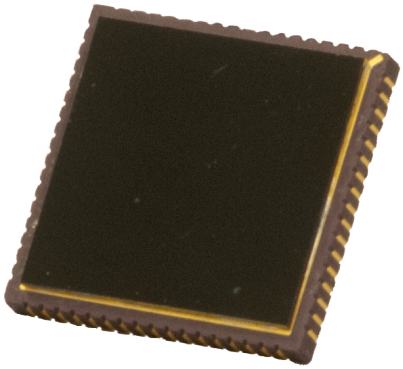
U6160 LCC

MEETING TODAY'S CHALLENGES TO PROVIDE A SECURE FUTURE

A highly adaptable version of the U6160 infrared detector that has been designed specifically for commercial applications, the low-profile U6160 LCC features a surface-mountable ceramic leadless chip carrier (LCC). The U6160 LCC can be mounted to any printed circuit board using LCC sockets. Its superior resolution of 640 x 480 pixels, 17 micron pixel pitch and low cost serve to position the U6160 LCC as an ideal thermal imaging detector for applications in security and surveillance.



Smaller and lighter than any other detector with a comparable image resolution, the U6160 LCC reflects the latest long-wave infrared technology from DRS. It measures just 2.4 x 2.4 x 0.37 cm and weighs less than 6 grams. On-chip temperature feedback technology allows the U6160 LCC to operate in real time without temperature stabilization from a thermoelectric cooler.

The U6160 LCC offers new opportunities to the commercial market for securing facilities and operations 24-hours a day and year-around in even the most challenging weather conditions.

- Smallest, lightest enhanced-resolution thermal detector available for commercial applications
- High resolution of 640 x 480 pixels in a package smaller than any competing sensor
- Low cost infrared solution
- Low profile, surface-mountable packaging using a leadless chip carrier

U6160 LCC

SYSTEM FEATURES

FOCAL PLANE ARRAY

Detector Type	Uncooled VOx Microbolometer
Array Size	640 x 480
Detector Pitch	17 µm
Spectral Response	LWIR 8 - 14 µm

VIDEO

Frame Rate	30 Hz (using 1 output) 60 Hz (using 2 outputs)
Nominal Data Rate	10 MHz
Format	NTSC/PAL Compatible

ELECTRICAL

Power	≤ 220 mW Nominal

PART NUMBER

30 Hz	5015250-001
60 Hz	1016160-001

PERFORMANCE

Sensitivity (NETD)	<50 mK @ F/1 (30 Hz)
Multiplexer	CMOS Ripple Integration
Area Fill Factor	90%
Typical Operability	>99%
Number of Analog Outputs	1 / 2
Output Voltage Range	1.2 - 3.2 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)	2.40 x 2.40 x 0.37 cm (0.95 x 0.95 x 0.145 inches)
Weight	≤ 6 g

ENVIRONMENTAL

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

* Specifications subject to change without notice.

Specifications subject to change without notice. The products described herein are subject to US Government Export Controls.

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