

Overview of FPV390 Traverser Parameters

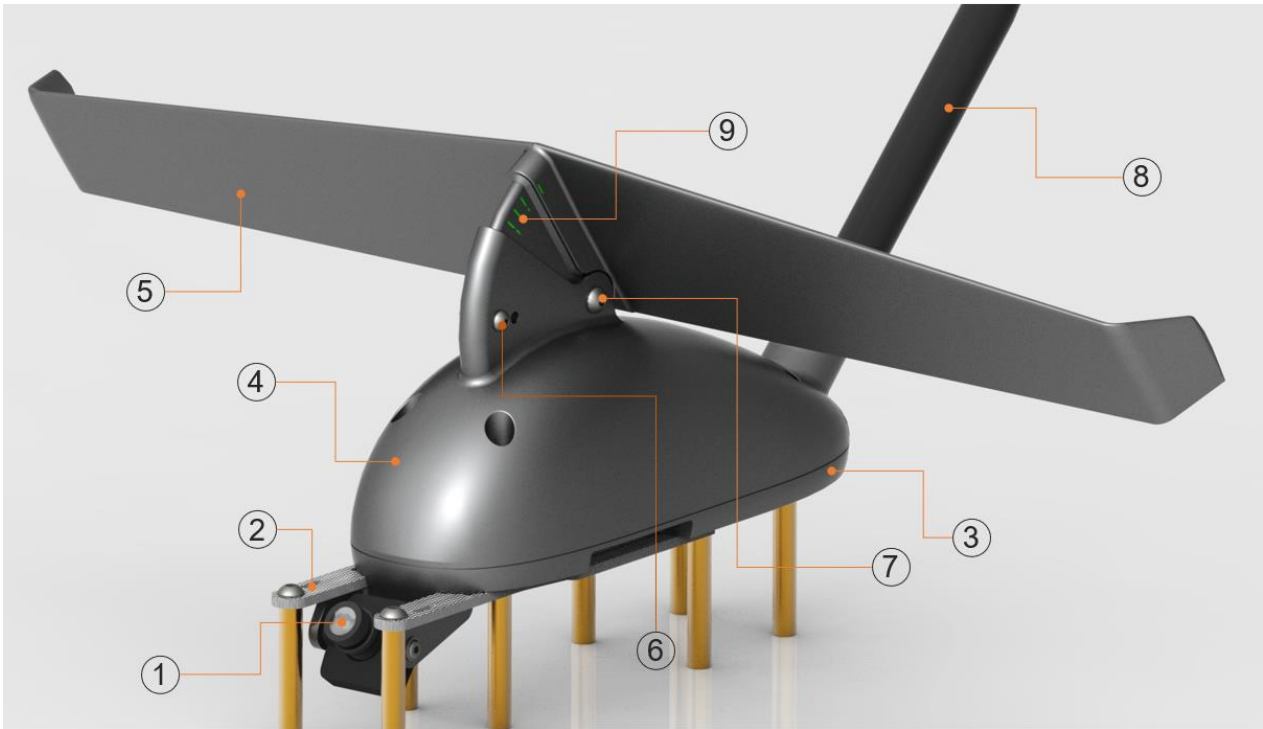
一、 Overall specifications

Airframe	Material: Carbon fiber board Diagonal wheelbase: 390mm
Motor	Motor size: 2812 KV value: 900
Power battery	Type: Lithium polymer Cell Count: 6S2P Capacity: 8000mAh Discharge Rate: 70C
Flight Control & ESC	Flytower specially for FPV: F4 flight control, four in one 50A ESC
Propeller	9-inch three blade paddle
Camera	FOV: 165 ° Sensor: 1/1.8 inch Resolution: 1200TVL Lens: 2.1mm Format: NTSC, PAL Voltage range: 4.5-36V
FPV glasses	Size: 5 inches (display screen) Resolution: 800 * 480 Power: 3.25W (40 frequency points) Input voltage: 5V DVR: DVR recording Storage: Up to 32GB supported Internal battery: 3.7V, 2000mAh Size: 180mm in length * 140mm in width * 84mm in height Weight: 700g
Videolink	simulated videolink Power: 5.8GHz Transmission distance: 5km
Remote controller	transmission power: 2.4GHz
Maximum takeoff weight	4.4kg

Maximum payload	2.5kg
Maximum thrust-weight ratio	4
Zero-hundred acceleration duration	4s
Maximum level flight speed	100km/h
Maximum hovering time	10min (with 2.5kg load)
Maximum range	12km
Maximum flight altitude	5000m
Flight mode:	self stable/semi self stable/manual
Wind resistance level	4~5 level
Maximum climb rate	10m/s
Stable descent rate	2m/s
Working environment temperature	-20°C~50°C

二、Unique characteristics: Increase-lift Winglets

1. Increase-lift winglet structure composition



①	②	③	④
Camera	Airframe upper plate	Videolink cabin bottom shell	Videolink cabin upper shell
⑤	⑥	⑦	⑧
Increase-lift winglets	Angle of attack adjustment axis	Winglet shaft	Videolink and antenna
⑨			
Wing installation angle scale			

2. Increase-lift Winglet Basic Parameters

Wing planform	leading edge swept trapezoidal wing	Aspect ratio	5.75	Wing mounting angle	35°~65° (6 adjustable levels)
Airfoil type	S-type airfoil	Root-to-tip ratio	1.67	Effective pitch angle	30°~60°
Wingtips	winglets	Lift area	0.94dm ²	Increase-lift efficiency	10% (100km/h)

3. Design features of increase-lift winglets

- 1) Integrating the wing and shell, rectifying and reducing drag;
- 2) The installation angle range of the wing is adjustable, and corresponding adjustments are required to match the actual flight speed with the pitch angle of the aircraft. The installation angle of the increase-lift wing needs to be adjusted to achieve the best lift effect. The wing installation angle in this implementation case is designed with 6 adjustment gears within the range of 35° to 65° , with each gear adjusted by 5° ;
- 3) The winglet effectively reduces the induced drag caused by the pressure difference between the upper and lower wing surfaces during flight.

二、 Physical and effect pictures

Note: The video transmitter in the picture (the part with hard rod wire at the tail) is only used for testing, and the actual selection is not such a video transmitter.





