5MP Space Camera

FEATURES

- Radiation Tolerant Design
  - 30 krads EEE parts
  - 100 krads Optional
  - Rad Hard Glass > 800 Mrad
  - SEL > 37 MeV-cm²/mg
- Very Low Read Noise Based on Scientific CMOS Imager
- Space Heritage Lens Designs Available
- SpaceWire Interface
- Applications Include Space Situational Awareness, Earth Imaging

5MP SPACE CAMERA SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
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<tbody>
<tr>
<td>Active Array Size</td>
<td>2560 (H) x 2160 (V)</td>
</tr>
<tr>
<td>Pixel Size</td>
<td>6.5 µm x 6.5 µm</td>
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<tr>
<td>Chroma</td>
<td>RGB or Monochrome</td>
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<tr>
<td>Shutter Type</td>
<td>Rolling Shutter (RS), Global Shutter (GS)</td>
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<tr>
<td>Maximum Frame Rate</td>
<td>100 fps (RS), 50 fps (GS)</td>
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<tr>
<td>ADC Resolution</td>
<td>22 bits (2 x 11-bit)</td>
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<tr>
<td>Dynamic Range</td>
<td>&gt; 83.5 dB</td>
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Dimensions                   ≤ 10.7 cm L x 8.4 cm W x 23.8 cm H with baffle
Mass                         < 1 kg
Power                        4W maximum
Read Noise                   < 2 e- RMS (RS), <5 e- RMS (GS)
                            Median value, high gain output (30x)
Field Of View                29°, 39°, 80° standard optical lenses
                            Custom Field of View Available

Electrical Interfaces
Input Voltage                 5V
Data Interface                SpaceWire at 80 Mbps

Operating States and Modes
Still Image Capture, Health and Status, Code Upgrade

Mission Assurance
Temperature Range             -20 to +55°C (Operational)
                            -30 to +85°C (Non-operational)
Vibration                     Up to 20 Grms Acceptance
Parts Level Options           Commercial Space, NASA Level I, II, III
Design Life                   Up to 10 years LEO/GEO