Crane

The Crane stands as a state-of-the-art Mid-Wave Infrared (MWIR) detector. This device features a 5-megapixel resolution in a 2560×2048 format with a fine 5µm pitch. It is based on SCD's established XBn technology or Hot Full Midwave (HFM) and incorporates a digital readout circuit developed using an advanced CMOS process. The High Operating Temperature (HOT) Focal Plane Array (FPA) functions efficiently at 150K or 120K, enabling a large-format detector that excels in image quality while maintaining a relatively compact size, weight, and power consumption. SCD continues to lead in innovation.

Main Features

- Large format (5M), small pixel pitch (5µm), high operating temperature
- High sensitivity: characterized by low readout noise, low dark current, and high quantum efficiency
- In-pixel gain options
- Frame rate: up to 140 Hz in full frame
- Compact integrated detector dewar cooler assembly (IDDCA): low in size, weight, and power
- Standard electronic interface

Applications

- Persistent surveillance
- Long/medium range surveillance & targeting
- IRST
- Airborne payloads
- MWS

Technology	**HFM**
Detector Format	**2560 x 2048, 5µm pixel**
Cooler	**Split rotary**
Spectral band	**3.6-4.9µm**
Operating temperature	**120K**
Mission profile	**Harsh environmental conditions**
Length (optical axis)	**103mm**
Weight	**1300g**
Cooler Power consumption at 23 °C	**17W**
Proximity electronics power consumption	**5.5W**
Maximal frame rate	**150Hz**
NETD (2Me- Cap.) at 70% Well fill	**40mK**
Advanced ROIC functionality	**Binning, Windowing, multi-mode operation**

Technical characteristics described in this data sheet are for information only.
They are not contractual and may change without prior notice.