**Intel Microprocessors – General Discussion**

* Intel Corporation holds a good reputation as they are introducing computer

Microprocessors since 1971.

* Microprocessor is nothing but an electronic component which is used by a

computer to do its works.

* Intel has introduced 4-bit, 8-bit, 16-bit, 32-bit and 64-bit processors and day

by day it is developing.

* Here we can mention some well-known brands of Intel Corporation, such as -

Core Solo, Core Duo, Core 2 Solo, Core 2 Duo, Core 2 Quad, Core 2

Extreme, Core M, Core i3, Core i5, Core i7, Core i7 (Extreme Edition) etc.

* Intel Corporation has introduced specialized microprocessors for specific

device, such as for desktop, laptop, mobile, tab etc.

**Differences among Core i3 , Core i5 and Core i7 Intel Microprocessors**

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| **Topics of**  **Difference** | **Intel Core i3** | **Intel Core i5** | **Intel Core i7** |
| 1. Number of Cores | 2 | 2/4 | 4 |
| 2. Bus Speed | 1066 MHz, 1600  MHz, 2.5 - 5 GT/s | 2.5-5 GT/s | 2.5 GT/s - 6.4 GT/s |
| 3. Clock Rate | 2.4 GHz - 3.7 GHz | 1.06 GHz - 3.6 GHz | 1.6 GHz - 4.4 GHz |
| 4. Turbo Boos | No | Yes | Yes |
| 5. Hyper-Threading | Yes | No (exception:i5-  4570T) | Yes |
| 6. K model | No | Yes | Yes |
| 7. Socket | LGA 1156, LGA  1155, LGA 1150 | LGA 1156, LGA  1155, LGA 1150 | LGA 1156, LGA 1155, LGA 1366, LGA 2011, LGA 1150, LGA 2011-v3 |
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| 8. Thermal  Design Power  (TDP) | 35 W - 73 W | 17 W - 95 W | 45 W - 150 W |
| 9. Fabrication | 22 nm, 32 nm | 22 nm,32 nm, 45  nm | 22 nm, 32 nm, 45  nm |
| 10. L1 Cache | 64 KiB per core | 64 KiB per core | 64 KiB per core |
| 11. L2 Cache | 256 KiB | 256 KiB | 4×256 KiB, 6x256 KiB |
| 12. L3 Cache | 3 MiB - 4 MiB | 4 MiB - 8 MiB | 6 MiB - 10 MiB, 12  MiB – 20 MiB |
| 13. Series  Nomenclature | i3-xxx, i3-2xxx, i3-  3xxx, i3-4xxx | i5-7xx, i5-6xx, i5-  2xxx, i5-3xxx, i5-  4xxx | i7-6xx, i7-7xx, i7-8xx, i7-9xx, i7-2xxx, i7-37xx, i7-38xx, i7-47xx, i7-48xx, i7-970, i7-980, i7-980x, i7-990x, i7-39xx, i7-49xx, i7-58xx, i7- 59xx |
| 14. Code Name | Arrandale,Clarkdale, Sandy Bridge,  Ivy Bridge, Haswell | Arrandale,  Clarkdale,  Clarksfield,  Lynnfield, Sandy  Bridge, Ivy Bridge,  Haswell | Bloomfield, Nehalem,  Clarksfield, Clarksfield XM,  Lynnfield, Sandy,  Bridge,Sandy Bridge-E, Ivy Bridge, Ivy Bridge-E,  Haswell, Haswell Refresh,  Devil‘s Canyon, Haswell-E, Gulftown |
| 15. Production  Date | 2010 - Present | 2009 - Present | 2008 – Present, 2011 -Present |