

# T3 Four-rotor Drone



## Instruction

Four-rotor small UAV, support thermal imaging and visible light dual imaging, with flexible deployment capabilities, support up to 15KM high-definition remote image transmission. The fuselage is equipped with 12 visual sensors, integrating 19 groups of sensors such as the main camera, ultrasound, IMU, etc., to build 3D maps and plan paths in real time, not only perception, but also multi-angle obstacle avoidance, easily traversing complex areas such as jungles, mountains, cities, and escorts for flight missions.

## Function Features

### 01 Thermal imaging camera

Equipped with 640\*512 high-resolution infrared thermal imaging camera, with 13mm focal length lens and 16x digital zoom function, easy to observe distant targets. The imaging system uses a new image processing algorithm to make the details of thermal imaging more clear.

### 03 15km HD Transmission

Support 2.4GHz/ 5.8GHz/900MHz\* three frequency band transmission, bring up to 15km image transmission distance, 1 km image transmission quality can reach 2.7K; And according to the actual environment can adapt to switch the transmission frequency band, to ensure the signal transmission is stable and smooth, for the shooting operation escort.

### 05 Portable design efficient & practical

The folding fuselage, ready to use, only 45 seconds from boot to take off, more powerful flight performance to ensure the efficient execution of tasks.

### 02 Visible light camera

Support 50 million pixel visible light imaging, discover more details, assist in forensics, and achieve accurate judgment. Using the super sensitive algorithm 2.0, it can still shoot clean and clear 4K night scene video under low light conditions.

### 04 Six-way binocular omnidirectional obstacle avoidance

The fuselage is equipped with 12 visual sensors, integrating 19 sensors such as the main camera, ultrasound, and IMU, to build 3D maps and plan paths in real time, not only perception, but also multi-angle omnidirectional obstacle avoidance, easily traversing jungle, mountains, cities and other complex areas, escorts the flight mission.

### 06 Excellent performance

Support 38 minutes long endurance, 15 km ultra remote image transmission, 20 m/s maximum flight speed, 920 grams maximum load

## Product Specification

|          |                                 |  |
|----------|---------------------------------|--|
| Aircraft | Weight(with propeller& battery) | 1209 g   |
|          | Max Takeoff weight              | 1999 g   |
|          | Dimension                       | 457*558*108mm (Flod)<br>230*130*108mm (Unflod)       |
|          | Wheelbase                       | 397 mm   |
|          | Max takeoff height              | 7000 m   |
|          | Max ascent speed                | 8 m/s  |
|          | Max descent speed               | 4 m/s  |
|          | Max horizontal flight speed     | 20m/s  |
|          | Max range                       | 22 km  |
|          | Max angular velocity            | 120°/s   |
|          | Max tilt Angle                  | 33°  |
|          | Max flight time                 | 38 min   |
|          | Max hover time                  | 33 min   |
|          | Max wind resistance             | 12m/s  |
|          | Positioning system              | GPS/GLONASS/Galileo/BDS                              |
|          | Operating ambient tem           | -10℃ ~ 40℃   |
|          | On-machine storage              | 8GB  |
|          | SD Card storage                 | Support 256GB (Class 10 or UHS-3 )                   |
| PZT      | Stable system                   | Triaxial stability                                   |
|          | Mechanical range                | Pitch Angle: -135° to +45°<br>Course: -100° to +100° |
|          | Controllable rotation range     | Pitch Angle: -90°to +30°<br>Course: -90°至+90°        |
|          | Max control speed               | 300°/s (Tilt)  |
|          | Angular jitter                  | ±0.005°  |

## Product Specification

|                      |   |   |
|----------------------|---|---|
| Infrared camera      | Video resolution                          | 640x512@25fps   |
|                      | Lens                                      | Visual Angle: H33°V26°<br>Focus Distance: 13mm  |
|                      | Temperature range                         | High-gain mode:-20° to +150°<br>Low gain mode:0° to +550°   |
|                      | Temperature measurement accuracy          | ±3°C or ±3% @Ambient temperature -20°C~60°C   |
|                      | Accurate temperature measurement distance | 2-20m   |
| Visible light camera | Video resolution                          | 3840x2160P60/P50/P48/P30/P25/P24<br>2720x1528P60/P50/P48/P30/P25/P24<br>1920x1080P120/P60/P50/P48/P30/P25/P24 |
|                      | Sensor                                    | 1/1.28 in CMOS, 50 megapixels   |
|                      | Lens                                      | FOV: 85°<br>Equivalent focal length: 23 mm<br>Aperture: f/1.9   |
|                      | Zoom                                      | 4X  |
|                      | Max photo size                            | 8192*6144 (4:3)<br>4096*3072 (4:3)<br>3840x2160 (16:9)  |
| Battery              | Capacity                                  | 7100 mAh  |
|                      | Voltage                                   | 11.55 V   |
|                      | Battery type                              | LiPo 3S   |
|                      | Energy                                    | 82 Wh   |
|                      | Total battery weight                      | 365 g   |
|                      | Charging ambient temperature              | 5°C to 45°C   |
|                      | Storage temperature & humidity            | -10~30°C, 65±20%RH  |
|                      | Recommended storage temperature           | 22-28°C   |
|                      | Maximum charge consumption                | 93W   |
|                      | Charging time                             | 90min   |

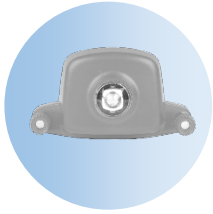
## Product Specification

|                   |                       |   |
|-------------------|-----------------------|---|
| Remote Controller | Operating Frequency   | 902-928MHz (FCC)<br>2.400-2.4835GHz<br>5.725-5.850GHz   |
|                   | Signal Distance       | FCC: 15km<br>CE: 8km  |
|                   | Screen                | 2048x1536 60fps   |
|                   | Battery               | 5800mAh   |
|                   | Endurance time        | 2.5Hours (Max brightness)<br>4.5Hours (50% brightness)  |
|                   | Charging time         | 90min   |
|                   | Storage               | ROM 128GB   |
| Perception System | Perceptual system     | Omnidirectional binocular perception system   |
|                   | Front perception      | Measuring range: 0.5 - 18 m<br>Effective perceived speed: < 12m/s<br>Visual Angle: Horizontal: 60°, Vertical: 80° |
|                   | Rear perception       | Measuring range: 0.5 - 16 m<br>Effective perceived speed: < 12m/s<br>Visual Angle: Horizontal: 60°, Vertical: 80° |
|                   | Upper perception      | Measuring range: 0.5 - 10 m<br>Effective perceived speed: < 5m/s<br>Visual Angle: Horizontal: 65°, Vertical: 50°  |
|                   | Down perception       | Measuring range: 0.5 - 10 m<br>Effective perceived speed: < 5m/s<br>Visual Angle: Horizontal: 100°, Vertical: 80° |
|                   | Left-right perception | Measuring range: 0.5 - 10 m<br>Effective perceived speed: < 5m/s<br>Visual Angle: Horizontal: 65°, Vertical: 50°  |

## Application scenario

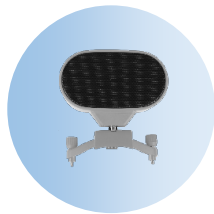
Widely used in power, fire, law enforcement, search and rescue, chemical, photovoltaic and other fields and industries.

## Spare Parts ( Optional )



### Night Light

|                    |                          |
|--------------------|--------------------------|
| Dimension          | 39*72*34 mm              |
| Work Range         | 5000 m                   |
| Luminous intensity | Max 486cd; Average 290cd |



### Speaker

|                  |             |
|------------------|-------------|
| Dimension        | 46*80*77 mm |
| Adjustable Angle | 0°~45°      |
| Max Decibel      | 120dB       |



### Searchlight

|                        |                          |
|------------------------|--------------------------|
| Dimension              | 48.5*72*63 mm            |
| Work Range             | 30 m                     |
| Illumination Intensity | 11lux @ 30m Direct light |