Omni 110mm

Maple Wireless

5.8 GHz omnidirectional antenna · RHCP · SMA



Read this manual before use. Never power on a video transmitter without an antenna connected.

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Contents

1. Product description

1.1 Intended use

1.2 Specifications and package contents

2. Use

2.1 Compatibility

2.2 Mounting on the drone

2.3 Operation and frequencies

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 Intended use

The **Maple Wireless Omni 110mm** is an omnidirectional (omni) antenna for 5.8 GHz video transmission. It connects to the video transmitter (VTX) of an FPV drone and is suitable for freestyle drones, cinewhoops and longer-range flights.

The overall length of the antenna is approximately 11 cm. This allows the antenna to be mounted on the drone so that its radiating element sits above the battery, where the battery does not shield it. The antenna is **RHCP** circularly polarised, which makes it suitable for analogue video transmission.



Maple Wireless Omni 110mm with SMA connector

1.2 Specifications and package contents

Product designation	Maple Wireless Omni 110mm
Type	omnidirectional (omni) antenna
Frequency range	5650–5914 MHz
Gain	2 dBi
Polarisation	RHCP (right-hand circular)
Vertical beamwidth	80°
Length	110 mm
Connector	SMA, male (with centre pin)
Package contents	1× antenna
Not included	video transmitter, connector adapters, extension cable (pigtail), antenna mount and fastening material

2. Use

2.1 Compatibility

- **Connector:** the antenna has an SMA male connector. It connects to an SMA female connector (outer thread, socket in the centre) on the video transmitter or on an extension cable (pigtail).
- **RP-SMA is not compatible:** RP-SMA connectors have the centre contact arrangement reversed. They can be screwed onto SMA, but the joint has no centre contact and no video is transmitted. Use an adapter to connect them.
- **Polarisation:** the antenna on the drone and the antenna on the receiving side (goggles, receiver) must have the same polarisation. Use **RHCP** antennas on the receiving side with this antenna. Combining RHCP and LHCP significantly reduces signal strength.
- **Frequency:** the video transmitter channel must lie within the antenna frequency range of 5650–5914 MHz and also within the band permitted in the country of operation (Chapter 2.3).

2.2 Mounting on the drone

① Disconnect the drone battery. The video transmitter must be unpowered while the antenna is being mounted.

② Screw the antenna connector nut onto the connector of the video transmitter or pigtail. Tighten by hand and with care – overtightening can damage the connector or its connection to the board.

③ Secure the antenna to the frame with a suitable mount or cable tie so that it cannot move in flight and cannot touch the propellers.

④ Position the radiating part of the antenna (the end with the cap) as high as possible, ideally above the battery and away from carbon frame parts, which shield the signal.

⑤ Before connecting the battery, check that the antenna is firmly attached.

Never power on a video transmitter without an antenna connected. Without an antenna, the transmitter can be permanently damaged within a short time.

2.3 Operation and frequencies

The antenna itself does not transmit anything – it radiates the power of the video transmitter it is connected to. The user is responsible for setting the transmitter channel and power. **The law of the country in which the product is operated is decisive.** Permitted bands and maximum transmit power differ from country to country; the information below describes the situation in the Czech Republic.

Band	Limit	Regulation (CZ)
5725–5875 MHz	25 mW e.i.r.p.	ČTÚ general authorisation VO-R/10

- The antenna frequency range (5650–5914 MHz) is wider than the band permitted in the Czech Republic. Do not use channels outside 5725–5875 MHz in the Czech Republic.
- The antenna gain is included in the radiated power (e.i.r.p.). Set the video transmitter power so that the limit is not exceeded.

3. Care and troubleshooting

3.1 Care and storage

- Protect the antenna from impacts and sharp bending of the cable, especially near the connector.
- After every crash, check the cap, cable and connector. Replace a damaged antenna.
- Keep the connector clean and dry. Do not clean the antenna with solvents.
- Store the antenna in a dry place, out of direct sunlight.

3.2 Troubleshooting

Problem	Possible cause and solution
Weak or noisy video, short range	Mismatched polarisation – use an RHCP antenna on the receiving side as well. The antenna is shielded by the frame or battery – mount it higher. The channel is outside the antenna range – select a channel within 5650–5914 MHz.
No video	The antenna is not tightened, or an RP-SMA connector is used instead of SMA without an adapter. Check that the goggles or receiver are on the same channel as the video transmitter.
Video got worse after a crash	Damaged cap, cable or connector. Inspect the antenna and replace it if damaged.

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.