

Is a smartphone a computer?

There is a lot of talk of this lately, mostly it seems from people who do not have or do not know how to use a desktop or laptop computer. I see this as a general societal phenomenon I will call **DDoT**. The dumbing down of things. Device mobility has always involved tradeoffs.

I am going to disabuse those who believe it is a computer of this notion right here and now.

Definition: a programmable electronic device designed to accept data, perform prescribed mathematical and logical operations at high speed, and display the results of these operations.

<https://www.dictionary.com/browse/computer>

Does a smartphone do calculations like a computer? Yes, but so does a pocket calculator, is that a computer? Does it have a display? Yes, but again so does a pocket calculator. Only in the absolute broadest sense of the word it may be, but still a very underpowered limited use-computing device.

If you disconnect a smartphone from the Internet, what will it do? Is it still smart, or is it just a dumb terminal connecting to AWS, Azure, or the Google Plex like in the old mainframe computer days?

Or maybe it is really just a color Newton 2.0. You can calculate waitress tips and keep your golf score with it right?

A smartphone, or a tablet for that matter, is a mostly underpowered limited use device that can do some computer like things. Much like a lathe in a machine shop, a **real** computer is a device that can recreate itself. A smartphone cannot design, engineer, or manufacture itself.

They do not have the specs of modern PC's, gpu's are mobile ones, processors are small power saving ones. Nothing like Intel Core I3's, I5's, I7's, or I9's. Smartphones have multicore CPU chips to **save** battery power. Desktop and laptop computers have multicore chips to **produce** computing power.

You are not going to do these things on a smartphone:

- File conversions
- Audio editing, Audio encoding
- Video editing, Video encoding
- Spreadsheet creating or calculating
- Database creation or querying
- Gaming
- Run an image data backup to an external drive
- Run a RAID array for data redundancy
- Stream an HD movie on a 60 inch screen with Dolby Surround sound
- Play a Blu-Ray disc on a 60 inch screen with Dolby Surround sound
- Drive multiple viewing screens
- Boot from a disc to fix your OS
- Run a Firefox browser with extensions to block ads and also block telemetry
- Block all surveillance and location tracking on your system

Sure you can connect your phone to a larger display, use a dongle to connect to wired Ethernet, and maybe even an external keyboard and mouse. Sure, you can do some things in the cloud with Google Docs, Amazon AWS, or Microsoft Office 365 and Azure. **But why would you even want to?**

Smartphones seem to run fast because they require a LOT less processor and memory to run the operating system. No print drivers, video drivers, font libraries, antivirus, anti-malware, and firewall software, etc. But they also do not have discrete graphics video or publishing capabilities.

A comparison of smartphone versus computer CPU's

The Snapdragon 888 5G (2021) has 1 ARM 2.84 GHz. Prime core with 1 MB, 3 ARM 2.42 GHz. Performance cores with 512, and 4 ARM 1.8 GHz efficiency cores with 128 KB.

[https://en.wikipedia.org/wiki/List_of_Qualcomm_Snapdragon_processors#Snapdragon_888_5G_\(2021\)](https://en.wikipedia.org/wiki/List_of_Qualcomm_Snapdragon_processors#Snapdragon_888_5G_(2021))

In contrast, the top of the line Intel Core i9 has 18 cores, 36 threads, up to 4 GHz speed and up to 5.3GHz in turbo mode (2021)

<https://www.intel.com/content/dam/support/us/en/documents/processors/core/intel-core-i9-comparison-chart.pdf>

Intel Core i9-10980HK vs Qualcomm Snapdragon 888

<https://versus.com/en/intel-core-i9-10980hk-vs-qualcomm-snapdragon-888>

Just a few reasons why a computer processor like the Intel Core i9-10980HK better than Qualcomm Snapdragon 888

- 10.98% faster CPU speed
- 8 more CPU threads 16 vs 8
- 112GB larger maximum memory size 128GB vs 16GB
- Uses multithreading

I personally cannot see how people live on those smartphone things. They are just so primitive, limited, clunky, and hard to use.

I use my laptops with multicore processors and discrete video GPU's for my primary uses. Sometimes I need to use one of my desktops to get some "real serious" things done.

PS. I use a flip phone because in reality, when all is said and done, a phone just needs to be a phone.