**List out microcontroller supplier companies.**

* NXP
* Renesas
* Microchip
* Silicon Labs
* Infineon
* Texas Instruments
* Cypress

**List out microprocessor supplier companies.**

* EPSON
* Microprocessor kit
* Intel
* Qualcomm
* Gretex corporate services private limited
* Nobel Automation Technology.

**What is system on chip(soc)?Give any two examples of SOC?**

A System on a Chip, or SoC, is a single integrated chip (IC) that includes the components normally found in a standard computer system.

For example, on an SoC you may find a CPU (Central Processing Unit), RAM (Random Access Memory), storage, I/O (input/output) ports, and more.

SoCs also generally strive for efficiency in terms of being small in size and low in power consumption.

A **system on a chip**, also known as an **SoC**, is essentially an integrated circuit or an IC that takes a single platform and integrates an entire electronic or computer system onto it. It is, exactly as its name suggests, an entire system on a single chip. The components that an SoC generally looks to incorporate within itself include a central processing unit, input and output ports, internal memory, as well as analog input and output blocks among other things.

Depending on the kind of system that has been reduced to the size of a chip, it can perform a variety of functions including signal processing, wireless communication, artificial intelligence and more.

***Here are a few popular examples of SoCs in modern smart devices:***

* [***Samsung Galaxy S10 5G***](https://www.qualcomm.com/snapdragon/smartphones/samsung-galaxy-s10-5g)- This powerful 5G Android phone uses the Qualcomm Snapdragon 855 SoC platform. Despite the small size of the Snapdragon, it is capable of enabling virtual reality experiences and streaming real-time 4K video.
* [***Samsung Galaxy Tab S3***](https://www.qualcomm.com/snapdragon/tablets/samsung-galaxy-tab-s3)***-*** The popular S3 tablet was the first mobile media focused tablet to be powered by the Snapdragon 820. The Snapdragon 820 enabled fast connectivity, high-quality graphics, and efficient battery use for users of the tablet.
* [***Intel NUCs based on Gemini Lake SoCs***](https://www.techpowerup.com/242165/intel-intros-two-new-nucs-based-on-gemini-lake-socs)***-*** A NUC (Next Unit of Computing) is a small PC from computing giant Intel. NUCs enable general purpose computing for home and small business users at a low cost. The NUC 7 PJYH and NUC 7 CJYH were based on [Gemini Lake SoCs](https://ark.intel.com/content/www/us/en/ark/products/codename/83915/gemini-lake.html).

**Advantages of Digital Systems over Analog Systems**

* Reproduciblity of the results and accuracy.
* Ease of design: No special math skills needed to visualize the bahavior of small digital (logic) circuits.
* Flexibility and functionality.
* Programmability.
* Speed: A digital logic element can produce an output in less than 10 nanoseconds (10-8 seconds).
* Economy: Due to the integration of millions of digital logic elements on a single miniuture chip forming low cost integrated circuit (ICs).