



Advanced Test Equipment Corp.

www.atecorp.com 800-404-ATEC (2832)



CoroCAM® 7HD

Professional Solar Blind Corona Camera
Pre-release Brochure

The CoroCAM® 7HD makes location of corona discharges fast and effective. Highly zoomed HD imagery allows for the visualisation of the finest details. Easy to use features brings powerful performance. Optimise the camera sensitivity using the adjustable Long Integration, Noise Reduction, UV Threshold Level and Non-Solar Blind Mode (when applicable). Optimise the UV blob display using the UV Blob False Color, Blob Transparency and the adjustable Background Priority.

The adjustable viewfinder, rotatable grip and LCD display makes for optimal ergonomics and allows the operator to use the camera in all light conditions from multiple stances, minimizing muscle fatigue.

NOTABLE FEATURES:

Adjustable and focusable viewfinder

One handed operation

Onboard microphone and speaker

Rotating LCD Display

Instruction sticker

GPS booster antenna port

Laserpointer

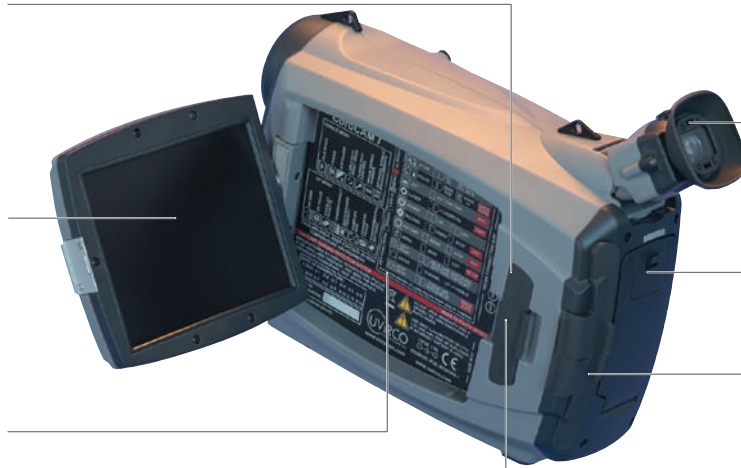
Integrated high power flashlight with adjustable brightness levels

Ventilated viewfinder

Easily replaceable Li-ion batteries

I/O connectors
Ethernet, USB, HDMI,
Micro SD Card

RS232/485



NOTABLE FEATURES:

- 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.
- Motorized Solar Blind (SB) filter removal in Non-Solar Blind (NSB) mode to increase sensitivity for use at night or indoors.
- Users can select optimised presets for detection or location of discharges.
- Corona signals above the threshold level are displayed in real time.
- High zoom visible camera with a resolution of 1920×1080 pixels, recorded at 720p.
- Image Enhancements - Wide Dynamic Range and De-fog improves visible image quality in challenging conditions.
- Synchronized UV & Visible Zoom from 1x (defined as $8^\circ \times 6^\circ / 10^\circ$ Diagonal) up to 4x system zoom (optical for the Visible Channel and digital for the UV channel).
- Onboard still image and video recording in JPG and AVI formats.
- UCF metadata file containing uncompressed displayed image and raw UV image, camera settings and preset values.
- Fast boot up avoids the need for power saving modes.
- User profile setup, save and restore.
- Camera software update via download to Micro SD card.
- 18 Month warranty, extendable to 36 months.



SYSTEM SPECIFICATIONS:

2021 Pre-release Brochure
Specifications subject to change without notice

ULTRAVIOLET CHANNEL	
Typical Sensitivity:	SB (240 - 280 nm) 2.05x10 ⁻¹⁸ Watt/cm ² , 1.8 pC @ 10m (Korea Electrotechnology Research Institute IEC 60270:2000) 13.16dB μ V(RIV) @ 1MHZ @ 10m (Korea Electrotechnology Research Institute – NEMA107-1987)
	NSB (240-300 nm) ~ 1 x 10 ⁻¹⁸ Watt/cm ² , 0.8pC @ 10 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): 16° to 2°, in 4 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 0 -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

VISIBLE CHANNEL	
Resolution:	1920 x 1080 pixels
Sensitivity Day Mode:	0.5 lx (F1.6, 50 % IRE, ICR off)
Sensitivity Night Mode:	0.1 lx (F1.6, 50 % IRE, ICR on)
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:	28x, 55.8° to 2,1°
Zoom type:	Stepped and Smooth
Zoom Range (digital):	4x, 6x, 8x, 12x
Maximum IFOV / Δ K:	0,019170718 mRAD / 52.16

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), Onboard & External Microphone
Output:	HDMI & Composite Video ; Onboard speaker
Bi-Directional:	Mini 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

ACCESSORIES	
Carrying:	Neckstrap Camera Harness

MEDIA & DATA STORAGE	
Storage Medium:	Micro SD card (64 GB supplied with camera)
Storage Format Video:	AVI, 720p (H.264 compression)
Storage Format Still:	JPG, AVI, 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, 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	
Ergonomics:	Rotatable grip w/ one handed keypad
Weight:	2.2 Kg including battery
Dimensions:	275 mm L x 135 mm W x 190 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

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

PROTECTION	
Storage / Transport Case:	Pelican style plastic hard case
Environmental Protection:	IP55
Safety Standard:	CE, IEC61010-1
Warranty:	18 months