

UNCOOLED IR BOLOMETRIC DETECTOR

TECHNOLOGY

INO has extensive experience in microbolometric detector design, fabrication and characterization, as well as in detector-to-ROIC (read-out integrated circuit) interfacing technology. INO's standard platforms are 160x120 and 256x1 pixel microbolometer focal plane arrays (FPAs). INO has developed several custom IR-FPAs for its clients, including a 512x3 pixel FPA produced for the European and Canadian Space Agencies. INO fabricates microbolometric detectors over customer supplied ROICs as a foundry service, and has been active in helping its customers to design their own readout integrated circuits.

APPLICATIONS

Security/surveillance	Military
Industrial inspection	Laser beam profiling
Medical	Preventive maintenance
Transportation	Fire fighting
Aerospace/Astronomy	Environment

COMPETITIVE ADVANTAGES

Uncooled technology is revolutionizing infrared (IR) detection and imaging by providing low-cost, reliable sensors for civilian and military applications. Compared with cryogenically cooled devices, uncooled IR bolometric detectors operating at room temperature offer considerable advantages in cost and operational convenience with minimal sacrifice in performance. Advantages of uncooled bolometers include higher reliability, reduced power consumption, smaller size and reduced weight, as well as multispectral response capability.

STATE OF DEVELOPMENT

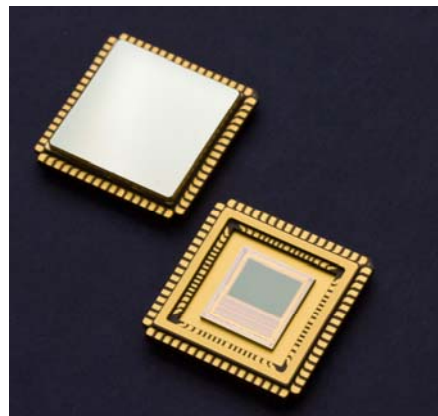
INO's uncooled infrared technology detector has been developed to TRL 8. At this level of technological readiness, the first production units have been tested and qualified to validate operability, performance, quality, and reliability.

BUSINESS OPPORTUNITY

INO is looking for companies interested in producing and/or selling uncooled infrared bolometers, under a licensing agreement. The terms of the transfer agreement will depend on the applications and markets addressed by the partners.

INTELLECTUAL PROPERTY

List of patents available on request.



CONTACT

Christine Alain
Program Manager, Microfabrication and MEMS
christine.alain@ino.ca

For the complete list of technologies available for transfer
www.ino.ca/availabletechnologies



CHALLENGING LIGHT
FOR OUR PARTNERS

TECHNOLOGIES READY FOR PARTNERS

INO (National Optics Institute) is Canada's leading center of expertise in industrial applications for optics/photonics. It is home to the largest concentration of skills in the field and serves clients of all sizes across Canada and around the world.

INO has a variety of technologies and innovative processes in its strong IP portfolio. These assets represent unique business opportunities for companies looking for innovative technologies to bring to the market place. These technology transfers are carried out mainly through licensing or intellectual property sales.

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