

# CoroCAM<sup>®</sup> UVS1

## Professional UAV Corona Camera



UAV based inspections require sensor packages which are small, lightweight and yet sensitive enough to detect discharges from safety stand-off distances.

The CoroCAM UVS1 achieves this by making use of the successful CoroCAM solar blind filter & detector array and a lighter wider Field Of View (FOV) lens paired with an HD visible camera.

Both cameras are optically and electronically aligned allowing for exact overlay of the detected discharges at all optical zoom levels.

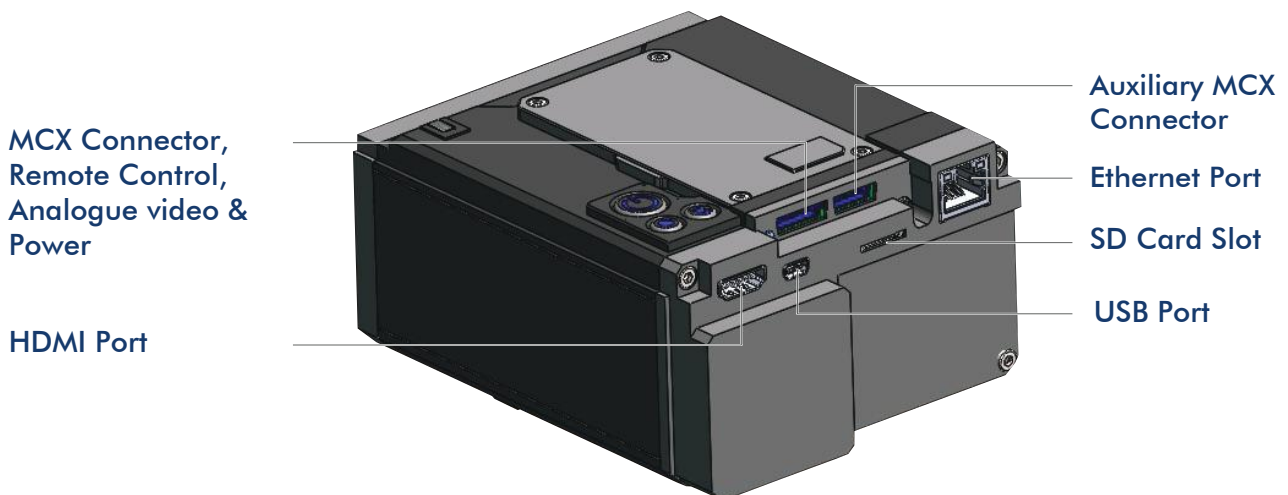
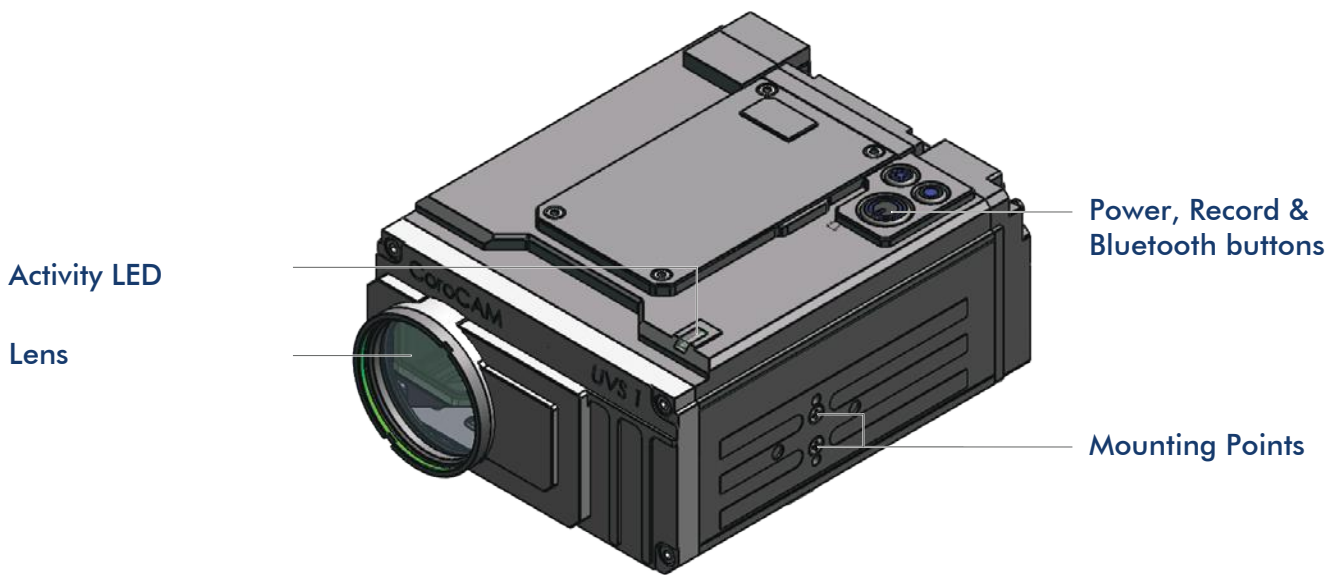
The HD visible camera FOV and resolution provides the detail required to effectively assess the corona discharge location thereby facilitating determination of the maintenance priority rating.

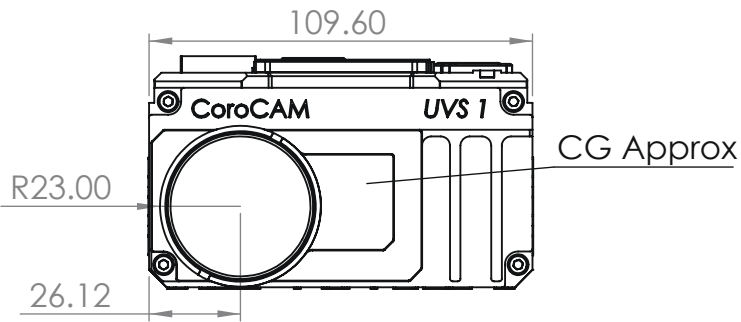
The CoroCAM UVS1 (installed in a suitable gimbal) can be lofted by a number of enterprise grade UAV's. The HDMI or composite video output can be down-linked to a base station display, while the RS232/CAN port can accept remote control signals from a base station via a wireless transmitter.

Video and still recordings can be made on the camera while being remote controlled. An integrated GPS provides data recorder in meta files.

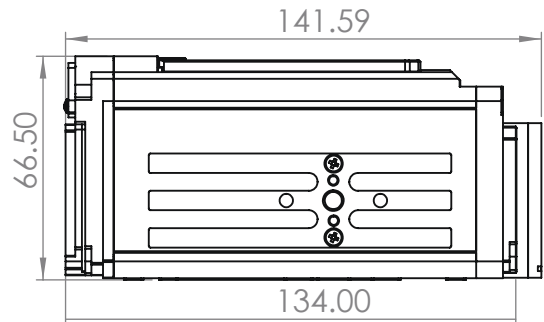
The above makes the CoroCAM UVS1 ideal for inspectors who want a professional UAV corona camera.







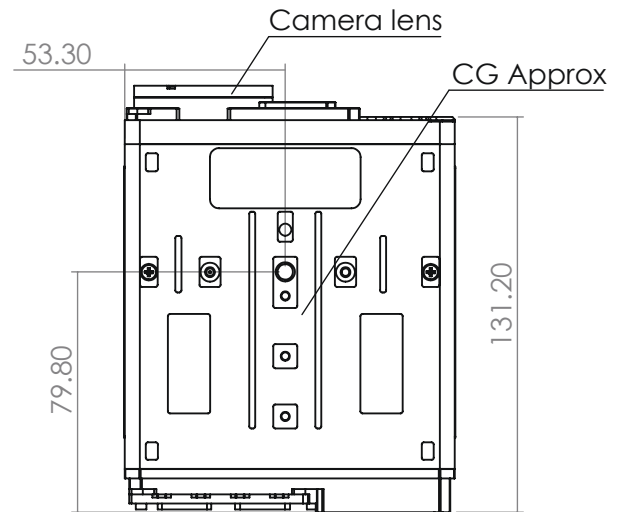
Front view



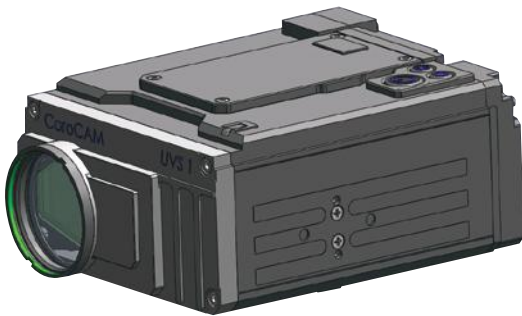
Side view



Back view

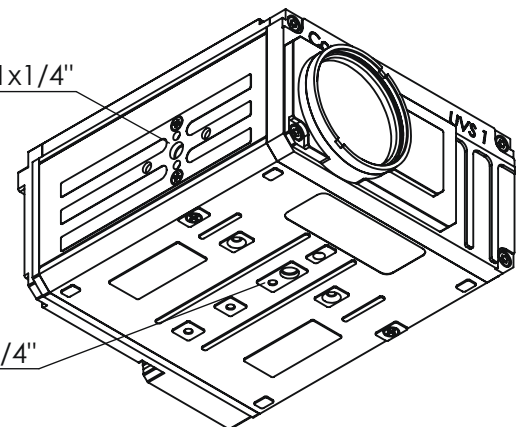


Bottom view



Mounting  
Points 2 x M3 1x1/4"

Mounting  
Points 1 x M3, 1 x 1/4"



ALL DIMENSIONS IN mm Tol +0.1 -0.1mm

| ULTRAVIOLET CHANNEL       |   |
|---------------------------|---|
| Typical Sensitivity:      | SB (240 - 280 nm) $5 \times 10^{-18}$ Watt/cm <sup>2</sup> , Approx. 3,6pC @ 20m                            |
| Field of view:            | 19° Horizontal x 14° Vertical ~ 24° Diagonal   Zoom Range (optical): 1x   Zoom Range (digital): 19° to 3.3° |
| 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   |

| VISIBLE CHANNEL                |                                     |
|--------------------------------|-------------------------------------|
| Resolution:                    | 1920 x 1080 pixels                  |
| Sensitivity Day Mode:          | 0.05 Lux @ F 1.6 @ 50 fps           |
| 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° (Max. out) to 3.3° (Max. in)    |
| Camera Module Zoom Range:      | 10x, 53° to 4.9°                    |
| Zoom type:                     | Stepped                             |
| Zoom Range (digital):          | 4x, 6x, 8x, 12x                     |
| Maximum IFOV:                  | 0.0445 mRAD                         |

| 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)<br>Optional Wi-Fi - deactivates Ethernet & adds 100g         |
| Firmware:        | Internal GPS, with external antenna via MCX connector   |
| Software Update: | Via files downloaded from website to Micro SD card  |

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

| 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                     |

| POWER                  |  |
|------------------------|--|
| Battery:               | N/A  |
| Power Consumption:     | 12 Watt  |
| Operating Time:        | Depending on Power supply (External or UAV battery)<br>Typical 3hrs on 40W battery   |
| Continuous Operation:  | No overheating   |
| Charging:              | N/A  |
| External Power Supply: | 9-60 V 12VA - Car or mains adaptor   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:                | 750 grams  |
| 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)                                      |

| PROTECTION                |                               |
|---------------------------|-------------------------------|
| Storage / Transport Case: | Nanuk style plastic hard case |
| Environmental Protection: | IP44 (Optional IP 65)         |
| Safety Standard:          | CE, IEC1010-1                 |
| Warranty:                 | 18 months                     |



[www.uvirco.com](http://www.uvirco.com)

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