X-AIR 5.8 MK II

5.8 GHz directional antennas · RP-SMA · LHCP (pair)
User manual



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

TrueRC · importer Rotorama, s.r.o. · www.rotorama.com

Contents

1. Product description

1.1 What it is for

1.2 Specifications and package contents

2. Use

2.1 Mounting on the goggles

2.2 Polarization

2.3 Tips for good reception

3. Care and troubleshooting

3.1 Care and storage

3.2 Troubleshooting

4. Information for the EU and Czech Market

4.1 Importer and responsible person in the EU

4.2 Disposal of electrical equipment

5. Warranty and rights arising from defective performance

1. Product description

1.1 What it is for

TrueRC X-AIR 5.8 MK II are compact directional antennas for receiving video in the 5.8 GHz band with **LHCP** circular polarization. The package contains two antennas. Each has its own knurled **RP-SMA male** connector, so it screws directly onto the antenna connector of the FPV goggles without adapters. The manufacturer designates them for Walksnail Avatar HD and Fat Shark Dominator HD goggles.

A gain of 10 dBic combined with a 120° beam width provides long range in a small, low-profile package. A directional antenna receives best within the angle in front of it, so it is mounted on the front connectors of the goggles, while the remaining connectors are fitted with omnidirectional antennas that cover the surroundings.



X-AIR 5.8 MK II antennas on the front connectors of FPV goggles (photo: TrueRC)

1.2 Specifications and package contents

Frequency band	5.1–6.7 GHz
Gain	9.5–10.5 dBic
Polarization	LHCP (left-hand)
Beam width [1]	120°
Beam width at −3 dB [2]	68°
Connector	RP-SMA male, knurled nut
Dimensions	32 × 32 × 16 mm
Compatibility	Walksnail Avatar HD, Fat Shark Dominator HD (per manufacturer)
Package contents	2× X-AIR 5.8 MK II LHCP antenna
Manufacturer	TrueRC, Canada

[1] Coverage where reception is at least equivalent to an omnidirectional antenna. [2] Coverage where at least 70 % of the maximum range is obtained (manufacturer's definition).

The package does **not** include FPV goggles, omnidirectional antennas for the remaining goggle connectors, an antenna for the drone, or any adapters and extension cables.

Product identification: the back of the antenna is printed with **X-air 5.8** and the polarization marking **LHCP**.



Back of the antenna with RP-SMA connector and marking (left), front side (right)

2. Use

2.1 Mounting on the goggles

① Switch the goggles off.

② Check that the antenna connectors of the goggles are **RP-SMA** type and that the video transmitter (VTX) on the drone uses an antenna with the same **LHCP** polarization (see chapter 2.2).

③ Place the antenna straight onto the front connector of the goggles and tighten the knurled nut clockwise **by hand**. Do not use a wrench or pliers.

④ Turn the antennas so that their front side with the logo faces forward, away from the goggles, as shown in the picture in chapter 1.1.

⑤ Screw omnidirectional antennas with LHCP polarization (not included) onto the remaining goggle connectors.

⑥ Switch the goggles on and check the video quality.

※ Do not overtighten the antennas or use them as a lever. Overtightening or side loads can damage the connector of the antenna and of the goggles.

2.2 Polarization

The polarization of the antenna on the goggles and of the antenna on the video transmitter (VTX) **must match**. These antennas are LHCP, so use an LHCP antenna on the drone as well. Neither polarization is better than the other – what matters is that both ends are the same.

According to the manufacturer, only about 3 % of the signal passes when RHCP and LHCP antennas are combined. You will still get video, but with significantly lower quality and shorter range.

2.3 Tips for good reception

- During flight, point the front side of the antennas towards the drone. Outside the beam of the directional antennas, the omnidirectional antennas take over reception.
- There should be no obstacles between the antennas and the drone – buildings, trees, terrain or your own body.
- Range depends on many factors (VTX power and antenna, environment, interference). The manufacturer therefore does not state a specific range.
- Always set the VTX transmit power within the limits of the regulations of the country in which you fly.

3. Care and troubleshooting

3.1 Care and storage

- Protect the antennas from drops, impacts, moisture and prolonged exposure to high temperatures.
- Unscrew the antennas before putting the goggles into their case if the case would press on them or load them sideways.
- Keep the connector clean and dry. Do not use solvents for cleaning.
- Do not tamper with the antenna in any way – do not disassemble or modify it.

3.2 Troubleshooting

Problem	Cause and solution
Video is lost after only a few metres	Check the antenna connections and the selected channel. Such a short range corresponds to operation without an antenna or on the wrong channel.
Grainy video even at short distance	The polarization of the antennas on the drone and on the goggles does not match. Use an LHCP antenna on the VTX.
Video dropouts when you turn away from the drone	A directional antenna only receives within the angle in front of it. Face the drone and use omnidirectional antennas on the other goggle connectors.
The antenna cannot be screwed on	The goggles probably have a different connector type (e.g. SMA). Do not use force; use a suitable adapter (not included).

4. Information for the EU and Czech Market

4.1 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

4.2 Disposal of electrical equipment



- 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.

5. 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 4.1.
- 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.