

# S-3Pro

## Light Show Drone



### Intro

The main body of S-3Pro drone adopts carbon fiber and aluminum alloy composite structure design, integrating FC-2M dual redundancy and high reliability flight control system, high-precision multi-frequency RTK module, double redundancy data transmission module, high-efficiency power system and high-brightness full-color light module. It is a four-rotor unmanned flight platform specially built for formation light shows with small size, long endurance, high reliability and safe use.

### Main Feature

- **Easy to use**, smaller size, convenient transportation, rapid development;
- **Expansibility**, can expand a variety of accessories, such as smoke rod, fireworks, etc.;
- **High reliability**, integrated FC-2M dual redundancy high reliability flight control system, gyroscope, accelerometer, magnetic compass have two sets of redundant backup;
- **High positioning accuracy**, integrated multi-frequency high-precision RTK module, real-time positioning accuracy 1 up to 1cm + 1ppm CEP;
- **The performance flight speed is fast**, up to 10m/s;
- **Strong environmental adaptability**, can fly in the wind speed is not more than 14m/s weather conditions, working temperature -20°C~60°C;

- **Long performance time**, the longest flight time 21min;
- **Strong anti-interference ability**, dual redundant data transmission link, dual frequency band work at the same time, in the case of one data transmission link is interfered with, the other data transmission link can work normally, the communication distance of 2 up to 3km;
- **High degree of automation**, support automatic status check, the use of light to indicate the status of the UAV; Support remote wake up and sleep of all UAVs through the ground station software;
- **Good lighting effect**, 24W high-power full-color LED module, can realize millions of color combinations;

## Parameter

Item		Parameters
Drone	Dimensions(propellers unfolded)	451x451x180mm
	Dimensions(propellers folded)	268x268x180mm
	Diagonal Wheelbase	339.5mm
	Standard Takeoff Weight	640g
	GNSS	184-channel, GPS L1C/A L2C, GLO L1OF L2OF, GAL E1B/C E5b, BDS B1I B2I, QZSS L1C/A L1S L2C, SBAS L1C/A
	Positioning Accuracy <sup>1</sup>	1 cm + 1 ppm CEP
	Max Ascent Speed	6m/s
	Max Descent Speed	6m/s
	Max Speed	10m/s
	Max Takeoff Altitude	5000m
	Max Wind Resistance	14m/s
	Max Flight Time <sup>3</sup>	30±1 min
	Max Perform Time	21min
	Max Power of Light Module	24W
	Operating Temperature	-20°C~60°C
	Operating Humidity	≤85%RH(Non-condensing)
	Storage Temperature	0°C~40°C
	Storage Humidity	65±20%RH
Communication	DDT (digital data transmission)+WiFi	

Item		Parameters
	Max Transmitting Distance <sup>2</sup>	3km
Flight Battery	Type	LiPo 4S1P
	Capacity	2250mAh
	Voltage	15.4V
	Energy	34.65Wh
	Weight	188g
	Charging Time	1~1.5hours
	Charging Temperature	0°C~45°C
	Storage Temperature	<3months:-10°C~45°C >3months:23 ± 5C
	Storage Humidity	65±20%RH

1: Depends on weather, base length, multipath effect, satellite visibility and location.

2: DDT, without jamming and shelter.

3: Flying at 5m/s in a windless environment of 101.325KPa and 20°C until 3min flight time left.