ROTORAMA

Singularity 5.8 U.FL

5.8 GHz antenna with LHCP circular polarisation
u.FL connector · 110 mm tube · TrueRC Canada



Never power on the video transmitter without an antenna connected.

www.rotorama.com

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1. Product description

1.1 What it is for

TrueRC Singularity 5.8 U.FL is an omnidirectional circularly polarised antenna for the 5.8 GHz band, designed for the video transmitters (VTX) of FPV drones. This item is the **LHCP** version (left-hand circular polarisation) with a **u.FL** connector and a **110 mm** protective tube.

The antenna connects directly to the u.FL connector on the video transmitter. The rigid but bendable braided section carries the antenna head (radiator) and lets you route it out of the drone frame; the soft, flexible cable at the end leads to the connector. The longer version is particularly suited to freestyle and long-range drones. The manufacturer lists compatibility with the digital systems Caddx Vista / RunCam Link, DJI O3 Air Unit, DJI O4 Air Unit and Walksnail Avatar HD VTX.



Singularity 5.8 U.FL antenna

1.2 Specifications and package contents

Product designation	TrueRC Singularity 5.8 U.FL – LHCP, U.FL w/tube 110mm
Manufacturer	TrueRC Canada, Rouyn-Noranda, QC J9X 1G8, Canada (www.truerc.com)
Frequency band	5.6–6.0 GHz
Gain	1.9 dBic
Polarisation	LHCP (left-hand circular)
Cross-polar rejection	−15 to −30 dB (1.9 %)
Radiation efficiency	99 %
SWR	≤ 1.5:1
Head dimensions	diameter 11.8 mm × height 8.2 mm
Version length	110 mm
Connector	u.FL

Cable	RG178 or 1.37 mm U.FL-lite (depending on version; manufacturer's figure for the series)
Weight	1.03–3.55 g depending on version (the manufacturer does not state it for individual versions)
Package contents	1× antenna
Not included	video transmitter, antenna mount, cable ties, glue, heat-shrink tubing

※ For selected frames, the manufacturer offers 3D-printable mount files on its product page (e.g. Rotor Riot HD1, iFlight Nazgul XL5V5, Lumenier QAV-S Mini, Carnage/Venom, AlphaRC Fi-115).

2. Use

2.1 Polarisation and compatibility

For the best video link, the antenna on the drone and the antennas on the goggles or receiver must have the **same polarisation**. This antenna is **LHCP** – use it with LHCP antennas on the receiving side.

- According to the manufacturer, neither polarisation is better than the other; what matters is that it matches on the transmitting and receiving side.
- With an RHCP-to-LHCP combination, only about 3 % of the signal gets through according to the manufacturer – you will usually still have video, but of much poorer quality.
- Make sure your video transmitter has a **u.FL** connector. A transmitter with a different connector type requires a different version of the antenna.

2.2 Connecting the u.FL connector

① Always work with the drone's **power disconnected**.

② Hold the antenna connector perpendicularly above the mating connector on the video transmitter so that both parts are exactly aligned.

③ Press the connector straight down (e.g. with a fingertip or a flat tool) until it audibly clicks into place. The connector must not rotate freely or come loose by itself.

④ To disconnect, **lift the connector straight up** by its body (ideally with a suitable tool). Never pull on the cable or lever the connector sideways.



u.FL connector at the end of the antenna cable

※ The connector manufacturer (Hirose) rates the u.FL at 30 mating cycles; in the antenna manufacturer's experience the connectors last longer as long as they snap in firmly. Even so, avoid unnecessary repeated disconnection.

2.3 Mounting on the drone

- Place the antenna head as far as possible from carbon frame parts, the battery and other antennas, ideally routed upwards or backwards outside the frame.
- The tube section is rigid but bendable – it can be shaped gently. Do not bend it repeatedly at the same point and do not kink it to a sharp angle.
- Secure the cable near the connector against vibration and pull-out (tape, a cable tie or a drop of glue on the cable – not in the connector).
- Neither the antenna nor the cable must get into the path of the propellers. Use a suitable antenna mount on the frame.

2.4 Safe operation and care

Never power on the video transmitter without an antenna connected – it may be damaged.

- Before every flight, check that the connector is clicked in and that the antenna head and tube are undamaged.
- After a crash, inspect the antenna, cable and connector; replace a damaged antenna – it reduces range and video quality.
- Do not shorten or modify the cable and connector unless you have the necessary skills and equipment. Mechanical damage and improper modifications are not product defects.
- Protect the antenna from sharp edges, high temperatures (e.g. when soldering nearby) and chemicals. Store it in a dry place.
- When operating the video transmitter, comply with the regulations of the country in which you use the product – the law of that country is decisive (permitted frequency bands, transmit power, drone operation).
- This product is not a toy. Keep it out of the reach of small children – it contains small parts.

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.