



Shenzhen Yangda Security Co., Ltd

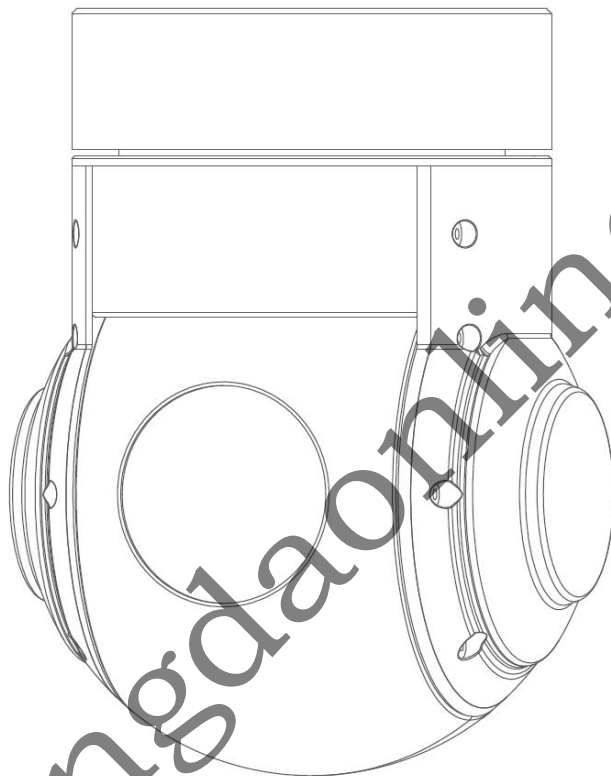
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BaoAn district,ShenZhen,China, 518057

Email: info@yangdaonline.com Web: www.yangdaonline.com

Sky Eye-U30 30X Zoom Camera

(2-axis)



Warning and Disclaimer

Make sure not to adjust the gimbal or change its mechanical structure by yourself. Be sure to mount the camera to gimbal before power on, and then install the gimbal on the aircraft.

To avoid gimbal performance degradation or damage caused by imbalanced payload, please do not add other peripherals for the gimbal camera (filter, hood, etc.).

When in aerial photography, make sure your aircraft flight control system is working at the safe mode.

We strongly recommend that you remove aircraft propellers before doing gimbal configuration. Use extra non-power battery for gimbal. Keep children away from the preset flight region.

Considering that we are not able to control user's specific usage, installation, Assembly, modification (including the use of non-specified parts), and improper use. Direct or indirect damage or injury caused by the behavior above, our company will not cover any loss and responsibility.



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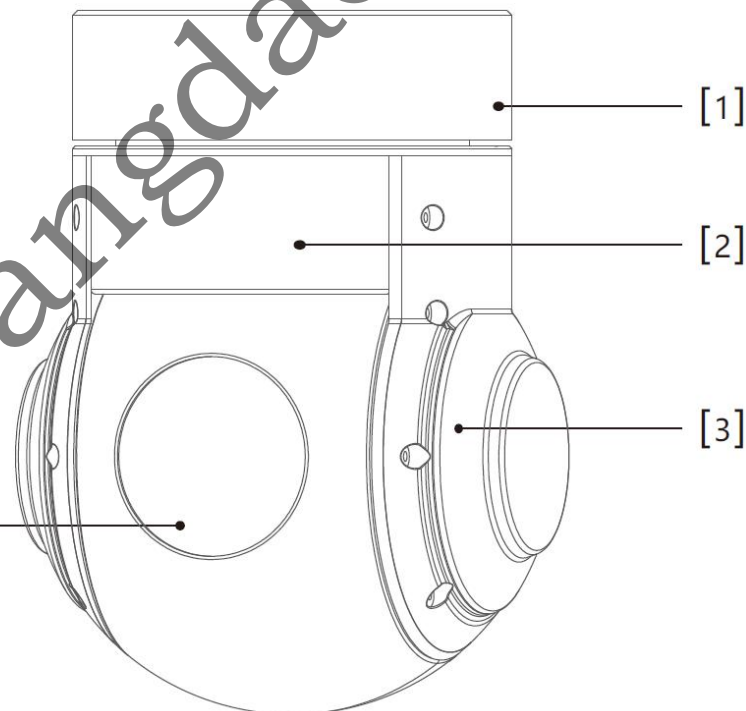
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Main features

- 1) 690grams, light weight
- 2) 1/2.8-type Exmor CMOS
- 3) 30X optical zoom, 1080P/60 HDMI output for video downlink
- 4) 1080P/30 H.264 video recorded for on-board TF card
- 5) Auto object tracking
- 6) Geo tagging
- 7) PWM control and serial command control
- 8) Convenient wiring hub for RC receiver and video output
- 9) 2-axis high stabilized gimbal system
- 10) Adjustable control speed: SLOW speed for large zoom range, accurate.
FAST speed for small zoom range, sensitive and quick.

Gimbal description



[1]Damping Box

[3]Pitch axis motor

[2]Yaw axis motor

[4]HD Camera



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System specification

30X zoom camera(SONY FCB-EV7520)	
Sensor	1/2.8-type Exmor CMOS
Video Output	1080P/60 HDMI
Video recorded	1080P/30 H.264
Focal length	30X optical focal zoom,4.3-129mm
Digital zoom	12X(360X with optical zoom)
Wide Dynamic	Up to 105dB
Auto focus	Less than 1S
Low illumination	Color: 0.01 lx (F1.6,AGC on,1/30s)
Aperture	Φ 16.0
Gimbal system	
Input voltage	3S-6S
Rotate range	Pitch:±90° Yaw:±150°
Angle amount of jitter	Pitch:±0.02° Yaw:±0.03°
Control interface	PWM and serial command
Working Current	Static current:330mA(@12V) Dynamic current:450mA(@12V)



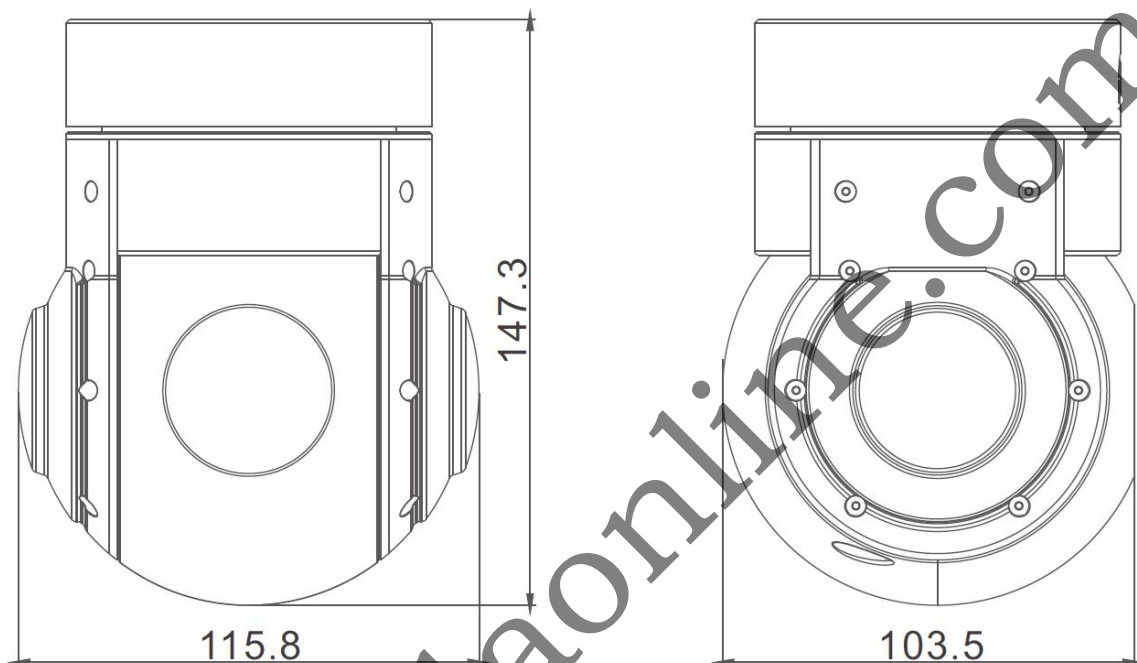
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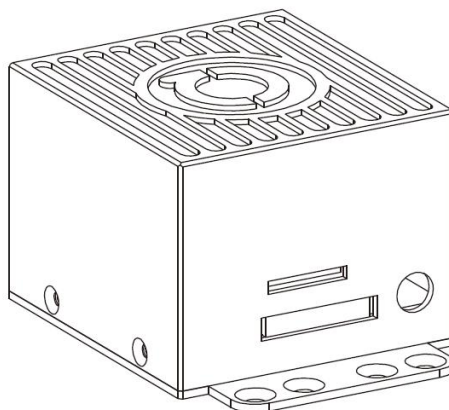
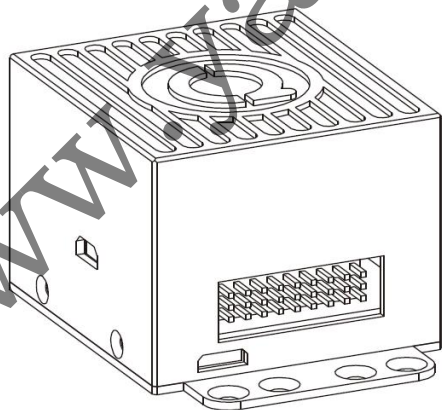
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Dimension (mm)



Installation

49*45.4*35.7(mm)



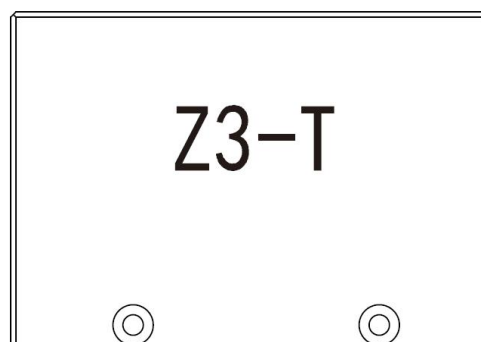
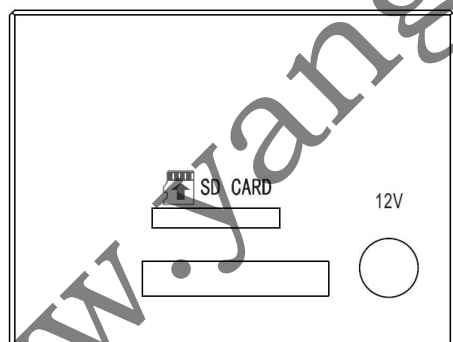
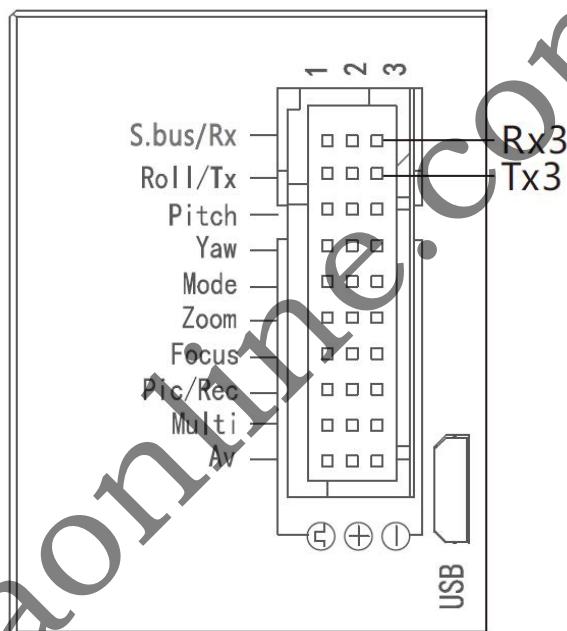
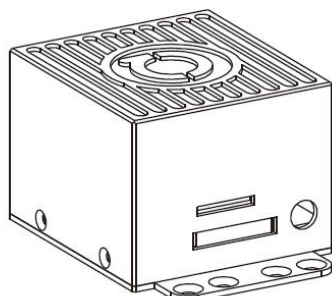
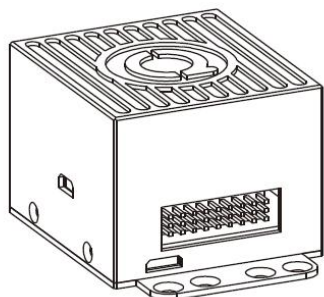


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Notice:

HDMI output is 1080P 30FPS, SD card supports max class 10 128G

GPS Baud rate: 9600, 8, 1, null

Serial ports will be needed (marked by the black box, see photo above), please connect RX1 and RX2, TX1 and TX2, with wire jumper. TX and RX from external serial cable connect to TX3 and RX3 respectively. GND from external serial cable connect to GND of the wiring hub.

Please notice:DO NOT connect 5V and GND to the ports marked by the black box.



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Gimbal and camera control via PWM



Gimbal control

- 1)Yaw axis control: speed mode, connect Rocker channel(or 3 gears channel, push gear to middle position to stop)
- 2)Pitch axis control: speed mode, connect Rocker channel(or 3 gears channel, push gear to middle position to stop)
- 3)Mode control: angle mode, connect knob channel(speed mode: connect 3 gears channel or rocker channel)

If connecting knob channel, rotate to one end, the gimbal is at lowest speed when controlling YAW and PITCH axis.

Rotate the knob to any position; gimbal is at higher speed when controlling YAW and PITCH axis. Rotate to knob to another end, gimbal back to center position.

- 4) Multi: tracking control, connect 3 gears channel

Middle to low: quit tracking mode, cursor disappears

Low to middle: go to tracking mode, cursor appears

Middle to high: one square appears, object is locked, and tracking is activated

Middle to high again: re-track mode, cursor appears in the square. Gimbal is still tracking the object, now you can move the cursor to track another object (middle to high gear again).

Camera control

- 1)Zoom control: connect 3 gears or rocker channel
 - 2)Focus: connect 3 gears or rocker channel for manual focus control.If do not connect any channel, then camera will auto focus after zooming
 - 3)PIC/REC: taking picture/recording, connect 3 gears channel
- Middle to high, recording start



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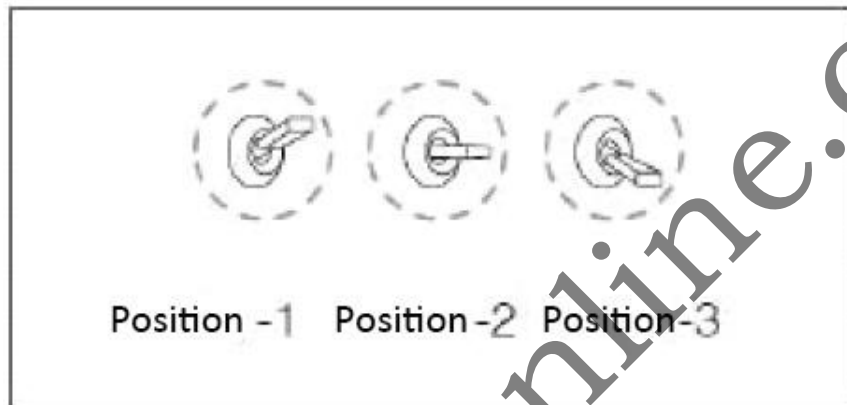
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Middle to high again, recording stop

Middle to low, taking picture

Middle to low, taking another picture

Mode switch (MODE PIN connect to 3 gears channel)



Flip 1 time between position 2 and position 1, gimbal return to center position

Flip 2 times between position 2 and position 1, gyro calibrate

Flip 3 times between position 2 and position 1, accelerator calibrate

Flip 4 times between position 2 and position 1, gyro temperature calibrate

Restart the gimbal after gimbal calibration complete

Flip 5 times between position 2 and position 1, accelerator temperature calibrate

Restart the gimbal after gimbal calibration complete