

CHCNAV

AA9

**PROFESSIONAL AIRBORNE
LiDAR+RGB SYSTEM**



**MAPPING
& GEOSPATIAL**

SPECIFICATIONS

General system performance

Absolute Hz accuracy	2 cm ~ 5 cm RMS ⁽¹⁾
Absolute Z accuracy	2 cm ~ 5 cm RMS ⁽¹⁾
Mounting	Quickly install & release design, easily switch between various UAV platforms
Weight of instrument	1.45 kg
Dimensions of instrument	213 mm x 113 mm x 131 mm
Data storage	512 G
Coping speed	80 Mb/s

Positioning and orientation system

GNSS system	GPS: L1, L2, L5 GLONASS: L1, L2 BEIDOU: B1, B2, B3 GALILEO: E1, E5a, E5b
IMU update rate	500 Hz
Attitude accuracy after post-processing	0.006° RMS pitch/roll 0.019° RMS heading
Position accuracy after post-processing	0.010 m RMS horizontal 0.020 m RMS vertical

Imaging system

Resolution	26 MP
Focal length	16 mm
Sensor size	23.5 × 15.7 mm (6252 × 4168)
Pixel size	3.76 μm
Min photoing interval	1 s
FOV	72.3° × 52.2°

Laser scanner

Laser product classification	Class 1 (in accordance with IEC 60825-1:2014)		
Laser Pulse Repetition Rate (PRR)	100 kHz	300 kHz	500 kHz
Max.Measuring Range@ρ> 20% ⁽²⁾	300 m	275 m	215 m
Max.Measuring Range@ρ> 80% ⁽²⁾	600 m	360 m	280 m
Max.Operating Flight Altitude AGL @ρ>20%	241 m	218 m	170 m
Laser divergence angle	0.032°		
Minimum range	10 m		
Accuracy ⁽³⁾	15 mm (1σ,@150m)		
Precision ⁽⁴⁾	5 mm (1σ,@150m)		
Field of view			
Max. Effective measurement rate	500 000 meas / sec		
Scan speed (selectable)			
Max. Number of return pulses	Up to 6		

Environmental

Operating temperature	-20°C to +50°C
Storage temperature	-20°C to +60°C
IP rating	IP64
Humidity (operating)	80%, non-condensing

Electrical

Input voltage	DC 24 V (13 ~ 27 V)
Power consumption	40 W
Power source	Depending on UAV battery or by Skyport (DJI M300/M350)

Equipped software

CoPre pre-processing software	Data copy, POS solve, point cloud and images creation, strip adjustment & GCP refine, noise optimization, DOM and 3D model generation
CoProcess point cloud processing software	Terrain module, road module, extraction module, volume module

* Specifications are subject to change without notice.
(1) According to CHCNAV test condition :150 m AGL with 8m/s speed. (2) Typical values for average conditions. (3) Accuracy is the degree of conformity of a measured quantity to its actual (true) value. (4) Precision is the degree to which further measurements show the same results.

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