GEPRC Peano 50mm u.FL

5.8 GHz antenna for the video transmitter (VTX)
RHCP polarization · u.FL connector · 50 mm length



Read this manual before installation. Never power on the video transmitter without an antenna connected.

User manual · www.rotorama.com

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1. Product description

1.1 What it is for

GEPRC Peano 50mm u.FL is a small, lightweight antenna for the 5.8 GHz band with **RHCP** (right-hand) circular polarization. It connects to the video transmitter (VTX) of an FPV drone via a miniature **u.FL** connector. Thanks to its small size it is particularly suitable for whoops, 2" drones and light racing quads.

The radiating element is protected by a transparent ABS plastic cover. The antenna is a passive component – it radiates the signal of the video transmitter it is connected to.



Antenna dimensions (source: GEPRC)

1.2 Specifications and package contents

Parameter	Value
Product designation	GEPRC Peano 5.8G Antenna RHCP UFL (50x30x20mm)
Frequency range	5600–5950 MHz
Polarization	RHCP (right-hand circular)
Gain	2.5 dBi
VSWR (SWR)	≤ 1.5
Input impedance	50 Ω
Radiation efficiency	98 %
Connector	u.FL
Total length	50 mm (antenna section 30 mm + cable 20 mm)
Radome	ABS plastic, transparent
Package contents	1× antenna
Not included	video transmitter, mounting material (zip ties, heat-shrink tubing, antenna holder), adapters for other connector types

2. Use

2.1 Before you start

- Make sure your video transmitter has a **u.FL** antenna connector. The antenna cannot be connected to MMCX, SMA or RP-SMA connectors without an adapter.
- Make sure your video transmitter operates in the **5.8 GHz** band. The antenna is designed for frequencies of 5600–5950 MHz.
- **The polarization must match.** The antenna on the drone and the antennas on the FPV goggles or video receiver must have the same polarization – with this antenna (RHCP), also use RHCP antennas on the receiving side. Combining RHCP and LHCP significantly degrades image quality and range.
- At races and when flying with several pilots, agree on who flies with which polarization – different polarization helps reduce mutual interference.

Never power on the video transmitter without an antenna connected. Transmitting without an antenna may permanently damage the video transmitter.

2.2 Connecting the u.FL connector

The u.FL connector is very small and mechanically delicate. Proceed carefully and always with the power disconnected.

① Disconnect the drone battery or the power supply of the video transmitter.

② Place the antenna connector perpendicularly over the u.FL socket on the video transmitter so that it is exactly centred.

③ Press it down evenly (e.g. with your fingertip or a flat tool) until it audibly and noticeably clicks into place. The connector must not be tilted.

④ Check with a gentle movement that the connector holds and cannot be moved freely.

⑤ To disconnect, lift the connector straight up with a flat tool placed underneath its body. **Never pull on the cable** – the cable may tear out of the connector.

※ u.FL connectors withstand only a limited number of mating cycles. Do not disconnect the antenna repeatedly without need.

2.3 Placement and mounting on the drone

- Place the antenna head **out of reach of the propellers** in all positions, including when bent in a crash.
- The antenna head should have as clear a view of the surroundings as possible – away from the carbon frame, metal parts, the camera and the battery leads, which block the signal.
- **Do not bend the cable sharply** near the connector and provide strain relief: secure it to the frame with a zip tie, heat-shrink tubing or an antenna holder so

that the force of a crash does not act on the connector.

- The mounting must not pinch or deform the cable.
- When soldering or using a heat gun, protect the antenna cover from heat – the cover is made of ABS plastic.

2.4 Operating regulations for the video transmitter

The antenna itself does not transmit, but it determines how the video transmitter radiates. The user is responsible for setting the frequency and power of the video transmitter. The law of the country in which you operate the equipment is decisive – permitted frequency bands and maximum transmit power differ from country to country. The information below describes the situation in the Czech Republic.

- In the Czech Republic, the general authorisation of the Czech Telecommunication Office (ČTÚ) No. VO-R/10 permits short-range devices in the 5725–5875 MHz band a maximum radiated power of **25 mW e.i.r.p.**
- The frequency range of the antenna (5600–5950 MHz) is wider than the permitted band. Use only channels that are permitted in the country of operation.
- The radiated power (e.i.r.p.) also includes the antenna gain (2.5 dBi).

2.5 Care, inspection and troubleshooting

- After every crash, check the antenna cover, cable and connector. A cracked cover, a kinked cable or a loose connector mean a weaker signal.
- Replace a damaged antenna – do not try to repair it.
- Clean the antenna only with a dry cloth, without solvents.

Problem	Possible cause and solution
Grainy image, short range	The antennas on the drone and on the goggles have different polarization – use RHCP on both sides.
Video dropouts in certain drone attitudes	The antenna is shielded by the frame, camera or battery – change its position.
Image suddenly worse after a crash	Loose u.FL connector or damaged cable or cover – check it and replace the antenna if necessary.
No image	The connector is not clicked in, or the video transmitter and goggles are not on the same channel.

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.