



Il Sistema PAO a 10nm

Cannon Lake, Ice Lake e Tiger Lake.

Intel Skylake (2015)

14nm

Hyper Threading

Fino a 4GHz + Turbo boost

91W

DMI 3.0

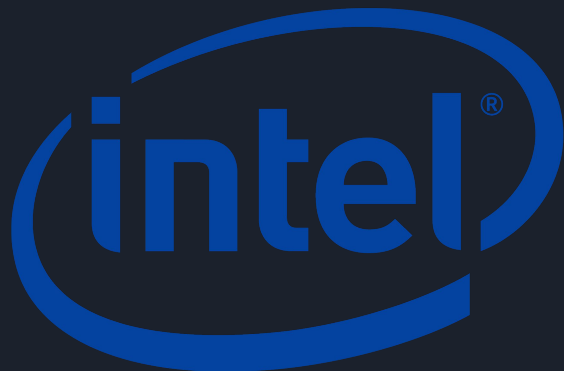
Tolto regolatore di tensione interno

Più connessioni dirette

OVERCLOCK sui singoli bus



168 modelli di cui 37 desktop



Intel Kaby Lake (2016)

14nm+

Nuovo chipset

Fino a 4.3GHz + Turbo boost

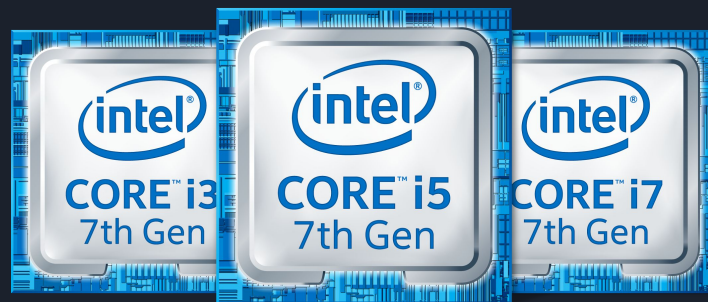
Consumo drasticamente ridotto

Maggior reattività

Media Engine

Stessa pipeline

Da Tick-Tack a PAO



TICK-TACK & PAO

Nuovo processo produttivo

Nuova microarchitettura

Process-Architecture-Optimization

Rallentamento mercato

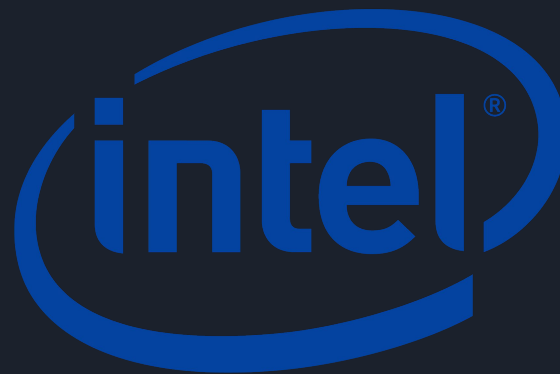


Intel Kaby Lake-R (2017)

14nm++

Incremento Cores, Frequenza in
Turbo boost e cache

Fino a 1.9GHz + Turbo boost (4.2GHz)



Intel Coffee Lake (2017)

14nm++

Raddoppiare i cores and threads

Fino a 3.7GHz + Turbo boost (4.7GHz)



6 modelli desktop

Intel Intel Whiskey Lake

14nm+++

Evoluzione Kaby Lake in ambito mobile



Intel Coffee Lake (2017)



14nm++

Raddoppiare i cores and threads

Fino a 3.7GHz + Turbo boost (4.7GHz)

6 modelli desktop



Intel Cannon Lake

10nm

Rimandato il rilascio dal 2016 al 2018

Dedicato ai mobiles

Intel Ice Lake

10nm+

Prime architetture 10nm per desktop

Intel Tiger Lake

10nm++

Intel Sapphire Rapids

10nm+++

SPECTRE & MELTDOWN

Bug che affligge tutti i processori dell'ultimo decennio

Google Project Zero

Si basano sulle operazioni speculative e agiscono sulla cache

Spectre inganna altre applicazioni

Trovato BUG, ma non EXPLOIT

Necessaria patch di sicurezza

90% dei processori protetti entro metà gennaio 2018

Spostare il Kernel



MELTDOWN



SPECTRE

Fonti:

<https://youtu.be/QsjIFvy4LSs>

<https://youtu.be/s003MxolI7s>

https://youtu.be/AzDMZ_PuIS0

<https://youtu.be/Pe4KNjDSHLw>

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