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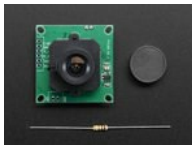
TTL Serial JPEG Camera with NTSC Video

PRODUCT ID: 397

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DESCRIPTION

TECHNICAL DETAILS

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. That and more is available in our very detailed tutorial that will help get the most use out of your camera.

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

Downloads:

- We have a fairly full-featured CircuitPython & Arduino library with examples that demonstrate how to use the camera, check the tutorial for details
- PTC-08 module datasheet contains dimensional drawings
- This is the DSP management tool (windows only sorry!) it allows you to tweak pretty much everything on the camera as well as test it out via a serial port
- This is the 'protocol cheat sheet' for the sensor its a little crummy - we suggest reading our library code and porting it instead of trying to do it from scratch with this sheet

Fabien's Netduino + Camera tutorial
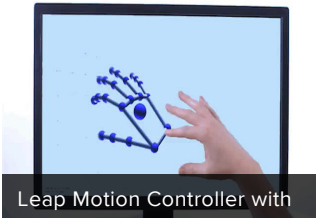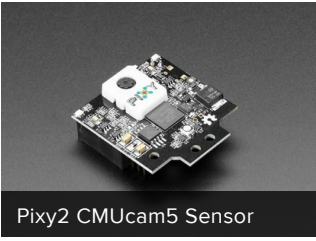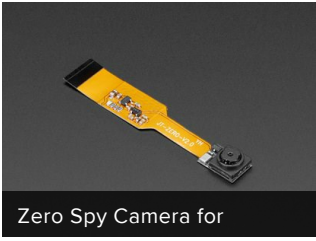

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