Osprey 140mm u.FL

FlyFishRC · circularly polarized 5.8 GHz FPV antenna
u.FL (IPEX 1) connector · RHCP and LHCP versions



Read this manual before installation. The antenna polarization on the drone and on the receiving side (goggles, video receiver) must be the same.

Contents

1. Product description

1.1 Intended use

1.2 Specifications and package contents

2. Use

2.1 Choosing RHCP / LHCP polarization

2.2 Connecting to the video transmitter

2.3 Mounting on the drone

2.4 Care and troubleshooting

3. Information for the EU and Czech Market

3.1 Importer and responsible person in the EU

3.2 Disposal of electrical equipment

4. Warranty and rights arising from defective performance

1. Product description

1.1 Intended use

The FlyFishRC Osprey 140mm u.FL is a circularly polarized antenna for FPV video transmission in the 5.8 GHz band. It is mounted on an FPV drone and connects directly to a video transmitter (VTX) with a u.FL (IPEX 1) connector. It covers the 5.6–6.0 GHz frequency range.

The antenna uses a four-leaf (4-leaf) design housed in a transparent, hermetically sealed cover made of impact-resistant polycarbonate. In its upper part, the RG1.13 coaxial cable runs inside a protection tube. The 140 mm length from the head to the connector allows the antenna head to be routed above the drone frame. The antenna is available in two polarization versions – **RHCP** (right-hand) and **LHCP** (left-hand).



FlyFishRC Osprey 140mm u.FL antenna

1.2 Specifications and package contents

Type	circularly polarized 5.8 GHz FPV antenna
Polarization	RHCP or LHCP – depending on the selected version
Frequency range	5.6–6.0 GHz
Gain	2.82 dBi
VSWR	≤ 1.2:1
Radiation efficiency	99 %
Connector	u.FL (IPEX 1)
Cable	RG1.13 coaxial cable in a protection tube
Head dimensions	diameter 14.1 mm, height 14 mm
Overall length	154 mm (of which 140 mm from the head to the connector)
Weight	3.56 g

▶ Package contents

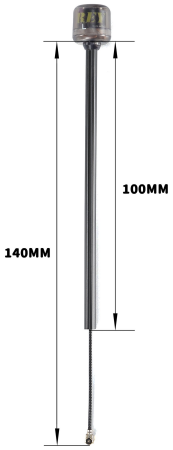
- 1× FlyFishRC Osprey 5.8GHz 140mm ipex/UFL antenna in the selected polarization (RHCP or LHCP).

▶ Not included

- video transmitter (VTX), antenna mount or cable ties,
- adapters to other connector types (MMCX, SMA, RP-SMA).

▶ Product identification

FlyFishRC Osprey 5.8Ghz 140mm ipex/UFL FPV Antenna – **RHCP** (manufacturer code A000722) or – **LHCP** (manufacturer code A000201). Manufacturer: FlyFishRC.



Antenna dimensions (manufacturer data)

2. Use

2.1 Choosing RHCP / LHCP polarization

Circularly polarized antennas on the transmitting and receiving side must have the **same polarization direction**. Combining RHCP on the drone with LHCP on the goggles (or vice versa) significantly weakens the received signal and shortens the range.

- Before buying, check the polarization of the antennas on your FPV goggles or video receiver and choose the same version.
- Both versions look almost identical. If you have more than one, mark them after unpacking (e.g. with coloured heat-shrink tubing) so that you do not mix them up.
- When flying in a group, you can agree with other pilots on different polarizations – this partly reduces mutual interference.

※ The frequency and transmit power are determined by the video transmitter, not by the antenna. However, the antenna gain counts towards the radiated power (e.i.r.p.). The regulations of the country in which you operate the video transmitter always apply.

2.2 Connecting to the video transmitter

The antenna is designed for video transmitters with a **u.FL (IPEX 1)** connector. It cannot be connected to MMCX, SMA or RP-SMA connectors without an adapter. The u.FL connector is small and sensitive to mechanical stress – proceed with care.

① Disconnect the drone battery. Never connect or disconnect the antenna while powered.

② Place the antenna connector perpendicularly onto the mating socket on the video transmitter board.

③ Press the connector straight down (ideally with the flat end of tweezers or a fingernail) until it clicks into place.

④ Check that the connector sits straight and cannot be easily tilted off.

⑤ To disconnect, lift the connector straight up by its body – do not pull on the cable.

※ Never power up the video transmitter without the antenna connected – it may be damaged.

2.3 Mounting on the drone

- Attach the antenna to the frame with a suitable mount or cable ties so that the antenna head protrudes above the frame and out of reach of the propellers.
- Do not place the antenna head close to carbon parts, the battery or cables – they impair radiation and range.

- Route the cable without sharp bends and without pulling on the connector; do not kink or crush the thin cable between the protection tube and the connector. Secure the cable near the connector (e.g. with tape or heat-shrink tubing) so that the connector is not torn off in a crash.
- Before installation, check the 140 mm length on your frame – the antenna must reach from the video transmitter to the mount position without straining the cable.

2.4 Care and troubleshooting

- After a crash, inspect the head cover, protection tube, cable and connector seating. A cracked cover, a broken or crushed cable or a loose connector degrade video transmission – replace a damaged antenna.
- Clean the antenna with a dry or slightly damp cloth; do not use solvents.
- A cable with a u.FL connector does not tolerate frequent connecting and disconnecting – do not disconnect it unnecessarily.

Problem	Possible cause and solution
Weak or noisy image, short range	Different antenna polarization on the drone and on the goggles – use the same polarization (RHCP with RHCP, LHCP with LHCP).
Image drops out when the drone banks or turns	The antenna head is shadowed by the frame or battery – move it higher and further away from carbon parts.
Image suddenly worse after a crash	Damaged cable or cover, or a loose u.FL connector – check the connector seating and replace a damaged antenna.
Image breaks up with vibrations	The u.FL connector is not fully snapped in – disconnect the battery, press the connector in again and secure the cable near the connector.

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 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.

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.