ROTORAMA

Racing S1

Maple Wireless

Directional antennas for FPV goggles · pack of 2



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

www.rotorama.com

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1. Product description

1.1 Intended use

Maple Wireless Racing S1 is a set of two high-gain directional antennas for receiving analogue and digital FPV video in the 5.8 GHz band. The antennas have **RHCP** circular polarisation and an **SMA** connector. They are designed for easy mounting on **HDZero** goggles (the manufacturer states compatibility with HDZero Goggles V1 and V2), but they can also be used with a conventional analogue video link.

A directional antenna concentrates reception into a narrower sector in front of it. In that direction it improves video quality and range, but signals arriving from the sides and from behind are received much more weakly. The antennas include a hinge that lets you change their tilt on the goggles – the manufacturer states an adjustment range of up to 90°.



Racing S1 (2 pcs)

1.2 Specifications and package contents

Parameter	Value
Product designation	Maple Wireless Racing S1
Frequency range	5645–5925 MHz
Gain	10.5 dBi
Polarisation	RHCP (right-hand circular)
Beamwidth	75° (H-plane), 40° (E-plane)
Connector	SMA
Dimensions	70 × 45 × 12 mm
Weight	28 g
Package contents	2× Racing S1 antenna
Not included	FPV goggles, video transmitter (VTX), adapters

2. Use

2.1 Connecting to the goggles

① Switch off the goggles or video receiver.

② Unscrew the antennas you want to replace from the receiver's SMA antenna connectors.

③ Fit the Racing S1 antenna connector straight onto the SMA connector of the goggles and tighten the nut **by hand**. Do not use a spanner or pliers – overtightening damages the thread or the centre pin of the connector.

④ Connect the second antenna in the same way.

⑤ Route the antenna cable so that it is not under tension, sharply kinked or pinched between parts of the goggles.

※ The connector must match its counterpart. The antennas have an SMA connector – goggles with an RP-SMA connector require a suitable adapter, which is not included.

2.2 Angle adjustment and aiming

- Use the hinge to tilt the antenna so that its front face points towards the area where you will be flying.
- The antennas receive most strongly in the direction perpendicular to the front face. The manufacturer states a beamwidth of 75° in the H-plane and 40° in the E-plane – outside this sector the signal strength drops quickly.
- When flying behind the pilot, overhead or far to the side, the video may weaken with directional antennas. In that case, combine a directional antenna with an omnidirectional one on another antenna input of the receiver, if your goggles have one.
- Set the angle before the flight. During the flight, avoid turning your head with the goggles away from the flight direction unnecessarily – the directional antenna turns with them.

2.3 Polarisation

The Racing S1 antennas have right-hand circular polarisation **RHCP**. For good reception, the video transmitter (VTX) antenna on the drone must have the same polarisation. Combining RHCP with a left-hand (LHCP) antenna results in significant signal attenuation and reduced range.

2.4 3D-printable parts

The manufacturer publishes files for 3D-printing parts for the Racing S1 antennas in the download section of its website under the name “HDZERO Racing S1 3D prints”. Printed parts are not included.

Link: www.maple-wireless.com/doc_29616745.html

2.5 Use, care and storage

- The antenna is a passive part – it does not transmit anything itself and has no power supply. The frequency and transmit power are determined by the video transmitter on the drone.
- Permitted frequencies and transmit powers of video transmitters differ from country to country. The law of the country in which the product is operated always prevails.
- Do not let the antennas hang by the cable and do not repeatedly bend the cable next to the connector.
- Protect the antennas from drops, impacts, moisture and prolonged exposure to high temperatures.
- Keep the connectors clean. Remove dirt with a dry soft cloth; do not use solvents.
- When transporting and storing the goggles with antennas, place them in a case so that neither the antennas nor the hinge are under stress.
- Do not continue to use a mechanically damaged antenna or connector – poor reception can lead to loss of video and a crash of the drone.

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.