

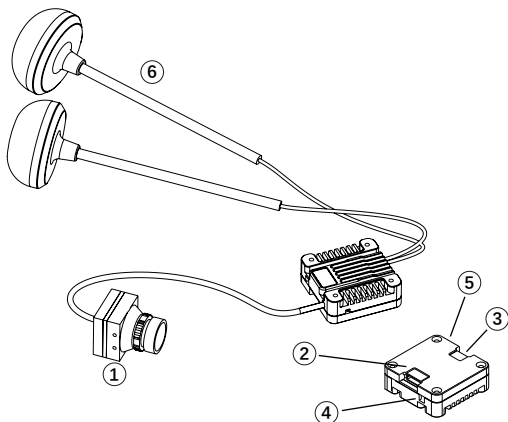


# S1 PRO Air Unit

## Quick Start Guide

V1.0

### Introduction



1.Camera

2.Power Port

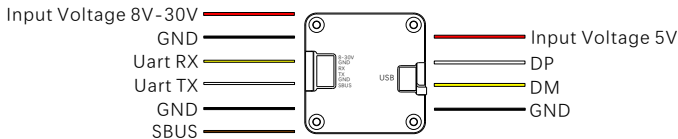
3.Type-C Port

4.Link Button

5.VTX LED

6.Antenna

# Connection



■ Power consumption:  $\geq 7.5\text{w}$  (such as  $8\text{V}/0.91\text{A}$ )

■ VTX generates a lot of heat when working,

so please pay attention to airflow for heat dissipation.

Avoid overheating that may cause the VTX to stop working.

The temperature for overheating shutdown is around  $110\text{ }^{\circ}\text{C}$ .

## Linking

1. Connect the VTX and the power of the VRX.

2. Short press the frequency buttons on the VTX and VRX respectively.

After entering the frequency matching state,

the dual color indicator light flashes rapidly.

3. After the link is successful,

the indicator light on the VTX and VRX LED turns solid green.

## LED status indication

Status	Indication
NO Link	VTX and VRX both have red lights on
Link state	VTX have LED light rapidly flashes
Link successful	VTX and VRX both have green lights on
Upgrade firmware	VTX and VRX both have blue lights on

## Precautions

1. Before powering on, please install all antennas to avoid damage to components.
2. If you use it with other 5.8GHz devices at the same time, please choose a different channel.

# Betaflight MSP and OSD settings

1.Connect the flight controller - related signals to the VTX.

2.Configure the flight controller via the webpage:

<https://app.betaflight.com>.

If your page fails to detect the flight controller,

you can refer to the method shown in the figure below.

The screenshot shows the Betaflight app website. A red box highlights the search bar at the top left, which contains the text "Betaflight 3.7M (L140)\_CMA1". Below the search bar are "搜索" (Search) and "取消" (Cancel) buttons. In the top right corner, there is a red box around the text "未检测到 VTX 设备" (No VTX device detected). The main content area features the Betaflight logo and the text "欢迎使用 Betaflight 应用 为您提供升级、设置和调试飞行器的工具。" (Welcome to use the Betaflight app, providing you with tools for upgrading, configuring, and debugging your drone). Below this are logos for SKYSTARS, PILOTIX, FOXEER, and Holybro. The page is divided into three columns: "新手指南" (Getting Started), "参与开发" (Get Involved), and "联系我们" (Contact Us). The "新手指南" section includes links for downloading Betaflight 3.7M, Betaflight 3.7M L140, and Betaflight 3.7M L140 L140. The "参与开发" section lists steps for getting started with development, such as installing the Betaflight IDE, setting up the environment, and connecting the flight controller. The "联系我们" section provides contact information for the Betaflight team, including a Facebook page, a Telegram channel, and a Discord server. At the bottom of the page, there is a status bar showing "固件版本: 3.7M (L140)\_CMA1" and "固件大小: 1.2 MB (1228800 字节)".

3. Select any serial port as the MSP display interface ,  
(UART2 is used as an example in the figure below).

Enable the corresponding UART interface,

check the MSP switch, and check the option for VTX (MSP + Displayport).

Save the settings and restart the flight controller,

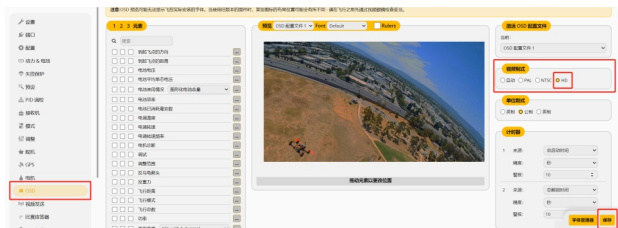
and the port output configuration will be completed.



4. Set the OSD video standard to HD

(the font in the current interface only supports HD video format).

Check the HD option, arrange the required OSD data, and save the settings.



# Upgrade

1. Copy the upgrade files for the VTX and VRX to the root directory of the TF card.

It is recommended to format the TF card using the VTX for proper recognition.

Ensure the firmware names are:

"A1\_SKY\_S1P\_v2.0.0\_20260402"和"A1\_GND\_SD10P\_v2.0.0\_20260402"

2. Keep the VTX and VRX connected wirelessly.

Insert the TF card into the VRX and confirm it is recognized.

(The icon in the lower-right corner will turn green and show capacity.)

3. Go to **【Settings】 > 【System】 > 【System Upgrade】** and confirm in the pop-up menu.

4. Wait for the upgrade to finish.

A prompt will appear to reboot both devices.

The new firmware takes effect after reboot; re-pairing is required.

5. The two devices can be upgraded separately.

Only the device with corresponding firmware on the TF card will be upgraded.

6. To check the current firmware version,

go to **【Settings】 > 【System】 > 【Device Information】**

# VTX Specification

Name	S1 PRO Air Unit
Communication Frequency	5.340GHz-5.917GHz
Communication bandwidth	5MHz
Transmitter Power(EIRP)	MAX: 33dBm; FCC < 30dBm; CE < 14dBm;SRRC < 20dBm; MIC < 25dBm
Mounting Holes	25.5mm x 25.5mm
Dimensions	31.8mm x 31.8mm x 11.3mm
Recording	1080p/60fps
Weight	21.8g
Operating Temperature	-20 ~ 50°C
Channels	19
Wide Power input	8-30V
Supported FC System	Betaflight/INAV
OSD	Canvas mode
Antenna	IPEX-1 *2

## Camera Specification

Image Sensor	1/1.8 inch
Resolution	1080p/60fps
Ratio	16:9/4:3
FOV	150°
Aperture	F1.8
Shutter	Rolling Shutter
Weight	13.5g
Dimensions	19mmx19mmx30mm
Coaxial Cable	145mm

## Antenna Specification

Polarization	LHCP
Frequency range	5.725-5.850GHz
Average Gain	2dBi
Input Impedance	50Ω
VSWR	≤1.5
Interface	IPEX-1

---

SKYZONE Support

email:[daniel@skyzonehobbies.com](mailto:daniel@skyzonehobbies.com)

This content is subject to change. Download the latest version from

<https://skyzonefpv.com/>