

Should I replace the laptop video card or not - Notes when replacing

Currently, many users want to replace laptop video cards to serve their work needs. So should I replace the video card?

The laptop's video card plays an important role in the computer's image processing operations. However, if your video card is outdated, cannot handle heavy tasks or cannot meet current work needs, what should you do? And is it possible **to replace the laptop video card** ? Join [TipsMake](#) to find out through the article below.

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What is a video card?

A **video card**, also known as a **graphics card (VGA)** , is a device responsible for **processing images** for display on a computer screen. Whether the resolution and contrast of the image is good or not depends on the graphics card.

The most important part of the video card is **the GPU (Graphic Processing Unit)** . This processor will take on the role of handling all issues related to the computer's image. Currently there are two types of graphics cards: discrete cards and onboard cards.

Picture 1 of Should I replace the laptop video card or not - Notes when replacing

Can I replace or upgrade a separate card for a laptop?

In the past, **discrete graphics cards** were often only popular with gamers or in the field of graphic design. But with advantages such as increased image quality and fast image processing speed, discrete graphics cards are increasingly familiar to all users. Therefore, upgrading or replacing laptop video cards is also a concern of many people using laptops today.

In fact, upgrading or replacing discrete graphics cards for laptops is possible but very difficult and complicated, only applicable to certain laptop models. The reason is because laptop graphics cards are usually **onboard cards** and attached to the motherboard. Replacement or upgrade may cause incompatibility or error.

Picture 2 of Should I replace the laptop video card or not - Notes when replacing

Due to the manufacturer's design, most laptops today cannot be upgraded or installed with separate cards for laptops. Upgrading laptop video cards can only be done with **discrete CPU models**. Users can identify whether a laptop can upgrade the CPU or not by checking the laptop chip. If it starts with an 'N' (such as N4200, N3550) or ends with a 'U', an 'H' (such as 4010U, 5500U, 9750H), it cannot be upgraded.

For laptops from generation 3 and earlier, the CPU can be upgraded but is only limited to Core i7 of that generation. Some current generation 4 laptops can replace discrete cards, mostly laptops specializing in design and games such as Dell Precision, HP Workstaion, Dell Alienware, Lenovo Work, HP Zbook 15,.

With new laptops, users need to consider carefully when replacing the graphics card for their laptop. Because if you are not careful, it will bring risks to the circuit board and broken connections in the machine.

Why is it necessary to upgrade a discrete card for a laptop?

Currently, the need for laptop users to upgrade discrete cards is huge. So why do so many users want to replace or upgrade discrete cards?

Laptop has dead VGA chip

Nowadays, users often encounter errors related to **laptop video cards**. In particular, laptops with dead VGA chips are the main reason why customers have to replace the video card.

VGA chips for laptops are manufactured to handle heavy tasks. Therefore, it is easy to overload and heat up. If the heat is not dissipated in time, the VGA chip will die. When encountering this error, users have no choice but to replace the discrete card and upgrade the laptop's VGA.

Picture 3 of Should I replace the laptop video card or not - Notes when replacing

Due to need

Upgrading a discrete card is an extremely familiar thing to people in the field of graphics, design, etc. Because this job always requires high computer configuration and good graphics cards.

Therefore, it is easy for users to encounter situations where the laptop's video card is not enough to meet work requirements or is outdated compared to new applications. So upgrading or installing a separate card for your laptop for better use is a necessity.

Should I replace or upgrade the discrete card for my laptop?

Basically, the manufacturer has carefully researched the connection and compatibility between devices in the laptop during the manufacturing process. In particular, in most laptops on the market today, the video card and CPU are important parts attached to the motherboard. Therefore, replacing the laptop video card is not recommended because it can cause errors in the laptop. On the other hand, the configuration of many computers is not suitable for upgrading the computer's graphics card.

Picture 4 of Should I replace the laptop video card or not - Notes when replacing

For example, when replacing a laptop's video card, users can run heavier tasks. Because of that, the amount of heat will be greater than before, causing the device to heat up faster. But when the heat sink is not large enough to handle that much heat, other components will be affected when they cannot dissipate heat in a timely manner.

Thus, when buying a laptop, users should determine what their needs are? If you want to serve graphic design, interior design, etc., you should choose to buy laptops specifically for this field from the beginning instead of upgrading to a separate card for the laptop. You can refer to some types such as: Dell Precision 7750, Dell XPS 13, Dell XPS 9300, Dell XPS 9500, Dell XPS 9700.

Things to note when replacing or upgrading video cards for laptops

As mentioned, you can only upgrade a laptop's CPU within that computer generation. For example, it is impossible to upgrade the first generation Core i3 laptop chip to the 2nd and 3rd generation Core i5 or i7.

For example, if you are using a 2nd generation laptop with Celeron B800 or Pentium B940, B960 CPU chip but want to upgrade to Core i3, i5, i7 CPU? Then you need to check which southbridge chip the motherboard is using. Can be upgraded when the south bridge chip is HM65, HM75, HM76. As for the HM70 chip, it is not possible.

Picture 5 of Should I replace the laptop video card or not - Notes when replacing

Things to note when choosing to buy a laptop with a separate card

If you want to buy a laptop with a separate card, users need to note some important points as follows:

1. **Choose by device model:** Currently, there are many laptop products with removable cards on the market for users to choose from. Depending on your financial ability and usage needs, you can buy suitable models.

For example, gamers who want to upgrade their discrete cards for professional gaming purposes can choose GT, GTX, and TITAN from manufacturer NVIDIA. However, if you want to choose a model that completely replaces the video card, only a laptop with a card like Quadro can do it.

1. **Choose by VRAM capacity:** VRAM capacity of the video card is a necessary condition when choosing to buy a laptop with a separate card. It's even as important as the laptop's RAM capacity. If the VRAM capacity is large, it will be able to store data, helping to reduce pressure on RAM. Thanks to that, the

computer's processing speed will also increase. Conversely, a large RAM capacity will also supplement VRAM.

Frequently asked questions about laptop video cards

Below are some frequently asked questions sent to TipsMake by most readers:

Can the laptop mount a separate video card?

The laptop can have a separate video card installed. However, only Workstation or gaming laptops can be directly attached. Or you have to use an external video card for your laptop, also known as an eGPU

Things to keep in mind when replacing laptop video card

When choosing to buy a video card, you should also consider which brand of card you buy. Because each company has its own strengths, models, designs and technology are also different. For example, for laptops, Nvidia's graphics cards will always be slightly better than AMD in both price and performance. In the desktop business segment, AMD Ryzen is stronger than Nvidia in the same segment. Choosing the right video card brand for your intended use and budget is important.

Epilogue

Replacing a laptop video card is the desire of many users today, but it is very difficult and should not be done if it is not absolutely necessary. Hopefully with the above article, you can better understand the issue of whether or not you should replace the video card for your laptop? If you have any questions, please comment below so TipsMake can understand and answer as quickly as possible.

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