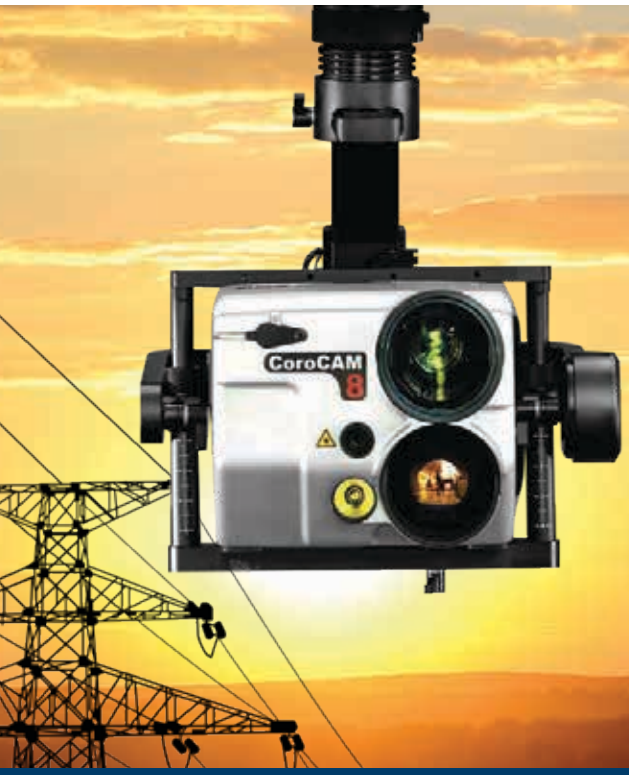
UVIRCO TECHNOLOGIES



CoroCAM® 8 UAV

Remote Controlled Combined LWIR and SB-UV camera

The **CoroCAM® 8 UAV** is a combined thermal IR, solar blind corona and video camera, sized and balanced to fit into a standard commercial gimbal and to be lofted by an Enterprise grade UAV.

The UAV also allows for inspection from various directions of hard to reach overhead hardware. Having the camera closer to the hardware under inspection allows the visible camera to capture more detailed images of the physical condition of the components.

Fault maintenance priority is assigned using the inspection guide.

PRODUCT HIGHLIGHTS:

Combined UV/VIS & IR imaging | Radiometric IR | Fast installation & startup | High resolution video recording | Translucent UV overlay | Onboard GPS with booster antenna port | I/O connectors (HDMI, Ethernet, USB, RS232/485, PWM, SBUS) | Simple & powerful user interface | Onboard and external power options | Designed for UAV use | Remote and direct control options | Tripod/Neck strap options

NOTABLE FEATURES:

- High sensitivity UV detector, which can detect UVc light at 2.05×10^{-18} Watt/cm^2, this allows for the detection of the smallest corona discharges.
- 9Hz (or optional 25Hz) Radiometric IR camera module.
- Control of a limited number of camera functions from a standard RC controller using PWM or SBUS.
- Remote control of all camera functions from Laptop via a Ethernet link.
- Syncronised Smooth or Stepped Zoom of all 3 camera channels. IR & UV channels are zoomed digitally, visible is zoomed optically to minimum FOV, then digitally enlarged.
- Manual or Autofocus for the Visible channel, UV and IR channels has manual focus or can be synchronized with the Visible channel.
- Onboard still images, video and radiometric data recording in high-quality formats.
- Fast set up & boot up avoids the need for power saving modes.
- The On Screen Display (OSD) shows all the relevant information.
- Easy operation of the camera via a multi-function keypad.
- Manual or Auto Exposure of Visible and IR (Level) cameras, UV (Gain) is manually set.
- Integrated GPS with internal and complementary external booster antenna.
- Metadata recording of camera settings and measurements plus environmental variables manually entered – distance, air temperature, air pressure, ambient humidity, and wind speed.
- Resizable UV Intensity sampling box.
- UV overlay colors have 6 pre-sets or 255 selectable hue levels.
- UV overlay translucency control.
- UV threshold, Integration & Noise Reduction control.
- 14 IR color palettes with contrasting Isotherms.
- Auto or Manual IR Span.
- Integrated LED Flashlight and optional Laser pointer.
- Camera software update via download to SD card.
- USB port for media download and Ethernet port for remote control.
- 15 Month warranty.

SYSTEM SPECIFICATIONS:

Brochure Version: 2019/1
Specifications subject to change without notice

ZOOM	**Visible Camera Zoom:** 28x optical, 12x digital | **LWIR Camera Optical Zoom:** 1x optical, 8x digital | **UV Camera Zoom:** 8x
FIELDS OF VIEW	**Optical Wide Zoom:** 16° | **Optical Tele Zoom:** 2° | **UV & IR Channel Zoom:** Digital to match visible FOV – up to 4x zoom | **FOV with UV Overlay:** All Optical FOVs | **Digital Enlargement / Zoom:** 12x from minimum optical FOV | **Focus:** Automatic or manual on visible & IR channels, UV slaved to visible/IR or independent manually | **Minimum Focus Distance:** UV 0.7 m, VIS 0.7 m, IR 2.3m
SENSITIVITY (TYPICAL)	**Ultraviolet:** (Solar Blind Mode) 2.05 x 10^{-18} Watt/cm^2 | (Non Solar Blind mode) ~1 x 10^{-18} Watt/cm^2 | **Infrared (NEdT):** <50mk | **Visible:** 0.4 lx (F1.35, 50 % IRE, ICR off), normal 0.01 lx (F1.35, 50 % IRE, ICR on), auto low light
RESOLUTION	**Ultraviolet:** 640 x 480 pixels | **Infrared:** 640 x 512 pixels | **Visible:** 768 x 576 pixels
IMAGE ENHANCEMENTS	**Ultraviolet:** Averaging & Integration | **Infrared:** Auto flat field correction (0.5s) Auto level and span | **Visible:** Auto low light, manual exposure
DISPLAY SPECIFICATIONS	**Channel Fusion:** Threshold Mask, Variable Translucency | **Fusion Accuracy:** Better than 1 milliradian | **IR & UV palettes:** Standard IR + UV Rainbow
INTERFACE	**Key pad:** Multi-function buttons | **Menu:** Icon Based Menu System | **Remote Control:** Via Ethernet, SBUS, PPM
CAMERA I/O	**USB:** Auto connect USB 2.0 | **Ethernet:** Video streaming & remote control | **Composite Video:** PAL formats
IMAGE & DATA STORAGE	**Image Format:** Displayed channels saved as JPEG or AVI (H.264 compression) | **UCF Radiometric file contains:** Displayed image, raw UV image, Radiometric LWIR values and Meta-data | **Meta-data contains:** Camera settings, GPS location, range to object | **Storage Media:** SD Card (up to 64GB)
FIRMWARE FEATURES	**Image Series Numbering:** Allows for auto sorting of images at download to PC for reporting **Gallery & Playback:** Review recorded media | **Field Upgradable:** Download latest firmware **Quick Startup:** Power on to record capable in 60 s
POWER	**Battery:** Watson Li-ion, Type L| **Operating Time:** 4hrs maximum
PHYSICAL SPECIFICATIONS	**Weight:** 1.6 Kg | **Dimensions:** 188 mm L x 156 mm W x 129 mm H | **Operating Temp:** -15 °C to 55 °C | **Storage Temp:** -20 °C to 60 °C
PROTECTION	**Storage / Transport Case:** Pelican style plastic hard case | **Camera Body:** Tested to IP 43 | **Physical Protection:** Impact absorbing covers | **Safety Standard:** CE,IEC1010-1
GIMBAL COMPATABILITY	**Includes:** Gremsy T3, DJI Ronin, and more

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