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FLIR VUE TZ20-R Sensor

BY

KAMBILL SYSTEMS PVT. LTD.





Vue® TZ20-R

High Resolution, Radiometric Gimbaled
Thermal Zoom Drone Payload

User Training

Teledyne FLIR
Infrared Camera OEM



ABOUT THE PRODUCT

The Vue TZ20-R thermal-zoom drone payload, proudly made in the USA, enhances DJI V2 Matrice 200 series and 300 drones by offering exceptional radiometric capabilities. Featuring two Boson® thermal cameras, it delivers unparalleled pixel density and an impressive 20x zoom, enabling various industries such as utility, roofing, and emergency response to conduct safer, clearer, and more efficient inspections, surveillance, and search operations.

APPLICATIONS



Industrial Inspection



Emergency Response



Surveillance and
Security

FEATURES



DUAL THERMAL CAMERAS

Equipped with two thermal cameras, the TZ20-R offers superior thermal imaging quality. This dual-camera setup enables four times more pixel density compared to competitors, ensuring detailed visuals at all zoom levels.



UNMATCHED 20X ZOOM CAPABILITY

The payload provides an exceptional 20x zoom capability, allowing users to zoom in on objects of interest with remarkable clarity. This level of zoom empowers industrial inspectors, emergency responders, and various professionals to assess and identify targets accurately from a safe distance.



RADIOMETRIC TEMPERATURE MEASUREMENTS

The TZ20-R enables users to capture and record radiometric temperature measurements. This feature is particularly beneficial for sectors such as utility, roofing, solar farm inspection, and emergency response.

CONTACT US



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SPECIFICATIONS

AIRCRAFT

Airframe Capatibility

DJI V2 Matrice 200-series and Matrice 300

Ground Control

DJI Pilot App

ELECTRICAL

Electrical Interface

Skyport 2.0, 13.6V/2A

ENVIRONMENTAL & APPROVALS

Environmental Sealing

IP44

Operational & Storage Temperature

Operational: -20° to 45°C (-4° to 113°F) Storage: -20° to 60°C (-4° to 140°F)

Tested EMI Performance

FCC part 15 Class B

GIMBAL

Gimbal Range of Motion

3-axis Pitch: 30° to -120° Yaw: ±270°

IMAGING & OPTICAL

IR Camera Optics

Wide FOV: 95° HFOV, 4.9 mm EFL Narrow FOV: 18° HFOV, 24 mm EFL

IR Camera Resolution

2 FLIR Boson 640 × 512

Radiometric Features

Spot meter, measurement box with min/max/avg Isotherms above or below threshold temperature

Streaming Video

640 × 512 @ 25 Hz

MEASUREMENT & ANALYSIS

Thermal Sensitivity

85 mK @ F/1.0

MECHANICAL

Mechanical Interface

Skyport 2.0 connector, X-Port DJI gimbal

RADIOMETRY

Radiometric Accuracy

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Accuracy: $\pm 5^{\circ}\text{C}$ / 5% for scenes $+10^{\circ}\text{C}$ to $+100^{\circ}\text{C}$ Scene dynamic range: -10°C to $+300^{\circ}\text{C}$

THERMAL CAMERA

Pixel Pitch

12 μm LWIR

VIDEO & RECORDING

Recording

Still: Radiometric JPEG, raw TIFF Periodic capture 1s – 30s interval, all still image formats Video
MPEG 25Hz (zoomed)
Radiometric CSQ 5Hz (zoomed)
Raw multipage TIFF 10Hz (wide and narrow FOV separate)

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