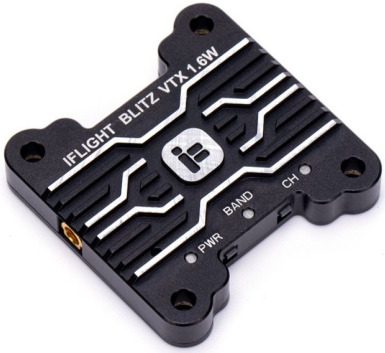
iFlight BLITZ 1.6W VTX

Analogue 5.8 GHz video transmitter (VTX)
User manual



Always install the antenna before powering on. In the Czech Republic, operation without an individual licence is permitted only in the 5725–5875 MHz band at a maximum of 25 mW e.i.r.p.

Rotorama, s.r.o. · www.rotorama.com

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1. Safety instructions

1.1 Before you start

Read this entire manual carefully before first use and keep it for future reference. The video transmitter (VTX) is an electronic component designed to be installed in an FPV drone or another model. Installation and wiring require basic soldering skills and experience with flight controller (FC) configuration.

- This product is not a toy. Keep it out of the reach of children.
- Please read the instructions for proper wiring (Chapter 4) before use.
- Do not modify the product and do not use it if it is damaged.

1.2 Antenna and cooling

Antennas must be installed BEFORE powering on. The VTX can be damaged when used without an antenna or without proper cooling.

- Installing the antenna before switching on the power extends the life of the module.
- Keep enough space around the VTX when installing it to ensure air convection around the module for heat dissipation. Otherwise, the module will enable overheat protection and the transmission power will be reduced or even switched off.
- The VTX and its heatsink get hot during operation. Do not touch them immediately after switching off.
- Do not leave the VTX powered on the bench for a long time without airflow, especially at higher power levels.

1.3 Power supply and wiring

- Before switching on the power, make sure the supply voltage is within **7–34 V** and the positive and negative polarity is correct (+/−), to avoid burning the components.
- **5V OUT** is a power output (e.g. for a camera), not an input. Do not apply voltage to it.
- Make all connections with the battery disconnected.
- For the first power-up after installation, we recommend using a short-circuit protector (smoke stopper) or a bench power supply with current limiting.

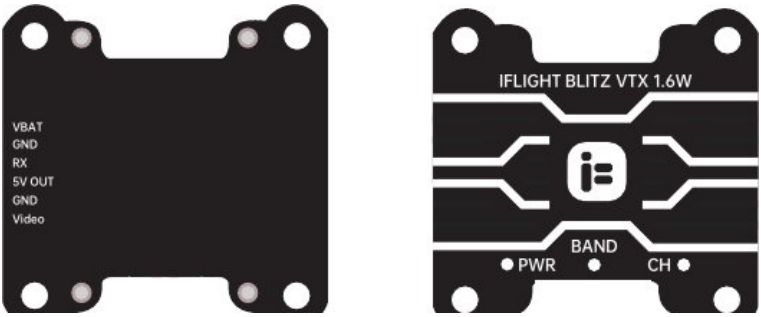
2. Product description

2.1 Package contents

- 1× iFlight BLITZ 1.6W VTX video transmitter (according to the manufacturer)
- Any additional accessories supplied with the product are listed in the product description at www.rotorama.com.

For operation you also need a 5.8 GHz antenna with an **MMCX** connector (or an adapter), a camera with analogue output and a power source – usually the drone battery, to which the VTX is connected via the flight controller.

2.2 Parts and ports



Bottom side with port labels (left) and top side with buttons (right)

PWR – power button with green LED: changes output power and PIT mode.

BAND / CH – band and channel button: short press changes the channel (red LED), long press changes the band (blue LED).

MMCX connector – for the antenna (on the side of the VTX).

Power and signal connector – pins VBAT, GND, RX, 5V OUT, GND, Video (on the side of the VTX).

Pin	Function
VBAT	positive input (7–34 V)
GND	negative
RX	IRC Tramp signal input (control from FC)
5V OUT	5 V power output
GND	negative
Video	video signal input from the camera



PWR, BAND and CH buttons and indicators



Power and signal connector with pin labels

2.3 Specifications

Parameter	Value
Type designation	IFLIGHT BLITZ VTX 1.6W
Frequency band	5.8 GHz (frequencies see Chapter 5.3)
Channels	40 (bands A, B, E, F, R) according to the manufacturer's manual; since 09/2025 the manufacturer states 48 channels (L band added)
Power levels	PIT / 25 / 400 / 800 / 1600 mW
Factory default power	25 mW
Input voltage	7–34 V
Power output	5 V (5V OUT)
Antenna connector	MMCX
Control from FC (VTX telemetry)	IRC Tramp
Mounting pattern	30.5 × 30.5 mm, Φ3 mm holes
Weight	18.9 g (excluding antenna)
Microphone	built-in, always on; volume cannot be adjusted
Other features	overheat protection, built-in output power self-check, fast frequency lock with no start-up interference with other pilots

※ The microphone adds sound to the video signal, so DVR recordings made in the goggles include sound.

3. Legal conditions of operation

3.1 The law of the country of operation applies

Radio equipment is subject to Directive 2014/53/EU (RED) throughout the European Union, but each country sets its own permitted frequency bands and maximum output power. The information in this chapter describes the situation in the Czech Republic. If you operate the transmitter in another country, you must comply with the regulations of the country in which you transmit. When used in a drone, the rules for unmanned aircraft operation (Regulation (EU) 2019/947) and the national regulations of that country also apply.

3.2 Frequencies and output power in the Czech Republic

Under the Czech Telecommunication Office (ČTÚ) general authorisation **VO-R/10** (short-range devices), a video transmitter may be operated in the Czech Republic without an individual licence only under these conditions:

Frequency band	Max. power	Regulation
5725–5875 MHz	25 mW e.i.r.p.	VO-R/10, Art. 3(2)(k)

- The **e.i.r.p.** limit includes the antenna gain. The VTX is set to 25 mW by default.
- Channels outside 5725–5875 MHz and the 400, 800 and 1600 mW power levels **must not be used in the Czech Republic without an individual licence**. The manufacturer points out that power levels above 25 mW require a HAM licence or approval by the local authorities.
- A radio amateur licence only permits operation within the amateur radio service and under the conditions of that licence.
- The user is responsible for the channel and power settings. Outside the Czech Republic, the bands and limits of the respective country apply.

3.3 Frequency bands and output power of the product

Information according to Art. 10(8) of Directive 2014/53/EU (Czech Government Regulation No. 426/2016 Coll.), taken from the manufacturer's documentation:

Frequency range of channels in bands A, B, E, F, R	5645–5945 MHz
L band (production batches from 09/2025)	frequencies not stated in the manufacturer's manual
Maximum output power	1600 mW (according to the manufacturer)

Information on product conformity and the EU declaration of conformity is given in Chapter 8.2.

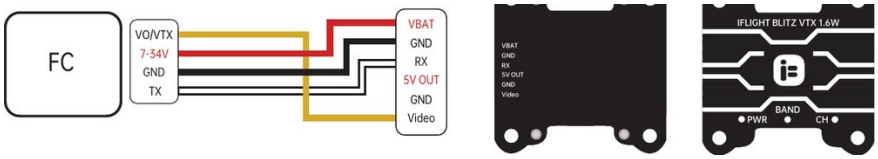
4. Installation and wiring

4.1 Installation

- The VTX has a **30.5 × 30.5 mm** mounting pattern (Φ3 mm) and can be mounted in a standard 30×30 mm stack.
- Position it so that air can flow around the heatsink (see Chapter 1.2).
- Route the antenna as far as possible from carbon frame parts and connect it to the VTX before the first power-up.

4.2 Connecting the VTX to the flight controller (FC)

The most common wiring: the VTX is powered from the power output of the flight controller, receives the video signal from the FC's VTX output (VO), and its channel and power are set from the FC via IRC Tramp.



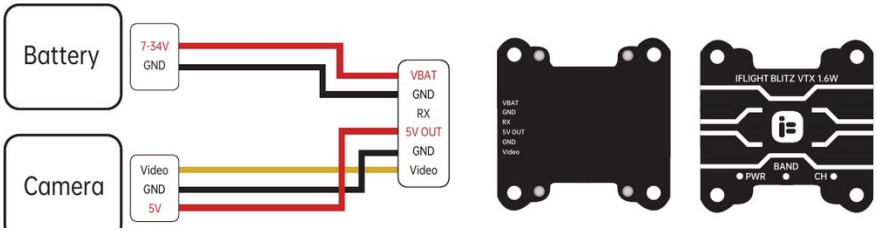
Connect VTX to FC

Flight controller (FC)	VTX	Note
7–34 V (VTX power)	VBAT	observe the voltage range
GND	GND	
TX (UART)	RX	IRC Tramp
VO / VTX	Video	video signal from FC

Then enable the corresponding VTX IRC Tramp on the UART port used on the flight controller (Chapter 6.1).

4.3 Connecting the VTX without a flight controller

The VTX can be powered directly from the battery, and the camera can be powered from its 5V OUT output. In this case, channel and power are set with the buttons only (Chapter 5); the RX pin remains unconnected.



Connect VTX without FC – battery and camera

Source	VTX	Note
battery + (7–34 V)	VBAT	observe the voltage range
battery −	GND	
camera 5V	5V OUT	camera power
camera GND	GND	
camera Video	Video	

5. Button operation

5.1 Buttons and LEDs

Button	Press	Function and indication
PWR (power)	short press	Changes the output power. The number of green LED flashes indicates the selected power level (1 flash = 25 mW).
	press and hold 2 s	Enters or exits PIT mode. Solid green light indicates PIT mode.
BAND / CH (band and channel)	short press	Switches the channel. The red LED (CH) flashes indicate the channel 1 to 8.
	press and hold 2 s	Switches the band. The blue LED (BAND) flashes indicate the band A to R.

※ The manufacturer's manual does not clearly state how many green LED flashes correspond to the 400, 800 and 1600 mW levels. Therefore, check the selected power in Betaflight or in the OSD (Chapter 6.3). Channel and power set with the buttons may be overwritten by the flight controller settings when connected to an FC.

5.2 PIT mode

In PIT mode, the VTX transmits practically nothing or only at a very low power. It is used for setting the channel on the bench or in the pits without interfering with pilots who are flying. Press and hold the PWR button for 2 s to enter or exit PIT mode; a solid green light indicates PIT mode.

5.3 Frequency table

Band	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917

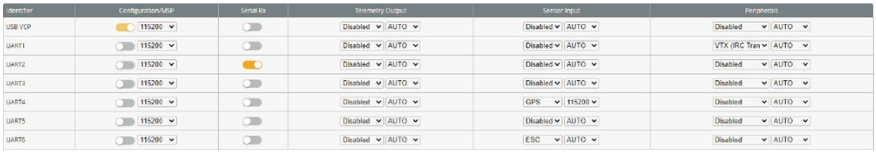
Frequencies in MHz according to the manufacturer's manual

- In the Czech Republic, only channels with a frequency within **5725–5875 MHz** may be used without a licence (Chapter 3.2). Do not use channels outside this band – this includes all channels of band E.
- The frequencies of the L band, added by the manufacturer to production batches from 09/2025, are not stated in the manufacturer's manual.

6. Betaflight setup

6.1 Enabling IRC Tramp on a UART port

In Betaflight Configurator, open the *Ports* tab. For the UART port connected to the RX pin of the VTX, select *VTX (IRC Tramp)* in the *Peripherals* column and click *Save and Reboot*.



Example: IRC Tramp on UART1 (Ports tab)

6.2 VTX table

For the flight controller to know the channels and power levels of the VTX, load the VTX table into it. The manufacturer offers two files on the product page (*Downloads* tab): **BLITZ 1.6W VTX table – EU** and **– US**. Use the EU table.

- In Betaflight Configurator, open the *Video Transmitter* tab, load the file with *Load from file* and click *Save*.
- Power levels in the table: 25 / 400 / 800 / 1600 mW (RC Tramp VTX table values: 25, 400, 800, 1600).
- The manufacturer's EU table contains bands A, B, F and R; non-permitted channels (e.g. band E) are not included.

Manufacturer's product page:
shop.iflight.com/BLITZ-1.6W-VTX-Adjustable-Pro1703

6.3 Selecting channel and power

After loading the VTX table, set the band, channel and power in the *Video Transmitter* tab, in the OSD menu or from the radio transmitter (e.g. via the Betaflight script on the radio). The flight controller sends the settings to the VTX via IRC Tramp.

Before take-off, check that the selected channel is in a permitted band and that the power complies with the regulations of the country in which you fly.

7. Maintenance and troubleshooting

7.1 Maintenance

- Check that the MMCX connector is firmly seated and the antenna cable is undamaged, especially after a crash.
- Keep the heatsink clean and free of dirt and grass that block airflow.
- Check the wires and their insulation for damage.
- Protect the VTX from moisture; after flying in damp conditions, let it dry before switching it on again.

7.2 Troubleshooting

Problem	Possible cause and solution
No image in the goggles	Goggles and VTX are not on the same channel, or the VTX is in PIT mode (solid green light). Check the channel and exit PIT mode by holding PWR for 2 s.
Image present, but short range	Low power level, damaged or loose antenna, antenna shadowed by the frame. Check the antenna and the power setting.
Image fades or disappears after a while	Overheat protection has been activated. Ensure airflow around the VTX (Chapter 1.2).
Channel and power cannot be set from FC	VTX table missing, IRC Tramp not enabled on the correct UART port, or TX/RX wire swapped. See Chapter 6.
VTX does not switch on	Check the supply voltage (7–34 V), polarity and the VBAT and GND connections.
Camera has no power (wiring without FC)	Check the camera connection to 5V OUT and GND.

8. Information for the EU and Czech Market

8.1 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

8.2 Product conformity

CE

- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorama.cz.
- **Product identification:** the type designation (IFLIGHT BLITZ VTX 1.6W) is printed directly on the top side of the product.

8.3 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.

9. 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 8.1.
- 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.