



640pX
THERMAL
RESOLUTION

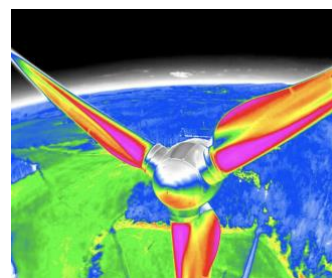
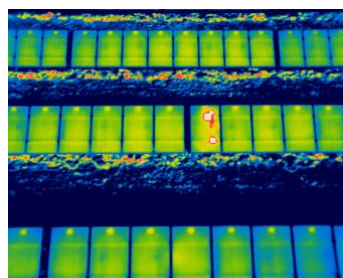
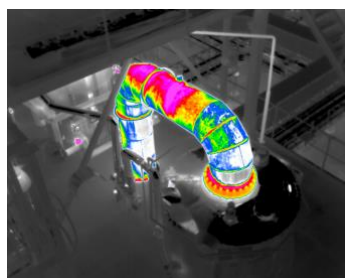
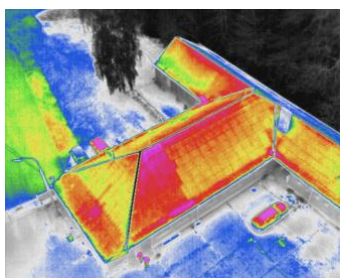
0.03°C
SENSITIVITY

10x
OPTICAL
ZOOM

W
WIRIS OS



WORKSWELL WIRIS PRO INDUSTRIAL DRONE THERMAL CAMERA



Datasheet

Release date: 14th of August 2026

Version: 260814

WIRIS Pro technical specification

WIRIS Pro Key features description	
Operating onboard system	WIRIS OS for full real-time data streaming and control during the flight - operating system ensures the full access to all camera functions - easy camera control via S.Bus, CAN bus, MavLink, RJ-45 or Trigger
10x Optical Antivibration zoom	Full HD 10x optical zoom camera with anti-vibration compensation
Thermal camera specification	
IR camera resolution	640 x 480 pixels (EU core unit, non-ITAR, BlueUAS)
FPA active sensor size	1.088 x 0.816 cm
Scene temperature ranges (non-radiometric version)	Super Gain mode -32 °C to 80 °C (-25.6 °F to +176 °F) High Gain mode up to +160 °C (up to +320 °F) Low Gain mode up to +600 °C (up to +1 112 °F)
Scene temperature ranges (radiometric version)	High Gain mode -25 °C to 160 °C (-13 °F to +320 °F)
Temperature sensitivity	<30 mK or <50 mK
Accuracy	±2 % or ±2 °C (only radiometric version)
Frame rate	30 Hz or < 9 Hz
Spectral range / detector	8 – 14 μm
Available lenses	FOV 50° (H) x 36° (V), focal length 13 mm, f/1.0 FOV 32° (H) x 20° (V), focal length 19 mm, f/1.0 <i>Package includes a calibration certificate (only radiometric version)</i>
Protective filter on lens	Filter protects the lens against external damage during the flight
IR Digital zoom	1 – 12x continuous
Digital visual camera	
Resolution	1 920 x 1 080 pixels (Full HD), 1/3" sensor, Auto white balance, Wide dynamic range, Backlight compensation, Exposure and Gamma control
Optical zoom	10x optical zoom with vibration compensation
View angle	ultra zoom 6.9° - extra wide 58.2°, focal 33.0 mm - 3.3 mm
Noise reduction	Special 3D noise reduction function
Focus	Autofocus with Direct Focus Zoom synchronization
Memory and data recording	
Memory	Internal high-speed SSD 128GB for image and video recording External slot for Micro SD card & USB 2.0 for USB stick for taking images
Image and video formats	Optical zoom camera Full HD JPEG images, Radiometric IR JPEG and IR TIFF images (only radiometric version) Pix4D and Agisoft compatible for 3D modeling Digital camera h.264 encoded video HD recording Radiometric full-frame IR recording (raw data recording 30 Hz or < 9 Hz, only for radiometric version)



GPS geo-tagging (image & video)	
GPS tagging (image & video)	MavLink, External GPS (NMEA), CAN, UART
Interfaces & real-time remote control	
10-pin digital port	MavLink S.BUS UART (MAVLink, NMEA GPS or Workswell Command Control Protocol) - Pixhawk compatible - Auterion compatible CANbus (Workswell Command Control Protocol)
Ethernet (RJ-45) port	Video streaming and camera control
Micro USB 2.0 port	Mass storage
USB 2.0 port	Keyboard connection for in-house WIRIS camera control
Remote control system	WIRIS OS ensures real-time control of all camera functions during the flight
Remote control options	S.BUS protocol Mavlink protocol CANbus & Command Control Protocol - UART RJ-45 for wireless uplink installation (video streaming and camera control)
Camera functions	WIRIS onboard operating system: full control and access to all functions Measurement functions: Hot/cold spot detection, center point (only radiometric version) Temperature range settings: Automatic, manual or span mode (only radiometric version) Advanced alarm modes: Above, below, between, above & below (only radiometric version) Multi camera modes: Full screen mode, IR only, VIS only, Picture in Picture with blending setup in percentage Periodic capturing: From 1s, IR and VIS images simultaneously Temperature units: Celsius, Fahrenheit, Kelvin (only radiometric version) NUC control settings: Automatic, manual or triggered
Micro HDMI video output	1 280 x 720 pixels (720p), Aspect ratio 16:9, Micro HDMI video output
Software & SDK	
Desktop software	Advanced software ThermoLab for radiometric calibrated analysis
SDK libraries	Stream SDK, Data SDK, CANbus & UART SDK
Power supply, weight & dimensions	
Input supply voltage	9 – 36 VDC, Coaxial 2 x 6.4 mm, outer shell - GND
Power dissipation (avg.)	15 W
Weight	< 465 grams (0.95 lb)
Dimensions (L x W x H)	83 mm x 85 mm x 68 mm (3.26 in x 3.34 in x 2.67 in)
Mounting	2 x 1/4-20 UNC thread (1x bottom side, 1x upper side)
Housing material	Durable aluminium body for long-time measurement stability



IP rating	Standard IP40
Environmental	
Operating temperature range	-15 °C to +50 °C (5 °F to 122 °F)
Storage temperature range	-30 °C to +60 °C (-22 °F to 140 °F)



Contact information

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