WORKSWELL®
INFRARED CAMERAS AND SYSTEMS

INSTRUMENTS
TECHNO TEST

0.03°C SENSITIVITY

1 266px THERMAL RESOLUTION

10x OPTICAL ZOOM

1 500°C TEMPERATURE RANGE

WIRIS OS

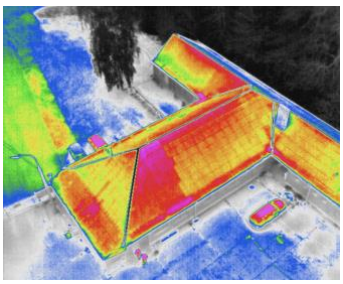
INTEL FPGA

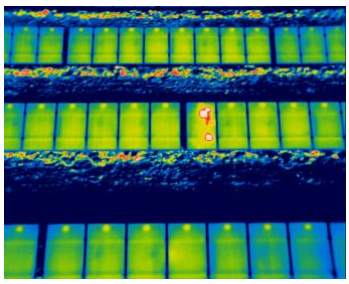
MADE IN EU EU QUALITY GUARANTEED

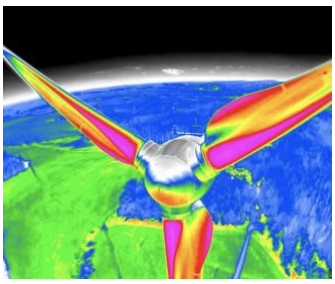
TÜV SÜD ISO 9001

WORKSWELL WIRIS PRO

INDUSTRIAL DRONE THERMAL CAMERA







Datasheet

Release date: 26th of January 2021

Version: 210126

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WIRIS Pro technical specification

WIRIS Pro Key features description	
Super Resolution Mode	WIRIS Pro takes Super Resolution Mode 1 266px IR images in one shot
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 512 pixels
IR Super Resolution Mode	1 266 x 1 010 pixels (improvement of native resolution up to 1.3 Mpx)
FPA active sensor size	1.088 x 0.8705 cm
Temperature ranges	-25 °C to +150 °C -40 °C to +550 °C optional temperature range 50 °C to 1 000 °C optional temperature range 400 °C to 1 500 °C
Temperature sensitivity	Standard 0.05 °C (50 mK) or optional 0.03 °C (30 mK)
Accuracy	±2 % or ±2 °C (in temperature range -10 °C to +150°C and 0 °C to +550°C, after stabilization, climate chamber and black body testing for all products)
Frame rate	30 Hz or < 9 Hz
Spectral range / detector	7.5 – 13.5 µm / Uncooled VOx microbolometer
Calibration of each lens	Package includes a calibration certificate
Available lenses	18°, 32°, 45°, 69° (exchangeable lenses, all calibrated), visit FOV calculator
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 or 256GB for image and video recording External slot for Micro SD card & USB 2.0 for USB stick for taking images
Image and video formats	Radiometric JPEG images and Digital camera Full HD JPEG images Radiometric TIFF images (Pix4D and Agisoft compatible for 3D modeling) Digital camera h.264 encode video HD recording Radiometric full-frame IR recording (raw data recording in 30 Hz or < 9 Hz)

Workswell WIRIS Pro

GPS geo-tagging (image & video)	
GPS tagging (image & video)	MavLink or External GPS or DJI A3 controllers compatible via CAN bus
Interfaces & real-time remote control	
10-pin digital port	S.BUS CAN bus for DJI M600 and A3 controllers MavLink CANbus & UART External GPS connectivity & External trigger
Ethernet (RJ-45) port	Video streaming and camera control (optional on request)
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 & UART protocol CAN bus for real-time control on DJI M600 and GPS geo-tagging RJ-45 for wireless uplink installation (video streaming and camera control)
Camera functions	**Measurement functions:** Hot/cold spot detection, center point **Temperature range settings:** Automatic, manual or span mode **Advanced alarm modes:** Above, below, between, above & below **Multi camera modes:** Full screen mode, IR only, VIS only, Picture in Picture **Periodic capturing:** From 1s, IR and VIS images simultaneously **Temperature units:** Celsius, Fahrenheit, Kelvin **NUC control settings:** Automatic, manual, by time or triggered by operator
Micro HDMI video output	1 280 x 720 pixels (720p), Aspect ratio 16:9, Micro HDMI video output
Software & SDK	
Desktop software	Advanced thermal analysis and reporting SW for Windows
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.)	12 W
Weight	< 430 grams
Dimensions (L x W x H)	83 mm x 85 mm x 68 mm
Mounting	2 x 1/4-20 UNC thread (1x bottom side, 1x upper side)
Housing material	Durable aluminium body for long-time measurement stability
Environmental	
Operating temperature range	-15 °C to +50 °C
Storage temperature range	-30 °C to +60 °C

Contact information

WORKSWELL IN THE WORLD

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