JENOPTIK

MORE LIGHT

Industrial Solutions

Blackbird precision portable thermal monitoring kit.

Visualize, measure and analyze temperature distributions. Accurate, anytime, anywhere.

The Blackbird precison portable thermal monitoring kit provides a mobile all-in-one solution for versatile application. The ready to use kit combines a highly sensitive radiometric calibrated infrared camera with a tablet PC and a professional thermographic analysis and reporting tool. Either in stationary or in portable use, the monitoring kit allows you to record and analyze temperature data in real time, directly on location, or from remote positions.

Designed for plug-and-play the portable thermal monitoring kit includes all accessories for putting the versatile infrared camera into operation. The pre-installed IRT Analyzer software suite supports easy operation in any scenario, ranging from industrial applications, such as thermal inspection and predictive & preventive maintenance to medical and security related applications, such as fever screening, infectious disease control, surveillance, search & rescue and many more.

Scope of delivery:

– Blackbird precision infrared camera
– with VGA detector and 1.0 / 20 mm lens
– Tablet PC Microsoft Surface Pro with docking station
– Image analysis software IRT Analyzer
– Power supply and connector cables
– Hard case for transport

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Thermal imager	Blackbird precision VGA
Detector	Uncooled microbolometer (FPA), 640 x 480 IR pixels, 17 µm pixel pitch
Frame rate	30 Hz, 9 Hz on demand
Spectral range	8 µm … 14 µm
Temperature measurement range	-40 °C … +600 °C (optional: up to +1200 °C)
Temperature sensitivity	< 40 mK NETD
Measurement accuracy	+/- 2K or 2.0 %
Focus and shutter	Internal electrical
Dimensions (LxWxH)	125 mm x 90 mm x 95 mm
Weight	1.0 kg (with lens)
Operating temperature	-25 °C … +50 °C
Kit-Lens	f1.0 / 20 mm l field of view: 32.7° x 24° (HxV) l 300 mm minimum focus distance

For more details, please refer to the Blackbird precision technical datasheet.

Tablet PC	Microsoft Surface Pro 7 i3 /4GB / 128GB Platin with Microsoft Surface Docking station
Display	12,3" touchscreen, 2.736 x 1.824 pixels, shiny
CPU	Intel Core i3-1005G1, 1,2 GHz
GPU	Intel UHD graphics (onboard)
Memory	4 GB RAM, 128 GB SSD, microSD slot
Connectors & wireless interfaces	1 x 3.5 mm jack, 1 x Surface Connect, 1 x USB Type A, 1 x USB Type C, docking extension, WLAN, Bluetooth
Cameras	Rear camera: 8 megapixels, front camera: 5 megapixels
Operating system	Windows 10 Pro
Dimensions (W x H x D)	292mm x 201mm x 8.5mm
Special features	Webcam, supports surface pen and smart keyboard, ambient light sensor, metal case, instant on function
Battery life	Up to 10.5 hours
Security features	Face ID, TPM 2.0, Windows Hello
Connectors docking station	1 x 3.5 mm jack plug, 1 x RJ45, 2x Mini DisplayPort, 4 x USB 3.0, all important audio, video, network, USB and power connections including Gigabit Ethernet

Software (pre-installed)	GRAYESS IRT-Analyzer 7.0 professional thermographic analysis and reporting tool for reasearchers
Built-in image explorer	IRT Explorer® to find and to organize infrared images on your computer
Image database	Keeps IR images linked to VIS images, voice messages and analysis collections
Integrated workspace	Conveniently incorporates all the instruments for working with IR images
Flexible image view	Makes it possible to see tiniest details and smallest changes in temperature
Full range of analysis tools	Spot measures (up to 286 l lines/profiles (unlimited number) l areas/histograms (unlimited number) l hot/cold spot detection l rulers, distance/angle measures l annotation tools l emissivity/ambient temperature can be applied to every object individually
Sequence analysis & graphs	Create accurate, informative diagrams that clearly show the problem
Advanced analysis	Software correction filters, including median, convolution, and mathematical morphology filters l temperature range of interest l emissivity/background maps
	– Sequence aggregation l statistics l isolines
	– Quick template-based report generation system
	– Real-time recorder and online analysis with direct connection to the camera
	– Variety of export options plus special support for Microsoft Office applications

JENOPTIK Optical Systems GmbH
Goeschwitzer Strasse 25 | 07745 Jena | Germany
Phone +49 3641 65-3041
industrial-sensors@jenoptik.com | www.jenoptik.com