

Embedded System Design Report For Digital Camera

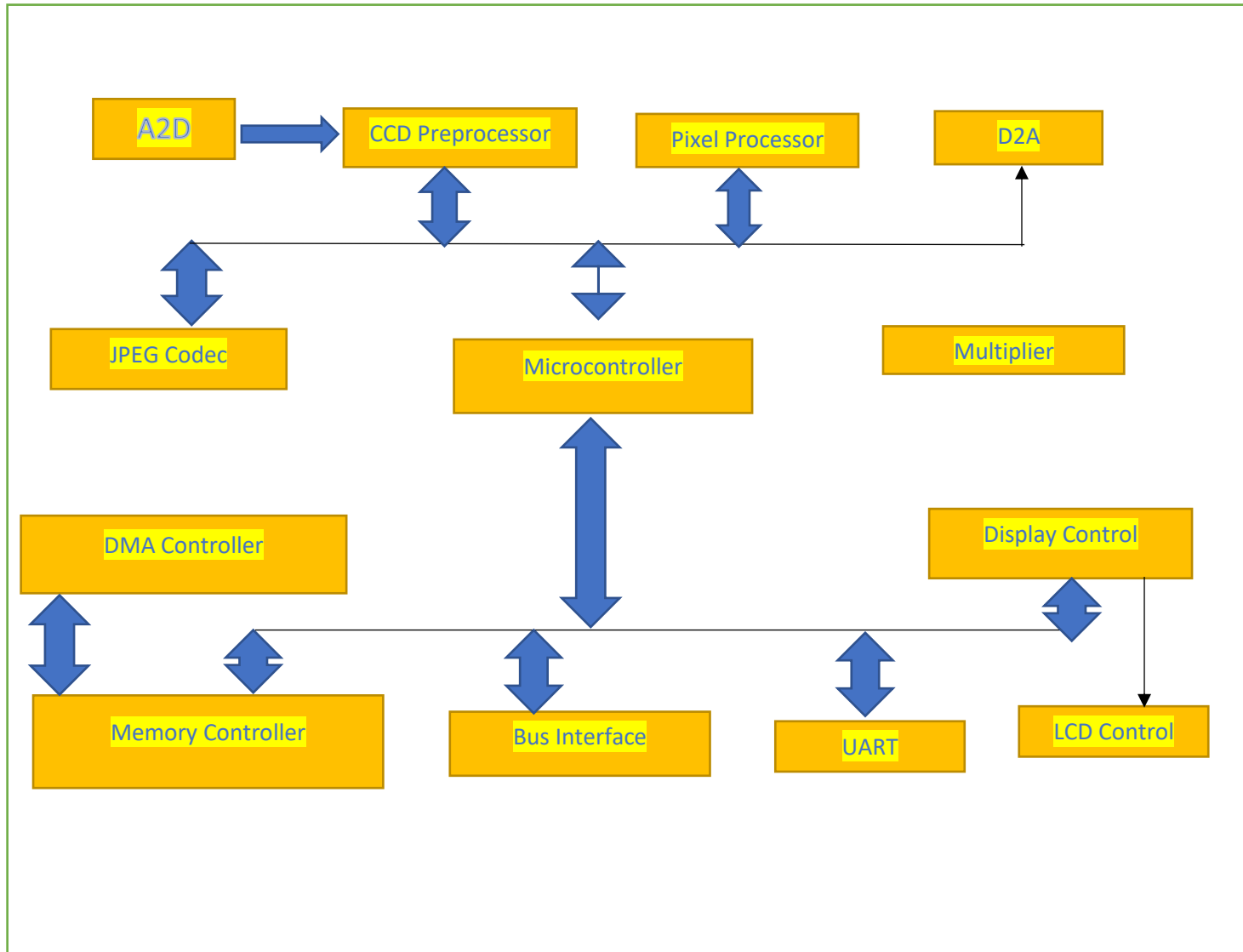
Introduction:

In modern world, people use digital camera on a very general basis whether it is for vlogging, tours, capturing moments and many more thing.

Some of the features of the digital camera are mentioned below

1. Stores input in digital format, eradicates the need of films for storage purpose.
 - 1.1. There can be multiple photographs or videos which can be stored. Also, additional storage is provided for using a memory card for extension.
 - 1.2. Exact number is not specific as it totally depends on the quality of the picture and videos captured.
2. Easy Transfer
 - 2.1. There are times when we need to upload the photos somewhere or need to clear the storage to capture new content. So there's a feature to transfer your files easily to your PCs and Laptops.
3. SoC is used

Block Diagram Of The Digital Camera



Application:

1. Stores Images and Videos
2. Digital Images are stored in compressed form for easy transfer from one device to another.
 - 2.1. The compression helps the user to store more images without disturbing the original quality of the data
3. Different modes of operation is available to enhance the quality of picture taken by the user.
4. Image data is stored in general 8x8 pixel for standard scaling in later stages.

Sensors Used:**Analog Sensors Used:**

1. **CCD Preprocessor** - Sensors (CCD / CMOS) come in various sizes, or image sensor formats. These sizes are often referred to with an inch fraction designation such as 1/1.8" or 2/3" called the optical format. The coding part is to be done for this section as per the requirement.

Microcontroller

A low end 8051 microcontroller is used in the device. The power is quite less and also the speed is not that good. A capture per second is near to impossible but the implementation cost is very affordable so that balances the equation to much extent.