

# ULTRA-HIGH RESOLUTION VISIBLE IMAGERS

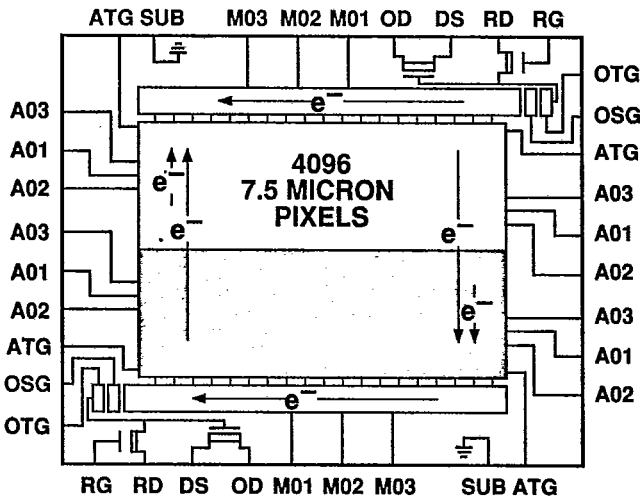
## (4096x4096 Format)

**LORAL AERONUTRONIC IS THE LEADER IN PRODUCING 4096x4096 SENSORS**  
 The Largest Charge Coupled Device Fabricated with the  
 Resolution Quality of Photographic Film

- Optimum Electrical Performance (Solid Backside Groundplane)
- Optimum Low Noise Performance
- Low Dark Current (30 to 50Ω -cm p-type Si)
- Improved Response Uniformity

### IMAGER PROPERTIES

Format	4096x4096
Pixel Size	7.5 microns
Charge Transfer Efficiency	>99.9999%
Responsivity (0.5 to 0.9 μm)	>0.2 A/W
Output Sensitivity	2 to 3 μv per electron
Full Well Capacity (>95% linearity)	15,000 electrons
Non-uniformity (RMS)	≤ 3%
Detector Referred Noise (-60°)	<8 electrons
Dark Current	
– Normal Operation	1 – 5 nA/cm <sup>2</sup>
– Multi-Pinned Phase Operation	< 25 pA/cm <sup>2</sup>
Frame Rate	0.5 frames per second
No. of Video Outputs	2
Operating Temperature Range	-100 to 50°C



**Layout Configuration**

**7.5 Micron Pixels are  
 Fabricated with 3-Phase  
 3-Level Polysilicon  
 Process to Achieve  
 High Yield (2.5 Micron  
 Geometry Design Rules).**

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