



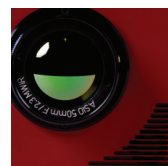
IRCameras

IRC806 MID WAVE INFRARED CAMERA

The technologically advanced IRC806 science grade camera utilizes an Indium Antimonide (InSb) focal plane array (FPA) and provides unmatched sensitivity and ultra-low noise imagery with no blooming or crosstalk. The IRC806 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.

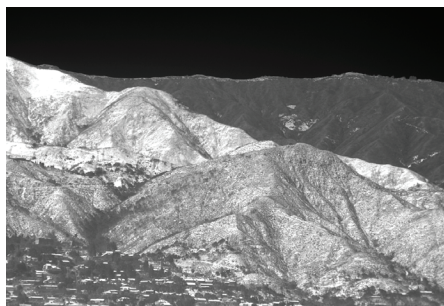
The IRC806 features 640 x 512 pixel resolution at full window size, and includes Camera Link, Gigabit Ethernet and HDMI outputs. The IRC806 is the perfect choice for the most demanding MWIR imaging applications including materials evaluation, quality assurance and spectroscopy.

Using the cost effective LN2 cooled Dewar assembly, the IRC806 infrared camera consumes low power and has no vibration due to cryocoolers. The IRC806 offers easily changed cold filters and apertures making it perfect for prototyping system development or where application requirements may change. Software options include WinIRC and a software developers kit to allow the user to acquire, display and analyze data from the IRC806 high definition camera.



CAMERA CAPABILITIES

- 640 x 512 LN2 cooled InSb sensor
- <1 μm to >5 μm spectral range
- NE Δ T <20 mK
- 119 Hz full window frame rate (475 Hz HS)
- Motorized four position warm filter wheel option
- Simultaneous CameraLink, GigE & HDMI outputs



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Specifications/features subject to change without notice

The products described by this document may require an export license for shipments outside of the United States. Infrared Imaging LLC must be notified at the time of order if the product will be exported so that an appropriate export license may be obtained.

| DETECTOR | IRC806 | | IRC806HS |
|------------------------------|--|--------|----------|
| 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 | <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 | <20 mK | <30 mK | |
| Well capacity (electrons) | 7 M | 2 M | |
| Operability | 99.8% | 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 μm - 5.0 μm or no cold filter standard, optional CO2, 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 | | |