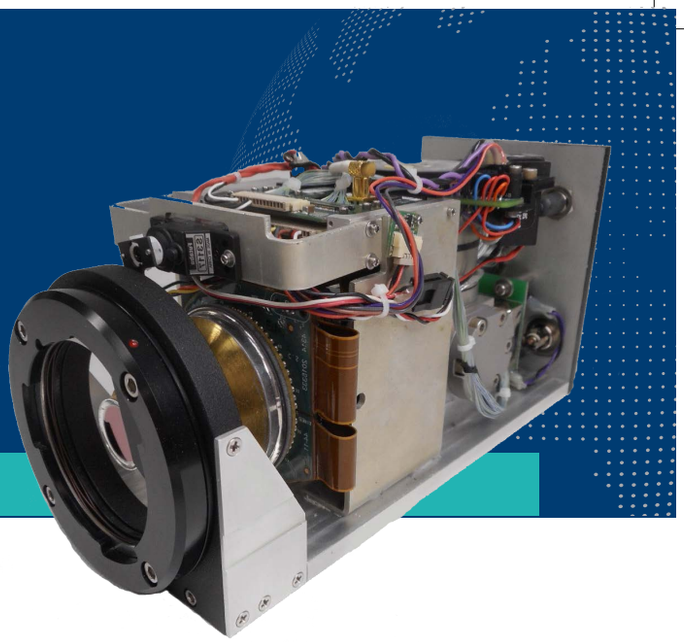
Pelican-D Camera Core

VGA MWIR Camera Core



General Description

SCD.USA's MWIR camera cores feature an optimized form factor and low-power Video Electronics for minimal Size, Weight and Power (SWaP). The cores can be matched to either off-the-shelf or custom optics. The Video Electronics feature advanced image processing capabilities and integrated lens control. Standard cores available or full-customization can be provided for your specific application.

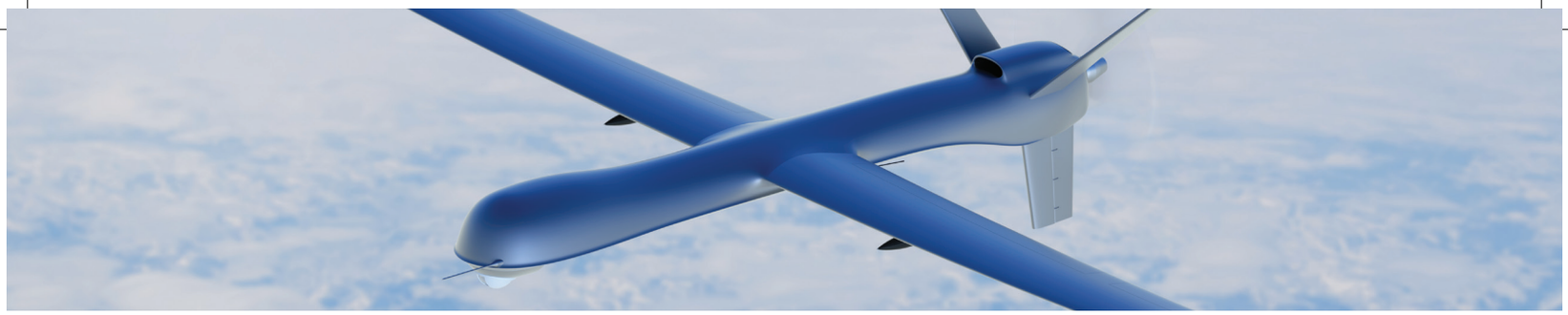
The Pelican-D Camera Core features SCD's standard-pixel (15-micron pitch) High Definition (640 x 512, VGA format) MWIR detector. The Pelican is available in standard InSb or our High Operating Temperature (HOT) version that provides increased MTTF and faster cool-down. Please refer to the SCD Pelican detector datasheets and specifications for more details.

Main Features

- VGA format MWIR detector available in standard InSb and HOT versions
- High Dynamic Range using multiple, switch-able integration capacitors.
- All-digital camera core, 14-bits output; legacy analog Pelican available
- HD-SDI and Camera Link outputs
- 30Hz, 60Hz frames/second full-frame rate, higher frame rates available with windowing
- Open frame packaging (custom housings and mounting details available)
- Easy integration to a variety of lenses using built-in lens controller
- High Sensitivity (<25 mK NETD)
- High MTTF HOT detector available (>20,000 hours)

Applications

- Long Range Surveillance
- Airborne payloads
- Threat Warning
- Search-and Track systems



Typical Performance

Parameter	Value
Format	640 x 512 (VGA)
Pixel Size	15µm
Material	InSb or HOT (XBn)
Detector Temperature	77K (InSb) or 150K (XBn)
Wavelength	3.6-4.9µm (InSb) or 3.6-4.2µm (HOT), 1.5-5.5µm Broadband (InSb)
F#	F/4.0 or F/5.5 standard, others available
NETD	<25mK
Well Capacity	1.5Me- and 5.8Me-
Operability	>99.5%
Time to Cool Down	< 7 min. @ 23°C
Power Consumption	< 14W Steady State
Digital Display Video	HD-SDI
Digital Data Streaming	CameraLink® and GigE available
Command and Control	CameraLink®
Sync Modes	Internal/External Sync and Clock
Nominal Frame Rate	30Hz, 60Hz full frame, faster available with windowing
NUC Tables	Six (6) tables
Lens-Direct Technology	Optional Native Support for Motorized Focus or Continuous Zoom Lenses
Local Area Contrast Enhancement (LACE)/ Local Area Processing (LAP)	"Optimal" Process/User Adjustable
AGC/ALC	Full Manual, ROI Linear. ROI Histogram
Digital Zoom	2x or 4x Edge Preserving
Operating Temperature	-40°C to +71°C
Power Input	12VDC

Specifications are subject to change without notice

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