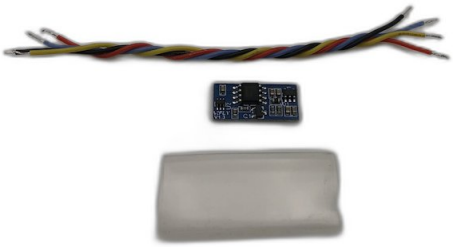
VIFLY Cam Switcher

Dual FPV camera switcher
User manual



Read this manual carefully before installation and keep it for future reference.

www.rotorama.com

Contents

1. Product description

1.1 Purpose

1.2 Specifications and package contents

2. Use

2.1 Installation safety

2.2 Solder pads

2.3 Selecting the receiver protocol

2.4 Wiring

2.5 Radio setup

2.6 Function check

3. Troubleshooting

4. Information for the EU and Czech Market

4.1 Importer and responsible person in the EU

4.2 Disposal of electrical equipment

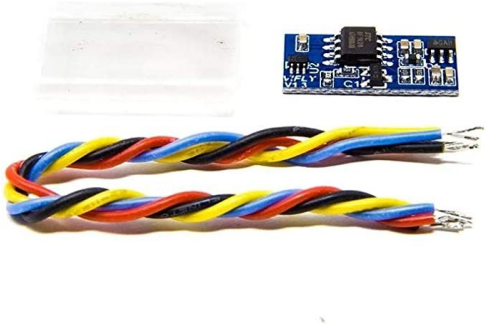
5. Warranty and rights arising from defective performance

1. Product description

1.1 Purpose

The **VIFLY Cam Switcher** is a miniature board that lets you fit two cameras on one FPV model and switch between them in flight with a switch on your radio. Both cameras (C1 and C2) and the video transmitter (VTX) are connected to the board; depending on the control signal, the board sends the picture from one camera or the other to the VTX.

The control signal is taken directly from the RC receiver – the **SBUS, DSMX, iBUS** and **PWM** protocols are supported. Nothing is set in the flight controller (FC) and no Betaflight configuration is needed. The switcher suits drones (e.g. a front and a rear or downward camera) as well as FPV airplanes.



Switcher board, set of connecting wires and heat shrink tube

1.2 Specifications and package contents

Product designation	VIFLY Cam Switcher
Manufacturer	VIFLY (www.viflydrone.com)
Video inputs	2 (camera C1 and camera C2)
Input voltage	4.2–25 V
Control signal	SBUS, DSMX, iBUS, PWM
Dimensions	9 × 18 mm
Weight	0.5 g
Package contents	1× VIFLY Cam Switcher 1× set of silicone wires 1× heat shrink tube
Not included	cameras, video transmitter (VTX), RC receiver, radio, soldering supplies

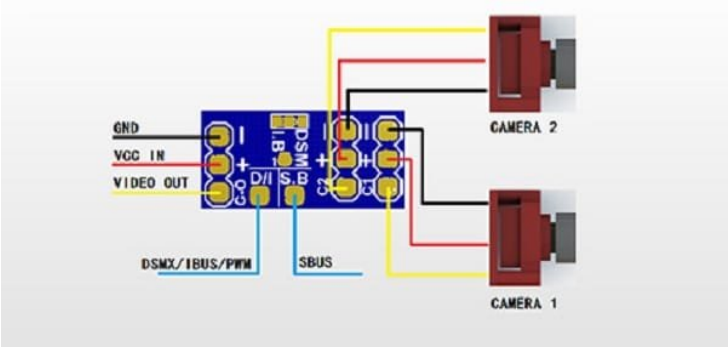
2. Use

2.1 Installation safety

- **Disconnect the model's battery** before soldering and before any change to the wiring.
- The power pads on the VTX side and on the camera side are **connected together** – both cameras receive **the same voltage** that you feed to the switcher input. The board does not reduce the voltage in any way. Power it only with a voltage that both cameras can handle.
- Do not apply more than **25 V** to the input. Note: a fully charged 6S Li-Po battery has 25.2 V (6 × 4.20 V), so do not connect the board directly to the voltage of a 6S battery.
- Both cameras are powered permanently; only the video signal is switched.
- After wiring, check that no joints are short-circuited and insulate the board with the supplied heat shrink tube.
- We recommend using short-circuit protection (smoke stopper) when connecting the battery for the first time.

2.2 Solder pads

The board has no connectors; all wires are soldered directly to the pads. One side of the board carries the power input and the video output for the VTX, the opposite side the power and video inputs of both cameras. In the middle are the control signal pads and three small pads for protocol selection (DSM / iB / P, see Chapter 2.3).



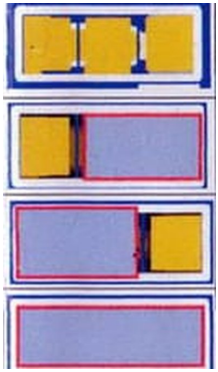
Wiring diagram (according to the manufacturer's manual)

Pad	Function
− / + (GND / VCC IN)	ground and power input 4.2–25 V; the same voltage is also present on the + pads of both cameras
VIDEO OUT	video output to the video transmitter (VTX)
C1 / C2	pads for camera 1 and camera 2 (−, +, video)
S.B / D/I	control signal: S.B = SBUS, D/I = DSMX, iBUS or PWM

2.3 Selecting the receiver protocol

From the factory, all three small pads are open – the switcher is in **SBUS** mode. For a different protocol, bridge the pads with solder according to the table and connect the control signal to the corresponding pad.

Protocol	Bridging of small pads	Signal to pad
SBUS	do not bridge any pads (default)	S.B
DSMX	bridge the right and middle pads	D/I
iBUS	bridge the left and middle pads	D/I
PWM	bridge all three pads	D/I



Top to bottom: SBUS, DSMX, iBUS, PWM (grey = bridged)

※ The manufacturer only states support for the SBUS, DSMX, iBUS and PWM protocols. Other protocols (e.g. CRSF) are not among those supported.

2.4 Wiring

① Select the protocol by bridging the small pads (Chapter 2.3).

② On the VTX side, solder ground (−), power (+) and the video output (VIDEO OUT) to the video transmitter.

③ On the opposite side, solder both cameras – the camera you want as the default to the C1 pads, the second camera to the C2 pads. Each camera has ground (−), power (+) and video.

④ Connect the control signal from the receiver to the **S.B** pad (SBUS) or the **D/I** pad (DSMX, iBUS, PWM). The receiver and the switcher must share a common ground.

⑤ Check the joints, insulate the board with heat shrink and mount it in the model so that it cannot touch the propellers or any conductive parts.

2.5 Radio setup

The switcher reads one channel from the receiver. On your radio, assign a two-position switch to this channel.

- **SBUS, DSMX and iBUS:** the switcher uses **channel 7**.
- **PWM:** connect the output of the receiver channel you want to switch with to the D/I pad.
- Pulse width **0.9–1.4 ms** (value approx. 900–1400) = camera **C1**.
- Pulse width **1.6–2.1 ms** (value approx. 1600–2100) = camera **C2**.

Nothing is set in the flight controller (FC) or in Betaflight. If channel 7 is already used for another function, that function has to be moved to a different channel.

2.6 Function check

The board has no status LED, so check its function directly in the video image:

① Remove the propellers, switch on the radio and connect the model's battery.

② With the switch in the C1 position (short pulse), check the image from camera C1 in your goggles or on the monitor.

③ Flip the switch – the image must change to camera C2. Switching back returns camera C1.

3. Troubleshooting

Problem	Possible cause and solution
No image	Check the power (+/−) of the switcher and cameras and the VIDEO OUT → VTX connection. Make sure the cameras can handle the supplied voltage.
Image cannot be switched	Check that the signal is on the correct pad (S.B / D/I) and matches the bridging of the small pads. With SBUS, DSMX and iBUS the switch must control channel 7. Check the common ground of receiver and switcher.
Cameras are swapped	Reverse the switch positions on the radio (channel reverse), or swap the cameras between C1 and C2.
Unreliable switching	Check that the end positions of the switch lie within 0.9–1.4 ms and 1.6–2.1 ms (on the radio's channel monitor).
Receiver uses CRSF	The CRSF protocol is not supported; use an SBUS or PWM output if your receiver offers one.

4. Information for the EU and Czech Market

4.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

4.2 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

5. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 4.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.