



384 X 288 FPA

UNCOOLED BOLOMETRIC DETECTOR

INO is a world-class center of expertise in industrial applications for optics and photonics, as well as a leading technology developer and provider of MEMS and MOEMS technologies. We have the equipment and expertise to handle the entire microsystem development cycle, from the simulation, design and fabrication of devices through to their packaging and characterization.

Fabricated using INO's 35 μm pixel pitch VOx technology, this uncooled Focal Plane Array has a resolution of 384x288 pixels. Its low power consumption, light weight and unique ability to see in the LWIR or VLWIR (THz) makes it ideal for multiple applications.

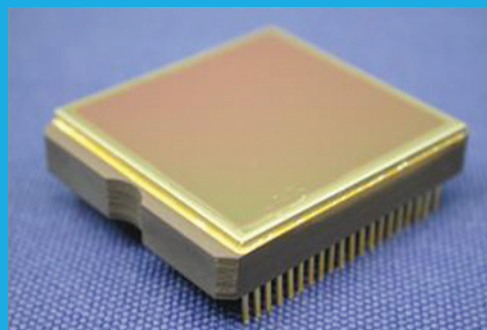
APPLICATIONS

- Packaged FPAs are available in small quantities for prototype development and customized applications.
- FPA wafers are available as an ideal vehicle for VOx bolometric detector technology transfer and/or mass production of 384x288 FPAs.
- IRXCAM-384 camera cores are available for easy implementation and extremely good quality IR or THz images.

INFRARED IMAGE TAKEN WITH IRXCAM 384



INFRARED DETECTOR IN CERAMIC PACKAGE



INO OFFERS

R&D CONTRACTS — PROTOTYPING — PREPRODUCTION —
SHORT-RUN PRODUCTION — TECHNOLOGY TRANSFERS



384 X 288 FPA

UNCOOLED BOLOMETRIC DETECTOR

PRELIMINARY TECHNICAL SPECIFICATIONS¹

PERFORMANCES	
NETD (F/1, 50Hz, LWIR)	<100 mK (typ 65 mK)
Time constant	<11ms
Operability	>99.5%
FPA	
Effective Array size	384x288
Windowing	320x240
Detector Pitch	35 µm
Detector type	VO _x
Spectral response	LWIR, VLWIR (THz)
OUTPUTS	
Output signal	Multiplex analog
Output voltage swing	2.4V nominal (differential output)
Raw data rate	6 MHz (compatible with 50 Hz frame rate)
OTHER	
Power supply	3.3V
Power consumption ²	<140 mW (typ. 70 mW)
Temperature stabilization	TEC ²
Operating Temperature	-20 to 50°C
Dimensions (LxWxH)	26.4mm X 30.2mm X 5.5mm (excluding pins)
Weight	≤14g
Ceramic package environmental testing	Vibration MIL-STD-810-514 Shock MIL-STD-810-516 Shock MIL-883-2002

¹ Specifications subject to change without notice. Export under license only.

² TEC power consumption not included.

³ TEC less achievable with the implementation of gain correction tables.