

ICI NIR

Thermal Infrared Imager

Small near infrared solutions for industrial applications, research, and testing.

The ICI NIR infrared camera employs a 320 x 256 Indium Gallium Arsenide focal plane array, allowing the camera to be highly sensitive to energy in the near-infrared (NIR) and shortwave infrared (SWIR) wavebands from 0.9 to 1.7 microns, well beyond the range of silicon CCD cameras. The ICI NIR is suited for detection of telecommunication laser radiation, particularly in the S, C, and L DWDM wavebands. Other users include: fiber alignment/inspection; laser beam profiling; and optical measurement and testing.

The Indium Gallium Arsenide detectors are highly resistant to damage from intense lasers, allowing direct illumination onto the focal plane for beam profiling. Integration times can be set to provide a very wide dynamic range. This range allows users to measure all aspects of a laser beam profile from the peak to the outer fringes without attenuating the laser signal.

The ICI NIR is also suitable for many other industrial NIR applications such as IR reflectography, imaging through paints, chemical imaging, and agricultural inspection based on water detection.

ICI NIR Specifications

Detector Indium Gallium Arsenide (InGaAs)

Array Format 320 x 256

Pixel Size 30 x 30 μm

Spectral Response 0.9 to 1.7 μm

Thermal Stabilization 0 ° C

Thermoelectric Window Material BK-7 Optical Glass

Digital Data Real-time, 12-bit, Parallel

Frame Rate 30 Hz

Integration Type Snapshot Mode

Integration Time Range 25 μsec to 33.3 msec and 33.5 msec to 8.5 seconds

Noise Equivalent Irradiance (NEI) < 1 x 1010 ph/cm²/sec.

Operability >99.5%

Damage Threshold < 1 W/cm²

Cooling Method Passive Convection and Conduction to Camera Bottom

Power Dissipation 4.5 W max; 3 W typical

Power Connector 2.0 mm Power Jack (in parallel with Aux. I/O connector)

* Calibration source requires annual calibration check.

Power Input 6 VDC \pm 5%

Serial Commands RS-232 Protocol

Operating Temperature Range 0 – 40 ° C conduction, 0 – 35 ° C still air

Humidity 95% Non-condensing

Physical Specifications

Size (L x W x H) 3.7"x 2.5"x 2.1"

Weight 350 grams (12.4 oz), excluding lens

Lens Interface C- Mount (several lenses available - no lens included)



ICI NIR Near Infrared Camera

*320 x 256 InGaAs focal plane array

*Snapshot readout with external triggering

*Continuously variable integration times

*Compact solid state design

*Software Available

Contact Infrared Cameras Inc. for more information on the ICI NIR and our complete line of thermal imaging solutions.

1-866-861-0788 or visit our web site at

www.InfraredCamerasInc.com

Infrared Cameras Inc.

2105 West Cardinal Drive

Beaumont, Texas 77705



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