

Meeting Today's Challenges to Provide a Secure Future



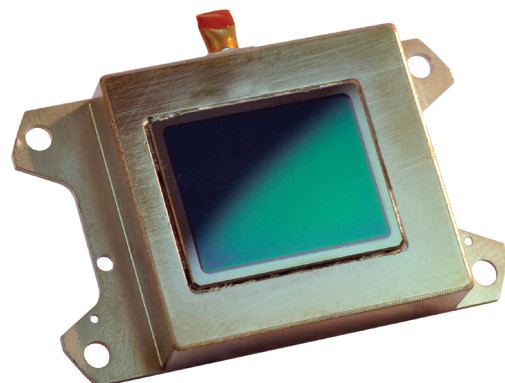
U6010

The exceptional capabilities of the uncooled U6010 infrared sensor have been field-proven by U.S. military forces in more than 100,000 Driver's Vision Enhancers and Thermal Weapon Sights. Its innovative 25 micron pitch vanadium-oxide technology detects long-wave infrared energy to produce a large 640 x 480 pixel image.

The U6010 package, measuring 4.67 x 2.90 x 0.79 cm and weighing less than 35 grams, is ruggedized and environmentally sealed. On-chip temperature feedback technology enables the U6010 to operate without the need for a thermoelectric cooler.

The U6010 has protected American forces and enabled them to execute their missions in the war zones and in other arenas where troops must advance in total darkness or very adverse atmospheric conditions. It has set the standard for thermal imaging during operations on the ground.

- Large 640 x 480 pixel imaging
- Fielded in more than 100,000 military devices and proven in warzone conditions
- Uncooled, long-wave infrared detection
- A ruggedized, sealed package weighing less than 35 grams
- Employs innovative vanadium-oxide technology



SYSTEM FEATURES

FOCAL PLANE ARRAY

Detector Type	Uncooled VOx Microbolometer
Array Size	640 x 480
Detector Pitch	25 μ m
Spectral Response	LWIR 8 - 14 μ m

VIDEO

Frame Rate	30 Hz
Nominal Data Rate	12.5 MHz
Format	NTSC/PAL Compatible

ELECTRICAL

Power	\leq 400 mW Nominal
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PART NUMBER	5003877-0003
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PERFORMANCE

Sensitivity (NETD)	<40 mK @ F/1
Multiplexer	CMOS Ripple Integration
Area Fill Factor	90%
Typical Operability	>99%
Number of Analog Outputs	1
Output Voltage Range	0.5 - 4.5 v
Time Constant	\leq 18 msec
Temperature Stabilization	No TEC required (On-Chip Temperature Feedback)
On-chip Non Uniformity Correction (NUC)	6 bits parallel

MECHANICAL

Dimensions (L x W x H)	4.67 x 2.90 x 0.79 cm (1.80 x 1.10 x 0.31 inches)
Weight	\leq 35 g

ENVIRONMENTAL

Operating Temperature	-40°C to +71°C
Storage Temperature	-46°C to +85°C

* Specifications subject to change without notice. Export of the commodities described herein is strictly prohibited without a valid export license issued by the U.S. Department of State, Directorate of Defense Trade Controls, prescribed in the International Traffic in Arms Regulations (ITAR), Title 22, Code of Federal Regulations, Parts 120-130.