Micro Oblique Camera AP5600 Technical Instruction

AP5600

Version：A1

Draft _____

Verify _____

Standard _____

Approve _____

Notes for Document Modification

No.	Items	Modification No.	Version	Date	Modifier	Verifier

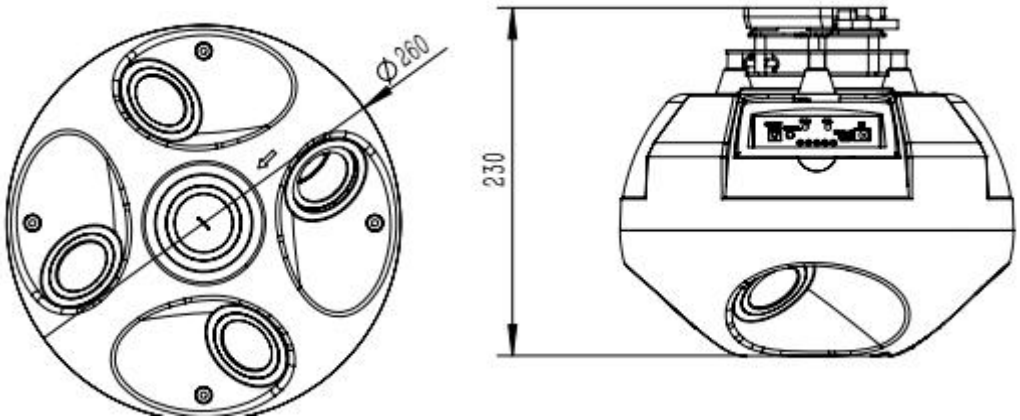
1 Product Pictures

（Red-Black）

（Silver-Red）

（Blue-White）

Picture 1 Camera Appearance



Picture 2 Camera Size

2 Product Introduction

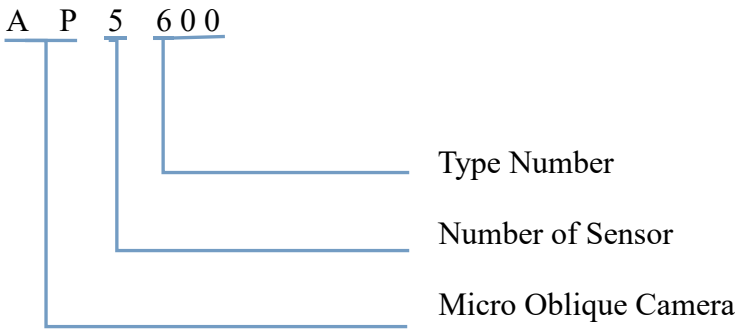
Micro Oblique Camera AP5600 integrates one vertical and four oblique camera, which can be used for electric multi-rotor UAV to operate small area oblique photogrammetry mission with high

image resolution. With professional software processing, the image captured by this camera can be constructed to high resolution and precision 3D model automatically.

3 Product Characteristics

- High quality production
- Comprehensive control to multiple camera
- Less requirement for UAV's carrying capacity
- Water-proof and dust-proof design
- Up to 2cm Image Resolution

4 Explanation of Product Type



5 Main Technical Index

5.1 Physical Index of Oblique Camera

1) Size：230mm×260mm×260mm

2) Weight：2.5kg

5.2 Physical Index of Packing Box

1) Size：Length=360mm Width=360mm Height=300mm

2) Weight：≤5.3kg

5.3 Parameters of Oblique Camera

1) Number of Sensor：5pcs；

2) Size of Sensor：23.2mm×15.4mm；

3) Physical size of pixel：4.25um；

4) Minimum exposure interval：2s；

5) Focal length of lens：20mm；

6) Total pixel：≧1×10^{8}(px)；

7) Oblique angle of oblique lens：45°；

8) Storage：80GB；

9) Operating time with full battery：100 min；

10) Operating temperature：-10℃~40℃；

11) Environmental humidity：≤95%；

12) Exposure mode：fixed time exposure, fixed point exposure；

13) Power supply of camera：independent electricity supply；

14) Camera charging：unified charging；

15) Power：unified power on and off；

16) Position stability：Integrated stability with UAV；

17) mage data read：unified read from mini USB interface；

18) Image resolution：0.02-0.1（m）。

6 Working Performance

Table 1 Flying efficiency（overlap ratio 75%、focal length 20mm）

Flying height（m）	Image resolution（m）	Course Amplitude and Phase（m）	Side Amplitude and Phase（m）	Data Area per Flight（km^2）
100	0.021	77	116	0.16
200	0.043	154	232	0.32
300	0.064	232	348	0.45
400	0.085	309	464	0.61

7 Product Application

Micro oblique camera AP5600 is suitable to be carried on electric multi-rotor UAV for small area large scale oblique photogrammetry data capture.

8 Notes

The flying area is highly related with the duration of flight, the working time of camera and the height of flying.

Attention：Since the product will be upgraded in the future, Hopong will not actively inform the

updated technical index to everyone. However, under ordinary case, the later technical index will be better than the previous one.