

# CoroCAM® 6HD

High Performance Daylight Corona Imaging Camera

The CoroCAM® 6HD is an easy to operate, robust system which delivers high sensitivity and resolution in a lightweight package. Ergonomic design, a large LCD display and the use of commercially available batteries and a neckstrap allows the camera operator to work all day under all applicable conditions.



# NOTABLE FEATURES:

Adjustable Angle  
Sun shield

Adjustable Angle  
LCD display

Quick Guide Sticker

Behind flap: Power  
input, AV Out,  
RS232 I/O

Behind flap: Mini  
HDMI, Micro SD  
Card slot, USB Port

One handed  
operation

GPS booster antenna  
port

Easily replaceable  
Li-ion batteries



# NOTABLE FEATURES:

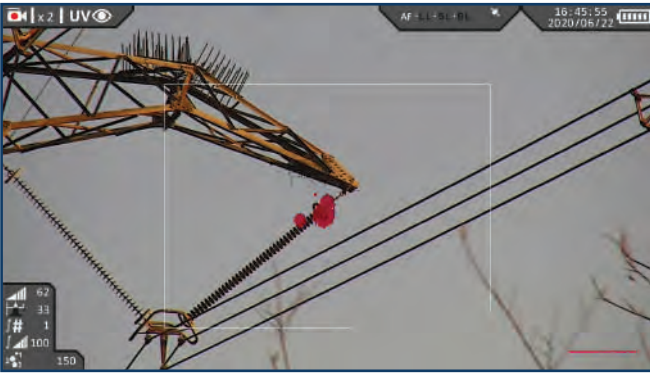
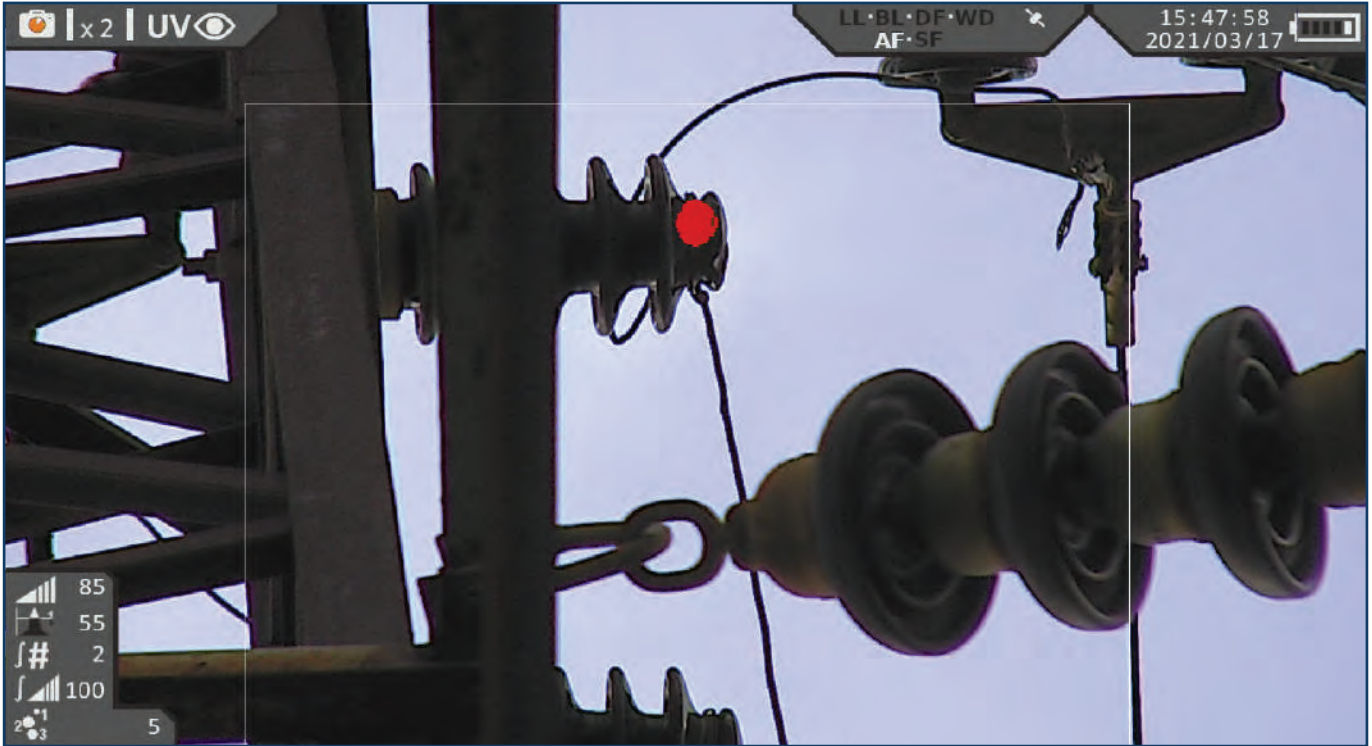
- A high sensitivity detector, which can detect UVC emissions down to  $2.05 \times 10^{-18} \text{ W/cm}^2$ , this allows for the detection of the smallest corona discharges.
- UV Gain, threshold or integration can be set to optimize the resulting image.
- Factory fitted optional Motorized Solar Blind (SB) filter position module can remove the solar blind filter from the light path to enhance sensitivity - Non Solar Blind (NSB) Module. Corona signals above the threshold level are displayed in real time.
- The UV count is adjusted to compensate for camera settings.
- High sensitivity color video camera with a resolution of 1920 x 1080 pixels which can operate at light levels down to 0.03 Lux @ F1.6 at Full Frame rate; rendering it capable for conducting inspections at night.
- Synchronized UV & Visible Zoom from 1x (defined as  $8^\circ \times 6^\circ / 10^\circ$  Diagonal) up to 2x system zoom (optical/ digital for the Visible Channel and digital for the UV channel). A maximum of 12x digital zoom is available for the visible channel.
- Automatic or Manual visible camera focus control from  $<0.7\text{m}$  to infinity. UV camera focus can be set manually or slaved to the visible camera focus position.
- The visible image can be enhanced for back-light compensation to set to low light mode.
- UV is overlaid onto the visible in one of the 4 preset or 100 user selected colors.
- The UV overlay translucency can be adjusted to show the discharge source.
- On-board still image and video recording in high quality formats (720p for video).
- Fast set up & boot up avoids the need for power saving modes.
- 18 Month warranty, extendable to 36 months.



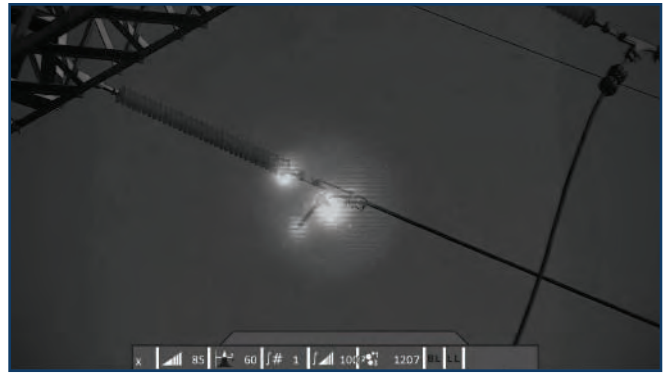
The CoroCAM 6HD (installed in a suitable gimbal) can be lofted by a number of enterprise grade UAV's. The mini-HDMI or composite video output can be down-linked to a base station display, while the RS232 port can accept remote control signals from a base station via a RS23 transmitter. Recordings can be made on the camera while being remote controlled. This makes the CoroCAM 6HD ideal for inspectors who want to transition into the use of UAV's.



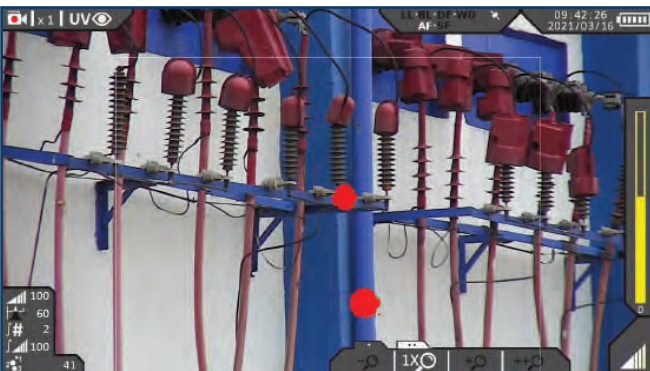
# COROCAM 6HD PHOTOS:



Typical view



Background Priority View



ULTRAVIOLET CHANNEL	
Typical Sensitivity:	SB (240 - 280 nm) $2.05 \times 10^{-18}$ Watt/cm <sup>2</sup> , 3pC @ 20m (Korea Electrotechnology Research Institute   IEC 60270:2000)   13.16dB $\mu$ V(RIV) @ 1MHZ @ 10m (Korea Electrotechnology Research Institute – NEMA107-1987) ; Optional NSB (240-300 nm) ~ $1 \times 10^{-18}$ Watt/cm <sup>2</sup> , 0.8pC @ 15 m Tested & certified by Innogy SE-Eurotest Germany: IEC 60270:2000
Field of view:	8° Horizontal x 6° Vertical ~ 10° Diagonal   Zoom Range (optical): 1x   Zoom Range (digital): 8° to 4°, in 1 step
Focus type:	Linked to Visible with manual override
Focus Range:	<0.7m 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
Focus Type:	Automatic with manual override
Focus Range:	<0.7m to Infinity
Useful Zoom Range (optical):	16° (0.5x) to 4° (2x)
Camera Module Zoom Range:	10x Optical zoom, 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:	Keypad (right hand)
Output:	HDMI & Composite Video
Bi-Directional:	Mini USB, RS-232
Firmware:	Internal GPS, with external hotplug booster antenna
Software Update:	Via files downloaded from website to Mirco SD card

MEDIA & DATA STORAGE	
Storage Medium:	Micro SD card (32 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

Type:	5.7" LCD, 640 x 480 pixels, color, manual or auto brightness up to 450cd/m <sup>2</sup> , variable angle
Display Modes:	UV+Vis, VIS only, UV only, UV Priority
UV Overlay Accuracy:	<1 milirad deviation
On Screen Display:	Gain, zoom, count, active functions

## POWER

Battery:	Sony Li-ion, Type L compatible
Battery Location:	Internal, quickly replaceable
Power Consumption:	9 Watt
Operating Time:	>3hrs maximum, 2.5hrs typical
Continuous Operation:	No overheating
Charging:	In camera or in external charger
External Power Supply:	9-16V 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

Weight:	1.9 kg including battery
Dimensions:	220 mm L x 160 mm W x 80 mm H
Window aperture:	Ø = 62 mm
Operating & Storage Temp:	-20 °C to 55 °C
Humidity:	Up to 90 %, non condensating
Mounting Point	Standard 1/4" X20 thread tripod mount

## PROTECTION

Storage / Transport Case:	Pelican style plastic hard case
Environmental Protection:	IP54 / MIL-STD 810F (Vibration, shock, temperature, humidity)
Safety Standard:	CE, IEC61010-1
Warranty:	18 months

## ACCESSORIES

Reporting Software:	CoroBASE®
Carrying:	Neckstrap
	Camera Harness