Top 5 best heat sinks 2019

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Purchasing the right heat sink and using it properly will significantly improve the temperature and power of the CPU or GPU. If using the wrong and wrong method of heat dissipation, it will lead to deteriorating performance. So this article will introduce you to some types of heat sink compounds, as well as how to use it properly. This article has the main purpose of helping beginners build computers, but if you are an experienced person, be sure you also learn some new things.

1. Self-assembling computers, build desktop computers (P1): Choose hardware

The following table is the top 5 best heat sinks 2018 - Expert selection

Type of thermal adhesive Name of heat-sink glue Composition Advantages Disadvantage of best non-conductive heat-transfer adhesive Arctic MX-4 Contains easy-to-use carbon Not used for overclocking Noctua NT-H1 Ceramic good for overclocking points if properly used Arctic Silver 5 Contains ceramic Excellent performance Lightweight Grizzly Kryonaut Ceramic Contains perfect performance High price Glue liquid metal heat sink Thermal Grizzly Conductonaut Contains metal Push maximum performance No weakness points if used properly

What is thermal glue?

Thermal glue is also known as heat sink compound, heat sink paste or simply TIM. This gray material often leads heat away from the CPU or GPU and dissipates it into the radiator and cooler. Normally you will see a temperature drop of more than 10 degrees, this result also depends on the quality of the heat sink compound and computer components.

Although the computer has a heat sink or cooler, you should still use thermal paste to improve overall cooling performance.

There are many different types of thermal adhesives including silicon, metal, ceramic and carbon. Heat sink is the most effective thermal conductivity compound, but it also has capacitance. Therefore, you need to be careful not to spill the metal on the motherboard.

1. Things to know when choosing to buy mainboard

Ceramic-type heat sinks do not contain any metal and therefore do not conduct electricity. This type of heatsink is cheaper but it is not as effective as metal thermal glue. However, it is easier to use and safer, still offers good results so that's why it's popular.

Silicon-type heat sink glue is used for thermal pads, you can place it between the radiator and the processor. This type of heatsink is very easy to use but not as effective as other heat sinks.

Note, you should not use adhesive type thermal adhesive because it will stick the components together. You will have trouble changing the radiator after a certain time.

Use proper thermal glue

There are many ways to use thermal paste and although most of them give almost the same results, you should make sure not to use too much or too little thermal grease. In short, the most common method is 'pea' or 'dot' method, you just need to pour glue onto the middle of the surface. The heat sink will spread evenly when you press the radiator pressure on it. The rest depends on the cooler and how airflow is managed in the computer case.

In addition, there is another way to use CPU heat sink that is pouring glue into a line along the surface. Some people place glue in an X or spiral shape, which is somewhat excessive because you will use more glue than necessary. Either way, keep in mind, don't use too much or too little thermal grease.

Some heat sinks have a special tool that comes with a brush that is used to evenly apply glue. Except the use of liquid metal thermal glue, otherwise you do not need to spread the compound evenly.

Remove and re-use heat sink glue

Many of you wonder if it is easy to remove old thermal glue, the answer is very simple. You only need to use 99% isopropyl alcohol solvent, this is the most effective tool to clean the substances from the CPU, radiator and processor surface.

Just be careful to pour some solvent onto the part you want to clean, wait for a few minutes and then wipe it with a clean cloth. After a period of time, you should remove the CPU cooler, remove the old thermal paste and use new glue. The truth is that even after a year or two, performance will not improve at all. In fact, cleaning, cleaning the computer will be more beneficial than reusing thermal glue.

1. Cleaning: An effective way to help your computer "live" more

If you have free time, you can change the radiator component when cleaning the computer, but you should make changes after the period of over five years because short time is not needed.

The best non-conductive heatsinks 2018

1. Arctic MX-4: The best carbon-based heat sink

Arctic MX-4 is one of the most popular heat sink compounds, it's cheap and easy to use due to syringe design. Moreover, it does not contain any metal components so does not conduct electricity. After pouring the heat sink, you can put the cooler in because it does not require a fixed time. Although Arctic MX-4 performs routine tasks almost perfectly, it cannot be used for overclocking.

2. Noctua NT-H1: Excellent heat sink for overclocking

Compared to Arctic MX-4, Noctua NT-H1 can make CPU 2 degrees cooler. The process of using Noctua NT-H1 is quite easy, although the heat sink is dry and thicker than conventional heat dissipation compounds. Moreover, it also does not require fixed time. Noctua NT-H1 TIM is a bit cheaper than Arctic MX-4, but it also contains less glue, enough for more than 15 uses. This type of glue conducts heat very well even when the CPU operates at high capacity.

3. Arctic Silver 5: The heat sink compound contains 99.9% silver

An alternative to the previous heat sinks, Arctic Silver 5, has better performance thanks to 99.9% of silver chips. Although it contains silver components, this type of thermal glue is considered a ceramic TIM and the manufacturer still advises you to be careful not to spill the other components of the computer.

Effective thermal conductive silver chips make the CPU work better at high performance. However, this thermal adhesive takes a little time to fix, meaning that after pouring the glue, you need to leave it for a few hours to install other parts. There are a number of ceramic timers on the market that contain crushed diamonds, but you should not use them because they are easily abrasive.

4. Thermal Grizzly Kryonaut: Best premium ceramic TIM

The Thermal Grizzly Kryonaut is the best non-conductive thermal glue available and is one of the most expensive glue. It costs twice as much as Noctua NT-H1 but only contains 1 gram of glue. This type of heat sink is mainly used for people who build computers.

Despite the money, people still have expensive sentences. With 12.5W / mk type, this is the best thermal conductive ceramic thermal conductive glue and non-conductive. And it doesn't require a fixed, easy-to-use and effective cooling time with up to 3.4 degrees lower temperatures than Arctic Silver 5 and Noctua NT-H1.

The best liquid metal thermal compound 2018

1. Thermal Grizzly Conductonaut: The best heat sink for overclocking GPUs and CPUs

This thermal adhesive requires a bit of expertise and care when used because they conduct electricity. First, the heatsink needs to be thoroughly cleaned with isopropyl alcohol before using the glue.

After that, you need to check a little glue and evenly spread the glue with the broom available. Thermal Grizzly Conductonaut has all the tools for the easiest use process, you just need to follow the instructions. Remember that you must not use it on aluminum radiators because liquid metal can cause damage and leave black stains.

Depending on the cooling device, heat sink and the rest of the computer rig, Grizzly Conductonaut Thermal paste can lower the temperature by more than 10 degrees. Therefore, lower temperatures will allow you to overclock the GPU and / or CPU more, providing much better performance.

1. Instructions for overclocking the CPU

With 73 W / mk, Thermal Grizzly Conductonaut is the best thermal adhesive on the market today. Those who want to push their performance to the maximum will definitely use this metal thermal glue. Just be careful and take the time to use it and you won't be disappointed.

When you need to use heat sink for new cooler / radiator or replace old heat sink glue from old CPU, you should choose high quality TIM. If you just want to choose a reliable and efficient heat sink, use Arctic MX-4. For overclocking, use the Noctua NT-H1 or Arctic Silver 5. For best results, use the Thermal Grizzly, which is a bit expensive but worthwhile if you want to push the performance to the highest level. Kryonaut is safe and easy to use while Conductonaut should probably be handled by experienced users.

See more:

1. You have to use thermal paste properly?

2. Make your laptop's heat sinks super simple
3. 5 ways to cool down, cool, laptop radiator simple and effective

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