



# IRCameras

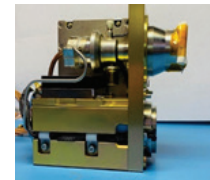
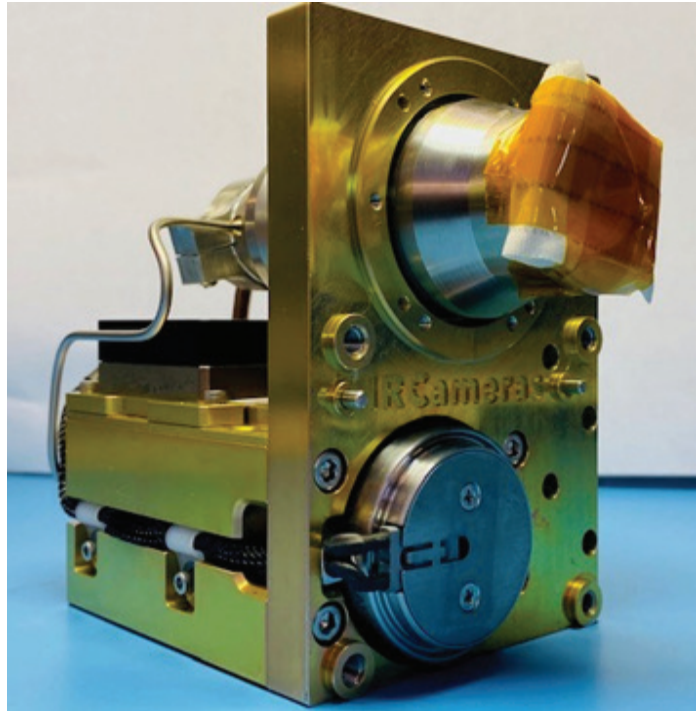
## COMPACTCORE CAMERAS

IRCameras' new CompactCore Series is now smaller, lighter and requires 25% less power consumption than our previous generation. With a choice of InSb, nBn or SLS focal plane arrays, CompactCore systems support applications in the lab or field. These cameras also cover a wide range of terrestrial, airborne and space applications including general imaging and spectroscopy.

IRCameras offers customization options that are tailored to the client's unique testing requirements, further differentiating us from other suppliers. With resolution options of 640x512 or 1280x1024, our digital FPAs have zero electronics crosstalk between columns or rows - even at thousands of frames per second.

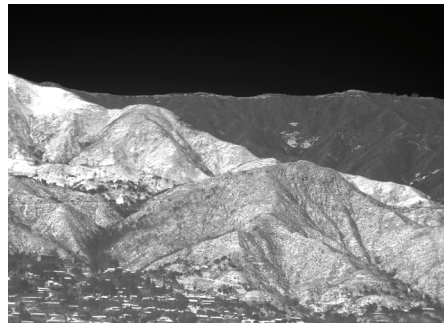
IRCameras also offers high efficiency cold filters to support your mission objectives including our 2-band CO<sub>2</sub> notch cold filter, 3-band SWIR-MWIR and 5-band SWIR-MWIR filters which match atmospheric windows from 1000 nm to 5000 nm with >95% in-band transmission.

Cooler and dewars can be designed for space applications, and electronics qualified for low earth orbit. FPAs have been radiation tested and flown in earth orbit.



### CAMERA CAPABILITIES

- 640 x 512 InSb or SLS & 1280x1024 InSb or nBn options
- <1  $\mu\text{m}$  to >5  $\mu\text{m}$  or 2 $\mu\text{m}$  to 11 $\mu\text{m}$  spectral range
- NE $\Delta$ T from <20mK to <35mK depending on detector
- 119 Hz full window frame rate with windowing
- Optional filter wheel
- CameraLink Full, GigE and SDI output options



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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.

DETECTOR	COMPACTCORE SERIES		
Detector material	InSb	nBn	SLS
Spectral response	<1.0 $\mu\text{m}$ to 5.3 $\mu\text{m}$		2 $\mu\text{m}$ to 11 $\mu\text{m}$
Resolution	1280x1024 or 640x512	1280x1024	640x512
Pixel Pitch	12 $\mu\text{m}$ or 20 $\mu\text{m}$ with 640x512		
IMAGING ELECTRONICS			
Frame rate @ max window size	119 Hz or 475 Hz	119 Hz	475 Hz
Integration time	<550 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	CameraLink Full (standard), GigE & SDI (optional)		
Communications	Serial over CameraLink & GigE (optional)		
Software control	Cross platform GenICam compliant		
Image data stamp	Optional IRIG, GPS with on-board receiver		
PERFORMANCE			
NEdT	<18 mK with 20 $\mu\text{m}$ pitch <30 mK with 12 $\mu\text{m}$ pitch	<35 mK with 12 $\mu\text{m}$ pitch	<35 mK with 20 $\mu\text{m}$ pitch
Well capacity (electrons)	2.05 Me for 12 $\mu\text{m}$ pitch, 7.0 Me for 20 $\mu\text{m}$ pitch		
Operability	$\geq 98\%$ for LWIR SLS & $\geq 99.8\%$ for all other configurations		
Non-Uniformity Correction	12 on-board tables		
OPTICS			
Camera f/#	f/2.3 & f/4.0 standard; custom coldshields available upon request		
Cold filter	None included standard Optional 3.0 $\mu\text{m}$ - 5.0 $\mu\text{m}$ , 900-2600 nm, CO2 or custom filters upon request		
Lens mount	Bayonet		
GENERAL			
Power @ 24 VDC	18-24 Watts (based on final configuration)		
System weight	5.3 to 5.8 pounds (based on final configuration)		
Size	4.82"(H) x 3.3"(W) x 5.53"(L) or 6.74"(H) x 3.42"(W) x 5.44"(L) (may vary depending on configuration)		
Operating temperature range	-30° C to +55° C (-22° F to +131° F)		
Storage temperature range	-55° C to +80° C (-67° F to +176° F)		