

**“AZƏRBAYCAN HAVA YOLLARI” CJSC NATIONAL AVIATION ACADEMY”**

**Individual Work №: 2**

**Topic: Memory manufacturers and brands.**

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**Teacher: Mamed Shahmaliyev**

**Group: 1459i Student: Rəvan Yusifov**

The truth about memory manufacturers

There are multiple memory companies on the market, but only a few true memory manufacturing companies. When researching different memory brands, you may run across companies that claim to be memory manufacturers, when they're really just module assemblers. How these companies work is that they purchase pre-manufactured parts (such as DRAM chips and printed circuit board) from true memory manufacturers, and then assemble these components to “manufacture” a module with their label on it.

True memory manufacturing involves a much higher level of technical expertise and quality control, and involves everything from selecting choice silicone to functional module testing. True memory manufacturers design, produce, and test components and modules at all stages of production. Memory modules consist of two pieces: DRAM semiconductor chips that store data, and printed circuit board (PCB), which connects the memory chips to the rest of the computer. There are only a handful of semiconductor manufacturers with the capability to produce DRAM chips, and they are Micron (Crucial), Samsung, and Hynix.

Since Crucial is a brand of Micron, one of the largest memory and flash storage manufacturers in the world, our products are backed by some of the most rigorous quality standards in the industry. Unlike some memory and SSD companies, we are vertically integrated and we sell the same products that we produce for the world's leading computer manufacturers. For you, this means that the same memory you buy from us is often the same memory that was installed in your system when you bought it.

Because we make our products for the leading computer manufacturers, we work closely with them to ensure optimal compatibility and performance. Every single module we sell is compliant with JEDEC industry standards and 100% of our modules have been tested at the component, module, and functional levels. Likewise, the SSDs that we manufacture have passed hundreds of SSD qualification tests and over a thousand hours of prerelease validation testing. If a Crucial product doesn't meet our rigorous standards, then it doesn't leave our doors. That's quality you can depend on – don't settle for anything less.

Under the Hood of your PC has the best [**RAM**](https://www.moglix.com/electronic-components/ram/214132100) is as important as having a good processor and a good graphic card. And especially if you are one of those who perform different tasks like gaming, designing, creating content or website then it would be a great help and power that help you to boost your performance in terms of need that will keep your computer from getting sluggish whenever running any program.

With a good operating system, a good app, and a good PC game it also requires more good and robust resources and including a good RAM. And if you are one of those who work on a daily basis with the workload of mostly 20 tabs open in your browser then a good and fast memory can make a huge difference in running your computer or PC smoother without any frustration. This will boost up the speed of your browser that will help perform any task smoothly.

## **What is RAM??**

RAM is also known as main memory, primary memory, or system memory and it stands for Random Access Memory (RAM) which is a hardware device that allows information to be permanently stored and retrieved on a computer PC laptop whenever required. DRAM, a type of memory module, is typically associated with RAM. Access times are also quicker because data is accessed randomly rather than sequentially like it is on a CD or hard drive. Unlike ROM, however, RAM is a volatile memory that needs the power to keep data available. All data in RAM is lost when the device is switched off.

## **Brands of RAM**

Over the years with the evolution of the computer till date, there has been a huge different validation of RAMS that were introduced. Some of them include DIMM, RIMM, SIMM, SO-DIMM, and SO-RIMM. For example 512MB DMM computer memory model is generally a piece of Ram that can be now found in an old desktop computer or PC which could be installed into one of the memory slots of the motherboard which is present in a computer.

### **Additional RAM information:**

When the computer is booted, some of the parts like the operating system and drivers are loaded into memory that allows the CPU to process its instructions quite faster with the boosted-up speed process. Once the operating system is loaded, some programs like the browser that is opened on your tab could be seen instant loaded into the memory. And if there are too many programs opened, then the computer swaps the data in the memory between the RAM and the hard disk drive.

The amount of memory in a computer is primarily responsible for its output. A computer's performance would be slowed if it does not have enough memory to run the operating system and its programs. The more memory a computer has, the more data and applications it can load and process in a short amount of time.

We've compiled our top RAM recommendations and included them in this guide, along with a price comparison tool to help you find the best deals. You'll want to get one of the best RAMs on this list to really appreciate the full potential of the best computers.

### **Adata ram:**

[**Adata RAMs**](https://www.moglix.com/brands/adata/electronic-components/ram/214132100) has Great looks that Perform very well in four-DIMM configurations. But these are quite Expensive-Mediocre two-DIMM performances. If you're building a full-fledged gaming rig, you'll want the most flashy hardware available after all, who doesn't want a gaming rig that lights up the whole room? The Adata Spectrix D80 is the RAM to select if this sounds appealing. It's not only available in frequencies up to 5,000MHz, but it's also liquid-cooled, so there's no danger of it overheating. The Adata Spectrix D80 would be the best RAM for gaming in a cavern with RGB lighting.

### **Hynix ram:**

It would be unreasonable not to include [**Hynix**](https://www.moglix.com/brands/hynix/electronic-components/ram/214132100) after including Micron (Crucial) and Samsung in our write-up. Hynix, like Micron and Samsung, is a corporation that produces its own memory modules and sells them to other firms. All memory modules available on the market are produced by these three firms. Whatever brand of RAM you buy, the memory module will almost certainly come from one of these three companies.

They, however, come in a plain and simple style, just like Samsung. (There is no fancy cover.) Note: Hynix memory is only usable in normal configuration.

### **Samsung ram:**

Samsung is a brand that is not just known for its TVs and Smartphones but is among the largest memory module creators in the world. Same as Micron Samsung is also responsible for some of the best RAM brands at prices ranging from high to low. Whatever be the customer demand.

Since Samsung is the largest producer, the quality of their products is always excellent. However, [**Samsung RAMs**](https://www.moglix.com/brands/samsung/electronic-components/ram/214132100) are very bland and do not have the same appeal as other brands. If you don't want your RAM to flash several colors and have fancy RGB lights, this is the choice for you. Samsung is unquestionably a viable option. Note, Samsung memory comes in just standard form.

### **Sodimm ram:**

16 GB SO-DIMM modules have now begun to become more widely available from a variety of vendors, easing RAM constraints in devices with a restricted number of RAM slots. These RAM modules however do not fit with all devices that can use lower density modules due to hardware limitations and few specifications required.

Since Intel's implementation of the JEDEC DDR3 specification in previous generation processors did not account for the introduction of high-density modules and this is the case. To make matters even more complicated, vendor specification sheets do not accurately represent which processors are compatible and which are not.

**Conclusion:**

All of the best RAM brands are nearly identical. They all use memory modules from three different manufacturers and mark them with exclusive cases (Heatsink). However, after-sale service is crucial to remember because it can distinguish between the best and mediocre RAM brands. Support is the reason we put Samsung, Hynix, and Adata at the top of the list because almost no one can argue that their after-sales service is the highest.