

Is Laptop video card the same as PC?

The video card is an indispensable component in the computer that helps process graphics. But is the laptop video card the same as on the PC? Let's find out with Hanoi Computer through this article.

The video card is an indispensable part that helps process images of any computer, from computers used for studying, office work to computers for gaming, high-end graphics. However, unlike Desktop, **laptop video cards** are often more difficult to choose and upgrade. Therefore, let's learn about **Laptop video cards** with Hanoi Computer in this article!

What is a laptop video card?

Similar to the PC, **the laptop video card** also acts as a VGA graphics card (Video Graphics Adaptor). This is the device that processes images output to the screen so that users can manipulate and work on the computer. And the part that plays the most important role in determining the power of the graphics card is the GPU (Graphic Processing Unit). The better the graphics card, the smoother the image processing speed and the easier it is to manipulate. For gamers and those who work related to photo editing, the graphics card is even more important.

How many types of laptop video cards are there?

Similar to desktop computers, laptop graphics cards are also divided into two types: onboard cards and discrete graphics cards.

Onboard graphics card (integrated graphics card on mainboard)

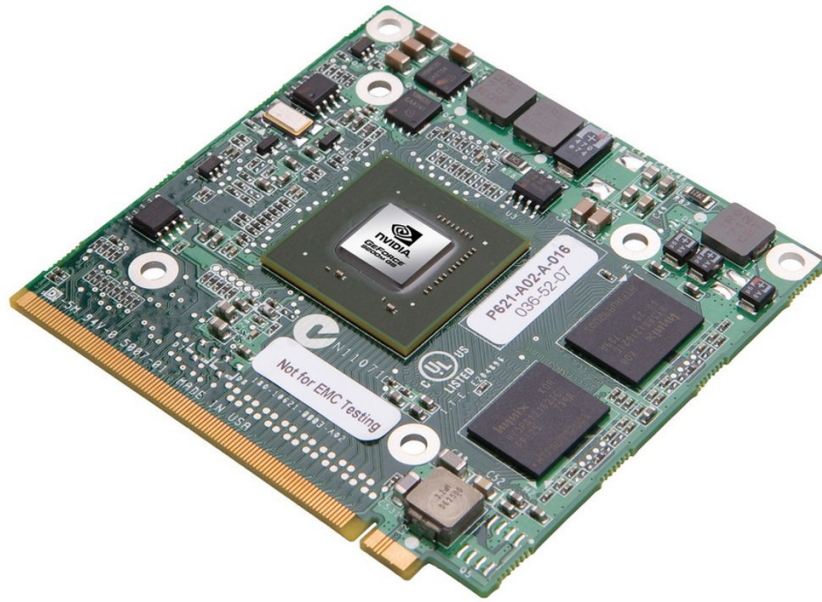
This is the most common graphics card in all desktop computers as well as laptops. It works by integrating into the CPU and, in the past, it was even integrated into the north bridge chipset of the motherboard. This integrated graphics card works thanks to the power of the CPU and RAM (meaning that if the CPU is strong and the RAM is strong, this card will maximize the speed and graphics processing operations).

Nowadays, manufacturers integrate this onboard graphics card into the CPU, which helps significantly reduce the cost of a computer or laptop while still ensuring graphics processing and image display processing.

Discrete graphics card

This is the **graphics card** that most laptop users are most interested in today. It is a card designed separately on a separate circuit board and communicates with the laptop's mainboard in 2 ways as follows:

1. Solder the video card to the laptop's circuit board (very difficult to upgrade this type)
2. Connected via communication port (convenient to upgrade, usually workstation laptops or **gaming laptops**)



Laptop discrete graphics card

Currently, most of the discrete graphics cards on laptops are usually soldered to the motherboard of the machine. Therefore, you cannot upgrade or replace them as easily as on a desktop. Therefore, when choosing a laptop, you should choose the type of machine with a discrete graphics card that best suits your needs.

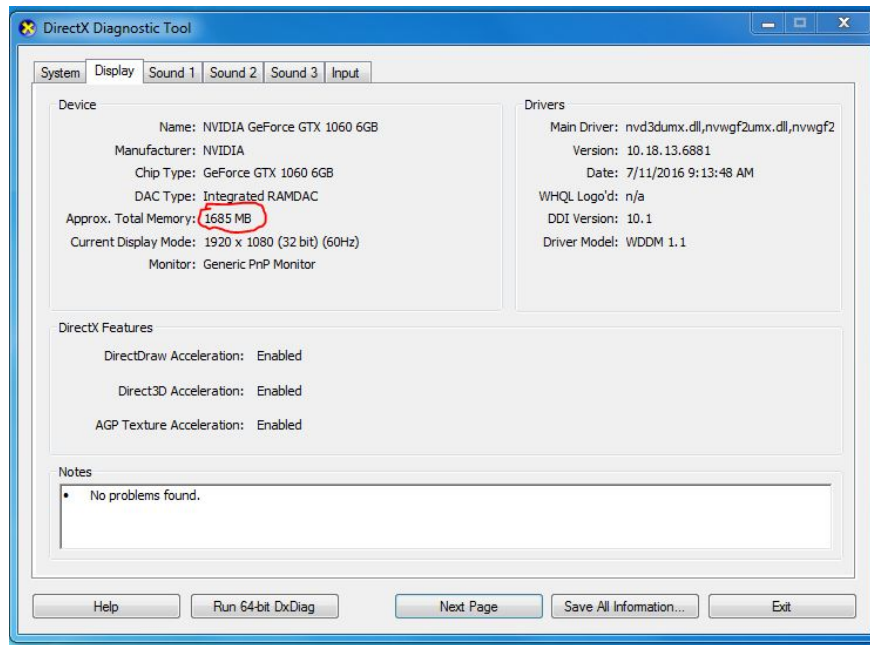
How to check your laptop video card

Check video card with DXDIAG command

Step 1: First you need to open the Run window by pressing the key combination Window + R or typing Run in the search box on Windows.

Step 2: After the Run dialog box appears, type the command "dxdiag" and press OK

Step 3: After the DirectX Diagnostic Tool panel appears, select Display 1 and Display 2 to see the graphics card your computer is using.



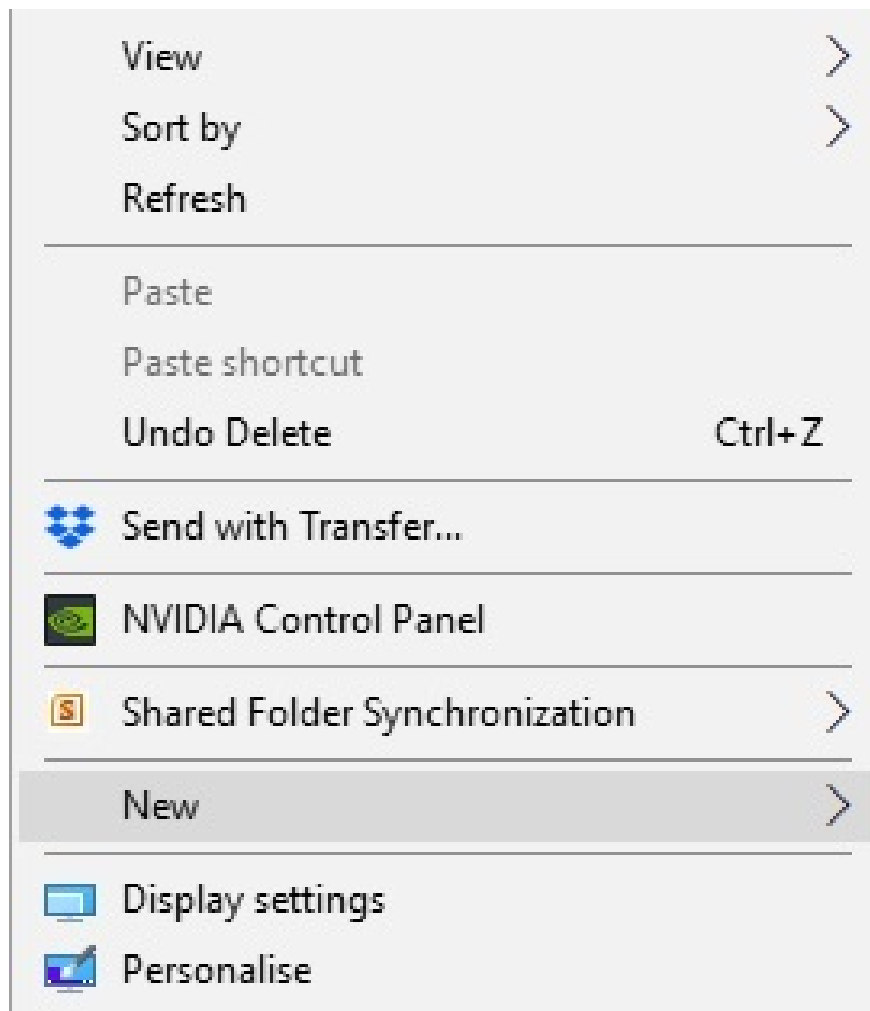
DirectX Diagnostic Tool window

Check video card with right mouse

There is another extremely simple way to check your laptop's video card that you can do, which is to right-click on your Desktop screen.

There will be 2 cases:

If you see the Intel (R) HD Graphics line, your computer is using an onboard graphics card. If you see the NVIDIA Control Panel line, you are using an NVIDIA discrete graphics card. If both appear, your computer is using both types of graphics cards.



Check laptop video card by right clicking. Here my computer is running a separate video card.

If your laptop uses both discrete and onboard cards, their operating principles are as follows:

When you use light applications or tasks, the device will prioritize using the onboard **laptop graphics card** first.

When you play games or use powerful image processing tasks, the laptop will switch to using the discrete graphics card.

Above is the information about laptop graphics cards that **TipsMake** shares with you. Hopefully this is useful information to help you better understand this part of the laptop to choose the most suitable product for yourself.

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