

SKYZONE

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SKY02

3D FPV GOGGLE

USER MANUAL

System Content



FPV GOGGLE



Carry case



SKY201 Transmitter



SKY301 Camera



5.8G 2dBi antenna X 4



Futaba data cable



JR data cable



WFLY data cable



AV cable



Power cable



2P TX Power cable

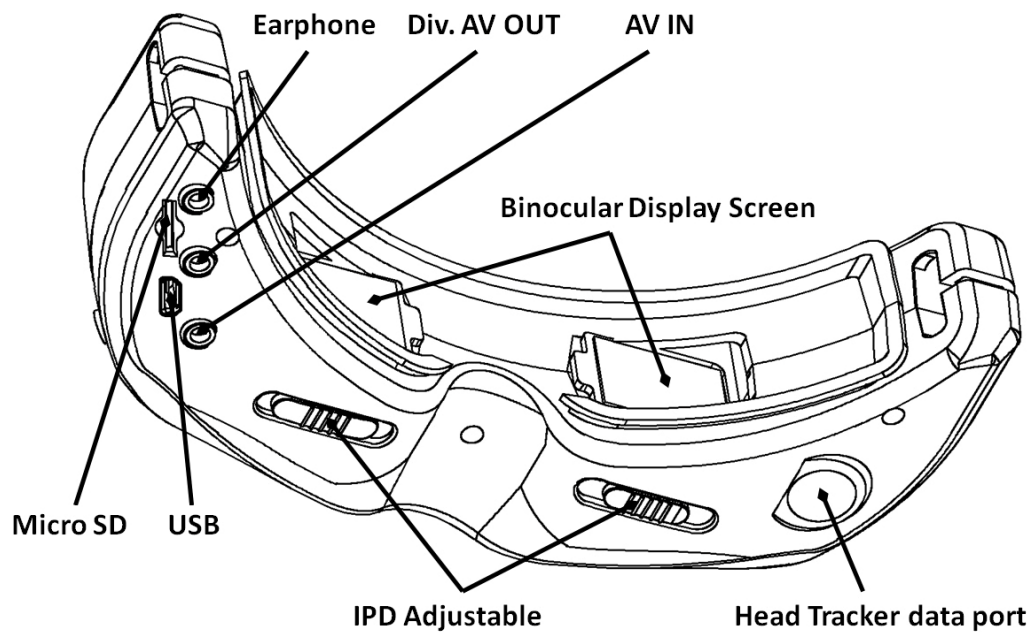
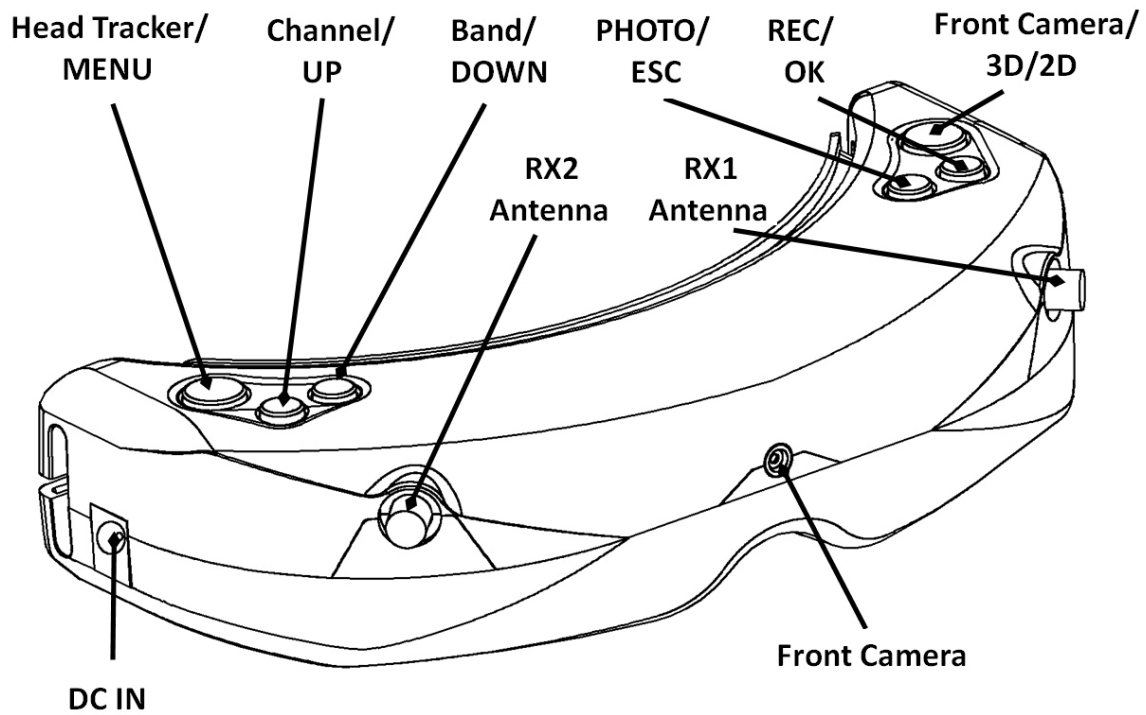


6P Camera cable



3P TX Remote control cable x2

Function Diagram



Operation Instruction

The FPV Goggles SKY02 with Built-in 5.8Ghz Diversity Receiver and diversity Antenna inputs and two independent video display modules can bring you the 3D Vision FPV experience of flying. It requests the 3D camera SKY301 and the dual transmitter SKY201. The two lens 3D camera that using the parallel shooting method will bring you strong 3D vision for close-range shooting and weaker for long-distance shooting. But there will be more vivid visual experience as a whole.

The FPV goggles can also work in normal diversity mode which is in 2D vision. And they are well

compatible to SKY201 and most of other transmitters. It supports 4 Bands and total 32channels (Bands selection and Resulting Frequencies see details in Specifications)

Quick Start Guide

Preparation:

- Install the lens, lens hood, antennas and the TF card
- Connect the camera and transmitter and then power the transmitter and FPV goggles
- Short press <UP/DOWN> button to setup the same channel to the transmitter to view the image
- Pull the IPD Adjuster to adjust the inter-pupillary distance

Buttons:

TRACK Button:

- Short press the Track button to reset the Head Tracker in the normal mode
- Long press MENU button 3 seconds to enter MENU setup
- Switch between the 4 main menu with this button in MENU setup

CHANNEL Button:

- Short press to add channel in 3D RF mode
- Short press to in 2D RF mode, multiple press for loop adjustment
- Long press 3 seconds to turn up the volume in 3D RF、2D RF、AV IN、PLAYBACK mode
- It's up button in MENU setup

BAND Button:

- Short press to reduce channel in 3D RF mode
- Short press to adjust the band in 2D RF Mode, multiple press for loop adjustment
- Long press 3 seconds to turn down the volume in 3D RF、2D RF、AV IN、PLAYBACK mode
- It's down button in MENU setup

REC Button:

- Short press to start recording and press again to stop in 3D RF、2D RF、AV IN mode
- It's OK button in MENU setup

PHOTO Button:

- Short press to capture in 3D RF、2D RF and AV IN playback Mode
- It's ESC button in Menu setup

CAMERA Button:

- Short press to switch to Front Camera mode in any mode
- Long press 3 seconds to fast switch to 2D from 3D RF Mode

RF mode

3D mode

- 3D mode in RF mode, and will be in 2D in all other modes.
- Press up/down button to adjust the 4 default channels. And it is also ok to custom the RF Band to select the proper band and channels. (Caution: there will be interference if select frequency too close. The recommended frequency interval is 40MHz)
- Long press <CAMERA> button to fast switch to 2D mode.

2D mode

- They will work in diversity mode if close the 3D mode in the menu. And the setup in 3D mode will not work.
- Press <CHANNEL> button to select channels, and <BAND> for band, multiple press to cycle.

Front Camera

- The Front Camera is Wide-Angle Camera with 680X480(VGA) Resolution and good low Illumination. It's very convenient to view around without taking off the Goggles.
- Press "Camera" button to open the Front Camera.
- The Front Camera can neither be recorded nor display via AV OUT but for viewing around only. It's ok to open the Front Camera while recording.
- It's ok to setup the goggles with the Front camera turning on

Image adjustment

- It's ok to adjust the Brightness、Contrast、Saturation、Hue、Sharpness Parameters in Image setup Menu
- Press REC/OK button to enter setup and press UP/DOWN to adjust, press ESC to exit
- It's recommended to adjust while the image is good.

Head Tracker

- Please keep the goggles in horizontal position and steady, initialization is ok when there is 1 beep. Or short press the <TRACK> button.
- short press the TRACK button with beep to setup the PPM to center.
- Setup PPM CHANNEL in the Menu : CH5-CH6、CH5-CH7、CH5-CH8、CH6-CH7、CH6-CH8、CH7-

CH8。

- Pan Tracking range : 180degree (L90/R90)、120degree (L60/R60)、90degree (L45/R45), Default 90degree
- Tilt Tracking range : 120degree (UP60/DOWN60)、90degree (UP45/DOWN45)、60degree (UP30/DOWN), Default 90degree
- Pan Correction : setup for compensating Pan center offset, 0~10 levels, actual angles refers to rotation angle of the cradle head
- Tilt Correction : setup for compensating Tilt center offset, 0~10 levels, actual angles refers to rotation angle of the cradle head

Recording

- Please format the TF card firstly before record
- Recording is either ok in RF Mode or AV in Mode. Screen displays <REC> and <memory card info.>, Press <REC>按钮 to start record, and <REC> in red with recording time displayed
- Press <PHOTO> to capture in preview mode with click (not ok while recording)
- There is both video and audio in default. It is ok to turn off audio in the system menu to record video only.
- It is also ok to turn off the video record to save power.

Playback

Button functions in playback:

- **Long press <REC> to enter playback in RF or AVIN mode.** (Please don't connect the AV cable in playback mode)
- REC <PLAY/PAUSE/OK>
- PHOTO <STOP/BACK>
- BAND <PREVIOUS /BACKWARD >
- CHANNEL <NEXT/FORWARD >
- TRACK <DELETE>
- Videos and photos are previewed directly in playback mode, the last 4 number of the file displayed in top right corner and duration time for video clips.
- PRESS CHANNEL BUTTON for 2X , 4X , 8X quick play, and press REC back to normal speed. Press PHOTO button back to preview or play again or other actions.
- Press TRACK button to delete the file and press REC to confirm.
- The files captured from other devices may not be played properly.

AV input

- The goggles support AV IN. The wireless model will close when the AV IN is connected to save power.
- Please plug off the AV IN cable if playback, and don't plug in while playing otherwise it will exit automatically.

AV output

- AV Out is the diversity Video and Audio output
- Earphone port is audio output for connecting earphones, Each boot is automatically set to the lowest volume to avoid sudden loud boot












Format SD card



- Format SD card and press <OK> to enter setup, press <UP/DOWN> and select < YES>, press <OK> again to format
- Caution: all files will be deleted, please operate sincerely.

Factory settings

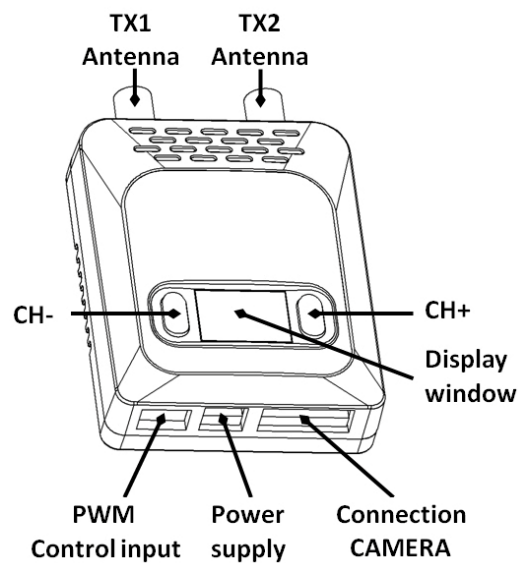
- Enter system menu and select Factory settings, press <OK> to setup, press <UP/DOWN> and select < YES>, and then press <OK> to setup to factory default setting.

Screen OSD Overview

-  Recording : Red while recording, Red  while record module is closed, SD card is full or SD CARD error.
-  拍照: Press <PHOTO> button once in video preview,  red once indicates one photo is captured.
-  Memory card: normal with, capacity with GMB (1000MB) and red when memory is full.
- Mode: RF mode, AV IN mode, PLAYBACK mode
-  Mode: Enabled only in RF MODE
-  Mode: Displayed when enable Fast 2D in 3D mode and also indicated the signal source from RX1 or RX2.
-  Mode: Displayed when close 3D mode or in AV IN, PLAYBACK, FRONT CAMER Mode.
-  Mode: Displayed when connected to PC. It is ok to manage the memory card
-  PLAY/PAUSE
-  BACKWARD /FORWARD

- POWER:DC IN power, screen displays <DC IN>, Power by battery, it is ok to select from 2S, 3S, 4S, 5S, 6S, and displayed on the screen,  indicates full power,  indicates low power
- CHANNEL : Displayed in 3D Mode. When enable Custom mode in 3D mode , Band and Channeled of RX1/RX2 will also displayed , Displayed BAND and CH in 2D Mode

Transmitter Operation Instruction



- Please make sure the antenna and transmitter are compatible otherwise the transmitter maybe damaged.
- Please place the transmitter in well-ventilated place and avoid to place in confined place or wrap the transmitter tightly.
- Please don't touch the antenna or the mental parts to avoid burning by the parts
- SKY201 has two digit LED display. It showed channels in default channel mode and LEFT for TX1 band and channel, RIGHT for TX2 band and channel in Custom channel mode.
- Press <CH->, <CH+> to adjust the channels, total 4 channels
- Long press <CH->or<CH+> to enter Custom setup. The display will flash quickly and then Press <CH-,CH+> to setup band of TX1,TX2 separately. Long press <CH-,CH+> separately to ext Band setup. Short press <CH->or<CH+> to setup channels . Please press <CH->or<CH+> at the same time to switch from custom to default mode.
- It is also ok to control the channels of the transmitter through the PPM signal. To assign a Thirds switch in the remote control , C-H, to CH+, C-L to CH-. Connect 1PPM channel of the receiver to the S1 port of the SKY201 to control mother channels.
- Connect another PPM channel of receiver to S2 of SKY201 in custom mode. S1 for TX1 and S2 to TX2.

Specifications (SKY301)

| | |
|-----------------------|-----------------------|
| FOV | 85 degrees (Diagonal) |
| F/NO | F/NO=3.0 |
| Resolution | 720X576 |
| Video Standard | PAL |
| Video output level | 1.0Vp-p Typ. / 75ohm |
| Audio output level | 2.0Vp-p Typ. / 10Kohm |
| Power supply | DC 5.0V/ 0.5A |
| Power Consumption | 1.6W |
| Dimensions | 65(L)X30(W)X28(H)mm |
| Weight | g |
| Operating Temperature | 0℃～+60℃ |

Specifications (SKY201)

| Modulate | Wideband FM Modulate | | | |
|---------------------|--|------|------|-------|
| Video Standard | NTSC/PAL | | | |
| RF Output Impedance | 50 ohm | | | |
| RF Output Power | Min. | Typ. | Max. | Units |
| | 26.0 | 27 | 28 | dBm |
| | ISM 5.8GHz 32 Channel, Dual Transmitter. | | | |

| Wireless Transmitter | Preset Frequency | CH 1 | | CH2 | | CH3 | | | CH4 | | |
|-------------------------|------------------|---------------|--|---------------|-------|---------------|-------|-------|---------------|-------|--|
| | | 5733M / 5771M | | 5752M / 5790M | | 5809M / 5847M | | | 5828M / 5866M | | |
| | Custom Frequency | Band | CH 1 | CH2 | CH3 | CH4 | CH5 | CH6 | CH7 | CH8 | |
| | | A | 5865M | 5845M | 5825M | 5805M | 5785M | 5765M | 5745M | 5725M | |
| | | B | 5733M | 5752M | 5771M | 5790M | 5809M | 5828M | 5847M | 5866M | |
| | | E | 5705M | 5685M | 5665M | 5645M | 5885M | 5905M | 5925M | 5945M | |
| | | F | 5740M | 5760M | 5780M | 5800M | 5820M | 5840M | 5860M | 5880M | |
| Video input level | | | 1.0Vp-p Typ. / 75ohm | | | | | | | | |
| Video Band Width | | | 8.0MHz | | | | | | | | |
| Audio input level | | | 2.0Vp-p Typ. / 10Kohm | | | | | | | | |
| Audio carrier Frequency | | | 6.5MHz | | | | | | | | |
| Power supply | | | DC 7.0V~26V/ 1.5A | | | | | | | | |
| Power Consumption | | | 12V input: 7.5W | | | | | | | | |
| Dimensions | | | 59(L)X46(W)X16(H)mm (Not include prominent part) | | | | | | | | |
| Weight | | | g | | | | | | | | |
| Operating Temperature | | | 0□~+70□ | | | | | | | | |

Specifications (SKY02)

| Binocular Display | FOV | 30 degrees (Diagonal) | |
|-------------------|-------------------------------|---|--|
| | Resolution | 854X480(WVGA), 1,229,760 color sub-pixels | |
| | Brightness | 350cd/m ² | |
| | Interpupillary distance (IPD) | 57.5-69mm Adjustable | |

| | | | | | | | | | | |
|-------------------|--|---------------|---|---------------|-------|-------|---------------|-------|---------------|-------|
| Wireless Receiver | ISM 5.8GHz 32 Channel, Diversity receiver. | | | | | | | | | |
| | Preset Frequency | CH 1 | | CH2 | | | CH3 | | CH4 | |
| | | 5733M / 5771M | | 5752M / 5790M | | | 5809M / 5847M | | 5828M / 5866M | |
| | Custom Frequency | Band | CH 1 | CH2 | CH3 | CH4 | CH5 | CH6 | CH7 | CH8 |
| | | A | 5865M | 5845M | 5825M | 5805M | 5785M | 5765M | 5745M | 5725M |
| | | B | 5733M | 5752M | 5771M | 5790M | 5809M | 5828M | 5847M | 5866M |
| | | E | 5705M | 5685M | 5665M | 5645M | 5885M | 5905M | 5925M | 5945M |
| | | F | 5740M | 5760M | 5780M | 5800M | 5820M | 5840M | 5860M | 5880M |
| Sensitivity | | -90dBm±1dBm | | | | | | | | |
| Antenna port | | 2 X SMA,50ohm | | | | | | | | |
| Front Camera | FOV | | 60 degrees (Diagonal) | | | | | | | |
| | Resolution | | 640X480(VGA) | | | | | | | |
| | FOCAL LENGTH | | f=4.0mm | | | | | | | |
| | F/NO | | F/NO=2.8 | | | | | | | |
| Head Tracker | Sensor | | Magnetic, Inertial and gyro | | | | | | | |
| | Output | | PPM 8 channel, Optional 5-6CH,5-7CH,5-8CH,6-7CH,6-8CH,7-8CH | | | | | | | |
| Record | Micro SD | | Support to 32GB | | | | | | | |
| | Compression | | MJPEG, 30fps, AVI | | | | | | | |
| | Picture | | JPEG | | | | | | | |
| | Record rate | | 6Mbps | | | | | | | |
| AV Signal | Video Standard | | NTSC/PAL | | | | | | | |
| | Video output level | | 1.0Vp-p Typ. / 75ohm | | | | | | | |
| | Audio output level | | 1.0Vp-p Typ. / 10Kohm | | | | | | | |
| AV Port | Div. AV | | Diversity Video, Audio output | | | | | | | |

| | | |
|-----------------------|------------------|---|
| | | |
| | EAR OUT(3.5mm3P) | Stereo 16Ω/150mW |
| | AV IN(3.5mm4P) | Video、Audio input |
| Power Supply | DC IN | DC 7~26V/ 1A |
| | Power | 12V input: 5.4W |
| Dimensions | | 168(L)X92.5(W)X41(H)mm (Not include prominent part) |
| Weight | | g |
| Operating Temperature | | 0℃~+60℃ |