Singularity 5.8 MMCX 90°

TrueRC – 5.8 GHz video link antenna
User manual



Never power on the video transmitter without an antenna connected. Connect and disconnect the antenna only with the power switched off.

www.rotorama.com

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1. Product description

1.1 Intended use

TrueRC Singularity 5.8 MMCX is an omnidirectional, circularly polarized antenna for 5.8 GHz video transmission. It connects to a video transmitter (VTX) or any other device with an MMCX connector. The antenna head is very small and light, which makes it suitable for freestyle and long-range drones as well as cinewhoops.

This variant has an angled **MMCX 90°** connector, a 120 mm cable (overall antenna length 130 mm) and right-hand circular polarization **RHCP**. The cable is stiff yet flexible – once bent, it holds its shape, so the antenna head can be positioned clear of the drone frame.



TrueRC Singularity 5.8 MMCX 90° 130 mm (RHCP)

1.2 Specifications and package contents

Product designation	TrueRC Singularity 5.8 – MMCX, RHCP, MMCX90 long 120 mm
Manufacturer	TrueRC Canada
Frequency band	5.6–6.0 GHz
Gain	1.9 dBic
Polarization	RHCP (right-hand circular)
Cross-polar rejection	−15 to −30 dB
Radiation efficiency	99 %
SWR	≤ 1.5:1
Antenna head	11.8 mm diameter, 8.2 mm height
Connector	MMCX 90° (angled)
Cable length / overall length	120 mm / 130 mm
Package contents	1× antenna
Not included	video transmitter, antenna mount, cable ties or any other mounting hardware

2. Use

2.1 Connecting to the video transmitter

① Disconnect the battery from the drone so that the video transmitter is not powered.

② Check that both the antenna connector and the connector on the video transmitter are clean and undamaged.

③ Place the MMCX connector squarely onto the mating connector on the video transmitter and press until it clearly clicks into place. Do not push at an angle and do not use tools.

④ Rotate the 90° angled connector so that the cable runs in the required direction and is not bent under stress right at the connector.

⑤ Only with the antenna connected, connect the battery and power on the video transmitter.

To disconnect, grip the connector (not the cable) and pull it straight away from the video transmitter.

2.2 Placement and mounting on the drone

- Place the antenna head outside the drone frame, ideally behind its rear end, with a clear view in all directions.
- The head must not reach into the propeller path or into the camera's field of view. Keep in mind that the cable may bend slightly in flight and in a crash.
- Carbon parts, wires and the battery shield the signal – do not leave the antenna head hidden behind them.
- Secure the cable to the frame with a cable tie, heat-shrink tubing or a printed mount so that the MMCX connector is not under strain. On the product page the manufacturer lists 3D-printable mounts for several frames.
- Bend the cable in a smooth curve; do not bend it sharply or repeatedly at the same spot, especially right next to the connector and the head.

2.3 Polarization

The antenna has right-hand circular polarization **RHCP**. The antennas on the transmitting side (drone) and on the receiving side (FPV goggles or monitor) must have **the same polarization**. Combining RHCP with LHCP significantly weakens the signal and shortens the range.

The antenna gain counts towards the radiated power (e.i.r.p.). Set the power and channel of the video transmitter to comply with the regulations of the country where you fly – the law of the country of operation always applies.

3. Safety and antenna care

- **Never power on the video transmitter without an antenna connected.** Doing so may permanently damage the transmitter.
- Connect and disconnect the antenna only with the power switched off.
- The MMCX connector is designed for repeated mating, but not for pulling or levering. Do not pull on the cable and do not use the antenna as a handle when handling the drone.
- After every crash, check the head, the cable and the connector. A cracked head, a broken cable or a loose connector degrades the video link – replace a damaged antenna.
- Protect the antenna from water, dirt and high temperatures (e.g. from motors and electronic speed controllers).
- The antenna is a small object – keep it out of the reach of small children.

4. Troubleshooting

Problem	Possible cause and solution
Image is noisy or breaks up even at short distance	Mismatched polarization of the transmitting and receiving antennas – use RHCP on both sides. Check that the connector is fully clicked in.
Image breaks up only in certain drone attitudes	The antenna head is blocked by the frame, battery or wires. Move it outside the frame.
Range has dropped after a crash	Damaged head, cable or connector. Inspect the antenna and replace it if damaged.
Connector is loose or disconnects by itself	Worn connector on the antenna or on the video transmitter. Relieve the cable by securing it to the frame; replace the worn part.

5. Information for the EU and Czech Market

5.1 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

5.2 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.

6. 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 5.1.
- 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.