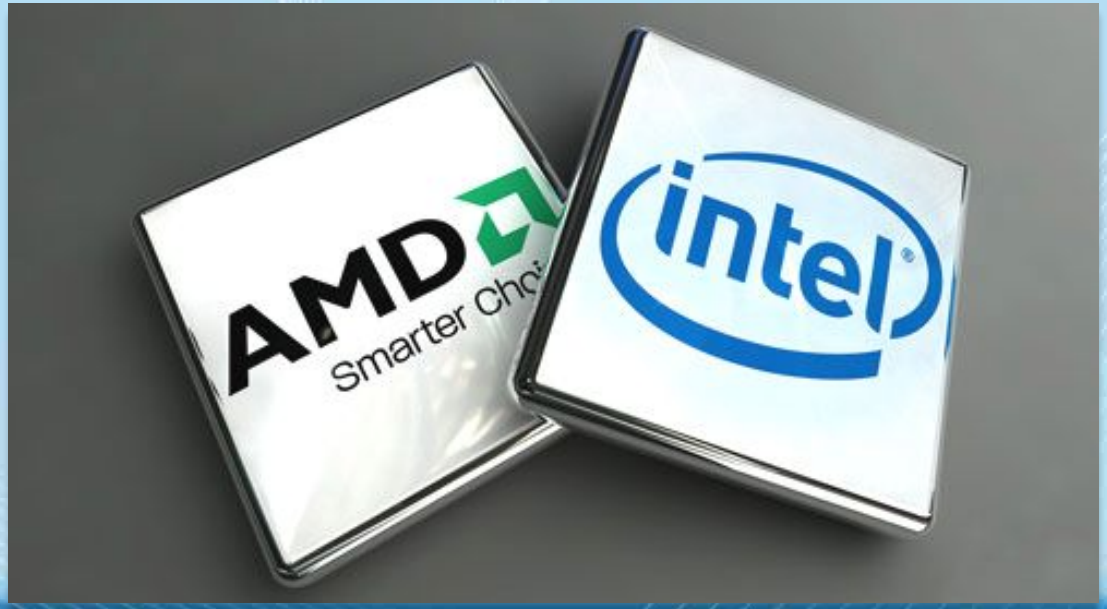
Inside the system

Central processing unit(CPU)



CPU includes:

- Control unit (interaction between components)
- Arithmetical logic unit (logic and mathematical operations)
- Registers (data i\o)
- System clock (measures smallest time intervals in computer)

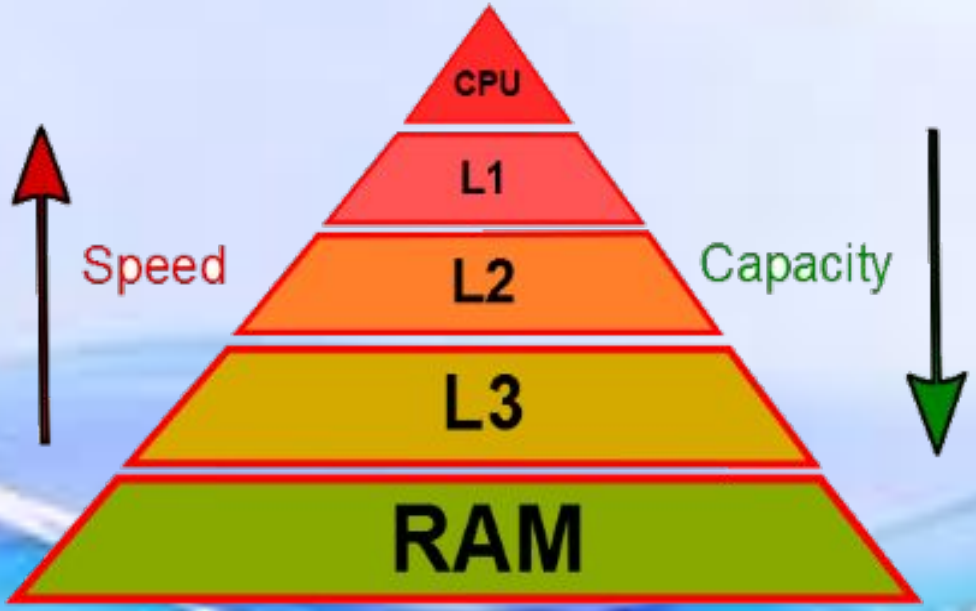
System clock

- All the time in computer is firstly measured in system clock ticks.
- Clock frequency shows how much basic operations CPU(more accurately: one flow of CPU) can make per second.

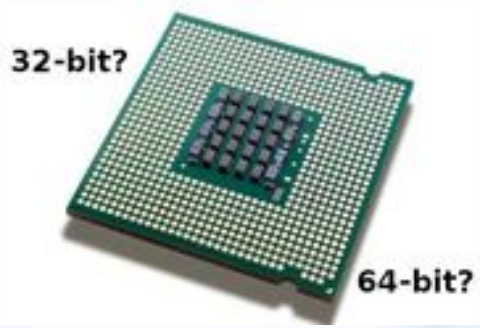
Cache memory

- Cache is the fastest data store in computer.
- Cache consists of three levels (the first is the nearest to registers and the fastest, but it doesn’t has much capacity)

Cache memory



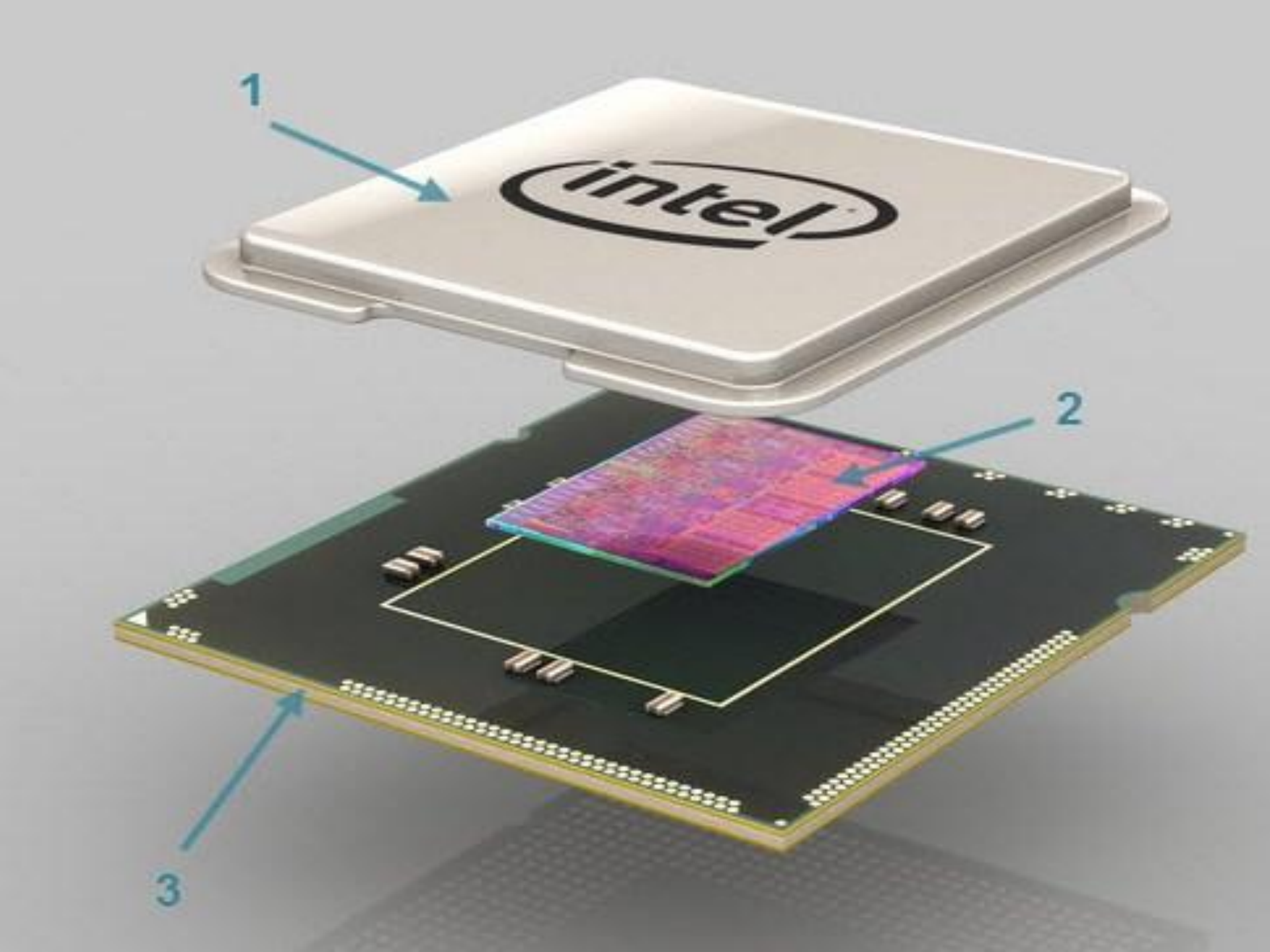
Bit capacity



- Defines how much data CPU can process during one tick of system clock.
- Defines how much data front side bus can carry during one tick of system clock.
- Defines how much RAM processor can cooperate with.

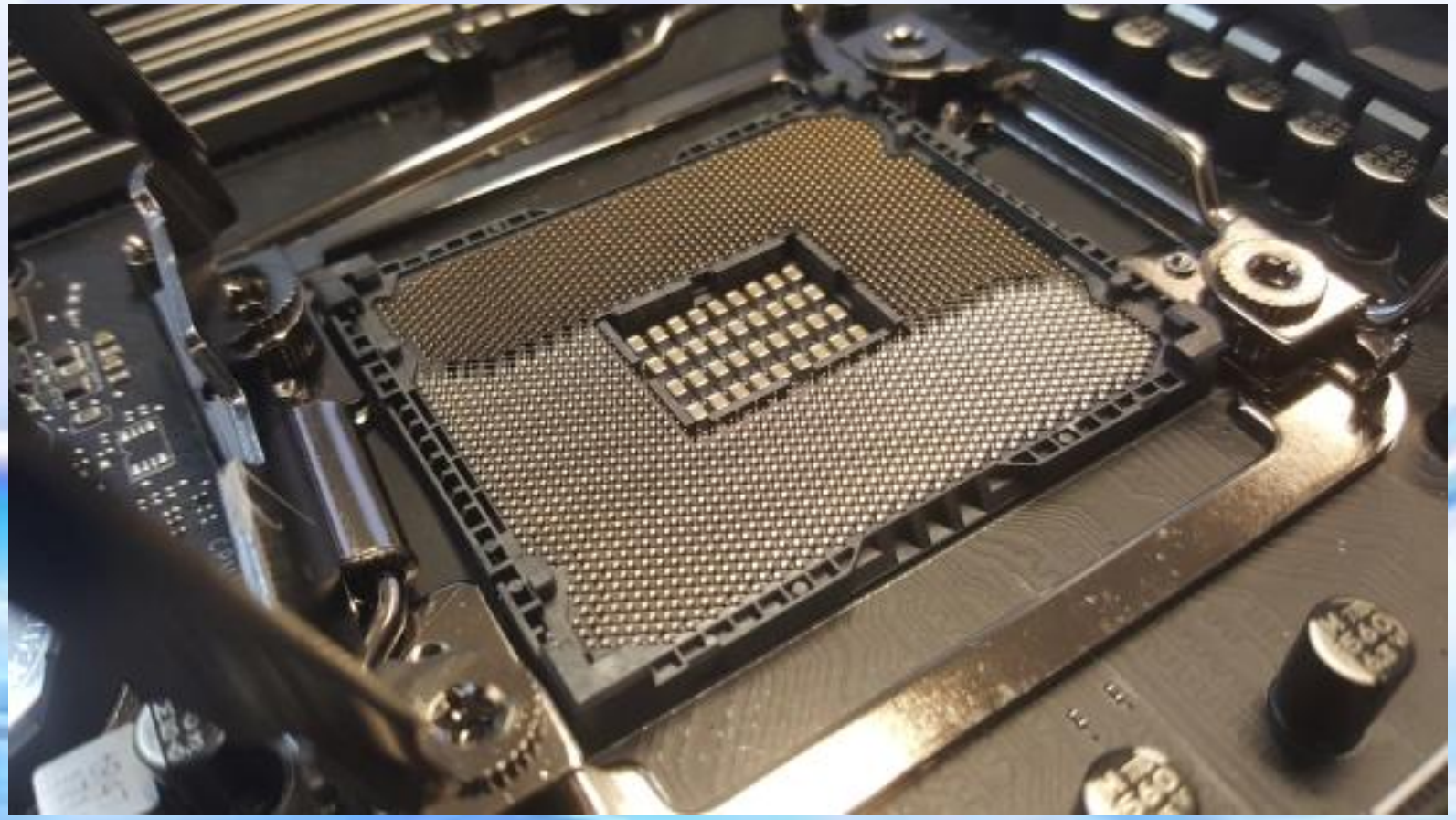
Inside the CPU

- Mostly consists of micro-transistors(physical interpretation of bits).
- Digital automatic machine implemented using set of logical element circuits, that control transistors.


1
intel
2
3

Intel Core i9 7900X LGA 2066

(10 cores, 3 Levels of cache, 3.3gHz clock frequency, 64 bit capacity)



Thank you for attention!