RadIR

LWIR Dual-Band Imaging Radiometer

Highlight Features

- Easy orientation done by an integrated visible camera.
- Support for EthernetIP protocol (analyses, alarm, and simple camera control).
- Built-in verification source for calibration.
- Built-in temperature and humidity sensor for atmospheric transmission compensation.

The RadIR is a LWIR dual-band imaging radiometer. The RadIR measures the absolute radiation of every scene "pixel" in two separate wavelength bands simultaneously. Processing of this data can be used for true temperature and emissivity measurements as well as for other applications. Its calibration automatically compensates for ambient temperature and humidity in addition to atmospheric transmission correction. The uncooled-based detector RadIR is a highly robust imaging radiometer with no moving parts.

The RadIR is designed for stationary use and remote control via an external PC. Measured data, thermographs and thermal images are transferred to an external screen for display or to a controlling PC for further processing. A standard Ethernet (GigE) interface allows flexible integration into specific systems, for example production lines.

Distribution in the UK & Ireland

www.lambdaphoto.co.uk

www.ci-systems.com

Specifications

Imaging and optical data

IR resolution	288 x 140 pixels
Thermal sensitivity/NETD	0.125°C@ +30°C/ 125mk
Field of view (FOV)	50°(H) × 21°(V)
Spatial resolution (IFOV)	2.6mrad
F-number	1.25
Image frequency	9 -27Hz
Focus	Fixed
Zoom	Fixed

Detector data

Focal Plane Array / Spectral range	Uncooled microbolometer 7.0–14 µm
Detector pitch	25µm
Detector time constant	Typical 10ms

Ethernet

Ethernet	Control, result and image
Ethernet, type	1Gbps
Ethernet, standard	GigE
Ethernet, connector type	RJ-45
Ethernet, communication	TCP/IP
Ethernet, image streaming	14-bit 140 x 280 pixels@9-27Hz.
Ethernet, protocols	Ethernet, TCP/IP

Power system

Operating temperature range	–40°C to +65°C
Storage temperature range	-54°C to +85°C
Humidity (operating and storage)	0-99% non-condensing
EMC	ENC50270:2006
Encapsulation	IP 67

Physical data

Weight	5kg
Camera size (L × W × H)	210mmx144mmx179mm
Tripod mounting	UNC ¼"-20 (on three sides)
Base mounting	4 × M4 thread mounting holes (on three sides)
Housing material	Aluminum

Storage of images

Storage media	Remote PC

Distribution in the UK & Ireland

λ Lambda

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