OPN8001/8008/8018 are Time-of-Flight (ToF) imaging sensors for 3D sensing covering 100x100 / QVGA (320x240) / VGA (640x480) level matrix sensing resolutions. The 3D sensing is realized upon 850 nm and 940 nm NIR wave length with an industry leading accuracy. The power consumption achieves the lowest level in the industry, which benefits many portable and energy saving applications. OPN8001/8008/8018 are developed as key products of OPNOUS ToF solutions for a broad range of applications.

FEATURES

- Frame rate: 5fps, 10fps, 20fps, 30fps, 60fps, 120fps
- Low power consumption with flexible scalability
- Sensor array shrink and extension
- Master and slave mode, flexible for building sensor chains
- Built-in multi-ToF interference immunity
- Accurate temperature sensing for robust environment adaptability
- One system clock for all range measurement with wide range flexibility
- Leading accurate measurement resolution in the industry
- Micro lens availability with advanced optical system solution capability

FOR MORE INFORMATION: WWW.OPNOUS.COM
SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>OPN8018</th>
<th>OPN8008</th>
<th>OPN8001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resolution</strong></td>
<td>640x480</td>
<td>320x240</td>
<td>100x100</td>
</tr>
<tr>
<td><strong>Die size</strong></td>
<td>6.5x6.28 mm²</td>
<td>7.52x6.42 mm²</td>
<td>3.72x4.12 mm²</td>
</tr>
<tr>
<td><strong>Frame rate</strong></td>
<td>5/10/20/30/60 fps</td>
<td>5/10/20/30/60 fps</td>
<td>5/10/20/30/60/120 fps</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>1% @ 5m</td>
<td>1% @ 5m</td>
<td>1% @ 5m</td>
</tr>
<tr>
<td><strong>Data Interface</strong></td>
<td>MIPI CSI-2, 4 Lanes</td>
<td>MIPI CSI-2, 2 Lanes</td>
<td>MIPI CSI-2, 2 Lanes</td>
</tr>
<tr>
<td><strong>Control Interface</strong></td>
<td>CCI (I2C)</td>
<td>CCI (I2C)</td>
<td>CCI (I2C)</td>
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<tr>
<td><strong>Power consumption</strong></td>
<td>&lt;120 mW</td>
<td>&lt;100 mW</td>
<td>&lt;50 mW</td>
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<tr>
<td><strong>Operating temperature</strong></td>
<td>-20~85 °C</td>
<td>-20~85 °C</td>
<td>-20~85 °C</td>
</tr>
</tbody>
</table>

APPLICATIONS

- 3D Sensing
- 3D face & gesture recognition
- 3D Gaming and AR/VR solutions
- Drone, AGV and robot sensing
- Surveillance and industry automation
- Automotive self-driving sensing

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