

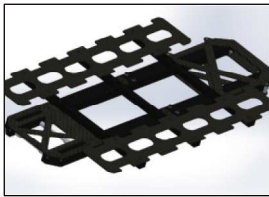


Precise Helicopter

PAIS H-1000

■ In addition to FCC auto pilot and flight control IMU attitude recording unit , it also equipped PAIS POS-2 Position and orientation system that can solver precision trace element exterior orientation and 6 to make a direct geopositioning , without ground control points or RTK base.

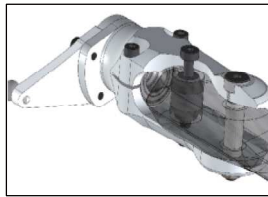
Features



CFRP composit matrix frame structure



Highprecision CCPM control system



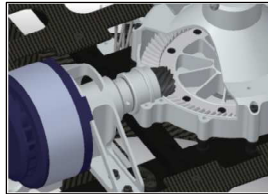
"Lead-Lag" main rotor grip design



Multi-rotors withhigh lift airfoil design



Large payload spacein the center position



Direct Drive Gear Brushless Transmission

Different sensors can be installed

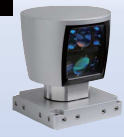
Lightweight laser



RIEGL VUX-1



VelodyneHDL-32E



Velodyne HDL-64E

Medium format camera



Phase One iXU150/180



FLIR Tau 2 LWIR

PAIS –GCS Ground Control Station



Item	Spec
GCS Computer	Intel Core i5, 4 GB DDR3
Data Ports	RS232 port *2 USB 3.0 *2 HDMI port with HDCP support
Storage	Solid State SSD
Power Supply	4 Hrs (allowed external power)
GCS Display	> 13 inches
Real Time	> 13 inches
Image Display	900 MHz ISM, 1W
Frequency Band	900MHz Yagi 15dBi Pointing Antenna
Auto Tracking	1.2GHz Panel 14dBiAntenna
Antenna	Automatic Tracking Singnal
Range	50km+



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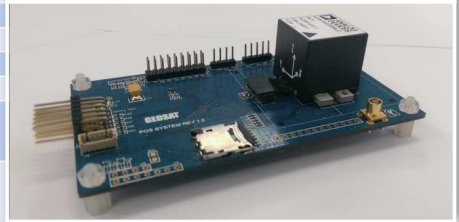
Technical Specifications



High accuracy aerial POS Position and orientation systems

Specification (module)		
Height [cm]	3.5cm	
Width [cm]	6.5cm	
Length [cm]	11.5cm	
Weight [kg]	265g	
Heading [deg]	<1	
Pitch and Roll [deg]	<0.5	
operating temperature [C]	-40to 85	
Tight orthogonal alignment [deg]	0.05	
Output Noise [deg/sec rms]	0.9	
Data update rate[Hz]	200	
Accelerometer Performance	Range	±18 g
	In-run bias stability	0.1 mg
	Velocity random walk	0.029 m/s/√hr
Gyroscope Performance	Input range	±450 deg/sec
	In-run bias stability	0.0016 deg/sec
	Angular random walk	0.30 deg/√hr

Designed for
H-1000C/E Helicopter series
FW-50/1000 series



Helicopter PAIS-H1000 Chassis

Max. take off weight	30kg	Avionic Voltage	8-12V
Helicopter Weight	9kg	Length	1690mm
Battery weight	5-11kg	Width	495mm
Max Payload	15kg	Height	700mm
Max. airspeed	85km/h	Main rotor Dia	1900mm
Maximum Flight Time	50min	Tail rotor Dia	360mm
Wind loading	Beaufort scale 8 (20m/s)	Payload space	475*380mm (W × H)
Power voltage	45-50V (12S Li-Po)		

FCC Autopilot		H1000C	H1000E
GPS Receiver	Data Update Frequency	10Hz	10Hz DGPS
	Satellite system	GPS/GLONASS	GPS/GLONASS/BeiDou
	Positioning Accuracy	< 2m	1cm+1ppm
3-Axis Gyroscope	Measurement Range	±300deg/s	±300deg/s
	Rate Noise Density	0.02deg/s/√(Hz) rms	0.02deg/s/√(Hz) rms
3-Axis Accelerometer	Measurement Range	±18g	±18g
	Noise Density	0.06mg/√(Hz) rms	0.06mg/√(Hz) rms
3-Axis Magnetic Sensor	Range	±8Gauss	±8Gauss
	Heading precision	2.0 degrees	2.0 degrees
GPS/ SINS precision (1 σ)	Attitude	0.6 degrees	0.5 degrees
	Heading	2.0degrees	1.5degress
Air data sensors (Static)	Altitude		2cm rms
	Static Pressure Range	103.35Kpa	103.35Kpa
	Heigh Resolution	0.1m	0.1m
Internal Update Frequency		200Hz	200Hz
Waypoints		1000+waypoints	1000+waypoints
Built-in Data Link		902-928MHz 1W>30KM	902-928MHz 1W>30KM
Input Voltage		8-26V	8-26V
Power Consumption		<6W	<6W
Operation Temperature		-40°C ~ +70°C	-40°C ~ +70°C
Size		109x85x35 mm	125x85x50 mm
Weight		390g	490 g

Specification of Ground Control System

Input Voltage	8~28V	8~28V
Built- in Data link	902~928MHz/1W	902~928MHz/1W
1WBuilt-in DGPS Module	Not Included	GPS (Differential GPS)
GPS Antenna	Built / Ublox GPS module	Built / Ublox GPS module
Operating Temperature	-40°C ~ +70°C	-40°C ~ +70°C
Diamention	150x105x55 mm	150x105x55 mm
Weight	557g	557g

*specofocations are subject to change without notice.

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