ARGOSDYNE

AQUILA

Drone for everyone

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ARGOSDYNE

AQUILA-2

Drone for everyone

In the most convenient way for users
Provides usable systems and services

Waterproof Grade IP 53

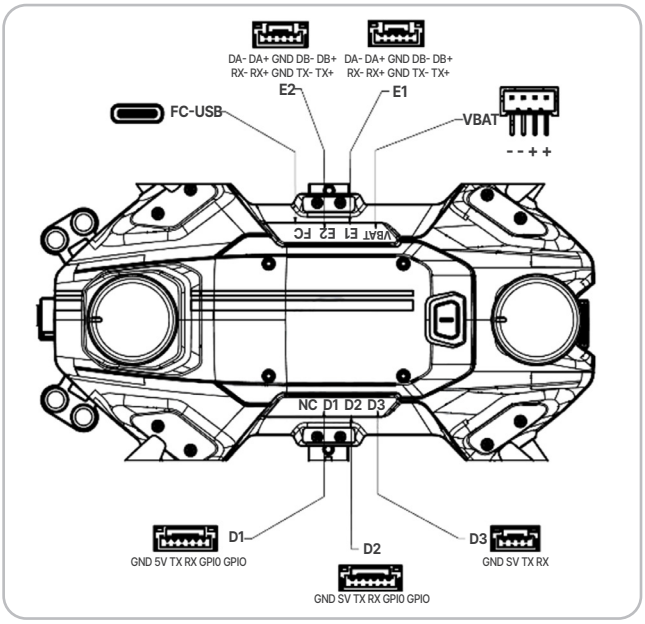
Flight Time up to 67minutes

Dual GPS support Improve flight safety

Up to 1.5 kg mission equipment

AQUILA-2 Mapping/Surveillance System

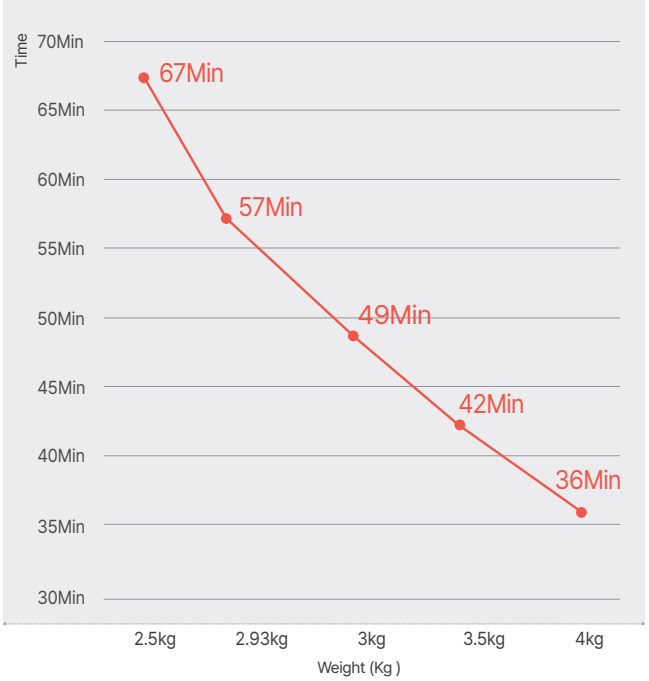
1. Multi-Purpose Drone, AQUILA-2



- The Aquila-2 drone by ARGOSDYNE is a versatile and customizable solution for construction, law enforcement, and mapping.
- It offers stable flight performance and extended flight time. Its components, including software, are designed in-house, allowing for tailored configurations. The drone comes with a variable camera, remote controller, and speaker system. The camera can be easily swapped using the "quick release" system, supporting different types from full HD to 4K EO/IR cameras.
- The Aquila-2 utilizes low power efficiently, enabling longer flight duration, and its dual GPS modules ensure precise positioning without an RTK system, even in electromagnetic environments.
- It integrates seamlessly with the Drone Station (Docker System) for autonomous and continuous missions. The drone's long flight time, replaceable batteries, and support for various payloads make it suitable for extended operations and adaptable to different communication systems.
- Additionally, the Aquila-2 provides external I/O ports, allowing customers to easily connect their own devices to the drone.

Aquila-2 Technical Specification			
Size (W x L x H)	495.3 × 455.2 x 286.4 mm	Num of Motors	4
Drone Type	Quadcopter	Diagonal Size	600mm
Battery Capacity	10,000mAh	Weight (Dry)	1.3kg
Weight with Battery	2.5kg	Max. Takeoff Weight	4Kg
Max. Flight Altitude	1.5Km	Max. Flight Speed	45km/h
Max. Wind Resistance	15m/s	Max.FlightTime (without payload)	> 67minute
Max. Takeoff/ Land Speed	6 ~ 10m/s (Configurable)	Max. Rotation Speed	60°/s
Operation Temperature	-10°C ~ 50°C	IP Level	IP53
GNSS System	Dual GPS - GPS, GLONASS, Galileo, BeiDou	Position Accuracy	±20cm
Failsafe	-Battery Failsafe -Signal Loss Failsafe	Etc.,	Obstacle Avoidance (optional)

Aquila-2 Flight Time



ARGOSDYNE

AQUILA-2+

Drone for everyone

In the most convenient way for users
Provides usable systems and services

IP5
Waterproof Grade
IP 53

Flight Time up to
67minutes

Dual GPS support
Improve flight safety

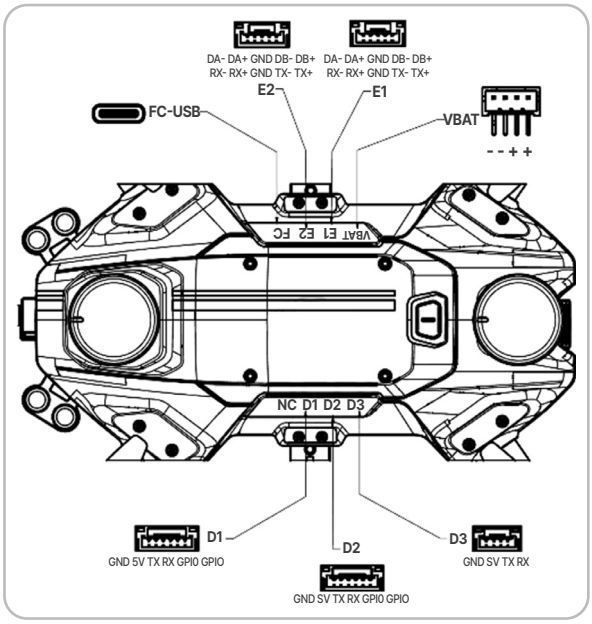
Up to 1.5 kg
mission equipment

5G
Built-in 5G Router

AI
AI data processing

AQUILA-2+ Mapping/Surveillance System

1. Multi-Purpose Drone with 5G communication, AQUILA-2+

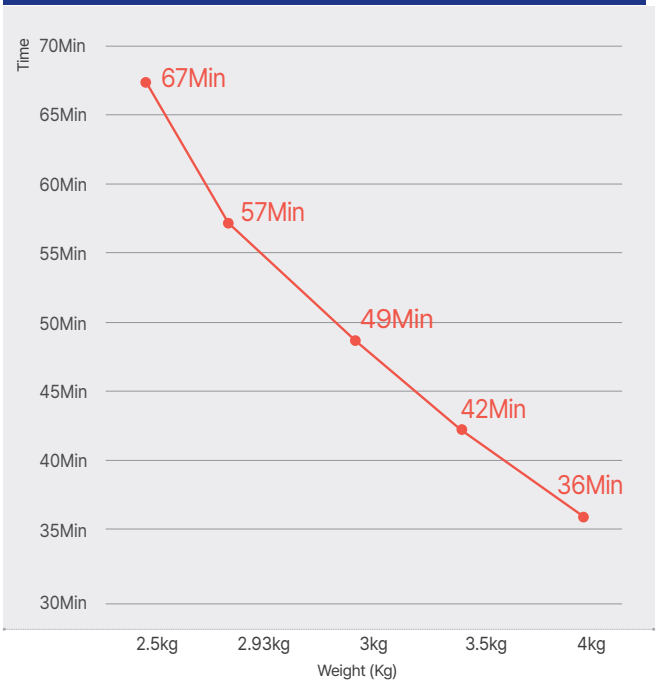


- The Aquila-2+ drone by ARGOSDYNE is a versatile and customizable solution for construction and mapping applications. Aquila-2+ supports 5G communication with built-in 5G LTE, and provides RB5-based high performance CPU, which provides various data processing and ML/AI functions, so Aquila-2+ can process AI on its own without relying on an AI server.The drone's self-designed components and software allow for tailored configurations.
- The Aquila-2+ features a quick-release system for effortless camera replacement, supporting a wide range of options from full HD to 4K EO/IR cameras. Customers can select the most suitable camera for their specific needs.
- With its powerful thrust and efficient power consumption, the Aquila-2+ ensures extended flight duration. It incorporates dual GPS modules, receiving signals from multiple satellite systems for accurate positioning, even in electromagnetic field environments.
- The drone is compatible with ARGOSDYNE's drone station, enabling autonomous and continuous mission flights. The drone station automatically charges the battery, facilitating uninterrupted operations without human intervention.
- The Aquila-2+'s long flight time, replaceable battery, and support for various payloads make it well-suited for extended operations and adaptable to different applications. It is designed to work with 5G, LTE, Wi-Fi, and other OFDM modules, ensuring flexibility and compatibility with diverse communication systems.

Aquila-2+ Technical Specification

Size (W x L x H)	495.3 x 455.2 x 286.4 mm	Num of Motors	4
Drone Type	Quadcopter	Diagonal Size	600mm
Battery Capacity	10,000mAh	Weight (Dry)	1.3kg
Weight with Battery	2.5kg	Max. Takeoff Weight	4Kg
Max. Flight Altitude	1.5Km	Max. Flight Speed	45km/h
Max. Wind Resistance	15m/s	Max.FlightTime (without payload)	> 67minute
Max. Takeoff/ Land Speed	6 ~ 10m/s (Configurable)	Max. Rotation Speed	60°/s
Operation Temperature	-10°C ~ 50°C	IP Level	IP53
GNSS System	Dual GPS - GPS, GLONASS, Galileo, BeiDou	Position Accuracy	±20cm
Failsafe	-Battery Failsafe -Signal Loss Failsafe	Etc.,	Obstacle Avoidance (optional)

AQUILA-2+ Flight Time



ARGOSDYNE

AQUILA-3F

Drone for everyone

In the most convenient way for users
Provides usable systems and services

Waterproof Grade
IP 53

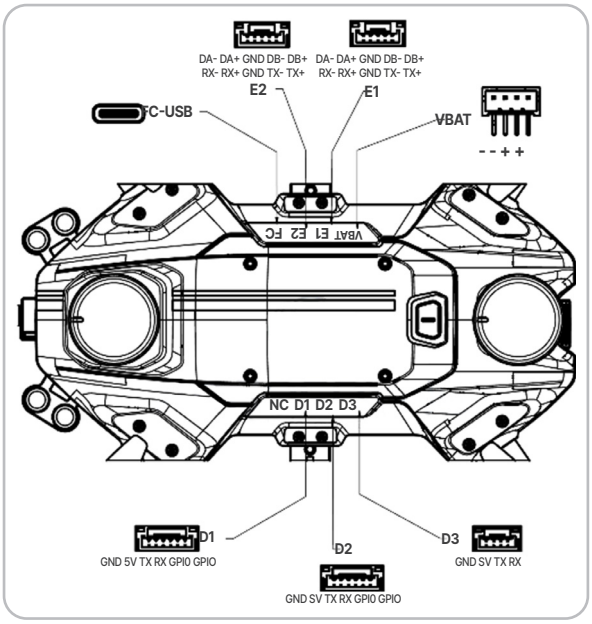
Flight Time up to
76 minutes

Dual GPS support
Improve flight safety

Up to 3 kg
mission equipment

AQUILA-3F Mapping/Surveillance System

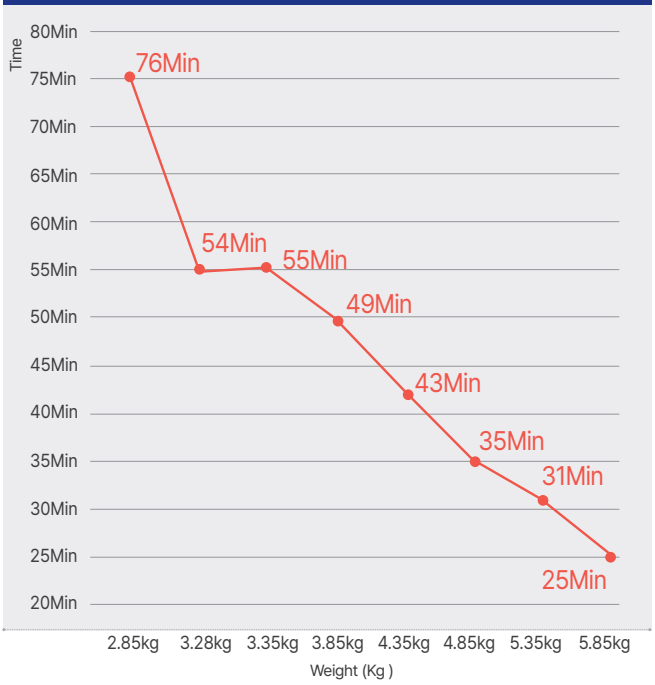
1. Multi-Purpose Drone with long Flight Time, AQUILA-3F



- The Aquila-3F drone by ARGOSDYNE is a versatile and customizable solution for construction, law enforcement, and mapping applications. It offers stable flight performance, a long flight time, and foldable arms for easy transportation and space-saving. The drone's self-designed components and software allow for tailored configurations. It comes equipped with various cameras, searchlights, and speaker systems.
- The Aquila-3F features a quick-release system for effortless camera replacement, supporting a wide range of options from full HD to 4K EO/IR cameras. Customers can select the most suitable camera for their specific needs.
- With its powerful thrust and efficient power consumption, the Aquila-3F ensures extended flight duration. It incorporates dual GPS modules, receiving signals from multiple satellite systems for accurate positioning, even in electromagnetic field environments.
- The drone is compatible with ARGOSDYNE's drone station, enabling autonomous and continuous mission flights. The drone station automatically charges the battery, facilitating uninterrupted operations without human intervention.
- The Aquila-3F's long flight time, replaceable battery, and support for various payloads make it well-suited for extended operations and adaptable to different applications. It is designed to work with LTE, Wi-Fi, and other OFDM modules, ensuring flexibility and compatibility with diverse communication systems.

Aquila-3F Technical Specification			
Size (W x L x H)	583.58 × 582.42 x 286.92 mm	Num of Motors	4
Drone Type	Quadcopter	Diagonal Size	780mm
Battery Capacity	10,000mAh	Weight (Dry)	1.6kg
Weight with Battery	2.8kg	Max. Takeoff Weight	5.8Kg
Max. Flight Altitude	1.5Km	Max. Flight Speed	45km/h
Max. Wind Resistance	15m/s	Max.FlightTime (without payload)	> 76minute
Max. Takeoff/ Land Speed	6 ~ 10m/s (configurable)	Max. Rotation Speed	60°/s
Operation Temperature	-10°C ~ 50°C	IP Level	IP53
GNSS System	Dual GPS - GPS, GLONASS, Galileo, BeiDou	Position Accuracy	±20cm
Failsafe	-Battery Failsafe -Signal Loss Failsafe	Etc.,	Obstacle Avoidance (optional)

Aquila-3F Flight Time



ARGOSDYNE

AVIATOR
Smart Controller

Available for the AQUILA series

AVIATOR-Smart Controller

1. Controller – AVIATOR

The AVIATOR remote controller is designed to operate the drone within a maximum visible range (VLOS) of up to 10km, using the OFDM communication method. Through this advanced communication system, you can be sure that the drone operates responsively and stays connected even at short and long ranges. AVIATOR is the perfect remote controller that guarantees complete control of the drone from anywhere.

AVIATOR

AVIATOR Technical Specification	
Size (W x L x H)	280 × 150 × 60 mm
Weight	1100g
Frequency	2.410MHz or 5.800MHz
RF Power	10mW/MHz
Antenna	2T2R
Communication	OFDM
Operation Time	4.5 Hours
Communication Range	10km, VLOS, Output Power = 27db
Display	7", 1080P, 1000nit
Output Ports	USB * 2, HDMI * 1, USB-C * 2
Operation Time	0°C ~ 40°C
Power	Lithium Battery

ARGOSDYNE

Surveillance

CAMERA

Available for the AQUILA series

Surveillance Camera

1. AI customizable high-performance camera

- The Rhythm3 camera seamlessly synchronizes infrared and normal images, providing clear visuals and radiometric data analysis capabilities. With R-JPEG compatibility, it enables high-quality images and detailed analysis, ensuring superior vision through advanced technology.

- The EO camera of the Rhythm3 is equipped with a SONY Exmor R CMOS sensor, supporting outstanding 4K resolution and 30x zoom. With the built-in NVIDIA board, it offers advanced object detection capabilities, delivering precise and versatile performance in various situations.

RHYTHM 3

RHYTHM 3 General Specification	
Size (W x L x H)	150 x 112 x 153 mm
Weight	800g
IP rating	IP44
Camera Modules	EO: SONY Exmor, 4K, x30 IR: 640 x 512, 30Hz LRF: distance up to 1.2Km AI Image Detection
Gimbal control range	Pitch: 90° to +20° Pan: 360°
Operating Temperature	-10℃ to 50℃
Power	11 ~ 25V

RHYTHM 3 Edge computing performance	
SOM	Nvidia Xavier NX 16G
AI performance	21 TOPS (INT8)
GPU	384-core NVIDIA VoltaTM GPU with 48 Tensor Cores
GPU Max Freq	1100 MHz
CPU	6-core NVIDIA Carmel ARM v8.2 64-bit CPU 6MB L2 + 4MB L3
CPU Max Freq	2-core @ 1900MHz 4/6-core @ 1400Mhz
Memory	8 GB 128-bit LPDDR4x @ 1600 MHz 51.2GB/s
Repository	16 GB eMMC 5.1

Eo Camera	
Sensor	4K Exmor R CMOS Sensor SONY 1/2.5 CMOS 8.51 MP
Zooming	30 optical zooming , 90 Hybrid zooming without quality lose
Electronic shutter speed	1 to 1/10000 sec.
Video resolution	3840x2160@30fps
Video format	mp4
Storage temperature/ Humidity	-20 to 60 ℃/20 - 95 %

EI Camera	
Lens	Focal length: 9.1 mm(equivalent:40mm) FOV 48°×38°, 1.31mrad , DFOV : 61°, F1.0
Type	Uncooled VOx Microbolometer(VOx)
Image quality	640*512
Video resolution	640*512 @ 30 Hz
Video format	mp4
Operating Temperature	-40℃~+80℃ (-20℃~60℃ Radiometric)

ARGOSDYNE

Mapping
3D LiDAR & Camera

Available for the AQUILA series


YellowScan
Surveyor Ultra


SHARE
6100X

Mapping Camera

3. Full Frame Single Lens Aerial Camera

- The utilization of SHARE's in-house image module, which incorporates a cutting-edge Sony IMX455 full-frame 61MP image sensor and 3.76μm pixel size, represents a significant advancement in drone-based surveying and mapping technology.
- The shutter is made of Kimoto material to reduce friction during shooting, increasing lifespan, and the multi-LD low-dispersion lens and multi-layer reinforced nano-coating that filters reflected light ensure stable aerial film quality and transparent imaging.
- TIMESYNC 2.0 technology, microsecond time synchronization between camera, gimbal, flight control and RTK enables GCP-Free operation, and 1080P HD dynamic stream that automatically adjusts according to video transmission distance improves flight stability.

Share 6100X

Share 6100X Technical Specification	
Size (W x L x H)	128.5 × 181.5 × 153.3 mm(gimbal include)
Weight	640g (gimbal include)
Image size	9552 × 6368 Pixel
Resolution	4K (3840 × 2160)
Pixels Size	9552 × 6368
Pixel Size	3.76μm
IP rating	IP53
Stabilization system	3-axis gimbal (pitch, roll, yaw)
Data capacity	512GB
Aperture	F5.6 fix
operating temperature	-20°C~50°C
storage temperature	-20°C~60°C
operating humidity	≤ 95%
Lens	Standard 40mm Option 56mm
Power	DC 12-50V

Mapping Camera & LiDAR

5. 3D LIDAR, Camera

The YellowScan Ladar series offers an outstanding integrated LiDAR solution in terms of both price and performance, enabling precise data acquisition. Combining lightweight design with high density, it ensures both lightness and accuracy. Additionally, it provides easy operation and processing, making it accessible even to beginners.

Surveyor Ultra OEM

Surveyor Ultra OEM Tethering System	
Laser scanner	Hesai XT32M2X
Point density	34 pts/sqm @ 100 m AGL 18 m/s
Laser range	Up to 230 m 300 m
Laser wavelength	905 nm
Scanner field-of-view	360° x 40.3°
GNSS inertial solution	SBG Quanta Micro
Max. rec. flying height	120 m
Max. data generated	1920k pts/sec
RGB Camera	8MP
Precision	3cm
Accuracy	2.5cm
Power consumption	20 W
Size (WxLxH)	101×128×111 mm
Weight	0.754 kg

Mapper+OEM

VERSION-A VERSION-C

Mapper+OEM Tethering System	
Laser scanner	Livox AVIA
Point density	95 pts/sqm @ 100 m AGL 18 m/s
Laser range	Up to 230 m
Laser wavelength	905 nm
Scanner field-of-view	70.4° x 4.5°
GNSS inertial solution	Applanix APX-15
Max. rec. flying height	100 m
Max. data generated	720k pts/sec
RGB Camera	(VERSION-A) : Optional (VERSION-C) : 8 MP
Precision	3.5cm
Accuracy	4cm
Power consumption	19 W
Size (WxLxH)	(VERSION-A) : 144 × 66 x 93 mm (VERSION-C) : 100 × 97 x 94 mm
Weight	(VERSION-A) : 0.75 kg (VERSION-C) : 0.73 kg

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