

How to build a small PC with Mini-ITX

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You want to build a new PC yourself, but don't have a lot of space and a little limited budget. So it's time to take a look at the form factor Mini-ITX (the form factor is the term for the size and shape of a particular desktop motherboard). The compact motherboard only measures 170mm x 170mm but can 'revolutionize' the way users use computers.

When build PC users need to have suitable components, carefully collated to ensure compatibility. Today's article will summarize everything readers need to know about building a compact, powerful PC using the Mini-ITX form factor.

Instructions for assembling computers with Mini-ITX

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 10. Step 10: Mount the hard drive
4. Install the operating system

Use of an ITX PC

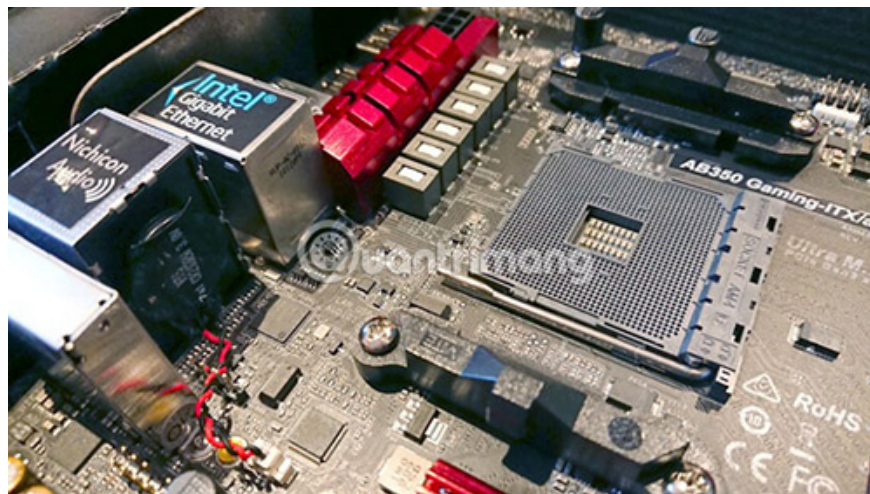
Building a compact Mini-ITX PC is ideal for many uses.

1. Use as a compact desktop
2. Create media center or PC home theater (HTPC)
3. Run as a data server or media server
4. Play as a dedicated gaming PC

The steps below are how to build a small, low-power standard desktop. For dedicated HTPC or gaming computer, users can choose to add dedicated graphics card. Similarly, if you want to build a server, you can make the most of your storage options.

Factors needed to build a mini-ITX PC

No matter what size, building a PC has the same basic requirements: Ensure compatible hardware.



For PC Mini-ITX, you'll need a 170mm x 170mm motherboard, along with a heatsink (heat sink) and fan (low-profile type). If you need a more intensive gaming experience, look for a powerful GPU.

The PC in this tutorial has the following components:

1. Case: Cooler Master RC-130-KKN1 Elite 130
2. PSU: Corsair VS450
3. Motherboard: ASRock AB350 Gaming-ITX / IC
4. CPU: AMD Ryzen 3 2200G processor with Radeon Vega 8 Graphics
5. RAM: Ballistix Elite 4GB DDR4
6. HDD: SanDisk SSD PLUS 120GB Internal SSD

The total cost of building a PC is less than \$ 500 (about 11,000,000 VND).

Build PC Mini-ITX in 10 steps

Before proceeding, it is mandatory to read the documentation that came with the motherboard and the case. Understand where the device is connected, which jumper (the connector) and how to configure the BIOS correctly will fix most problems encountered when building a new computer.

Although this is the process of building a small computer, the general principles for building a standard desktop computer still apply. Refer to the article: Self-assemble computers, build desktops of TipsMake.com for more details.

Step 1: Choose to buy components and check compatibility

Once you have decided on the Mini-ITX case, the next step is to choose the hardware that meets the requirements and budget available.

Caution: Users can easily choose the wrong parts. The motherboard modules, CPU and RAM need to be fully compatible, then the computer will work. Therefore, it is recommended to use an online tool to ensure compatibility.

1. **Crucial.com** provides an '**Advisor**' tool on RAM compatibility and motherboards.
2. **Intel.com** devotes part of its website to determine hardware compatibility.
3. **PCPartPicker.com** is an excellent independent resource to ensure users will purchase compatible components.

Please check carefully. Order only after determining that it is the required hardware (refer to reviews from other sources).

Step 2: Prepare anti-static workspace

Before taking parts out of the box, take the time to clean up the work area. Then use an antistatic wrist strap.

Next, open the motherboard container, put the anti-static bag aside.

Put the motherboard on the antistatic bag with foam (NOT an antistatic bag) before continuing.

Step 3: Install the CPU