CHCNAV

BB4 AF

MULTIROTOR
UAV SOLUTION

⊕

MAPPING
& GEOSPATIAL

PROFESSIONAL UAV REALITY CAPTURE PLATFORM

BB4 AF is a high-end unmanned aircraft system resulting from an alliance between the two industry leaders in their respective segments. Its scientific design and highly integrated production technology come from CHCNAV - a global manufacturer specialized in efficient geospatial measurement technologies - and its fully automated flight control system from DJI, the pioneer in the manufacturing of commercial UAVs.

STATE-OF-THE-ART PLATFORM

2 min for flight preparation.
BB4 AF UAV is specially designed for professional industrial applications. The modular design with pre-installed arms and antennas reduces the time required for setup, making the platform ready for use in just 2 minutes. Thanks to its structure, little space is required for BB4 AF take-offs and landings.

SUPERIOR FLYING PERFORMANCE

Extended survey coverage capacity.
BB4 AF offers up to 65 minutes of flight time with a 1 kg payload and up to 55 minutes with a 5 kg payload, providing users with the ability to install a high-performance LiDAR and survey large areas in a single flight mission.

LONG RANGE OPERATION

Operating range up to 17 km.
The BB4 AF uses the DJI Lightbridge 2 flight controller with an operating range of 17 km. The integrated controller and advanced algorithms set a new standard for wireless HD image transmission by reducing latency and increasing maximum range and reliability.

HIGH CAPACITY

Up to 7.1 kg payload.
Due to its large capacity of up to 7.1 kg, the BB4 AF can be configured according to your mission needs. To generate an accurate 3D point cloud, the BB4 AF can carry CHCNAV canners with RGB cameras. 3D photogrammetry is also possible with an oblique camera system. For inspection and agriculture, users can use multi-spectral cameras and Thermal Sensors.

INTELLIGENT, SIMPLIFIED FLIGHT SOFTWARE

Operated by DJI Ground Station Pro.
Enhance the BB4 AF's operation with the DJI Ground Station Pro (DJI GS Pro), an iPad App. Perform automated flight missions, manage flight data in the cloud, and collaborate between projects to efficiently manage your drone workflow.

SURVEY-GRADE ACCURACY

Integrated GNSS Units + IMU.
The BB4 AF integrates dual DJI A3 IMUs and GNSS units that work together with CHCNAV's advanced positioning solution, consisting of a high-end GNSS receiver and an industry leading IMU to meet the high accuracy requirements of the surveying and mapping industry.
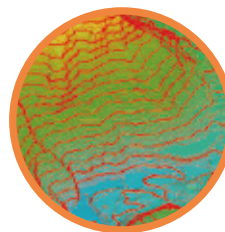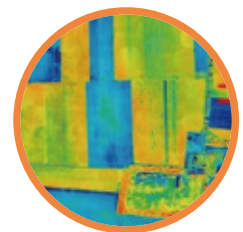
CHCNAV

EFFICIENT
DATA CAPTURE

Topographic
survey

Construction

Asset
inspections

Mining

Natural
resources

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	Item	Parameter
Aircraft	Take off type	Automated takeoff and landing (vertical)
	Dimensions	110.0x110.0x44.0cm
	Material	Carbon fiber
	Max.takeof weight	28.0 kg (with battery)
	Max.payload	7.1kg
	GNSS	BDS B1/B2
		GPS L1/L2
		GLONASS L1/L2
		GALILEO E1/E5b
		QZSS L1/L2
	Positioning Accuracy（RMS）	Vertical：
		±2.5m（SPP）
		±0.8m（DGPS）
		±1.5cm+1ppm（RTK）
		Horizontal：
		±1.5m（SPP）
		±0.4m（DGPS）
		±1.0 cm+1ppm（RTK）
	Directional Accuracy（RMS）	0.45°
	Max Ascent Speed	6m/s
	Max Descent Speed（vertical）	6m/s
	Max Speed	20m/s
	Service Ceiling Above Sea Level	7000m
	Max Wind Resistance	15m/s

Specs

	Item	Parameter
Aircraft	Max Flight Time*	75min (no payload)
		65mins with 1kg payload
		55 mins with 5kg payload
	Operating Temperature	-20°C~55°C
	Radar Operating Frequency	77~81GHz
	Obstacle Sensing Range	0.5~60m
Remote Controller	Built-in battery	18650 lithium ion battery（6400mAh@7.4V)
	Battery Life	Approx. 5hr
	Operating Frequency	1430~1444MHz
	EIRP	-40dBm~25dBm
	Max Transmitting Distance **	17km
	Max Downlink Image Resolution	1080P@60fps
Intelligent Flight Battery	Capacity	4 x Li-Polymer batteries 22000mAh
	Voltage	22.2V
	Energy	501.6Wh
Intelligent Battery Station	Input	200~250V，50/60Hz
	Max Input Power	800W
	Simultaneous charger	Quad-channel Intelligent Battery Station manages 4 batteries and can charge 2 of them at the same time
Transport Case	Dimensions	94.0×64.0×50.0cm

Specs

* Actual flight time may vary because of the environment and payload configurations.

** Unobstructed, free of interference.