TTL Serial JPEG Camera with NTSC Video

Product ID: 397
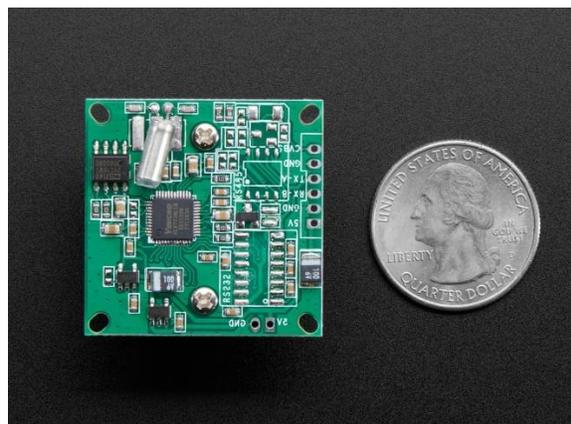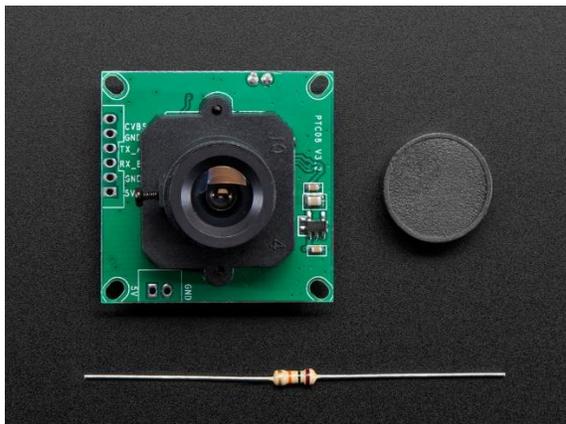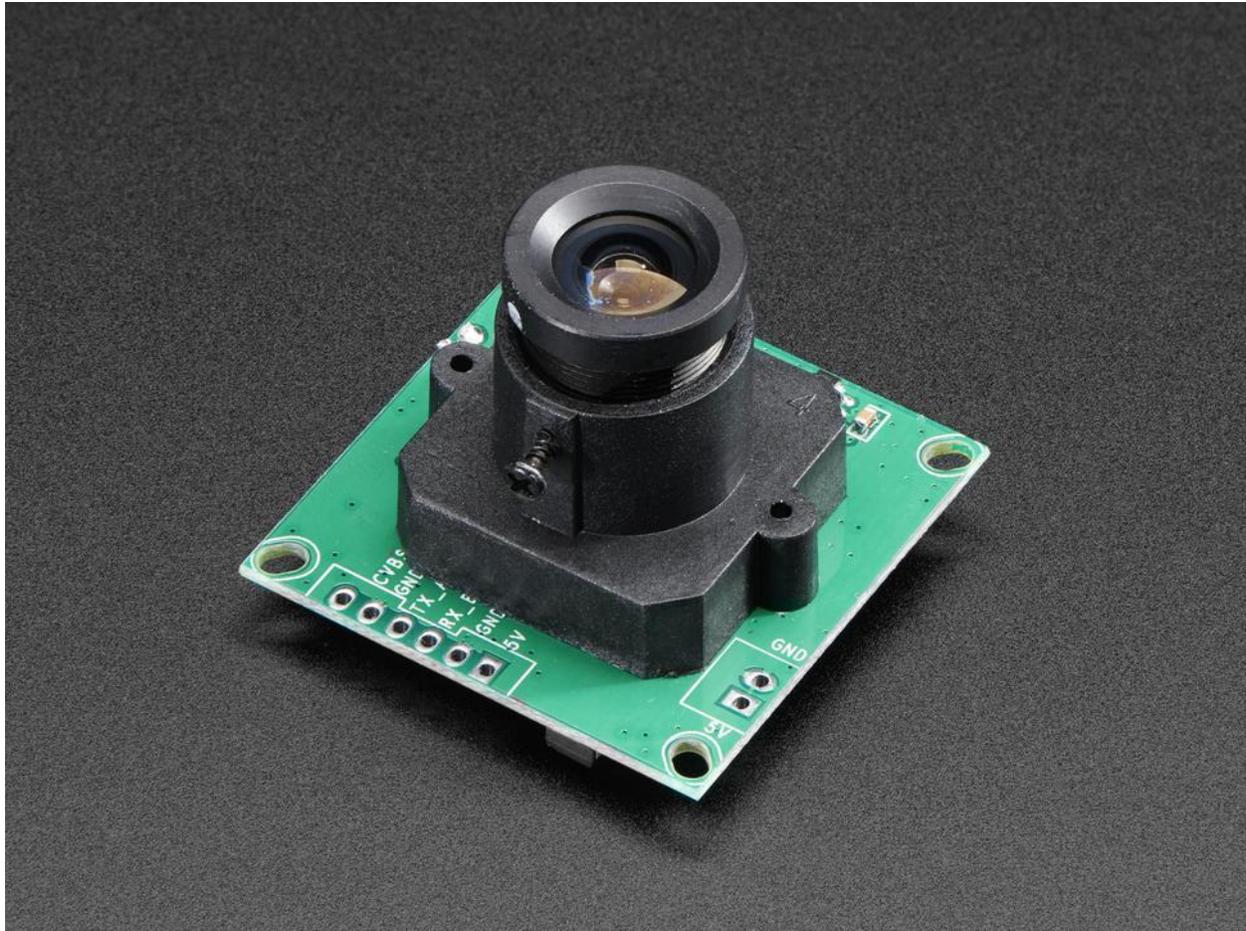
Description

This camera module can be a pretty neat project addition. It was designed to be used in security systems and does two main things – it outputs NTSC video and can take snapshots of that video (in color) and transmit them over the TTL serial link. You can snap pictures at 640x480, 320x240 or 160x120 and they're pre-compressed JPEG images which makes them nice and small and easy to store on an SD card. Perfect for a data-logging, security, or photography project.

One nice thing about this particular camera is all the 'extras' that come with it. For example it has manually adjustable focus, auto-white-balance, auto-brightness and auto-contrast taken care of for you as well as motion detection built in! That means you can have it alert your project when something moved in the frame.

We also carry an enclosed weather-proof version

Using the module is pretty easy and only requires two digital pins (or a TTL serial port) – by default it transmits at 38400 baud. Of course we wouldn't just leave you with a datasheet and a 'good luck', we even spent a lot of time researching the module and DSP to make really nice libraries for both Arduino & CircuitPython, with example code that shows how to change the image size and compression quality, detect motion, control the video output stream, etc.

Example photo 1 (outside street) & example photo 2 (inside person)

Technical Details

- Module size: 32mm x 32mm
- Image sensor: CMOS 1/4 inch
- CMOS Pixels: 30M
- Pixel size: 5.6um*5.6um
- Output format: Standard JPEG
- White balance: Automatic
- Exposure: Automatic
- Gain: Automatic

- Shutter: Electronic rolling shutter
- SNR: 45DB
- Dynamic Range: 60DB
- Max analog gain: 16DB
- Frame speed: 640*480 30fps
- Scan mode: Progressive scan
- Viewing angle: 60 degrees
- Monitoring distance: 10 meters, maximum 15meters (adjustable)
- Image size: VGA (640*480), QVGA (320*240), QQVGA (160*120)
- Baud rate: Default 38400, Maximum 115200
- Current draw: 75mA
- Operating voltage: DC +5V
- Communication: 3.3V TTL (Three wire TX, RX, GND)   on 2.0mm pitch connector
- PTC-08 module datasheet contains dimensional drawings
- Fabien's Netduino + Camera tutorial