

CoroCAM UVS - Specialist UAV Corona Camera



CoroCAM UVS

With Optional Thermal Module


The CoroCAM UVS is designed for UAV combination of the successful CoroCAM Solar Blind corona sensor and a HD visible camera in a lightweight package able to fit into smaller gimbals. In addition the CoroCAM UVS can be equipped with an optional LWIR thermal module to allow for thermal inspection.

The resulting system gives excellent UV sensitivity, a wide FOV for close up inspection and good resolving power.

Setup via bluetooth, with video and still recordings onto an onboard μ SD card, downlink the HDMI or composite output and input remote control commands via CANBUS / PWM / RS232 / Ethernet.

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Features

Optional Thermal
Module

Power, Record &
Bluetooth buttons

Custom Pixy-C
Gimbal Attachment

Activity LED

Mounting Points

Lens



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Features

Top Plate Can Be Customized For Mounting Requirement

MCX Connector, Remote Control, Analogue video & Power

HDMI Port




Auxiliary MCX Connector


Ethernet Port

SD Card Slot

USB Port

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Features



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System Specifications:

CoroCAM UVS Brochure Version: 2024/1
Specifications subject to change without notice

| ULTRAVIOLET CHANNEL | |
|---------------------------|--|
| Typical Sensitivity: | SB (240 - 280 nm) 5x10 ⁻¹⁸ Watt/cm ² , 3.6pC @ 20m |
| Field of view: | 18° Horizontal x 13.5° Vertical Zoom Range (optical): 1x Zoom Range (digital): 4x |
| Focus type: | Linked to Visible with manual override |
| Focus Range: | 3m to Infinity |
| Detector Life Span: | No degradation |
| Corona Measure Method: | Intensity based count, Calibrated for irradiance value of selected area |
| Threshold Mask: | Useful range 20-100% |
| UV Transparency: | 0-100% |
| UV False Color Selection: | 4 presets with 100 user selectable hues |
| UV Integration: | Adjustable period, Summation or Noise Reduction |

System Specifications:

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| VISIBLE CHANNEL | |
|--------------------------------|-------------------------------------|
| Resolution: | 1920 x 1080 pixels |
| Sensitivity Day Mode: | 0.05 Lux F 1.6 |
| Sensitivity Night Mode: | 0.03 Lux F 1.6 |
| Exposure / Image Enhancements: | Auto or Manual / Wide Dynamic Range |
| Focus Type: | Automatic with manual override |
| Focus Range: | 3m to Infinity |
| Useful Zoom Range (optical): | 24° (0.5x) to 4.5° (4 x) |
| Camera Module Zoom Range: | 10x, 53° to 4.9° |
| Zoom type: | Stepped |
| Zoom Range (digital): | 4x, 6x, 8x, 12x |
| Maximum IFOV: | 0.0445 mRAD |

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WITH OPTIONAL THERMAL MODULES:

| THERMAL CHANNEL | FLIR TAU 2 | FLIR BOSON |
|-----------------|--------------------------|------------------------------------|
| Spectral Band: | 7.5 - 13.5 μm | 8 μm - 14 μm |
| Sensitivity: | <50 mK | <50 mK |
| Resolution: | 640 \times 512 | 640 \times 512 |
| Field of View: | 32° x 26° | 24° x 19.2° |
| Level & Span: | Auto or Manual | Auto or Manual |

| IO & OS | |
|------------------|---|
| OS Features: | Icon based menu system, 10x User Profile, Boot to inspection capable in 6s, to record capable in 60s, Image Sort Numbering, Video list and playback |
| Input: | SBUS, (CAN or RS232 option), Ethernet; ON/OFF Switch (Always ON Selection via Jumper), Bluetooth Pairing, Record Start / Stop |
| Output: | HDMI via port or Ethernet / Wi-Fi (optional) & Composite Video (10 pin accessory port) Optional Wi-Fi - deactivates ethernet & adds 100g |
| Firmware: | Auto or Manual / Wide Dynamic Range |
| Software Update: | Via files downloaded from website to Mirco SD card |

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WITH OPTIONAL THERMAL MODULES:

| MEDIA & DATA STORAGE | |
|-----------------------|--|
| Storage Medium: | Micro SD card (64 GB supplied with camera) |
| Storage Capacity: | 1000+ images or >1 hr video/GB |
| Storage Format Video: | AVI, 720p (H.264 compression) |
| Storage Format Still: | JPG |
| Media Download: | Via Card Reader or USB |

| DISPLAY | |
|----------------------|---|
| Display Modes: | UV+VIS, UV+LWIR, VIS only, LWIR only , UV only, UV Priority |
| UV Overlay Accuracy: | <1 milirad deviation |
| On Screen Display: | Gain, zoom, count, active functions |

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WITH OPTIONAL THERMAL MODULES:

| POWER | |
|------------------------|--|
| Battery: | N/A |
| Power Consumption: | 12 Watt |
| Operating Time: | Depending on Power supply (External or UAV battery) Typical 3hrs on 40W battery |
| Continuous Operation: | No overheating |
| Charging: | N/A |
| External Power Supply: | 9-60 V 12VA - Car or mains adapter Mains Adaptor: 110-240 V ac 50 - 60 Hz / 12 V dc 3A Protection: Reverse polarity, over current, under voltage |

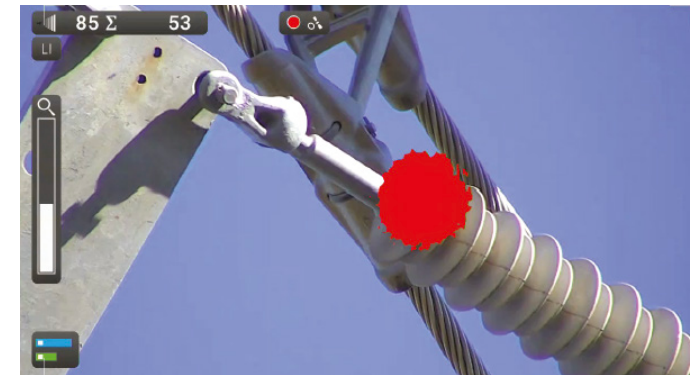
| PHYSICAL SPECIFICATION | |
|------------------------|---|
| Useage: | Mounted horizontal (standard) or mounted vertical (optional) |
| Weight: | 740 g without the brackets; 800 g with Boson Module; 1.25 Kg with the Pixy - C gimbal, brackets and thermal |
| Dimensions: | 110 mm L x 143 mm W x 67 mm H |
| Window aperture: | Ø = 62 mm |
| Operating Temp: | -15 °C to 55 °C |
| Storage Temp: | -20 °C to 60 °C |
| Humidity: | Up to 90 %, non condensating |
| Mounting Point | Standard 1/4" X20 thread tripod mount at bottom, M3 mounts bottom and right side |
| Center of Gravity | 70 - 64 mm from rear (Depending on Options) |

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WITH OPTIONAL THERMAL MODULES:

| PROTECTION | |
|---------------------------|---------------------------------|
| Storage / Transport Case: | Pelican style plastic hard case |
| Environmental Protection: | IP44 (Optional IP65) |
| Safety Standard: | CE, IEC1010-1 |
| Warranty: | 12 months |



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