Selex ES
A Finmeccanica Company

Radar & Advanced Targeting

BIL
ADVANCED AIRBORNE BURST ILLUMINATION LADAR

World leading capabilities in high-energy lasers and unique gated Focal Plane Array (FPA) detector technology have enabled us to produce the Burst Illumination LADAR system.

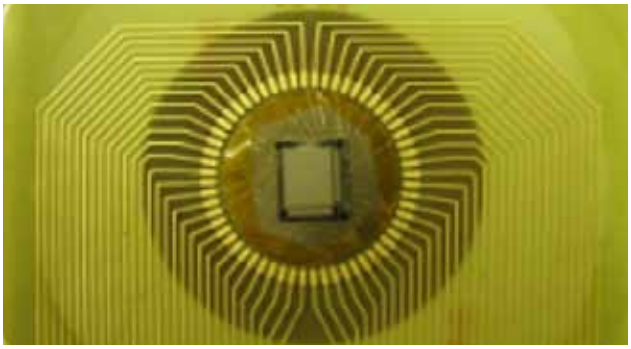
Operating at 1.57µm SWIR wavelength, BIL produces imagery with significantly higher resolution than conventional 3-5µm Thermal Imaging (TI) systems in both day and night conditions.

BIL DETECTOR TECHNOLOGY

The unique gated FPA BIL detector technology, developed in-house, provides 2D and true 3D imaging capability from a single laser illumination pulse.

KEY FEATURES

- World-class cooled MCT 2/3D MCT technology
- On-chip noiseless avalanche gain of x800 demonstrated
- Complete signal extinction outside of the gate
- Gate edge equivalent to 1.5m.

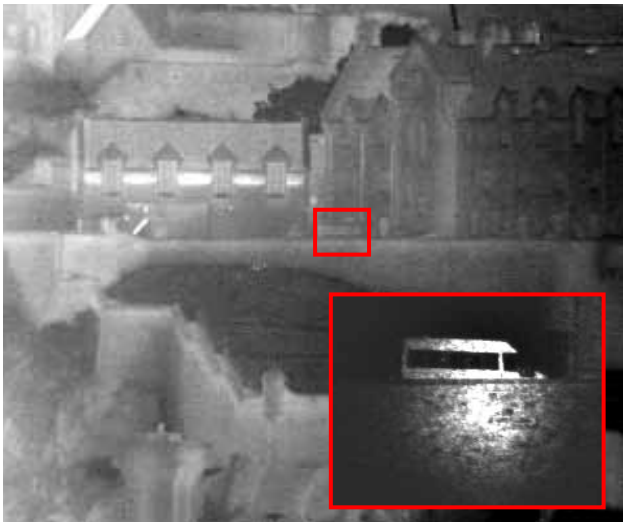


26 Micron Gated FPA Detectors

Target Isolation by Clutter Rejection

TARGET/CLUTTER SEGMENTATION

Precise control of gate width and position coupled with extremely sharp gate edges also enables target/clutter segmentation and improved target identification capability.



DUAL-MODE CAPABILITY

The BIL detector can be operated in either a MWIR/3-5µm or active SWIR/1.57µm mode on frame-to-frame basis. This enables the replacement of a conventional MWIR sensor with a dual-band unit.

The BIL system utilises our high-energy dual-band laser which provides 1.06µm designation and eye-safe 1.57µm imaging wavelengths. Variable laser beam-divergence control required for optimum BIL performance can also be incorporated in the laser thus simplifying the integration task.

APPLICATION

BIL can be used to provide enhanced Recognition and Identification capability in a wide range of air, land and sea electro-optical sensor applications.

INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

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