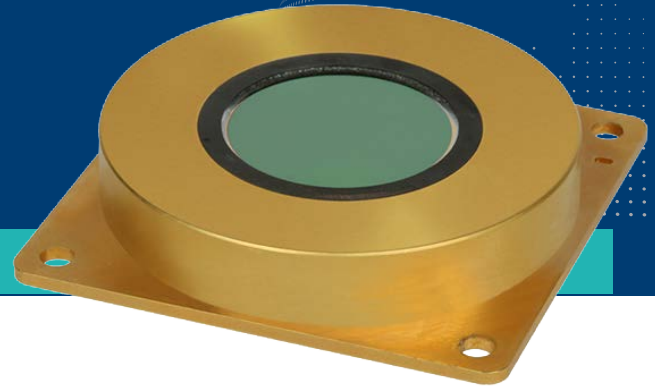




BIRD XGA

1024 x 768, 17 μ m pixel pitch
VOx Microbolometer



General Description

Bird XGA is SCD's large format HD 1024 x 768, 17 μ m pitch uncooled LWIR detector specially designed to address high-end, high performance surveillance and instrumentation applications.

BIRD XGA uses SCD's high sensitivity VOx technology coupled with SCD's advanced digital ROIC to provide, low-noise, high sensitivity and wide dynamic range.

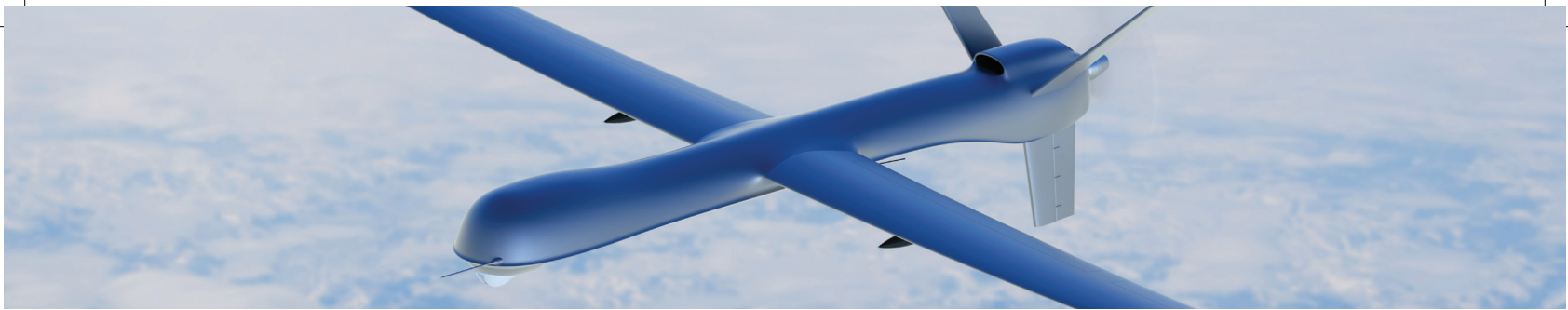
Applications

- Thermal weapon sight
- Long-range surveillance systems
- Missile seeker and missile warning applications
- Remote weapon station
- Long-range flame detection
- Driver's night-vision systems
- EO/IR tactical payloads

Main Features

- Vanadium Oxide technology
- Uncooled operation with or without TEC
- 4 analog outputs
- Rolling mode bottom-to-top scanning
- Internally computed coarse-NUC
- Adjustable GAIN & Integration time
- Parallel/Serial communication
- Built-in (CMOS) FPA temp diode 6mV/K
- MIL-STD qualified





Typical Performance

Parameter	Value
Sensor	VOx Bolometer
Format	1024 x 768
Pitch	17 μm
Spectral range	8-12 μm
Frame rate	>60Hz
Video Output Span	2V (0.5V - 2.5V)
Latency	Sub frame
Power Supply	Bolometer 6.5V; Video O/P 5.5V; Digital 1.8V
Power Dissipation	<700mW (@60Hz frame rate, 25°C FPA Temp)
Temporal NETD	<45mK (F#/1, 25°C FPA Temp, 60Hz frame rate)
Thermal Time Const	12mS
Dynamic Range	100°C (nominal gain)
Response	5mV/K to 50mV/K (selectable)
Pixel Operability	99.5%
FPA Temp Control	Thermo-electric-cooler (TEC)
Size	52 x 52 x 11mm (excluding pins & vacuum tube)
Weight	32 grams
Operation temperature	-40°C to +71°C
Storage temperature	-40°C to +71°C
Vacuum Life Time	14 years (at 25°C Storage Temp)

Specifications are subject to change without notice



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