



Intel Nehalem: molte nuove informazioni



LINK (<https://www.nexthardware.com/news/processor-chipset/460/intel-nehalem-molte-nuove-informazioni.htm>)

Sebbene si vedrà Nehalem solo nella seconda metà del 2008, si sa già molto sul suo conto.

Ecco una carrellata delle immagini pubblicate da HKEPC, riguardati la microarchitettura Nehalem e la piattaforma da cui sarà supportato. Notevoli ed interessanti i cambiamenti ed i progressi che Intel vuole apportare con questo nuovo step evolutivo.

Nehalem Arch Improvements*

- 1.2x – 2x multi-threaded arch improvement
- 1.1x – 1.25x on single-threaded improvement
- Simultaneous SMT for 2 Threads per core capability
- Improved low power states and leakage reduction
- 30% lower power at same performance of Penryn or higher performance at same power

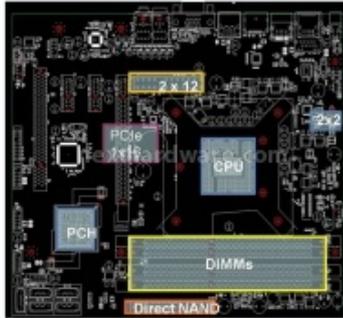
*Source: MS Manufacturers, Compiled by HKEPC Market Insight, Dec 2007
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Nehalem Platform Transitions

	2008 Q3	2008 Q4	2009 Q1	2009 Q2
High-End Platforms	Yorkfield Bearlake-X LGA775	Skylake Tylersburg LGA-1366		
Performance Platforms	Yorkfield Eaglelake LGA775		Lynnfield Ibexpeak LGA1160	
Mainstream Platforms	Wofldale Eaglelake LGA775			Havendale Ibexpeak LGA1160
Value Platforms	Wofldale Bearlake LGA775			

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LGA1160 Reference Board Design



Nehalem Processor Family

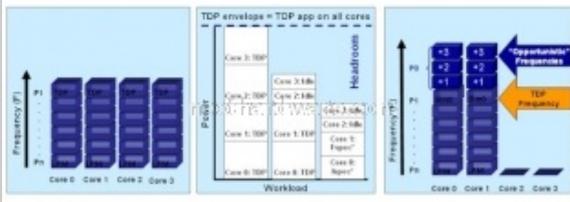


Feature	Bloomfield	Lynnfield	Havendale
Processing Threads (No Simultaneous Multi-Threading capability (SMT))	8	Up to 8	Up to 4
CPU Cores	4	4	2
Shared Cache	8MB	8MB	4MB
Integrated Memory Controller Channels	3 ch. DDR3		2 ch. DDR3
Disc/Drive Graphics Support (PCIe Gen2)	2x16 or 4x8, 14 (via Tylerburg IDH)	1x16 or 2x8	1x16
Integrated GPU	No	No	Yes
Process or Package TDP	130W	95W	75W
Socket	LGA 1160		LGA 1190
First Samples / Production	Q4 '07 / Q4 '08		2H '08 / 1H '09
Platform Support	Tylerburg & ICH10		Ibexpeak
Common Features	7 additional SSE4 instructions, VPR11.1, 45nm process		

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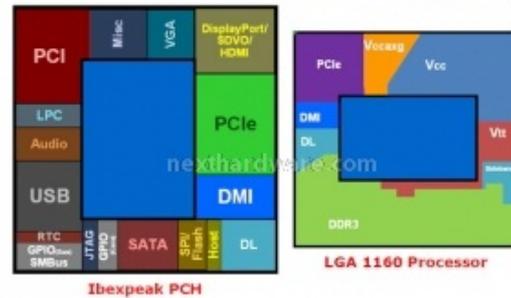
Nehalem Turbo Mode



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PCH & LGA 1160 Quadrants



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Come si può vedere, molti sono i dettagli disponibili di Nehalem e derivati, nonché decisamente dettagliate sono le informazioni relative a layout schede madri e organizzazione del chipset. Ricordiamo, a quest'ultimo proposito, che il Memory Controller sarà on-die su Nehalem, come si vede dai grafici.

In calce alla news trovate il link all'articolo. E' in giapponese, tuttavia le immagini sono in inglese come quelle che vi abbiamo proposto.

Buona lettura.