

## UFO-V20+: Specifications of Fixed wing vertical takeoff and landing aircraft - equipped with UFO-CS optical pump Magnetic measurement system

Aircraft Type : Vertical takeoff and landing fixed wing

fuselage length : 1660 mm

Wing Span : 3.2m

Maximum Load : <5 kg

Empty weight: 8.05kg

Takeoff Weight: <19.2kg

Power system: 6S, 22.8v, 25000mah \* 2

Radio communication range: 30km

Endurance time: 180 minutes @ 1 kg load

90-120 min @ 4 kg load

Optimal Cruising Speed: 20m/s (72km/h)

Maximum Cruising Speed: 30m/s (108km/h)

Wind Resistance: Level 6

Actual rise limit: 6000m

Flight capability: simulated ground flight

DGPS: RTK/PPK

Vertical positioning accuracy: 3cm

Horizontal positioning accuracy: 1cm + 1ppm

Take off site: land or shipborne (shipborne take-off and landing module is required)



## UFO-CS: Specifications of Cs optical pump Magnetic measurement system

1.Data Acquisition System

Sampling Rate :  $\leq 100\text{Hz}$  (selectable to user)

System White Noise: 0.3pT

2.Fluxgate Probe Index Weight : probe 130g

Measuring Range :  $\pm 100\text{ uT}$

Common Noise :  $\leq 6\text{-}8\text{pTrms}/\sqrt{\text{Hz}}$

3.System Index

Measuring Range : 15000 nT~105000nT

Dynamic Noise Level :  $\leq 0.01\text{nT}$

Line Repeatability :  $\leq 1\text{nT}$

Cross Point Repeatability :  $\leq 0.8\text{nT}$

Gradient tolerance: 40,000 nT/m.

Minimum resolving power (sensitivity): 0.6 pTrms/ $\sqrt{\text{Hz}}$ .

Reading resolution: 0.0001nT

ground static noise: should not exceed 3 pT at a bandwidth of 0.1 Hz to 1 Hz.

Probe orientation difference:  $\pm 0.5\text{nT}$ .

Multi-station consistency: less than 0.01nT

synchronization: GPS clock synchronization.

Operating temperature:  $-20\text{ }^{\circ}\text{C} \sim 50\text{ }^{\circ}\text{C}$

optical pumping magnetometer system complete weight: 1.5Kg (including battery)

