

# C6820 Enhanced JPEG Module

The **C6820 Enhanced JPEG Module** is a small, lightweight and low power consumption device including most of the features of a Digital Still Camera (DSC) such as snapshot, video capture, date-time stamp, file management and others. By using external micro-controller, together with a well-developed, user-friendly command, people can build a custom made camera for specific application.

## Features

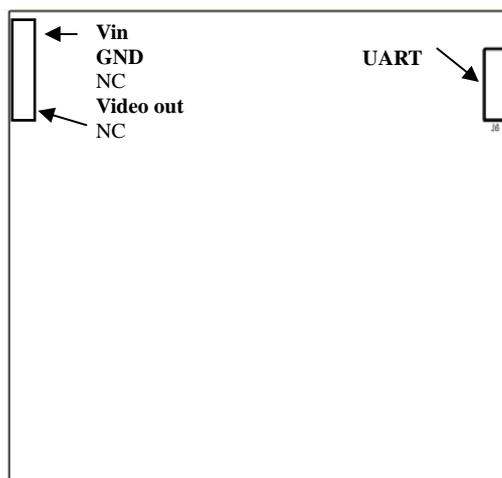
- UART interface for camera control
- User friendly commands
- Different baud rate setting to meet most of MCU and PC software
- Support Mega pixel sensor
- SD connector
- Real time composite video data output
- USB mass storage



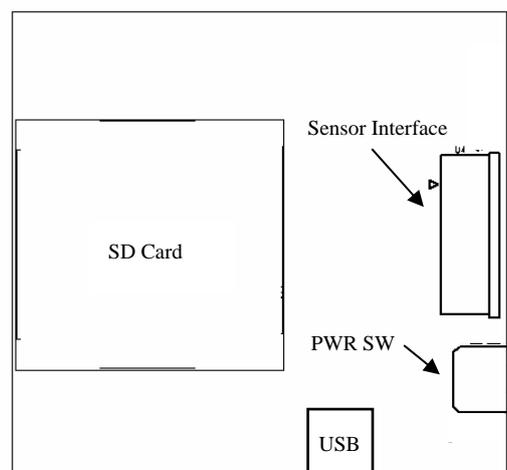
## Specifications

Image Sensor	CMOS sensor OV3620
Image Processor	ZORAN COACH-6E
On Board Memory	128Mb
Storage	Resident 16MB NAND Flash
Video Capture	640 × 480 (30 fps) 320 × 240 (30 fps) Unlimited Motion JPEG capturing time depends on available memory space
Photo Resolution	1280 × 960, 640x480 JPEG format
WhiteBalance	Normal / Daylight / Tungsten / Fluores / Cloudy
UART Baud Rate	115200, 57600
TV out	NTSC / PAL
USB Interface	USB 1.1 Mass storage mode Supported OS: Win2000 / XP / ME
Power	DC 5V
Main Board Dimension	45 x 55 mm
Sensor Board Dimension	27.28 x 27.28mm

## Board Connectors and its location

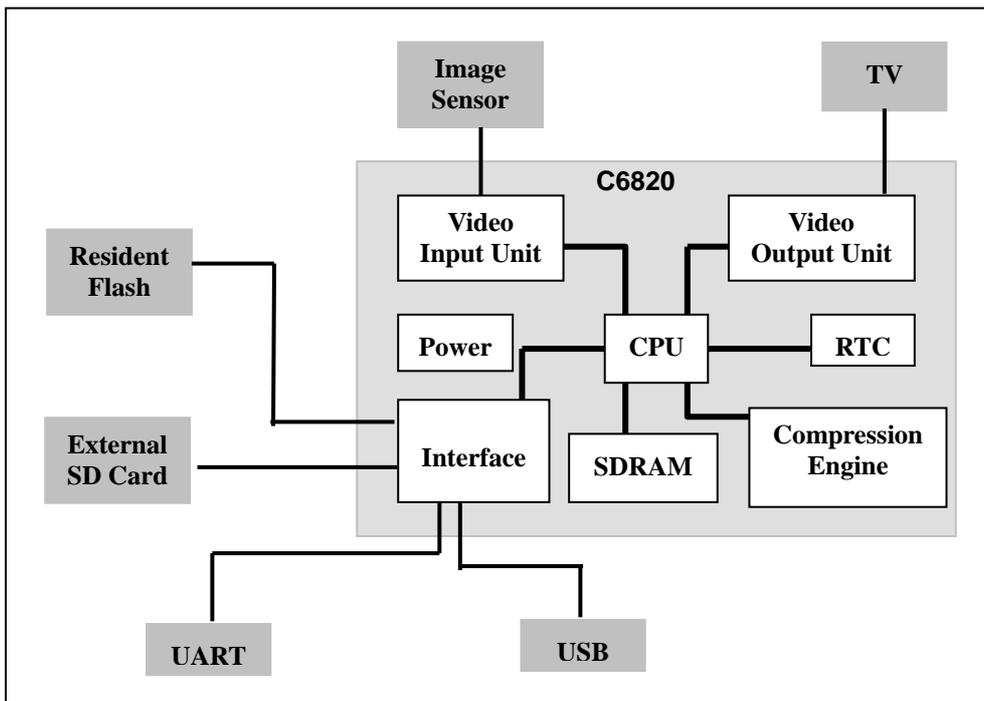


**Top View**



**Bottom View**

## Functional Block Diagram



## Functions Description

### Photo Capture

The Enhanced JPEG Module supports **1280 x 960, 640x480**

### Video Capture

The Enhanced JPEG Module features unlimited video capturing, dependent on the memory size, with two optional resolutions: **640 x 480 (30fps), 320 x 240 (30fps)** in AVI, Audio Video Interleave, format which is currently the most common file format for storing audio / video data.

### Storage

The Enhanced JPEG Module features a **16MB** (16M x 8 bits) on-board NAND flash and supports up to **2GB** (optional) external memory card.

### Display

The Enhanced JPEG Module provides composite video output, NTSC or PAL.

### Serial Interface

The Enhanced JPEG Module features an UART core, based on the industry standard PCI116550 UART device. It supports full duplex and such that users can communicate with it on flexible platforms. The supported baud rates are **115200bps, 57600bps**.

### USB

The Enhanced JPEG Module provides a USB port such that user can upload the stored image to PC without any driver when using windows XP and up. It performs as Mass Storage Mode.

## Evaluation Kit

The purpose of the evaluation kit is providing a tool for people to understand the communication with the Enhanced JPEG module. We try to implement as many features as possible in this evaluation program. Most of the command has been used.

## Kit Content

Part No	Description	Qty
C6820	Enhanced JPEG Module	1
CBL0-0504-3047	Cable - UART to RS232 adapter	1
CBL1-USB0-12AM	Cable - USB with mini connector	1
CBL1-RS9P-1278	Cable – RS232	1
CBL1-0001-1522	Cable – AV	1
ACDC-0510-x500	Power adapter 5V 1A	1
CDR3-6820-0000	CD ROM contain C6820ap.exe	1
MEMC-SD1024-00	SD card 1GB(optional-not_included)	

## C6820AP

The EV Kit accompanies with a PC program, C6820AP.exe, provides a graphical user interface for the users to examine the functions provided by the camera platform. PC program divides the basic functions of the platform into 3 categories, namely, General, Capture and Playback.

