Core Side Feed

TrueRC — 5.8 GHz RHCP antenna
u.FL connector, 85 mm cable, side exit



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

Rotorama, s.r.o. · www.rotorama.com

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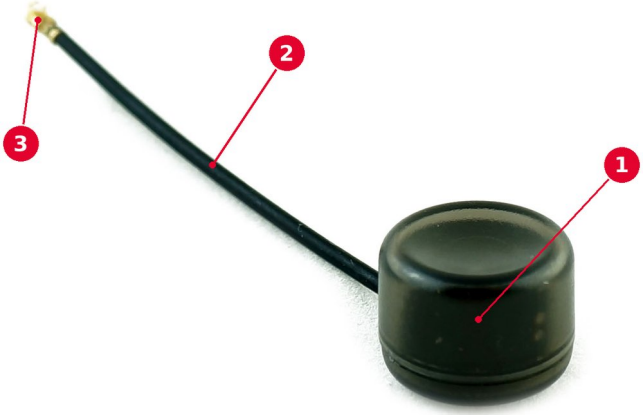
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1. Product description

1.1 Intended use

TrueRC Core Side Feed is an omnidirectional, circularly polarized antenna for the 5.8 GHz band made by the Canadian manufacturer TrueRC. It is a special version of the CORE 5.8 antenna in which the coaxial cable exits from the **side** of the antenna head. This allows the antenna to be buried inside the wing or fuselage of an aircraft – typically on FPV airplanes.

The antenna connects via a **u.FL** connector to a video transmitter (VTX) or other device operating in the 5.8 GHz band that has a u.FL antenna connector. The radiating element is protected by a durable polycarbonate housing. The antenna is passive – it does not transmit on its own and needs no power supply.



① antenna head (radiating element in polycarbonate housing) · ② coaxial cable with side exit · ③ u.FL connector

1.2 Specifications and package contents

Product designation	TrueRC CORE 5.8 – Side feed, U.FL side feed 85mm, RHCP
Manufacturer	TrueRC (Canada), truerc.com
Frequency band	5.8 GHz; bandwidth 5.5–6.1 GHz
Gain	1.9 dBic
Polarization	circular, RHCP (right-hand)
Cross-polar rejection	−10 to −20 dB (3.2 %)
Radiation efficiency	98 %
SWR	≤ 1.2 : 1
Head dimensions	diameter 16.9 mm × height 13.1 mm
Cable	TrueRC RG178 coax, side exit, 85 mm
Connector	u.FL
Housing material	polycarbonate
Package contents	1× antenna
Not included	video transmitter, receiver, extension cables and adapters, mounts, glue and tape

※ The manufacturer does not state the weight for the individual cable and connector versions.

2. Use

Never power up the video transmitter (VTX) without an antenna connected. The transmitter may be permanently damaged.

2.1 Connecting the u.FL connector

① Before connecting, disconnect power from the video transmitter (unplug the battery).

② Place the u.FL connector at the end of the antenna cable **perpendicularly** over its mating socket on the transmitter board and align it exactly on centre.

③ Press the connector down evenly until it audibly and noticeably clicks into place. Do not use excessive force and do not press the connector at an angle.

④ Check that the connector sits straight and is seated all the way around.

⑤ To disconnect, pull straight up on the body of the connector, ideally using a suitable tool. **Never pull on the cable** – the u.FL connector and its mating socket on the board are fragile.

2.2 Placement and mounting

- Place the antenna in a part of the aircraft made of **non-conductive material** (foam, plastic, fibreglass). Do not place it under carbon parts, metal parts or metallised films – they block the signal.
- An omnidirectional antenna radiates best sideways around its axis (the axis is perpendicular to the round face of the head). Along the axis, i.e. above the face and below the base of the head, the signal is weaker. When burying the antenna in a wing, therefore lay the head with its face pointing up or down.
- Keep the antenna head as far as possible from wiring, the motor, the electronic speed controller (ESC) and other sources of interference.
- Route the cable without sharp bends and secure it so that pulling forces and vibration do not act directly on the u.FL connector (e.g. with tape or a drop of glue on the cable a short distance from the connector).
- Fix the antenna head in its recess so that it cannot move freely in flight or on landing.

2.3 Polarization

This antenna has right-hand circular polarization (**RHCP**). The antenna on the receiving side (FPV goggles, video receiver) must have the **same polarization**. Combining RHCP and LHCP antennas significantly reduces range and degrades image quality.

2.4 Radio regulations

The antenna does not transmit on its own, but it affects the radiated power of the whole setup: the effective isotropic radiated power (e.i.r.p.) is determined by the video transmitter output power and the antenna gain. **The user is responsible for setting the output power and choosing the channel.**

- The law of the country in which you operate the equipment is decisive. Permitted frequency bands and maximum transmit powers differ from country to country.
- In the Czech Republic, general authorisation of the Czech Telecommunication Office (ČTÚ) No. VO-R/10 permits operation in the 5725–5875 MHz band at a maximum of 25 mW e.i.r.p. Check the current wording at www.ctu.cz.
- Operation outside these bands and limits may require an individual authorisation, e.g. an amateur radio licence.

2.5 Care and inspection

- Before every flight, check that the u.FL connector is properly seated and that the cable is not cut, pinched or broken at the connector or at the antenna head.
- Do not use a damaged antenna – it degrades video transmission and may damage the transmitter.
- Do not paint the antenna housing with metallic paints or cover it with metal foils.
- Clean the antenna with a soft dry cloth; do not use solvents.
- This product is not a toy. Keep it out of the reach of children – small parts may be swallowed.

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.