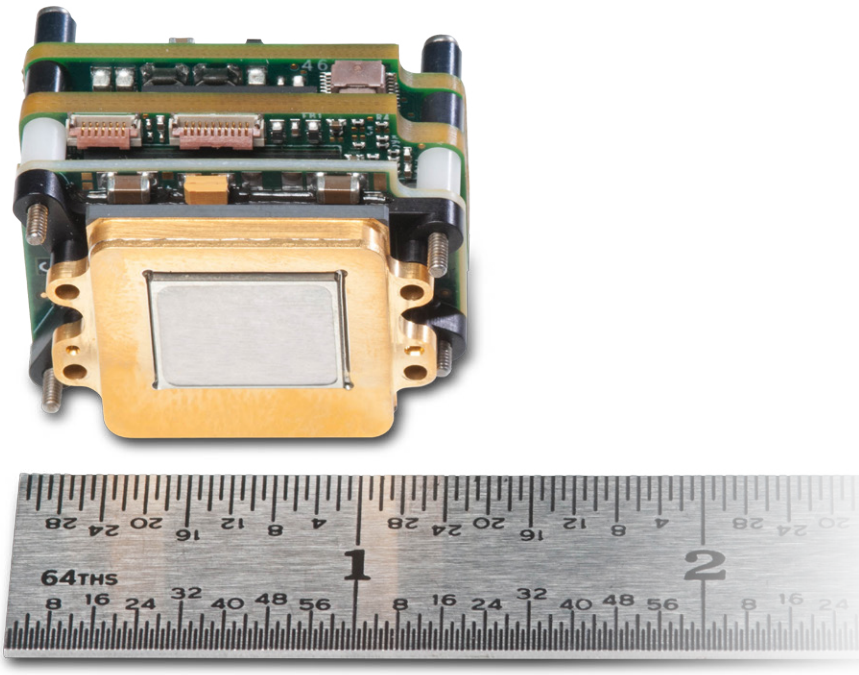
BAE SYSTEMS
INSPIRED WORK

TWV640i

12-micron thermal camera core



The TWV640i is the first commercially available uncooled thermal camera core to use 12-micron pixels, enabling system integrators to reduce optic size by 50 percent and optic cost by 20 percent.

The TWV640i brings 12-micron technology to military and commercial OEMs in a high-performance, affordable, thermal imaging module. Designed for systems engineers by systems engineers, the TWV640i reduces system cost and complexity by embedding value with enhanced features. These include display drivers, local image storage, and configurable image enhancement parameters that are accessible through the free MicroIR® graphical user interface and software development kit.

Key features and benefits

- 12-micron vanadium oxide pixels enable compact system design
- 640 x 480 resolution with our industry-leading low noise offers superior image quality
- Short-time constant performance allows for crisp imaging of dynamic scenes
- Compatibility with standard interfaces and lenses enables affordable performance

Applications

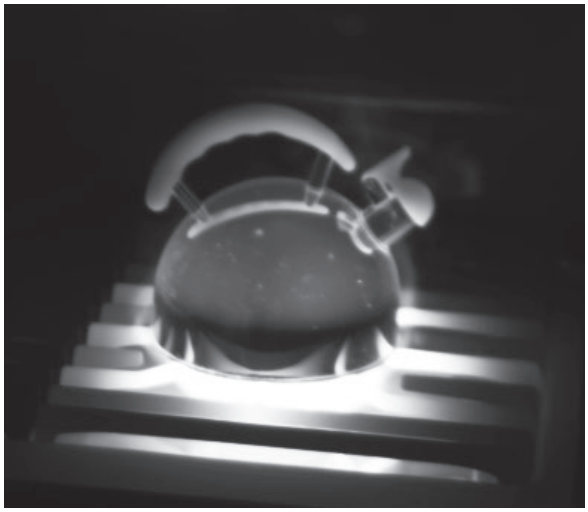
- Security and surveillance
- Automotive systems
- Handheld targeting
- Process monitoring
- Firefighting
- Construction inspecting

12-micron technology enables **smaller, lower cost** systems

17-micron 12-micron

Specifications

Detector	
Detector type	Uncooled VOx microbolometer
NETD	<50 mK
Spectral response region	7.5 µm – 13.5 µm
Array format	640 x 480
Pixel pitch	12 µm
Frame rate	7.5 Hz
Video processing	
Output modes	Black hot, white hot, edge detect, color enhanced (customizable)
Contrast enhancement	AGC or manual, histogram equalization, local area contrast enhancement algorithms available
Sharpness adjustment	Manual control
Custom overlays	User-customizable overlays with embedded display drivers
Digital zoom	.5X, 2X, 4X, 8X
Local image storage	60 frames
Interfaces	
Video formats and interface	16-bit parallel digital 2.5V, NTSC/PAL, or USB2
Communications interface	UART or USB
Power consumption	1.1 W
Input voltage	External: 2.0 - 3.8 VDC USB: 5.0 ± 10% VDC
Operational	
Operating temperature	-40°C to +65°C
Storage temperature	-46°C to +71°C
Physical	
Size	26.2 mm x 33.3 mm x 22.9 mm
Weight	40 g



Infrared imagery generated by TWV640i

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