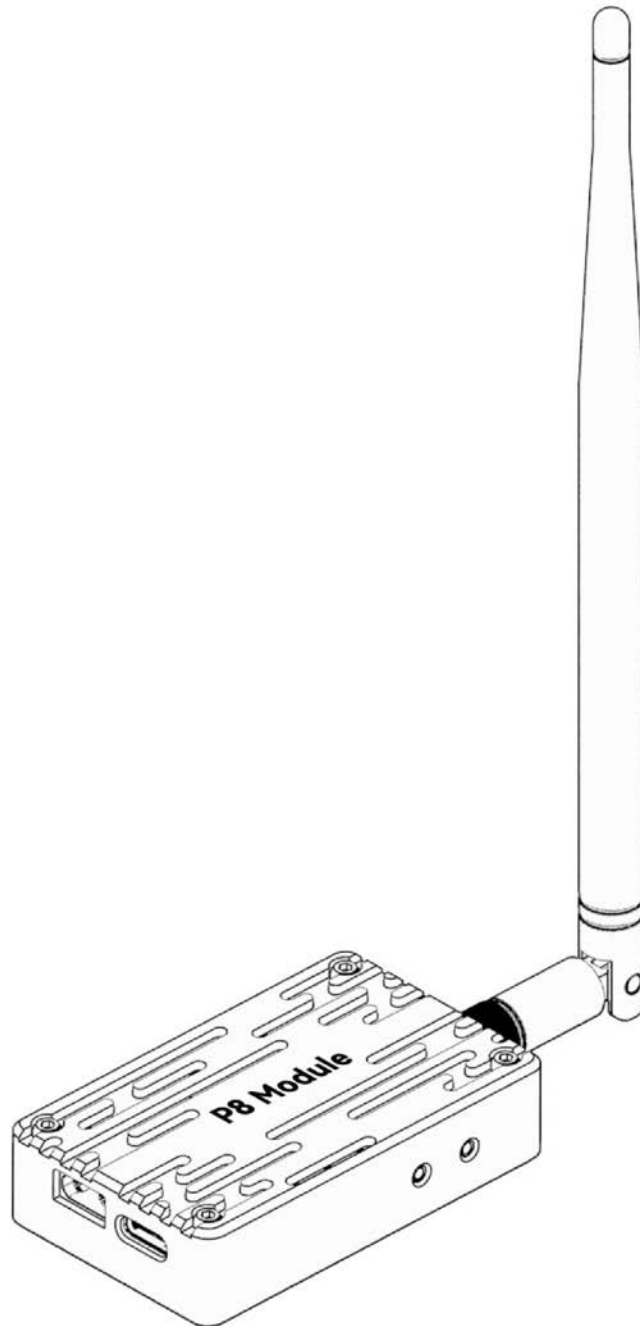# P8 Module User Manual

Latest Update: 2024-06-08

CUAV Technology Co., Ltd

Preface

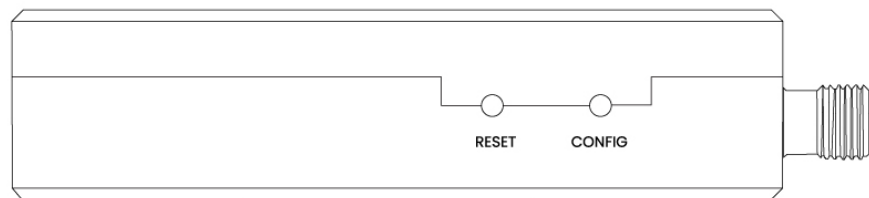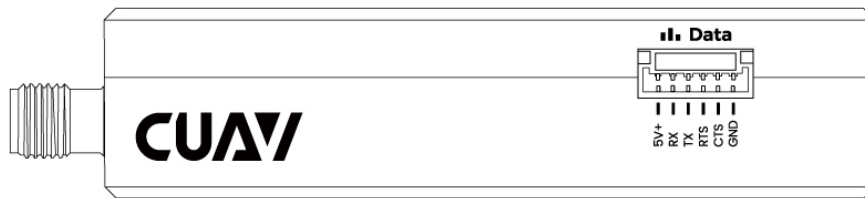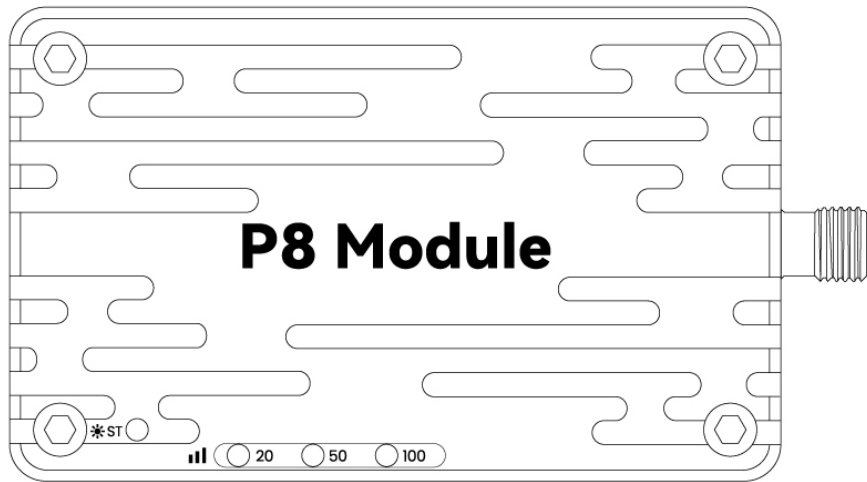Thank you for purchasing and using CUAV products.

If you have any suggestions and feedback on our products or services, please let us know. Press Ctrl and click blue text or mobile phone scan the QR code below to visit CUAV feedback form.

Product Definition

Indicator Light Definition

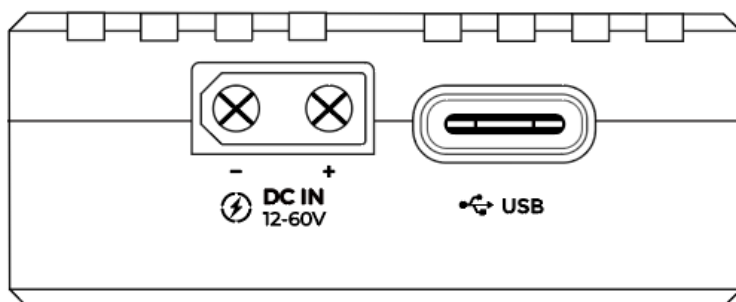| Configuration mode	establish communication	Unmatched
ST Light: Red always on	Ground Unit ST Light: pink flashing RSSI lamp: always on Sky Unit ST Light: Green always on RSSI Light: always on	Ground Unit ST Light: Always bright RSSI : lights off Sky Unit ST Light: Always bright RSSI Light: Flashing

P8 Module

CUAV

Button Definition

RESET Button	Restart the P8 Module module
CONFIG Button	Pressing it alone is not defined. Press and hold the CONFIG and RESET Key at the same time. Release the RESET key first, and then release the CONFIG key to enter the configuration state.

Power Requirement

Mount the antenna to the P8 before connecting power. Both the sky terminal and the ground terminal need to use an independent power supply instead of obtaining power from the controller. Please ensure that the maximum output current of the power supply is >2.5A (3~6s battery is recommended).
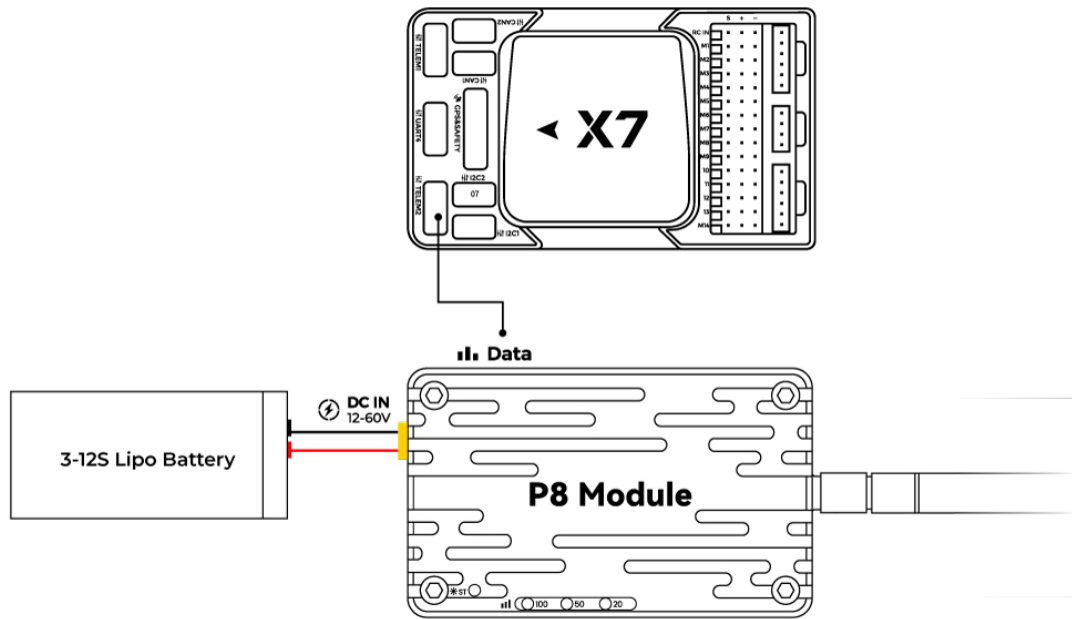

Default Configuration

The default configuration of P8 is: link rate (276000), interface baud rate 57600, broadcast mode. Generally speaking, P8 is plug and play, you don't need to perform any configuration, just plug and play. If you need to modify the configuration, such as modifying the ID, setting point-to-multipoint, and relay mode, click the Configuration Guide, to enter the CUAV docs for more information.

Connect Controller

Use a special cable to connect the flight control interface [TELEM1]/[TELEM2] (some flight control interfaces are called Module), and the P8[Data] interface.

Ground Station Connection

Mission Planner

After connecting to the P8, select the correct port in the upper-right corner of the ground station, select 57600 baud rate, and click [CONNECT] to CONNECT to the ground station.
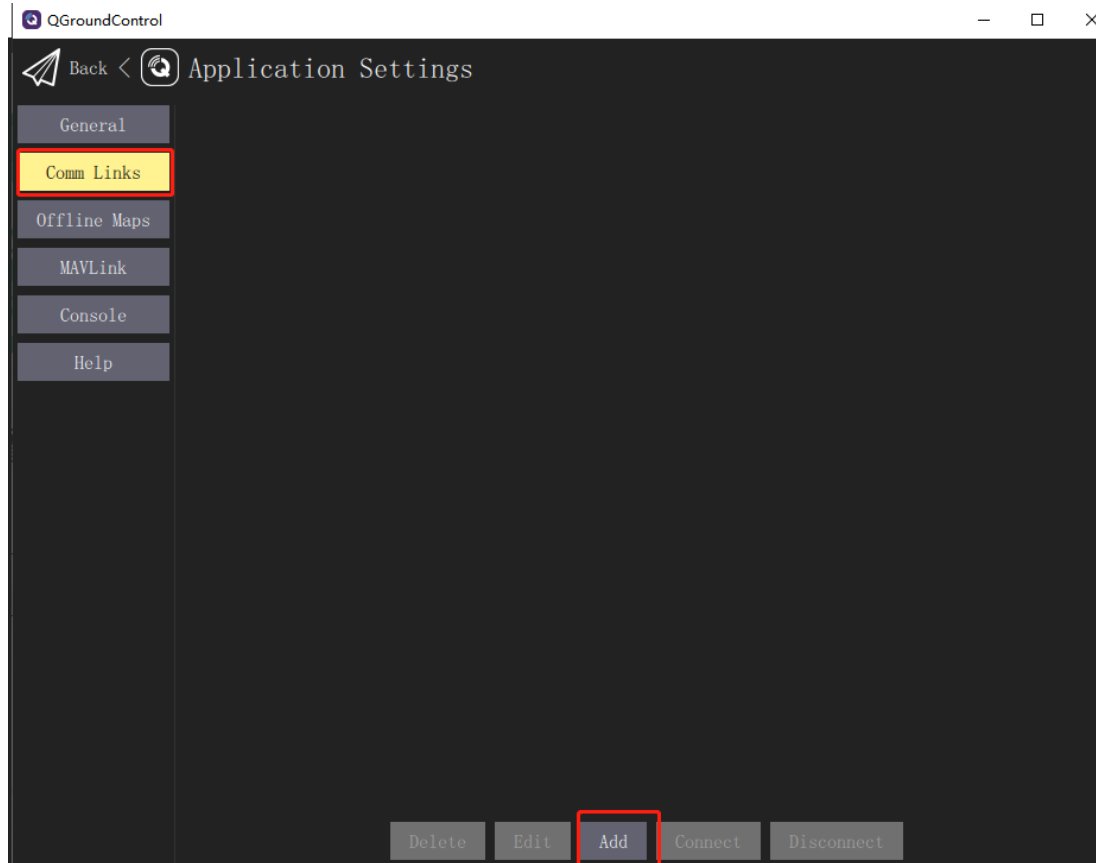Port not recognized? After the P8 is connected, the mouse moves randomly and cannot communicate? Does the digital transmission indicator turn off and not work? For more information, please see [FAQ]

QGroundControl

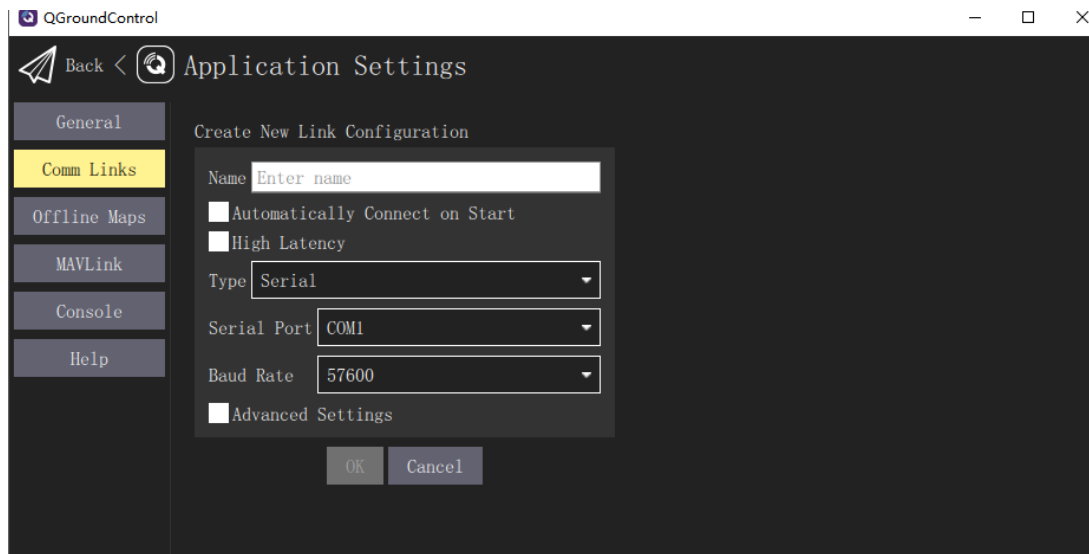After data transmission is connected, open the QGroundControl and the ground station will automatically identify and connect. If it is not identified, you can manually add it as follows.
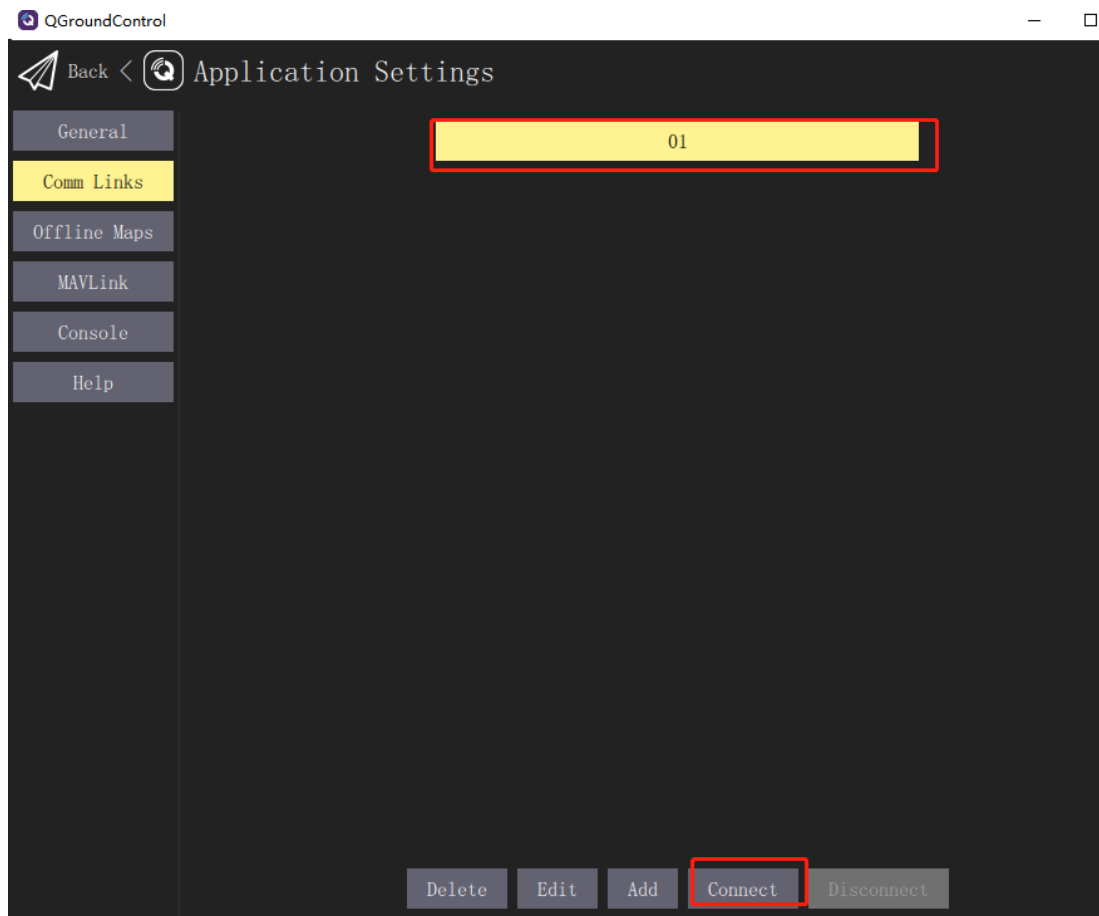
Click the icon in [QGroundControl]-[communication connection]-[add]

In the following interface, enter [name] [type] [serial port] and [baud rate], and click OK.

Select the connection you just added and Click Connect.

Product Specifications

Working frequency	840~845MHz
Spreading Method	Frequency Hopping/Fixed Frequency, GMSK, 2GFSK, 4GFSK, QPSK
Forward Error Correction	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	-109dBM@115.2kbps -108dBm@172.8kbps -106dBm@230.4kbps
Transit power	100mw~1000mw(20~30dBm); default: 1000mW
Antenna gain	3DBi
Serial interface	3.3V CMOS TTL
Baud rate	300bps to 230kbps(57600)
Link Rate	345kbps Max
Operating Modes	Point-to-Point, Repeat Mode
Input voltage	12V~60V
Input Current	>2.5A
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: XT30PW-M
Operation Temperature	-40℃~85℃

Weight	P8 module;:55g
	Antenna:31g
	Total: 86g
Size	64.6mm×39.7mm×16.5mm

Packing List

The package list is for reference only. The details are displayed on your purchase page.

Name	Sky Unit	Ground Unit	One Set
P8 Module	1	1	2
V5/X7 Series cable	1	-	1
Pixhack Data Cable	1	-	1
XT30-XT60 Power Cable	-	1	1
XT30 Single-End Power Cable	1	-	1
840MHz Antenna	1	1	2
Type-C Cable	-	1	1

FAQ

Port is not recognized after connected to the computer?

Please install the Module driver。

After connecting, the mouse moves and cannot communicate. What's the matter?

Please power the Ground Unit first, and then power the sky Unit. If the data at the other end is transmitted to the USB when the USB is started, the computer will automatically install the Microsoft mouse driver.

Sometimes the P8 indicator will turn off does not work?

Please make sure that the maximum current input at the power port is greater than 2.5A; Otherwise, the P8 may be stopped; It is recommended that the ground unit use independent power supply instead of flight control power supply (connect V5 + flight control can not use independent power supply).

Related Links

Official Website

Official Store

Official AliExpress

CUAV Doc Center

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