# IRCameras

IRC912 MID WAVE INFRARED CAMERA

The technologically advanced IRC912 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 IRC912 operates at up to 119 frames per second full frame, and supports sub windowing for even higher frame rates.

The IRC912 features high definition 1280 x 1024 pixel resolution at full window size, and includes Camera Link, Gigabit Ethernet and HDMI outputs. The IRC912 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 IRC912 consumes low power and results in a self-contained, portable package. The IRC912 is delivered with our WinIRC software, and a Software Developers' Kit is available for integration into end user applications
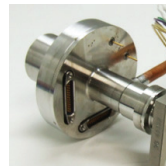
CAMERA CAPABILITIES

- 1280 x 1024 closed-cycle Stirling cooler InSb sensor
- <1 μm to >5 μm spectral response
- NEdT <30 mK
- 119 Hz full window frame rate with windowing
- Motorized four position warm filter wheel option
- Simultaneous Camera Link, GigE & HDMI outputs
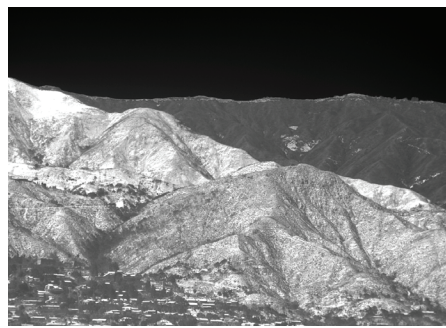
DETECTOR	IRC912
Detector type	Indium Antimonide (InSb)
Spectral response	<1.0 μm to 5.3 μm
Resolution (pixels)	1280 x 1024
Pixel pitch	12 μm
IMAGING ELECTRONICS	
Frame rate @ max window size	119 Hz
Integration time	<150ns to full frame time
Dynamic range	14-bit with 13-bit option to increase frame rate 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 Camera Link, GigE & HDMI
Communications	Serial over Camera Link & GigE
Software control	Cross platform GenICam compliant
Image data stamp	Optional IRIG, GPS with on-board receiver
PERFORMANCE	
Non uniformity corrections	12 on board tables
NEdT	<30 mK
Well capacity (electrons)	2 M
Operability	99.8%
OPTICS	
Camera f/#	f/2.3 & 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	28 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