

DayCor[®] ROM



AIRBORNE STABILIZED INSPECTION SYSTEM



A powerful high speed inspection solution for power lines with high sensitive sensors and up to date technological implementations. The combination of unique sensors into one platform with UV-IR-TV & Photo capture makes the ROM system a premium choice for remote detection and presentation of faulty electrical components, for fire mapping, oil spill detection and pipeline inspection. The collected data includes both imaging and radiometric readings of corona discharge and hot spots with GPS data. Findings are used for predictive and preventive maintenance. ROM is light in weight, simple to install and configured for gyro stabilized gimballed payloads of sizes and mounts that match most known helicopters and UAVs.

- >> High sensitivity to corona & hot spots
- >> High performance under flight conditions
- >> Gyro stabilized gimballed payload
- >> Set for high speed inspection
- >> Reliable and lightweight

- >> HD video & high resolution photo recording
- >> UV and Hot spots radiometric readings
- >> GIS and auto tracking
- >> Integral compact control unit
- >> Fit for most helicopters' mounts configurations

DAYCOR[®] TECHNOLOGY INSIDE

Based on Ofil's DayCor[®] technology ROM is a bispectral solar blind UV-Visible camera allowing operation in full daylight.

HIGH SPEED INSPECTION

With detection of at least 1.3pC from a distance of 10m and 10.7dB μ V (RIV) @ 1MHz ROM makes the remote faint corona signals perceivable. High sensitivity to UV is a prerequisite to airborne inspection and it enables high speed flight without missing corona events.

USER FRIENDLY INTEGRAL CONTROL & GUI

Turret and sensors controllers are integrated into one compact hand control unit (HCU), providing comfortable and easy operation. An interface unit allows the display of up to 4 channels with video overlay of GPS tagging.

EASY INSTALLATION & LOW WEIGHT

Gimballed turrets are kept lightweight and spacious for multiple sensors. Installation is simple and fast for both assembling and dismantling.

MEDIA RECORDING & STORING

The captured high resolution video clips include radiometric data of the detected corona and hot spots with geographic positioning, date & time and text/voice operator's annotations. DayCor[®] ROM is a total airborne system with incorporated stills camera of the highest frames per seconds (FPS) rate.

STABILIZED PAYLOAD

A fully digital 4-axis active gyro stabilization system compensates for the aircraft movements and vibrations, provides stable imaging conditions with easy tracking and data acquisition. Payload is fit for nose, side or belly installations or any other desired configuration.

SUPERIOR PERFORMANCE

ROM incorporates a selection of the most updated top quality sensors that correspond to customers' requirements and to industry standards. ROM provides an outstanding performance for airborne inspection requirements.

TECHNICAL SPECIFICATIONS

TURRET CAMERAS' UNIT	
Configuration	Four Axis Active Gyro Stabilization
Stabilization	<10μRad
Coverage Az	360° Continuous Rotation
Coverage El	+20° to -120°
Dimension	Ø 400 mm (15.7") Ø 300 mm (11.8")
Weight	Approx. 30 kg (66 lbs.) 20 Kg (44lb) (depending on configuration)
Power Req.	20-30VDC, 300W (depending on configuration)
UV - VISIBLE BISPECTRAL CAMERA	
Minimum Discharge Detection	1.3 pC @ 10 meters (RWE certified; DIN EN 60270 (VDE 0340):2001-08)
Minimum RIV Detection	10.7 dBμV @ 1MHz (RWE certified; DIN EN 60270 (VDE 0340):2001-08)
Minimum UV Sensitivity	3x10 ⁻¹⁸ watt/cm ²
Field of View H x V	8° x 6°
Focus	Auto 3m to infinity
UV/Visible Overlay Accuracy	Deviation < 1 mRad
Quick Visible Zoom	10 optical x 12 digital (120) attained within 1 second
IR CAMERA *	
FOV	16°x12°
Array Size	1024x768 pixels
Spectral Range	7.5-14μm
Focus	Manual and Auto Focus
Digital Zoom	Yes
Temperature Range	-40° to+ 1200°C
Temperature Accuracy	+/-1.5°C, +/-2% of reading
Detector	Uncooled Micro bolometer
VIDEO HD CAMERA *	
Image Sensor	1/2.8-type
Picture Quality	1080 Pixels
Lens	20x Optical
Digital Zoom	12x (240x with optical zoom)
Min. Illumination	0.5 lx (F1.6, 50%)
PHOTO CAMERA *	
Detector	FX Format CMOS sensor
Focus	Auto Focus
Resolution	36 Mega Pixel
Lens	DC Nikkor 135mm, FOV 15°x10° DC-Nikkor 180mm, FOV 11°x8°
Continuous Shooting	Up to 4.6 fps with GPS tagging
INTERFACE & CONTROL	
Interface Unit	Up to 4 channels Video Overlay
Hand Control Unit (HCU)	All controlled functions are integrated into one hand control unit

* Accommodated to customer's request
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