



# IR - 19T

Dual spectrum High-Definition IR Payload

**Compound Series** Detailed information



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# Compound Series: IR-19T

## Dual spectrum High-Definition IR Payload



### IR19T Introduction

The IR19T model is a high-resolution infrared camera equipped with an 8Mpx EO zoom camera (x10). Its thermal imaging resolution is 1280x1024 ( **400% times better than any existing IR Payload in the market** ). Suitable for different scenarios, from Photo-voltaic cells to transmission tower inspections, obtaining a more clear and precise thermal image from the target.

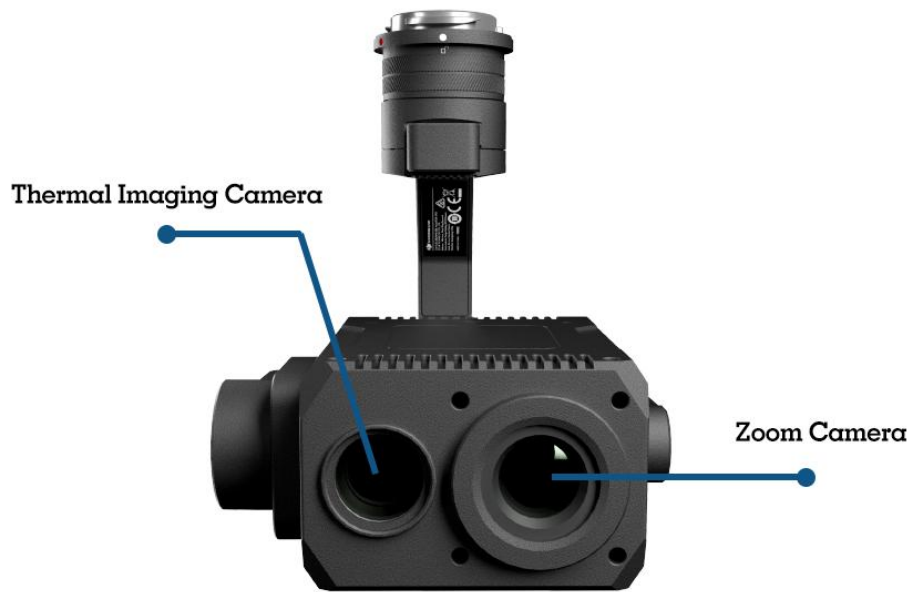
### No problem is too big!

Thanks to its higher resolution, the IR19T allows broader and more complete inspections, covering a greater area than any traditional IR payload.

For example: the insulators on a transmission line of  $\pm 800\text{kV}$  are approximately 11m long. Using the traditional inspection, an operator might need to take several pictures to cover the whole line. Nevertheless, if the operator employs the ZQ solution, He could perform "one-shot" inspections, covering the entire transmission line with a single picture.

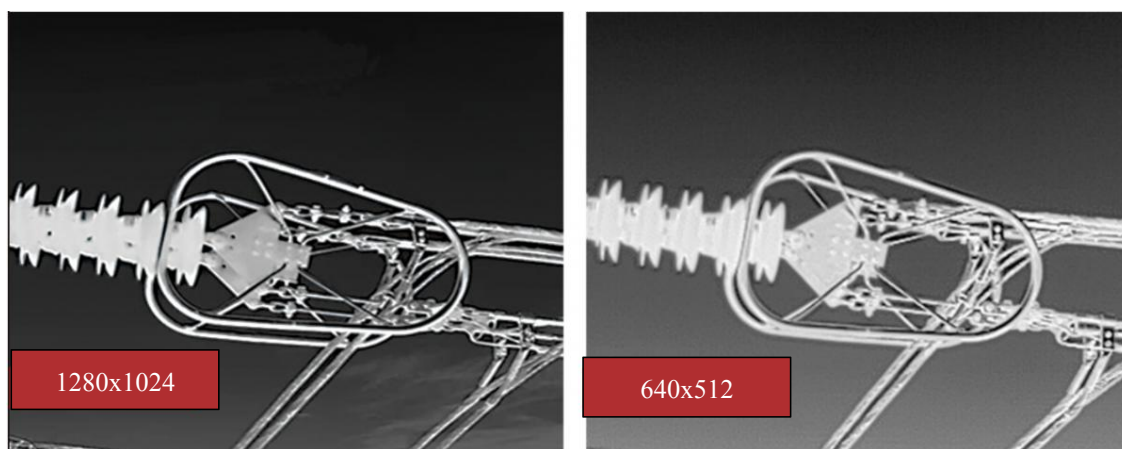
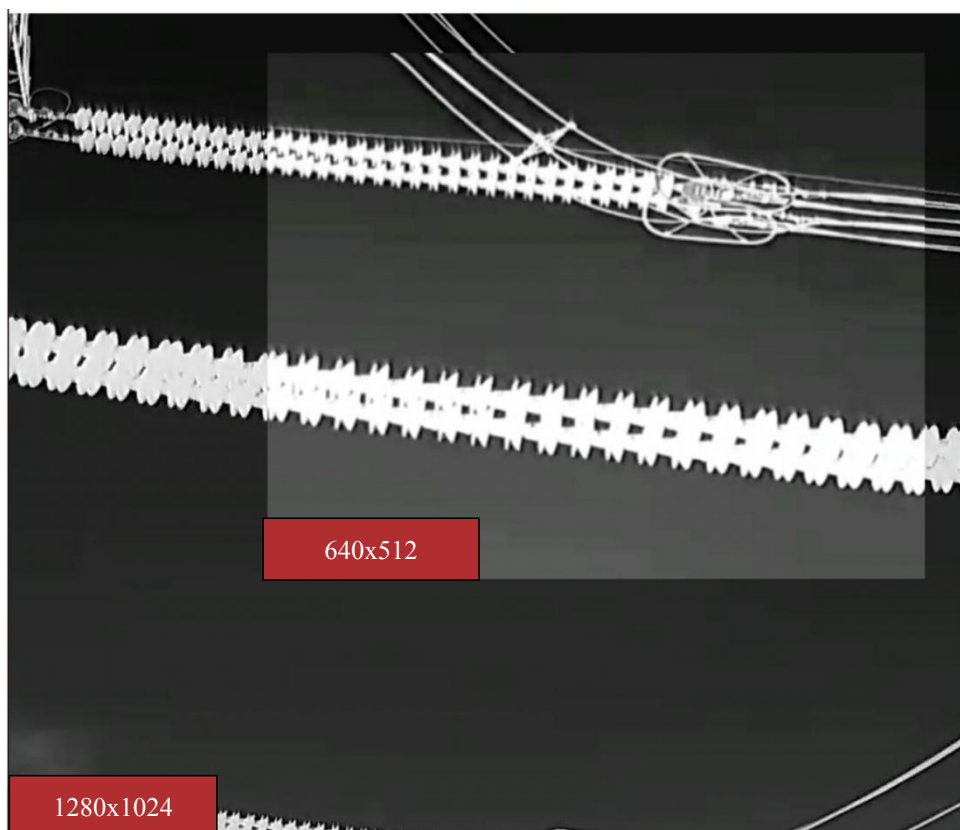
### Advantages

Current infrared inspection systems employ resolutions below 640x512. However, This payload IR camera resolution is 1280x1024, being 400% better than any existing system. The user can perform inspections at greater distances and cover larger areas than with any other solution currently in the market.



### Characteristics

| IR camera                      |   |
|--------------------------------|---|
| Resolution                     | 1280x1040                                       |
| FOV                            | 44 ° × 35.8 °                                   |
| Focal length                   | 19mm  |
| Spatial resolution             | 0.632mrad                                       |
| Wavelength                     | 8 μ m-14 μ m                                    |
| Temperature measurement method | On point、on line、area analysis                  |
| EO camera                      |   |
| Resolution                     | 3264 × 2448                                     |
| Effective pixels               | 8Mpx  |
| Optical Zoom                   | 10x   |
| FOV                            | 9 ° -52 °                                       |
| Gimbal                         |   |
| Stable system                  | 3 Axis (bend and lift, transverse, translation) |
| Angle movement                 | ± 0.01 °  |
| Others                         |   |
| Weight                         | 870g  |
| Protection rate                | IP45  |



Pictures: Image quality comparison between the traditional IR inspection systems and the Compound series : IR9T and IR19T.

### Post processing

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