

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



IP55 Rating



High-Precision Visual Navigation



Hot-swappable Battery



A-Mesh Network



Wire-Level Obstacle Avoidance and Pathfinding



56x Dual Thermal Camera



12.4 Miles Transmission Range



4K 35x Optical Zoom



Flexible Payload Expansion



Autel DG-L35T Gimbal | Insight Beyond Limits

The Autel Alpha is equipped with a versatile payload, integrating dual thermal imaging cameras (short/long focal length), a 4K 35x night vision zoom camera, a wide-angle camera, and a laser rangefinder, giving you full-spectrum target monitoring and efficient support for long-range reconnaissance scenarios.



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

Wide Camera

maximum of 160,000

Zoom Camera

4K 35x optical zoom

560x hybrid zoom

8 MP

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

Ultra-sensitive ISO supports up to a



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 power lines, critical structures and in complex areas.



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.



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.



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