

Chapter 6

Motherboards

Episode 6.01

Episode **Form Factors**
title:

Objective: N/A

Episode 6.02

Episode **Chipsets**
title:

Objective: N/A

Episode 6.03

Episode **Choosing the Right Motherboard**
title:

Objective: Motherboard compatibility
CPU socket types, Advanced Micro Devices (AMD), Intel , Multi-socket

Lower 3rds

OBJ - CPU socket types

OBJ - Advanced Micro Devices (AMD)

OBJ - Intel

OBJ - Multi-socket

The motherboard is the backbone of a PC

Desktop or laptop?

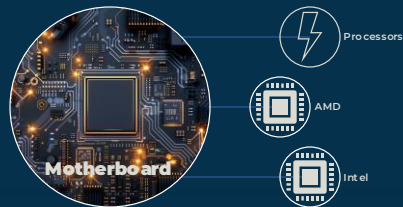
Multi-socket motherboard can have multiple processors installed

Series of chipset – Support overclocking, PCIe lanes, USB connectivity support

Motherboards

Multi-socket motherboards can have multiple processors physically installed on it

Generally manufactured by AMD or Intel





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Motherboard Resources

BUILD YOUR SHINY NEW PC

Pangoly's custom PC builder helps you pick the right components for compatibility for your new PC build, according to your budget and needs.

[Get started](#)

[Read the guide](#)

Pangoly PC Builder

- <https://pangoly.com/>
- PC compatibility site
- Check which motherboard will work with various components

[Find awesome products](#)



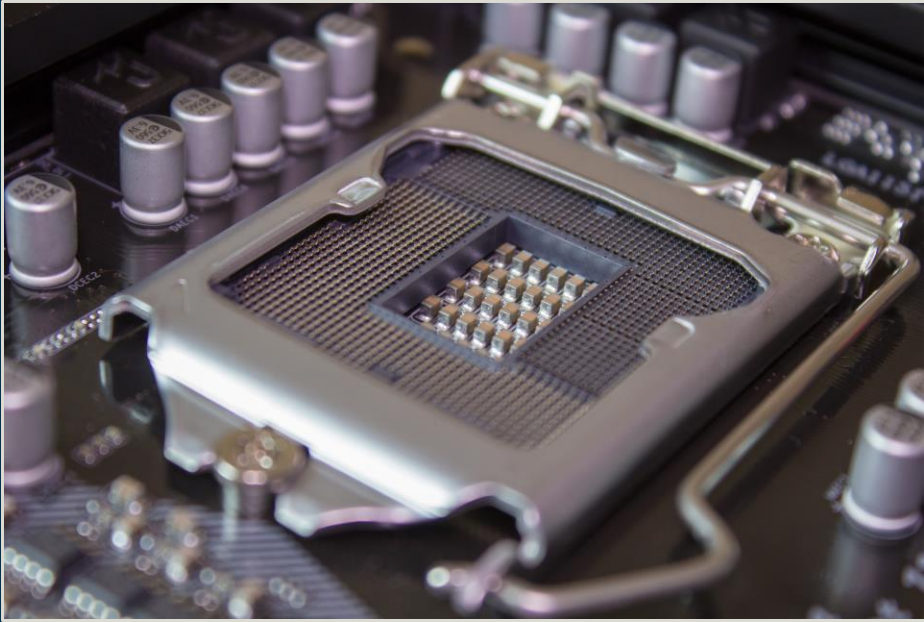
COMPARE SPECS

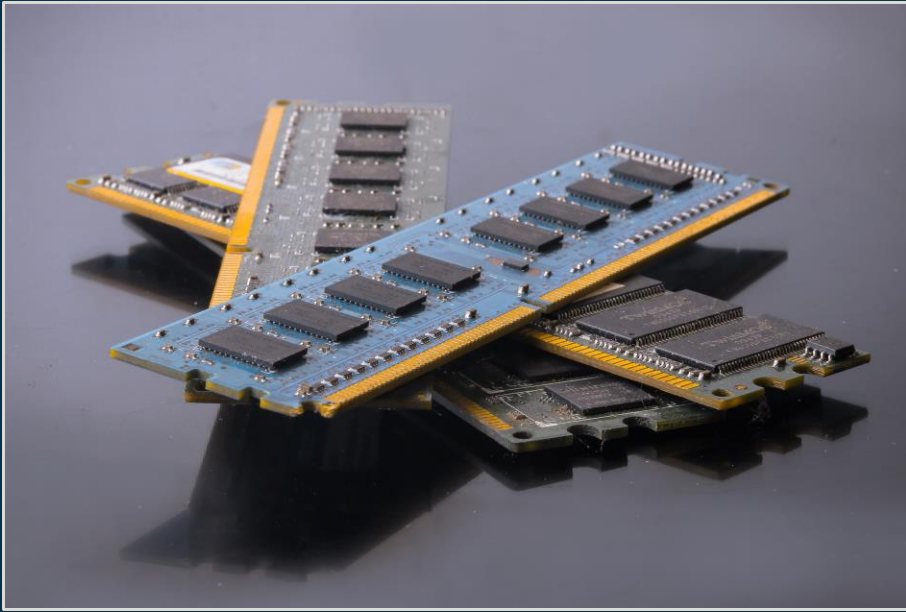


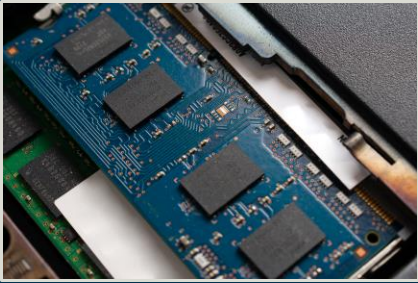
CUSTOM PC

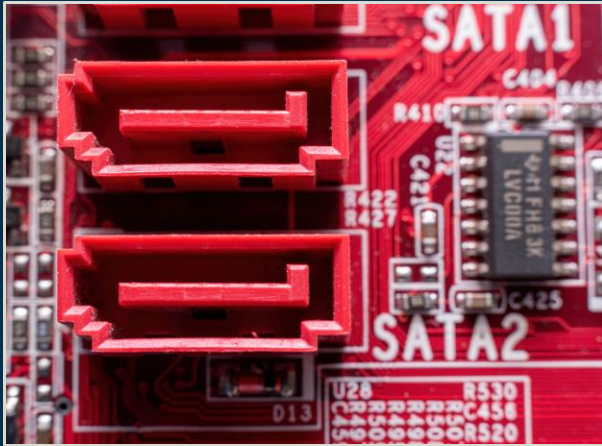


PC









Motherboard Criteria

- Form factor
- CPU compatibility
- Power requirements
- Chipset features
- RAM support
- Expansion slots
- Storage and I/O slots

Episode 6.04

Episode **Installing and Troubleshooting a**
title: **Motherboard**

Objective: 20+4 pin motherboard connector

Lower 3rds

Electrostatic discharge (ESD)

ESD strap/ESD mat

Standoffs - critically important screws for the protection of the motherboard

Electronic circuit with dozens of points for a signal to go through (Motherboard)

Lower 3rds

standoffs provide a stable mounting to protect motherboard

Capacitors - small components with sole task of holding a charge.

I/O (Input/output)

I/O shield – dust blocker that fills I/O ports space

Lower 3rds

Motherboard connects to PSU with two cables

- ATX 24-pin connector
- 8-pin connector

Step-by-step troubleshooting process should isolate the issue in most cases

OBJ - 20+4 pin motherboard connector

Power Connectors

The 24-pin connector has two connectors: a 20-pin connector for older motherboards and a 4-pin connector for newer motherboards.

