10x OPTICAL ZOOM

1.3 MPX SUPER IR RESOLUTION

WIRIS OS

30MK SENSITIVITY

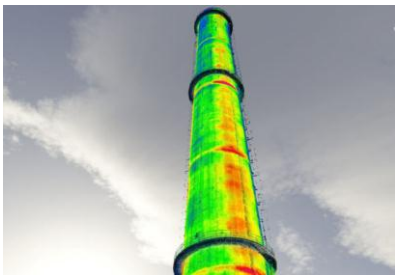
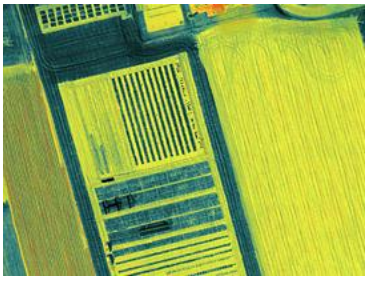
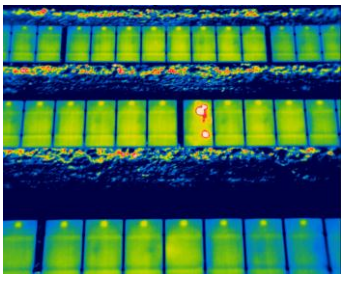
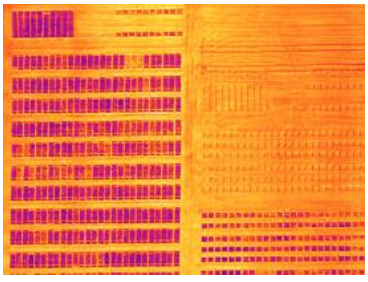
DATA & STREAM SDK

1500°C TEMPERATURE RANGE

MADE IN EU — EU — QUALITY GUARANTEED

TÜV SÜD ISO 9001

WORKSWELL WIRIS PRO SC
R&D DRONE THERMAL CAMERA

Datasheet

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Release date: 10th February 2020

Revision Number: 1.0

WORKSWELL

WIRIS Pro SC technical specification

WIRIS Pro SC Key features description	
Super Resolution Mode	WIRIS Pro SC takes Super Resolution IR Images in 1.3Mpx
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 - Data and Stream SDK via Ethernet included in the package
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 0.03 °C (30 mK)
Accuracy	±2 % or ±2 °C (in temperature range 0 °C to +150°C)
Frame rate	30 Hz or < 9 Hz
Spectral range / detector	7.5 – 13.5 µm / Uncooled VOx microbolometer
Available lenses	18°, 32°, 45°, 69° (exchangeable lenses, all calibrated), visit FOV calculator - two lenses included in the standard package - all lenses calibrated including calibration certificate
Protective filter on lens	Filter protects the lens against external damage during the flight
IR Digital zoom	1 – 14x 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 SC

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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 (compatible with DJI M600 and A3 controllers) MavLink External GPS connectivity External trigger
Ethernet (RJ-45) port	Video streaming and camera control, API included & adjustable
Micro USB 2.0 port	Mass storage Camera control and video streaming (optional on request only)
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 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 Visual images simultaneously **Temperature units:** Celsius, Fahrenheit, Kelvin **Measurement corrections:** Emissivity correction **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	Windows and iOS with sample application, Linux
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	-10 °C to +50 °C
Storage temperature range	-30 °C to +60 °C

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QUALITY GUARANTEED

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