

MICROXCAM-384i-THz Terahertz Camera

The MICROXCAM-384i-THz is a camera based on the sensitive INO 384 x 288-pixel uncooled microbolometer FPA optimized for the terahertz waveband. Due to its longer wavelength, THz band offers unmatched penetration depth for seeing through materials such as fabric, ceramic, plastic, leather, or cardboard. Thus, the camera shows sensitivity over a wide spectral range, providing live video images. It features a very small footprint: 61 x 61 x 65 mm

The camera electronics handles raw data acquisition and data transfer over GigE, providing 16-bit raw image outputs at 50 Hz. The camera can be further equipped with ultra-fast 44 mm focal length refractive optics optimized for the THz region.

APPLICATIONS

- Package inspection
- Manufacturing
- Security screening and surveillance
- Concealed weapons detection
- Vision through camouflage
- Quality control, process monitoring
- Spectroscopy
- Submillimeter astronomy
- Dental and medical imaging
- Food inspection

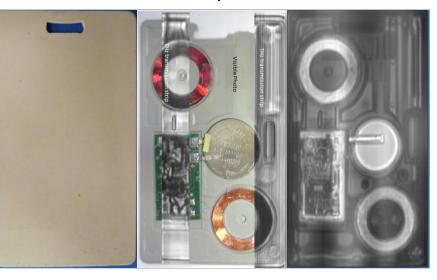
BENEFITS

- Wide band response
- High sensitivity
- 16-bit raw data
- High image quality
- Refractive optics available



Visible image Magnetic Card Visible image of opened card with THz transmission strips

Mosaic of THz image strips taken of sealed card





MICROXCAM-384i-THz

Terahertz Camera

CAMERA SEPCIFICATIONS ⁽¹⁾		
Wavecband ⁽²⁾	70 - 3189µm / 4.25 – 0.094 THz	
Sensor ⁽²⁾	 384 x 288 pixels uncooled microbolometer FPA 35µm pixel pitch Silicon float zone window AR coating optimized for specific THz wavelenghts 	
Frame rate	50 Hz	
Video output	GigE Link • RJ-45 connector • 16-but raw data	
Supply	12 VDC Nominal (10VDC to 15VDC)	
Power	< 3 W (excluding TEC power)	
Dimensions	61 mm (H) x 61 mm (W) x 65 mm (L) 2.4 in. (H) x 2.4 in. (W) x 2.6 in. (L)	
Weight	360g / 0.8 lb (excluding optics)	
Temperature	0 to 40 °C	

OPTICS SPECIFICATIONS		
Specifications ⁽³⁾	Ultrafast Optics	
Туре	Refractive	
Focal lenght	44 mm	
F number	0.7	
Object distance	60 cm to infinity	
Lens material	HRFZ-Si	
AR coating	Parylene-C	
Number of lenses	2	
Dimensions	80 mm (Ø) 66.5 mm (L)	
Weight	350 g	

(1) Subject to change.

(2) Detector and coating may vary depending on the selected wavelength.

(3) Custom specifications available on demand.