CoroCAM® 8HD

Combined LWIR and Corona Camera

The CoroCAM 8HD combines a FLIR radiometric thermal camera with the CoroCAM Solar Blind UV camera system, allowing simultaneous detection and location of corona discharges and hot spots, saving time and effort. Co-location of electrical discharges and hot spots give the inspector more insight into the cause of fault conditions.
Advanced UVc image enhancement features are available to increase sensitivity (adjustable Long Integration & Non-Solar Blind Mode), reduce false signals (adjustable Noise Reduction & Threshold Level) and improve the visibility of the discharge indicating blob (adjustable Background Priority, Blob Transparency and Blob False Colour). The rotating ergonomic grip, viewfinder and LCD display allows the operator to use the camera in all light conditions from multiple stances, minimizing muscle fatigue.

FEATURES & PERFORMANCE:

- High sensitivity solar blind UV detector.
- 9Hz (optional 25 Hz) FLIR Radiometric LWIR camera module.
- Syncronized 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 Auto focus for Visible channel, UV & LWIR channel has manual focus or can be synchronized with the Visible.
- Onboard still image, video and radiometric data recording.
- Meta data recording of camera settings and measurement plus environmental variables manually entered - distance,air temperature, air pressure, ambient humidity and wind speed.
- Fast set up & boot up avoids the need for power saving modes.
- Manual or Auto Exposure of Visible and LWIR (Level) cameras, UV (Gain) is manually set.
- Easy & comfortable operation of the camera via the Rotational handle (right hand only) with primary multi-function interface keys.
- Control over UV overlay colors (6 pre-sets & 100 user selectable hue levels), UV overlay translucency, UV threshold,
- Integration & Noise Reduction control.
- 14 IR color palettes with contrasting Isotherms.
- Auto or Manual IR Span.
- GPS booster antenna port.
- Integrated high power LED flashlight with adjustable brightness levels & laser pointer.
- Camera software update via download to Micro-SD card.
- 12 month warranty.

SYSTEM SPECIFICATIONS:

ULTRAVIOLET CHANNEL	
Typical Sensitivity:	SB (240 - 280 nm) 2.05x10^{-18} Watt/cm^2; IEC 60270:2000: 3pC @ 20m (Korea Electrotechnology Research Institute) & 1.8pC @ 10m (Innogy) | NEMA107-1987: 13.16dBµV(RIV) @ 1MHZ @ 10m (Korea Electrotechnology Research Institute)
	NSB (240-300 nm) ~ 1 x 10^{-18} Watt/cm^2, 0.8pc @ 15m 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 2°, in 3 steps
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:	6 pre-set colors, 100 user selectable hues
UV Integration:	Adjustable period, Summation or Noise Reduction

THERMAL	
Detector Type:	VOx Microbolometer
Spectral Band:	7.5 - 13.5 µm
Temperature Range:	-40°C to 160°C
Sensitivity:	Infrared (NEdT): <62.5mK @ f1.25
Focus Range:	2.3m to Infinity
Resolution:	640 x 512
Field of View:	10.4° × 8.3°
Zoom:	8x digital
IFOV:	0.283 mRAD
Readout:	<9 or 25Hz
IR Palettes	15x palettes / Isotherms
Level & Span	Auto or Manual

VISIBLE CHANNEL	
Resolution:	1920 x 1080 pixels
Sensitivity Day Mode:	0.1 Lux F1.6
Sensitivity Night Mode:	0.05 Lux F1.6
Exposure / Image Enhancements:	Auto or Manual
Focus Type:	Automatic with manual override
Focus Range:	<1.5m to Infinity
Useful Zoom Range (optical):	16° (0.5x) to 2° (2x)
Camera Module Zoom Range:	30x Optical zoom, 58.9° to 2,11°
Zoom type:	Stepped and Smooth
Zoom Range (digital):	4x, 6x, 8x, 12x
Maximum IFOV /ΔK:	0.01917 mRAD / 52.1629

DISPLAY	
Type:	5.7" LCD, 640 x 480 pixels, color, manual or auto brightness up to 450cd/m^2, variable angle
	Viewfinder, 800x600, Focusable, Ventilated rubber eye piece
Display Modes:	UV+Visible, UV+LWIR, Visible only, LWIR only, UV only, UV Priority
UV Overlay Accuracy:	<1 milirad deviation
On Screen Display:	Gain, zoom, count, active functions

SYSTEM SPECIFICATIONS:

CoroCAM 8HD Brochure Version: 2024/1
Specifications subject to change without notice

IO & OS	
OS Features:	Icon based menu system 10x User Profiles
	Boot to inspection capable in 6s, to record capable in 60s.
	Image Sort Numbering
	Video list and playback
Input:	Keypad (right hand), Onboard & External Microphone
Output:	Composite Video
	Onboard speaker
Bi-Directional:	Micro USB, RS-232
Firmware:	Internal GPS, with external hotplug booster antenna
	LED Flashlight (Adjustable brightness , 10- 100% usable range)
Software Update:	Via files downloaded from website to Mirco SD card

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
Storage Format Radiometric Still:	UCF
Media Download:	Via Card Reader or USB

POWER	
Battery:	Sony Li-ion, Type L compatible
Battery Location:	Internal, quickly replaceable
Operating Time:	3hrs maximum
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

PROTECTION	
Storage / Transport Case:	Pelican style plastic hard case
Environmental Protection:	IP43
Safety Standard:	CE, IEC61010 - 1
Warranty:	12 months

PHYSICAL SPECIFICATION	
Ergonomics:	Rotatable grip w/ one handed keypad
Weight:	2.5 Kg including battery
Dimensions:	215 mm L x 200 mm W x 155 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

ACCESSORIES	
Reporting Software:	CoroBASE
Carrying:	Neckstrap & Camera Harness

Website: www.uvirco.com
Address: UViRCO Technologies (Pty) Ltd,
33 De Havilland Crescent, Persequor Technopark, Pretoria 0020, South Africa
Tel: +27 (0)12 349 3760 | Fax: +27 (0)86 435 5204 | Email: info@uvirco.com

UViRCO Technologies (Pty) Ltd,
33 De Havilland Crescent, Persequor Technopark, Pretoria 0020, South Africa
Tel: +27 (0)12 349 3760 | Fax: +27 86 435 5204 | Email: info@uvirco.com

Distributed by