

GENERAL PARAMETER

F16 Plant Protection UAV

Basic Parameters

Wheelbase	1790mm	Hovering time	>20min (Unloaded)
Outline dimension :	1357*1357*610mm(Unfolded)		>10min (Loaded)
	771*756*575mm (Folded)	Operation height	1.5-3m
Width of spray	4.0-6.5m (Depending on different crops)	Max. flight speed	10m/s
Tank capacity	16L	Hovering accuracy	Horizontal±10cm Vertical±10cm (RTK)
Efficiency	67 Ha / day	(GNSS with strong signal)	Vertical±0.1m (Radar)
Weight	13.8kg(excl. battery)	Terrain following accuracy	0.1m
Max. takeoff Weight	37.1kg	Altitude holding range	1 ~ 20m
Battery	51.8V / 828.8Wh	Obstacle avoidance detection range	1 ~ 20m
Nozzle type	High-pressure nozzle		
Nozzle number	4 / 8nozzle (optional)		
Max flow rate	2.7L/min / 4.5L/min (Max.)		
Charger output	2600W (4 channels)		

COMPANY PROFILE

Make all UAVs easy to use all over the world

R&D takes up more than 60% of the 200 employees in our company. TopxGun boasts a team of talents graduated from world-known [aeronautics and astronautic universities](#) such as NUAU and Beihang University, who have rich knowledge and experience in designing UAV, military aircrafts, and large aircrafts.

Since it was founded, TopxGun has been making technological breakthrough, with [300+ intellectual properties](#) and [200+ patents](#) being filed. TopxGun owns qualifications including High Technology Enterprise Certificate, ISO9001, ISO20000, ISO27001, etc. Our UAVs has passed international tests such as CE, FCC, FOHS and KC.

Currently focusing on drones for plant protection, TopxGun has been optimizing products according to agricultural professionals' feedback. Now 20000+ sets of TopxGun flight control for plant protection have been sold to 400+ domestic and 100+ overseas clients, which include Japan, Korea, Thailand, Australia and other countries in East Asia and North America.



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TopXGun Plant Protection Drone F Series 2020



F16

TopXGun Robotics

The professional provider of UAV flight controller system, UAV and application solution

01 High Efficiency with Best Value

- ◆ Spray 67 hectares/day, which is 100 times the efficiency of manual spraying.
- ◆ One battery can support the drone for 1.5-tanks spraying. High-power four-channel charger can charge 4 batteries at the same time. A battery can be fully charged from 30% in less than 30 minutes.
- ◆ Equipped with landing light, make night time operation safe.



02 Precise and Even spraying with High Efficiency and Good Penetration

- ◆ Double pumps are equipped. The max flow rate for 4 nozzles is 2.7 L/min. Upgrade to 8 nozzles for a max flow rate of 3.5 L/min and upgrade to 8 nozzles and 2 flow meters for a max flow rate of 4.5 L/min.
- ◆ 4 or 8 high pressure fan flat nozzles, providing fine atomization with a mean droplet diameter of 170 - 265 μm .
- ◆ Precise metering system to avoid insufficient spraying/overdose. Real-time displayed remaining volume on RC (Plant Protection Assistant APP) .
- ◆ Quadcopters have larger propellers creating stable downward wind, leading to better penetration of chemicals compared with hexacopters and octocopters .



03 Precise Positioning; Safe Flight

- ◆ RTK positioning technology, supporting Beidou / GPS / GLONASS, and equipped with dual anti-interference antenna. Centimeter-level accuracy ensures the drone taking off and landing at the same point.
- ◆ A magnetic compass is equipped to ensure the drone flies straight in the right direction even when RTK is unavailable.
- ◆ The front and rear obstacle avoidance radars offers $\pm 10\text{cm}$ accuracy, effectively avoiding obstacles such as utility poles and trees.

04 Easy to Operate, Quick to Start

- ◆ 5.5-inch high brightness display for the RC ensures clear outdoor image . Battery lasts for 6-8 hours.
- ◆ Multiple operation modes: A-B point, manual and autonomous. Simple setup to quickly start operation.
- ◆ Comprehensive training is offered to help users independently operate in 3 days and become skillful in 7 days.



05 Durable, Foldable and Easy to Transport

- ◆ Foldable design for easy storage and transportation.
- ◆ Tough and durable. High strength carbon fiber arm, and high toughness folding structure.
- ◆ The drone body is IP67 waterproof, which can be washed with running water after operation.



06 Timely After-sales service to protect your interests

- ◆ Online support from professional technique team will offer technical solutions.
- ◆ Modular design: users can replace certain damaged modules by themselves instead of returning the drone to manufacturer.

07 More Advanced Technology Makes the Drone Smarter

- ◆ Terrain following radar is equipped to adjust the altitude of the drone to ensure flight safety and even spraying.
- ◆ Predict the breakpoint according to the route plan so that users can wisely arrange the timing for refill to improve battery efficiency .
- ◆ FPV (First-person view) enables user to see real-time 720p image of the environment in front of the drone on the RC display.
- ◆ Users can check operation data on the Plant Protection Assistant APP installed in the RC, which provided with route planning, voice broadcast, field management, and operation area statistics, etc.

