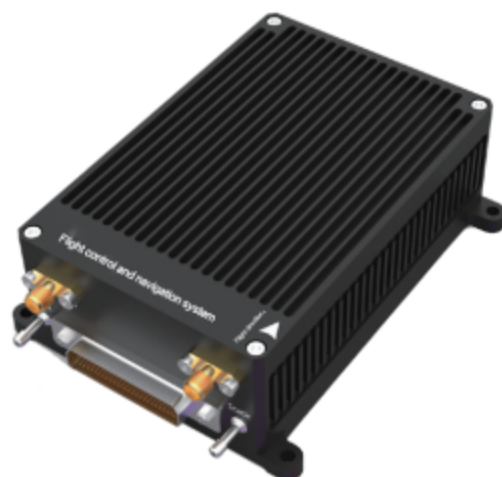


FC900 Flight Control

Model: FC900



Product description :

Military quality ,Ultra high precision ,Rich interface.

FC900 series are of military level, designed with high precision flight control and navigation system. Its internal integration of multi- redundant high- precision integrated navigation system (GPS/INS), high precision differential Beidou /GPS positioning module and dual-antenna directional module, has high precision, high reliability, multi-redundancy, multiple interface and other characteristics. Designed specifically for military UAVs, this series of flight control and navigation systems has been subjected to severe temperature, air pressure, environmental conditions and thousands of hours of flight validation. It is especially suitable for large and medium unmanned aerial vehicles (UAVs) with fixed wings, vertical takeoff and landing, tilting rotor and rotating rotor.

Features:

It integrates tactics level precision of the redundancy of MEMS inertial sensors group, strong vibration resistance, good stability, high position accuracy, high redundancy;

It integrates differential Beidou/GPS module of high precision, with positioning accuracy to centimeter level;

It integrates dual directional antenna system, with the directional accuracy of 0.08° baseline (2 m), and composes triplex redundancy course system with double magnetic compass system, to greatly improve the navigation system reliability;

It can preset 100 landing points, and automatically land nearby according to the emergency;

Channel 14 controls output PWM control output, channel 3 DO controls output, channel 10 controls serial output, channel 6 controls ADC input, channel 4 controls DI input, channel 1 CAN, channel 2 SBUS;

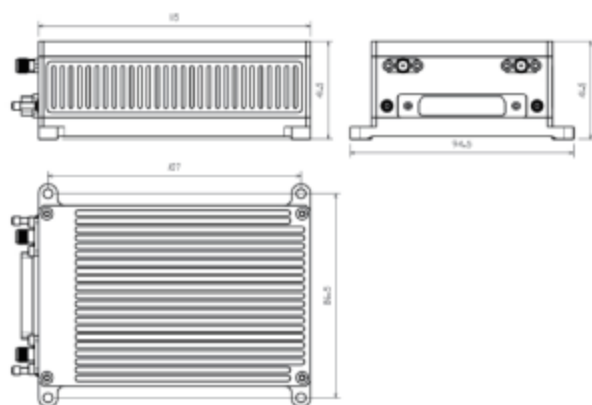
It supports a variety of take-off ways, including fully autonomous running take-off, vehicle autonomous takeoff and shipboard mobile platform independent vertical take-off;

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

With perfect emergency protection mechanisms, it can provide 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;
 100 landing points can be preset, emergency protection cases, automatic landing nearby;
 10 flight routes, including 8 task route, a single task route up to 800 destinations;
 Flight information and task information can be recorded and downloaded 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, and can warn the user to conduct a complete flight check.

External dimension:



FC900: VTOL fixed-wing flight control and navigation system

FC910: Tilt-rotor flight control and navigation system

FC950: Conventional fixed-wing flight control and navigation system for taxi-running and landing

FC970: Rotation rotor flight control and navigation system

Performance index:

Parameter	index
Attitude accuracy	0.1° (GNSS effective)
Course accuracy	0.08° (2m baseline)
RTK positioning accuracy	5cm+1ppm
Speed accuracy	0.1m/s
Gyroscope measurement range	±450° /s
Accelerometer measurement range	±16g
Height measuring range	- 500m ~ 10000m
Voltage monitoring range	0 ~ 52V (customizable amplification)
Steering gear update frequency	50Hz ~ 200Hz
Engine speed monitoring range	0 ~ 20000RPM
Voltage monitoring channel	Channel 6
Engine speed monitoring channel	Channel 4
PWM control channel	Channel 14



Digital output channe	Channel 3
CAN communication interface	Channel 1
S.Bus interface	Channel 1 input, Channel 1 output
Extended serial port	Channel 6 RS232, Channel 4 RS422
Numbers of routes	8 routes (800 points per route)
Built-in data recorder	9 hours
POS points of shooting	10000
Emergency landings	100
Electrical parameters	
Power supply voltage	DC4.5- 36V
Power consumption	< 10W
Physical parameters	
Weight	≤360g
Dimensions (mm)	115*94.5*41.5
Environment parameters	
Working temperature	-40°C~ 85°C
Storage temperature	-40°C~ 85°C