Which graphics card is good for gaming laptops

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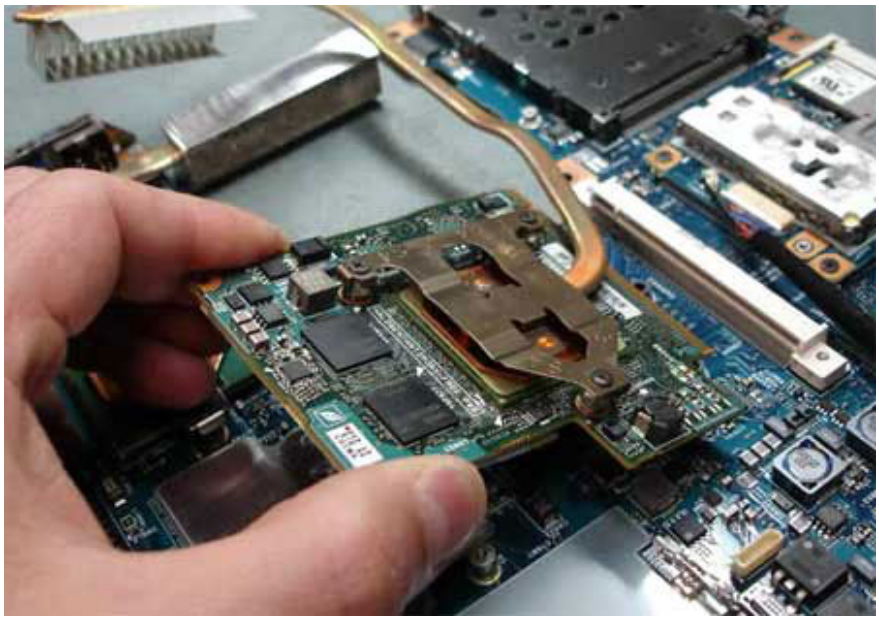
With laptops, intergrated graphics cards are primarily Intel.However, these card models often use part of the system's RAM capacity, when working will not support the maximum HD video viewing and limited when playing 3D games.Even newer integrated cards like Intel GMA X4500 HD (or Intel Graphics Media Accelerator 4500MHD) still have to rely on the help of microprocessor to decode and speed up the process of HD video processing.This sharing reduces the overall performance of the system but is sufficient for simple graphic processing.



A graphics card on a laptop. *Photos:* ***Laptopparts***

Meanwhile, HD movies, mainly products of Nvidia and ATI. Both companies have developed a variety of different graphics cards, Nvidia has up to 25 products not including the latest model G200, and ATI is a bit less with 20 different models.

Previously, GPU processing speed parameters, number of data channels (pixel pipelines) were used to show the performance of the graphics accelerator card. But new graphics cards can do more than just processing each pixel. Special effects related to light can be directed through individual processing units called shaders without the need for pipelines. This is a very important part to consider in selecting graphics cards because more and more games use shader technology to improve image quality.

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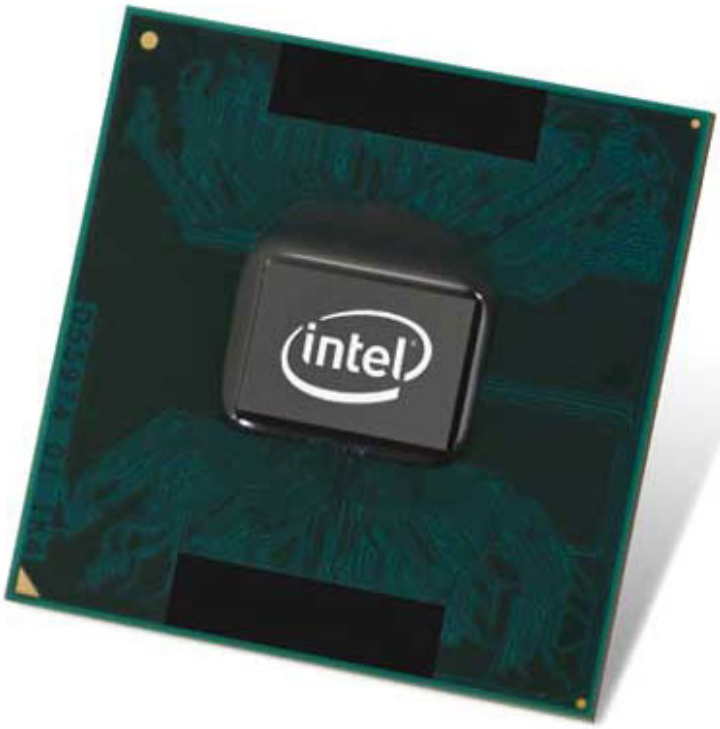
The graphics card line

Unified Shader Technology (Unified Shader)

Windows Vista comes with DirectX 10, and DirectX 10 also offers new methods in shader processing, more flexible Shader technology. However, this technology approach of Nvidia and ATI is different. For example, a high-end Nvidia graphics card for desktops only has 240 unified Shader while ATI has 800. If only looking at the numbers, surely the ATI card is faster, but more importantly. The design will bring different results. In the above case, the Nvidia card handles better than the ATI card. Therefore, the number of shaders is not given to compare the products of these two firms. But the larger the number of shaders, the more graphics power and more heat is generated.



Integrated graphics card is mainly from Intel. *Photo:* ***Laptoping*** .

Bandwidth and memory bus type

Memory bus types (64, 128, 256 bits) are more important than the memory capacity of the graphics card itself, but, when shopping for this device, people often only care about the card's RAM. how many MB. The bus or communication line of RAM with the GPU in the graphics card (and RAM in general with the CPU in the computer) is one of the essential factors that helps improve speed and performance for the entire system. PC. Bus RAM (Memory Bus) for graphics cards, now popular at low-level memory interface (Memory Interface) 64-bit RAM, medium range 128-bit RAM and high-level 256-bit RAM or higher. For low-end cards, most of them are 64-bit when the game is often jerky, while 256-bit high-end cards are usually very expensive. So the 128-bit mid-range RAM cards are the right choice.

In addition, memory is divided into 3 main types: DDR2, DDR3, and GDDR3. The difference between these 3 types is about speed. If you buy a graphics card to play the game, you should not choose DDR2 RAM because of the slow data transfer rate, which can lead to bottleneck when processing. A new type is GDDR5, this new memory technology is rare. Instead of doubling speed, GDDR5 RAM has a quadruple speed with a huge amount of bandwidth, and if combined with GDDR5 technology with a 128-bit memory bus will give equal bandwidth of 256-bit RAM, similar to GDDR5 with 256-bit memory bus with 512-bit RAM bandwidth.

Directx 10.1 vs. Physx / Cuda

What makes the difference between ATI and Nvidia is the technology that the two companies use to compete with each other. ATI is the only company to date with DirectX 10.1-compatible graphics cards, with the release of Windows Vista SP1. But it is rare for the game to support DirectX 10.1, notably Ubisoft's Assassin's Creed. ATI has always been judged to have more advantages in handling ability than its competitors.

Meanwhile PhysX is only used in Nvidia's high-end card models. This graphics processing technology helps to show more details in the game such as clothes, glass sound really broken. Like DirectX 10.1, there are very few games that support this technology, well known as Mirror's Edge. Besides, Nvidia's more popular graphics platform CUDA has more support and more attention. There are many applications that are compatible with this graphics platform so that the graphics processing capabilities of the graphics card will be enhanced.

Discrete graphics cards with GPU processors and separate VRAM memory are better for image processing in the game. *Photo:* ***Laptoppic*** .

Drivers

This is also a factor affecting the decision to choose a graphics card. Unlike Nvidia, ATI usually does not provide updated drivers for graphics cards. Nvidia is different, users can easily update new driver versions (patched and improved processing capabilities) right at Nvidia's website. As for the "owner" of an ATI card machine, if you want to update the driver, you will have to depend on the laptop manufacturer or use third-party software.

Crossfile and SLI

Both ATI and Nividia build multi-graphics (multi-GPU) solutions or dual graphics for laptops. The technology used by ATI is called Crossfire, and Nvidia is SLI. It is worth noting that these technologies do not deliver twice as fast graphics processing, for example, using two GeForce GTX 280M cards is not twice as fast when running a single card.

In addition, both ATI and Nividia developed integrated cards that, when combined with discrete cards, can be used in dual graphics mode through Crossfire or SLI technology to improve processing capabilities. Besides, it is cost effective and has a longer battery life.

The best video card for laptops playing 2018

There are many important aspects to consider when you want to buy a gaming laptop, but the first thing to consider is what kind of video card is best for gaming laptops. After all, you'll need a powerful video card, if you're looking to run the latest games.

That is not necessarily upgrading your current laptop video card. When buying a laptop, you are basically 'stuck' to the built-in chip, until you buy a completely new chip. Therefore, finding the best video card for your laptop at the time of purchase is the most important thing.

So, with that in mind, here's a suggestion of the top gaming laptop video cards on the market today, and the notebooks that have them built in.

1. Nvidia GTX 980M

Asus G751jY laptop Asus contains Nvidia 980M. Nvidia's latest mobile gaming graphics chip is the best choice at the present time. Nvidia GTX 980M is the latest gaming laptop video card for the leading manufacturer in this market.

When you are looking at the latest gaming laptops on the market, you will find a host of recently released options that include the Nvidia GTX 980M chip, as it is a video card for new gaming laptops and Best of Nvidia.

Even with minimal memory and processor specifications, 980M can run the latest games with impressive frames. You will often find it with the Intel Core i7 chip, and the combination of the two chips provides an unprecedented, smoothest, most impressive mobile gaming experience on the market at the moment.

Right now, GTX 980M can be found in some of the best gaming laptops available, including Asus ROG G75 and MSI GT72.

2. Nvidia GTX 960M

Although not as powerful as the GTX 980, Nvidia's GTX 960M is also a great option for those with limited budgets.

You can still get great frames for the latest games without spending too much money with Nvidia GTX 960M. This chip became standard two years ago and is one of the most affordable options on the list today. Although a bit old, it can still run most games with medium settings.

You can find it in a Dell Gaming laptop for $ 800, as well as a high-end MSI Ge72 laptop for $ 1300. Depending on the specs behind it, the 960M can create amazing experiences.

3. Nvidia GTX 970M

In some of the best gaming laptops out there, you will find Nvidia GeForce GTX 970M. This is a great second option, if you don't want to pay more to buy 980M.

You'll find it in the Alienware 15, paired with Intel Core i5 4th-generation processors and 16GB of RAM for $ 1900, as well as the impressive Razer Blade and Intel i7 6th generation for a price. $ 2000. With both laptops playing this game, you'll be able to run games like Fallout 4 and Overwatch with extremely simple settings.

4. Nvidia GTX 860M

The GeForce GTX 860M is still a formidable option to run older games in higher frames, and you'll save a lot of money.

Not all games require the best gaming laptop video card to run smoothly, and if you're looking for cards for some games like World of Warcraft, Hearthstone, or even Total War Rome II, 860M has is the choice you need.

It won't run top games like Fallout 4 or DOOM on the highest settings, but with simpler games, a laptop containing Nvidia GeForce GTX 860M is a great choice.

You can find the GeFroce GTX 860M in the HP Omen notebook line.

5. AMD Radeon R9 M275

Admittedly, AMD-based laptops are becoming rarer at the present time, but that won't stop praise for Radeon R9 M275 graphics cards. Of course, there are many different Nvidia-based laptops on the market at the present time, but if you want to find a gaming laptop with the best R9, then the Radeon R9 M275 is a worthwhile option. consider.

You can get full 1080p gaming experience on average settings with games like Sim City 2013 and other games of the same quality range.

It is currently integrated in the Lenovo IdeaPad y40 gaming laptop line, with many different versions and prices.

Mistakes to avoid when buying a graphics card for laptop gaming

1. **Choose cheap** : It should be noted that when buying a gaming laptop means you will stick with it for a few years, until you need to completely upgrade. So if you choose cheap products, you will have to upgrade much sooner. Of course, everyone has different financial capabilities, but you will definitely want to buy the best laptop graphics card possible with the money you have.
2. **Do not study the frame rate of games** : There are many factors that determine the game's frame rate, with many different variables. So, if you plan to buy a new gaming laptop, it is best to do some research about whether the type of laptop you are considering is appropriate for the game (s) you are trying to play. . If you find other options that are better than the product you're considering, then you should consider it. Conversely, if you are seeing a lot of troubleshooting topics or complaints on the forum, you should avoid buying that product.

If you're looking for the best gaming laptop video card at a reasonable price, the Nvidia GTX 980M is a great choice. However, make sure that it has the best supporting hardware behind the back. If you have a limited budget and want to buy a laptop to run WoW or Hearthstone for example, Geforce 860M will be the best choice.

Wish you find a good product!

See more:

1. Select the gaming graphics card
2. 10 tips to buy a graphics card from a game player
3. Upgrade graphics card for laptop