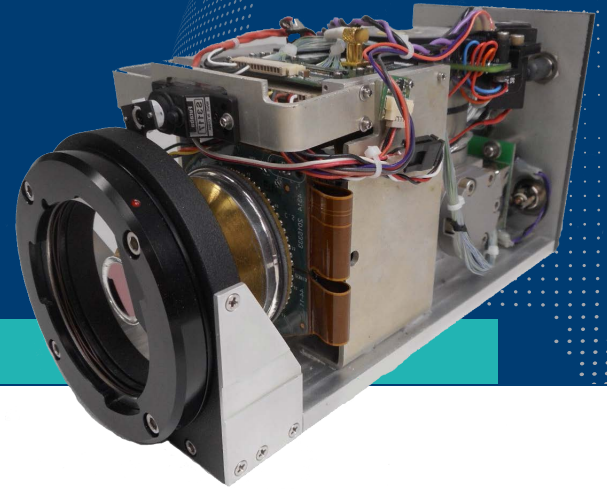




Blackbird 3 Mega Pixel Camera Core

Super 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.

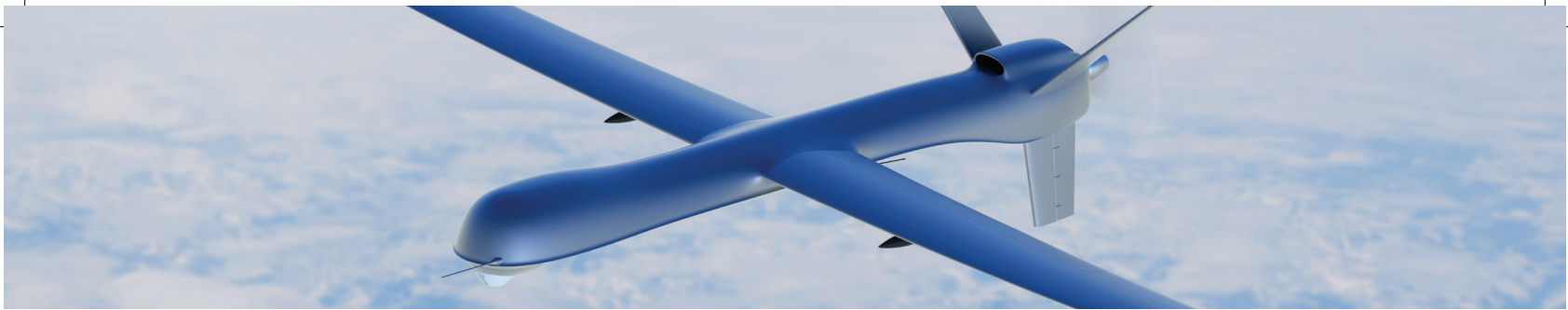
The Blackbird 3 MegaPixel (3MP) Camera Core features SCD's small-pixel (10-micron pitch) Super High Definition 1920 x 1536, 3MP format MWIR detector. The Blackbird is available in standard InSb that provides a package similar in size to our Hercules 1280 x 1024 camera core. Please refer to the SCD Blackbird-1920 detector data sheets and specifications for more details.

Main Features

- Very large format 3 Mega Pixel MWIR InSb detector
- High Dynamic Range using multiple, switch-able integration capacitors with 2 x 2 binning capability
- 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)

Applications

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



Typical Performance

Parameter	Value
Format	1920 x 1536
Pixel Size	10µm
Material	InSb
Detector Temperature	77K
Wavelength	3.6-4.9µm, CO ₂ notch available
F#	3 or 4, others available
NETD	25mK typical @ 70% well
Well Capacity	2.0Me-
Operability	>99.5%
Time to Cool Down	< 12 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	24VDC

Specifications are subject to change without notice



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