pentium 4 HT 3.4E (except SL7Q8)
- Desktop lower-performance: Celeron D 310, Celeron D 315, Celeron D 320, Celeron D 325, Celeron D 325J, Celeron D 330, Celeron D 330J, Celeron D 335, Celeron D 335J, Celeron D 340, Celeron D 340J, Celeron D 345, Celeron D 345J, Celeron D 350, Celeron D 350J (all are based on the Prescott-256 core)
- Mobile: Mobile Pentium 4 HT 518, Mobile Pentium 4 HT 532, Mobile Pentium 4 HT 538, Mobile Pentium 4 HT 548, Mobile Pentium 4 HT 552

Variant: **64-bit Prescott** (2004, 90 to 65 nm)
Alternative Names: Pentium 4 90 nm
Series:
- Desktop: Pentium 4 500, Pentium 4 HT 3.2E SL7QB, Pentium 4 HT 3.4E SL7Q8, Pentium 4 HT F, Pentium 4 HT 500
- Desktop higher-performance: Pentium 4 HT 600 (Prescott 2M), Pentium 4 HT 4.00 (Prescott 2M), Pentium 4 Extreme Edition 3.73 (Prescott 2M), Pentium D 800 (Smithfield, 90 nm), Pentium D 900 (Presler, 65 nm), Pentium Extreme Edition 800 (Smithfield, 90 nm), Pentium Extreme Edition 900 (Presler, 65 nm), Pentium 4 HT 600 (Cedar Mill, 65 nm)
- Desktop lower-performance: Celeron D 326, Celeron D 331 , Celeron D 336, Celeron D 341, Celeron D 346, Celeron D 351, Celeron D 355 (all are based on the Prescott-256 core), Celeron D 347, Celeron D 352, Celeron D 356, Celeron D 360, Celeron D 365 (all are based on the Cedar Mill-512 core)
- Server: Nocona (Xeon, 90 nm), Irwindale (Xeon, 90 nm), Cranford (Xeon, 90 nm)
- Server higher-performance: Potomac (Xeon, 90 nm), Paxville DP (Xeon, 90 nm), Paxville MP (Xeon 7000, 90 nm), Dempsey (Xeon 5000, 65 nm), Tulsa (Xeon 7100, 65 nm)

Variant: **Tejas** (Cancelled, 90 to 65 nm)
Alternative Names: Pentium V
Series: Cedarmill, Jayhawk

Core (2006, 65 nm)
Alternative Names: Core 2, Core2
Series:
- Desktop: Core 2 Duo E6000 (Except E6305 and E6405, Conroe), Core 2 Duo T5000 (Merom and Merom-2M), Core 2 Duo T7000 (Merom and Merom-2M)
- Desktop higher-performance: Core 2 Extreme X6000 (Conroe-XE), Core 2 Quad Q6000 (Kentsfield), Core 2 Extreme QX6000 (Kentsfield XE), Core 2 Extreme X7000 (Merom XE)
- Desktop lower-performance: Core 2 Duo E4000 (Allendale), Pentium Dual-Core E2000 (except E2210, Allendale and Conroe), Pentium Dual-Core T2000 (Merom-2M), Pentium Dual-Core T3000 (Merom-2M), Celeron 220 (Conroe-L), Celeron 400 (Conroe-L), Celeron 445 (Conroe-CL), Celeron E1000 (Allendale), Celeron M 500 (Merom, Merom-L, and Merom-2M), Celeron M ULV 523 (Merom-L), Celeron ULV 573 (Merom-L), Celeron T1x00 (Merom-2M)
- Mobile: Core 2 Solo ULV U2000 (Merom-L), Core 2 Duo SL7100 (Merom), Core 2 Duo L7000 (Merom), Core 2 Duo SP7000 (Merom), Core 2 Duo U7000 (Merom-2M)
- Server: Core 2 Duo E6305 (Conroe-CL), Core 2 Duo E6405 (Conroe-CL), Xeon 3000 (Conroe), Xeon 5100 (Woodcrest)
- Server higher-performance: Xeon 7200 (Tigerton), Xeon 3200 (Kentsfield), Xeon 5300 (Clovertown), Xeon 7300 (Tigerton)

Variant: **Penryn** (2007, 45 nm)
Alternative Names: Core 2, Core2
Series:
- Desktop: Core 2 Duo E8000 (Wolfdale), Core 2 Duo E7000 (Wolfdale-3M)
- Desktop higher-performance: Core 2 Extreme QX9000 (Yorkfield XE), Core 2 Extreme X9000 (Penryn XE), Core 2 Quad Q8000 (Yorkfield-6M), Core 2 Quad Q9000 (Yorkfield-6M and Yorkfield)
- Desktop lower-performance: Pentium Dual-Core E2210 (Wolfdale-3M), Pentium Dual-Core E5000 (Wolfdale-3M), Pentium Dual-Core E5000 (Wolfdale-3M), Pentium E6000 (Wolfdale-3M), Pentium T4000 (Penryn-3M), Pentium SU2700 (Penryn-3M), Pentium SU4100 (Penryn-3M), Celeron 900 (Penryn-3M), Celeron M ULV 700 (Penryn-3M), Celeron ULV 763 (Penryn-3M), Celeron T3000 (Penryn-3M), Celeron SU2300 (Penryn-3M)
- Mobile: Core 2 Solo SU3000 (Penryn-L), Core 2 Duo E8000 (Penryn), Core 2 Duo T6000 (Penryn-3M), Core 2 Duo T8000 (Penryn and Penryn-3M), Core 2 Duo T9000 (Penryn and Penryn-3M), Core 2 Duo P7000 (Penryn and Penryn-3M), Core 2 Duo P8000 (Penryn and Penryn-3M), Core 2 Duo P9000 (Penryn), Core 2 Duo SP9000 (Penryn), Core 2 Duo SL9000 (Penryn), Core 2 Duo SU7300 (Penryn-3M), Core 2 Duo SU9000 (Penryn-3M), Core 2 Quad Q9000 (Penryn QC), Core 2 Quad QX9300 (Penryn QC XE)
- Server: Xeon E3113 (Wolfdale-CL), Xeon L3014 (Wolfdale-CL), Xeon 3100 (Wolfdale), Xeon 5200 (Wolfdale-DP)
- Server higher-performance: Xeon 3300 (Yorkfield and Yorkfield-CL), Xeon 5400 (Harpertown), Xeon 7400 (Dunnington)

Nehalem (2008, 45 nm)
Alternative Names: NHM
Series:
- Desktop: Core: i5-700 (Lynnfield)
- Desktop higher-performance: Core i7-800 (Lynnfield), Core i7-900 (Bloomfield), Core i7-900 Extreme (Bloomfield)
- Mobile: Core i7-700 (Clarksfield), Core i7-800 M (Clarksfield)
- Mobile higher-performance: Core i7-900 Mobile Extreme (Clarksfield)
- Server: Xeon 3400 (Except Xeon L3406 and Xeon L3403, Lynnfield), Xeon 3500 (Bloomfield), Xeon C3500 (Jasper Forest)
- Server higher-performance: Xeon 5500 (Gulftown), Xeon C5500 (Jasper Forest), Xeon 6500 (Beckton, Nehalem-EX), Xeon 7500 (Beckton, Nehalem-EX)
- Server lower-performance: Celeron P1053 (Jasper Forest)

Variant: **Westmere** (2010, 32 nm)
Alternative Names: WSM
Series:
- Desktop: Core i5-600 (Clarkdale)
- Desktop higher-performance: Core i7-970, Core i7-980, Core i7-980X, Core i7-990X, Core i7-995X (all are based on the Gulftown core)
- Desktop lower-performance: Core i3-500 (Clarkdale), Pentium 6000 (Clarkdale), Celeron G1101 (Clarkdale)
- Mobile: Core i5-400 (Arrandale), Core i5-500 (Arrandale)
- Mobile higher-performance: Core i7-600 (Arrandale)
- Mobile lower-performance: Core i3-300, Pentium P6000, Pentium U5000, Celeron P4000, Celeron U3000 (all are based on the Arrandale core)
- Server: Xeon L3406 (Clarkdale), Xeon L3403 (Clarkdale), Xeon 3600 (Gulftown, Westmere-EP)
- Server higher-performance: Xeon 5600 (Gulftown, Westmere-EP), Xeon E7 (Westmere-EX)

Sandy Bridge (2011, 32 nm)
Alternative Names: SNB, SnB
Series:
- Desktop: Desktop 2nd Generation Core i5
- Desktop higher-performance: Desktop 2nd Generation Core i7, Desktop 3rd Generation Core i7 X (Sandy Bridge-E)
- Desktop lower-performance: Desktop 2nd Generation Core i3, Pentium G600, Pentium G800,Celeron G400, Celeron G500
- Mobile: Mobile 2nd Generation Core i5
- Mobile higher-performance: Mobile 2nd Generation Core i7, Mobile 2nd Generation Core i7 Extreme
- Mobile lower-performance: Mobile 2nd Generation Core i3, Pentium 900, Celeron 700, Celeron 800
- Server: Xeon E5-1400 (Sandy Bridge-EN), Xeon E5-2400 (Sandy Bridge-EN), Xeon E5-1600 (Sandy Bridge-EP), Xeon E5-2600 (Sandy Bridge-EP, Jaketown, JKT), Xeon E5-4600 (Sandy Bridge-EP)
- Server lower-performance: Xeon E3-1200, Pentium 350, Pentium 1400 (Sandy Bridge-EN)
- Network infrastructure: Xeon E3-1100, Pentium B915C, Celeron 725C, Core i3-2115C (all are based on the Gladden core)

Variant: **Ivy Bridge** (2012, 22 nm)
Alternative Names: IVB, IvB
Series:
- Desktop: Desktop 3rd Generation Core i5
- Desktop higher-performance: Desktop 3rd Generation Core i7, Desktop 4th Generation Core i7 X (Ivy Bridge-E)
- Desktop lower-performance: Desktop 3rd Generation Core i3, Pentium G2000, Celeron G1600
- Mobile: Mobile 3rd Generation Core i5
- Mobile higher-performance: Mobile 3rd Generation Core i7, Mobile 3rd Generation Core i7 X
- Mobile lower-performance: Mobile 3rd Generation Core i3, Pentium 2000, Celeron 900, Celeron 1000
- Server: Xeon E5-1400 v2 (Ivy Bridge-EN), Xeon E5-2400 v2 (Ivy Bridge-EN), Xeon E5-1600 v2 (Ivy Bridge-EP), Xeon E5-2600 v2 (Ivy Bridge-EP), Xeon E5-4600 v2 (Ivy Bridge-EP)
- Server higher-performance: Xeon E7 v2 (Ivy Bridge-EX, Ivytown, IVT)
- Server lower-performance: Xeon E3-1200 v2, Pentium 1400 v2 (Ivy Bridge-EN)
- Network infrastructure: Xeon E3-1100 v2, Pentium B925C, Celeron 725C, Core i3-3115C (all are based on the Gladden core)

Haswell (2013, 22 nm)
Alternative Names: HSW (Desktop and Mobile), HSX (Server)
Series:
- Desktop: Desktop 4th Generation Core i5
- Desktop higher-performance: Desktop 4th Generation Core i7, Desktop 5th Generation Core i7 X (Haswell-E)
- Desktop lower-performance: Desktop 4th Generation Core i3, Pentium G3200 (Haswell-DT), Pentium G3300 (Haswell-DT), Pentium G3400 (Haswell-DT), Celeron G1800 (Haswell-DT)
- Mobile: Mobile 4th Generation Core i5
- Mobile higher-performance: Mobile 4th Generation Core i7, Mobile 4th Generation Core i7 X
- Mobile lower-performance: Mobile 4th Generation Core i3, Pentium 3500M (Haswell-MB), Pentium 3500U (Haswell-ULT), Pentium 3500Y (Haswell-ULX), Celeron 2900M (Haswell-MB), Celeron 2900U (Haswell-ULT), Celeron 2900Y (Haswell-ULX), Celeron 2000E (Haswell-H)
- Server: Xeon E5-1600 v3 (Haswell-EN), Xeon E5-2600 v3 (Haswell-EP)
- Server higher-performance: Xeon E7- 4800 v3 (Haswell-EX), Xeon E7-8800 v3 (Haswell-EX)
- Server lower-performance: Xeon E3-1200 v3 (Haswell-WS)

Variant: **Broadwell** (2014, 14 nm)
Alternative Names: BDW (Desktop and Mobile), BDX (Server)
Series:
- Desktop: Desktop 5th Generation Core i5
- Desktop higher-performance: Desktop 5th Generation Core i7, Desktop 6th Generation Core i7 X (Broadwell-E)
- Mobile: Mobile 5th Generation Core i5, 5th Generation Core M (Broadwell-Y)
- Mobile higher-performance: Mobile 5th Generation Core i7
- Mobile lower-performance: Mobile 5th Generation Core i3, Pentium 3800U (Broadwell-U), Celeron 3200U (Broadwell-U), Celeron 3700U (Broadwell-U)
- Server: Xeon E5-1600 v4 (Broadwell-EP), Xeon E5-2600 v4 (Broadwell-EP)
- Server higher-performance: Xeon E7- 4800 v4 (Broadwell-EX), Xeon E7-8800 v4 (Broadwell-EX)
- Server lower-performance: Xeon E3-1200 v4 (Broadwell-WS)
- Server SoC: Xeon D-1500, Pentium D-1500 (Broadwell-DE)

Skylake (2015, 14 nm)
Alternative Names: SKL (Desktop and Mobile), SKX (Server)
Series:
- Desktop: Desktop 6th Generation Core i5 (Skylake-S and Skylake-H)
- Desktop higher-performance: Desktop 6th Generation Core i7 (Skylake-S and Skylake-H), Desktop 7th Generation Core i7 X (Skylake-X), Desktop 7th Generation Core i9 X (Skylake-X), Desktop 9th Generation Core i7 X (Skylake-X), Desktop 9th Generation Core i9 X (Skylake-X)
- Desktop lower-performance: Desktop 6th Generation Core i3 (Skylake-S and Skylake-H), Pentium G4400 (Skylake-S), Pentium G4500 (Skylake-S), Pentium G4520 (Skylake-S), Celeron G3900 (Skylake-S and Skylake-H), Celeron G3902 (Skylake-H), Celeron G3920 (Skylake-S)
- Mobile: Mobile 6th Generation Core i5 (Skylake-H and Skylake-U), 6th Generation Core M (Skylake-Y)
- Mobile higher-performance: Mobile 6th Generation Core i7 (Skylake-H and Skylake-U)
- Mobile lower-performance: Mobile 6th Generation Core i3 (Skylake-H and Skylake-U), Pentium 4405U (Skylake-U), Pentium 4405Y (Skylake-Y), Celeron G390xE (Skylake-H), Celeron 3x55U (Skylake-U)
- Server: Xeon W-2100 (Skylake-W), Xeon Silver 4100 (1st Generation Xeon Silver, Skylake-SP)
- Server higher-performance: Xeon Gold 5100 (1st Generation Xeon Gold, Skylake-SP), Xeon Gold 6100 (1st Generation Xeon Gold, Skylake-SP), Xeon Platinum 8100 (1st Generation Xeon Platinum, Skylake-SP)
- Server lower-performance: Xeon E3-1200 v5 (Skylake-DT), Xeon E3-1500 v5 (Skylake-H), Xeon D-2100 (Skylake-DE), Xeon Bronze 3100 (1st Generation Xeon Bronze, Skylake-SP)

Identical: **7th Generation Kaby Lake** (2016, 14 nm+)
Alternative Names: KBL
Series:
- Desktop: Desktop 7th Generation Core i5 (Kaby Lake-S), Desktop 7th Generation Core i5 X (Kaby Lake-X)
- Desktop higher-performance: Desktop 7th Generation Core i7 (Kaby Lake-S), Desktop 7th Generation Core i7 X (Kaby Lake-X)
- Desktop lower-performance: Desktop 7th Generation Core i3 (Kaby Lake-S), Pentium G4560 (Kaby Lake-S), Pentium G4600 (Kaby Lake-S), Celeron G3930 (Kaby Lake-S), Celeron G3950 (Kaby Lake-S)
- Mobile: Mobile 7th Generation Core i5 (Kaby Lake-U, Kaby Lake-Y, and Kaby Lake-H)
- Mobile higher-performance: Mobile 7th Generation Core i7 (Kaby Lake-U and Kaby Lake-Y, Kaby Lake-H)
- Mobile lower-performance: Mobile 7th Generation Core i3 (Kaby Lake-U and Kaby Lake-H), 7th Generation Core M (Kaby Lake-Y), Pentium Gold 4410 (Kaby Lake-Y), Pentium Gold 4415 (Kaby Lake-U and Kaby Lake-Y)
- Server lower-performance: Xeon E3-1200 v6 (Kaby Lake-H), Xeon E3-1500 v6 (Kaby Lake-H)

Identical: **8th Generation Kaby Lake** and **8th Generation Amber Lake** (2017 and 2018, 14 nm+)
Alternative Names: KBL and AML
Series:
- Mobile: Core i5 8250U (Kaby Lake-U Refresh), Core i5 8350U (Kaby Lake-U Refresh), Core i5 8305G (Kaby Lake-G)
- Mobile higher-performance: Core i7 8250U (Kaby Lake-U Refresh), Core i7 8650U (Kaby Lake-U Refresh), Core i7 8000G (Kaby Lake-G)
- Mobile lower-performance: Core i3 8130U (Kaby Lake-U), 8th Generation Core M (Amber Lake-Y), Core i5 8000Y (Amber Lake-Y), Core i7 8000Y (Amber Lake-Y), Pentium Gold 4417U (Kaby Lake-U Refresh), Celeron 3867U (Kaby Lake-U Refresh), Pentium Gold 4425Y (Amber Lake-Y)

Identical: **8th Generation Coffee Lake** (2017, 14 nm++)
Alternative Names: CFL
Series:
- Desktop: Desktop 8th Generation Core i5 (Coffee Lake-S)
- Desktop higher-performance: Desktop 8th Generation Core i7 (Coffee Lake-S)
- Desktop lower-performance: Desktop 8th Generation Core i3, Pentium Gold G5400T, Pentium Gold G5400, Pentium Gold G5500T, Pentium Gold G5500, Pentium Gold G5600, Celeron G4900T, Celeron G4900, Celeron G4920 (all are part of the Coffee Lake-S line)
- Mobile: Mobile 8th Generation Core i5 (Coffee Lake-U and Coffee Lake-H)
- Mobile higher-performance: Mobile 8th Generation Core i7 (Coffee Lake-U and Coffee Lake-H), Core i9-8950HK (Coffee Lake-H), Xeon E-2100 M (Coffee Lake-H)
- Mobile lower-performance: Mobile 8th Generation Core i3 (Coffee Lake-U and Coffee Lake-H)
- Server: Xeon E-2100 (Coffee Lake-E)

Security Fixes: **9th Generation Coffee Lake and Whiskey Lake** (2018, 14 nm++)
Alternative Names: CFL and WHL
Series:
- Desktop: Desktop 9th Generation Core i5 (Coffee Lake-S Refresh)
- Desktop higher-performance: Desktop 9th Generation Core i7 (Coffee Lake-S Refresh), Desktop 9th Generation Core i9 (Coffee Lake-S Refresh)
- Desktop lower-performance: Desktop 9th Generation Core i3, Pentium Gold G5420T, Pentium Gold G5420, Pentium Gold G5420, Pentium Gold G5600T, Celeron G4930T, Celeron G4930, Celeron G4950 (all are part of the Coffee Lake-S Refresh line)
- Mobile: Core i5-8x65U (Whiskey Lake-U), Core i7- 8x65U (Whiskey Lake-U), Mobile 9th Generation Core i5 (Coffee Lake-H Refresh)
- Mobile higher-performance: Mobile 9th Generation Core i7 (Coffee Lake-H Refresh), Mobile 9th Generation Core i9 (Coffee Lake-H Refresh), Xeon E-2200 M (Coffee Lake-H Refresh)
- Mobile lower-performance: Core i3-8145U (Whiskey Lake-U), Pentium Gold 8145U (Whiskey Lake-U), Celeron 5405U (Whiskey Lake-U)
- Server: Xeon E-2200 (Coffee Lake-E Refresh)

More Security Fixes: **Comet Lake** (2019, 14 nm++)
Alternative Names: CML
Series:
- Mobile: Mobile 10th Generation Core i5 U (Comet Lake-U)
- Mobile higher-performance: Mobile 10th Generation Core i7 U (Comet Lake-U)
- Mobile lower-performance: Mobile 10th Generation Core i3 U (Comet Lake-U), Pentium Gold 6405U (Comet Lake-U), Celeron 5205U (Comet Lake-U)

?: **10th Generation Amber Lake** (2019, 14 nm+?)
Alternative Names: AML
Series:
- Mobile: Mobile 10th Generation Core i5 Y (Amber Lake-Y)
- Mobile higher-performance: Mobile 10th Generation Core i7 Y (Amber Lake-Y)
- Mobile lower-performance: Mobile 10th Generation Core i3 Y (Amber Lake-Y)

Variant of KBL: **Cannon Lake** (2018, 10 nm)
Alternative Names: CNL, Skymont
Series: Core i3 8121U

Variant of ?: **Cascade Lake** (2019, 14 nm?)
Alternative Names: CSL, CSX
Series:
- Desktop higher-performance: Desktop 10th Generation Core i9 X (Cascade Lake-X)
- Server: Xeon W-2200 (Cascade Lake-W), Xeon Silver 4200 (2nd Generation Xeon Silver, Cascade Lake-SP)
- Server higher-performance: Xeon W-3200 (Cascade Lake-W), Xeon Gold 5200 (2nd Generation Xeon Gold, Cascade Lake-SP), Xeon Gold 6200 (2nd Generation Xeon Gold, Cascade Lake-SP), Xeon Platinum 9200 (Cascade Lake-AP)
- Server lower-performance: Xeon Bronze 3200 (2nd Generation Xeon Bronze, Cascade Lake-SP)

Ice Lake (2019, 10 nm+)
Alternative Names: ICL
Series:
- Mobile: Mobile 10th Generation Core i5 G (Ice Lake-U and Ice Lake-Y)
- Mobile higher-performance: Mobile 10th Generation Core i7 G (Ice Lake-U and Ice Lake-Y)
- Mobile lower-performance: Mobile 10th Generation Core i3 G (Ice Lake-U and Ice Lake-Y)

Design Guidelines
- A microarchitecture that is substantially different from earlier ones is represented by a separate node in the graph. A microarchitecture with incremental improvements is referred to as a variant of another microarchitecture.
- Processor models are organized into series and each series is designed for a very specific market segment. The processors in a series use one or more core or platform designs. In some cases, the core name is the same as the name of the series.
- Intel categorizes all processors into families, such as Core, Celeron, and Xeon. The name of the family is mentioned when necessary.

Maintainer: Hadi Brais (hadi.br@live.com)
Released on April 28, 2020