Snake 640 SW is the newest generation VGA InGaAs FPA module by Sofradir. This high-sensitivity and high-resolution FPA assembly is designed for the most demanding, low-flux imaging applications from 0.9µm to 1.7µm. Sofradir InGaAs technology exhibits industry-leading performance in terms of dark current, uniformity and operability. Snake 640 SW is well-adapted for a large range of applications including night vision, surveillance, airborne gimbals and various industrial and scientific applications.

**ELECTRO-OPTICAL SPECIFICATIONS @ 25° C**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantum Efficiency (QE)</td>
<td>&gt; 70% from 1µm to 1.6µm</td>
</tr>
<tr>
<td>Noise with ROIC</td>
<td>&lt; 30 e- (Gain 0)</td>
</tr>
<tr>
<td>Dark Current</td>
<td>&lt; 0.15 pA @ 0.2 V detector bias</td>
</tr>
<tr>
<td>Operability</td>
<td>&gt; 99.5% (*)</td>
</tr>
<tr>
<td>Non-uniformity without Correction</td>
<td>&lt; 10%</td>
</tr>
</tbody>
</table>

**PACKAGING**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension (W x H x D)</td>
<td>50mm x 25.5mm x 6.5mm</td>
</tr>
<tr>
<td>Windows</td>
<td>Sapphire</td>
</tr>
<tr>
<td>Number of Pins</td>
<td>28</td>
</tr>
<tr>
<td>Cooler</td>
<td>Single stage TE Cooler (8 V - 9 W)</td>
</tr>
<tr>
<td>Packaging Characteristics</td>
<td>Hermetically sealed</td>
</tr>
<tr>
<td>Operation Temperature</td>
<td>From -20° C to 70° C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>From -40° C to 70° C</td>
</tr>
</tbody>
</table>

(*) the fraction of pixels with responsivity deviation less than +/- 30% from the mean.

**ARRAY FEATURES**

- **Sensor Type**: InGaAs PIN - Photodiode
- **Format**: 640x512
- **Pixel Pitch**: 15µm x 15µm
- **Waveband**: 0.9µm to 1.7µm