optris® PI LightWeight
TECHNICAL DATA

optris infrared thermometers

Radiometric aerial thermography

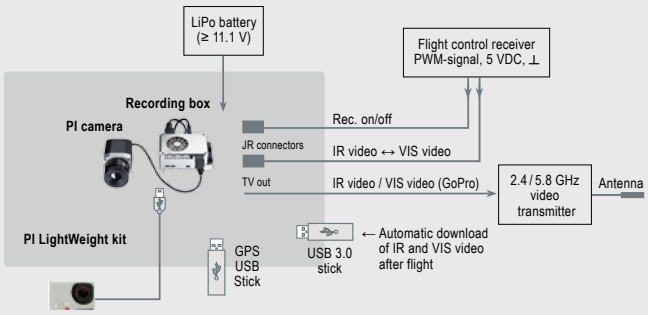
Features:

- Full radiometric IR inspection with up to 640x480 pixels
- 380 g two-piece design: independent additional use of the IR camera with any Windows PC or tablet PC
- Simultaneous real-time video signal generation parallel to 32 Hz onboard radiometric recording in VGA resolution (125 Hz in VGA sub-frame mode)
- GPS and GoPro support
- Extensive analysis software PI Connect included
- Automatic transfer of flight videos (IR and GoPro) to USB flash drive

Specifications optris PI camera head

Measuring range	–20 °C ... 900 °C
Spectral range	7.5 – 13 µm
Accuracy	± 2 % or ± 2 °C
Thermal sensitivity (NETD)	40/ 80 mK (depending on camera model)
Optics	13°...90° HFOV
Resolution	640x480 px / 382x288 px
Dimensions	46 x 56 x 90 mm
Operating temperature	0...50/ 70 °C (PI 450)

Recommended system integration



Possible extension with GoPro Hero camera, GPS USB flash dirve and 2.4 GHz flight control receiver

Specifications LightWeight Recording Box

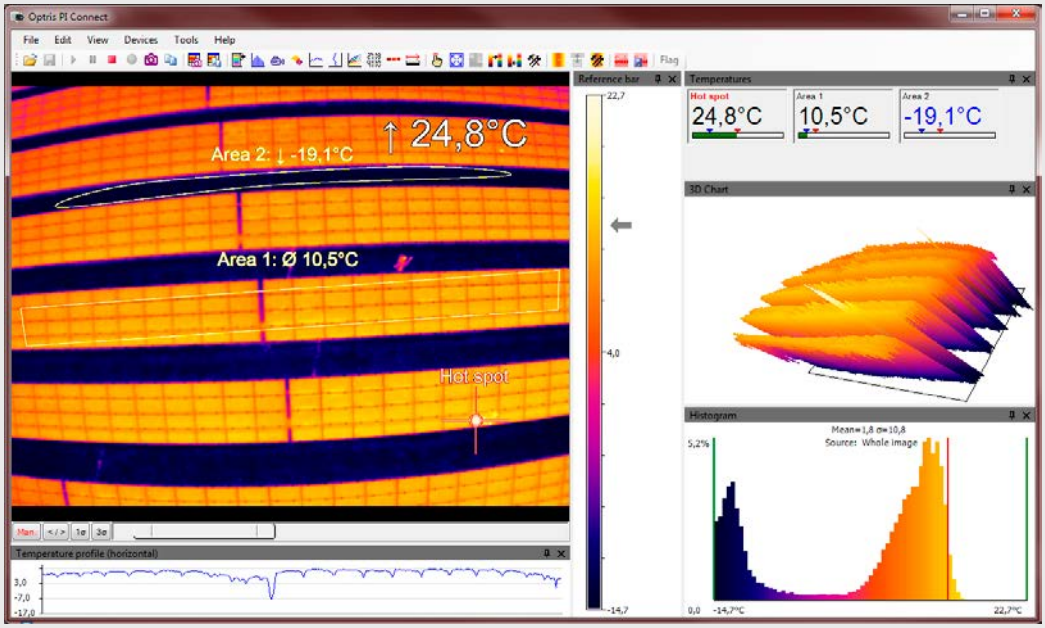
Power supply	10-48 VDC
Power consumption	12 W
Cooling	Active (integrated fan)
Operating temperature	0 ... 50 °C
Relative humidity	10-95%/ non-condensing
Dimensions	96 x 67 x 47 mm
Weight	380 g (PI camera + Recording Box)
Material (housing)	Aluminum
Module	Odroid XU4
Processor	Samsung Exynos/ 2 GHz
Operating system	Linux
Memory	32 GB eMMC, 2 GB RAM (LPDDR3), SDHC card (32 GB)
Connections	Ethernet (GigE/ 1000 Mbit/ s), 2x USB 3.0/ 1x USB 2.0, 1x Mini-USB for GoPro Hero3+ (or better), 1x HDMI, 1x TV_{out}, 2x JR connectors
Terminals	+5V DC out, Video IN (VIS camera), TVout, 2x external switches
Control (via JR connectors or terminal)	Start/ Stop recording, Switch VIS/ IR camera
Additional features	GPS support, 5 status LEDs

Optris GmbH · Ferdinand-Buisson-Str. 14 · 13127 Berlin · Germany
Tel.: +49 (0)30 500 197-0 · Fax: +49 (0)30 500 197-10 · Email: sales@optris.com · www.optris.com

optris® PI LightWeight

Applications

The optris PI LightWeight is excellent for maintenance work and quality inspections through radiometric temperature measurement of solar and wind power systems and also for thermographic surveys of buildings.



Screenshot analysis software optris PI Connect

Specifications are subject to change without notice · PI LightWeight-E2016-02-A