



IRCameras

IRC906 MID WAVE INFRARED CAMERA

The technologically advanced IRC906 science grade camera utilizes an Indium Antimonide (InSb) focal plane array (FPA) and provides unmatched sensitivity and ultra-low noise with no blooming or crosstalk. The IRC906 operates at up to 119 frames per second full frame, (475 Hz full frame with HS) and supports sub windowing for even higher frame rates.

The IRC906 features 640 x 512 pixel resolution at full window size, and includes Camera Link, Gigabit Ethernet and HDMI outputs. The IRC906 is the perfect choice for the most demanding MWIR imaging applications including materials evaluation, quality assurance and spectroscopy.

The closed-cycle Stirling cooled Dewar assembly in the IRC906 consumes low power and results in a self-contained, portable package. The IRC906 can be calibrated for accurate temperature measurement, and our powerful Thermography Suite™ image analysis software allows users to obtain calibrated data necessary for making critical decisions.



CAMERA CAPABILITIES

- 640 x 512 closed-cycle Stirling cooled InSb sensor
- <math><1 \mu\text{m}</math> to $>5 \mu\text{m}$ spectral range
- NE Δ T <math><20 \text{ mK}</math>
- 119 Hz full window frame rate (475 Hz HS)
- Motorized four position warm filter wheel option
- Simultaneous CameraLink, GigE & HDMI outputs



IRCameras, LLC • Santa Barbara, CA • 508.668.5650 • sales@ircameras.com

Specifications/features subject to change without notice

The products described by this document are subject to the controls of ITAR 22_CFR 121.1. Transfer of these products by any means to a foreign person or entity, whether in the US or abroad, without appropriate export authorization, is prohibited and may result in substantial penalties.

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DETECTOR	IRC906	IRC906HS
Detector type	Indium Antimonide (InSb)	
Spectral response	<1.0 μm to 5.3 μm	
Resolution (pixels)	640 x 512	
Pixel pitch	20 μm	12 μm
IMAGING ELECTRONICS		
Frame rate @ max window size	119 Hz	475 Hz
Integration time	<500 ns to full frame	
Dynamic range	14-bit with 13-bit option to increase frame rate at small window sizes	
Windowing	User defined in 4 x 1 increments; min width = 320, min height = 8	
Integration type	Snapshot, automatic selection of integrate while read or integrate then read	
Ultra low latency sync	Sync I/O, integration out	
Image data	Simultaneous CameraLink, GigE & HDMI	
Communications	Serial over CameraLink & GigE	
Software control	Cross platform GenICam compliant	
Image data stamp	Optional IRIG, GPS with on-board receiver	
PERFORMANCE		
NEdT	<20 mK	<30 mK
Well capacity (electrons)	7 M	2 M
Operability	99.8%	99.6%
OPTICS		
Camera f/#	f/2.3, f/3.0 & f/4.0 standard; custom coldshields available on request	
Cold filter	3.0 μm - 5.0 μm or no cold filter standard, optional CO ₂ , SWIR or custom filters on request	
Lens mount	Bayonet	
Optional filter wheel	Motorized four position warm filter wheel; 12.5 mm diameter x 1.0 mm thick filters	
GENERAL		
Power @ 24 VDC	16 W	
System weight	<7 pounds	
Closed cycle cooler	Rotary, Linear (optional)	
Size	5.1" x 5.8" x 8"	
Operating temperature range	-40° C to +55° C (-40° F to +131° F)	
Storage temperature range	-55° C to +80° C (-67° F to +176° F)	
Environmental rating	IP-51	
Mounting holes	2x 1/4-20 & 4x #10-24	