

# Autel Alpha

## Beyond The Frontiers

Autel Alpha is an intelligent industrial drone for multi-purpose. Boasting significant enhancements in autonomous flight capabilities, anti-interference capabilities, obstacle avoidance capabilities, video transmission technology, and battery systems, it injects robust performance into the flight platform. With a foldable design and IP55-rating level, it tackles challenging environments. The built-in RTK dual-antenna system ensures precise control within millimeters when carrying out the missions. Paired with the next-gen DG-L35T gimbal, it integrates a 560x hybrid zoom camera, dual thermal imaging cameras, a visible light wide-angle camera, and a laser rangefinder. The dual thermal imaging cameras meet the needs of both short-range overview and long-range detail observation, achieving distant operation scenarios with unobstructed personnel recognition within an 8-kilometer range, providing more professional and comprehensive solutions for applications such as public safety, energy inspection, and emergency management.



Superior  
Anti-interference



High-Precision  
Visual Navigation



A-Mesh  
Network



56x Dual Thermal  
Camera



4K 35x  
Optical Zoom



IP55  
Rating



Hot-swappable  
Battery



Wire-Level Obstacle  
Avoidance and Pathfinding



15 kilometers  
Transmission Range



Flexible Payload  
Expansion



# Autel DG-L35T Gimbal

## Zoom Camera

8 MP  
4K 35x optical zoom  
560x hybrid zoom  
Ultra-sensitive ISO supports up to a maximum of 160,000

## Wide Camera

48 MP  
Aperture: F/2.8  
DFOV: 84°  
Equivalent focal length: 24mm

## Laser Rangefinder

Measurement range: 10-2000 meters  
Measurement accuracy: <400m: +1m;  
>400m: D×0.3%

\* where D represents the distance from the vertical reflecting surface

## Dual Thermal Camera

640×512  
56x hybrid zoom  
13mm focal length wide-angle thermal imaging  
45mm focal length long-range thermal imaging



### Exceptional Anti-Interference Capability

Autel Alpha's GNSS visual positioning capabilities, adaptive frequency-hopping and SLAM navigation technology empowers resistance from interference and enables the drone to fly confidently near powerlines, critical structures and in complex areas.



### A-Mesh Networking

With integrated A-Mesh networking technology, the drone can establish networks between drones and controllers, supporting various working modes such as "single-controller multiple drones" and "master-slave dual control". Even in scenarios with long distances and obstacles, such as mountains, buildings, or areas without network, it can achieve multi-device networking, enabling drone-to-drone autonomous communication, connection, and collaboration.



### Autonomous Flight

Autel's Autonomy Engine is continuously improving, enabling functions such as global path planning and 3D scene reconstruction in complex environments. It offers various obstacle avoidance capabilities, including return-to-home, manual control, and mission planning, providing a more professional solution for industries such as security, inspection, and surveying.



### No Blind Spots Ultimate Obstacle Avoidance

By integrating multi-source sensor fusion technology, including 5-direction dual fisheye vision + 6-direction millimeter-wave radar, the drone is equipped with wire-level obstacle avoidance and pathfinding capabilities. Additionally, it supports nighttime obstacle avoidance for flight safety.

## Application



Public Safety



Search & Rescue



Inspection

## Specifications

|                                                           |                                                                                                                                       |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Weight (including battery, gimbal camera, and propellers) | 6340g                                                                                                                                 |
| Max. Payload                                              | 3000g                                                                                                                                 |
| Dimensions                                                | 1205*980*278mm (unfolded, incl. propellers)<br>780*568*278mm (unfolded, excl. propellers)<br>455*263*248mm (folded, excl. propellers) |
| Max Flight Time (windless)                                | 40mins                                                                                                                                |
| Max Horizontal Speed (windless near sea level)            | 25m/s                                                                                                                                 |

|                           |                                   |
|---------------------------|-----------------------------------|
| Max Wind Resistance       | 12m/s                             |
| Operating Frequency       | 2.4GHz / 5.2GHz / 5.8GHz / 900MHz |
| IP Rating                 | IP55                              |
| Max Transmission Distance | 15km                              |
| GNSS                      | GPS / GLONASS / BDS / Galileo     |