SteadyView X 5G

Skyzone – 4.9–6 GHz analogue video receiver with signal fusion, IPS screen and built-in ELRS backpack



Read this entire manual carefully before first use and keep it for future reference.

www.rotorama.com

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1. Safety instructions

The receiver is designed to receive analogue video from a video transmitter (VTX) when flying FPV models. Use it only for this purpose and in accordance with this manual.

- Power the receiver only within **6.5–25.2 V** via the DC connector (corresponds to a 2S–6S Li-Po battery) or with up to **5 V** via USB-C. A higher voltage will permanently damage the receiver – e.g. a fully charged 6S LiHV battery (26.1 V) already exceeds this limit.
- Before connecting power, always check the polarity and the condition of the cable and connectors. Do not use a damaged cable.
- Connect both antennas before switching on. Tighten the SMA connectors by hand only, without tools.
- The receiver heats up during operation. Do not cover the fan or the ventilation openings and do not touch hot parts.
- Protect the receiver from moisture, dust, drops and direct sunlight. Do not use it in the rain.
- Do not disconnect the receiver from the computer during a firmware update.
- Never fly with a video feed you cannot see clearly – land immediately if the video is lost or disturbed.
- Do not leave Li-Po batteries connected to the receiver unattended and disconnect them after use. A deeply discharged battery may be damaged.
- The receiver is not a toy. Keep it and its small accessories out of the reach of children.
- Do not disassemble or modify the product. Tampering with the device is not covered by the rights arising from defective performance.

2. Product description

2.1 Introduction

The SteadyView X receiver is a high-performance receiver. Unlike a traditional diversity receiver, the SteadyView X has unique **fusion technology**, narrow-band filter hardware and a unique image reconstruction algorithm. The receiver merges two signals into one, avoids image tearing and rolling, and makes the image more stable and clear in challenging conditions.

The receiver has a colour IPS screen and a shuttle wheel. It can be used as a ground station with any goggles or monitor that have an AV IN port; the manufacturer's original manual also lists use in SKYZONE 04 series, Fatshark and SKYZONE Cobra goggles. The 5G version supports the X band in addition to the 5.8 GHz bands. The built-in ELRS backpack allows the receiver channel to be synchronised with the video transmitter via the radio transmitter.



SteadyView X V2 5G

❊ The manufacturer has gradually replaced the SteadyView X (5G) with the SteadyView X V2 version with a new housing, a faster cooling fan and a heat sink. According to the manufacturer, performance and features are identical; the version actually delivered prevails.

2.2 Specification

Parameter	Value
Model	SteadyView X V2 (5G version)
Screen	0.96" colour IPS LCD
Viewing direction	all view
Frequency	4.9–6 GHz, 7 bands × 8 channels
Sensitivity	−93 dBm ±1 dBm
Narrow-band filter	yes
Antenna connectors	2× SMA-K, 50 Ω
Mode	Mix1, Mix2, Mix3, Diversity, Single RX
Video output	1.0 Vp-p typ. / 75 Ω
Audio output	none
Language	English
Voltage	DC 6.5–25.2 V / USB ≤ 5 V
Consumption	12 V at 530 mA (6.33 W)
DC IN	Φ 5.5 mm, pin 2.1 mm
A/V output	Φ 3.5 mm jack
USB	USB-C, firmware update
Dimensions	70 × 34 × 36.5 mm
Weight	60 g

Original SteadyView X version: dimensions 65 × 32 × 32 mm, weight 49 g.

2.3 Band/channel table

Channel frequencies in MHz:

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
L	5362	5399	5436	5473	5510	5547	5584	5621
X	4990	5020	5050	5080	5110	5140	5170	5200

※ In the Czech Republic, a video transmitter may only transmit in the 5725–5875 MHz band – see chapter 7.1.

2.4 Package contents



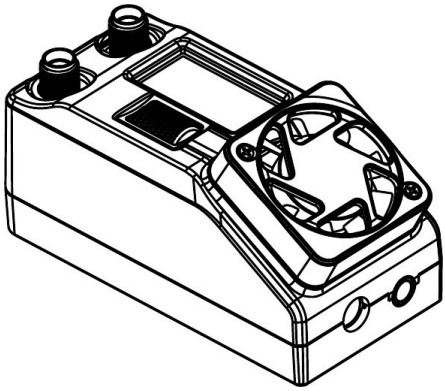
Package contents (manufacturer's illustration photo)

Item	Qty
SteadyView X V2 receiver	1×
Patch antenna (RHCP)	1×
Omnidirectional antenna (mushroom type)	1×
XT60 – DC 5.5 × 2.1 mm power cable	1×
3.5 mm jack video cable, 1.2 m	1×
User manual	1×

Not included: Li-Po battery, goggles or monitor, video transmitter (VTX), radio transmitter, USB-C cable.

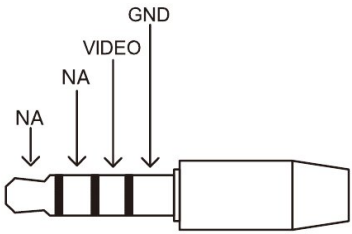
※ The introduction of the manufacturer's manual also mentions a ground station kit and module bay covers for goggles. The actual contents of the delivered version prevail.

2.5 Connectors and controls



Receiver – on top 2 SMA antenna connectors, IPS screen, shuttle wheel and fan; on the side DC input and A/V output

- **SMA antenna connectors (2×)** – for two antennas; the receiver processes both signals at the same time.
- **IPS screen** – shows the band, channel, frequency, signal strength (RSSI) and the menu.
- **Shuttle wheel** – rolling changes a value, pressing confirms, holding opens the system menu.
- **DC input** (Φ 5.5 / 2.1 mm) – power supply 6.5–25.2 V.
- **A/V output** (3.5 mm jack) – video output to goggles or a monitor.
- **USB-C** – firmware update and power supply up to 5 V.



3.5 mm video port pin-out: GND – ground, VIDEO – video signal, NA – not connected

3. Connection and power supply

① Screw the supplied antennas (patch and omnidirectional) onto both SMA connectors.

② Connect the A/V output of the receiver to the AV IN port of the goggles or monitor using the 3.5 mm video cable.

③ Connect power: a 2S–6S Li-Po battery via the XT60 – DC cable to the DC input, or a 5 V supply to the USB-C connector.

④ Switch on the video transmitter (VTX) on the model and set the same band and channel on the receiver (chapter 4.1), or use auto search (chapter 4.2).

The receiver can also be placed further away from the pilot – at a spot with better signal reception – and the video routed to the goggles or monitor by cable.

※ The product has no audio output. A voltage above 25.2 V will damage the receiver.

4. Operation

4.1 Band/channel setting

① In preview mode, press the wheel to enable the channel setting. Roll the wheel to change the channel.

② Press the wheel again to enable the band setting; roll the wheel to change the band.

③ With no action for 3 seconds, the receiver returns to preview mode.

④ In preview mode, the display switches between a big font and a small font.

4.2 Auto search

① Hold the wheel to open the menu, select search (*Search*) and press the wheel. The receiver starts searching and, after the search, changes to the channel with the strongest RSSI.

② After the search, the screen shows the RSSI bars of all channels; roll the wheel to adjust the channel manually.

③ Press the wheel during the search to quit the search.

Sometimes the auto search is not accurate – in that case set the channel manually.

4.3 Receiver mode

Some cameras on the market do not follow the standard NTSC/PAL signal, which confuses the receiver in Mix mode. This can cause the image to get dark, colour distortion or a rolling image. Switch to Diversity mode to solve this issue.

- **Mix1** – the basic mix mode; provides basic fusion processing to reduce excessive interference of the circuit on the image.

- **Mix2** – improves synchronisation stability, especially with weak signals, to maximise synchronisation and lock the video.
- **Mix3** – enhances the synchronisation signal on the basis of Mix2, maximises the stability of the video and the compatibility with cameras. In this mode, the brightness of the image is reduced.
- **Mix Off** – the mix feature is turned off; the receiver works as a traditional diversity receiver or as a single receiver.

4.4 Antenna select

In this menu you can choose *Diversity*, *A* or *B*.

- **Diversity** – both receivers work at the same time and the strongest signal is output.
- **A, B** – only one receiver is working, to save power.

4.5 Stabilize time

This parameter is only valid in Mix mode. It sets the stabilisation time after the receiver loses the synchronisation signal. The default is 8 seconds; for Mix1, 5 or 8 seconds is recommended.

The longer the setting, the longer the stabilisation time. Since the sync signal has been lost, black bars may appear on the left or right side of the video, because the synchronisation generated by the receiver and the synchronisation sent by the video transmitter are not in sync and the error keeps growing. Once the signal is restored to sufficient strength, it is synchronised immediately. If it is still not synchronised after the set time, the receiver loses the signal lock and automatically works in diversity or single receiver mode.

4.6 OSD mode

You can choose the OSD style in the video; the OSD is shown at the top left of the image.

- **LockIconFreq** – lock status, signal format, RSSI bar and frequency.
- **LockIcon** – lock status, signal format and RSSI bar.
- **LockFreq** – lock status, signal format and frequency.
- **Lock** – lock status and video signal format.
- **OFF** – the OSD in the video is turned off.

4.7 Menu style

- **Style1** – white on a blue background.
- **Style2** – blue on a yellow background.
- **Style3** – white on a black background.

4.8 RSSI calibration

Calibrating the RSSI helps the receiver work better and show the signal strength more accurately. The calibration consists of two steps, both of which must be executed correctly.

① Make sure the receiver and the video transmitter are working normally and are matched to the same channel.

② Turn off the power of the video transmitter and calibrate the low RSSI in the menu.

③ When done, turn on the power of the video transmitter and calibrate the high RSSI.

④ When done, quit the calibration menu.

5. ELRS backpack

The SteadyView X has an ELRS VRX backpack built in. Using the TX backpack of an ExpressLRS radio transmitter, you can synchronise the receiver (VRX) channel with the video transmitter (VTX).

① In the *ELRS* menu, you can turn the backpack on or off.

② If the backpack is on, go to bind mode in the *ELRS* menu and bind it to the TX backpack. A Lua script on the radio transmitter is needed for binding. The screen shows a confirmation after successful binding.

③ **Backpack firmware update:** connect the receiver to the computer and select upgrade (*upgrade*) in the *ELRS* menu; the backpack enters boot mode. In ExpressLRS Configurator choose *Backpack*, the *VRX backpack* type and the target *Steadyview+ELRS*, select the correct COM port and start *Build & Flash*. If the TX backpack already uses a binding phrase, you can enter it here as well.

▶ Further documentation

Official documentation: www.expresslrs.org and www.edgetx.org.

6. Firmware update

① Hold the wheel while connecting the receiver to the computer with a USB-C cable.

② The computer automatically installs the driver and shows a new removable storage. You can then release the wheel.

③ Copy the SteadyView X firmware file to this storage. The receiver installs the update while the file is being copied; when copying is done, the firmware update is complete.

※ Use only firmware intended for the SteadyView X in the version matching your receiver (5G). The latest firmware and manual are available on the manufacturer's website www.skyzonefpv.com (Download section).

7. Operation and troubleshooting

7.1 Frequencies and regulations

The receiver itself does not transmit video – it receives the signal from the video transmitter (VTX) on the model. However, the frequency bands and transmit powers permitted for video transmitters differ from country to country. The information in this chapter describes the situation in the Czech Republic. If you operate the product in another country, you must comply with the regulations of the country in which you use it.

- In the Czech Republic, video transmission without an individual licence is permitted in the **5725–5875 MHz** band with a maximum power of **25 mW e.i.r.p.** (general authorisation of the Czech Telecommunication Office VO-R/10).
- Channels of the **L** and **X** bands and channels of other bands outside the 5725–5875 MHz range are not permitted for video transmission in the Czech Republic.
- The user is responsible for the channel and power settings of the video transmitter.

7.2 Troubleshooting

Problem	Solution
Dark image, colour distortion, rolling image	The camera does not follow the NTSC/PAL standard. Switch the receiver to Diversity mode (chapter 4.3).
No image	Check the power supply of the receiver and the video transmitter, the antenna and video cable connections and that band and channel match.
Search found a wrong channel	Auto search may not be accurate – set the channel manually (chapter 4.1).
Black bars at the edge of the image	Synchronisation was lost with a weak signal – see chapter 4.5.
Inaccurate RSSI indication	Perform the RSSI calibration (chapter 4.8).
Backpack does not bind	Check that the backpack is turned on in the ELRS menu and start binding with the Lua script (chapter 5).

If the problems persist, contact your dealer.

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 (SteadyView X V2 5G) is given on the product or on its packaging.

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.