

2025

**PRODUCT  
BROCHURE**





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## Company Profile

CUAV Tech Inc., Ltd. is a national high-tech enterprise and a Guangdong Province specialized new enterprise guided by the innovative technology of unmanned open-source systems and integrating research and development, production and sales. We have a long-term friendly relationship with PX4, ArduPilot and Dronecode. Our products cover intelligent control systems, GPS positioning systems, wireless data links, wireless image links, wireless digital link systems, etc. It has a complete product supply chain and can provide advanced overall solutions for unmanned systems.

CUAV unmanned systems advanced intelligent manufacturing base, equipped with a research and development center, a fully automatic SMT production line, a testing center, etc. All production links are strict and standard, and have obtained ISO9001 quality management system certification. Simultaneously, from material control to finished product inspection, we strictly adhere to CE and FCC standards, ensure the safety, reliability and stability of products in all aspects. Raefly (Guangzhou) Technology Co., Ltd. is a wholly-owned subsidiary of CUAV Tech Inc., Ltd. It provides AOPA flight license training, unmanned system training courses, unmanned system debugging and other services according to corporate and market needs to help the unmanned system industry.

## Primary Businesses

CUAVCloud Network System

Controller

Unmanned Systems

Unmanned Systems Telemetry

Power Module

GNSS Module

Airspeed Sensor

## Cooperation Partners



Harbin Institute of Technology



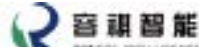
BEIHANG University



China Jiling University



Nanjing University of Aeronautics and Astronautics



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## Company Events



## Certifications



## Patent Certificates

Innovation is the source of a company's continuous growth. CUAV Innovation has applied for more than 40 patents and 28 software copyrights in the field of Unmanned Systems, and has won honors such as National High-tech Enterprise and "Specialized and Innovative" small and medium-sized enterprises, from a hardware supplier to an integrated solutions provider of Unmanned Systems.



# Our Previous Exhibitions



## 2018 Zhuhai, China Global Unmanned System Conference





# 2019-2024 Shenzhen, China UAS EXPO

2019-2020 >>



> 2021



> 2022



> 2023



> 2024

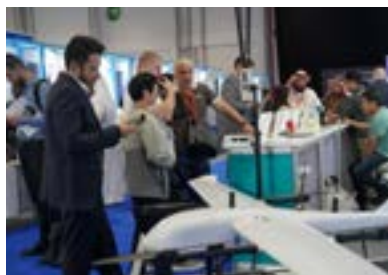




## 2023 Denver, USA XPONENTIAL



## 2024 Abu Dhabi, The United Arab Emirates Unmanned System



## 2024 Kuala Lumpur, Malaysia

### DSA & NATSEC ASIA 2024, MALAYSIA



## 2024 London, UK

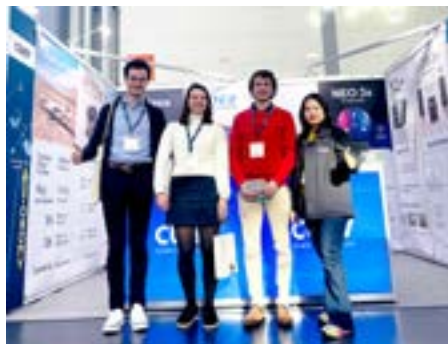
### DRONEX 2024, LONDON





## 2025 DÜSSELDORF, GERMANY

### XPONENTIAL EUROPE 2025



## 2025 Busan, South Korea

### DRONE SHOW KOREA 2025





## CUAVCloud

Unmanned Systems  
4G/5G Network System



- » 4G/5G communications
- » 1080P HD video
- » 250ms low latency
- » Remote control
- » Team collaboration, data sharing
- » Support PX4/ArduPilot controller

## Introduction

CUAVCloud Unmanned Systems 4G/5G Networked system is a set of Unmanned Systems 4G/5G real-time video and data transmission solution. On this basis, we have added video sharing, authority management and more functions, which is very suitable for inspection scenarios. In addition, you can install CUAVCloud on your own servers to ensure data security.

## System Composition

### Client



Windows: Feigong Transmission



Android: CUAV GS

### Hardware



Air Link

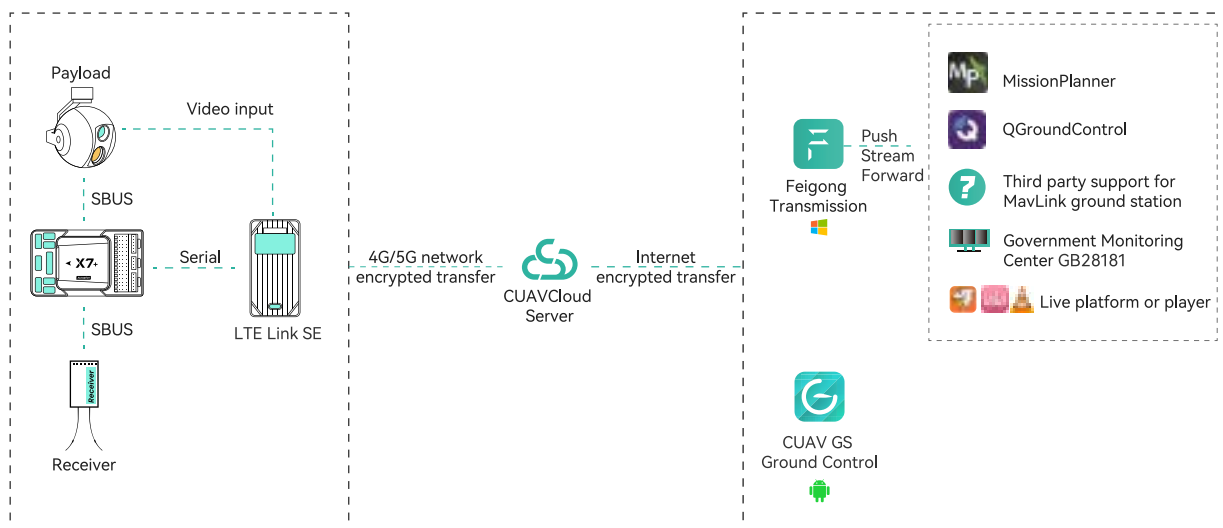


LTE Link SE /LTE Link2

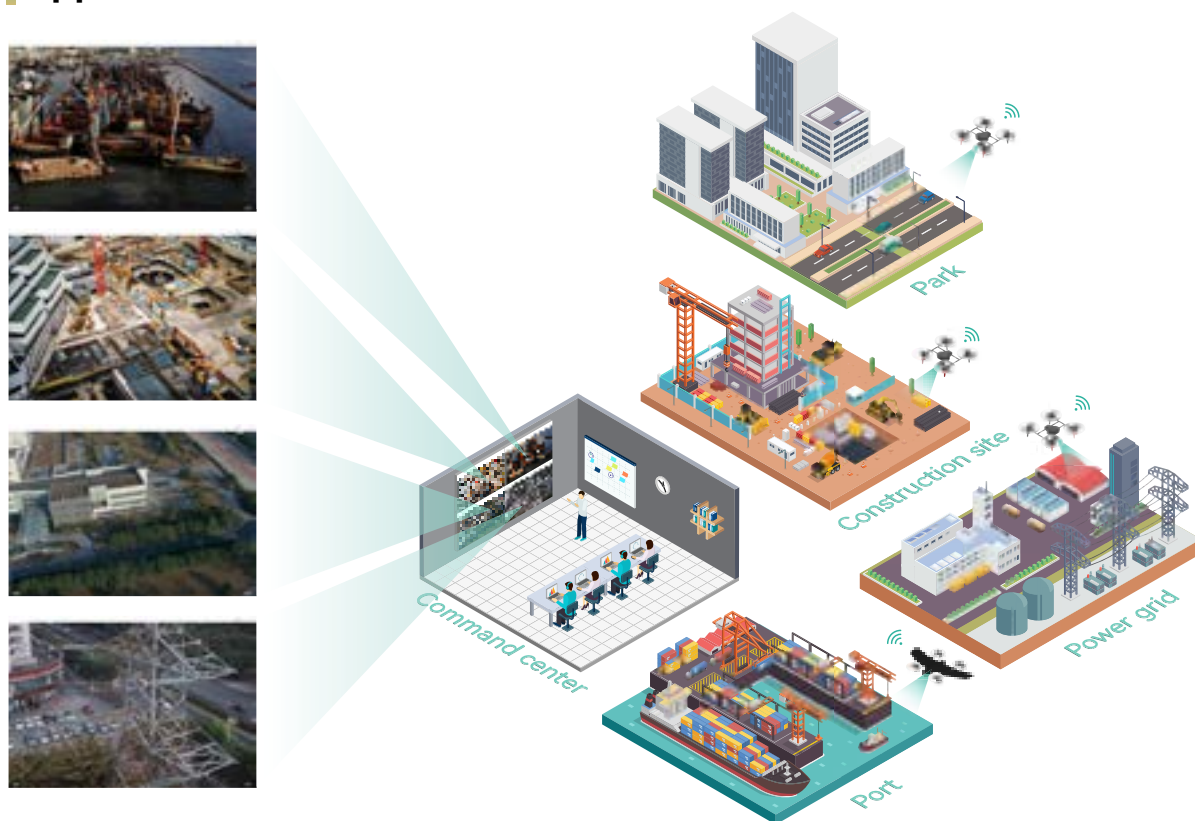


LBA 3 communication  
micro base station

## How it works



## Application Scenarios





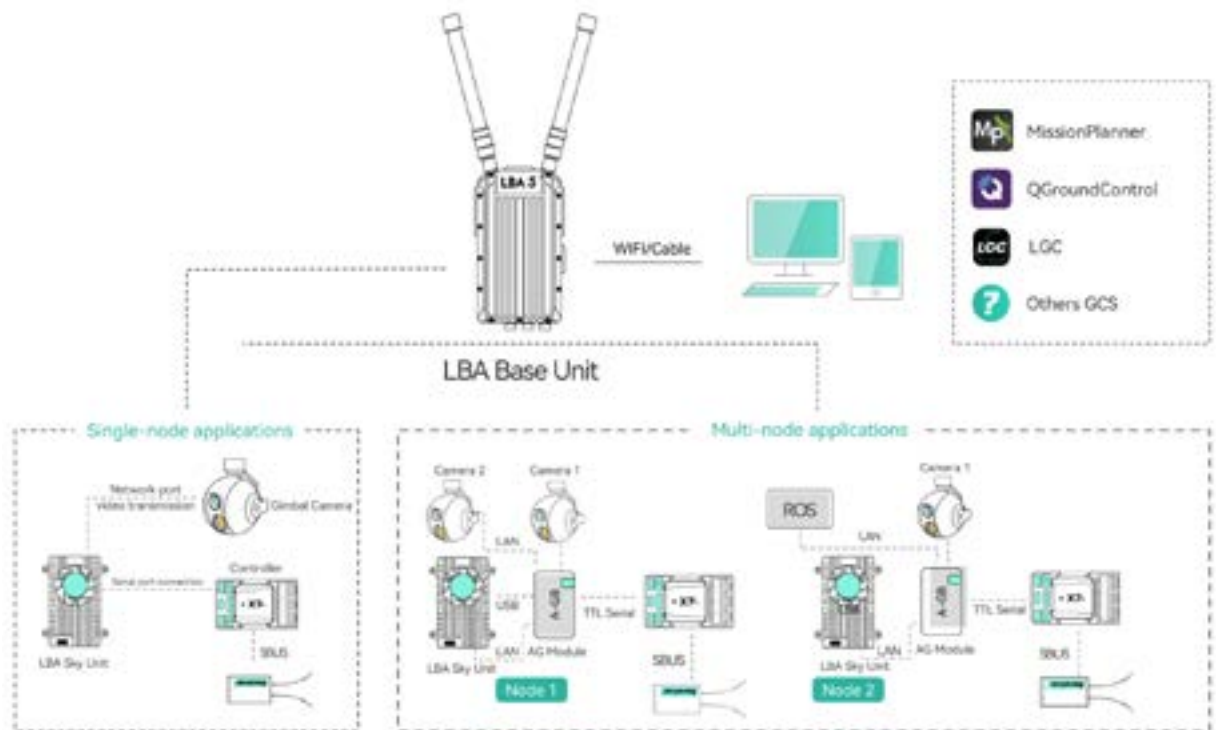
## LBA 3 Communication Micro Base Station

- » Developed based on advanced LTE technology
- » 30Mbps large bandwidth, support star network
- » AES encryption technology
- » IP67 industrial three-proof design, no pressure for outdoor work
- » Support formation flight

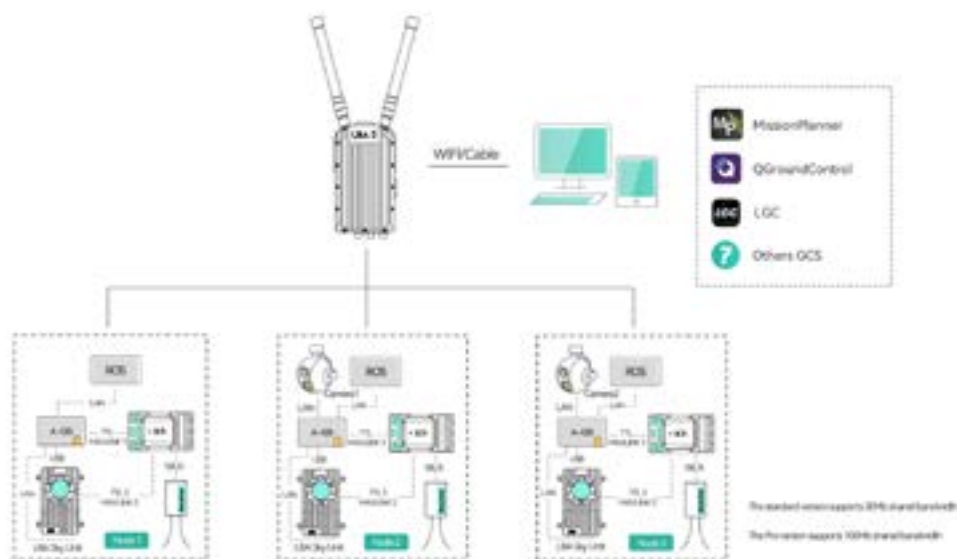
The LBA 3 private network micro-base station system is a high-performance long-distance and large-bandwidth link system solution independently developed by Leixun Innovation. It consists of a LBA 3 Base, an air terminal and an AG gateway. It has long-distance communication coverage capability and 30Mbps bandwidth. equipped with ground stations such as CUAV LGC, it can realize formation flight.

It is ideal for long-distance communication links for industrial Unmanned Systems equipment.

### Based on LBA 3 Single/Multipoint Communication UAV Scheme



## Based on LBA 3 Multi-Point Cluster Communication Scheme



Technical Standard	Based on LTE wireless communication standard
Anti-Jamming	Dynamic frequency hopping, intelligent frequency hopping within the frequency band
Frequency Band	1.4G version: 1420~1448MHz 800M version: 806~826MHz
Transmit Power	33dBm(Typical value)
Bandwidth	default: 20Mbps(10MHz); 30Mbps(MAX, 20MHz)
Operating Modes	Star network, point-to-point
Encryption	AES265
Modulation	QPSK、16QAM、64QAM
Transmission Delay	≤ 150ms
Management Interface	LBA3 BASE is managed by WEB LW140/800 is managed by AG (WEB) gateway
LTE Network Type	LBA3 BASE built-in full Netcom 4G module Support TD-LTE/FDD LTE/TD-SCDMA/ WCDMA
Operating Temperature	-15 ~ +65°

Operating Voltage	LBA3 BASE: 20~60V (Standard power consumption:24V 1.5A) POE module supports 100~240V Utility Power LW140/800: 20~60V (Standard power consumption:24V 1A)
Size	LBA3 BASE: 220.0 × 120.0 × 50.0mm LW140/800: 90.0 × 65.0 × 26.4mm
Weight	LW140/800: 155g LBA3 BASE: 1.65kg
Interface	LW140/800: Antenna(MCX-KE) × 2 POWER(5023520200 to XT30) × 1 RJ45 × 1(5025850470) UART × 1 USB × 1 LBA3 BASE: N type antenna × 2、 Power(SF12 to XT60) × 1 POE lan(SF12 to RJ45 Plug) × 1 LAN(SF12 to RJ45 Plug) × 1 AAT(SF12) × 1
Degree of Protection	LBA3 BASE: IP67 LW140/800: IP20

# LTE Link SE

## CUAVCloud 4G Link



- >> 60ms data delay
- >> Take-off video auto record
- >> 1080P video at 250ms delay
- >> 4G network communication, does not limited by distance
- >> Data encrypted transmission

LTE Link SE is a convenient module used for images and data transmission of Unmanned Systems. The transmission delay of 1080P HD video images can be as low as 250ms, and the data transmission delay is 60 ms. Equipped with LTE Link SE, your devices can be connected to CUAVCloud system, enjoying a variety of team management functions.

ITEM	
Processor	HI3516
Network Card	ME909S*
Network Frequency Band	LTE(FDD): B1、B3、B8 LTE(TDD): B38、B39、B40,B41 DC-HSPA+/HSPA+/HSPA/UMTS: B1、B9、B5、B8、B9 TD-SCDMA: B34, B39 EDGE/GPRS/GSM: 900/1800MHz
Network Speed	DC-HSPA+: Download 42Mbps;Upload: 5.76Mbps LTE TDD : Download 112Mbps;Upload: 10Mbps LTE FDD : Download 150Mbps;Upload: 50Mbps
Control Type	CUAV series、Pixhawk series
Data Protocol	MAVLINK1、MAVLINK2
Video Definition	1080P (HD)、720P(FD)
Video Encoding	H265
Network Extension	not support
Video Storage	Auto start (default), save to SD card

GCS	FeiGong Transmission: Windows7 Or higher; CUAV GS: Android5.0 Or higher; Third Party Ground Station requires feigong transmission
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Working conditions and hardware parameters	
Operating Voltage	12 ~ 55V
Working Current	12V/1.5A
Operating Temperature	-10 ~ 60 °C
Size	75.3 × 39.2 × 19.0mm
Shell Material	6063 Aviation Aluminum
Antenna Interface Type	SMA inner hole
Display	OLED Resolution: 128 × 64

Sport type	
SIM	MICRO/nano SIM
Video	HDMI
Extension Ports	UART × 1, Type-C USB × 1, Antenna × 3, HDMI IN × 1

# Air Link

## CUAVCloud 4G Link



- >> 40ms data delay
- >> 4G network communication, does not limited by distance
- >> Data encrypted transmission
- >> Remote debugging and operation are more convenient

Air Link is a network data communication link independently developed by CUAV. It builds a data interaction network between users and Unmanned Systems based on the existing LTE wireless network (public network or private network), allowing you to keep track of the operation status of Unmanned Systems. Compared with the traditional point-to-point data transmission, it has the characteristics of unlimited transmission distance, background monitoring and convenient deployment.

ITEM	
Processor	HI3516
Network Card	ME909S*
Network Frequency Band	LTE(FDD): B1、B3、B8 LTE(TDD): B38、B39、B40,B41 DC-HSPA+/HSPA+/HSPA/UMTS: B1、B9、B5、B8、B9 TD-SCDMA: B34, B39 EDGE/GPRS/GSM: 900/1800MHz
Network Speed	DC-HSPA+: download 42Mbps;Upload: 5.76Mbps LTE TDD: download 112Mbps;Upload: 10Mbps LTE FDD: download 150Mbps;Upload: 50Mbps
Control Type	CUAV series、Pixhawk series
Data Protocol	MAVLINK1、MAVLINK2
Network Extension	not support
Communication Distance	No limit distance, data can be transmitted in areas with mobile networks

GCS	FeiGong Transmission: Windows7 Or higher; CUAV GS: Android5.0 Or higher; Third Party Ground Station requires feigong transmission
Sport type	
SIM Type	MICRO/nano SIM
UART	GH1.25
DEBUG	GH1.25
Antenna	MMCX
Working conditions and hardware parameters	
Operating Voltage	5V
Operating Temperature	-10 ~ 60 °C
Size	54.5 × 33.5 × 13.5mm
Weight	42g
Shell Material	6063 Aviation Aluminum

# 7-Nano Controller



- » Double floating point arithmetic H7 processor, operating frequency up to 480 MHz
- » New dual industrial-grade IMUs redundant design
- » Laminated design, compact size and rich interfaces
- » Integrated Ethernet interface, supporting communication with on-board computers
- » Supports 5V/3.3V PWM configuration output
- » Compatible with Ardupilot and PX4 firmware

7-Nano is developed for miniaturized unmanned system equipment. It is independently developed and produced by CUAV. It innovatively adopts a laminated design and integrates a high-performance STM32H7 processor, dual redundant industrial-grade IMUs and rich and complete expansion interfaces in a very small space. It supports Ethernet communication interfaces, which can realize the low-latency and large-bandwidth real-time communication between controllers and various components of unmanned system.

Processor	STM32H753(Arm® Cortex®-M7,480MHz, 2MB FLASH)
<b>Sensors</b>	
Acce&Gyro	IIM-42652/BMI088
Compass	IST8310
Barometer	ICP-20100/BMP581
<b>Interfaces</b>	
I2C	3
PWM OUT	14 (Configurable for 3.3V / 5V)
RC IN	1 (Support PPM SBUS DSM)
RSSI	PWM or 3.3V analog voltage
CAN BUS	2
Power IN	1
Safety Switch	1
GPS 2	1
ADC	ADC3.3 & ADC6.6
DEBUG	1
USB	Type-C

Ethernet	1
Rated Voltage	4.5 ~ 5.5 V
USB Voltage	4.75 ~ 5.25 V
Servo Voltage	0 ~ 10 V
Working Temp	-20 ~ 85 °C
Humidity	5% ~ 95% (Does not condense)
Size	30.75 × 31.80 × 25.75mm
Weight	33.8g

## 7-Nano PDB Power Module

Rated Voltage	12 ~ 70 V
Detection Current(MAX):	79.2 A
BEC OUT	5.3V / 4A
Voltage and Current Accuracy	±0.2V / 0.5A
Splitter	Divided into six
Interfaces	XT60 / GH1.25 6Pin
Weight	17g



# Pixhawk V6X Controller



- » H7 double-precision floating-point processor
- » High-performance ARM M3 coprocessor
- » Low-noise, car-grade IMUs
- » Triple redundant IMUs and dual redundant barometers design
- » Car-grade RM3100 magnetic compass
- » New built-in shock absorption design
- » 100M Ethernet port

Pixhawk V6X is a new generation of Pixhawk designed by CUAV and PX4; it is designed based on the Pixhawk FMU v6x standard and pursues ultimate security and stability; it adopts H7 double-precision floating-point arithmetic unit and Cortex-M3 coprocessor, independent bus and power supply. Three redundant IMUs, IMU temperature factory pre-calibration technology, dual redundant barometer design, all-round guarantee of operation safety and rich expansion capabilities; integrated 100M Ethernet PHY, can communicate with the mission computer ( airborne computer), fiber optic inertial navigation, high-end surveying and mapping cameras and other industrial Unmanned System-mounted equipment for high-speed communication, which meets the needs of high-end applications.

FMU Processor	STM32H753(Arm® Cortex®-M7,480MHz, 2MB FLASH, 1MB RAM)
IO Processor	STM32F103(Arm® Cortex®-M3,72MHz)
Accelerometer	ICM-42688-P/ICM-20649/BMI088
Gyroscope	ICM-42688-P/ICM-20649/BMI088
Compass	RM3100
Barometer	ICP-20100 *2
PWM OUT	16
Power (CAN)	2
Power(SMBUS)	2 (5055680681-5055650601)
TELEM	3
GPS	2(one is equipped with I2C and a safety switch (GPS1), and the other is equipped with I2C (GPS2))
CAN	2
PPM RC	1
SBUS/DSM/RSSI	1

SBUS OUT	1
FMU DEBUG	1
IO DEBUG	1
Ethernet	1
SPI	1(SPI6 interface, for expanding external sensors)
ADIO	1 (ADC3.3 / ADC6.6)
UART4	1
USB	2 (Type-C × 1 GH1.25 × 1)
TF Slot	1
Rated Voltage	4.75 ~ 5.70 V
USB Voltage	4.75 ~ 5.25 V
Servo Voltage	0 ~ 9.9 V
Working Temp	-20 ~ 85 °C
Size	45.0 × 90.0 × 29.2mm
Weight	Controller: 99g Core Module: 43g Baseboard: 56g

# X7+ Pro Controller



- >> H7 double-precision floating-point processor
- >> ADIS16470 sensor
- >> Industrial-grade RM3100 compass
- >> Built-in shock absorption
- >> 3 sets of IMUs, support intelligent failover
- >> Support temperature compensation
- >> Dedicated DroneCAN power interface
- >> Modular design, support customized baseboard

X7+ Pro is a high-end intelligent controller developed by CUAU® for industry and industrial applications. It is equipped with a high-performance STM32H7 processor with a processing speed of up to 480Mhz and supports double floating-point operations. It is also equipped with an ADIS16470 automotive-grade sensor with excellent gyroscope and accelerometer performance, supports low-error long-flight attitude calculation, and is equipped with an industrial-grade RM3100 magnetometer, which has strong anti-magnetic interference capabilities. The excellent processor performance and IMU performance enable unmanned system equipment to have better stability and anti-interference capabilities in complex environments.

Processor	STM32H743(Arm® Cortex®-M7,480MHz, 2MB FLASH, 1MB RAM)
<b>Sensors</b>	
Accelerometer	ADIS16470 / ICM-42688-P / ICM-20689
Gyroscope	ADIS16470 / ICM-42688-P / ICM-20689
Compass	RM3100
Barometer	MS5611 *2
<b>Interfaces</b>	
UART	5
I2C	6 (2 interfaces are integrated in GPS&SAFETY&UART4)
PWM OUT	14 ( M1~M12 Support DSHOT protocol)
RC IN	1 (Support PPM SBUS DSM)
RSSI	PWM or 3.3V analog voltage
CAN	2
Power IN	2 (Power A for ADC protocol, Power C for CAN protocol)

Safety Switch	Integrated into GPS&SAFETY port
GPS Port	2
ADC	1
DEBUG	1
JATG	1
USB	1
Rated Voltage	4.5 ~ 5.5 V
USB Voltage	4.75 ~ 5.25 V
Servo Voltage	0 ~ 10 V
Working Temp	-20 ~ 85 °C
Humidity	5% ~ 95% (Does not condense)
Size	77.0 × 45.5 × 39.0mm
Weight	101g

# X7+ Controller



- » H7 double-precision floating-point processor
- » Built-in shock absorption
- » 3 sets of IMUs, support intelligent failover
- » Support temperature compensation
- » High-performance ICM-42688-P sensor
- » Modular design, support customized baseboard
- » Support more Dshot output
- » Dedicated DroneCAN power interface

X7+ is a premium controller designed and produced by CUAU. It adopts the STM32H7 series processor, which has higher performance than Pixhawk FMU v5x, and integrates high-precision industrial-grade sensors and ultra-low-temperature drift sensors. It supports ArduPilot & PX4 firmware. The X7+ series has better stability and immunity to interference.

Processor	STM32H743(Arm® Cortex®-M7,480MHz, 2MB FLASH, 1MB RAM)
<b>Sensors</b>	
Accelerometer	ICM-42688-P / ICM-20689 / ICM-20689
Gyroscope	ICM-42688-P / ICM-20689 / ICM-20689
Compass	RM3100
Barometer	MS5611 *2
<b>Interfaces</b>	
UART	5
I2C	6 (2 interfaces are integrated in GPS&SAFETY&UART4)
PWM OUT	14 ( M1~M12 Support DSHOT protocol)
RC IN	1 (Support PPM SBUS DSM)
RSSI	PWM or 3.3V analog voltage
CAN	2
Power IN	2 (Power A for ADC protocol, Power C for CAN protocol)
Safety Switch	1

GPS	2
ADC	1
DEBUG	1
JATG	1
USB	1
Rated Voltage	4.5 ~ 5.5 V
USB Voltage	4.75 ~ 5.25 V
Servo Voltage	0 ~ 10 V
Working Temp	-20 ~ 85 °C
Humidity	5% ~ 95% (Does not condense)
Size	77.0 × 45.5 × 39.0mm
Weight	101g

# Nora+ Controller



- » H7 double-precision floating-point processor
- » Classic side interface design
- » Built-in shock absorption
- » 3 sets of IMUs support intelligent failover
- » Support temperature compensation
- » Support CAN ammeter
- » RM3100 industrial-grade compass

Nora+ is a cost-effective controller with excellent performance, compact body and light size. Built-in industrial grade RM3100 compass, CUAV patented shock absorption design and temperature compensation system for better stability and interference immunity.

Processor	STM32H743/STM32H753(Arm® Cortex®-M7,480MHz, 2MB FLASH, 1MB RAM)
<b>Sensors</b>	
Accelerometer	ICM-42688-P / ICM-20689 / BMI088
Gyroscope	ICM-42688-P / ICM-20689 / BMI088
Compass	RM3100
Barometer	MS5611 *2
<b>Interfaces</b>	
UART	5
I2C	6 (2 interfaces are integrated in GPS&SAFETY&UART4)
PWM OUT	14 (M1~M12 Support DSHOT protocol)
RC IN	1 (Support PPM SBUS DSM)
RSSI	PWM or 3.3V analog voltage
CAN Port	2
Power IN	2 (Power A for ADC protocol, Power C for CAN protocol)
Safety switch	1

GPS Port	2 (UART4 can be used as GPS2 interface)
DEBUG	1
JATG	1
USB	2 (Type-C × 1 GH1.25 × 1)
Rated Voltage	4.5 ~ 5.5 V
USB Voltage	4.75 ~ 5.25 V
Servo Voltage	0 ~ 10 V
Working Temp	-20 ~ 85 °C
Size	85.5 × 42.0 × 33.0mm
Weight	91g

# V5+ Controller



- » FMU v5 hardware standard, more advanced and stable than FMU v3
- » Built-in shock absorption
- » Support RTK centimeter-level GNSS module
- » Multi-sensor redundant design
- » Full model support
- » Modular design, support custom baseboard

V5+ is a premium controller designed by the CUAV and PX4 teams and manufactured by CUAV. Based on the Pixhawk FMU v5 design standard, perfectly compatible with PX4 and ArduPilot firmware. Its modular design allows users to customize the baseboard.

Main FMU Processor	STM32F765 (32 Bit Arm® Cortex®-M7, 216MHz, 2MB FLASH, 512KB RAM)
IO Processor	STM32F100 (32 Bit Arm® Cortex®-M3, 24MHz, 8KB SRAM)
<b>Sensors</b>	
Accelerometer	ICM-20602 / ICM-20689 / BMI055
Gyroscope	ICM-20602 / ICM-20689 / BMI055
Magnetometer	IST8310
Barometer	MS5611
<b>Interfaces</b>	
UART	5
I2C	4
SPI	1
CAN	2
ADC	2
PWM	8 ~ 14 PWM outputs (6 from IO, 8 from FMU)
DSM/SBUS/RSSI	1

PPM IN	1
Power Interface	2
Safety Switch	1
DEBUG / F7 SWD	1
USB	1 (Type-C)
TF slot	1
Rated Voltage	4.5 ~ 5.5 V
USB Voltage	5V ± 0.25 V
Servo Voltage	0 ~ 36 V
Working Temp	-20 ~ 85°C
Size	85.5 × 42.0 × 33.0mm
Weight	91g



# V5 nano Controller



- » FMU v5 hardware standard design
- » Compatible with ArduPilot and PX4 firmware
- » Complete functions and compact size
- » Aviation aluminum alloy shell

V5 nano® is designed by the CUAU® and PX4 teams for businesses or enthusiasts who are extremely sensitive to space but want to get the power of V5. Its design is based on the Pixhawk FMU v5 standard and is perfectly compatible with PX4 and ArduPilot firmware.

Processor	STM32F765(32 Bit Arm® Cortex®-M7, 216MHz, 2MB FLASH, 512KB RAM)
<b>Sensors</b>	
Accelerometer	ICM-20602 / ICM-20689 / BMI055
Gyroscope	ICM-20602 / ICM-20689 / BMI055
Compass	IST8310
Barometer	MS5611
<b>Interfaces</b>	
UART	5
I2C	4
PWM	Up to 11 PWM outputs(8 standard pwm output +3 optional pwm output )*
nARMED*	1
Enter the Protocol	PPM/SBUS/DSM, etc.
RC IN	1
PPM IN	1
RSSI	PWM or 3.3 analog voltage

CAN	2
Current and Voltage Input	1
Safety Switch	1
GPS	1
DEBUG	1
JATG	1
USB	1 (Type-C)
Rated Voltage	4.5 ~ 5.5 V
USB Voltage	5V ± 0.25 V
Servo Voltage	0 ~ 36 V
Operating Temperature	-40 ~ 85 °C
Size	60 × 40 × 14mm
Weight	50g

# NEO 3x GNSS Module



- » Ublox M9N satellite receiver, accuracy up to 0.7m
- » Support BDS, GALILEO, GLONASS, GPS systems
- » Built-in F4 processor, with a 100 MHz
- » Cortex®-M4 core supporting floating-point arithmetic units
- » IP66 standard dustproof and waterproof

NEO 3x build in M9N receiver with concurrent reception of 4 GNSS that can adapt to multiple harsh environments. Designed with IP66 standard, it is sealed against dust and rain. It has STM32F4 series processor, ICP2100 barometer, ublox M9N module and RM3100 industrial compass. It supports CAN bus communication based on DroneCAN protocol, and the farthest communication distance can reach 1.5m.

MCU	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Protocol	DroneCAN
Compass	RM3100
Barometer	ICP-20100
Satellite Receiver	ublox M9N
Frequency Band	GPS: L1C/A GLONASS: L10F BDS: B1I GALILEO: E1B/C
Number of Concurrent GNSS	4
Horizontal Accuracy	1.5m (Highest measured value is 0.7m)
Number of Satellites(MAX)	32+
Acquisition	Cold start: 24s Hot start: 2s Aided start: 2s

Nav. update rate	5Hz(default), 25Hz(MAX)
Sensitivity	Tracking & Nav: -167dBm Reacquisition: -160dBm Cold start: -148dBm Hot start: -159dBm
Protection Level	IP66
Operating Voltage	4.7 ~ 5.2V
Operating Temperature	-10 ~ 70°C
Size	67.0 × 67.0 × 21.2mm
Weight	46g(Cable Excluded)

## NEO 3 Pro GNSS Module



- » Ublox M9N satellite receiver, accuracy up to 0.7m
- » Support BDS, GALILEO, GLONASS, GPS four satellite systems
- » Support simultaneous reception of four satellite systems
- » Triple filters design

NEO 3 Pro is a M9N navigation product using the DroneCAN communication protocol. Integrated positioning system, magnetic compass, control status light, control siren, barometer in one, industrial grade magnetic compass, can receive four major satellite systems navigation and positioning signals at the same time.

Processor	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Compass	RM3100
Barometer	MS5611
GNSS Receiver	UBLOX NEO M9N
Buzzer	Passive buzzer
Safety Switch	Physical button
Number of Concurrent GNSS	4(BDS、 GALILEO、 GLONASS、 GPS)
GNSS Augmentation System	SBAS: WAAS,EGNOS,MSAS QZSS: L1s(SAIF) other: RTCM3.3
Frequency Band	GPS: L1C/A GLONASS: L10F BDS: B1I GALILEO: E1B/C
Horizontal Accuracy	2.0m (Highest measured value is 0.7m)
Speed Accuracy	0.05m/s
Nav. update rate	25Hz(Max)
Protocol	DroneCAN
Port Type	GHR-04V-S

Acquisition	Cold start: 24s Hot start: 2s Aided start: 2s
Number of Satellites(MAX)	32+
Sensitivity	Tracking and nav-167dBm Cold start Hot start-148dBm Reacquisition -160dBm
Supported Controller	CUAV series, Pixhawk series
Wave Filtering	SAW+LNA+SAW
Anti-Electromagnetic/ Radio Frequency Interference	EMI+RFI
Upgrade firmware	Support
Support Control Type	ArduPilot/PX4
Input Voltage	4.7-5.2V
Operating Temperature	-10 ~ 70°C
Size	60 × 60 × 16mm
Weight	33g

# NEO 3

## GNSS Module



- >> Ublox M9N satellite receiver, accuracy up to 0.7m
- >> Support BDS, GALILEO, GLONASS, GPS four satellite systems
- >> Support simultaneous reception of four satellite systems
- >> Triple filters design

NEO 3 is a cost-effective M9N navigation and positioning product with a single point positioning accuracy of up to 0.7m. It integrates positioning system, magnetic compass, controller status light, controller alarm, and barometer, and can receive signals from four major satellite navigation and positioning systems simultaneously.

Compass	IST8310
RGB Drive	NCP5623
Buzzer	Passive buzzer
Safety Switch	Physical button
GNSS Receiver	UBLOX NEO M9N
Number of Concurrent GNSS	4(BDS、GALILEO、GLONASS、GPS)
Frequency Band	GPS: L1C/A GLONASS: L10F BDS: B1I GALILEO: E1B/C
GNSS Augmentation System	SBAS: WAAS,EGNOS,MSAS QZSS: L1s(SAIF) other: RTCM3.3
Horizontal Accuracy	2.0m
Speed Accuracy	0.05m/s
Nav. update rate	25Hz(Max)
Acquisition	Cold start: 24s Hot start: 2s Aided start: 2s

Number of Satellites(MAX)	32+
Sensitivity	Tracking and nav-167dBm Cold start Hot start-148dBm Reacquisition -160dBm
Protocol	UART+IO+I2C
Port Type	GHR-10V-S
Supported Controller	CUAV series, Pixhawk series
Wave Filtering	SAW+LNA+SAW
Anti-Lectromagnetic/ Radio Frequency Interference	EMI+RFI
Upgrade Firmware	Support
Support Control Type	ArduPilot/PX4*(PX4 is still working hard to adapt to the clock)
Input Voltage	4.7-5.2V
Operating Temperature	-10 ~ 70°C
Size	60 × 60 × 16mm
Weight	33g

# C-RTK 2HP RTK Module



- » All-satellite multi-frequency receiver
- » Centimeter-level positioning
- » Dual antenna direction-finding
- » RM3100 industrial-grade compass

The C-RTK 2HP product is an all-satellite & multi-frequency high precision positioning & heading module. A new generation of high-performance GNSS SoC chip is used, and a single chip performs baseband and RTK solution calculation functions. The RTK processing capacity is increased by more than 80%, and the positioning service of 50+ satellites in the RTK state and the recapture time within 1s are obtained. The continuity and reliability of positioning and orientation output in complex environments are effectively dealt with. The single module supports heading function, and supports inertial navigation function. Integrated STM32F4 processor, support DroneCAN protocol for controller communication, built-in RM3100 industrial grade electronic compass and IMU sensor, open-source code allows developers to freely develop custom functions.

MCU	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Compass	RM3100
Receiver	High precision GNSS SOC
GNSS	BDS/GPS/GLONASS/GALILEO/QZSS
Antenna 1 (Master)	BDS: B1I、B2I、B3I GPS: L1C/A、L2P/L2C、L5 GLONASS: L1、L2 GALILEO: E1、E5a、E5b QZSS: L1、L2、L5
Antenna 2	BDS: B1I、B2I、B3I BDS: B1I、B2I、B3I GPS: L1C/A、L2C GLONASS: L1、L2 Geo: E1、E5b QZSS: L1、L2GPS:L1C/A、L2C GLONASS: L1、L2 GALILEO: E1、E5b QZSS: L1、L2

Position Accuracy(RMS)	Single Point: 1.5m (Horizontal) /2.5m (Vertical) DGPS: 0.4m+1PPM (Horizontal)/0.8m+1PPM (Vertical) RTK: 0.8cm+1PPM (Horizontal) /1.5cm+1PPM (Vertical)
Acquisition	Cold start<30s Initialization time<5s
Data Update Rate	UP to 20Hz(default:5Hz)
Differential Data	RTCM3.X
Data Protocol	DroneCAN/NMEA
Sport	Antenna*2、CAN*1、UART*1、DSU*1、USB*1
Operating Voltage	4.7 ~ 5.2V
Operating Temperature	-20 ~ 85℃
Size	50 × 37 × 17mm
Weight	40g



# C-RTK 9Ps

## Centimeter-Level GNSS Module



- >> Multi-satellite multi-frequency receiver
- >> Centimeter-level positioning
- >> Dual RTK direction-finding
- >> Dual-end switchover design

The C-RTK 9Ps is a multi-satellite & multi-frequency GNSS system. It also supports dual GPS for yaw which can replace compasses, is useful when in complex magnetic environments such as close to power lines. It is a very cost-effective centimeter-level RTK module compatible with PX4/ ArduPilot open-source controllers. It is an ideal choice for Unmanned Systems mapping, agricultural applications, high-precision takeoff and landing, ship takeoff and landing and other applications requiring real-time high-precision navigation.

Receiver	184 channel ZED-F9P(ublox)
Compass	IST8310
GNSS	GPS、 BDS、 GALILEO、 GLONASS
Concurrent GNSS	4
GNSS Bands	GPS-L1C/A, GPS - L2C, GLONASS - L1OF, GLONASS- L2OF, GALILEO - E1B/C, GALILEO- E5b, BDS - B1I, BDS - B2I, QZSS - L1C/A, QZSS - L2C,
Nav. update rate	RTK 20Hz ; RAW 25Hz ; PVT 25Hz (The maximum limit is related to the concurrency setting)
Position Accuracy	RTK: 0.01m+1ppm CEP GPS: 1.5m CEP; SBAS: 1.0m CEP
Convergence Time	RTK<60s
Acquisition	Cold start<24s Hot start<1s
Sensitivity	Tracking and nav. -167dBm Cold start -148 dBm Hot start -157 dBm Reacquisition -160 dBm

Anti-jamming	Active CW detection and removal Onboard band pass filter
Anti-spoofing	Advanced anti-spoofing algorithms
Antenna Gain	Rover: 2dBi Base: 5dBi
PPK	Not Support
GPS Heading	Support (requires two C-RTK 9Ps); heading accuracy: 0.4edg (reference value)
Base/Rover Role Swap	Support
UART	2 UART
USB	1
Protocols	NMEA、 UBX binary、 RTCM 3.x
Operating voltage	4.5 ~ 6V
Operating Temperature	-40 ~ 85 °C
Size	47.0 × 32.0 × 12.2mm
Weight	30g(Module Only)

# C-RTK 2 PPK Module



- » Support RTK & PPK simultaneously
- » Support hotshoe trigger
- » Multi-satellite multi-frequency receiver
- » 25Hz raw data record

C-RTK 2 is a high-performance PPK/RTK positioning module created by CUAV for professional application fields such as Unmanned System aerial survey. It integrates light appearance, industrial grade IMU, multi-satellite and multi-frequency satellite receiver, supports both RTK centimeter-level positioning navigation and RAW data recording for post-differential calculation. Supports shutter triggering and hotshoe synchronization. It adopts CAN bus protocol and is compatible with PX4/ArduPilot open-source controller. It can be applied to various specifications of multi-rotors, helicopters and other industrial use Unmanned Systems.

Receiver	ZED-F9P
Channel	184
Processor	STM32H743VIH6(Arm® Cortex®-M7,480MHz, 2MB FLASH, 1MB RAM)
FLASH	2M
RAM	1M
Acce&Gyro	ICM-20689
Compass	RM3100
Barometer	ICP10111
TF Card	32G(Max)
PPK	Support
RTK	Support
GNSS System	GPS: L1C/A,L2C GLONASS: L1OF,L2OF GALILEO: E1B/C,E5b BDS: B1I,B2I
Enhanced System	QZSS: L1C/A,L2C,L1S SBAS: L1C/A
Concurrent GNSS	4
Nav Rate	RTK: 20Hz(Max) PPK: 25Hz(Max) default: 5Hz
Convergence Time	RTK<10s

Accuracy (RMS)	RTK Level: 0.01m+1ppm(RMS) RTK Vertical: 0.02m+1ppm(RMS) GPS: 1.5m(RMS)
Acquisition	Cold start: 24s Hot start: 1s Reacquisition: 2s
Sensitivity	Tracking & Nav: -167dBm Cold start: -148dBm Hot start: -157dBm Reacquisition: -160dBm
Anti-Spoofing	Advanced anti-spoofing algorithms
Time Pulse	0.25Hz~10Mhz(Configurable)
Anti-Jamming	Active CW detection and removal onboard band pass filter
Controller	Compatible with controllers running ArduPilot/PX4 firmware
Coordinate System	WGS84
Interface	Hotshoe × 1 Shutter in × 1 Shutter out × 1 Type- C × 1 F9P USB × 1 UART × 1 CAN × 1 MMCX Antenna × 1
DC IN	4.5 ~ 6V
Operating Temperature	-20 ~ 85°C
Size	56.0 × 33.0 × 16.5mm
Weight	39g

# P9 Module Telemetry



- » 902-928MHz communication band
- » 276kbps transmission rate
- » 40km range
- » Support 3S ~ 12S battery input
- » Dual-end switchover design

P9 Module is an ultra-long data telemetry module of Unmanned Systems. It adopts the communication frequency band of 902 ~ 928MHz. It has a transmission distance of 40km and a link rate of 276kbps. P9 Module supports 3 ~ 12S wide voltage input. It supports relay communication, meeting communication requirements in multiple application scenarios.

Working Frequency	902 ~ 928 MHz
Transmission Technology	Frequency Hopping
Transfer Protocol	Transparent Transmission
Forwarding Error Detection	Hamming /BCH/Golay/Reed-Solomo
Error Detecting	Error Detection 32 bits of CRC, ARQ
Encrypt	Optional (see -AES option)
Range	Reference distance: 40km (The transmission distance is different under different environments/ configurations, please refer to actual use)
Sensitivity	-110 dBm @ 115.2 kbps -108 dBm @ 172.8 kbps -107 dBm @ 230.4 kbps
Output Power	100mW ~ 1W (20 ~ 30dBm) (Default: 1W)
Antenna Gain	5dBi
Serial Interface	3.3V CMOS TTL

Baud Rate	Up to 230.4kbps; 57600 (Default)
Link Rate	115 ~ 276 kbps
Operating Modes	Auto Routing, Store and Forward,Self Healing, Packet Routing Modes
Operating Voltage	12 ~ 60V
Power Consumption	Sleep < 1mA Idle < 3.5mA RX: 35mA ~ 80mA TX: 800mA ~ 1200mA
Interface	Serial: GHR-06V-S Antenna: SMA inner needle USB: Type-C Power: TX30PW-M
Operating Temperature	-40 ~ 85°C
Humidity	5% ~ 95%(Non-condensing)
Size	65.0 × 40.0 × 16.5 mm
Weight	55g(Module); Antenna: 31g

## P8 Module Telemetry



- » 840 ~ 845MHz frequency band
- » 345kbps link rate
- » 40km range
- » Support 3S ~ 12S battery input
- » Dual-end switchover design reduced costs
- » Point-to-point, relay mode

P8 Module is an ultra-long data transmission module of Unmanned Systems. It adopts the communication frequency band of 840MHz. It has a transmission distance of 40km and a transmission rate of 345kbps. It supports relay communication, meeting communication requirements in multiple application scenarios.

Working Frequency	840 ~ 845MHz
Spreading Method	Frequency Hopping/Fixed Frequency、Transparent transmission、GMSK、2GFSK、4GFSK、QPSK
Forwarding Error Detection	Hamming, BCH, Golay, Reed-Solomon, Viterbi
Error Detection	32 bits of CRC, ARQ
Range	Reference distance: 40km (The transmission distance is different under different environments/ configurations, please refer to actual use)
Sensitivity	-109 dBm @ 115.2 kbps -108 dBm @ 172.8 kbps -106 dBm @ 230.4 kbps
Transit Power	100 ~ 1000mw(20~30dBm) Default: 1000mw
Antenna Gain	3dBi
Serial Interface	3.3V CMOS TTL

Link Rate	345kbps Max
Baud Rate	300bps to 230kbps(default:57600)
Operating Modes	Point-to-Point, Relay Mode
Input Voltage	12 ~ 60V
Operating Modes	Point-to-Point Repeat Mode
Power Consumption	Sleep: < 1mA (Future) Idle: 20mA Rx: 45mA to 98mA Tx Peak: 2A
Interface	Antenna: SMA inner needle Serial: GHR-06V-S USB: Type-C POWER
Operation Temperature	-40 ~ 85 °C
Weight	55g(No antenna); Antenna:31g
Size	64.6 × 39.7 × 16.5mm

# XB Radio Pro

## Telemetry



- >> 6.5km range
- >> 200kbps link rate
- >> Dual-end switchover design, reduce cost
- >> Integrated RSSI signal strength output

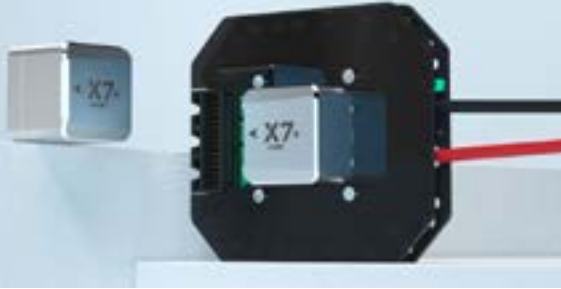
The XB Pro is an easy-to-use telemetry module that provides best-in-class wireless connectivity for drones or IoT devices. The DigiMesh network protocol shares a common hardware serial port that provides a variety of different protocols, allowing users to integrate into drones or devices with minimal development time and risk. The module supports up to 28 miles (with high-gain antenna) RF line-of-sight range, 200 kbps data rate, ideal for extended range applications that require increased data throughput.

Hardware	
Frequency Range	902 ~ 928 MHz
Processor	ADF7023 transceiver , Cortex-X3 EFM32G230@28MHz Programmers include: Freescale MC9s08QE32
Antenna Selection	wire.U.FIL and RPSMSA
Performance	
Data Rate	10kbps~200kbps, default 200kbps
Urban / Indoor Distance	10kbps: up to 2000 feet (610 meters); 200kbps: up to 1000 feet
Outdoor/Suburban Distance	10kbps: up to 15.5km 200kbps: up to 6.5km
Maximum Power	24dBm (250mw) software optional
Receiver Sensitivity	-101dBm@200kbps; -110dBm@10kbps;
Characteristic	
Data Interface	UART(3V) .SPI
GPIO	15 digital iO, 4 10-bit ADC inputs, 2 PWM outputs

Network Topology	DlgiMESH, relay, point-to-point, peer-to-peer network
Spread Spectrum	FHSS (software optional)
Programmability	
Internal Storage	32KB FLASH/2KB RAM
CPU Clock	Up to 50MHz
Power	
Service Voltage	4 ~ 7 V
Emission Current	229 mA
Receive Current	44 mA
Sleep Current	3 uA
Management agency certification	
FCC (America)	MCQ-XB900HP
iC (Canada)	1846A—XB900HP
C-tick(Australia)	Yes
Anatel (Brazil)	Yes
IDA (Singapore)	Yes

# CAN PDB

## Multifunctional Baseboard



- » Support 14~60V voltage input, 110A current
- » 0.1A, 0.05V power measurement accuracy
- » Rich interfaces and 14 PWM outputs
- » 5V/6A and a 12V/4A stabilized output
- » Thickened tinned PCB to reduce internal resistance
- » Power indicator LED, visually display battery voltage status

CAN PDB is a multi-functional baseboard of CORE controller, which provides abundant interfaces, integrates the functions of power module and power distribution board, and supports voltage input of 14~60V, and provide continuous working current up to 110A. It adopts self-developed ITT algorithm and has high accuracy power detection of 0.1A and 0.05V. It has 10 power output welding points, and provides a 5V/6A and a 12V/4A stabilized output to provide power for external device. Supports the CORE modules of V5 +, X7 +, and X7+ Pro Controller.

MCU	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Operating Voltage	14 ~ 62V (4 ~ 15S Lipo)
Detection Current Range	0 ~ 110A
Output Power(MAX)	6000W (last 120s)
Stable Output Power(MAX)	5500W
Core	V5+ / X7+ / X7+ Pro CORE
Frame Type	Plane/VTOL/Copter/Heli/Rover/Sub
Controller Firmware	ArduPilot 4.0.0 and above firmware PX4 1.11.0 and above firmware
Operating Temperature	-20 ~ 100℃
<b>Interface</b>	
V_OUT	5V(default)/7.4V/8.2V(4A)
Servo VCC	5V(default)/7.4V/8.2V(8A)
12V OUT	4A(max)

USB	1
UART1	5(GPS/UART4/TELEM1/TELEM2/DEBUG)
CAN	2
I2C	3
SBUS/DSM IN	1
PPM IN	1
Servo	14
ADC3.3	1
ADC6.6	1
SBUS Outs	1(This interface is invalid when using X7+/X7+pro core)
RSSI	3.3V(Analog input)
DSU7	1
Size	12.8cm (length) × 10.0cm (width) × 1.2cm (height)
Weight	200g (including cable)
Wire Length	30cm



# CAN PMU

## Power Module



- 0.05V 0.1A accuracy
- 5V/5A regulated output
- Maximum support 62V voltage input, 110A current measurement
- Self-developed ITT algorithm

CAN PMU is a drone power management module with built-in STM32F4 processor; running CUAV ITT compensation algorithm, can accurately measure the voltage and current of the drone; support 6~62V voltage input, and the POWER port can output 5V/ 8A. It uses advanced CAN bus communication and supports the standard DroneCAN protocol; each PMU uses factory-level calibration to ensure good consistency and high accuracy.

Processor	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Voltage Input	6 ~ 62V(2 ~ 15S)
Max Current	110A
Voltage Accuracy	±0.05V
Current Accuracy	±0.1A
Resolution	0.01A/V
Max Output Power	6000W/90s
Max Stable Power	5000W

Power Port Output	5.4V/5A
Protocol	DroneCAN
Operating Temp	-20 ~ 100 °C
Firmware Upgrade	Support
Calibration	Factory calibration
Interface Type	IN/OUT: XT90(Cable) /Amass 8.0(Module) Power: 5025850670 CAN: GHR-04V-S
Size	46.5 × 38.5 × 22.5mm
Weight	76g

# CPDB Pro

## Power Module



- » Supports higher power output current: 5A
- » Maximum (detection) current: 60A
- » Maximum output current: 60A
- » Independent 12V4A interface
- » Supports higher input voltage: 10V ~ 60V
- » More accurate current and voltage detection:  
voltage detection accuracy:  $\pm 0.1V$ ; current  
detection accuracy:  $\pm 0.2A$

CPDB Pro is an on-board device with voltage, current detection and power distribution board functions, providing controllers with power, voltage and current signals, as well as two separate interfaces to output 5V and 12V. This version of the equipment is not only suitable for four-rotor, but also suitable for six or eight-rotor drones (the same pad can weld two power cords).

Rated voltage	10 ~ 60V (3 ~ 14S Lipo)
Current(MAX)	60A
Current Accuracy	$\pm 0.2A$
Voltage Accuracy	$\pm 0.1V$
<b>Interface current</b>	
12V out	4A
5V out	2A

FC power	5A
<b>Interface type</b>	
Battery	XT60
12V out 5V out FC Power	GH1.25
Weight	35g

# CAN PMU Lite

## Power Module



- » Support 10 ~ 60V voltage input
- » Maximum measuring current: 90A
- » Accuracy voltage and current detection: current accuracy within 80A is 0.2A, voltage accuracy is 0.15V
- » Power indicator LED: visually indicate Lipo voltage status

CAN PMU Lite is a CUAV standard power management module with built-in STM32F412 processor, supporting 10~60V voltage input and 5.2V/4A regulated output. PMU Lite has built-in ITT temperature compensation algorithm and is factory calibrated to ensure that more accurate voltage and current data can be obtained at different temperatures.

Processor	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)	APM Firmware Support	Available for Rover 3.5.1 and above Available for Copter 3.7 and above Available for Plane 3.10 and above Available for Heli 3.7 and above
Input Voltage	10 ~ 60V	PX4 Firmware Support	PX4 Pro V1.10.1 or higher
Maximum Current	90A	Interface Type	IN/OUT: XT60-M/XT60-F Power/CAN: 502585-0670 Other: SM06B-GHS-TB
Voltage Accuracy	±0.15V	Size	140 × 25 × 13mm
Current Accuracy	±0.2A	Weight	15g
Resolution	0.01A/V		
Maximum Output Power	4200W/90s(stable 3600W)		
5V Regulated Output	Maximum 5A, stable 4A		
Communication Protocol	UAVCAN		
Working Temp	-20 ~ 100 °C		
Firmware Upgrade	Support		

# SKYE 2

## Airspeed Sensor



- » Highly integrated design
- » Intelligent de-icing and drainage
- » New generation linear structure
- » M4C intelligent precise heating
- » Shock resistance, low temperature drift, high-precision
- » Adopts DroneCAN protocol and supports ArduPilot and PX4 platform

The industry's first intelligent airspeed meter with de-icing and drainage functionalities. It integrates ARM M4 processor, pitot tube, airspeed sensor, temperature and humidity sensor, and dual temperature compensation system. SKYE 2 features a new generation of M4C intelligent heating strategy and a drainage hole, which can melt the ice and drain the water to avoid data errors. The low temperature drift, high vibration resistance, and high-precision airspeed sensor can easily cope with various environmental challenges such as coldness, fog, and rain. A new generation of linear structure design helps reduce wind resistance. Adopts DroneCAN protocol, supports open-source platforms such as ArduPilot and is suitable for various Unmanned Systems models.

Main Parameter	
Processor	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Protocol	DroneCAN
Pitot Tube Temperature Control Type	Resistance heating
Sensor	SM5391
Measuring Range	±6895Pa
Airspeed Range	0 ~ 106 m/s
Total Error Band	±1% FS
Temperature Measurement Range	-20 ~ 125 °C
Humidity Measurement Range	0 ~ 100%
Pitot Tube Heating Power	35W

Compatible Controllers	ArduPilot/PX4(CUAV/Pixhawk)
Operating Voltage	16V
Operating Temperature	-20 ~ 75°C
Size	102 × 28.2 × 30.5mm
Weight	26.1g
Protection Level	IP54 (After installation as required)

HV HUB	
Operating Voltage	18 ~ 68 V
OUT	16V / 3.5A
Interface	Power × 1(5023520200/5023510200) SKYE CAN × 2(5025850470/5025780400) CAN × 1 (4 Pin GH1.25)
Weight	9g

# SKYE 2 NANO

## DroneCAN Airspeed Sensor



- » DLVR airspeed sensor with dual-wafer technology
- » Support airspeed measurement up to 226.8km/h
- » Self-developed M4C architecture
- » Strong aluminum alloy shell

SKYE 2 NANO utilizes a dual-wafer technology DLVR airspeed sensor, which has high accuracy and linearity and can support airspeed measurement up to 226.8km/h, meeting the needs of most application scenarios. The self-developed M4C architecture supports the DroneCAN protocol and is perfectly compatible with the APM/PX4 platform. The airspeed sensor adopts an aluminum alloy shell, which is sturdy and durable.

MCU	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Sensor	DLVR_L10D
Airspeed Measurement	0 ~ 226.8km/h
Error	1%
Protocol	DroneCAN
Compatible Controller	PX4/ArduPilot (CUAV/Pixhawk etc.)
Operating Voltage	4.75 ~ 5.3V
Operating Temperature	-20 ~ 85°C
Shell Material	Aluminum alloy
Size	32.0 × 33.4 × 18.5mm
Weight	15g





## MS4525 Airspeed Sensor

- » In windy conditions, the Unmanned Systems flies and lands stably to avoid stalling

The MS4525 Airspeed Sensor is an airspeed measurement module launched by CUAU for fixed-wing aircraft or vertical take-off and landing aircraft. It measures the relative speed between the Unmanned System and the air, which can help the Unmanned System avoid stalling in windy conditions. It is an indispensable component for fixed-wing and vertical take-off and landing aircraft.

Main Parameter	
Sensor	MS4525
Range	±6895Pa
Accuracy	±0.25% SPan
Firmware Support	ArduPilot、PX4

Interface	I2C
Input Voltage	4.7 ~ 5.2V
Working Temperature	-10 ~ 85 °C
Weight	3g (Sensor) 28g (Set)

# C-COMPASS

## High precision compass



- » RM3100 magnetic sensor
- » Built-in STM32F4 processor
- » CUAV self-developed M4C software
- » Compatible with APM/PX4 software platform

C-COMPASS is a compact, high-precision magnetometer with a built-in RM3100 magnetic sensor. It has ultra-low noise and strong anti-interference capabilities, allowing the Unmanned Systems to maintain stable performance, and is smoothly compatible with APM and PX4 platforms.

MCU	STM32F412(32 Bit Arm® Cortex®-M4, 100MHz, 512KB FLASH, 256KB RAM)
Sensor	RM3100
Software Architecture	CUAV M4C
Protocol	DroneCAN/UAVCAN
Communication Rate	2Mb
Refresh Rate	80Hz
Noise	15nT
Accuracy	0.25° (effective value)
Repetition Accuracy	0.05°
Resolution	0.01°
Sensitivity	13nT
Range	-800 $\mu$ T to +800 $\mu$ T

Controller Type	PX4/ArduPilot(CUAV/Pixhawk etc.)
Interface	GHR-04V-S
Operating Voltage	4.75 ~ 5.3V
Operating Temperature	-20 ~ 80°C
Operating Humidity	5% ~ 95% (non-condensing)
Casing Material	Aluminum alloy
Size	31.5 × 31.0 × 14.0mm
Weight	13g

# IST8 Compass



- » Ultra-small size, easy installation, excellent immunity
- » Built-in iSentek's IST8310 geomagnetic sensor in the 3×3mm LGA package
- » Compatible with PX4 and ArduPilot firmware

The IST8 compass module has a built-in iSentek's 3×3mm LGA package of geomagnetic sensor IST8310, which is widely used in Unmanned Systems. The PX4 and ArduPilot have applied it to the Pix controller and it can be used as an external compass for the V5 controller.





Youtube



CUAV Tech Inc., Ltd.  
[www.cuav.net/en](http://www.cuav.net/en)

Version Number: 25.2.0