

Technical Description

The Creation's digital camera is operated by two alkaline batteries. When the camera is switched on, the dc converters will convert different voltage rails to different discrete components to power up the operation.

The COMS sensor is an active mega pixel 1/2-inch array color image sensor. Its function is to convert the light/image signal into electrical signal with digital format. It is mounted underneath the lens with the focus being factory adjusted to the best quality image.

The TFT LCD display is mounted on the back of camera; it receives the digital signal from the DSP and converts the signal to RGB visible image on the TFT glass.

The DSP is the heart of the camera, the co-processor's clock is controlled by two crystal circuitries and the firmware is stored in the ROM. In the preview mode, the DSP inputs the image signal from the sensor and converts the signal into electrical signal which can be directly playback on LCD display, TV monitor (PAL or NTSC system) or PC web camera through USB port. In the picture or movie shot-mode, the DSP utilizes its image processing engine, image compression engine, storage interface controller and SDRAM to convert the picture into JPEP file and the movie into AVI file format and store in the on-board NAND flash memory or external SD Card. The USB controller can be interfaced as a MSDC drive on the PC, which can upload the pictures or movies onto the PC.

User input interface control buttons, the camera has a user-friendly interface, which means that the user can simply communicate his request through the input buttons and/or OSD menu and the input interface of DSP will transfer the instructions to the processor accordingly. The DSP also handles the OSD menu displayed task, which further enhance the user's control of the camera.

The flash light module is a separate PCB module; the flashing mode is controlled by the user's left button and is triggered by DSP via the hardware circuit.