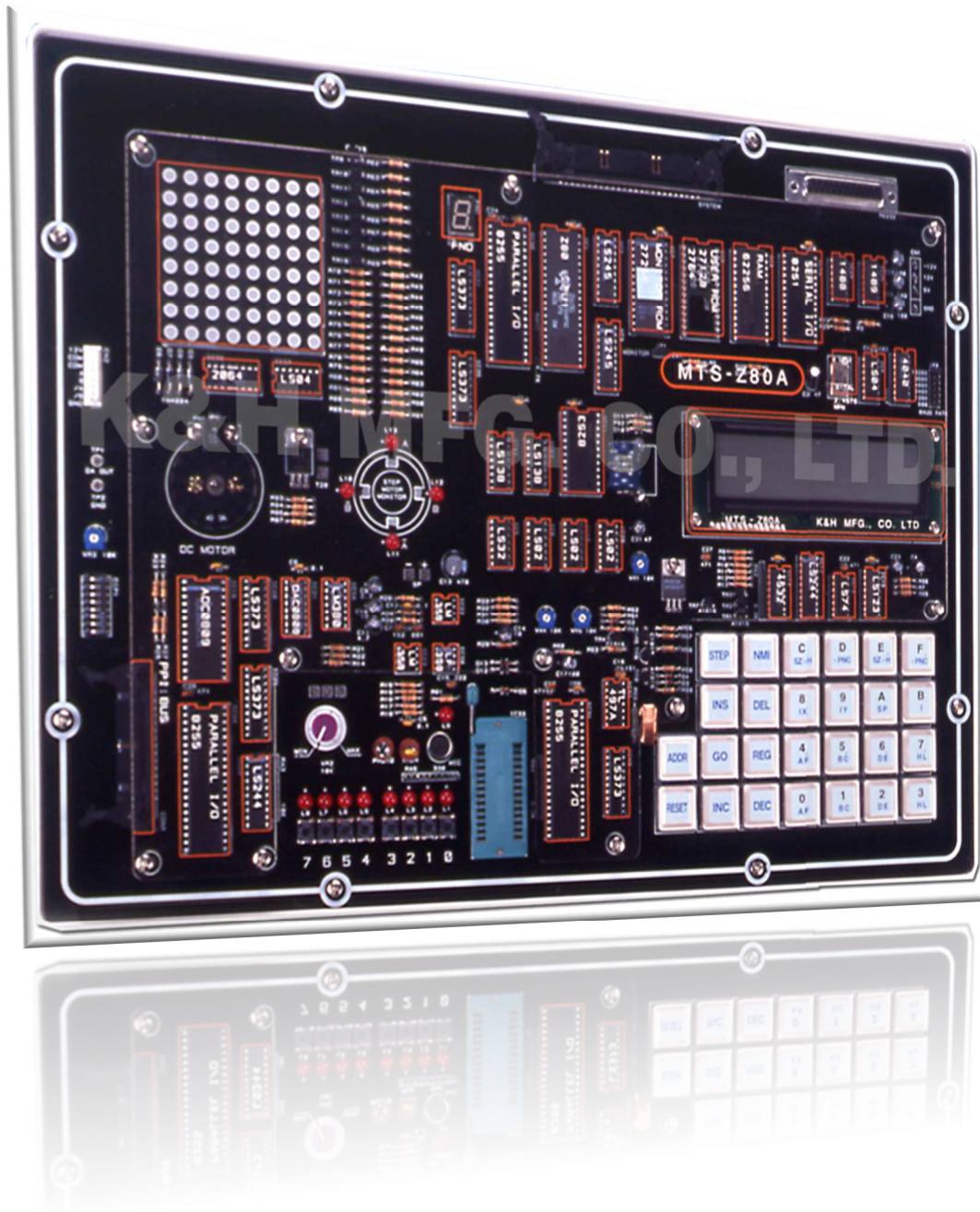


MICROCOMPUTING SYSTEMS

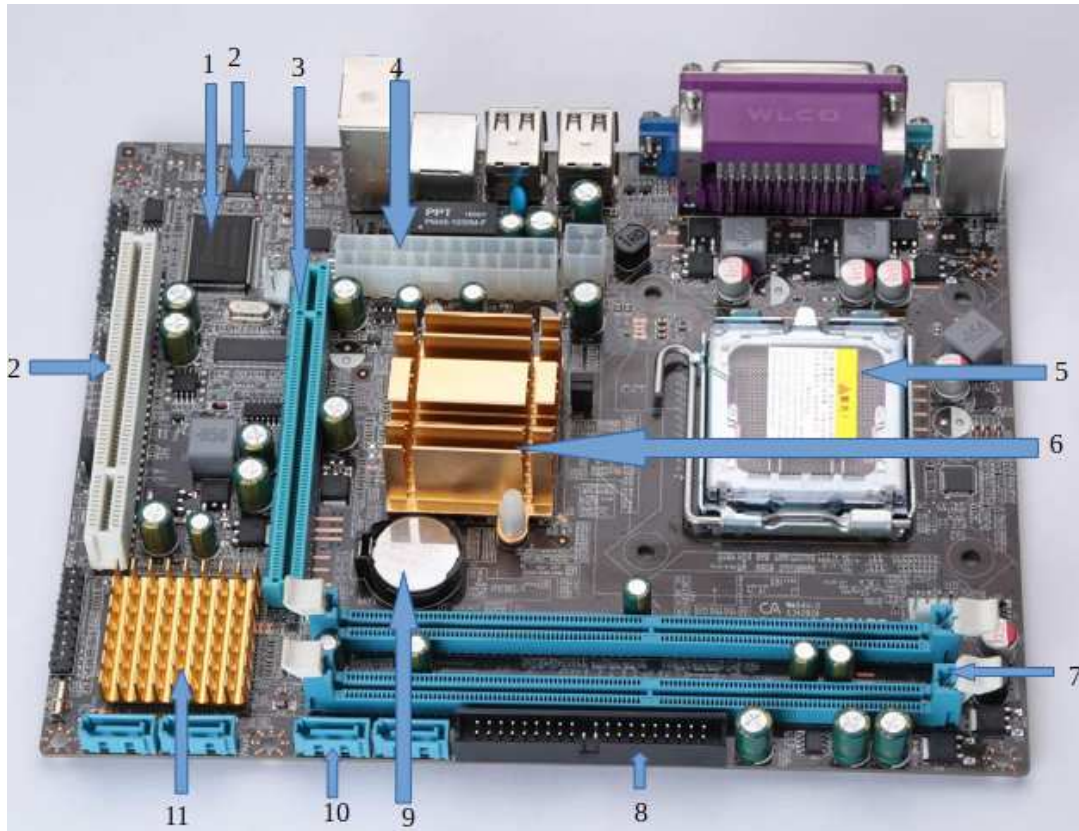


Ana Cifuentes Romero

DW1E - 09-02-2022

1. Identify all the different components you know in the following motherboards.

Number 1



1.- Flash memory: is an electronic (solid-state) non-volatile computer storage medium that can be electrically erased and reprogrammed. It can keep stored data and information even when the power is off. The two main types of flash memory, NOR flash and NAND flash, are named for the NOR and NAND logic gates. NOR and NAND flash use the same cell design, consisting of floating gate MOSFETs.

2.- CMOS memory: Complementary metal-oxide-semiconductor (CMOS) is **a small amount of memory on a computer motherboard** that stores the Basic Input/Output System (BIOS) settings. The BIOS is the software stored on the memory chip on the motherboard.

3.- PCI Express x16: is a high-speed serial computer expansion bus standard, designed to replace the older PCI, PCI-X and AGP bus standards. It is the common motherboard interface for personal computers' graphics cards, hard disk drive host adapters, SSDs, Wi-Fi and Ethernet hardware connections.

4.- ATX Power Connector x24: is found on motherboards within a computer case. This connector provides power to cooling fans and is typically used on the fan that cools the CPU.

5.- CPU Socket: contains one or more mechanical components providing mechanical and electrical connections between a microprocessor and a printed circuit board (PCB). This allows for placing and replacing the central processing unit (CPU) without soldering.

6.- Northbridge: is the most important integrated circuit of the chipset (chipset) that constitutes the heart of the motherboard. ... Its main function is to control the operation of the processor bus, memory and AGP or PCI-Express port.

7.- RAM memory DDR Slots: Double Data Rate (DDR) memory is characterized by being able to perform two operations in each clock cycle, unlike SDR (Single Data Rate), which only perform a read or write operation.

8.- IDE connector (Parallel ATA): The ATA, P-ATA or PATA interface, originally known as IDE, is an interface standard for connecting mass data storage devices and optical disk drives that uses the ATA derived standard and the ATAPI standard.

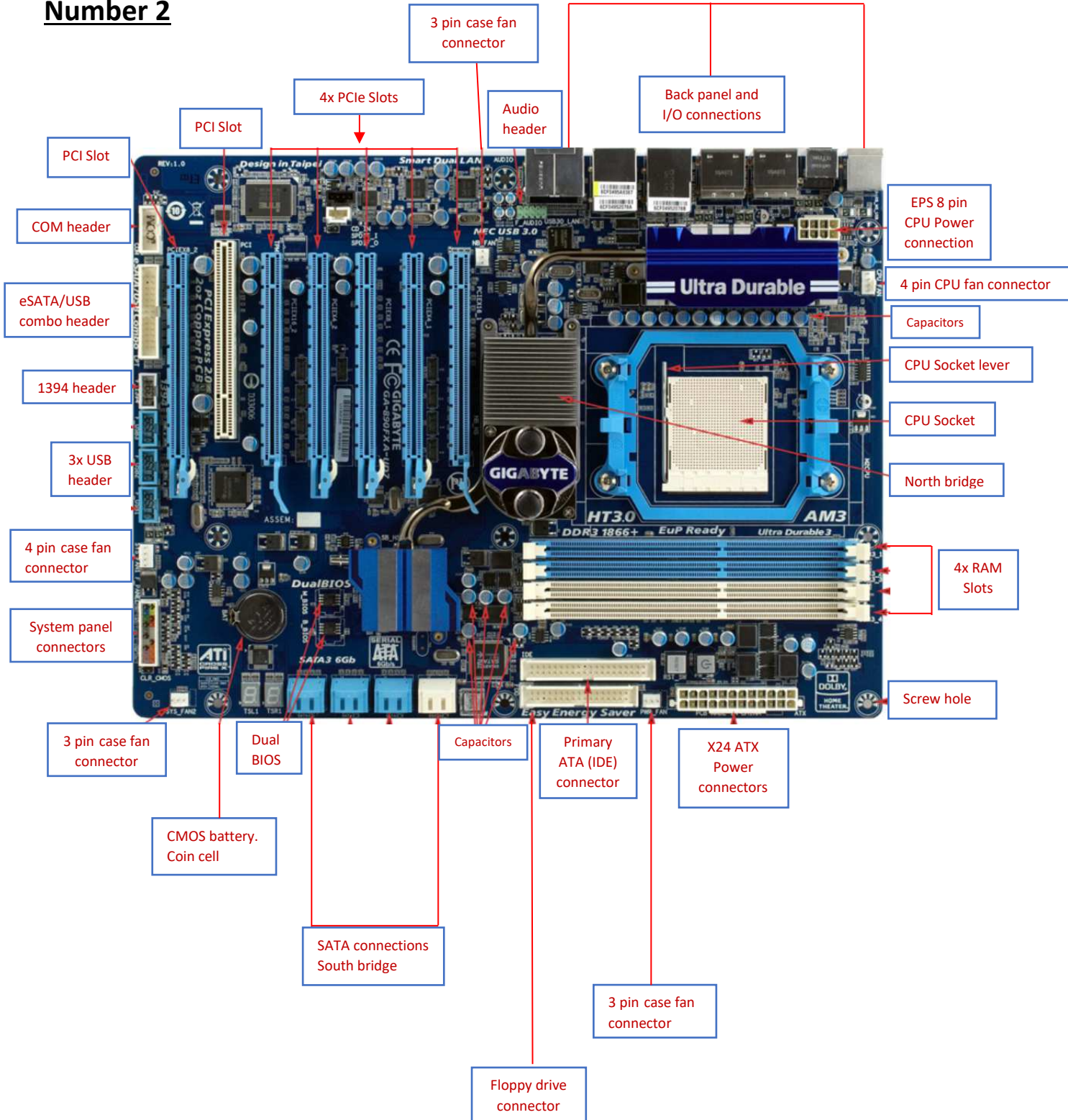
9.- CMOS Backup Battery: The BIOS is a computer chip on the motherboard composed of a CMOS battery, except that its purpose is to communicate between the microprocessor and other hardware components such as hard disk, solid state disk, USB ports, sound card, video card and many other components. A computer without a BIOS would not understand how these interconnected pieces of hardware could work together.

10.- SATA Connectors: This is a bus interface for transferring data between the motherboard and other components that you connect to it. Its use mostly targets connecting storage drives to the motherboard, such as various types of hard drives including SSD models, or disk drives like BluRay or DVDs.

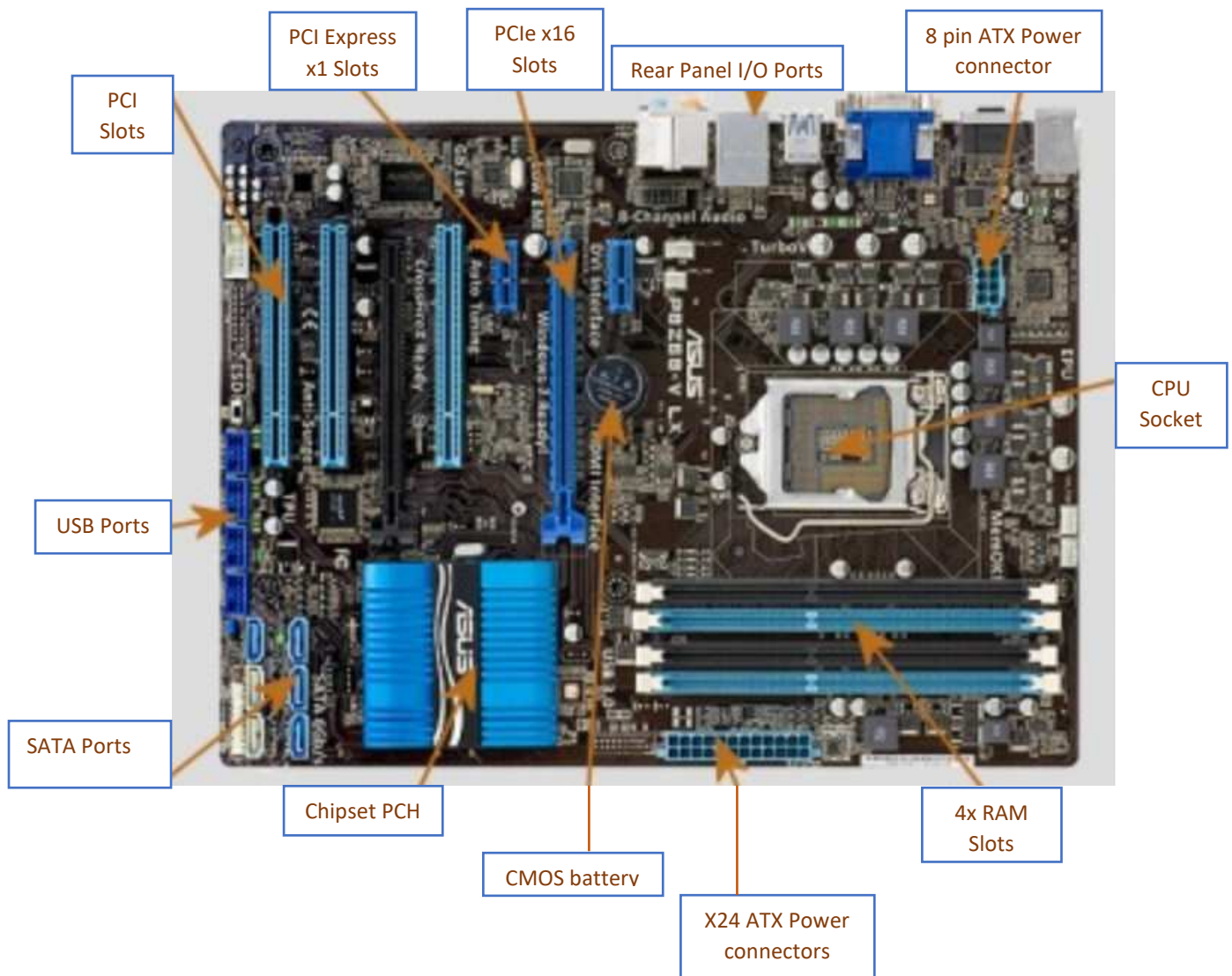
11.- Southbridge: The SouthBridge is actually a bridge to access other slower buses such as PCI, IDE, or USB to which the BIOS, mouse and keyboard controller, or serial and parallel ports are connected. The SouthBridge joins the NorthBridge using its own bus called the Hub Link.

12.- PCI: Peripheral Component Interconnect, or PCI, is a standard computer bus for connecting peripheral devices directly to the motherboard. These devices can be integrated circuits adjusted in this or expansion cards that fit into connectors.

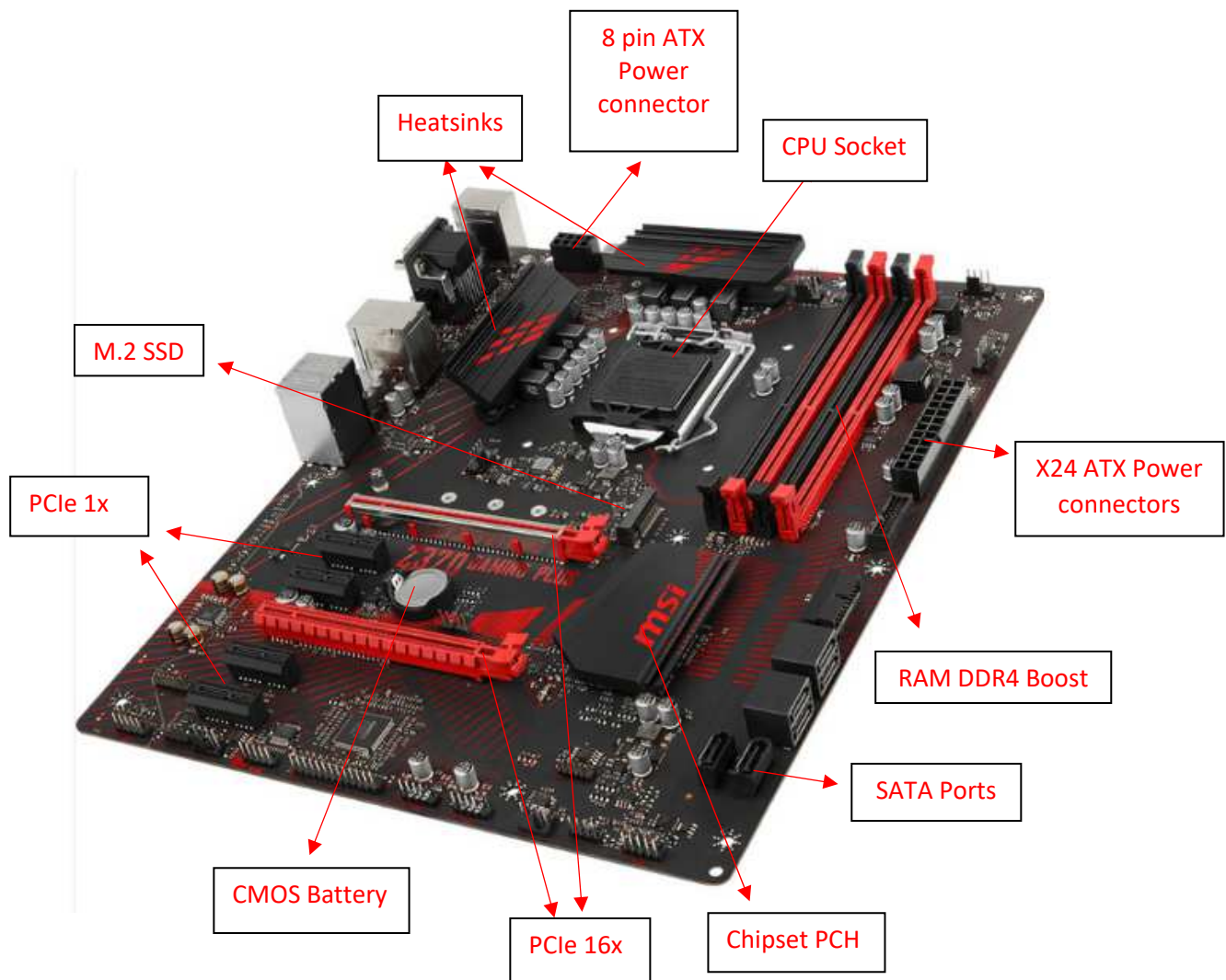
Number 2



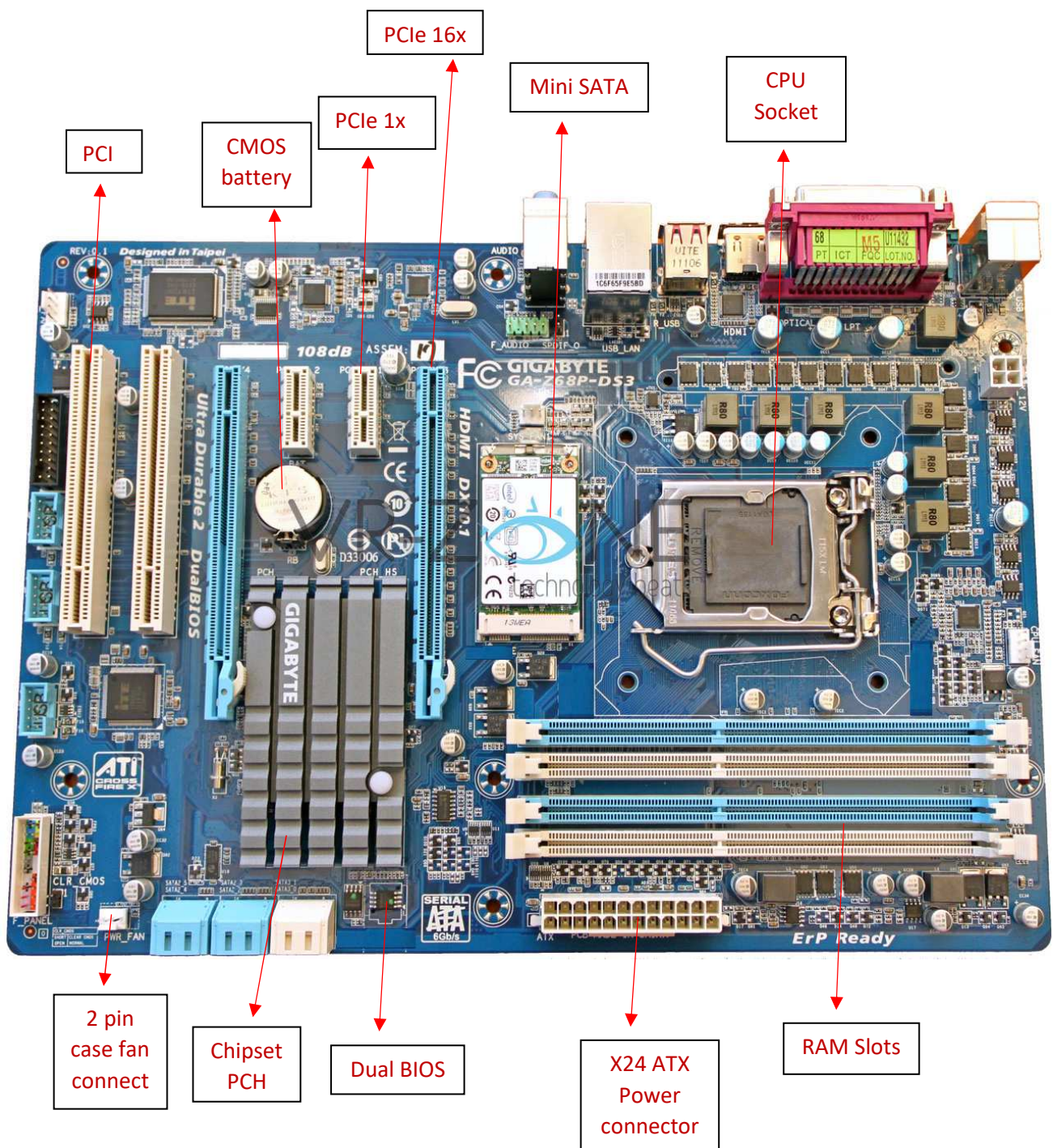
Number 3



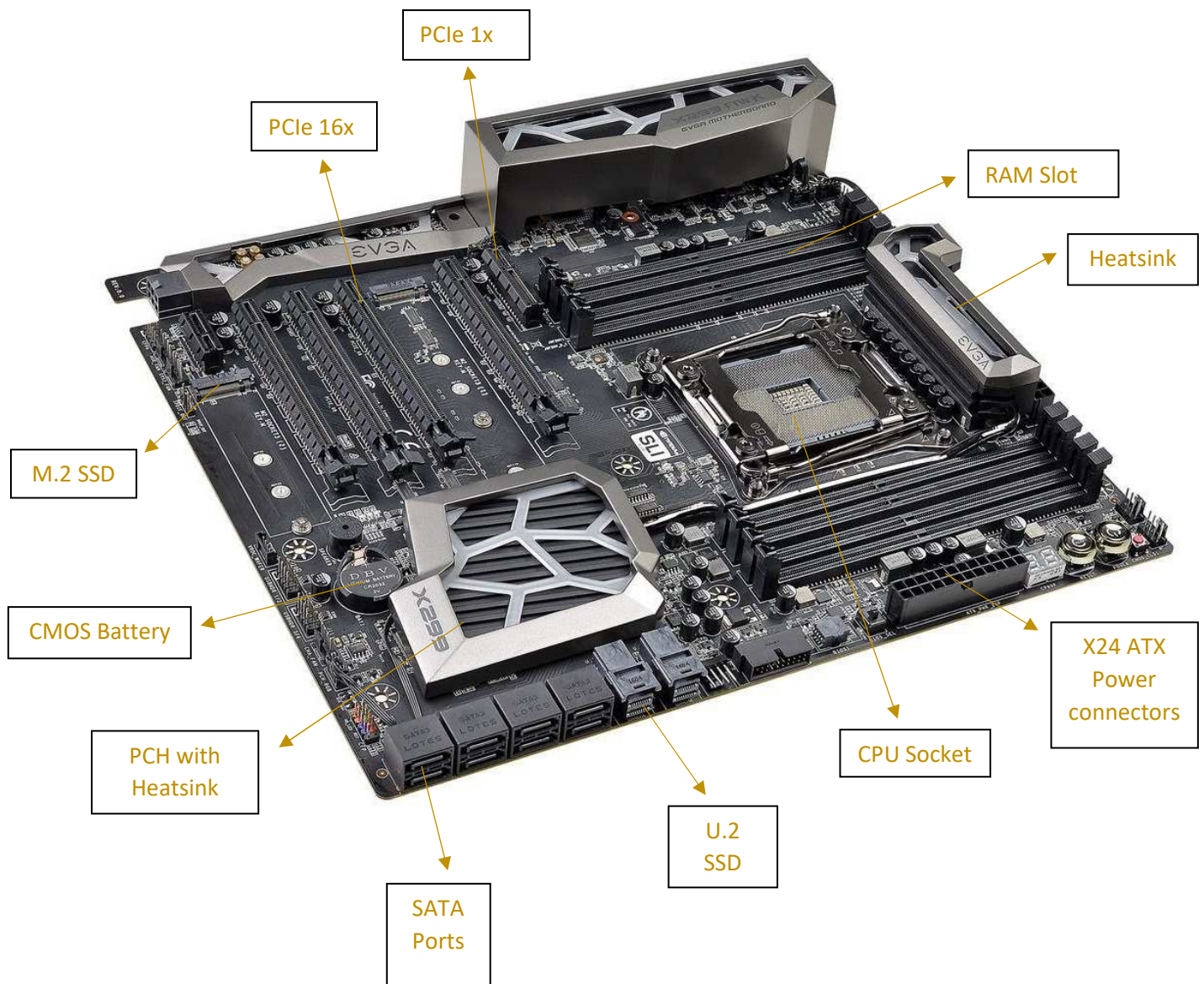
Number 4



Number 5

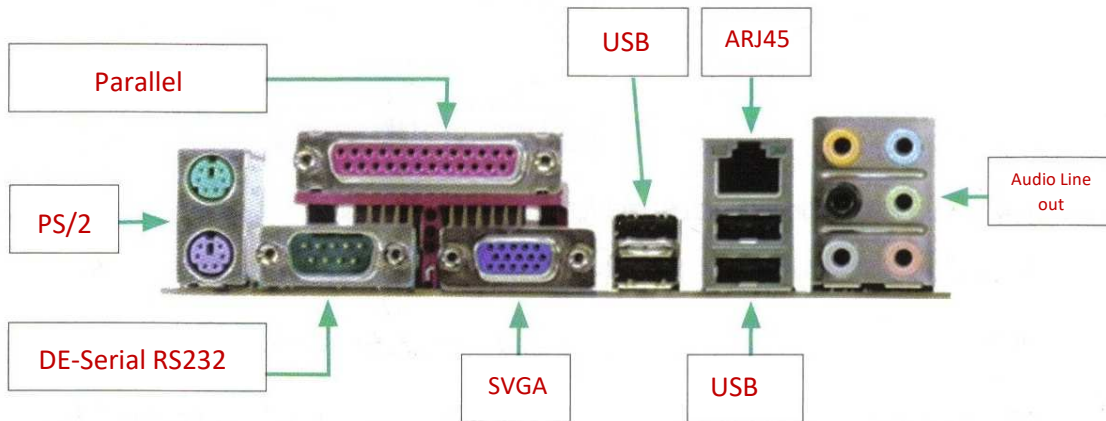


Number 6

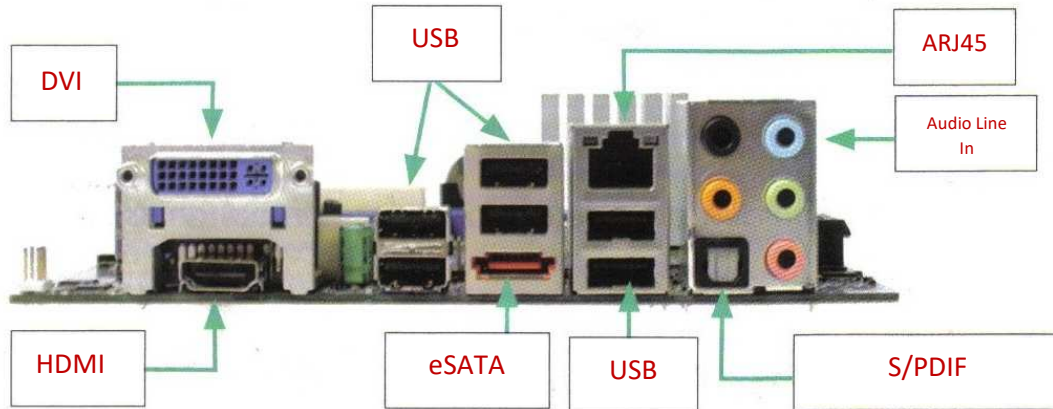


2. Identify the external connectors in the following pictures

Number 1

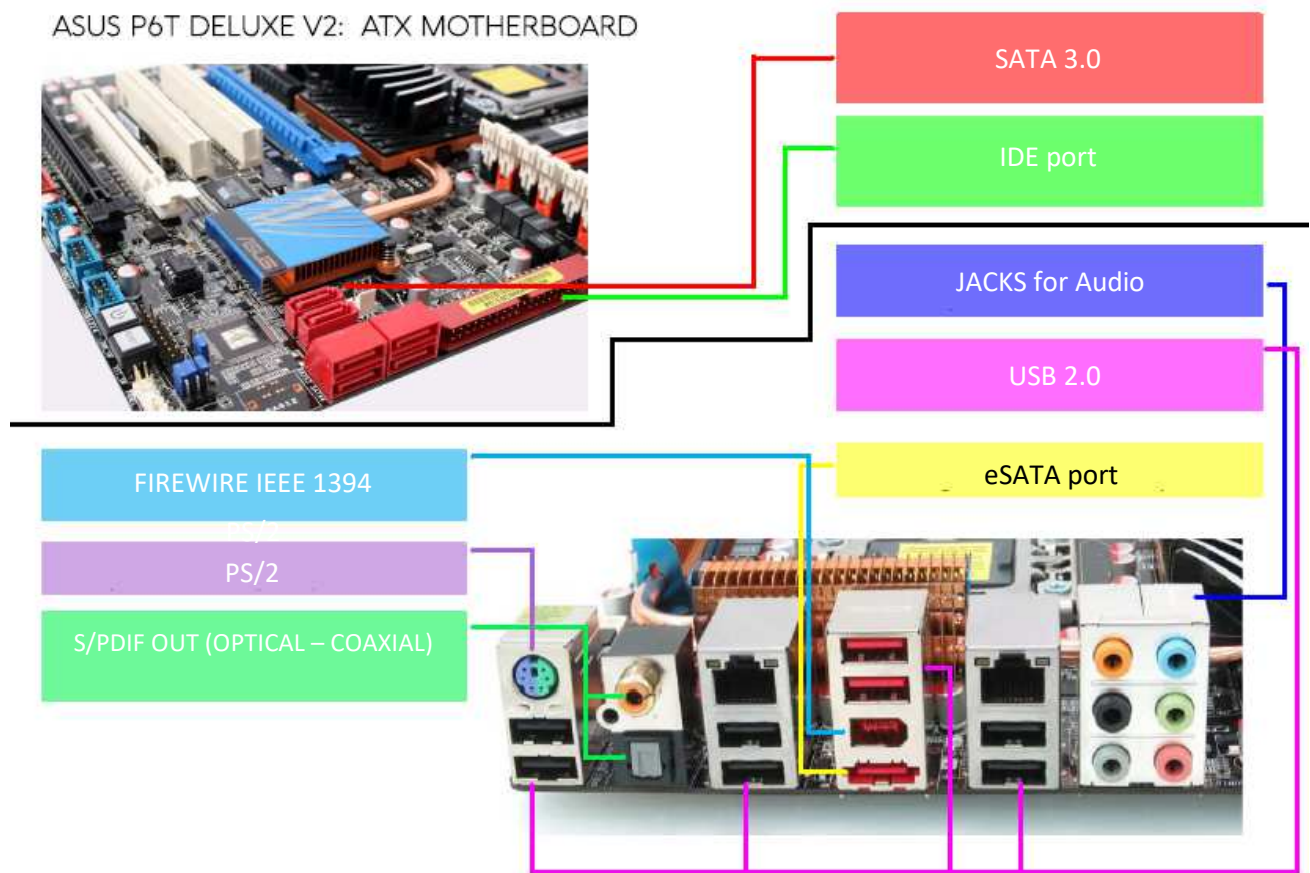


Number 2



Number 3

ASUS P6T DELUXE V2: ATX MOTHERBOARD



Number 4

