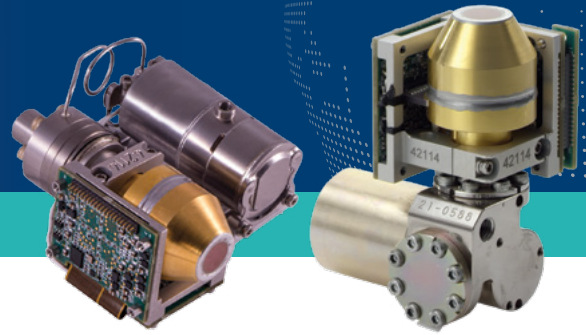




Kinglet

Low-SWaP High Performance MWIR
640X512, 15 μ m pitch, HOT (150K) Detector
Based on Digital "PelicanD" ROIC

Defense Applications



General Description

Kinglet is based on SCD's state-of-the-art XBn (InAsSb) technology which demonstrates high performance at 150K FPA operating temperature.

The product was developed in response to market demand for reduced SWaP (Size, Weight and Power) and for increased reliability.

In order to support large variety of applications, the Kinglet detector can be integrated with either rotary (hand held applications) or linear (gimbaled applications) cooler.

Applications

- Light payloads for mini UAVs
- Hand Held Thermal imagers
- Personal Thermal Weapon Sight
- Situation Awareness
- Remote Weapon Stations

Main Features

- High operating temperature (150K) XBn – InAsSb
- High image quality
- Low power < 3.5W
- Light weight < 310g
- Small size cooler
- High reliability



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Typical Performance

Parameter	Value	
Format	640x512, 15 μ m pitch (windowing enabled)	
Detector Spectral Response	3.6-4.2 μ m (1.0-4.2 μ m for special requirements)	
Typical FPA Temperature	150K	
Pixel capacity	1.1Me- & 3.3 Me- (selectable)	
Operability	> 99.5%	
NETD	< 23mK (@ 50% well fill, 300K background)	
Residual Non-Uniformity	0.05% Std/DR@20-80% well fill capacity	
Response Uniformity	< 2.5% Std/DR	
Frame rate @ full window	up to 100Hz	
Proximity Electronics Power	< 0.5W	
	Kinglet	Kinglet SLC
Standard cold shield F#	F/4-F/5.5	F/5.5
	* Other F#, per customer request	
Cooler	K580 (rotary)	SX020 (linear)
Cooling Power Consumption @23°C	2W	3.5W
IDCA length (optical axis)	80.4mm	78mm
IDCA weight	280g	310g
Cool down time @23°C	4min	5min
Cooler MTBF	>10,000 hours	>20,000 hours

Specifications are subject to changes without further notice