

# Fiber Optic Data and Video Transmission Module

# ODVTM-GT Product Overview

▶ Product Name:

产品名称: 光纤数据视频传输模块地面端 (Optical Data Video Transmission Module - Ground Terminal)

Power Supply Type:

供电方式: 5V移动电源 (5V Power Bank : Type-C)

| Shell Material:

外壳材质: 聚乳酸 (PLA)

Product Specifications:

产品规格: 64mm×45mm×21mm

Body Weight:

机身重量: 37g±0.5g



# Fiber Optic Module Interface and Parameters

## 模块光纤接口及参数



Fiber Optic Interface:  
光纤接口: FC接口(FC Interface)

Fiber Type:  
光纤类型: 单模-单纤 (Single Mode - Single Fiber)

Data Rate:  
速率: 0~1Mbps

Single-mode wavelength:  
波长单模: 1310(9/125um)+15500

Transmission Distance:  
传输距离: 0~20km



## Data Parameters 数据参数

Data Interface:

数据接口: SH1.0\*6PIN SH1.06PIN (SH1.06PIN), Type-C, 3.5mm TRRS

Video Format:

视频制式: NTSC/PAL

Data Direction:

数据方向: 双向 (Bidirectional)

Data Format:

数据格式: TTL(TTL)



## ODVTM-GT Product Overview

## ODVTM-ST产品概述

Product Name: (ODVTM-ST)

产品名称: 光纤数据视频传输模块天空端

(Optical Data Video Transmission Module - Sky Terminal)



Power Supply Type:

供电方式: 5V-DC

Shell Material:

外壳材质: 聚乳酸(PLA)

Product Specifications:

产品规格: 64mm\*29mm\*21mm

Body Weight:

机身重量: 28g+0.5g



# Fiber Optic Parameters

## 光纤参数

› Fiber Optic Interface:  
光纤接口: FC接口(FC Interface)

Fiber Type:  
光纤类型: 单模-单纤 (Single Mode - Single Fiber)

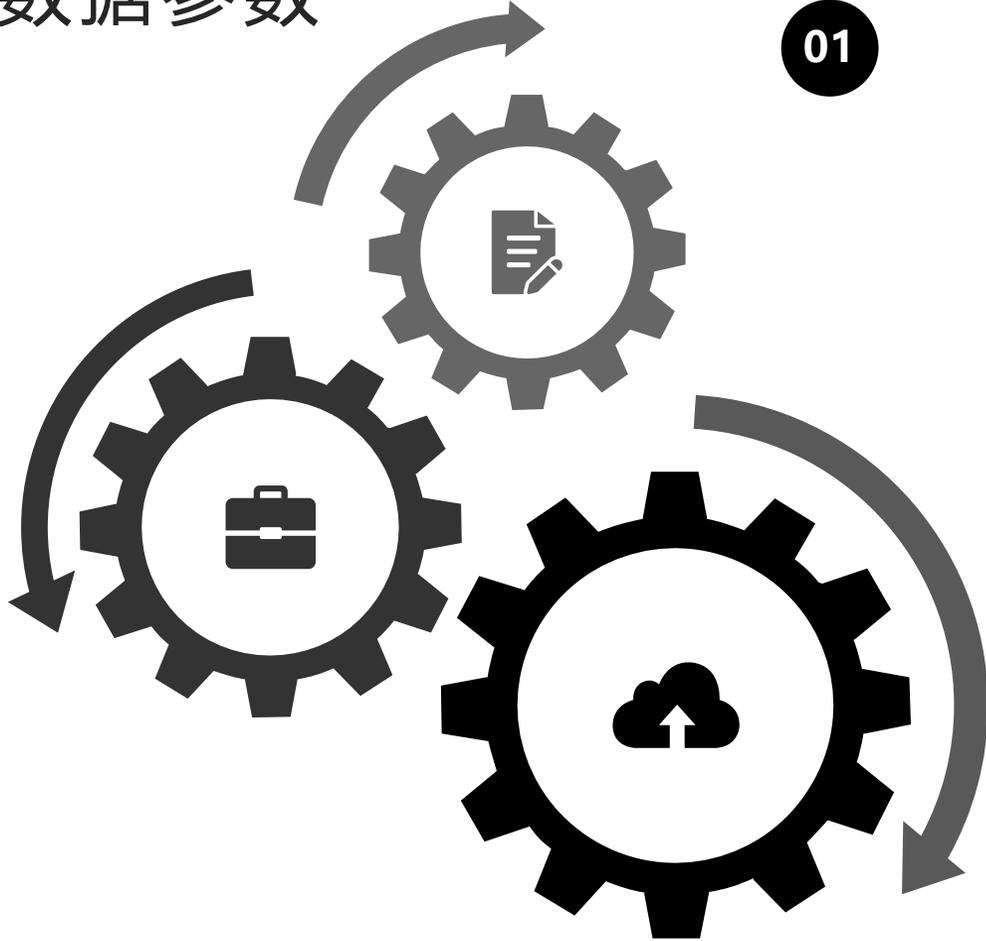
Data Rate:  
速率: 0~1Mbps

Single-mode wavelength:  
波长单模: 1310(9/125um)+15500

Transmission Distance:  
传输距离: 0~30km



## Data Parameters 数据参数



Data Interface:

数据接口: SH1.0\*6PINSH1.06PIN (SH1.06PIN)

Video Format:

视频制式: NTSC/PAL

Data Direction:

数据方向: 双向 (Bidirectional)

Data Format:

数据格式: TTL(TTL)



# Fiber Optic Drum Specifications

## 光纤桶规格

### 5-10km Fiber Optic Distribution Box

### 5-10km光纤出线盒

Dimensions: 12cm (Diameter) \* 33cm  
尺寸: 12cm (直径) \* 33cm

Shell Material: Acrylonitrile-Butadiene-Styrene Copolymer (ABS)

外壳材质: 丙烯腈-苯乙烯-丁二烯共聚物 (ABS)

Fiber Specification: 0.27mm  
光纤规格: 0.27mm

Weight: 0.59kg (for 5km ) 0.96kg( for 10km )  
重量: 0.59kg(5km) 0.96kg(10km)



# Fiber Optic Drum Specifications

## 光纤桶规格

### 15-30km Fiber Optic Distribution Box

### 15-30km光纤出线盒

Dimensions: 14cm (Diameter) \* 40cm  
尺寸: 14cm (直径) \* 40cm

Shell Material: Acrylonitrile-Butadiene-Styrene Copolymer (ABS)  
外壳材质: 丙烯腈-苯乙烯-丁二烯共聚物 (ABS)

Fiber Specification: 0.27mm  
光纤规格: 0.27mm

Weight: 1.5kg (for 15km ) 1.9kg (for 20km ) 2.7kg( for 30km)  
重量: 1.5kg(15km) 1.9kg(20km) 2.7kg(30km)



# Preparation Before Using the Fiber Optic Reel

## 光纤线盘使用前的准备

### Fiber Optic Ground Termination 光纤地端连接

Ensure that the FC module is aligned with the pigtail and the black tape on the tail is removed to facilitate signal transmission.

确保FC模块与尾纤对准，尾部黑色胶带去除，便于信号传输。

01

### Release internal fixation 解除内部固定

Cut off the fixed cable ties and pull them out completely so that the internal fiber can move freely.

剪掉固定扎带，完全抽出，内部光纤才能自由活动。

03

### Pull out the connector pigtail 拉出接头尾纤

Operate slowly, exposing the heat shrink tube and transparent optical fiber to avoid transmission impact.

缓慢操作，露出热缩管和透明光纤线，避免影响传输。

02

### Ready for safe takeoff 安全起飞准备

Remove all obstacles, take off slowly, and ensure that the optical fiber coil is working properly.

去除所有阻碍，起飞速度缓慢，确保光纤线盘正常工作。

04



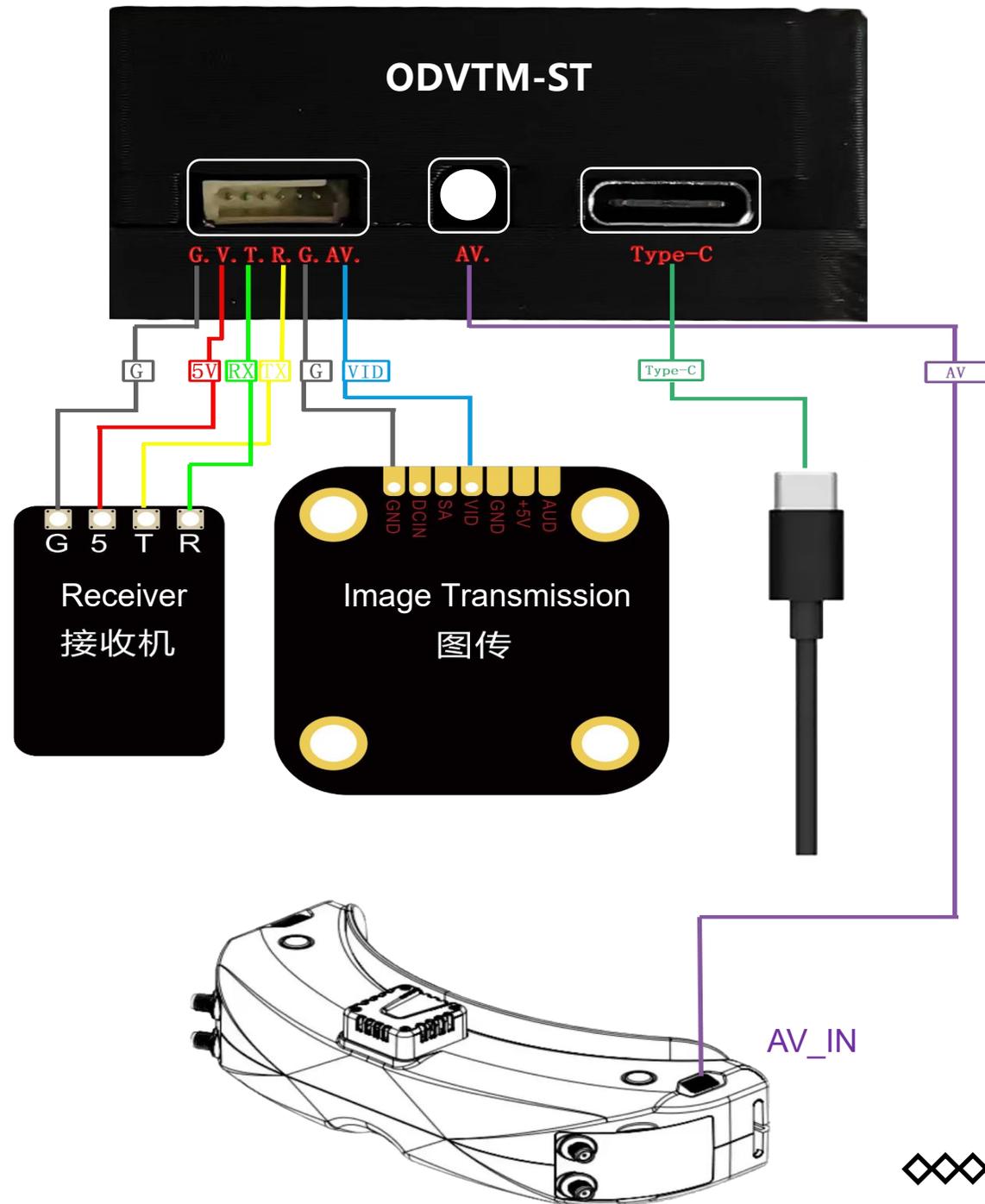
# Device connection 设备连接

01

## ODVTM-ST Device connection Procedure ODVTM-ST设备连接步骤

Connect the ODVTM-STD to the receiver and wireless image transmission using a 3.5mm cable from the AV\_OUT to the display or wired display glasses.

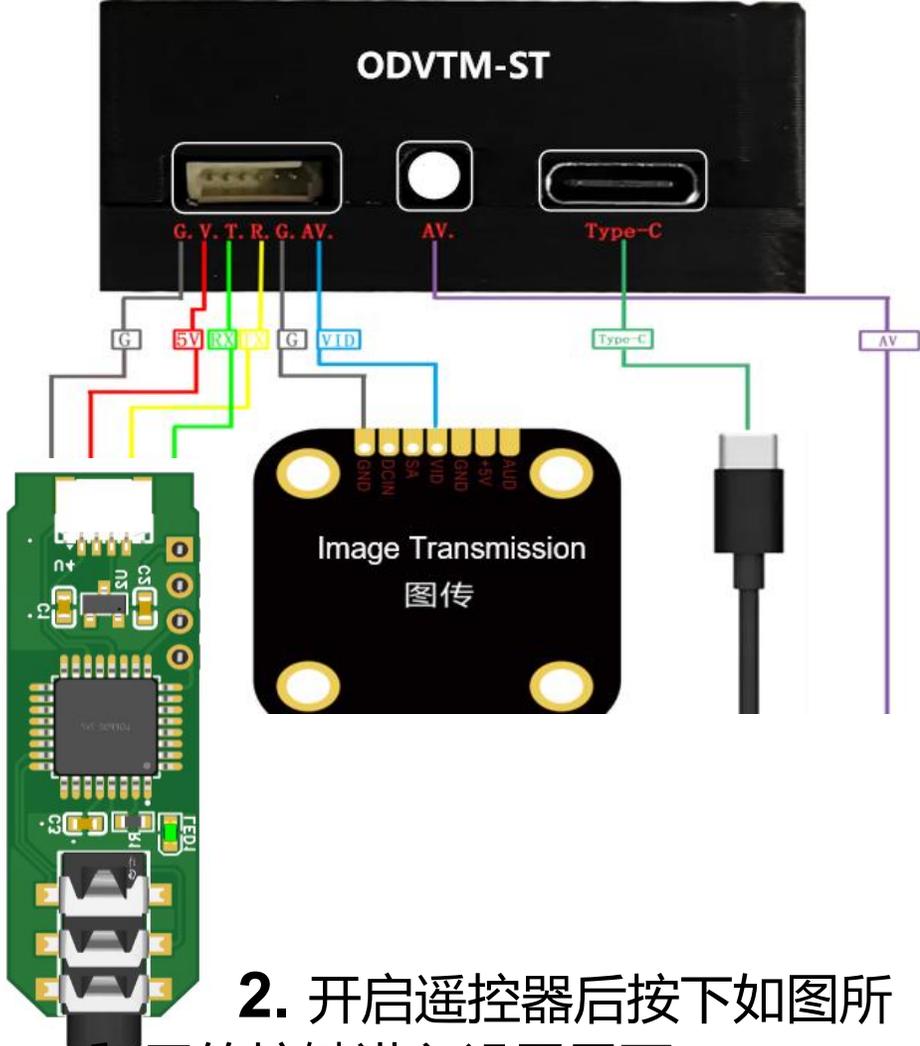
按接线图连接ODVTM-STD至接收机和无线图传，使用3.5mm连接线从AV\_OUT连接到显示器或有线显示眼镜。



## Wired Connection 有线连接

1. 将AUX连接线插入DSC接口与有线控制模块。

1.Plug AUX cable into DSC interface and wired control module.



2. 开启遥控器后按下如图所示的按键进入设置界面。

2.After opening the remote control, press the button as shown in the picture to enter the setting interface.

3. 按下页面切换键，进入第二页面。

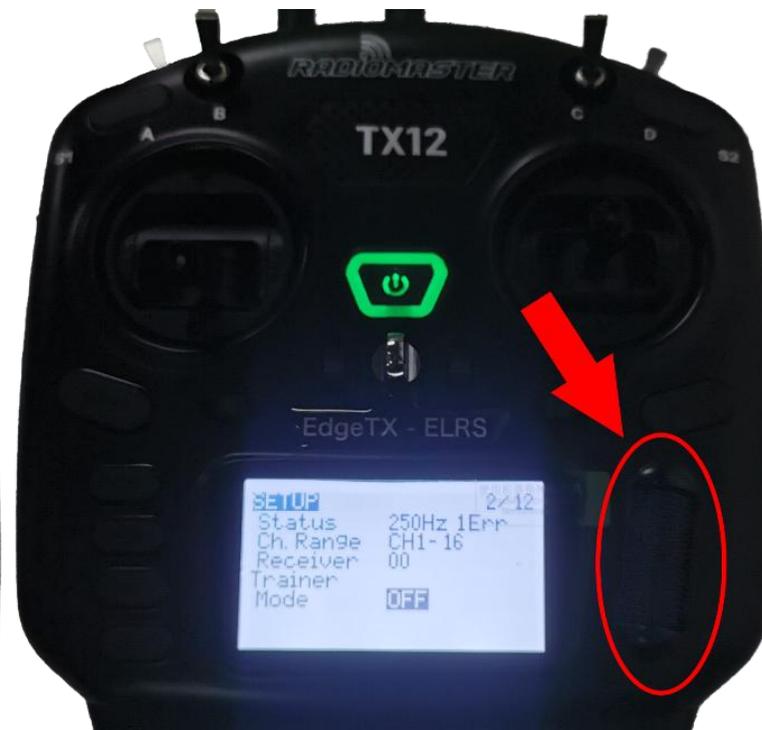
3. Press the page switch button to enter the second page.

4. 滑动滚轮到最的”Trainer”设置，按下后右滑进行开启。

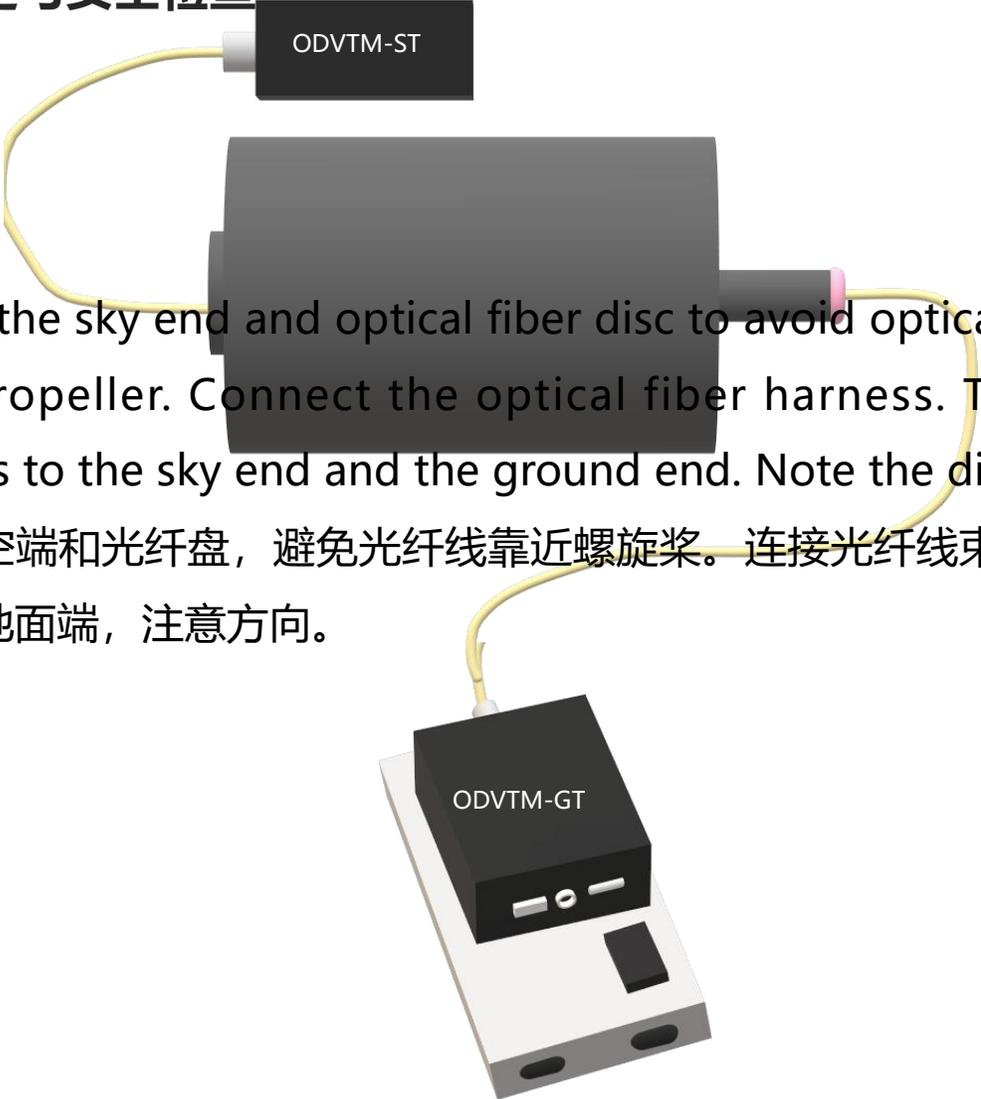
4. Slide the scroll wheel to the Trainer setting, press it, and then swipe right to enable it.

5. 将模式设置成“Slave/Jack”，完成全部设置后退出。

5. Set the mode to Slave/Jack and exit after all Settings are complete.

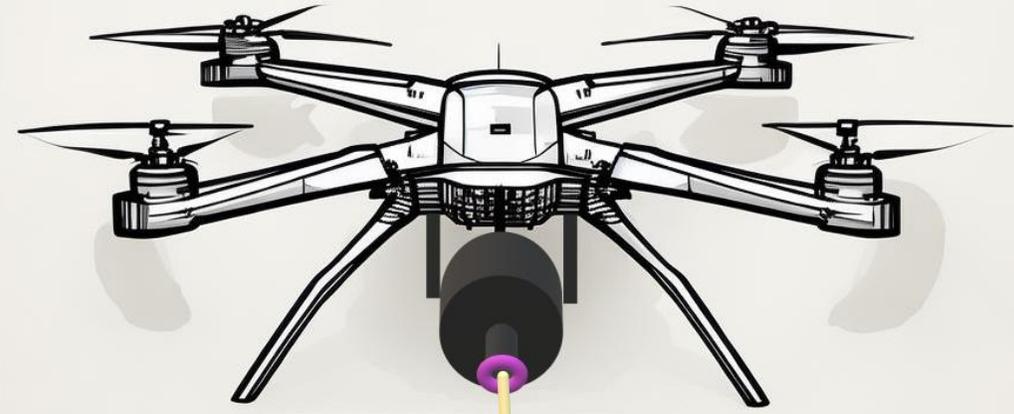


## Equipment fixing and safety inspection 设备固定与安全检查



Secure the sky end and optical fiber disc to avoid optical fiber lines near the propeller. Connect the optical fiber harness. The FC port corresponds to the sky end and the ground end. Note the direction.

固定天空端和光纤盘，避免光纤线靠近螺旋桨。连接光纤线束，FC接口对应天空端和地面端，注意方向。

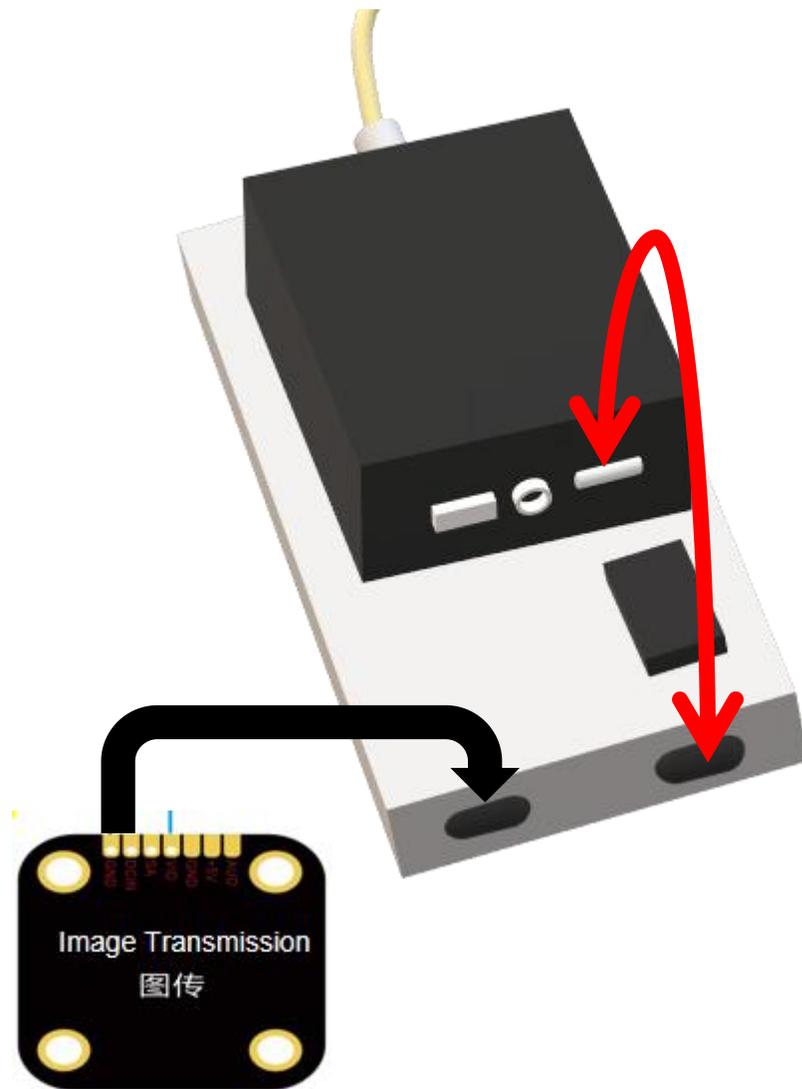


03

## Power and video equipment are connected 电源与视频设备接入

Connect the ODVTM-GT to a dedicated mobile power supply or, if using wireless graphics transmission, use the OUT1's 9V output to power the graphics transmission.

将ODVTM-GT连接至专用移动电源，若使用无线图传，则使用OUT1的9V输出对图传供电。



## Startup and security operation 启动与安全操作

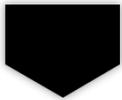
Finally, turn on the mobile power switch to prevent accidents, and press twice to turn off the power.

最后开启移动电源开关，预防意外发生，连接两次可关闭电源。

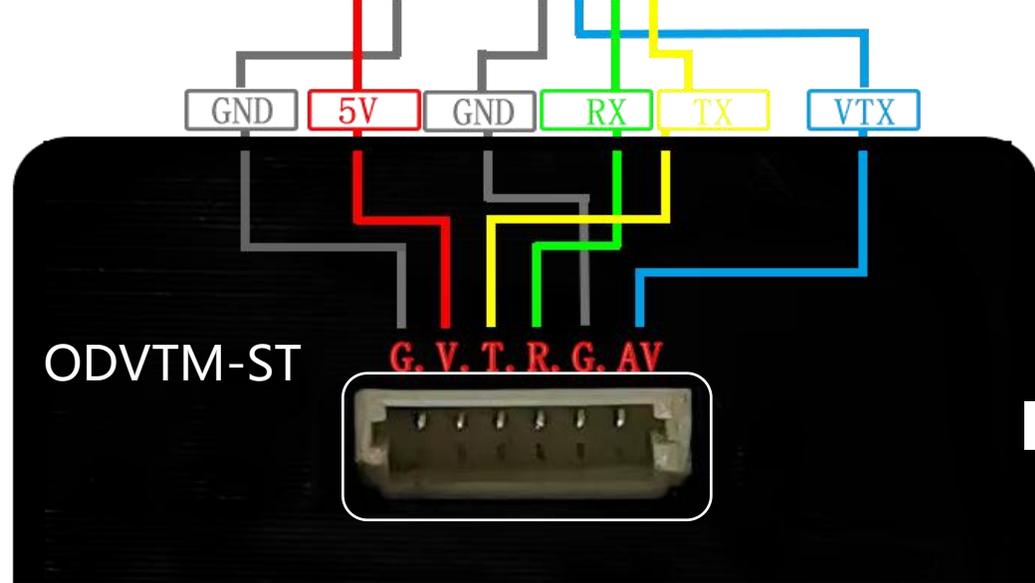
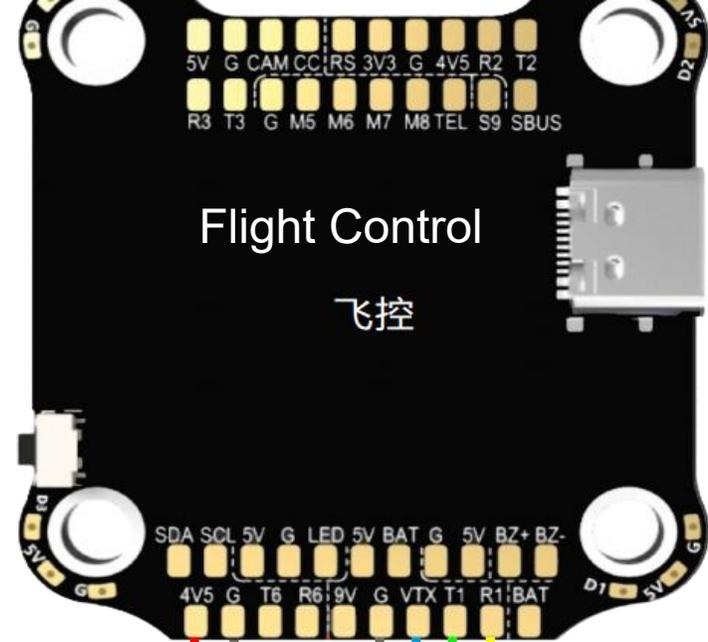


Power button  
电源按钮





# Mobile power interface diagram 移动电源接口示意图



# Sky terminal wiring diagram 天空端接线图



# Note:

## **Voltage safety tips**

The input voltage must be between 5 and 24v to ensure device safety.

## **Optical Fiber Operation Notice**

Avoid fiber discounting or contact with sharp objects to prevent fiber breakage and ensure signal transmission.

## **Interface and cleaning protection**

Protect optical fiber connectors and FC ports to avoid contamination, and close the protection cover after using them.

## **Storage environment requirements**

Store in a cool, dry place away from light, handle gently, and keep the optical fiber tray upright.

# 注意事项:

## 电压安全提示

输入电压需保持在5-24v，避免正负极反接，确保设备安全。

## 光纤操作须知

避免光纤打折或接触尖锐物，防止断纤，确保信号传输。

## 接口与清洁保护

注意保护光纤接头和FC接口，避免污染，使用后盖紧保护盖。

## 储存环境要求

储存时选择阴凉干燥、避光处，轻拿轻放，保持光纤盘竖立。











