Matchstick 5.8 Carbon

5.8 GHz antenna for FPV video transmitters
TrueRC · RHCP / LHCP · SMA / RP-SMA



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

www.rotorama.com

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1. Product description

1.1 What it is for

TrueRC Matchstick 5.8 Carbon is an omnidirectional, circularly polarized antenna for FPV video transmitters (VTX) in the 5.8 GHz band. It is mounted on the drone – typically on freestyle drones, cinewhoops and cinelifters – and radiates the video signal towards the antennas of the FPV goggles or receiver.

According to the manufacturer, it is the radiating element of the TrueRC Singularity antenna in the hardened case of the Stubby version, connected by a coaxial cable that is 100% carbon fiber reinforced. The manufacturer describes it as its most durable antenna ever. The cable is flexible and the overall length of the antenna is 70 mm.



TrueRC Matchstick 5.8 Carbon – radiating element in its case, carbon cable and connector

1.2 Specifications and package contents

Product designation	TrueRC Matchstick 5.8 – Carbon
Variants offered	LHCP – RP-SMA connector RHCP – SMA connector
Frequency band	5.6–6.0 GHz
Gain	1.9 dBic
Polarization	circular, RHCP or LHCP (depending on variant)
Cross-polar rejection	−15 to −30 dB (1.9 %)
Radiation efficiency	99 %
SWR	≤ 1.5 : 1
Dimensions	12.7 × 70 mm
Weight	6.2 g
Cable	coaxial, 100% carbon fiber reinforced
Package contents	1× antenna

The package does **not** include a video transmitter, an antenna mount for the frame, an SMA/RP-SMA adapter or mounting hardware.

2. Use

2.1 Choosing polarization and connector

The antenna on the drone and the antennas on the FPV goggles or receiver must have the **same polarization** – either all RHCP or all LHCP. Neither polarization is better than the other. If they do not match, according to the manufacturer only about 3 % of the signal gets through: the image is weak and noisy and the range is significantly reduced.

- **LHCP** – choose it if your goggles or receiver use LHCP antennas. According to the manufacturer, DJI air units and the Caddx Vista, for example, are supplied with LHCP antennas.
- **RHCP** – choose it if your goggles or receiver use RHCP antennas.
- The **connector** must match the connector on the video transmitter. SMA and RP-SMA connectors have the same thread but a reversed centre contact – if the wrong type is screwed on, no connection is made and the transmitter operates without an antenna. If they do not match, use a suitable adapter.

2.2 Mounting on the drone

① Make sure that the drone and the video transmitter are not powered (battery disconnected).

② Screw the antenna connector onto the connector of the video transmitter or pigtail. Tighten **by hand**, without tools and without excessive force – an overtightened thread can damage the connector on the transmitter.

③ Secure the antenna in a mount on the frame so that it cannot come loose or vibrate. The antenna case has a diameter of 12.7 mm – check that the mount is large enough for it.

④ Position the case with the radiating element so that it protrudes as far as possible above the drone's structure and does not reach into the path of the propellers. The carbon frame, battery and cables should not cover it.

2.3 Operation

- **Never power the video transmitter without an antenna connected.** Without an antenna the transmitter can be damaged within a short time.
- The antenna is designed for the 5.6–6.0 GHz band. Use video transmitter channels within this band.
- The antenna is passive – it does not transmit by itself and does not determine the transmit power or frequency. These are set on the video transmitter and must comply with the regulations. **The law of the country in which you operate the product is decisive**; permitted bands and maximum transmit power differ between countries.

- If the range is unusually short, first check that the antenna is properly connected, that the polarization and connector type match, and that the goggles are receiving on the same channel.

2.4 Care and inspection after a crash

- After every crash, inspect the radiating element case, the cable and the connector. A cracked case, a broken cable or a loose connector degrades video transmission.
- Regularly check that the connector has not been loosened by vibration and, if necessary, retighten it by hand.
- Bend the cable only moderately and not repeatedly at the same point, to avoid damaging the conductor inside.
- Clean the antenna with a dry or slightly damp cloth, without solvents. Protect the connector from dirt and moisture.

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.