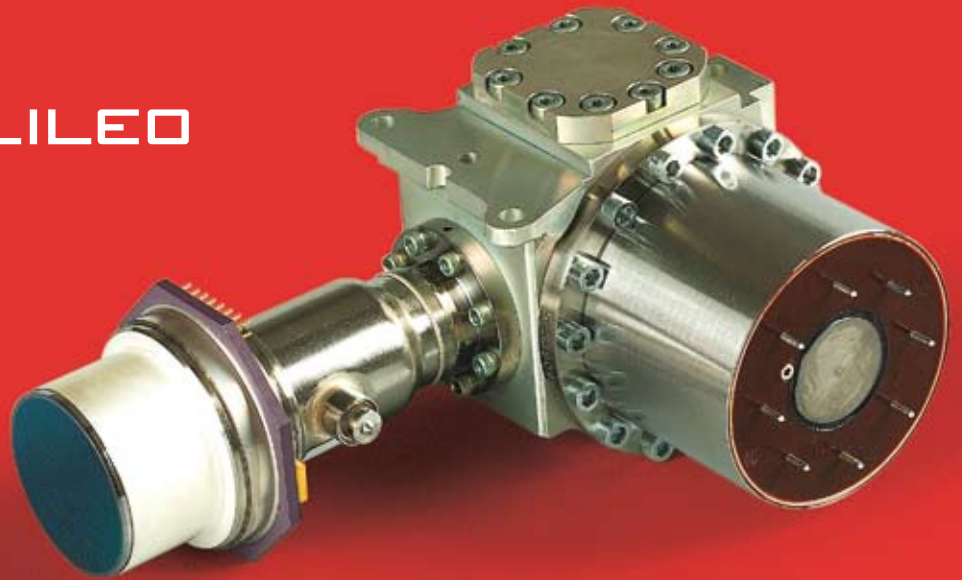




SELEX GALILEO

A Finmeccanica Company



OSPREY-S LONG WAVE INFRARED DETECTOR

SELEX Galileo designs, develops and manufactures Infrared (IR) detectors at its dedicated facility in Southampton, UK. With a reputation for providing customers with the best in high performance and cost-effective technology for IR camera systems, SELEX Galileo offers a unique level of expertise.

The Osprey-S Long Wave Infrared (LWIR) detector is a compact, lightweight 384 x 288 Mercury Cadmium Telluride (MCT) Integrated Detector Cooler Assembly (IDCA). The Osprey-S LWIR detector is designed for high performance, low cost imaging in the 8 - 10 μ m waveband.

Using the SELEX Galileo MCT process, the Osprey-S LWIR detector provides the highest environmental integrity along with the superior performance of focal plane detectors.

MAIN FEATURES

- Snapshot or interlaced operation
- Simple to use
- Long Wave (LW) 8 - 10 μ m
- Small element pitch enables miniaturisation of the Dewar assembly and optics
- High electro-optic performance with low crosstalk, automatic anti-blooming at the pixel level and excellent sensitivity
- Highest LW technology performance available in the world
- Longest LW technology DRI ranges
- Reduced stare time, less motion blur than QWIP detectors
- High performance in low scene temperature

KEY BENEFITS

- Low cost
- Light weight
- Compact



Detector production and test facilities

TECHNICAL SPECIFICATIONS

Format

Array	384 x 288 pixels
Pixel Pitch	20um
Active Area	7.68 x 5.76mm

Typical Performance

NETD (median)	28mK (20mK interlaced)
Pixel Operability	>99%

Interface Parameters

Modes	Snapshot or interlaced
Configuration Control	Single serial interface
Output Voltage Range	2.5V
Charge Capacity	1.2 x 10 ⁷ electrons (2.4 x 10 ⁷ electrons interlaced mode)
Number of Outputs	4
Pixel Rate	Up to 10MHz per output
Intrinsic MUX noise	50uV rms max
Array Operating Temperature	Up to 90K
Nominal Operating Voltage	6V
Minimum Pins for Operation	16
Number of Input Clocks	1
Window Material	Germanium
Window Thickness	1.73mm
Cold Filter Material	Silicon
Cold Filter Thickness	0.4mm

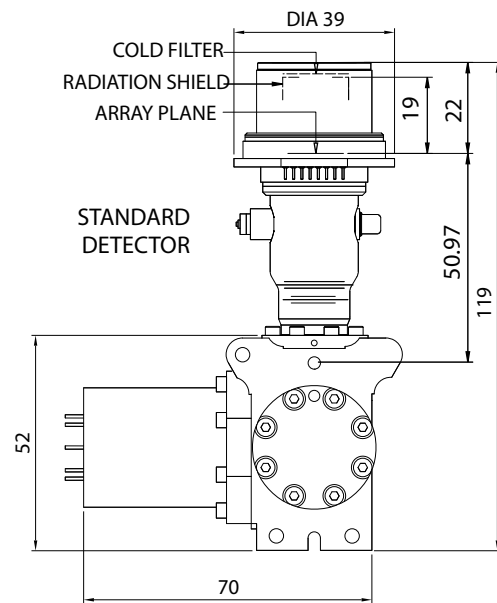
IDCA 6W

Weight	350g
Power Consumption	6W steady state
Cooling Engine	Rotary Stirling engine
Operating Temperature Range	-40 °C to +70 °C

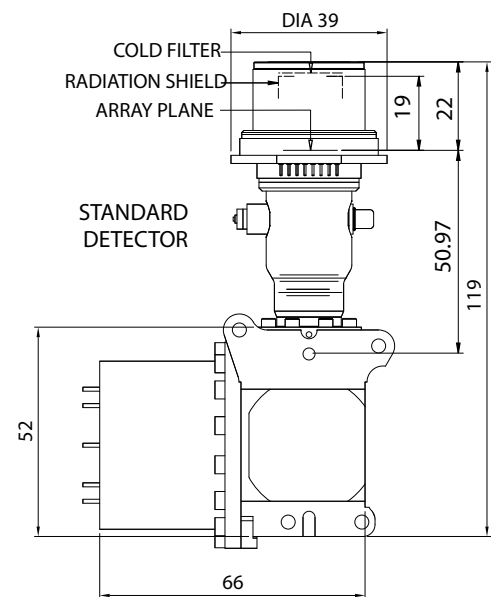
IDCA 8W

Weight	500g
Power Consumption	8W steady state
Cooling Engine	Rotary Stirling engine
Operating Temperature Range	-40 °C to +70 °C

IDCA 6W



IDCA 8W



All dimensions in millimetres