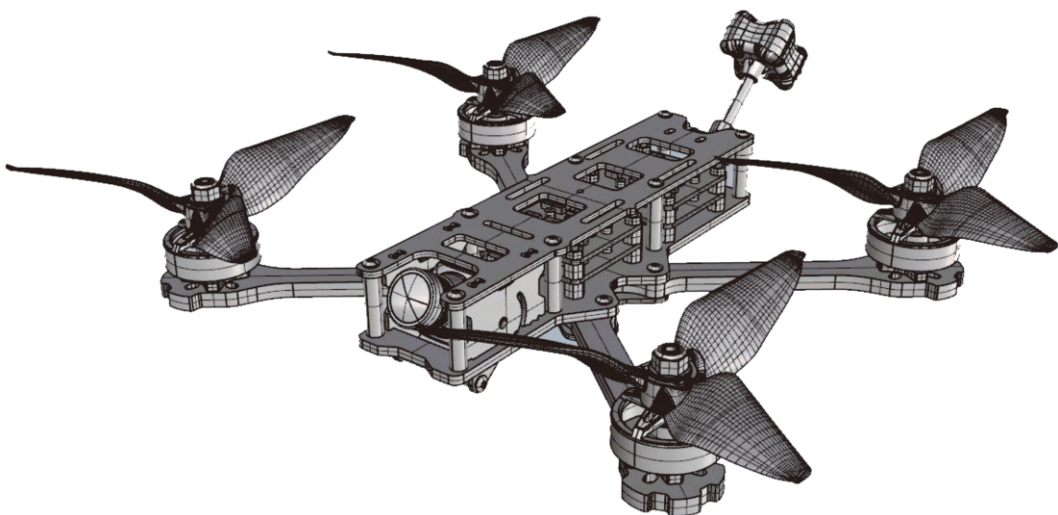


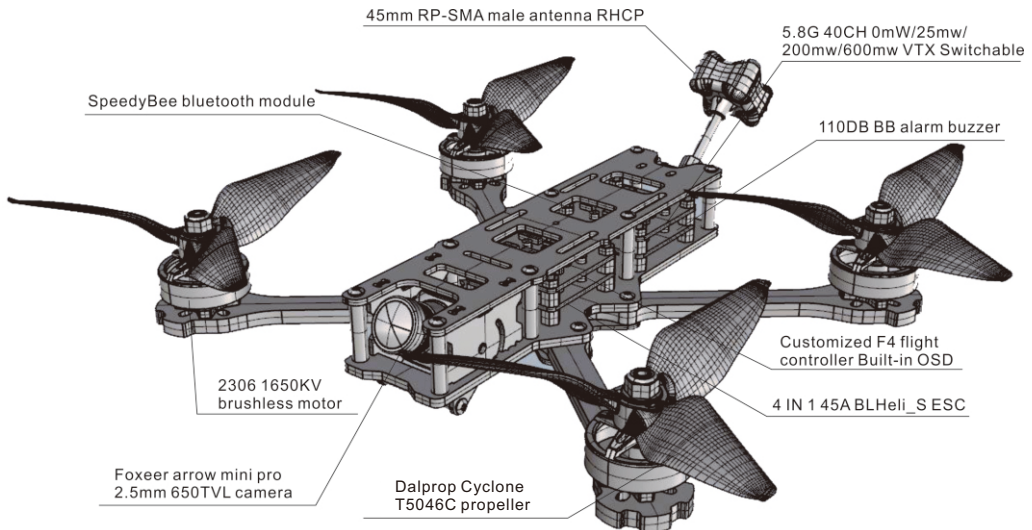
WIZARD X220HV

QUICK START GUIDE



Package included:

- 1 x X220HV frame kit
- 2 x 2306 1650KV brushless motor CW
- 2 x 2306 1650KV brushless motor CCW
- 1 x 4 IN 1 45A BLHeli_S ESC
- 1 x Customized F4 flight controller Built-in OSD
- 1 x Foxeer arrow mini pro 2.5mm 650TVL camera
- 1 x 5.8G 40CH 0mW/25mw/200mw/600mw VTX Switchable
- 1 x 110DB BB alarm buzzer
- 1 x SpeedyBee bluetooth module
- 1 x 45mm RP-SMA male antenna RHCP
- 2 x 200*20mm battery strap
- 1 x 30° camera mount compatible with Runcam 3 3S Gopro session
- 2 x Dalprop cyclone T5046C transparent white CW
- 2 x Dalprop cyclone T5046C transparent white CCW
- 2 x Dalprop cyclone T5046C transparent purple CW
- 2 x Dalprop cyclone T5046C transparent purple CCW
- 10 x 2.5*100mm nylon strap black



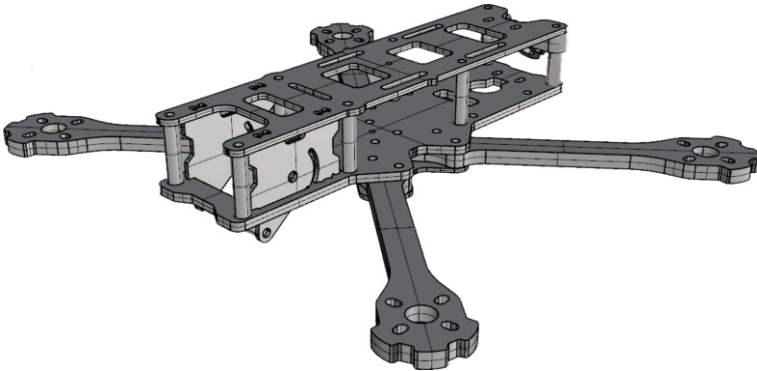
Contents

1.0 Frame kit-----	04
2.0 Motor-----	04
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1.0 Frame kit

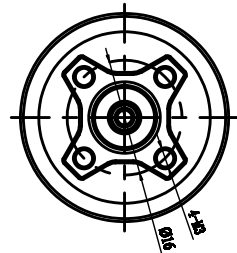
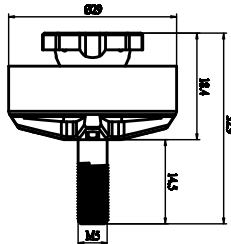
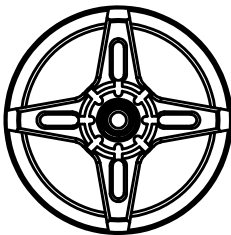
Wheel base: 220mm
 Upper plate thickness: 2.0mm
 Frame arm thickness: 5.0mm
 Bottom plate thickness: 3.0mm
 X plate thickness: 1.5mm
 Camera side plate thickness: 1.5mm
 Camera standoffs: M3*28mm 1 PC
 Frame standoffs: M3*20mm 8 PCS



2.0 Motor

Motor KV: 1650 RPM/V
 Idle current(Io/10V): 1.05A
 Lipo cell: 3-6S
 Weight: 35g
 Max continuous current: 36A
 Max continuous power: 860W
 Max thrust: 2350g
 Configu-ration: 12N/14P
 Stator diameter: 23mm

Stator thickness: 6mm
 Motor diameter: 29mm
 Motor body length: 18.4mm
 Overall shaft length: 32.9mm
 Prop adapter shaft: M5
 Bolt holes spacing: 16mm
 Bolt thread: M3
 Propeller: 5-6 inch



3.0 ESC

Integrated PDB

Working voltage: 2-6S Lipo

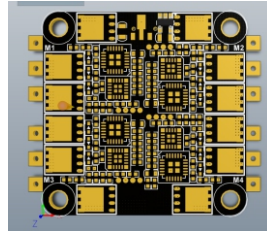
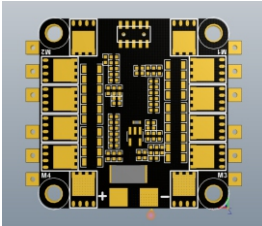
Continuous working current: 4*45A

Peak current: 4*50A (6S)

Main control chip: 48Mhz EFM8BB2

Firmware: BLHeli_S Supports Dshot600

MOS: 5*6



4.0 Flight controller

Main control chip: STM32F405

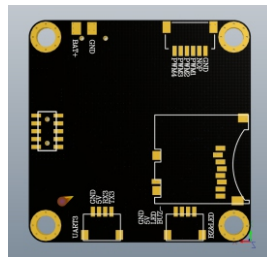
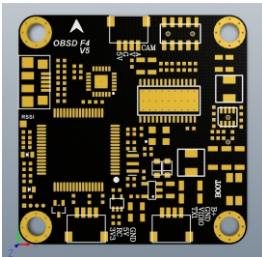
Sensor: MPU6000 6 axes

Power supply: 5V

Integrated OSD

LC filter on board

Supports BetaFlight / inva running firmware



5.0 Antenna

Brand name: Eachine

Item name: antenna

Quantity: 1 PC

Connceptor: RP-SMA Male



6.0 Switchable VTX

Output power and transmission distance: $\geq 0.5\text{km}@25\text{mW}$,
 $\geq 1\text{km}$ to 200mW , $\geq 2\text{km}$ to 600mW

Transmission power: 0mW / 25mW / 200mW / 600mW

Full video format: NTSC / PAL

Input voltage and power dissipation: $7\text{V} \sim 24\text{V}$, $+12\text{V}$ /
 $260\text{mA}@600\text{mW}$

Size: $36*36*6\text{mm}$

Weight: $\leq 7\text{g}$ (excluding antenna)

With output power self-check function.

Nixie tube SCAN: frequency point (1-8), frequency band (AE),
 power (1-3, 0=0mw, 1=25mw, 2=200mw, 3=600mw)

7.0 Camera

Solution: $1/3"$ Sony SUPER HAD II CCD + Nextchip 2040 DSP

Pixel: PAL: $976(\text{H}) \times 494(\text{V})$

TV system: PAL

Resolution: $600\text{TVL}(\text{color})$ $650\text{TVL}(\text{B\&W})$

Synchronization: internal

Min.illumination: 0.01Lux

WDR: support

OSD programming board: support

White Dot repair: support

DNR: 2D DNR

Camera title: support

Image adjustment: support

OSD: Edit name, power, flying time

Input power: $5\sim 40\text{V}$

Storage temperature: $-40^{\circ}\text{C} \sim 60^{\circ}\text{C}$

Working temperature: $-10^{\circ}\text{C} \sim 50^{\circ}\text{C}$

Power consumption: 70mA

Low voltage alarm: support

Preset mode: DEF, VIVID, SUNNY, CLOUDY, LED TR, USR1

Size: $21.8 \times 21.8\text{mm}$

Weight: 8.7g (excluding bracket)



8.0 SpeedyBee bluetooth module

Support Betaflight configurator

Speedybee App: iOS 10.0+; iPhone 4S, iPad3;

Androd 4.3+

Output power: 0dBm

Sensitivity: -94dBm

External interface: BROADCAST SWITCH, TX, RX,
3-5V DC Input, GND

Transmission speed: Bidirectional 1K/S

Bluetooth protocol: Bluetooth Specification V4.0 BLE

Transmission distance: 30 meters

Frequency range: 2400MHz-2483.5MHz (2.4G ISM
Band)

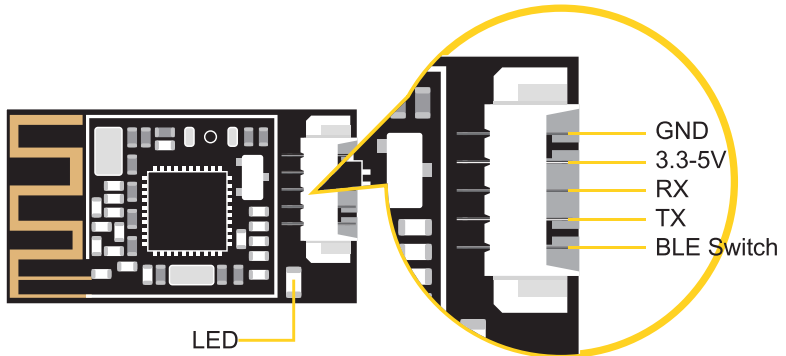
Baud rate: 2400, 4800, 9600, 14400, 19200(default),
28800, 38400, 57600, 76800, 115200, 230400

Working voltage: 3.3V-5.0V

Working current: 8.3mA-10mA

Weight: 1.4g

Size: 27*15*4.5mm



LED: Blue and constantly on when being connected.

LED does not light means it is not connected.

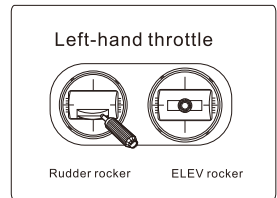
9.0 110DB BB alarm buzzer

Working voltage: 5V
 Standby battery: lipo 4.2V 100mah
 Loudness: 110DB
 Size: 36 * 36mm
 Weight: 8g

10.0 Motor Unlock/lock

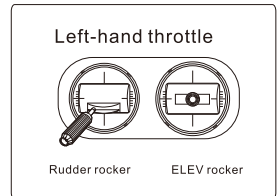
Motor Unlock

Put the throttle rocker at the lowest point, move the rudder rocker to the right and keep it for more than 2 seconds. The blue state indicator is always on, that is unlock the motor.

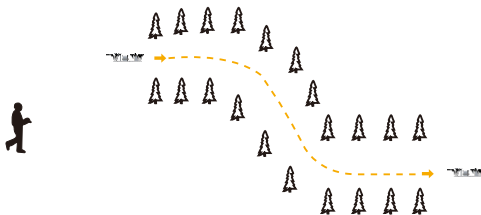


Motor lock

Put the throttle rocker at the lowest point, move the rudder rocker to the leftmost side, and the red state indicator is always turned on to lock the motor. At this time, pushing the throttle rocker motor upward will not rotate.



11.0 Traversing flight



- 1). Flying is more suitable for experienced pilots.
- 2). During the flight, please keep the flight within the video receiving range (the actual range depends on the flight environment and weather conditions).
- 3). During flight, please avoid crowd, animals and High voltage wires and other obstacles