

CoroCAM® 6HD

High Performance Daylight Corona Imaging Camera



The **CoroCAM® 6HD** improves on the CoroCAM® 6D by adding an HD sensor, HD recording, an HDMI output port, an external RS-232 port and an optional Wi-Fi module for remote control.

The HD sensor allows the CoroCAM® 6HD to record imagery and video at the highest resolving power attainable in the market - this means the user gets the clearest image of the condition causing the discharge - making maintenance priority assessment more reliable.

The CoroCAM® 6HD delivers high performance in an **economical** package.

PRODUCT HIGHLIGHTS:

Fast set up & boot up | High Definition Visible Channel | 720P video recording | Translucent UV overlay | GPS internal and booster antennas | Onboard microphone and speaker | HDMI 720P output | Optional Wi-Fi | Optional Non-Solar Blind Module

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 sampling box has 3 sizes.
- 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 @ F 1.6 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° Diagonal) up to 4x 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 <0.7m 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.
- A large, robust mounted, variable angle, color LED back-lit LCD display with 640 x 480 pixels resolution optimized for use in full daylight makes for easy inspection. Screen brightness can be manually or automatically set. The On Screen Display (OSD) shows all the relevant information.
- UV is overlaid onto the visible in one of 4 preset or 100 user selected colors.
- The UV overlay translucency can be adjusted to show the discharge source.
- Integrated GPS with internal and booster antenna.
- On-board still image and video recording in high quality formats.
- Easily replaceable lightweight Li-ion batteries, available from most camera stores, deliver up to 3 hours operating time.
- Fast set up & boot up avoids the need for power saving modes.
- Easy operation of the camera with one hand via a multi-function keypad, with hot keys to specific function.
- 18 month warranty, extendable to 36 months.

SYSTEM SPECIFICATIONS:

Brochure Version: 2020/3
Specifications subject to change without notice

ULTRAVIOLET CHANNEL

Sensitivity: SB Spectrum (UV 240 - 280nm) 2.05×10^{-18} Watt/cm² ;
NSB Spectrum (UV 240-300nm) $\sim 1 \times 10^{-18}$ Watt/cm² | **Detector Life Span:** No degradation |
Field of view: 8° Horizontal x 6° Vertical $\sim 10^\circ$ Diagonal = 1x System Zoom |
Zoom Range (optical): 1x System Zoom (SZ) | **Zoom Range (digital):** 3x 16° - 4°, to match SZ
Focus type: Slaved to Visible with manual override

CORONA MEASURE VISIBLE CHANNEL

Method: Intensity based count, Calibrated for irradiance value of selected area
Image Sensor: Color video, 1920 x 1080 pixels | **Sensitivity Day Mode:** 0.05 Lux @ F1.6
@ 50 fps | **Sensitivity Night Mode:** 0.03 Lux F 1.6 | **Exposure:** Auto |
Focus Type: Automatic with manual override | **Focus Range:** <0.7 m to infinity | **Zoom
Range (optical):** 16° (0.5 x SZ) to 4° (2 x SZ) | **Max Optical Zoom:** 10x | **Zoom Range
(digital):** 4x - 12x from Max Optical Zoom | **Maximum Visible Channel IFOV:** 0.0445mRAD

IMAGE OUTPUT

Output Screen: User Interface or Report View | **HD Resolution:** 1280 x 720 |
HD Signal output: HDMI

CHANNEL MIXING

UV/ Visible Overlay Accuracy: <1 milliradian | **UV Transparency:** 0-100% | **UV False Color
Selection:** 4 presets with 255 user selectable hues

DATA DISPLAY

Display: 5.7" VGA LCD with LED backlighting, adjustable display angle, Update Rate: 50 HZ,
progressive | **Display Brightness:** 450 cd/m² | **On Screen Display:** UV on Visible /Visible only /
UV only; UV count; Camera Settings; Gain (0 - 100%), Threshold; Focus (UV & Visible); Date/Time;
Corona Overlay Colour; Integration/Averaging; Icon based menu system

CONTROL INTERFACES

Control Inputs: Keypad | **Status Indicator:** On/Off button LED | **Audio:** On-board
microphone & speaker | **GPS:** Integrated with external booster antenna | **Optional Wi-Fi**

DATA STORAGE

Storage Media: Removable Micro SD Card (64 GB supplied with camera) | **Media
Download:** Via Card Reader or USB 2.0 | **Image Format:** JPEG | **Video Format:** AVI
720P (H.264 compression) | **Storage Capacity:** 1000+ images or >1 hr video/GB |
Software Update: Via files downloaded from website to Micro SD card

POWER SYSTEM

Power Consumption: 9 Watt | **Battery Type:** Rechargeable Li-Ion, Sony Type L compatible |
Battery Run Time: Typical 2.5 hrs | **Battery Location:** On-board, quickly replaceable |
Charging: On camera / optional charger | **Mains Adapter:** 110-240 V ac 50 - 60 Hz / 12 V dc
3A | **External Supply:** 9-16V 12VA - Car or mains adapter | **Protection:** Reverse polarity, over
current, under voltage

PHYSICAL DIMENSIONS

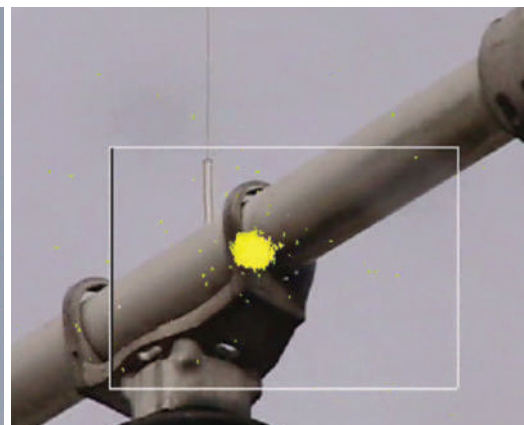
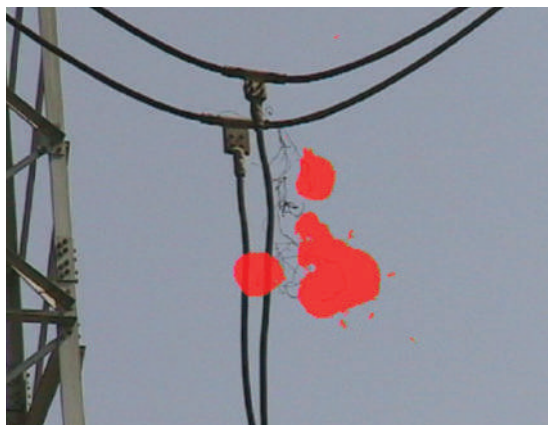
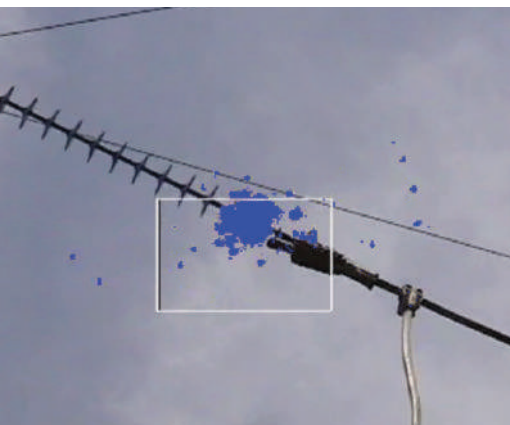
Weight: 1.9 kg including battery | **Size:** 220 mm L x 160 mm W x 80 mm H | **Window
aperture:** $\varnothing = 62$ mm | **Mounting Points:** 1/4" Thread tripod mount

ENVIRONMENTAL

Operating Temp: -15 °C to 55 °C | **Storage Temp:** -25 °C to 60 °C (without battery) |
Humidity: Up to 90 %, non condensating

PROTECTION

Storage / Transport Case: Pelican style plastic hard case | **Camera Body:** Tested to IP 54
Physical Protection: Impact absorbing covers | **Safety Standard:** CE, IEC1010-1



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