

COMPOUND UV34 & UV20



Detailed Information



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Compound Series: UV20 & UV34

Four-in-One Payload UV System



Uv20 Introduction

The four-in-one payload (UV+UAV system) carries a UV sensor, an IR thermal imaging camera, a Zoom EO Camera, and a ToF sensor. Its UV sensor can detect various ultraviolet sources, such as partial discharges, wildfires, etc.

Our UV cameras are “blind” to the UV radiation coming from the sun, allowing only the relevant UV radiation to pass through its sensor.

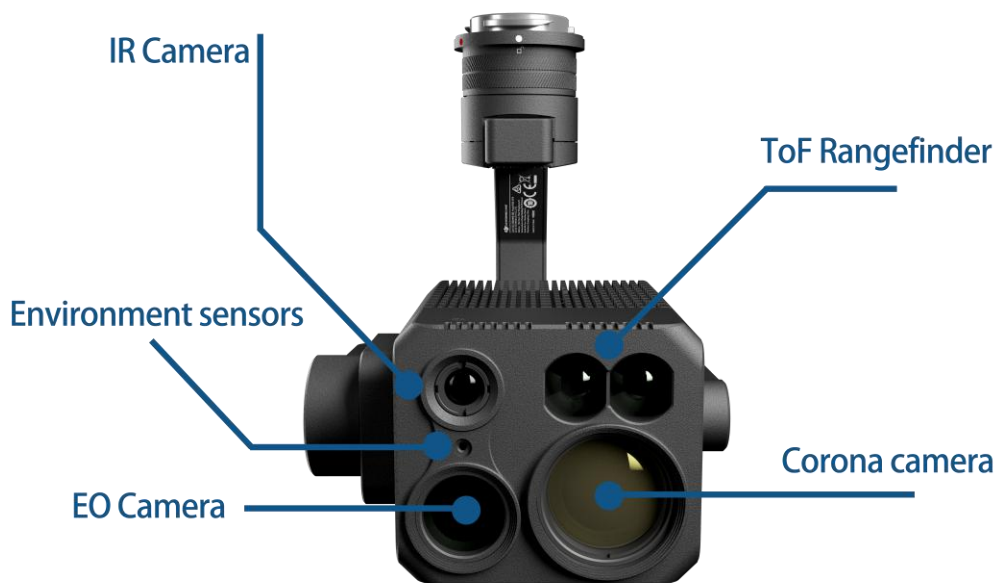
All in one damage assessment

This ZQ product can detect UV sources, measure temperature and obtain distance readings between the target and the payload. Therefore, providing an all-in-one solution that reduces the overall inspection workload.

Two measurements – one screen

The camera has two different modes in which it can display the UV radiation source:

1. UV + IR : Allowing thermal imaging
2. UV + EO: Allowing Zoom
3. UV: Exclusively displays the UV source.

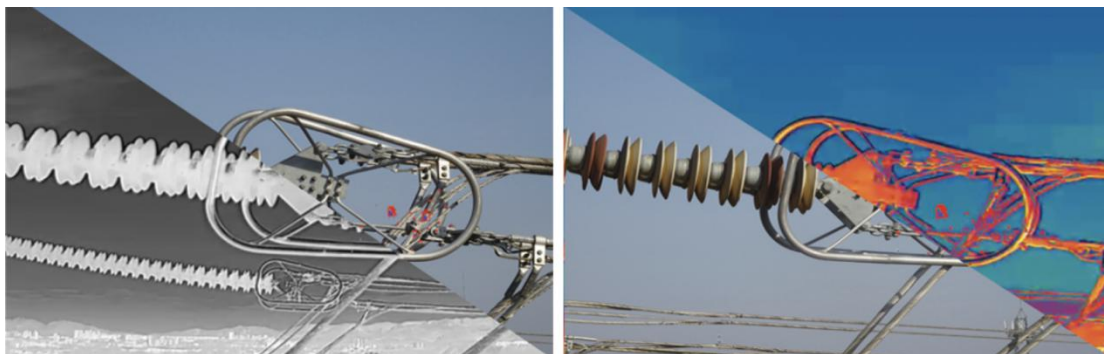


Parameters Table

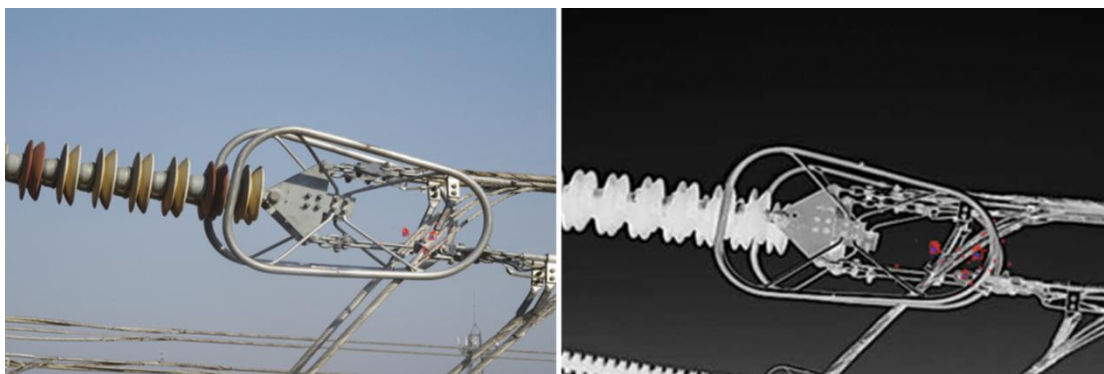
Overall information			
Weight	UV20: 850g	Another instrumentation	Thermometer, humidity sensor
	UV34: 900g		
Protection Level	IP45	Maximum memory capacity	128 GB microSD
UV Corona camera			
Resolution	720 × 576	FOV	17.5 ° × 14.4 °
Wavelength	240–280nm	Sensitivity	$3 \times 10^{-18} \text{ W/cm}^2$
Aperture	UV20: 20mm UV34: 34mm		
IR camera			
Resolution	640 × 512	FOV	47.1 ° × 38.5 °
Wavelength	8 μ m–14 μ m	Spatial resolution	1.364mrad
Focal length	8.8mm	Pixel spacing	12 μ m
(NETD)	$\leq 50\text{mK}$ @ f/1.0 25°C	Temperature measure scope	-20°C - 150°C
ToF Rangefinder			
Distance	45m	Wavelength	850nm
EO camera			
Resolution	3264 × 2448	Effective pixels	8Mpx
FOV	9 ° -52 °	Optical zoom	10x



Sensor size	1/3 inches	Pixel size	1.5 μ m
Gimbal			
Model	DJI X-Port	Stable system	3 Axis (bend and lift, transverse, translation)
Angle movement	$\pm 0.01^\circ$	Movement scope	bend and lift: $-120^\circ - +30^\circ$ translation: $\pm 320^\circ$



UV+IR Mixed spectrum visualization



UV+EO Mixed spectrum visualization

Post processing

The infrared information taken by the Compound series IR camera can be processed using the Guide IR analysis software (ThermoTools). This software can analyze in detail each radiometric information quickly and efficiently.

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