



JT Detectors for Missile Seekers

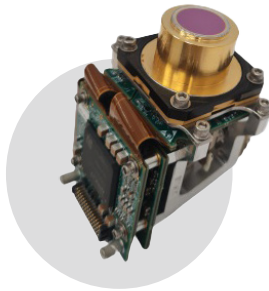


JT Detectors for Missile Seekers

JT detectors are custom-designed specifically for missile-related applications. Their focal plane arrays (FPAs) feature a digital Readout Integrated Circuit (ROIC) with a resolution of 640 x 512. These detectors boast a unique Dewar configuration that enables rapid cooling, which ensures swift mission readiness by utilizing the Joule-Thomson (JT) cooling technique. Due to the minimal heat generation at the focal plane, these detectors are capable of supporting extended mission durations. Additionally, they can be outfitted with a proximity board that provides a user-friendly Camera Link interface, facilitating seamless integration of the detectors into customer systems.

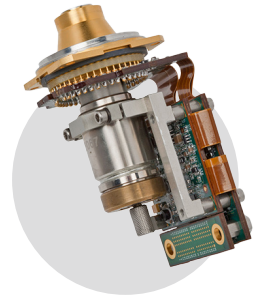
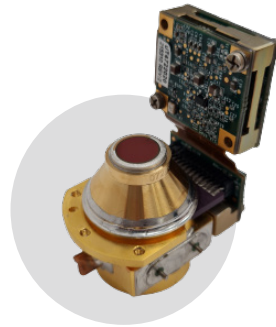
Main Features

- Camera Link interface (optional for enhanced connectivity)
- High stability in Non-Uniformity Correction after cool-down
- Compatibility with different types of cooling gases
- Compact structural design



Applications

- Long range missiles
- Ground missile systems
- Missile defense systems
- Air missile seekers



| DDC | Pelican D | | Blackbird 640 | Pelican-D LW |
|-----------------------------------|----------------------------------|--|---------------|--|
| Technology | InSb | InSb | XBn | T2SL |
| Detector format | 640x512, 15µm | 640x512, 10µm | | 640x512, 15µm |
| Cooler options | Joule-Thomson (JT) | | | |
| Spectral band | 3.6 -5 µm | 3.6-5 µm 3.6-4.2 µm | | LWIR cut off 9.3µm |
| Operating temperature | 77K | 77K | 150K | 77K |
| Cool-down time @23°C | <14sec (N2 cooling gas) | <20 sec (cooling gas depended) | | <20 sec (N2 cooling gas) |
| Mission profile | MWIR | MWIR | | LWIR |
| Length (optical axis) | 84mm (with cooler & proxy) | 49mm with proxy and without cooler | | 80mm with proxy and without cooler |
| Weight (with cooler and proxy) | 250g | 120g | | 280g |
| Maximum frame rate | 350Hz | 350Hz | | 350Hz |
| NETD at 70% well fill | 20mK | 30mK | | 32mK |





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