ROBOTICS

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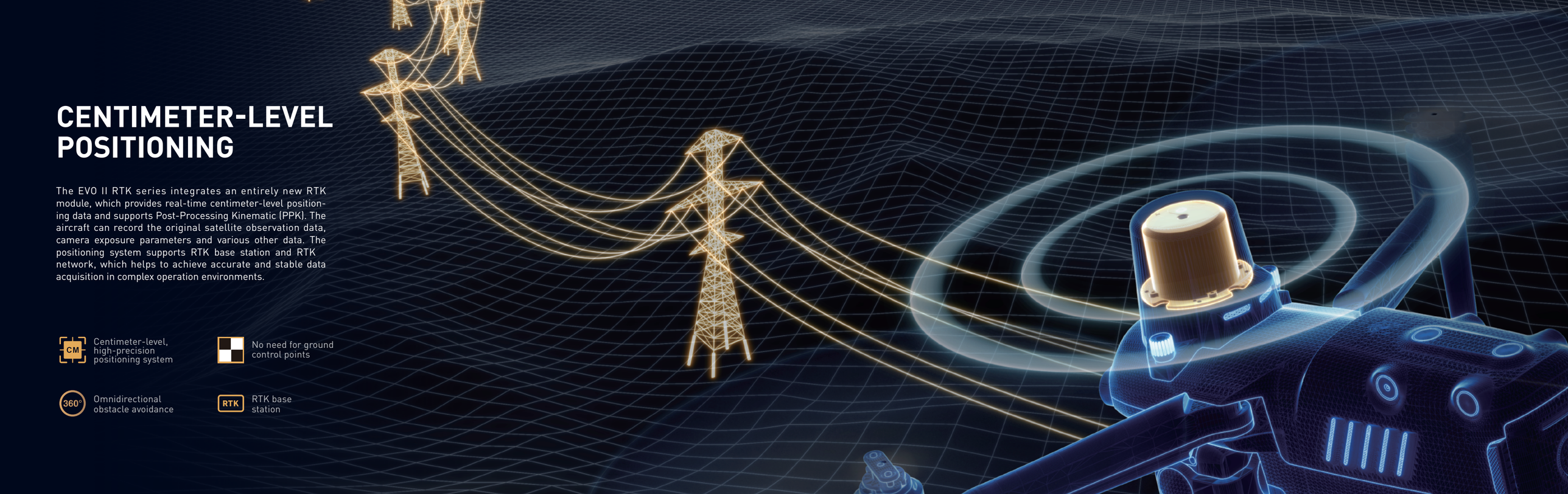
# EVO II RTK Series

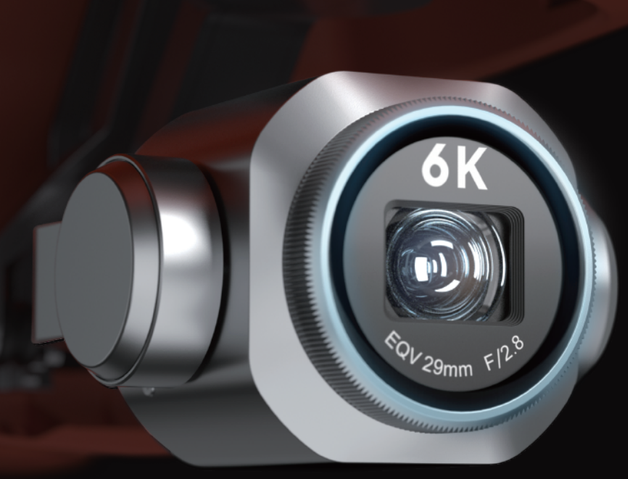
## Unrivaled Accuracy and Control

# CENTIMETER-LEVEL POSITIONING

The EVO II RTK series integrates an entirely new RTK module, which provides real-time centimeter-level positioning data and supports Post-Processing Kinematic (PPK). The aircraft can record the original satellite observation data, camera exposure parameters and various other data. The positioning system supports RTK base station and RTK network, which helps to achieve accurate and stable data acquisition in complex operation environments.

- CM — Centimeter-level, high-precision positioning system
- No need for ground control points
- 360° — Omnidirectional obstacle avoidance
- RTK — RTK base station






1″ sensor

6K ULTRA HD

EVO II Pro RTK

# CAPTURE EVERY DETAIL

EVO II Pro RTK has high dynamic range and powerful low light performance, enabling users to capture clear imagery without missing any detailed information.

## High resolution camera

The 1 inch CMOS sensor coupled with 20 MP and F/2.8-F11 aperture, gives you the versatility and ability to capture the best in a variety of mission scenarios.

## 6K Ultra HD video

The 6K resolution ultra-high-definition lens, supported by a 1-inch sensor, makes it easy to achieve professional shooting results.

EVO II Dual 640T RTK

# DUAL CAMERAS, ACCURATE TEMPERATURE MEASUREMENT

EVO II Dual 640T RTK is equipped with a high resolution thermal imaging camera and 8K visible light camera, enabling you to capture highly detailed imagery to achieve optimal insights.

## Precise temperature measurement

The EVO II Dual 640T RTK can accurately detect heat sources within a distance of 2-5 meters. By leveraging the compensation algorithm of infrared temperature measurement, the 640T RTK can regulate temperature deviations within 3 degrees Celsius.

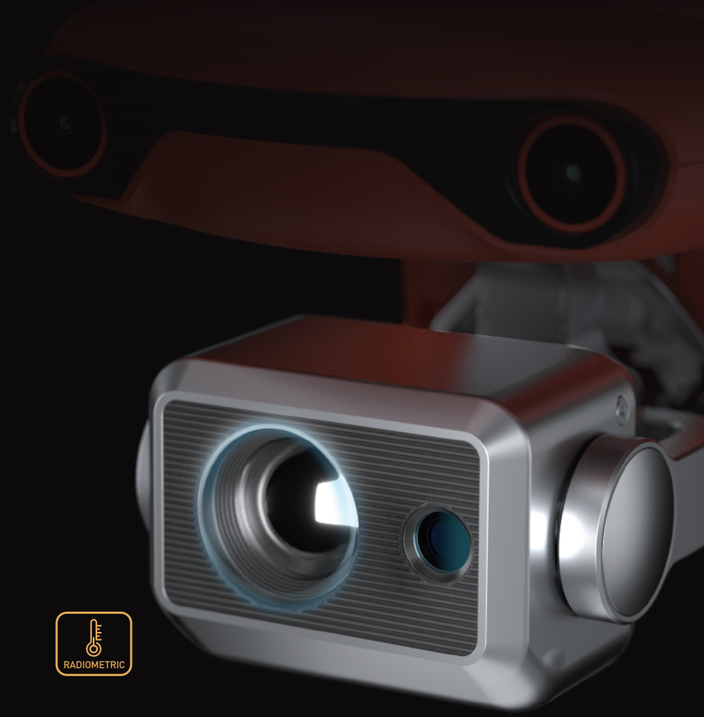
## High-resolution Thermal imaging sensor

The 640T RTK has a 13mm focal length combined with a 640*512 thermal imaging sensor, and an 8K ultra-high-definition visible camera. Together, these sensors provide you with dual vision to give you the crisp and clear imagery you need to accomplish your missions.

## Multiple color modes

White Hot | Cold and Hot | Rainbow | Enhanced Rainbow | Iron bow | Lava | Arctic | Searing | Gradation | Heat Detection

RADIOMETRIC

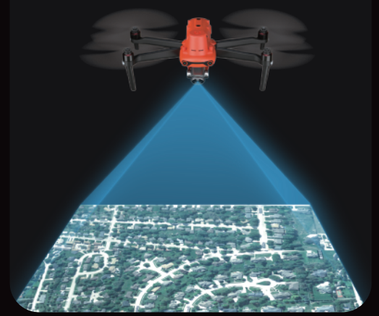


# MISSION EXECUTION WITH ADVANCED INTELLIGENCE

EVO II RTK Series provides users with a full range of intelligent features and solutions to suit a variety of mission needs. Using advanced flight control and the latest AI technology, the aircraft can significantly improve mission work flows and help reduce operating costs.

## NO NEED FOR GROUND CONTROL POINTS

EVO II RTK series leverages a high precision RTK module and supports PPK, time synchronization, and is not limited by communication links and network coverage.



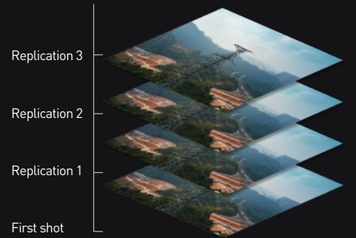
## MISSION PLANNING

After creating a flight route, EVO II RTK series can fly on the designated flight path autonomously, enabling a smooth, safe and more efficient flight


- Waypoint Mission
- Rectangle Mission
- Polygon Mission
- Oblique Photography

## PHOTO REPLICATION

For repeatable data acquisition missions, you can record the drone's previous shooting positions. All the gimbals, camera, and aircraft movements will be replicated, thus producing a full record of the entire mission.

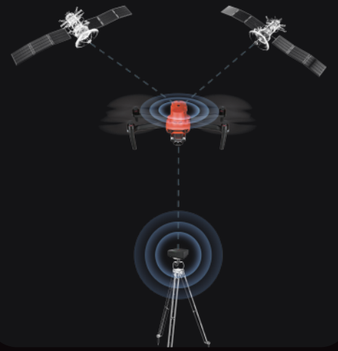



## OMNIDIRECTIONAL SENSING & OBSTACLE AVOIDANCE

EVO II RTK Series comes built in with a 6-directional sensing system that provides the aircraft with obstacle avoidance capabilities in all directions to enable a safer flight.

## RTK / PPK

Coupled with the EVO II Series aircraft is an RTK base station and RTK network service.



## A-RTK HIGH-PRECISION GNSS BASE STATION

The EVO II RTK Series supports RTK high-precision GNSS base station to obtain real-time differential data, which makes it possible to obtain the accurate coordinates of the designated target point.

# LIGHT, EFFICIENT AND RELIABLE

The EVO II RTK series inherits the  foldable design of the original EVO II series, making it compact, light, portable and ready to fly in just a matter of seconds. Alongside a 9km maximum transmission range, the aircraft offers a flight time of up to 36 minutes and can reach a top speed of up to 20m/s, making it the perfect flying companion for your daily missions.

Max Flight Time

**36** Min

Max
Transmission Range

**9** km

Max Speed

**20** m/s

# APPLICATION FIELD




# SPECIFICATIONS

## Aircraft

| | |
|---|---|
| Weight<br>(With propeller and battery) | 2.75 lbs (1250g) EVO II DUAL 640T RTK<br>2.73 lbs (1237g) EVO II PRO RTK |
| Wheelbase | 15.6 inches (397 mm) |
| Max Flight Time | 36 min (Windless environment) |
| Operating<br>Environment Temp | 14-104°F (-10-40°C) |
| Max Wind Resistance | Force 8 wind |
| Working Frequency | 2.4~2.4835GHz; 5,725GHz ~5,850 GHz |
| Hover Precision | When RTK is enabled and RTK works normally:<br>Vertical: ± 0.1m<br>Horizontal: ± 0.1m |
| | RTK is not enabled:<br>Vertical:<br>± 0.1m (with visual positioning in normal operation)<br>± 0.5m (with GNSS in normal operation)<br>Horizontal:<br>± 0.3m (with visual positioning in normal operation)<br>± 1.5m (with GNSS in normal operation) |

## RTK Module

| | |
|---|---|
| Single frequency high sensitivity GNSS | GPS + BeiDou + Galileo (Asian Region)<br>GPS + BeiDou + Galileo (Other Region) |
| Multi-frequency multi-system high-precision RTK GNSS | User frequency:<br>GPS: L1/L2<br>GLONASS: L1/L2;<br>BeiDou: B1/B2;<br>Galileo: E1/E5 |
| | First positioning time: <50s |
| | Positioning accuracy:<br>Vertical: 1.5cm + 1ppm* (RMS)<br>Horizontal: 1cm + 1ppm (RMS)<br>*1ppm means that the error increases by 1MM for every 1KM of the aircraft moving |

## Camera

| | | | |
|---|---|---|---|
| Camera type | EVO II PRO RTK Camera | EVO II DUAL 640T RTK Infrared camera | EVO II DUAL 640T Visible light camera |
| Image Sensor | 1" CMOS (20 million effective pixels) | Vanadium oxide uncooled infrared focal plane detector | 1/2" CMOS (48 million effective pixels) |
| Perspective | FOV 82° | H33°V26° | FOV 79° |
| Aperture | F/2.8-F/11 | - | F/1.8 |
| Focus range | 1M to infinity | | 0.5M to infinity |
| Equivalent focal length | 28.6MM | | 25.6MM |
| Zoom | 1-16x (Max 3x lossless) | 1-16x | 1-16x (Max 4x lossless) |

## Sensing System

| | | | | | |
|---|---|---|---|---|---|
| Omnidirectional Sensing System | **Forward** | Accurate Measuring Range: 0.5 - 20m | Detection Range: 0.5 - 40m | Effective Sensing Speed: < 15 m/s | FOV: Horizontal: 60°, Vertical: 80° |
| | **Backward** | Accurate Measuring Range: 0.5 - 16m | Detection Range: 0.5 - 32m | Effective Sensing Speed: < 12 m/s | FOV: Horizontal: 60°, Vertical: 80° |
| | **Upward** | Accurate Measuring Range: 0.5 - 12m | Detection Range: 0.5 - 24m | Effective Sensing Speed: < 6 m/s | FOV: Horizontal: 65°, Vertical: 50° |
| | **Downward** | Accurate Measuring Range: 0.5 - 11m | Detection Range: 0.5 - 22m | Effective Sensing Speed: < 6 m/s | FOV: Horizontal: 100°, Vertical: 80° |
| | **Sides** | Accurate Measuring Range: 0.5 - 12m | Detection Range: 0.5 - 24m | Effective Sensing Speed: < 10 m/s | FOV: Horizontal: 65°, Vertical: 50° |
| Service Environment | Textured/patterned ground and adequate illumination (> 15 lux, normal indoor environment with fluorescent lamp on)<br>Upward: diffuse reflecting surface with reflectivity above 20% (wall, tree, human, etc.)<br>Downward: textured/patterned ground and adequate illumination (> 15 lux, normal indoor environment with fluorescent lamp on)<br>diffuse reflecting surface with reflectivity above 20% (wall, tree, human, etc.) | | | | |