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amperis

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The CoroCAM 8 is a combined thermal IR, solar blind corona and video camera. It features a high spec Sony visible camera, a radiometric FLIR thermal IR camera and a solar blind UV camera. The CoroCAM 8 is intended for use by professional HV inspectors. The combination of these 3 cameras makes it possible to do both thermal IR and UV inspections at the same time, saving time and effort. Co-location of electrical discharges and hot spots give the inspector more insight into the cause of the faults.

The CoroCAM 8 can be used to inspect HV infrastructure operating at 3.3kV and above.

THE COROCAM 8 FEATURES:

- A high sensitivity UV detector, which can detect UVC light at 2.05×10^{18} 2 W/cm, this allows for the detection of the smallest corona discharges.
- A FLIR Radiometric IR camera module with a sensitivity of NE Δ T <62.5mK.
- Synchronised Zoom of all 3 camera channels.
- Onboard still image and video recording in high quality formats, i.e FLIR radiometric JPG, Mp4 video
- A large, robust mounted, variable angle, colour LED backlit LCD display with 640x480 pixels resolution optimised for use in full daylight makes for easy inspection.
- A focusable viewfinder.
- Integrated GPS with internal and optional external booster antenna.
- Rotational handle (right hand only) with primary interface keys.
- Laser pointer and rangefinder with safety block off.
- Fast set up & boot up avoids the need for power saving modes.
- Easy operation of the camera with one hand via a multifunction keypad.
- Quick keys to specific functions.
- The On Screen Display (OSD) shows all the relevant information.
- Camera software update via download to SD card.
- Selectable controls include:
 - Zoom level & Visible focus control (Auto or Manual).
 - Auto or Manual focus of Visible and IR cameras with UV camera either manually focused or slaved to Visible or IR camera.
 - Auto or manual exposure of Visible, UV (Gain) and IR (Level) cameras.
 - Screen brightness control (Auto or Manual)
 - UV count sampling box size selection (1/4, 1/8 or full screen size).
 - UV overlay colour 4 defaults plus 100 hue levels.
 - Visible effects control (Backlight compensation & low light mode).
 - Recording mode selection.
- Changeable values include:
 - UV Gain & signal threshold levels, UV Integration.
 - UV overlay translucency & colour.
- A 12 Month warranty, extendable to 36 months.

UNIQUE FEATURES

- Combined UV/VIS & IR imaging | Quick function keys on left
- Fast set up | Radiometric IR
- One handed operation | Simple & powerful user interface
- High resolution video recording
- Translucent UV overlay
- GPS with booster antenna port
- Onboard microphone and speaker
- Focusable viewfinder
- I/O connectors (Ethernet, USB, HDMI)
- Quick function keys on left
- Fast set up | Radiometric IR
- One handed operation | Simple & powerful user interface



SYSTEM SPECIFICATIONS

Zoom	
Visible camera zoom	28x optical, 12x digital
UV camera zoom	1x optical, 8x digital
IR camera optical zoom	1x optical, 4x digital

Fields of View	
@ 1x Zoom	16°
@ 2x Zoom	8°
@ 4x Zoom	4°
@ 8x Zoom	2°
UV & IR channel zoom	Digital to match visible FOV
FOV with UV overlay	All
Focus	Automatic or manual on visible & IR channels, UV slaved to visible/IR or independent manually
Minimum focus distance	2.3m

Sensitivity (typical)	
Ultraviolet	2.05x10 Watt/cm ²
Infrared (NEdT)	<62.5mK @ f1.25 (Standard lens)
Visible	1.7 lx (F1.6, ICR off), normal 0.3 lx (F1.6, ICR on), auto low light

Resolution	
Ultraviolet	640 x 480 pixels
Infrared (NEdT)	640 x 512 pixels
Visible	1280 x 720 pixels

Image acquisition features	
Ultraviolet	Averaging & Integration
Infrared (NEdT)	Auto flat field correction (0.5s) Auto level and span
Visible	Auto low light, manual back light compensation

Display Specifications	
Viewfinder	Ventilated rubber eye cup, 640x480, pixel LED ~ 42" screen seen from 2m
LCD	5.7" Backlit LCD 450cd/cm ² , 640x480 pixels
Channel Fusion	Picture in Picture, Threshold Mask, Variable Translucency
Fusion accuracy	Better than 1 milliradian
IR & UV palettes	Standard IR + UV Rainbow
On Screen Display	UV count Camera Settings: <ul style="list-style-type: none"> • Gain (0-100%), Threshold • Focus (UV & Visible) • Date/Time

Interface	
Ergonomic grip	Multifunction buttons
Menu	Icon Based Menu System
Short cut buttons	Activate specific functions
Remote control	Via USB / Ethernet

Camera I/O	
USB	Auto connect USB 2.0
HDMI	Video & Audio to screen
Ethernet	Video streaming & Remote Control
Composite	PAL & NTSC

Image & Data Storage	
Output/saved image options	As displayed, Simplified, No info
Video format	MP4 (H.264 compression)
Image format	Overlaid channels saved as JPEG
Separately saved	
Visible channel	JPEG
UV channel	JPEG
IR channel	Radiometric JPEG
Meta-data contains	Camera settings, GPS location, range to object
Storage media	SD Card (up to 64GB)

Firmware Features	
Image Series Numbering	Allows for auto sorting of images at download to PC for reporting
Gallery & Playback	Review recorded media
Field Upgradable	Download latest firmware
Quick startup	Power on to ready in 60s

Power	
Battery	Sony Li-ion
Operating / Recharge time	1.5Hrs operation / 30mins

Physical Specifications	
Weight	2.5Kg
Dimensions	215mm L x 200mm W x 155mm H
Operating & Storage temp	-15°C to 55°C

Protection	
Storage and Transport case	Pelican style plastic hard case
Camera body	Tested to IP 54
Physical Protection	Impact absorbing covers
Safety standard	CE,IEC1010-1

Standard System:

- Corocam 8 daylight uv & ir imager
- Li-ion battery, 8gb sd card
- Ac mains adapter
- Operating manual
- Protective hard carry case
- Basic reporting software

Optional accessories:

- Accessory pack I
 - Extra battery, dual charger, headset & inspection guide, featuring the epr field guide
- Accessory pack II
 - Safety vest w/ pouches for spare batteries