



Caddx Ant

Analog FPV camera 1200 TVL
User manual



Read this entire manual before installation and keep it for future reference.

www.rotorاما.com

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1. Safety instructions

1.1 General rules

- Read this entire manual before installation and keep it for future reference.
- Connect and disconnect the camera **only with the power disconnected** (drone battery unplugged).
- Before connecting for the first time, check the polarity and wire assignment according to Chapter 3. Swapping the power and signal wires or powering the camera outside the permitted range may permanently damage it.
- The camera is an electronic component intended to be built into a model. Protect it from moisture, water, dust and mechanical impacts; do not use it outside the working temperature and humidity stated in the specifications.
- Do not touch the lens or the circuit board with your fingers — grease and static electricity may degrade the image or damage the electronics.
- The product contains small parts (screws). Keep it out of the reach of children.

1.2 Applicable regulations

The camera is usually used as part of an FPV drone or model aircraft. The operation of such a model, including capturing and transmitting images, is governed by the regulations of **the country in which you operate the product**. The references to Czech legislation in Chapters 8 and 9 are based on the product having been purchased in the Czech Republic; if you operate the model in another country, follow the regulations of that country.

2. Product description

2.1 Purpose and variants

Caddx Ant is an ultra-light analog FPV camera measuring 14 × 14 mm and weighing 2 g, with 1200 TVL horizontal resolution, Global WDR and an OSD menu for image adjustment. It is designed for small and light FPV drones and models.

The camera is available in variants according to **image aspect ratio (16:9 or 4:3)** and **body colour (black or silver)**. This manual applies to all variants; the specifications are identical for all variants, only the aspect ratio and the colour differ.



Caddx Ant in silver

2.2 Package contents

- 1× Caddx Ant camera
- 1× cable set
- 1× screw set
- 1× adapter (bracket) for mounting in a 19 × 19 mm frame
- 1× OSD menu board (joystick) for settings

✳ **The manufacturer's original manual states that the OSD menu board is not included in the camera package. The package contents may therefore differ between production batches; the current contents are listed on the product page at www.rotorama.com.**

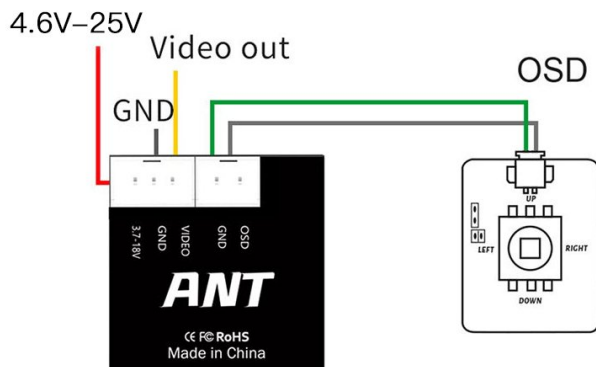
2.3 Specifications

Parameter	Value
Model	Caddx Ant
Image sensor	1/3" CMOS sensor
Horizontal resolution	1200 TVL
TV system	NTSC or PAL (selectable in the menu)
Menu (OSD)	supported
Image	16:9 or 4:3 (depending on variant)
Synchronization	internal
Electronic shutter	PAL: 1/50-1/100,000 s NTSC: 1/60-1/100,000 s
S/N ratio	> 52 dB (AGC OFF)
Video output	CVBS (composite)
Lens	1.8 mm
Min. illumination	0.001 lux @ F1.2
Auto gain control (AGC)	yes
Backlight compensation (BLC)	yes
WDR	Global WDR
Noise reduction (DNR)	3D DNR
Dimensions	14 × 14 mm (19 × 19 mm with bracket)
Wide power input	DC 4.6-25 V
Working temperature	-20 °C to +60 °C
Working humidity	20-80 %
Weight	2 g (net)

3. Connection

3.1 Connectors and wires

There are two connectors on the back of the camera: a **3-pin** connector for power and video output and a **2-pin** connector for the OSD menu board.



*Wiring diagram of the camera and the OSD menu board
(according to the manufacturer)*

Wire colour	Marking	Function
red	power (+)	camera power supply
black / grey	GND	ground (common with the power source and the video transmitter)
yellow	VIDEO	video out — connect to the video input of the video transmitter (VTX) or of a flight controller (FC) with OSD
green	OSD	camera menu control — connects to the OSD menu board

❖ **The silkscreen on the back of the camera board shows a range of 3.7-18V at the power pin, while the manufacturer's specifications and wiring diagram state DC 4.6-25 V. Power the camera with a regulated voltage that lies within both ranges.**

3.2 Connection procedure

- 1 Disconnect the power supply of the model (battery).
- 2 Connect the red and black wires to a power output intended for the camera, e.g. on the flight controller (FC) or the video transmitter (VTX). The output voltage must be within **DC 4.6-25 V**.
- 3 Connect the yellow wire to the video input of the video transmitter (VTX), or to the video input of the flight controller (FC), which passes the image on to the

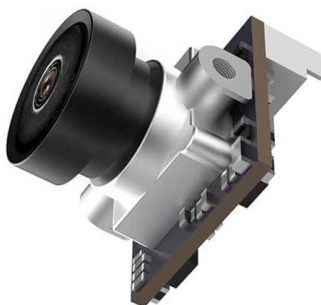
VTX.

- ④ To adjust the camera settings, connect the OSD menu board to the 2-pin connector (GND and OSD wires). You can disconnect it when you have finished.
- ⑤ Check the wiring and only then connect the power supply.

4. Mounting

The camera measures 14 × 14 mm and fits frames and camera mounts for nano cameras. For frames with a 19 × 19 mm camera mount, use the adapter (bracket) included in the package.

- Fasten the camera with the screws from the package. Tighten the screws gently so as not to damage the thread or the camera body.
- Set the required camera tilt and make sure that the propellers, the propeller guard (duct) or frame parts do not intrude into the field of view.
- Route the wires so that they cannot touch the propellers and are not under tension; prevent them from being pinched between frame parts.
- Protect the lens from scratches and dirt during installation.



*Side view — camera body with
mounting holes*

5. OSD menu settings

5.1 Entering and navigating the menu

Connect the OSD menu board (Chapter 3) and switch on the power so that you can see the camera image in your goggles or on a monitor. **Press the middle button** of the OSD menu board to enter the menu. Select items and change values by moving the joystick (UP, DOWN, LEFT, RIGHT); press the middle button to enter the selected submenu.

Menu items are displayed in English (or Chinese — see the LANGUAGE item) and are given in this manual exactly as the camera displays them.

5.2 Main menu (MAIN MENU)

Item	Meaning
AE	exposure settings (brightness, exposure mode, backlight compensation)
WB	white balance
DAY&NIGHT	day/night mode (colour / black-and-white image)
IMAGE ENHANCE	image adjustment (contrast, sharpness, colour gain, noise reduction)
VIDEO SETTING	video output settings (PAL / NTSC)
LANGUAGE	menu language: ENGLISH or Chinese
RESET	restore factory settings
SAVE EXIT	save changes and exit the menu
EXIT	exit the menu without saving

❖ **Changes are saved only by selecting SAVE EXIT. The RETURN item in submenus takes you one level up.**

5.3 Exposure (AE)

Item	Options	Note
BRIGHTNESS	0-30	image brightness
EXPOSURE MODE	GLOBE / BLC	GLOBE — global exposure over the whole image; BLC — backlight compensation
ADVANCED	—	advanced exposure settings
BLC	1-8	backlight compensation level (BLC mode)

5.4 White balance (WB)

Item	Options	Note
MODE	ATW / MWB	ATW — auto tracking white balance; MWB — manual white balance
RGAIN	0-32	red gain (manual mode)
BGAIN	0-32	blue gain (manual mode)

5.5 Day and night (DAY&NIGHT)

Item	Options	Note
MODE	BW / AUTO / COLOR / EXT	BW — black-and-white image; AUTO — automatic switching; COLOR — colour image; EXT — external trigger

5.6 Image enhancement (IMAGE ENHANCE)

Item	Options	Note
CONTRAST	MANUAL / AUTO	contrast
SHARPNESS	MANUAL / AUTO	sharpness
COLOR GAIN	MANUAL / AUTO	colour saturation
3DNR	MANUAL / AUTO	3D noise reduction

5.7 Video settings (VIDEO SETTING)

Item	Options	Note
VIDEO STANDARD	PAL / NTSC	TV system of the video output
HD FORMAT	CVBS	output format (composite video)

Set the TV system to match your goggles or monitor and the OSD of the flight controller (FC). If they do not match, the image may be black-and-white, unstable or not displayed at all.

6. Maintenance

- Clean the lens only with a dry, soft lens cloth or lens tissue; do not use solvents.
- After a crash, check the lens, the camera mounting and the wires. Replace damaged wires or connectors before further use.
- Protect the camera from moisture; if it gets wet, let it dry completely before switching it on again.
- Store the camera in a clean, dry place out of direct sunlight.

7. Troubleshooting

Problem	Possible cause and solution
No image	Check the power supply (range DC 4.6–25 V), the polarity and the connection of the yellow video wire and GND. Make sure the VTX and the goggles are on the same channel.
Image is black-and-white, rolling or tearing	TV system mismatch — set VIDEO STANDARD (PAL / NTSC) to match the goggles and the OSD of the flight controller (FC). Also check the DAY&NIGHT mode (BW / COLOR).
Cannot enter the menu	Check the connection of the OSD menu board to the 2-pin connector (GND, OSD) and press the middle button.
Settings are lost after power-off	Save changes with SAVE EXIT, not EXIT.
Image is too dark or too bright	Adjust BRIGHTNESS in the AE menu, or enable BLC in strong backlight.
Wrong colours	Check the WB mode (ATW / MWB); in manual mode adjust RGAIN and BGAIN. If problems persist, use RESET.
Interference in the image	Route the video wire as far as possible from the power wires of the motors and electronic speed controllers (ESC); check the common ground (GND).

8. Information for the EU and Czech Market

8.1 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@rotorاما.cz
Phone	+420 252 252 098
Website	www.rotorاما.com

8.2 Product conformity



- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorاما.cz.
- **Product identification:** the type designation (ANT) is marked on the back of the camera.

8.3 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>.

9. 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 8.1.
- 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.