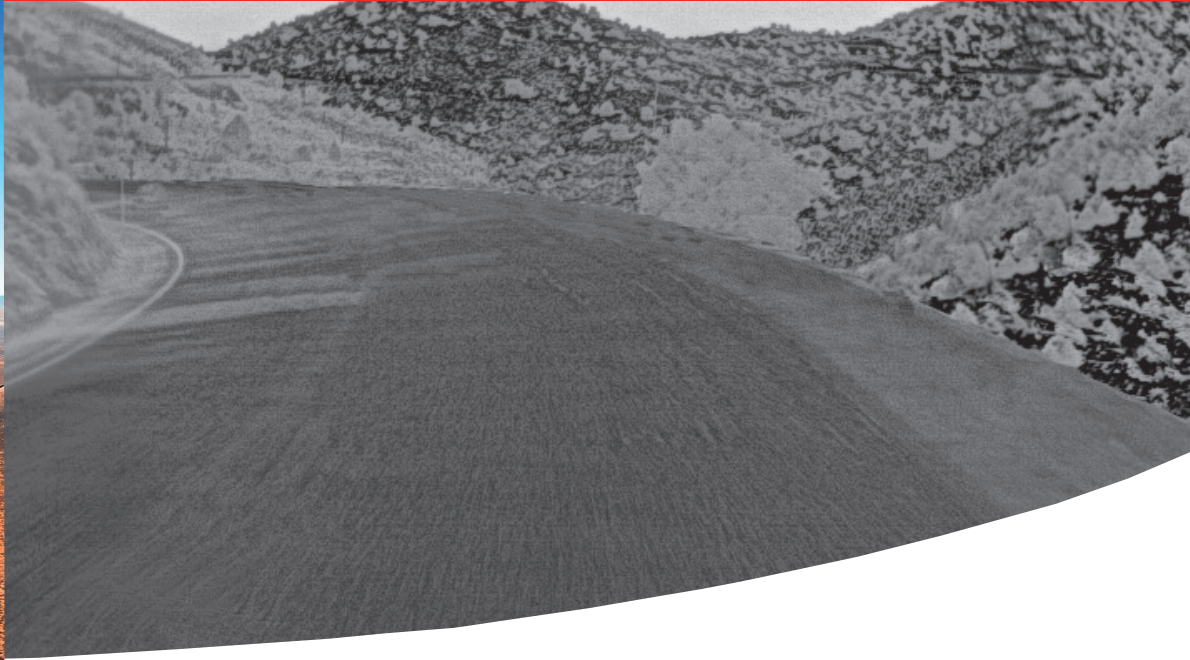


## Meeting Today's Challenges to Provide a Secure Future

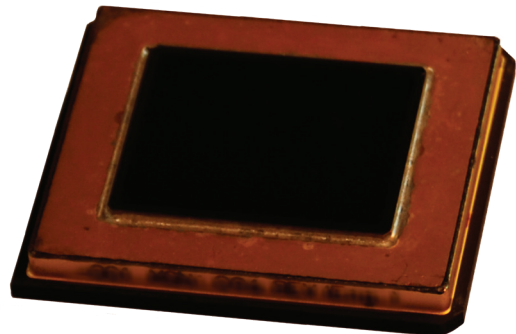


### U8000

With its remarkably high resolution of 1024 x 768 pixels, the U8000 thermal imaging detector offers outstanding image quality in a ruggedized and lightweight package. This uncooled sensor, using innovative vanadium-oxide technology and 17 micron pixel pitch imaging, weighs less than 18 grams and measures just 3.8 x 3.3 x 0.52 cm.

DRS' U8000 long-wave infrared detection capabilities are incorporated into a ruggedized, environmentally sealed, ceramic package. On-chip temperature feedback technology enables the U8000 to operate without the need for a thermoelectric cooler. With innovative infrared imaging technology and superior resolution in a compact package, the U8000 is ideal for applications in which high resolution is required for successful missions, including manned and unmanned vehicles, border security and homeland defense.

- 1024 x 768 pixel resolution, with 17 micron pixel pitch focal plane array
- Ruggedized ceramic, sealed packaging
- Measures 3.8 x 3.3 x 0.52 cm and weighs less than 18 grams
- Applicable for border security, homeland defense, unmanned and manned vehicles, where a higher resolution is a requirement



## SYSTEM FEATURES

### FOCAL PLANE ARRAY

Detector Type	Uncooled VOx Microbolometer
Array Size	1024 x 768
Detector Pitch	17 $\mu$ m
Spectral Response	LWIR 8 - 14 $\mu$ m

### VIDEO

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

### ELECTRICAL

Power	$\leq$ 450 mW Nominal
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### PART NUMBER

5016400-001

### 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	$\leq$ 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)	3.80 x 3.30 x 0.52 cm (1.53 x 1.32 x 0.205 inches)
Weight	$\leq$ 18 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.