PoECAM

Description

PoECAM is an **open source** Fully **programmable camera** integrating **PoE** (Power Over Ethernet) . This item is **ESP32** based webcam with **W5500** embedded Ethernet controller plus **200w pixel** image sensor **OV2640** . PoECAM equipped with a combination of **8MB PSRAM** + **16MB Flash** large memory. This teeny tiny with flexible power supply, you can get stable image by connecting the network cable in just 2 steps. It's wonderful for you to monitor warehouse, get auto image acquisition, etc.

- **Plug and Play** :

  - One step to get the IP by connecting to the network cable, You can view the images from any device in the wireless LAN.
  - Image data acquisition due to it's own existing software
  - CameraTool'/UART image transfer with PC upper computer

- **Abundant features** :

  - ESP32 embedded, reserved burning interface for developing
  - W5500 embedded Ethernet controller supports `TCP, UDP, IPv4, ICMP, ARP, IGMP and PPPoE protocols
  - Exporting image data in various formats /Tuning Image Parameters

- **Highly flexible** :

  - Support **PoE** power supply **Network cable & power supply 2 in 1** , wiring simplified / Support 5V power supply
  - GROVE expansion interface
  - Camera fixed back clip for wall hanging

Product Features

- Rich image processing API interface
- PoE IEEE802.3 AF specification
- Ethernet webcam
- Built-in ESP32 MCU
- Development platform:
  - UIFlow, Arduino, ESP-IDF
  - Software code / hardware open source

Include

- 1x PoECAM
- 1x Camera mount clip
- 1x LEGO compatible clip

Applications

- Warehouse monitoring
- Timed filming

Specifications

Specifications	Parameters
ESP32-D0WDQ6-V3	240MHz dual core, 600 DMIPS, 520KB SRAM, Wi-Fi, dual mode Bluetooth
Flash	16MB
PSRAM	8MB
Image Sensor	OV2640
Maximum Resolution	2MegaPixel
OV2640 supports the maximum image transmission rate	YUV(422/420)/YCbCr422, 8-bit compressed data, RGB565/555, 8-/10-bit Raw RGB data
DFOV	65°
PoE specification	PoE IEEE802.3 AF specification / maximum power 6W
Ethernet Controller	W5500, built-in 32Kbytes buffer area, SPI interface
Support protocols	TCP, UDP, IPv4, ICMP, ARP, IGMP and PPPoE protocols
Ethernet interface specifications	RJ45
Basic Peripherals	1x programmable buttons, 2x work indicator lights
Net weight	38g
Gross weight	45g
Product size	64 * 24 * 18mm
Packing size	80 * 37 * 32mm

Related Links

Pin mapping

OV2640 interface

接口	Camera Pin	PoE CAM
SCCB Clock	SIOC	G12
SCCB Data	SIOD	G14
System Clock	XCLK	G27
Vertical Sync	VSYNC	G22
Horizontal Reference	HREF	G26
Pixel Clock	PCLK	G21
Pixel Data Bit 0	D0	G32
Pixel Data Bit 1	D1	G35
Pixel Data Bit 2	D2	G34
Pixel Data Bit 3	D3	G5
Pixel Data Bit 4	D4	G39
Pixel Data Bit 5	D5	G18
Pixel Data Bit 6	D6	G36
Pixel Data Bit 7	D7	G19
Camera Reset	RESET	G15
Camera Power Down	PWDN	-1
Power Supply 3.3V	3V3	3V3
Ground	GND	GND

W5500 interface

W5500	PoE CAM

MOSI	G13
MISO	G38
SCLK	G23
CS	G4

EXT.PORT

EXT.PORT	PoE CAM
RX	G25
TX	G33
5V	5V
GND	GND

Right button

Button	PoE CAM
Signal	G37

**Blue LED **

Blue LED	PoE CAM
Signal	G0

Schematic
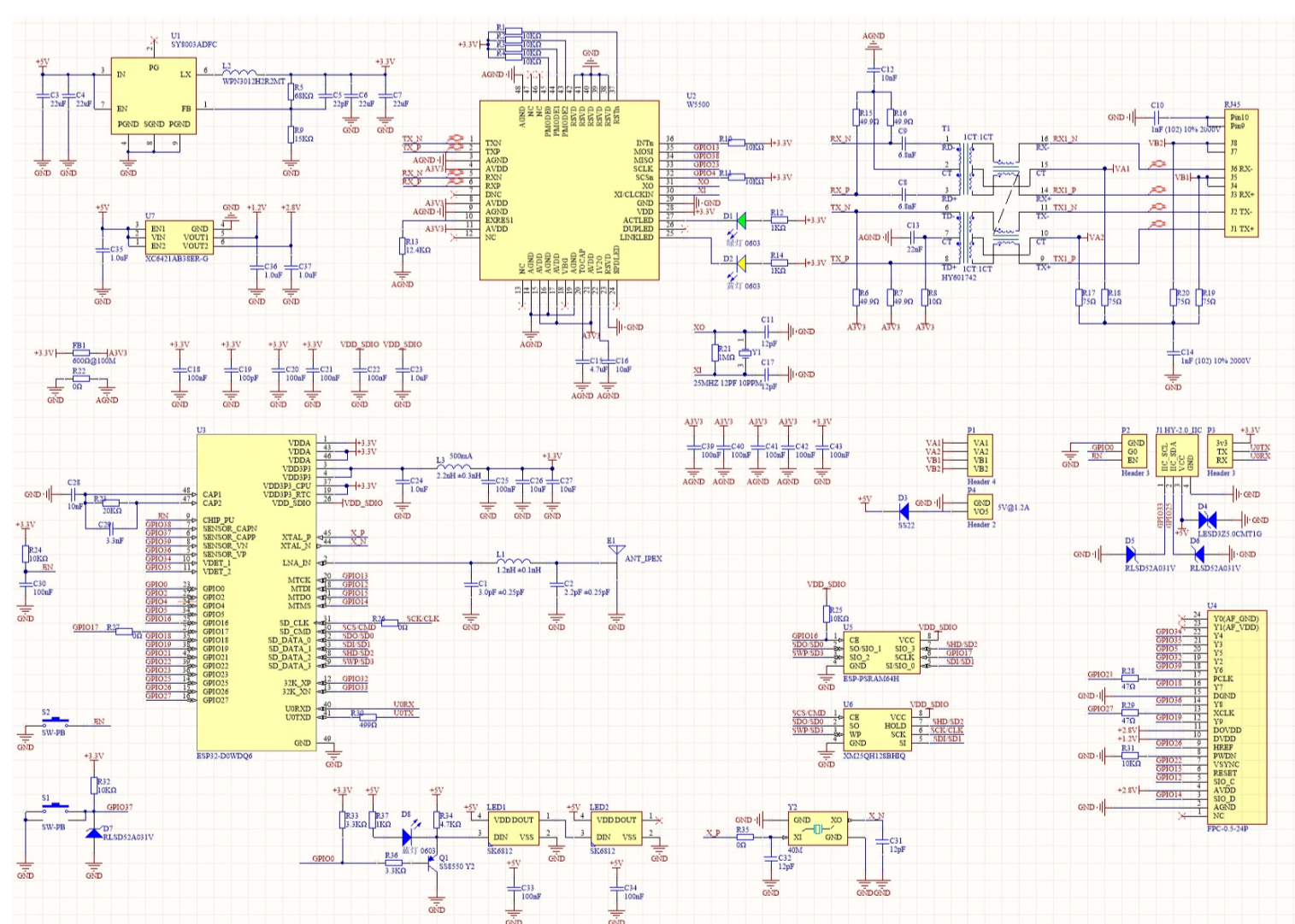
Example

Arduino

- PoE CAM Firmware

Video