

ULTRA-HIGH RESOLUTION VISIBLE IMAGERS

(4096x4096 Format)

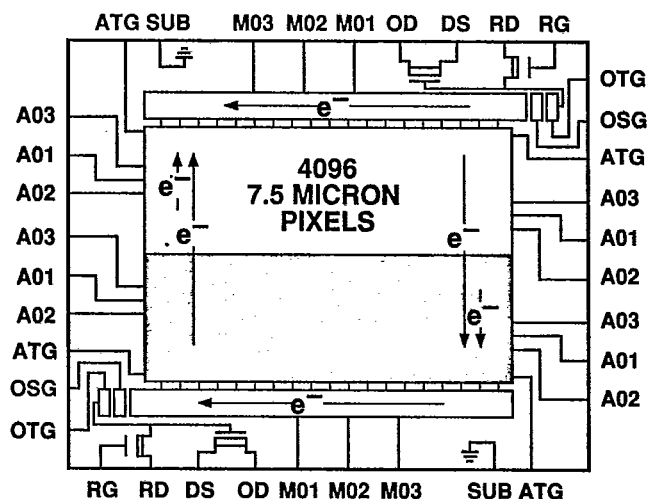
LORAL AERONUTRONIC IS THE LEADER IN PRODUCING 4096x4096 SENSORS

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 50 Ω -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)	$\leq 3\%$
Detector Referred Noise (-60°)	<8 electrons
Dark Current	
– Normal Operation	1 – 5 nA/cm ²
– Multi-Pinned Phase Operation	< 25 pA/cm ²
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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