Why does the Galaxy S20 Ultra have RAM up to 12GB? RAM levels so terrible do?

Galaxy S20 Ultra model has up to 12GB RAM, more than most laptops on the market. So with so much RAM, what can we do with it?

As announced by Samsung, Galaxy S20 Ultra in Vietnam will be equipped with maximum LPDD5 RAM with a capacity of 12GB.

Many people may wonder why Samsung integrated so much RAM for a smartphone while most of the heavy tasks on the machine only need about 6-8GB of RAM. But Samsung certainly has a reason to do this, not to put it in for fun.

How do smartphones use RAM?

Every smartphone sold has a specific amount of RAM and it's hard for us to know how to increase it. That means that the smartphone will need to allocate that amount of RAM so that the device works best.

When you turn on the smartphone, the most noticeable amount of RAM is never announced by the manufacturer. Simply because this amount of RAM needs to be allocated to the whole system, including the kernel, processor and GPU.

Thus, the actual user only has not much RAM left to run mobile applications. For example, if your smartphone has 6GB of RAM, that means that after having finished booting, you have about 2.75 - 3GB of RAM. Of course this is not really a big number but it is enough for most tasks of the user.

Mobile apps, though, are getting heavier and taking up more RAM. If you want the machine to run most stable, you will need more RAM. Or else you will have to turn off unnecessary applications to prioritize RAM for important applications. Not to mention that even if you exit an application but haven't shut down, it will still take up some RAM.

For example, the system must take at least 1GB of RAM to be able to operate Android 10 most stable. In the meantime, you need at least 3GB of RAM to stay free to play heavy games like Fortnite or Asphalt.

In fact, there are many Android games that take up a large file and consume a lot of RAM. In many cases, it consumes more RAM than Android systems.

RAM capacity does not help applications run better or improve connectivity, . It just determines the number of applications that you can run at the same time.

But it's hard to deny the role of RAM. Because we need to know that, even if you do not turn on applications, they can still run in the system. And of course this process also consumes a significant amount of RAM. Even when an application is off, they are still gnawing on your RAM.

Even with some heavy Android games, smartphones only need about 8GB of RAM. If you do not install any RAM-consuming applications, such as Facebook, Twitter or Instagram, you still have about 4-6GB of free RAM, which is sufficient for everyday use.

As much RAM as possible?

Speaking of which, many people will implicitly understand that increasing RAM will certainly bring significant benefits. And indeed it is.

Samsung equipped with a feature called App pinning on the Galaxy S20 Ultra, and it is a tool that shows the difference between a machine with 6GB, 8GB and 12GB RAM.

App pinning allows you to specify 5 apps that are allowed to run in the background, including games. This is definitely a very useful feature for those who want to keep updating their information without worrying about restarting applications.

This feature is probably not too strange for many Android users because it has been available since Android 5.1 with the name Screen Pinning. This feature allows important applications to run in the background and always ready to turn on when needed. However, with Samsung equipped with up to 12GB of RAM for the Galaxy S20 Ultra, this feature really comes into play.

Usually starting an application will take a certain amount of time. However, RAM is not a determinant of application speed. Because this is the job of the CPU and processor cores. They are responsible for freeing memory by turning off unnecessary applications and prioritizing the applications that users are opening.

This is a complicated process, and even the high-end Snapdragon chips take a while. But with the App pinning feature, it will always keep your app on, so you can open instantly without **having to wait.**

Keep in mind, RAM does not help speed up application opening, GPU performance or data download speed faster. It merely helps you get a seamless, smoother application experience without any delay.

It is also Samsung's goal to create a super product with a "maximum" configuration in all aspects, because it aims to use the perfect, smooth experience, especially for those who are ready to give up. out to tens of millions to own a top flagship. When the IoT era is coming, the smartphone will play a central control role, where users will be served by the technology "to the teeth".

With 12GB of RAM, users can pin quite a lot of applications into memory. And the remaining RAM is still enough to run the Android system and other applications. Specifically, in 12GB of RAM on the Galaxy S20 Ultra, you can pin games and social networking apps. They can take up 8GB of RAM and the remaining RAM is enough for you to take and process a 64MP photo.

In fact, Samsung does not randomly integrate up to 12GB of RAM for the Galaxy S20 Ultra, but rather a thorough calculation of the Korean electronics firm. Of course users also need to know how to take advantage of this RAM effectively to avoid wasting.

In addition, a smartphone with RAM up to 12GB like the Galaxy S20 Ultra can be considered as a great advertising guise. Because more or less, users will also love the terrible numbers and configurations when choosing a smartphone.