Chromasens 3DPIXA stereo line scan camera is a unique combination of line scan technology with fast stereo algorithms running on GPU. The 3DPIXA camera enables new 3D inspection and measuring applications requiring high resolutions.

**UNIQUE FEATURES OF THE 3DPIXA TECHNOLOGY**

- High speed inline 3D measurement
- Large field of view @ high resolution
- Height resolution up to 1 micron
- 2D resolution up to 5 micron
- 3D data and full color image in one scan
- Line scan frequencies up to 30 kHz @ full resolution
- Flexible use of all types of line illuminations
- Easy to use application programming interface (API)
- Integrated in standard machine vision libraries

**APPLICATIONS OF 3DPIXA TECHNOLOGY**

- Wirebond inspection
- PCB inspection
- Food quality assessment
- Metal surface inspection

**APPLICATIONS**

- Height measurement
- Identifying micron defects
- Verification of height and 2D Position
- Combined 3D and color inspection
- 3D web inspection
3DPIXA Stereo Line Scan Camera

**CAMERA SPECIFICATIONS**

- **Camera**: Stereo camera with lenses (factory calibrated)
- **Sensor**: Tri-linear CCD line-sensor (RGB)
- **Active pixel size**: 10 µm x 10 µm
- **Interfaces**:
  - Camera Link Base/Medium/Full
  - External I/O
  - Serial (RS-232)
  - Power supply (Hirose)
- **Power supply**: Compact: 24 V DC +/- 10% 16 W
  - Dual: 24 V DC +/- 10% 32/38 W
- **Trigger mode**: Free run / external trigger
- **Operating temperature**: 0°C to 60°C, 32°F to 140°F (housing temperature)
- **Software**:
  - Chromasens 3D-API for real time 3D data calculation on NVIDIA GPU board (Windows x64)
  - Chromasens 3D Viewer
- **Software output**: Rectified color image (3x8 Bit)
  - Height map (16 Bit)
  - 3D point cloud
- **Supported software libraries**: LabVIEW (National Instruments)
  - HALCON (MV Tec)
  - MIL (Matrox)
  - Coake (SAC)
- **Additional accessories**: Chromasens Corona II illumination
- **Certifications**: CE, FCC compliant, RoHS

**3DPIXA CONFIGURATIONS**

<table>
<thead>
<tr>
<th>3DPIXA MODEL NUMBERS</th>
<th>COMPACT</th>
<th>DUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP000470-C01-015-0040</td>
<td>CP000470-C01-030-0105</td>
<td>CP000470-D01-005-0035</td>
</tr>
<tr>
<td>Optical resolution (µm/µx)</td>
<td>15</td>
<td>30</td>
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<tr>
<td>Field of view (mm)</td>
<td>40</td>
<td>105</td>
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<tr>
<td>Number of pixel</td>
<td>2666</td>
<td>3500</td>
</tr>
<tr>
<td>Height resolution (µm)*</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Height range (mm)**</td>
<td>2.6</td>
<td>8.2</td>
</tr>
<tr>
<td>Free working distance (mm)</td>
<td>99.6</td>
<td>173.6</td>
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<tr>
<td>Maximum speed (mm/s)</td>
<td>310</td>
<td>630</td>
</tr>
<tr>
<td>Camera Link configurations</td>
<td>Base/Medium</td>
<td>Base/Medium</td>
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<tr>
<td>Line frequency (kHz)</td>
<td>21.2</td>
<td>21.2</td>
</tr>
<tr>
<td>Dimensions LxWxH (mm)</td>
<td>167.65 x 102 x 100</td>
<td>151.04 x 102 x 100</td>
</tr>
</tbody>
</table>

* Height range and height resolution depend on object surface
** For well structured surfaces the height range can exceed the specified values