

## Differences between 8085 and 8086 microprocessors

In the changing world of technologies, the devices used are also changing. Let us take a look at the changes between 8085 series of microprocessors and 8086 series of microprocessors.

Serial No.	8085 microprocessor	8086 microprocessor
1	The data bus is of 8 bits.	The data bus is of 16 bits.
2	The address bus is of 16 bits.	The address bus is of 20 bits.
3	The memory capacity is 64 KB. Also 8085 Can Perform Operation Up to $2^8$ ie.256 numbers. A number greater than this is to taken multiple times in 8bit data bus.	The memory capacity is 1 MB. Also 8086 Can Perform Operation up to $2^{16}$ ie.65,536 numbers.
4	The input/output port addresses are of 8 bits.	The input/output port addresses are of 8 bits.
5	The operating frequency is 3.2 MHz.	The operating frequency is 5 MHz, 8MHZ,10MHZ.
6	8085 MP has Single Mode of Operation.	8086 MP has Two Modes of Operation. 1. Minimum Mode = Single CPU PROCESSOR 2. Maximum Mode = Multiple CPU PROCESSOR.
7	It not has multiplication and division instructions.	It has multiplication and division instructions.

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8	It does not support pipe-lining.	It supports pipe-lining as it has two independent units Execution Unit (EU) and Bus Interface Unit (BIU).
9	It does not support instruction queue.	It supports instruction queue.
10	Memory space is not segmented.	Memory space is segmented.
11	It consists of 5 flags (Sign Flag, Zero Flag, Auxiliary Carry Flag, Parity Flag, Carry Flag).	It consists of 9 flags (Overflow Flag, Direction Flag, Interrupt Flag, Trap Flag, Sign Flag, Zero Flag, Auxiliary Carry Flag, Parity Flag, Carry Flag).