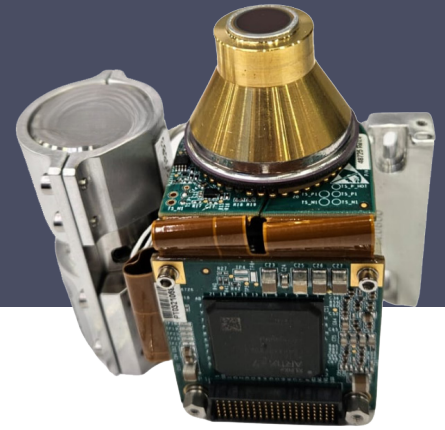


# Mini Blackbird 1280HFM

SXGA Full-band MWIR IDDCA, 1280 x 1024  
10µm pixel pitch resolution, HOT sensing  
technology, Split Linear Cooler



## Flight Ready Full-band Mid-Wave Infrared

### General Description

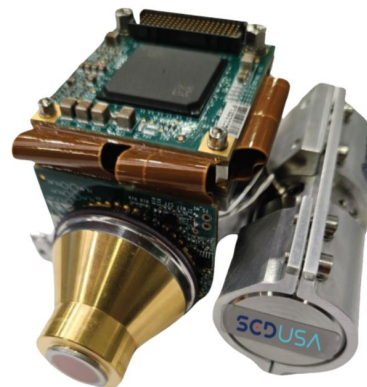
The Mini Blackbird SXGA represents SCD's advanced Mid-Wave Infrared (MWIR) High-Definition detector, integrating our 1280x1024 Focal Plane Array (FPA) technology. This technology is based on Hot Full Mid-wave (HFM) with a 10µm pixel size. It includes a digital Read Out Integrated Circuit (ROIC) fabricated using advanced CMOS processes. The optional accompanying proximity electronic board supports Video Engine capabilities while ensuring low power consumption. This results in a high resolution detector with exceptional image quality, sensitivity, uniformity, in a compact size. SCD remains dedicated to standing by our customers, ensuring they have access to the best solutions tailored to their needs.

### Applications

- Light small tactical payloads for mini UAVs, Drones, Search & Rescue helicopters
- Ground Surveillance
- Persistent surveillance
- Long/Medium Range Surveillance & Targeting
- Hand Held systems

### Detector Key Features

- HD Format: 1280 x 1024 at 10µm pitch
- Full 3.6µm to 4.9µm wavelength response
- HOT Sensing material
- Digital ROIC
- Compact and Ruggedized Dewar
- Compact form split linear cooler
- High image quality
- Digital LVDS standard video output



## FIRST TO SEE



## Typical Performance

Parameter	Value
Detector Dewar Cooler (DDC) Family	Mini Blackbird 1280
FPA spectral range	3.6 - 4.9 $\mu\text{m}$
Format	1280x1024
Pitch	10 $\mu\text{m}$
Size	Length (optical axis) - 80 mm
Weight	Weight < 350gr
Operating Temperature	120K
Power consumption (at 25C steady state)	10 W
Mission profile	Low SWaP; High reliability
Maximum Frame Rate	100 Hz (full window, raw image Medium Camlink)
NETD (2Me- Cap.)	25mK @ 70% well fill capacity
Advanced ROIC functionality	Binning, windowing
F Number	F/4
Cooler Options	Split Linear

Specifications are subject to changes without further notice