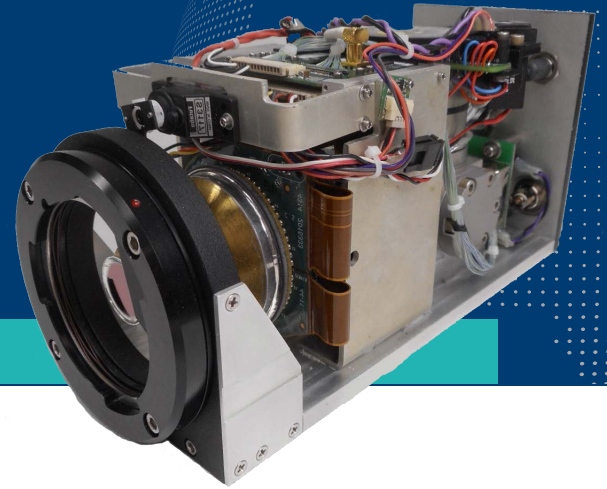




# Blackbird 1280 Camera Core

High-Definition 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.

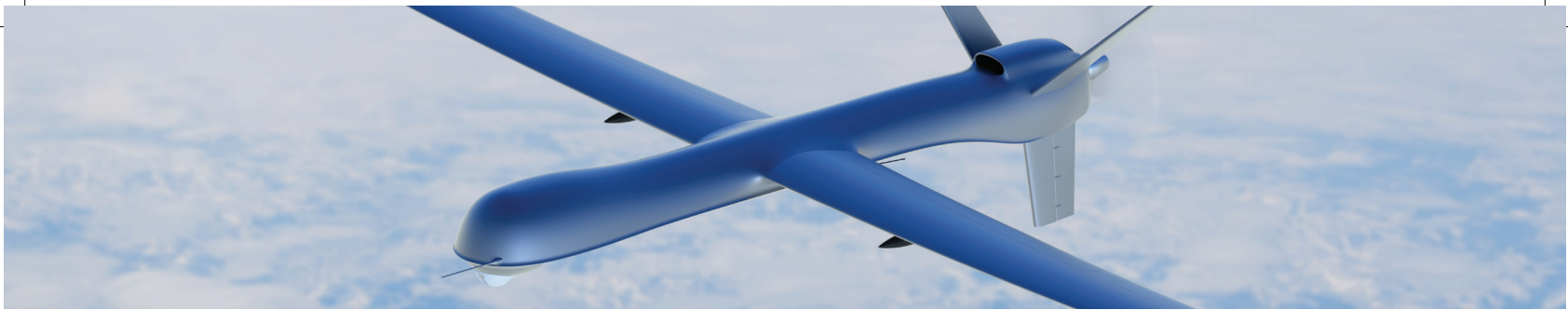
The Blackbird Camera Core features SCD's small-pixel (10-micron pitch) High Definition (1280 x 1024, SXGA format) MWIR detector. The Blackbird is available in standard InSb or our High Operating Temperature (HOT) version that provides increased MTTF and faster cool-down. Please refer to the SCD Blackbird-1280 detector datasheets and specifications for more details.

## Main Features

- Large 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
- HD-SDI and Camera Link outputs
- 30Hz, 60 Hz full-frame operation and higher 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 (>10,000 hours)

## Applications

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



## Typical Performance

Parameter	Value
Format	1280 x 1024
Pixel Size	10µm
Material	InSb or HOT (XBn)
Detector Temperature	77K (InSb) or 150K (XBn)
Wavelength	3.6-4.9µm (InSb) or 3.6-4.2µm (HOT), CO <sub>2</sub> notch available
F#	3 or 4, others available
NETD	25mK typical @ 70% well
Well Capacity (Four programmable Capacitors)	2.0Me-
Operability	>99.5%
Time to Cool Down	< 9 min. @ 23°C
Digital Display Video	HD-SDI
Digital Data Streaming	Medium CameraLink®
Command and Control	CameraLink® COM and GigE available
Sync Modes	Internal/External Sync and Clock
Nominal Frame Rate	30Hz, 60Hz full frame, others available with windowing
NUC Tables	Up to 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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