



AE-X330 Quadcopter

Full Specifications Table

Key Features

- Frame Configuration: X Configuration
- Arm Length: 330mm Diagonal Motor Shaft Distance
- Onboard Computer: Intel NUC / Jetson Xavier/ Jetson Nano/ RasPi 4B
- Power: 6000mAh, 4S Lithium Battery
- Motor: KV2500 Up to 1.38kg/motor
- Flight Duration: 15-20min

Avionics

Onboard Computer Intel NUC/Jetson Xavier/Jetson Nano/RasPi 4B

Navigation IMU, GPS, RGB Vision, Infrared Depth Vision, Height Laser

Autopilot Pixhawk Series Autopilot, Redundant IMU, Redundant Power Source, RTOS

Flight Mode Manual, Altitude Control, Position Control, Off-board, Autonomous (use in GPS environment)

Power Specification Battery: 6000mAh 4S Lithium Battery

Thrust Motor: KV2500 Up to 1.38kg/motor
Propeller: 6 in

Flight Performance Take-off Weight: 1.5kg (w/o payload)
Flight Time: 15-20min



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AE-X350 Quadcopter

Full Specifications Table

Key Features

- Frame Configuration: X Configuration
- Arm Length: 350mm Diagonal Motor Shaft Distance
- Onboard Computer: Intel NUC / Jetson Xavier/ Jetson Nano/ RasPi 4B
- Power: 9000mAh, 6S Lithium Battery
- Motor: KV1300
- Flight Duration: 15-20min

Avionics

Onboard Computer	Intel NUC/Jetson Xavier/Jetson Nano/RasPi 4B
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Navigation	IMU, GPS, RGB Vision, UWB, Stereo Vision, Infrared Depth Vision, Height Laser, 3D/2D lidar
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Autopilot	Pixhawk Series Autopilot, Redundant IMU, Redundant Power Source, RTOS
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Flight Mode	Manual, Altitude Control, Position Control, Off-board, Autonomous (use in GPS environment)
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Power Specification	Battery: 9000mAh, 6S Lithium Battery
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Thrust	Motor: KV1300 Propeller: 7 in
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Flight Performance	Take-off Weight: 2.0kg (w/o payload) Flight Time: 15-20min
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AE-Q400A Quadcopter Platform

Full Specifications Table

Key Features

- Frame Type: X Configuration
- Arm Length: 400mm Diagonal Motor Shaft Distance
- Onboard Computer: Intel NUC / Jetson Xavier/ Jetson Nano/ RasPi 4B
- Power: 9000mAh, 4S Lithium Battery
- Motor: KV880 Up to 1.2kg/motor
- Flight Duration: 20min

Avionics

Onboard Computer	Intel NUC/Jetson Xavier/Jetson Nano/RasPi 4B
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Navigation	IMU, GPS, Vision, UWB
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Autopilot	Pixhawk Series Autopilot, Redundant IMU, Redundant Power Source, RTOS
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Flight Mode	Manual, Altitude Control, Off-board, Autonomous (use in GPS environment)
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Power Specification	Battery: 9000mAh, 4S Lithium Battery
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Thrust	Motor: KV880 Up to 1.2kg/motor Propeller: 9 in
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Flight Performance	Take-off Weight: 1.8kg (w/o payload) Flight Time: 20min
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AE-Q550 Quadcopter

Customizable Platform

Full Specifications Table

Key Features

- Frame Type: Carbon Fibre Frame
- Arm Length: 550mm (520~600mm)
- Landing Gear: Soft Buffer
- Optional Frame Protector
- Power: 10Ah 6S LiPo Battery
- Motor: KV380

Applications

- Building Inspection
- Power Grid Inspection
- Tunnel Inspection
- Surveillance

Avionics

Height Sensor: 40m/120m lidar
Autopilot: RTOS Autopilot
Telemetry on autopilot: 915MHz/433MHz/WIFI
RC receiver: up to 1km line of sight
ESC: 4in1 ESC 40A
Navigation computer: Intel NUC/customized board
Navigation computer data link: WIFI module
Localization sensor: GPS/RTK GPS/Ultra-Wide Band RF module/laser scanner/motion capturing system

Power Specification

Battery Type: Up to 10Ah 6S LiPo battery

Thrust

Motor Type: Brushless
Propeller Size: 13 in / 14 in

Flight Performance

Maximum Payload: Up to 2kg
Maximum Flight Duration: 30min



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AE-H16 Heavy Duty Hexacopter Platform

Full Specifications Table

Key Features

- Frame Type: Hexacopter Frame
- Arm length: 1600mm
- Onboard Computer: Linux based system with ROS integrated
- Power: 22000mAh, 6S, 25C Lithium Polymer battery (option to double capacity as 44000mAh)
- Motor: KV150, thrust up to 4.8kg per motor
- Flight Duration: 46min w/o power from tether system/ unlimited with power from tether system

Avionics

Onboard Computer	x86 architecture CPU, Built-in graphic card, SSD Storage, Linux based system with ROS integrated
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Navigation	M8N GPS Lidar range finder for height up to 40m Integrated IMU triple redundancies
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Autopilot	Aerise customized firmware with Pixhawk based autopilot, Triple IMU redundancies, Triple power redundancies, Dual redundant barometric pressure sensor, Dual redundant compass sensor, RTOS
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AE-H16 Heavy Duty Hexacopter Platform

Full Specifications Table

Avionics

Flight Mode

GPS

Altitude Mode

Dual controller capability (1 master, 1 slave)

Customizable gimbal for different payload

Built-in obstacle avoidance system: 360 degree

Power

Specification

Battery Type: 22000mAh, 6S, 25C Lithium

Polymer battery (option to double capacity as 44000mAh)

Thrust

Motor: thrust up to 4.8kg per motor, KV150

Propeller: 2892 carbon fiber propeller

Flight

Performance

Weight w/o payload: Min 8kg

Weight with payload: > 8kg < 17kg

Camera and

Gimbal System

Output format: GigE

Control interface: UART, S.Bus

Sensor: 1/2.8 CMOS



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AE-V7-2300 VTOL Aircraft

Full Specifications Table

Key Features

- Frame Type: Fixed Wing
- Carbon fiber fuselage, case weight 2kg
- Multiple battery cell configurable (6S / 12S)
- High efficiency, support EPP transport box
- Plug and Play Feature

Avionics

Specification

Configuration: 4+1 VTOL Fixed Wing
Material: Carbon Fiber
Wingspan: 2300mm
Length: 1250mm
Max Takeoff Weight: 9kg(6S), 12.5kg(12S)
Max Mission Payload: 2.5kg
Max Speed: 35m/s
Cruise Speed: 18-20m/s
Max Altitude: 4500m
Empty Payload Flight Time: 240min
Max Endurance: 240km
Wind Resistance: Level 5
Battery: 6S 32Ah or 12S 27Ah
Packing Size (L*W*H): 1220*320*300 (mm)

Plug and Play Feature

Many possible payloads: Survey Sensor, Tracking Payload, etc.
Quick Release, Safety Plug, Quick flat tail install, payload chamber



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AE-V9-2300 VTOL Aircraft

Full Specifications Table

Key Features

- Carbon fiber fuselage
- Arm Length: 2300mm wingspan, 1150mm length
- A single set of 12S battery can perform an aerial survey for 4 hours
- Specially Designed for Aerial survey operations
- Quick disassembly without tools, Plug and Play Feature

Avionics

Specification	Configuration: 4+1 VTOL Fixed Wing Material: Carbon Fiber Max Takeoff Weight: 12.5kg Max Mission Payload: 2.5kg Max Speed: 35m/s Cruise Speed: 18-20m/s Max Altitude: 4500m Empty Payload Flight Time: 240min Max Endurance: 240km Wind Resistance: Level 5 Battery: 12S 27Ah Packing Size (L*W*H): 1220*320*300 (mm)
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Plug and Play Feature	Many possible payloads: Survey Sensor, Tracking Payload, etc. Quick Release, Safety Plug, Quick flat-tail installation, payload chamber
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AE-V9-2300 VTOL Aircraft

Full Specifications Table

Key Features

- Carbon fiber fuselage
- Arm Length: 2300mm wingspan, 1150mm length
- A single set of 12S battery can perform an aerial survey for 4 hours
- Specially Designed for Aerial survey operations
- Quick disassembly without tools, Plug and Play Feature

Avionics

Specification	Configuration: 4+1 VTOL Fixed Wing Material: Carbon Fiber Max Takeoff Weight: 12.5kg Max Mission Payload: 2.5kg Max Speed: 35m/s Cruise Speed: 18-20m/s Max Altitude: 4500m Empty Payload Flight Time: 240min Max Endurance: 240km Wind Resistance: Level 5 Battery: 12S 27Ah Packing Size (L*W*H): 1220*320*300 (mm)
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Plug and Play Feature	Many possible payloads: Survey Sensor, Tracking Payload, etc. Quick Release, Safety Plug, Quick flat-tail installation, payload chamber
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AE-Q150 Micro Intelligent UAV System

Full Specifications Table

Key Features

- 150 mm enclosed structure — safe and stable
- High-performance edge platform (Radxa Zero)
- Programmable lighting system (Teensy + WS2812)
- Multi-drone collaborative control
- Aerise Swarm SDK
- Ready to use — deployment in under 10 minutes

Avionics

Specification	Wheelbase: 150 mm
	Frame: Carbon fiber enclosed propeller guard
	Weight: < 250 g (including battery)
	Flight Controller: PX4 Mini version (custom-tuned)
	Compute Module: Radxa Zero (4 × A53 / 2 GB RAM)
	Lighting System: Teensy 4.1 + WS2812 RGB LED × 4
	Communication: Wi-Fi / ROS2 Bridge / MQTT
	Power: 4 S Li-Po 850 mAh
	Flight Time: 8 – 10 minutes
	Safety Features: Low-voltage protection / Emergency stop / Software altitude limit

Main Features

- One-click takeoff / safe hover
- Synchronized multi-drone takeoff & light effects
- Motion-capture integration
- Lightweight VIO interface
- Python API
- Gazebo simulation interface
- Safety protection mechanisms

Application Scenarios

- Research & Education
- Algorithm verification platform
- Exhibitions & Performances
- Digital twin & simulation studies



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AE-Q150 Micro Intelligent UAV System



Full Specifications Table

Software Ecosystem

Aerise Drone Research Stack includes:

1. Aerise Core Service — Flight control bridge & safety guardian
2. LightShow Gateway — Lighting control & synchronization
3. Aerise Swarm SDK — Python & ROS interfaces
4. Swarm Studio (Optional) — GUI tool for swarm formation & light-show scripting
5. Gazebo Sim Bridge — Unified simulation & real-world interface
6. License Manager — License & feature management

Kits & Configurations

Kit	Contents
Solo Research Kit	AE-Q150 × 1 + Swarm SDK Basic + License + Documentation
Mini Swarm Kit	AE-Q150 × 3 + Swarm SDK Pro + Motion Capture Bridge Software
Edu Class Kit	AE-Q150 × 6 + Swarm Studio GUI + Training Support
Show Swarm Kit	AE-Q150 × 10 + LightShow Console + Scripting Engine

Technical Support & Licensing

- SDK documentation, sample libraries, and quick-start tutorials provided
- Each device bound to a unique license file
- Remote technical support and system updates available
- Optional training & on-site commissioning services



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