COMedia Ltd.
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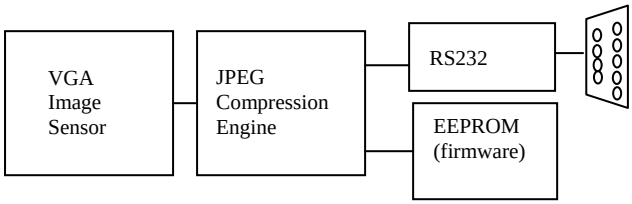
C3282
JPEG Compression Serial Camera Module

General Description

The C3282 JPEG Serial module performs as a video camera or a JPEG compressed still camera. Users can send out a snapshot command from the host in order to capture a full resolution single-frame still picture. The picture is then compressed by the JPEG engine and transferred to the host.

Block Diagram



Features

- 5V operation and RS232 interface
- Standard PCB size (32x32mm) to fit several standard cabinet
- Various lens can be selected
- Low-cost, & low-powered solution for high resolution image capture
- Built-in down-sampling, clamping and windowing circuits for VGA/CIF/SIF/QCIF/160x128/80x64 image resolutions
- RS-232: 115.2K bps for transferring JPEG still pictures or 160x128 preview @8bpp with 0.75~6 fps
- JPEG CODEC for different resolutions
- Built-in color conversion circuits for 4 gray/16 gray/256 gray/12-bit RGB/16-bit RGB preview images
- Auto detect baud rate and make connection to the host

System Configuration

Camera Sensors

The C3282 uses OV76xx VGA CMOS sensor with an 8-bit YCbCr interface.

JPEG CODEC

The JPEG compress engine is OV528. The OV528 takes 8-bit YCbCr 422 progressive video data from the image sensor. The camera interface synchronizes with input video data and performs down-sampling, clamping and windowing functions with desired resolution, as well as color conversion that is requested by the user through serial bus host commands.
The JPEG CODEC with variable quality settings can achieve higher compression ratio & better image quality for various image resolutions.

Program Memory

A serial type program memory is built-in for C3282, which provides user-friendly commands to interface external control units.

RS232 conversion chip

In order to connect the camera for a long distance, RS232 converter chip is used in the camera such that user can use the camera directly without building his own interface.

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