

# FC600 Flight Control

Model: FC600



## Product description :

Tri-redundancy ,Support shipborne takeoff and landing

FC600 series professional flight control and navigation system is suitable for large and medium- sized conventional fixed wing, vertical take- off and landing a fixed wing and layout of the tilt rotor aircraft. The internal integrated flight control computers and micro integrated navigation system (GPS/MINS) of triplex redundancy, can be a key to realization of fixed and mobile platform automatic take- off and landing, hover, hovering, high return, and open an umbrella and a variety of forms according to the scheduled routes cruise function independently. It also provides comprehensive flight status monitoring and alarm function and perfect emergency protection mechanism to ensure the safe operation of the system.

## Features:

It integrates MEMS inertial sensors group of triplex redundancy, with main redundancy for ADI gyroscope and accelerometer. It can switch to standby redundancy according to the working state by real time switching, with strong vibration resistance, good stability, high attitude accuracy;

It supports high precision difference Beidou/GPS module, and its positioning accuracy can be achieved centimeter level, with the internal GPS single point positioning module are redundancy. The system automatically chooses to use a better positioning state GPS data;

It supports double antenna directional system, and more than double magnetic compass system composed of triplex redundancy course system,thus greatly improve the navigation system reliability 12 PWM control output, 4 road serial ADC input, output, 2 road 2 CAN speed monitoring, 1 road, 1 SBUS input, 1 SBUS output;

It supports fully autonomous running take- off, vehicle autonomous takeoff and shipboard mobile platform independent vertical take-off off a variety of ways;

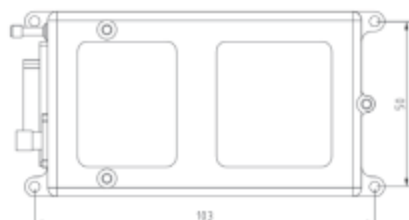
It supports precise ways of recycling - automatic taxiing, parachute, landing net, hang rope, mobile platform independent vertical landing on naval air etc;

With perfect emergency protection mechanisms, it provides protection for low voltage, low oil, low speed, low attitude, an abnormal height, GPS positioning precision, navigation system failure, beyond the security fence, beyond the control of the radius, remote failure,etc;

It will automatically land nearby in case of emergency protection, with 100 landing points can be preset.

It provides 10 flight routes, including 8 task route, a single task route up to 800 destinations;  
 Flight information and task information are recorded and download separately, with flight information record up to 9 hours, and task information record up to 10000;  
 Ground measurement and control software support online maps and the rules more measured section automatic mapping route planning, support the automatic oil, electricity and other patrol route planning, can warn the user to complete before flight check.

### External dimension:



FC600: VTOL fixed-wing flight control and navigation system

FC610: Tilt-rotor flight control and navigation system

FC650: Conventional fixed-wing flight control and navigation system for taxi-running and landing

### Performance index:

Parameter	index
Attitude precision	0.35°
Heading precision	2°
Position accuracy	2.5m
Speed accuracy	0.1m/s
Gyroscope measurement range	±450° /s
Acceleration measurement range	±6g
Height measuring range	-500m ~ 10000m
The range of voltage monitoring	0 ~ 52V
Servo updating frequency	50Hz ~ 200Hz
Engine speed monitoring range	0 ~ 20000RPM
Voltage monitoring	2 channels
Engine speed monitoring range	2 channels
PWM control range	9 channels
Digital output channel	channel 3 (configurable TO PWM)



Expansion serial port	4- way RS232C
S.Bus interface	1 channel input, 1 channel output
Number of routes	8 routes (800 waypoints on each route)
Built-in data logger	9 hours
Photographing point	10000 points
Emergency landing point	100 points
<b>Electrical parameters</b>	
Power supply voltage	DC4.5- 9.0V
Power consumption	< 2W
<b>Physical parameters</b>	
Weight	≤130 g
Dimensions (mm)	109*56*29.5
<b>Environment parameters</b>	
Working temperature	-40°C~ 85°C
Storage temperature	-40°C~ 85°C