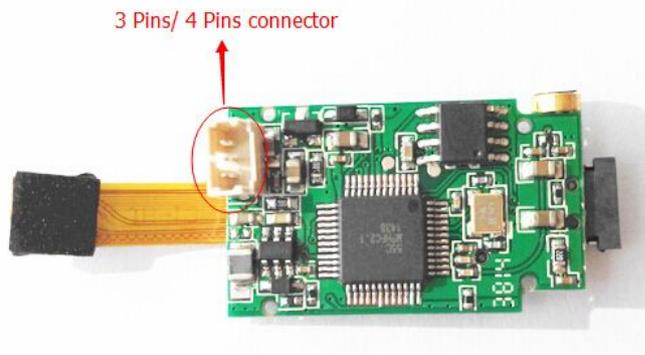
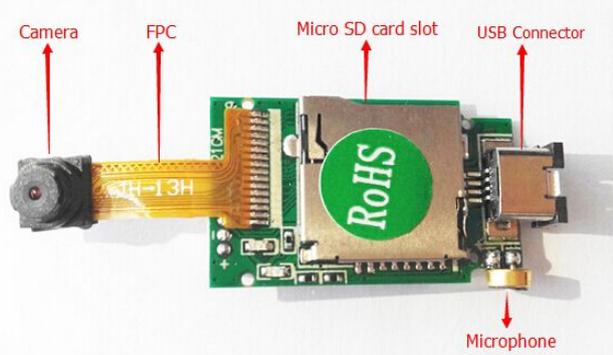


Product Brief

Shenzhen Joyhonest Technology Co.,Ltd

VGA 2210M Camera Board for RC Helicopters



Technical Index

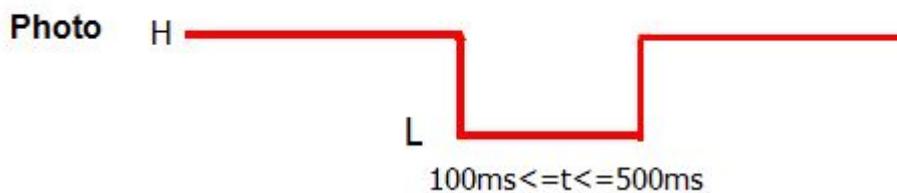
Camera	300 thousand Pixels CMOS Sensor
Lens	65 degrees lens
Minimal illumination	20 Lux
Camera dimension	6*6*4.5 MM
FPC length	15.23 mm
PCBA dimension	17.0x31.2mm(with USB) x28.5(without USB)
Weight	2.52g
Resolution of video record	640*480 pixels 30fps
Resolution of Photo	1280*960 pixels , JPEG
Video format	AVI
Compressed Format of Video	MJPEG
Camera Connection	Welding
Storage	Support 2GB~32GB Micro SD card
Micro SD Card Slot	Support
Microphone	Included
USB Connector	Included
Standby current consumption	95 mA
Working current consumption	120 mA
Working voltage	3.6~5.0V
Warranty	1 year

Service	ODM,OEM
Board Color	Green
Price	Competitive factory price
Software version	v251-3pins, v252-4pins
Control signal	Low level pulse signal
Application	Rc helicopter recording, RC toy car recording, RC tank model recording etc.

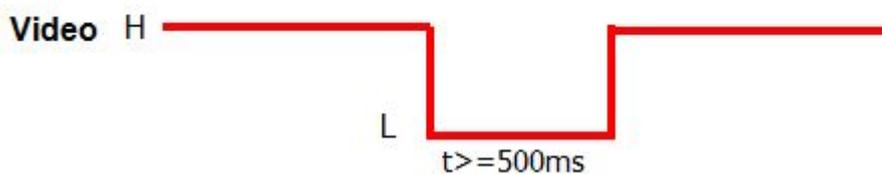
Operation Introduction

3PINS Control signal

1. Low level pulse signal triggering to start/stop **photo** with one I/O interface, pulse need to be between 100ms ~ 500ms, otherwise it is invalid.

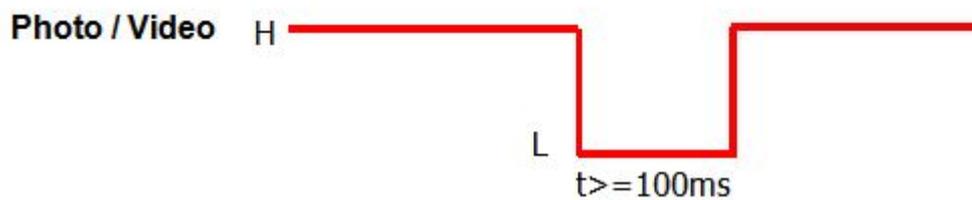


2. Low level pulse signal triggering to start/stop **video** with one I/O interface, pulse need to be over 500ms, otherwise it is invalid.



4PINS Control signal

Low level pulse signal triggering to start/stop video and photo with two I/O interface, pulse need to be over 100ms, otherwise it is invalid for less 100ms pulse.



LED Status Machine

Mode	RED LED	BLUE LED
Micro SD Card(OFF)	Blinking (1s)	ON
Micro SD Card (ON)	OFF	ON
Taking Picture	Blink (once)	ON
Recording Video	ON	ON

- ✓ **Two LED : Red/Blue**

- ✓ **Micro SD Card (OFF) : In power on mode without inserting Micro SD card, Blue LED is on and Red LED blinks.**

- ✓ **Micro SD Card (ON): After inserting Micro SD card successfully, the blue LED blinks once and keeps on , which means it is in the standby mode.**

- ✓ **Video: In standby mode, video recording by low level triggering, red LED and blue LED are on, then video recording starts, low level triggering video pin again to save the video, red LED is off and blue LED keeps on , the device comes back into standby mode.**

- ✓ **Photo: In standby mode, photo shoot by low level triggering, blue LED still keeps on, red LED blinks once to take one photo, the device comes back into standby mode.**

File storage path

- ✓ **Photo directory: \PHOTO\PICT0001.jpg**
- ✓ **Video directory: \VIDEO\MOVI0001.avi**
- ✓ **File format(photo/video):JPEG/MJPEG(AVI)**

Notice

- 1. Don't use 64GB Micro SD card to match our camera and it only can support MAX 32GB memory card.**
- 2. There is not time stamp on video/photo, it has not time setting function.**
- 3. Don't use finger to touch the electronic components on the board directly, otherwise body static will cause damage to the board easily, please wear anti-static bracelet when using.**
- 4. Don't mix VCC(red wire) and GND(black wire).**
- 5. The peak voltage of input control signal needs to be less than 3.3V.**
- 6. Camera FPC can't be bended too exceedingly and frequently.**
- 7. Pay more attention to anti-dust and waterproof of camera.**

Work Environment

Work temperature: Please use it under normal temperature and avoid using under unsuitable body temperature.

Work humidity: Please use it under agreeable human atmosphere humidity, Please not to make product wet or expose in rain for which without waterproof function.

Shooting illumination: Please use it under enough light sources; do not aim the camera at the sun and other strong light sources in order not to damage optical parts of an apparatus.

Cleaning requirements: Please not use the product under too large dust density atmosphere so as not to affect video effects for tainted lens and other parts.

Waste treatment: Please pay attention to protect environment, not to throw the product optionally. In order to avoid explosion, please not throw product into fire.



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