Osprey 150mm

FlyfishRC – 5.8 GHz circularly polarised antenna
SMA – RHCP and RP-SMA – LHCP versions



Never power on a video transmitter without an antenna connected. Read this manual before use.

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1. Product description

1.1 Intended use

The FlyfishRC Osprey 150mm is a circularly polarised antenna for the 5.8 GHz band. It connects to the video transmitter (VTX) of an FPV drone and radiates its signal towards the goggles or video receiver. The four-leaf radiating element is hermetically sealed in an impact-resistant polycarbonate housing – the same material propellers are commonly made of. The head is carried by a flexible RG141 coaxial cable; the overall length of the antenna is 150 mm, so the head can be mounted high above the frame and the battery. This makes it particularly suitable for freestyle and long-range quadcopters.

The antenna is supplied in two versions that differ in connector and in the sense of polarisation: **SMA – RHCP** (right-hand circular polarisation) is intended mainly for quadcopters with analogue video transmission, **RP-SMA – LHCP** (left-hand circular polarisation) is for quadcopters with digital video transmission. Chapter 2.1 explains which version to choose.



Osprey 150mm antenna
(RP-SMA – LHCP version)

1.2 Specifications and package contents

Manufacturer	FlyfishRC
Product designation	Osprey 5.8Ghz 150mm SMA Antenna – RHCP Osprey 5.8Ghz 150mm RP-SMA Antenna – LHCP
Frequency	5.8 GHz (band 5.6–6.0 GHz)
Gain	2.82 dBi
VSWR	≤ 1.2:1
Radiation efficiency	99 %
Polarisation	RHCP or LHCP depending on version
Connector	gold-plated SMA (RHCP) or RP-SMA (LHCP)
Head	diameter 14.1 mm, height 14 mm
Length	150 mm
Cable	RG141 coaxial
Element housing	polycarbonate, hermetically sealed
Colour	black (transparent housing)
Weight	11.29 g
Package contents	1× antenna in the selected version
Not included	video transmitter, antenna mount, connector adapters, mounting hardware

2. Use

2.1 Choosing the version: connector and polarisation

Before mounting, make sure the antenna version matches both your video transmitter and your goggles. Two things are decisive:



Left: RP-SMA connector (LHCP version), right: SMA connector (RHCP version)

① **Connector.** The RHCP version has an **SMA** connector with a centre pin, the LHCP version an **RP-SMA** connector with a centre socket. Both types share the same thread but are not compatible with each other – connecting SMA to RP-SMA does not create a conductive connection of the centre conductor, and the video transmitter then works practically without an antenna. The antenna connector must match the connector on the video transmitter; otherwise use a suitable adapter (not included).

② **Polarisation.** The antenna on the drone and the antennas on the goggles or video receiver must have **the same sense of circular polarisation** – RHCP with RHCP, LHCP with LHCP. A mismatch considerably reduces image quality and range.

※ *Rotorama recommendation: the SMA – RHCP version is suitable mainly for analogue quadcopters, the RP-SMA – LHCP version for quadcopters with digital video transmission. Always check the polarisation of the antennas on your goggles in their manufacturer's documentation.*

2.2 Mounting on the drone

① Disconnect the drone's battery. Connect and disconnect the antenna only while the video transmitter is switched off.

② Fit the antenna connector onto the video transmitter connector and tighten the coupling nut **by hand** until it seats. Turn only the nut, not the cable or the head. Do not use excessive force – you could damage the video transmitter connector.

③ Secure the cable to the frame with a suitable antenna mount (not included) so that the head points upwards or backwards above the frame and is **out of reach of the propellers**.

④ Do not place the head right next to carbon or metal parts or behind the battery – they shield the signal. The 150 mm length allows the head to be raised above the battery.

⑤ Do not bend the cable sharply, especially next to the connector and the head, and do not kink it repeatedly at the same spot.

⑥ Before connecting the battery and before Arm (motor start), check that the antenna cannot get into the propellers.

2.3 Safety, care and post-crash inspection

- **Never power on the video transmitter without an antenna connected** or with a damaged antenna. This may permanently damage the video transmitter.
- The antenna itself does not transmit anything – the frequency and output power are determined by the video transmitter settings. The user is responsible for configuring it in accordance with the regulations of the country in which the drone is operated.
- After every crash, check the head housing (cracks), the cable (kinks, damaged insulation) and the connector (looseness, bent centre pin). Replace a damaged antenna.
- Clean with a dry or slightly damp cloth. Do not use solvents or aggressive cleaning agents – they may damage the polycarbonate housing.
- Store the antenna in a dry place, without kinking the cable and out of the reach of children.

2.4 Troubleshooting

Problem	Possible cause and solution
Weak image, short range, noise	Polarisation mismatch (RHCP × LHCP) – use antennas with the same polarisation on the drone and the goggles. SMA × RP-SMA connector mix-up – use the correct version or an adapter.
Video dropouts in certain drone attitudes	The head is shielded by the frame or the battery – mount it higher above the frame.
Image got worse after a crash	Damaged cable, housing or connector – inspect the antenna as described in chapter 2.3 and replace it if necessary.

3. Information for the EU and Czech Market

3.1 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

3.2 Disposal



- 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.

4. 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 3.1.
- 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.