AUTEL
ROBOTICS

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 | 20 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
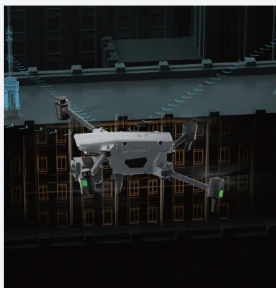maximum of 160,000

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

Wide Camera

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

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.
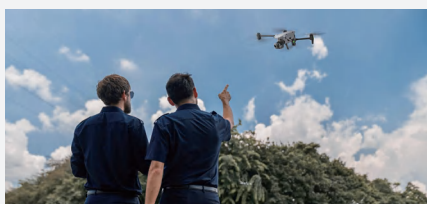
Autonomous Flight

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.
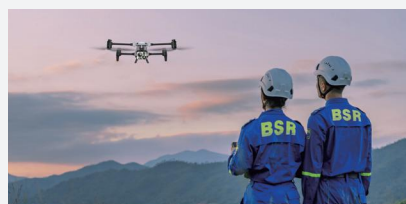
No Blind Spots Ultimate Obstacle Avoidance

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 Wind Resistance	12m/s
Max. Payload	3000g		Operating Frequency	2.4GHz/5.2GHz/5.8GHz/900MHz
Dimensions	1205*980*278mm (unfolded, incl. propellers) 780*568*278mm (unfolded, excl. propellers) 455*263*248mm (folded, excl. propellers)		IP Rating	IP55
Max Flight Time (windless)	40mins		Max Transmission Distance	12.4 miles (20km)
Max Horizontal Speed (windless near sea level)	25m/s		GNSS	GPS+GLONASS+BeiDou+Galileo