



**IRCameras**

## IRC812 MID WAVE INFRARED CAMERA

Providing superior resolution the IRC812 high definition mid wave infrared camera with 1280 x 1024 resolution and 12 micron pixel pitch is unmatched in sensitivity, ultra-low noise and no crosstalk.

The IRC812 is built using a LN2 cooled Dewar assembly which offers lower cost, lower power consumption, no vibration and the ability to easily change cold filters, making the IRC812 the perfect instrument for prototyping system development and changing application requirements. With its cold filter wheel option, the IRC812 is an excellent solution for the most demanding MWIR imaging applications including materials evaluation, quality assurance and spectroscopy

Full rate image data is available via CameraLink; simultaneous Gigabit Ethernet (GigE) and HDMI outputs are also offered. Software options include WinIRC and a software developers kit to allow the user to acquire, display and analyze data from the IRC812 high definition camera.



### CAMERA CAPABILITIES

- 1280 x 1024 LN2 cooled InSb sensor
- <math><1 \mu\text{m}</math> to <math>>5 \mu\text{m}</math> spectral response
- NE $\Delta$ T <math><30 \text{ mK}</math>
- 119 Hz full window frame rate
- Motorized four position cold filter wheel option
- Simultaneous CameraLink, GigE & HDMI outputs



DETECTOR	IRC812
Detector type	Indium Antimonide (InSb)
Spectral response	<1.0 $\mu\text{m}$ to 5.3 $\mu\text{m}$
Resolution (pixels)	1280 x 1024
Pixel pitch	12 $\mu\text{m}$
IMAGING ELECTRONICS	
Frame rate @ max window size	119 Hz
Integration time	<150 ns 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	
NEdT	<30 mK
Well capacity (electrons)	2 M
Operability	99.6%
LN2 hold time	>8 hours typical, >4 hours with optional cold filter wheel
OPTICS	
Camera f/#	f/2.3 & f/4.0 standard; custom coldshields available on request
Cold filter	3.0 $\mu\text{m}$ - 5.0 $\mu\text{m}$ or no cold filter standard, optional CO <sub>2</sub> , SWIR or custom filters on request
Lens mount	Bayonet for 7, 13, 25, 50, 100 & 50/250 mm lenses; bolt hole pattern for non-standard lenses
Optional filter wheel	Motorized four position cold filter wheel; 25.4 mm diameter x 1.0 mm thick filters
GENERAL	
Power @ 24 VDC	12 W
System weight	<7 pounds
Size	3.7" x 8.1" x 11.8"
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	4 x 1/4-thru & 1 x 1/4-20