

Answer: What are clock speed, frequency Hz, MHz, GHz?

The article below will answer the question 'What are clock speeds, frequencies Hz, MHz, GHz? Should I buy a computer based on CPU clock or not?'

We often hear about clock speed or frequency Hz, MHz or GHz when talking about computer performance. Some of you even refer to this parameter to compare when choosing to buy a computer. So, what are Hz, MHz, GHz? Is GHz related to computer performance and is choosing to buy a machine with high GHz the right thing to do? Join TipsMake to find the answer through the article shared below.

What are Hz, Mhz, GHz? How to read correctly

Hz, MHz and GHz are frequency units used to **measure vibrations** . These frequencies are used to measure and describe computer parameters, including:

1. CPU clock.
2. Screen scanning frequency.
3. Wifi band.

Picture 1 of Answer: What are clock speed, frequency Hz, MHz, GHz?

In particular, each frequency unit will have a different reading, specifically:

1. **Hz – Hertz** : Vietnamese is read as Hec or Hec, meaning 1Hz is equal to 1 vibration per **second** .
2. **MHz - Megahertz** : Vietnamese read as Megahertz, meaning 1MHz is equal to **one million cycles** per second (or 1 million hertz).
3. **GHz - Gigahertz** : Vietnamese is read as Gigahertz, meaning 1Ghz is equal to **1 billion oscillations** per second.

Instructions for checking how many GHz a computer has

To check the GHz frequency for a new computer is quite easy. Because information related to machine parameters and configuration will be presented clearly and specifically on the box or posted on the machine. Or most simply, you can ask a consultant and receive an answer quickly.

However, what if you want to check the GHz for an old laptop? In case your laptop or the one you want to buy used has lost all parameters, you can still check the GHz through the following steps:

1. **Step 1:** First, right-click on the **My Computer (Computer)** or **This PC** icon on the computer's desktop screen.
2. **Step 2:** Click **Properties** , a detailed table of device parameters will appear.
3. **Step 3:** In the **Processor** section , you can see the chip name along with the CPU clock speed and GHz frequency of the device.

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In addition, there is another way to help you easily check your computer's GHz parameters, specifically:

1. **Step 1:** Go to **Start** and select **Run** . Additionally, you can also press the **Windows + R** key combination to quickly open the **Run** dialog box .
2. **Step 2:** Enter the line '**dxdiag**' in the dialog box and press the **Enter** key .
3. **Step 3:** **At this time, the DirectX Diagnostic Tool** window will appear, along with all the information of the computer. And through that, CPU clock information will be available in the **Processor** section .

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Thus, checking CPU clock speed (GHz) is not as difficult as we think. On the contrary, with just a few very simple steps, you can quickly and easily see how many GHz your device has.

Should computer performance be based on GHz (CPU clock)?

In the field of computer science, GHz is used to measure CPU clock speed, which means it reflects the number of CPU oscillation cycles per second. If a CPU has a clock speed of **3.5 GHz** , that means it has up to **3,500,000,000 cycles** per second.

The CPU will perform continuous oscillation cycles to be able to process the program content running on the device. The higher the clock speed of the computer, the more oscillations per second, the programs run smoother and the computer runs faster.

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For that reason, some people often rely on GHz to evaluate and measure performance, and compare it with other models when choosing to buy a computer. They believe that the higher the GHz, the more efficient the device will be and the performance will also increase. Is this a correct thought? And does choosing a computer like that bring any consequences?

In fact, this thinking will be correct if you are putting two computers with the same processor chip line but different clock speeds on the scale to compare with each other. Thus, the larger the GHz, the better the computer's performance. **For example, a 2.4GHz** laptop will definitely perform less efficiently than a **3.5GHz** laptop if both are equipped with a **2nd generation Intel Core i5** chip .

But it would be a mistake if you compare GHz to evaluate performance between two models using different chips. For example, a laptop using an **Intel Core i5 3.6GHz** chip will certainly not be comparable to an **Intel Core i7 3.0GHz** no matter how different their clock speeds are.

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To explain this, we will look at the characteristics of the CPU. The more cores a CPU has, the stronger its processing ability. At the same time, the Core i5 chip cannot compare to the Core i7 chip - the new generation chip line from Intel. Therefore, even though the CPU clock speed of Intel Core i7 is lower, with the ability to undertake more tasks at the same time, in each cycle its performance is still much higher than the Core i5 chip line. .

At the same time, newer chip lines also offer higher energy savings. This comes from high performance which means lower heat output. Therefore, do not be stereotyped when evaluating, comparing and choosing a machine, especially choosing only based on CPU clock speed. Along with that, you should pay more attention to the number of cores to make the most optimal choice.

Meaning of MHz and GHz in CPU clock

Clock speed is the term used to express **CPU speed** . The higher the clock speed, the faster the CPU will be able to handle tasks.

Simply put, the CPU will be the part responsible for processing commands in the device. The clock speed is then a measure of the total cycles that the CPU has performed per second and is synchronized thanks to the oscillator inside the CPU.

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To better understand this issue, we will come up with a small example. For example, the CPU clock speed is **2GHz** , which means the CPU can perform **2 billion opening and closing cycles** of transistors in just 1 second.

Previously, MHz was also a unit used to measure CPU, however, currently MHz has been replaced by GHz and it is no longer very popular.

Meaning of Hz in screen scanning frequency

Hz is an index that represents **the number of times the screen can draw** in 1 second, also known as the **screen scanning frequency** . For example, 80Hz means that in 1 second, the screen will refresh up to 80 times. Screen refresh rate directly affects display quality and image smoothness. Therefore, the higher this number, the better the user's visual experience will be.

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Meaning of Hz, MHz and GHz in Wifi

In the Wifi band, GHz is the unit of measurement for the Wifi broadcast frequency range. Currently there are two main frequency bands: 2.4GHz and 5GHz. Through the above frequency band, new Wifi devices can find and connect to each other.

How to convert from GHz to Hz or other units

To convert from GHz to Hz or other units, you just need to perform the following extremely simple operations:

1. **Step 1:** First, open Google Chrome and type in the search bar the syntax '**Value**' + '**Original unit**' to '**Unit you want to convert**'. For example, 3.5 GHz to Hz, or 3.0GHz to MHz.
2. **Step 2:** After entering the syntax, press the **Enter** key and the results will be displayed after just 3 seconds.

In addition, you can also refer to the quick conversion table below to convert units to each other quickly and easily.

Measurement unit (Hz)	Unit conversion
1 Hz	1,000 mHz (Milihertz)
1 Hz	1,000,000 μ Hz (Microhertz)
1 Hz	1,000,000,000 nHz (Nanohertz)
1 Hz	0.001 kHz (Kilohertz)
1 Hz	0.000001 MHz (Megahertz)
1 Hz	0.000000001 GHz (Gigahertz)

Frequently Asked Questions What is GHz?

Here are the two most frequently asked questions when users learn about GHz:

How Does Clock Speed ??Impact Gaming?

Before the advent of multi-core CPUs, clock speed was considered the main parameter to compare single-core processors. Nowadays, it is considered along with core count, CPU cache, and power consumption. The impact of clock speed on an individual game depends on the game engine and the tools used to create the game

How Do You Adjust Your CPU Clock Speed?

Overclocking means speeding up the CPU clock to increase processing power. Intel CPUs with a 'K' in the name have an unlocked multiplier for easy overclocking when paired with an integrated motherboard that supports overclocking.

Overclocking can improve FPS, even for high-end CPUs like the latest Intel® Core™ i9 processors

Epilogue

Thus, the above article has answered the question of what clock speed, frequency Hz, MHz and GHz are asked by most readers sent to TipsMake. It can be said that the higher the GHz, the higher the CPU clock speed, which means the program and machine will run smoother. However, to evaluate the performance between different computers, relying only on GHz is not enough. Therefore, consider the entire chip line to make the most optimal choice for yourself.

You finished reading the article "**Answer: What are clock speed, frequency Hz, MHz, GHz?**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.
