Accessible version (HTML): amperis.com/en/accesible/corocam-8uav-eng/

CoroCAM 8UAV

Corona effect cameras

UV, thermal and visible in 1.6 kg, balanced for standard commercial UAVs

COROCAM 8UAV

Tri-sensor corona camera for drones

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Corona, hot spots and visual context in a single flight, without taking the line out of service.

Product overview

Camera mounted on the drone gimbal

Ready for take-off on a commercial UAV

Three sensors in one pass

The CoroCAM 8UAV combines a solar-blind ultraviolet detector, a radiometric LWIR module and a visible camera, sized and balanced for standard commercial drones. The UV channel detects discharges down to 2.05 × 10E-18 W/cm2, so even the smallest corona activity shows on screen overlaid on the visible image.

Designed to fly

At 1.6 kg it fits Gremsy T3, DJI Ronin and similar gimbals. Camera functions are driven from a standard RC controller (SBUS/PWM) or fully from a laptop over Ethernet, and the system is record-ready 60 s after power-on.

Main features

- Soft-sync or staggered zoom of the three channels, matched to the visible FOV.
- On-board recording of stills, video and UCF radiometric data with GPS and environmental metadata.
- UV overlay with 6 presets or 255 tone levels, threshold and integration control.
- 14 IR palettes with contrast isotherms; auto or manual span.
- Integrated GPS with booster antenna, LED flashlight and optional laser pointer.
- Firmware upgradable from the SD card; 15-month warranty.

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Applications and workflow

Applications

- Drone inspection of overhead lines and substations in service.
- Corona, arcing and hot-spot surveys on insulators, fittings and conductors.
- Inspection of areas that are difficult or hazardous to reach on foot.

From flight to report

Each capture bundles the displayed image, the raw UV image, the LWIR radiometric values and metadata — camera settings, GPS position, distance and environmental variables — in a UCF file; automatic image numbering sorts the survey when downloading to PC for reporting.

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COROCAM 8UAV — TECHNICAL SPECIFICATIONS

Channels	UV (solar blind) + radiometric LWIR + visible, fused on screen
UV sensitivity	2.05 × 10E-18 W/cm2 (solar blind); resolution 640 × 480
Infrared channel	640 × 512, NEdT < 50 mK; radiometric module at 9 Hz (25 Hz optional); 14 palettes with isotherms
Visible channel	768 × 576; 28× optical + 12× digital zoom; 0.4 lx (0.01 lx in low-light mode)
Field of view	16° wide to 2° tele; UV and IR digitally matched to the visible FOV
Minimum focus	UV 0.7 m; visible 0.7 m; IR 2.3 m; fusion accuracy better than 1 mrad
UV overlay	6 presets or 255 tone levels; threshold, integration and noise-reduction controls
Recording	JPEG stills and AVI (H.264); UCF radiometric file with UV raw image, LWIR values and metadata; SD card up to 64 GB
Metadata	Camera settings, GPS position, distance to target and manually entered environmental variables
Control	Multi-function keypad and OSD; remote via Ethernet; RC via SBUS/PWM from a standard controller
Interfaces	USB 2.0, Ethernet (video and control), composite PAL video
GPS	Integrated, with internal and external booster antenna
Power	Watson type-L Li-Ion battery; up to 4 h; record-ready in 60 s
Physical	1.6 kg; 188 × 156 × 129 mm; −15 °C to +55 °C; IP43; shock-absorbing covers
Gimbal compatibility	Gremsy T3, DJI Ronin and similar; Pelican-style transport case
Safety and warranty	CE, IEC 1010-1; 15-month warranty

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