

Meeting Today's Challenges to Provide a Secure Future

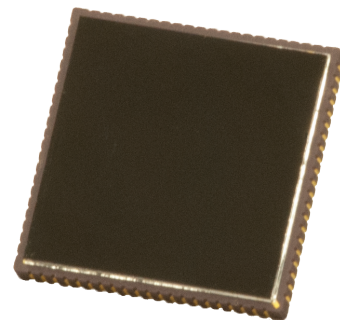
U8000 LCC

Designed specifically for commercial applications in which high resolution imaging is essential, the U8000 LCC provides extraordinary image quality in a low-cost, lightweight and compact package. Employing uncooled vanadium-oxide thermal detector technology, the U8000 LCC incorporates a 17 micron pixel pitch focal plane array to produce images with a resolution of 1024 x 768 pixels. This version of the U8000 incorporates a low-profile, surface-mountable ceramic leadless chip carrier (LCC) that can be mounted to any printed circuit board using LCC sockets.

On-chip temperature feedback technology enables the U8000 LCC to operate without the need for a thermoelectric cooler.

Weighing less than 9 grams and measuring just 2.92 x 2.92 x 0.37 cm, the U8000 LCC is smaller and lighter than any other detector that produces 1024 x 768 resolution. Its compactness makes this sensor ideal for applications in border security and homeland defense.

- Designed for commercial security and patrol applications requiring high-resolution imaging
- Produces images with an exceptional resolution of 1024 x 768 pixels
- Smaller and lighter than any other detector with comparable image resolution
- Weighs only 9 grams and measures just 2.92 x 2.92 x 0.37 cm
- Low-profile, surface-mountable, ceramic leadless chip carrier



SYSTEM FEATURES

FOCAL PLANE ARRAY

Detector Type	Uncooled VOx Microbolometer
Array Size	1024 x 768
Detector Pitch	17 μm
Spectral Response	LWIR 8 - 14 μm

VIDEO

Frame Rate	30 Hz
Nominal Data Rate	12.5 MHz (Input) 6.25 MHz (Output)
Format	XGA Compatible

ELECTRICAL

Power	≤ 450 mW Nominal
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PART NUMBER

1006174-001

PERFORMANCE

Sensitivity (NETD)	< 40 mK @ F/1
Multiplexer	CMOS Ripple Integration
Area Fill Factor	90%
Typical Operability	$> 99\%$
Number of Analog Outputs	4
Output Voltage Range	1.3 - 4.5 v
Time Constant	≤ 14 msec
Temperature Stabilization	No TEC required (On-Chip Temperature Feedback)
On-chip Non Uniformity Correction (NUC)	7 bits parallel

MECHANICAL

Dimensions (L x W x H)	2.92 x 2.92 x 0.37 cm (1.15 x 1.15 x 0.145 inches)
Weight	≤ 9 g

ENVIRONMENTAL

Operating Temperature	-40°C to $+71^{\circ}\text{C}$
Storage Temperature	-46°C to $+85^{\circ}\text{C}$

* Specifications subject to change without notice.

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